Centralized Service Desk Phone Numbers
Belgium: +32 65 44 3177
Netherlands: +31 70374 3177
Italy: +39 081 721 3177
Germany: +49 282 4978 3177
Other National numbers will be promulgated as and when they become available
Table of Amendments

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<td>Dec 2014</td>
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<td>Terms “2015 Interim Customer Services Catalogue” and associated abbreviations were removed.</td>
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<tr>
<td>1.5</td>
<td>10 Nov 2015</td>
<td>Added chapter for 5 Top Qs, updated existing chapters, added forewords, corrections, spell checks and reformatting.</td>
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DISCLAIMER

This document is meant to provide a printable snapshot of the digitalized NCI Agency Customer Services Catalogue available on the internet at https://dnbl.ncia.nato.int/nciaservicecatalogue/SitePages/Services.aspx as of November 2015. The digitalized Customer Services Catalogue is the controlled version that takes precedence over this pdf document.

The Customer Services Catalogue is considered interim until costing of services is available. The annual dates such as “2015” are no longer used for reference to this catalogue. Newer versions will be published on the web to ensure major changes are communicated to our Customers and Service Suppliers.
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Foreword by NATO Deputy Secretary General

Bringing Stability to an Unstable World: Collective Defence, Crisis Management and Cooperative Security

Today, NATO faces greater challenges than it has for a generation. The need for Allies and partners to work together, and to adapt and react to rapidly changing circumstances, has never been more important.

The online NCI Agency Customer Services Catalogue is an invaluable tool for all NATO Allies, agencies and partners who need to update or improve their IT systems and infrastructure.

It offers a wide range of services, from requirements setting and implementation, to testing and exercise support. The NCI Agency Catalogue already offers a wide range of IT solutions to the Alliance’s requirements and problems.

This will help to enhance interoperability, provide value for money, and speed up the implementation of often large and complex IT programs. It will support the ‘NATO First’ policy that some nations have signed up to, using pre-existing, commonly-funded solutions to fulfil national requirements.

By helping Allies and Partners to work more collaboratively and more efficiently, this catalogue can help nations to achieve the three core tasks of the Alliance as set out in the Strategic Concept – collective defence, crisis management and cooperative security.

NATO is changing. The implementation of the Readiness Action Plan is our number one priority. It will help NATO to stay strong and, with the support of our neighbours and friends around the world, will help to bring stability to an unstable world. The NCI Agency’s online catalogue, which draws upon their expertise on common-funded capabilities and multinational projects and programs, contributes to this effort.

Ambassador Alexander Vershbow
Deputy Secretary General, NATO
September 2015
Foreword by Chairman of the Military Committee

C3ICT - Crucial Components for an Evolving Strategic Environment

NATO is in an age of unpredictability, heightened competition between state actors, and dynamic security challenges. NATO must rapidly field, mobilize, deploy and operate robust multinational formations in order to remain flexible and primed in today’s ever-changing security environment. The last twenty years have seen unprecedented interoperability between the various entities within the NATO structure. The recent reform of the NATO Command Structure, the amplified role of the NATO Force Structure and the national contributions from Allies as well as Partners for non-Article 5 operations and missions are indicative of the changes afoot.

As the Deputy Secretary General points out in his own Foreword to the publication, the Readiness Action Plan (RAP) is yet another example of NATO’s metamorphosis. As agreed in Wales in 2014, the RAP will provide NATO with a comprehensive force package tailored to suit the contemporary security dilemma. However, the Alliance must continue to evolve in this strategic context.

NATO’s ability to become more future-oriented, proactive, versatile, and flexible relies on Command, Control and Communications (C3) as well as Information Communication Technology (ICT) - these represent the backbone that allows NATO to carry the weight of the aforementioned tasks in any aspect of the modern strategic context. This new, online edition of the NCI Agency Customer Service Catalogue, therefore is a crucial component of the NATO toolbox. It is a repository of goods and services that Nations and Partners can access to find C3 and ICT tools, expertise, and corporate knowledge. The world often calls upon NATO to provide stability in a volatile environment. The Catalogue is a vehicle, available to Alliance Nations and Partners alike, that provides inclusive and efficient tools for greater interoperability at affordable cost. These characteristics will be highly sought after as the Alliance navigates the evolving strategic environment, especially with support to Connected Forces and RAP implementation. More than that, the Catalogue will play an increasingly important role in bringing savings to Nations and increasing their interoperability.

In sum, while already a useful component of the NATO Toolbox, it is worth considering that the NCI Agency Customer Service Catalogue will continue to evolve into a more service based document and will, in future years, present to customers with clear and costed CIS services which they can then select in order to best support the successful conduct of their mission. I recommend that all member Nations and Partners exploit the products and services that NCI Agency has to offer in this year’s Catalogue.

General Petr Pavel
Chairman of the Military Committee
September 2015
Introduction by the General Manager

I am pleased to present you with the NCI Agency’s online Customer Services Catalogue (CSC) - result of our persistent effort to provide most up to date repository of our available services.

Our dedication to improve the quality, relevancy and usability of the CSC resulted in delivery of a crucial component of the NATO toolbox, recognized and used by the Customers. For the NCI Agency, the CSC is the ultimate source of developing Service Level Agreements (SLAs), Programmes of Work (POWs), Proposals and Agreements.

The Online CSC, based on the 2015 Interim CSC, with improved content and harmonized Service Descriptions offers new features and sections:

- Forewords from NATO Deputy Secretary General and Chairman of Military Committee
- Customer Request Form (CRF)
- Frequently Asked Questions
- Customer Feedback
- List of the NATO Software Tools

Reform of the NATO Command Structure (NCS), amplified the role of the NATO Force Structure (NFS) and national contribution from Allies as well as Partners for non-Article 5 Operations & Missions. This growth is increasingly visible in the context of NATO’s overall Readiness posture including the Readiness Action Plan (RAP) implementation. At the same time, some Nations declared “NATO First Policy” to re-use commonly-funded developed solutions in the national context. I truly believe that the online NCI Agency Customer Services Catalogue will play an increasingly important role in bringing the savings to the Nations and increasing their interoperability with the NCS and within the NFS, to achieve NATO Forces 2020.

Further to the approval of the Customer Funding Regulatory Framework by the North Atlantic Council in July 2015, priced pilot services will be included in the CSC by fall 2016, and CSC with fully priced services based on a fee-for-service portfolio is expected to be available by end 2017.

In our enduring partnership, we are eager to hear the Customers’ advice on effectiveness of our online CSC and delivery of Agency services across Alliance and the Nations. You can provide it by using the “Customer Feedback” button of the online CSC or by answering the Customer Satisfaction Surveys the NCI Agency conducts a regular basis. Through addressing your comments and suggestions, we can further excel as the lead agent and capability provider for NATO C4ISR.

My Point of Contact is the Director Demand Management:

Dr Velizar Shalamanov
Director Demand Management
Bâtiment Z, Avenue du Bourget 140
1110 Brussels, Belgium
Tel +32 2 707 8141 Fax +32 2 707 8770
Email Velizar.Shalamanov@ncia.nato.int
Email Demand.Management@ncia.nato.int

Be reassured that our primary focus remains the customer satisfaction and we are continuously improving the way we work, collaborate and deliver.

Sincerely,

Koen Gijsbers
GM NCI Agency
October 2015
Customer Services Catalogue (CSC) Outline

CSC Introduction

The Agency-wide Customer Services Catalogue reflects the business scope of the NCI Agency and is intended to be the single reference for NCI Agency Customers. CSC facilitates service ordering and request fulfilment for all customers. Based on the NCI Agency 2015 interim Customer Catalogue of C4ISR services and 2015 Customer Services Catalogue, it offers several improvements and incorporates Customers’ feedback.

CSC aligns our service line concept and contains currently available services. It includes the services with corresponding colour-coding. CSC is subject to continued improvements and is constantly developed in an incremental manner, adopting further customers’ feedbacks and best practice from industry.

Today, Agency in coordination with its stakeholders, is in the process of further consolidation of Service Portfolio to ensure clarifications on the Customer Facing Services.

In the future, Customer Service Catalogues tailored to various stakeholders will be extracted from the NCI Agency Master Service Catalogue. These catalogues will provide for grouping of services to a level of granularity that will facilitate Service Requests by the customers. An overview of the NCI Agency’s roadmap for developing a fully-costed CSC is presented in Error! Reference source not found.. Priced pilot services will be included in the CSC by fall 2016, and CSC with fully priced services based on a fee-for-service portfolio is expected to be available by end 2017.

![Figure 1 - NCI Agency’s Roadmap to Costed Services](image)

The Customer

The definition of Customer drawn from the NCIO Charter is “a NATO nation or group of nations (to include NATO Partner nations when approved by the NAC) or a NATO entity (e.g. NATO Command or Agency), or other international entities when approved by the NAC, who is a budget holder, i.e. has authority to obligate and expend funds, and to sign an agreement with a provider for the delivery of a defined product or service, at an agreed costs, and within an agreed timeframe.”

The Customer Facing Service

A customer facing service is an Information Technology (IT) or Subject Matter Expertise (SME) service, which the NCI Agency offers to its customers. This service will normally support the customer’s business processes and facilitate one or more outcomes desired by the customer.
Although the CSC contains a number of services that could be considered ‘technical’ or ‘supporting’, these services will gradually be phased out of the Customer Services Catalogue; as customers will develop their own ‘Intelligent Customer roles’ and the NCI Agency’s Master Service Catalogue is further developed.

**Content of the CSC**

The CSC is composed of two parts: Part-I, Customer Handbook (Chapters 1 to 7) and Part-II, The Service Descriptions (Chapter-8). Part-II is available online and printout can be provided on request.

In the Part-1, following the forewords by NATO Deputy Secretary General, Chairman of the Military Committee and introduction by the General Manager, Chapter 1 provides the answers to the 5 Top Questions which NCI Agency Customer may ask. Chapter 2 includes Organizational Design of the NCI Agency along with the Service Model for CSC and a short presentation of the Service Lines and Programme Offices. This is followed by clarification on applicable legal and financial policies (Chapter 3), the procedures for customers to request services from the Agency (Chapter 4), and associated support terms and conditions (Chapter 5). Chapter 6 addresses Strategic Partnership and Customer Relationship Management. Finally, Chapter 7 provides the List of Services. Part II provides detailed Service Descriptions, and Annex A includes the Customer Request Form (CRF).

For more information please contact:

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Email [Agata.Szydelko@ncia.nato.int](mailto:Agata.Szydelko@ncia.nato.int)  
Email [Demand.Management@ncia.nato.int](mailto:Demand.Management@ncia.nato.int)

**Link with Service Level Agreements and Programmes of Work**

SLAs define the service tailored to the needs of the service subscriber, the conditions for the service delivery and the related cost. The SLT (service level target) for the service for the supported staff will be available in the CSC. For the other services, the SLA will be tailored based on templates also available through the CSC or agreed on case-by-case with the customer where required. SLA planning begins with capturing the functional requirements by using both the latest Customer Services Catalogue and the previous year’s SLA reporting data.

The requirements collection and evaluation phase is followed by the arbitration phase where the Account Manager de-conflicts and finalizes the service levels according to Service Line Chief’s capacity assessments. The service level targets provide a quantitative measurement of service availability.

In order to facilitate the preparation of the 2016 SLAs and Programmes of Work (POW), the CSC Services have been mapped against the 2015 Standard Service List included in the Budget Committee Military Budget Guidance for 2015 CIS Requirements (Ref. 20), to the maximum extent possible. Wherever possible, the corresponding Budget Activity Codes were provided.
How to use this Catalogue?

**General Procedures**
1. Review Chapter 7 for a Listing of Services offered. The colour-coding of the service(s) corresponds to the CSC Service Model.
2. Access the Online CSC and review Detailed Service Descriptions, using the unique Service ID Number.
3. For changes to existing service requirements, use the Customer Request Procedure in Chapter 4.
4. To request new services follow the Service Request Procedure as explained in Chapter 4 by using the CRF accessible via online CSC.
5. Use Chapter 5 to determine your required Service Support Level and Priority for each service.

**Service Attributes Definitions**
The purpose of defining the service attributes is to provide the customer with an understanding of how we describe our services offered in the CSC. These attributes will help the customer identify which service(s) would best fulfil their requirement(s). The following improved template is used for the reference in this CSC:

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service ID code</td>
<td>Unique Service ID number</td>
</tr>
<tr>
<td>Organizational Element</td>
<td>Name of the Service Line /Directorate/Programme Office</td>
</tr>
<tr>
<td>Mapping to 2015 SSL or Service Group</td>
<td>As per BC-D(2014)0040-ADD1 301, Appendix 1 (for budget purposes) - Standard Service List</td>
</tr>
<tr>
<td>Service Area</td>
<td>Stop level divisions of services [AC/337-N(2013)0046, para. 14]</td>
</tr>
<tr>
<td>Service Group</td>
<td>Decomposition of the Service Area (if applicable)</td>
</tr>
<tr>
<td>Service Type</td>
<td>A. Mapping against the C3 Taxonomy, down to the lowest level of granularity; and</td>
</tr>
<tr>
<td></td>
<td>B. Mapping against the C3 Technical Services Taxonomy, down to the lowest level of granularity</td>
</tr>
<tr>
<td>Service Description</td>
<td>Summary description of what the service does, and including: System/Tool Name of a product/system/tool associated to the service and a brief description thereof</td>
</tr>
<tr>
<td>Value Added</td>
<td>The value to Customer in achieving Customer business deliverables and outcomes</td>
</tr>
<tr>
<td>Locations</td>
<td>NCI Agency Locations from where service is currently available</td>
</tr>
<tr>
<td>Dependencies</td>
<td>Part of baseline or independent service.</td>
</tr>
<tr>
<td>Available Networks</td>
<td>List of network domains on which service can be implemented (NU, NR, and ISAF SECRET etc.)</td>
</tr>
<tr>
<td>Support Availability</td>
<td>The type of support that is available for this service and the available timeframe: local business hrs, on-call, 24/7, onsite</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Any additional requirements (facility, security, technical, network certification, training, licencing etc.) to be met by the customer</td>
</tr>
<tr>
<td>Additional Information</td>
<td>Additional information specific to the service that cannot be found in the rest of the description</td>
</tr>
</tbody>
</table>

*Table 1 - Service Attributes Definitions*
Part I: CUSTOMER HANDBOOK

Chapter 1 – 5 Top Questions from the NCI Agency Customers

1. What is the NCI Agency?

The NATO Communications and Information (NCI) Agency "connects forces, NATO and Nations" and is NATO’s C4ISR provider, including cyber and missile defence. The NCI Agency supports NATO operations and exercises around the globe.

With roots going back over 60 years, the NCI Agency is created within the framework of the Alliance, charged with delivering interoperable and secure Communications and Information capabilities, expertise and services to its customers with greater efficiency, effectiveness and savings. Part of the increased efficiency comes from understanding the customers' current and emerging requirements and adopting a life cycle view of all services and products that the Agency provides. Key to meeting this mandate is the development of a single, coherent service portfolio, including Customer Services Catalogue.

To the maximum extent possible, the NCI Agency reuses NATO capabilities and always delivers C4ISR based on the principles of “NATO Interoperable, Secure, Affordable, Fast and Easy (NISAFE)”. Leveraging economies of scale, and sharing of knowledge with optimized use of resources the NCI Agency is positioned to accelerate the provision of services to its customers with greater affordability, through bilateral and multinational cooperation frameworks. The NCI Agency staff, composed of military and civilian experts is dedicated to faster delivery of solutions in an easy way, living and working in partnership with its customers at home and deployed on operations.

With Headquarters in Brussels, Belgium the Agency's central service providing elements are split between Mons, Belgium and The Hague, Netherlands and structured along Service Lines. The establishment of the NCI Agency in 2012, was a result of the merger of the former NATO Consultation, Command and Control Agency (NC3A), the former NATO Air Command and Control System Management Agency (NACMA), the former NATO Communication and Information Systems Services Agency (NCSA [except Deployable CIS]), the former Active Layered Theatre Ballistic Missile Defence (ALTBMD) Programme Office and part of the NATO HQ Information and Communication, Technology Management (ICTM).

2. Who are the NCI Agency Customers and What are the Engagement Priorities?

In general terms, the NCI Agency customers can be allocated into two main categories: NATO ENTERPRISE and NATO FEDERATION as is presented in the

**Figure 2 - NCI Agency Customer Segmentation**

1. IC funded customer base is anchored in Service Strategy Directorate (SSTRAT) and under Chief Operating Officer (COO) leadership and governance. All other segments are under DM responsibilities.

2. The Transferred NSIP Host-Nationship (HN) represents an instance where the NSIP Territorial Host Nation requests the NCI Agency support in executing the HN responsibilities or to act on behalf of the HN.
Customer Services Catalogue, it allows for customizing the NCI Agency offer with focus on specific customers and adjusting the engagement strategy.

The primary venues for engaging the NATO ENTERPRISE and NATO FEDERATION Customers are respectively Senior Customer–Supplier Board (SC-SB) and Chief Information Officers Conference (CIoC).

In accordance with NCI Agency 2015-2020 Strategic Plan, engagement priorities are the following:

1. Support to NATO operations and exercises\(^3\), including support to the Readiness Action Plan (RAP) implementation and the Ukraine C4 Task Force;
2. Support to the delivery of critical capabilities endorsed at the Wales Summit;
3. Routine support to NATO ENTERPRISE under Service Level Agreements (SLA) and Programmes of Work (POW);
4. Support to nations, including building partnerships to promote NATO for nations:
   - NATO Nations;
   - Partners: Partner Interoperability Advocacy Group (PIAG).

3. How to Cooperate with the NCI Agency?

The Demand Management (DM) Directorate serves as the entry point for Customers and is responsible for the initiation, management and coherence of Agency cooperation frameworks in the context of the Customer Services Catalogue (CSC). The objective of these cooperation frameworks is to establish the terms and conditions under which the Customers may receive support from the NCI Agency. Under the lead of Demand Management, in cooperation with the Legal Office (LO), Finance and the Directorate of Acquisition; the NCI Agency employs various cooperation frameworks based on customer, requirement, and urgency. Requests for

\(^3\) NAC approved operations and Military Training and Exercise Programme (MTEP) planned exercises
services outside of the CSC are forwarded to the Service Strategy Directorate (SSTRAT) for consideration and further action.

<table>
<thead>
<tr>
<th>Category</th>
<th>Customer</th>
<th>Cooperation framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATO ENTERPRISE</td>
<td>Allied Command Operations (ACO)</td>
<td>Service Level Agreement (SLA) price proposal</td>
</tr>
<tr>
<td></td>
<td>Allied Command Transformation (ACT)</td>
<td>Programme of Work (POW) price proposal</td>
</tr>
<tr>
<td></td>
<td>NATO Headquarters (NHQ) and Agencies</td>
<td>Type B Cost Estimate (TBCE) price proposal</td>
</tr>
<tr>
<td></td>
<td>Investment Committee (IC)</td>
<td>Framework C4ISR Memorandum of Understanding/Agreement (MOU/MOA) implemented through</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Technical Arrangements (TA) covering:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Specific projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Multi Year Programme of Work (MYPOW), with underpinning Task Orders (TO);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Service Level Agreements (SLA).</td>
</tr>
<tr>
<td></td>
<td>NATO nations and partners* – bilateral cooperation</td>
<td>Where no Framework C4ISR MOU/MOA is established:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Project or service (SLA) specific Memorandum of Agreement (MOA), Memorandum of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Understanding (MOU), Memorandum of Working Arrangements (MWA), Letter of Agreement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(LOA).</td>
</tr>
<tr>
<td></td>
<td>Software Licence Agreements</td>
<td></td>
</tr>
<tr>
<td>NATO FEDERATION</td>
<td>NATO nations and partners* – multilateral cooperation</td>
<td>Communications and Information Partnerships (C&amp;IP)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Memorandum of Understanding (MOU) for Multinational Project (project or service (SLA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>specific)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trust Fund Executing Agent Agreement (project or service (SLA) specific)</td>
</tr>
<tr>
<td></td>
<td>NATO Force Structure and Multinational Organizations</td>
<td>Considered as NATO Nation if all participating nations are NATO Nations or as Partner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>nation if there is at least one Partner amongst the participating nations.</td>
</tr>
</tbody>
</table>

* Cooperation with non-NATO Nations requires the North Atlantic Council (NAC) approval
Further cooperation frameworks, for example Brokerage Agreements are being considered for implementation.

Table 2 – NCI Agency’s Cooperation Framework with Customers

4. How much the NCI Agency Services Cost?

The NCI Agency is an integral part of NATO and per its Charter is customer-funded. In NATO, Customer Funding is a regime whereby the cost of the activities of an organisation are recovered by charging customers for the services provided, based on agreed costs, scope and timelines, rather than by funding contributions from member nations.

The NCI Agency charges its customers for the direct costs of the services provided based on the approved Customer Rates. Customer Rates are endorsed by the ASB, approved for customers by the NATO Budget Committee, fixed for one year and non-negotiable.

Further to the approval of the Customer Funding Regulatory Framework by the North Atlantic Council in July 2015, priced pilot services will be included in the CSC by fall 2016, and CSC with fully priced services based on a fee-for-service portfolio is expected to be available by end 2017.
5. What are the NCI Agency Services and How to Order Them? How Can I State my Compliments and Complaints on Services Delivered by the NCI Agency?

In fulfilling its mission, the NCI Agency delivers capabilities, expertise and services across the entire C4ISR lifecycle. The available services provided by the NCI Agency are described in the Customer Services Catalogue available on the NCI Agency website:

https://dnbl.ncia.nato.int/nciaservicecatalogue/SitePages/Services.aspx

General procedure for requesting NCI Agency services:

1. Access the online CSC;
2. Click on “Services” for a Listing of available Services;
3. Select the service for a Detailed Service Description;
4. From the CSC home page navigate to “Support Terms And Conditions” to determine your required Service Support Level and Priority for each service;
5. Requests for services should be made using the Demand Management Customer Request Form accessible at the CSC homepage and the NCI Agency website;
6. The appropriate cooperation framework will be used to provide a specific price proposal for your review and acceptance.

Customers can state their compliments and complaints through the online CSC by pressing the “Customer Feedback” button and filling in a Demand Management Customer Request Form.

For more information please contact:

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CSC Lead
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Email Demand.Management@ncia.nato.int
Chapter 2 – The NCI Agency Organizational Design and Service Model

Organizational Design

Below picture provides the NCI Agency Organizational Design:

As of January 2014, the NCI Agency has adopted a more modern Organizational structure capable of delivering end-to-end lifecycle managed services; the chosen structure to accomplish a step forward to a service based Organization is the “Service Line” structure. The NCI Agency’s Service Lines and Programme Offices have been grouped under five Service Portfolio areas, and the NCI Agency Organizational structure is aligned with the Service Line grouping in table below:

| C3 and Enterprise Services | • Ballistic Missile Defence Programme Office & Services (BMD PO&S)  
|                          | • Air Command and Control Programme Office & Services (AirC2 PO&S)  
|                          | • Command & Control (C2)  
|                          | • Joint Intelligence, Surveillance & Reconnaissance (JISR)  
|                          | • Service Support and Business Applications (SSBA)  
| Operational and Planning Support Services | • Operational Analysis (OA)  
|                                          | • Operations and Exercises (O&E)  
| Enterprise-wide ICT Services | • Network Services & IT Infrastructure (NSII)  
|                                | • Core Enterprise Services (CES)  
|                                | • Cyber Security (CS)  
|                                | • Service Management and Control (SMC)  
| C4ISR Enabling Services | • Operations Centre (Ops Centre)  
|                          | • Education and Training (E&T)  
|                          | • Independent Verification & validation (IV&V)  

Table 3 – NCI Agency Organizational Structure Aligns with the Service Line Groupings
Service Model for CSC

The CSC services go one level deeper to the Service Portfolio Areas. It introduces a Service Grouping Model based on the above Service Lines and Programme Offices groupings with the aim of clustering the customer facing services and enabling enterprise services. The following model is in line with the current NCI Agency Service Line structure and follows the C3 service taxonomy to the extent possible. This service grouping model forms a layered stack of services, with the lower level (Infrastructure) services supporting the higher level user facing services and it paves the way for the future priced Customer Services Catalogue. The service model is mainly based on grouping the services in four major areas.

- **Specialized Community of Interest (CoI) Services**: This layer mainly includes two upper layers of the above Service Line grouping stack:
  - C3 and Enterprise Services
  - Operational and Planning Support Services

- **Standard Client Services**: These services are mainly the end user devices which are configured in accordance with the standard baseline configuration and connected to relevant network instantiations such as NATO Restricted (NR), NATO Secret (NS), and Mission Secret (MS). This layer corresponds to some of the services which are being provided through Enterprise-wide ICT Services in the above stack such as services provided by CES or NSII Service Lines.

- **User Access Services**: This service grouping is essential to create the user accounts to provide controlled access to the services running on NS, NR and MS networks.

- **Enterprise Access Services**: The services in this group are the infrastructure/enabling services and correspond to the Enterprise-wide ICT Services and C4ISR Enabling Services layers in the above stack\(^4\). The figure below depicts the CSC high level Service Model for ICT Services:

\(^4\) It should be noted that Education and Training Service Line provides services for both Enterprise Access Services as C4ISR enabling service and also Specialized CoI Service as for the provision of training support to NATO.

<table>
<thead>
<tr>
<th>Specialized Community of Interest (SCoI) Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>All2C2 Services</td>
</tr>
<tr>
<td>Mobile Use Services</td>
</tr>
<tr>
<td>Command &amp; Services</td>
</tr>
<tr>
<td>All2C2 Services</td>
</tr>
<tr>
<td>Mobile Use Services</td>
</tr>
<tr>
<td>Command &amp; Services</td>
</tr>
<tr>
<td>JISS Services</td>
</tr>
<tr>
<td>Service Support (SS)</td>
</tr>
<tr>
<td>Operational Support Services</td>
</tr>
<tr>
<td>Education &amp; Training Services</td>
</tr>
<tr>
<td>Operation &amp; Exercise Services</td>
</tr>
<tr>
<td>Special Applications</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Client Services (SCS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace [Desktop, Laptop, Tablet, Smartphone, etc.] @ NS, NUNR, MS</td>
</tr>
<tr>
<td>Voice [Desktop, Mobile, integrated] @ NS, NUNR, MS</td>
</tr>
<tr>
<td>VTC [Studio, Desktop, integrated] @ NS, NUNR, MS</td>
</tr>
<tr>
<td>Print/Scan</td>
</tr>
<tr>
<td>IPTV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>User Access Services (UAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Account Services (Directory Services, Certificate Services) @ NS, NUNR, MS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Enterprise Access Services (EAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ops Centre Services</td>
</tr>
<tr>
<td>Education &amp; Training Services</td>
</tr>
<tr>
<td>Cyber Security Services (NCIRC, PK, EMSEC, Encryption Services, etc.)</td>
</tr>
<tr>
<td>SMC Services</td>
</tr>
<tr>
<td>IV&amp;V</td>
</tr>
<tr>
<td>Core Services (Data Centre, PIA, IEG, Collaboration Services, IKM Services, etc.)</td>
</tr>
<tr>
<td>Network Services (Transmission, SATCOM, NCI, Central VTC, Central Voice)</td>
</tr>
</tbody>
</table>

**Figure 4 - High Level CSC Service Model for ICT Services**
For the non-ICT services, a separate category Other Services was established, which includes services provided by Enabling Services:

![Other Services (OS)](image)

For further details, please contact:

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Email [Brian.Christiansen@ncia.nato.int](mailto:Brian.Christiansen@ncia.nato.int)

As of 1st Jan 2016 please contact:  
**Mr Murray Davidson**  
Director Service Strategy

Email [Demand.Management@ncia.nato.int](mailto:Demand.Management@ncia.nato.int)
Service Lines and Programme Offices Outline
Service Lines and Programme Offices are responsible for delivering the majority of services as depicted in Chapters 7 and 8 of this CSC. This section provides the outline of the NCI Agency Service Lines and Programme Offices.

A Service Line or the Programme Office is essentially an Organizational sub entity within the NCI Agency consisting of a grouping of personnel, resources, specialized facilities and funding, all under the direct supervision of a Service Line Chief or Director (in case of Programme Offices). Each Service Line Chief or Director (in case of Programme Offices) has accountability for the provision of services and capabilities of a horizontal slice of the NATO C3 Services Taxonomy through an end-to-end lifecycle approach. Presentation of the Service Lines and Programme Offices follows the NCI Agency Organizational design as presented in Error! Reference source not found..

Operational Analysis (OA)
The Operational Analysis (OA) Service Line provides full-spectrum operational analysis support to planners and decision makers within NATO and the Nations. This includes supporting the NATO Defence Planning Process and nations’ defence planners, Operations Assessment for current and future Alliance missions, supporting functional/Peace Establishment analysis and reviews, and identifying Information and Knowledge Management needs and recommendations for enterprise change.

For more questions on Operational Analysis services please contact:
- Mrs Sylvie Martel  
  Chief, OA Service Line  
  NCI Agency The Hague  
  Oude Waalsdorperweg 61  
  2597 AK The Hague, Netherlands  
  Tel +31 70 374 3618  
  NCN 257 3618  
  Email Sylvie.Martel@ncia.nato.int  
  Email Demand.Management@ncia.nato.int

Command & Control (C2)
The Command & Control (C2) Service Line is responsible for the provision of full life cycle services in the area of Command and Control. The work of the Service Line is diverse and includes: land C2; maritime C2; joint C2; special operational forces (SOF)C2; situational awareness; environmental functional services; nuclear C2; chemical, biological, radiological and nuclear (CBRN) defence; operational planning, and C2 interoperability and data exchange mechanisms. Staff in the Service Line are engaged across the life cycle – from research and development to operational support.

For more questions on Command & Control services please contact:
- Dr Paul Howland  
  Chief, C2 Service Line  
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  Oude Waalsdorperweg 61  
  2597 AK The Hague, Netherlands  
  Tel +31 70 374 3752  
  NCN 257 3752  
  Email Paul.Howland@ncia.nato.int  
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Joint Intelligence, Surveillance and Reconnaissance (JISR)
The Joint Intelligence, Surveillance and Reconnaissance (JISR) Service Line is responsible and accountable to its customers for planning and executing all life cycle management activities for JISR services, including: strategy, policy, process, application / capability design, implementation, acquisition, transition, service operation and improvement. Its portfolio includes: Intelligence Applications Services, Surveillance & Reconnaissance Services, Electronic Warfare & Sensors Services, and Geospatial Services.

For more questions on JISR services, please contact:
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2597 AK The Hague, Netherlands  
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NCN 257 3697  
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Email Demand.Management@ncia.nato.int

Service Support and Business Applications (SSBA)
The Service Support and Business Applications (SSBA) Service Line is responsible for planning and executing all life cycle management activities, such as design, transition, operations and retirement for all logistics (medical, military engineering, host nation support,...) and business (finance, acquisition, travel, asset management, human resource management, ...) application services, including subject matter expertise, research and development, software engineering, acquisition, and operations & maintenance in a variety of community of interest (COI) technical service areas.

For more questions on Service Support and Business Applications services please contact:
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Chief, SSBA Service Line  
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Email Demand.Management@ncia.nato.int

Education and Training (E&T)
The Education and Training (E&T) Service Line is responsible for Education and Training services to Agency customers and internal staff in support of NATO strategic, operational and business objectives. The E&T SL comprises approximately 150 staff across the Agency locations Mons, Glons, The Hague and includes the NATO CIS School at Latina.

For more questions on Education and Training services please contact:
Mr Jean-Paul Massart  
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NCN 257 3731  
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Email Demand.Management@ncia.nato.int
AirC2 Programme Office and Services (AirC2 PO&S)
The AirC2 Programme Office & Services (AirC2 PO&S), as part of the NCI Agency, ensures the harmonized planning, implementation, evolution and support of the NATO ACCS and other AirC2 assigned programmes. The AirC2 PO&S provides full life cycle management for AirC2 capabilities and services, using the most suitable technology to meet the customers’ needs in close collaboration with NATO, the Nations, and Industry.

For more questions on AirC2 products and services please contact:

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Dr Pascal Trouvé
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Ballistic Missile Defence Programme Office and Services (BMD PO&S)
The focus of the Ballistic Missile Defence Programme Office & Services (BMD PO&S) is on the upgrade, test and integration of NATO’s command and control systems and underlying communication network to enable effective information exchanges between various NATO and national missile defence systems. This integrated system-of-systems architecture will create a larger range of detection, communication and missile defence capabilities for NATO forces, whether deployed within or beyond NATO’s area of responsibility, and NATO populations and territories.

For more questions on Ballistic Missile Defence services please contact:

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Operations and Exercises (O&E)
The Operations and Exercises (OE) Service Line provides the Agency’s interface for supply of C2 Catalogue Services to customers that are planning and/or executing deployed operations and exercises. The OE SL ensures that the Agency’s responsibilities to deployed operations are met in line with the agreed Service Level Agreements and Command and Control Arrangements. In the post-recovery phase, the OE SL will conduct satisfaction monitoring with the customer, including production of Lessons Identified.

For more questions on Operations and Exercises services please contact:

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Core Enterprise Services (CES)
The Core Enterprise Services (CES) Service Line provides generic, domain independent, technical functionality that enables and facilitates the operation and use of IT resources, independent of issues concerning communications, Information Assurance and Service Management and Control. Services include communication and collaboration; web and information services; infrastructure storage and processing; infrastructure networking, composition and mediation; and managed desktop and end-user device services. Services are provided throughout the entire life cycle to both internal and external customers.

For more questions on Core Enterprise services please contact:

   CAPT Eric McCartney
   Chief, CES Service Line, Acting
   NCI Agency MONS
   7010 Mons, Belgium
   Tel + 32 65 44 6297
   NCN 254 6297
   Email eric.mccartney@ncia.nato.int
   Email Demand.Management@ncia.nato.int

Network Services and IT Infrastructure (NSII)
The Network Services and IT Infrastructure (NSII) Service Line assures delivery of NATO Communications Infrastructure Services; enables the interconnectivity and functionality of NATO Static and Deployable Infrastructures and associated services; and is depended upon for NATO Satellites links and anchoring facilities to support NATO deployed CIS. Furthermore, it is relied upon by maritime and other deployed forces to provide HF/VHF/UHF/SHF radio, messaging and IP communication systems.

For more questions on Network Services and IT Infrastructures services please contact:

   Mr Tom Plachecki
   Chief, NSII Service Line
   NCI Agency MONS
   7010 Mons, Belgium
   Tel + 32 65 44 9800
   NCN 254 9800
   Email Thomas.Plachecki@ncia.nato.int
   Email Demand.Management@ncia.nato.int

Cyber Security (CS)
The Cyber Security (CS) Service Line is responsible for the full life cycle of NATO Cyber Security activities. This includes design, implementation and operation, providing scientific and technical cyber security expertise, supporting Acquisition, Maintenance and Sustainment, and conducting cyber security operations and Incident Management. In addition it provides services across CIS Security, Cyber Defence, Information Assurance, COMPUSEC and COMSEC.

For more questions on Cyber Security services please contact:

   Mr Ian West
   Chief, CS Service Line
   NCI Agency MONS
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   Tel +32 65 44 7629
   NCN 254 7629
   Email Ian.West@ncia.nato.int
   Email Demand.Management@ncia.nato.int
Service Management and Control (SMC)
The Service Management and Control (SMC) Service Line covers the full life cycle support (strategy, design, transition, operation and continuous service improvements, including Subject Matter Expertise, Research and Development) for the Enterprise Service Management Systems (ESMS). The ESMS is used to enable and automate the Agency service provisioning processes.

For more questions on Service Management and Control services please contact:

Mr Jose Marcos  
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Email Demand.Management@ncia.nato.int

Independent Verification and Validation (IV&V)
The Independent Verification and Validation (IV&V) Service Line brings together all Agency activities related to the assurance of a service being fit for purpose (utility) and fit for use (warranty). Two main facilities will be available: one for application-level services (located in The Hague), and one for communication layer services (located in Mons). These will initially be used for the services offered by the NCI Agency to provide a better assurance of the services provided.

For more questions on IV&V services please contact:

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Chapter 3 – Applicable Policies

Legal Policies

NCI Agency is a NATO body. It is created under the NATO Communications and Information Organisation (NCIO) which constitutes an integral part of NATO.

Covering the entire capability lifecycle, the NCI Agency is NATO’s principal C3 capability deliverer and CIS service provider for the full range of its entitled requirements holders and customers. It is the provider of C4ISR-support to NATO business processes (to include provision of C4ISR shared services) to NATO HQ, the NATO Command Structure, NATO Agencies (including itself), Nations and multinational organizations. The NCI Agency delivers capabilities and provide services “Other than C3/CIS” to NATO and Nations, as approved by the ASB. The North Atlantic Council (NAC), through the Charter of the NCIO\(^5\), has granted authority to the NCIO to conclude agreements in the name of NATO and to conclude administrative agreements with other NATO bodies. The NCIO needs to obtain prior approval of the NAC before concluding any agreement or contract involving:

- A nation not being a member of NATO or,
- An agreement or contract with an international organization or,
- Any international agreement requiring Parliamentary approval by a NATO Nation.

Contracts and Agreements

By delegation of the NAC, the NCIO is also authorized:

- To conclude agreements within the scope of its agreed mission and activities, subject to prior clearance by the NATO Office of Security, with nations that have received authorization by the NAC to contribute to NATO-led operations or nations that have a partnership programme with NATO such as the Partnership for Peace, Mediterranean Dialogue and the Istanbul Cooperation Initiative;
- To let contracts in nations that are not members of NATO for those initiatives under the NATO/PfP Trust Fund Policy led by a NATO nation and for which the NATO Communications and Information Agency (NCI Agency) is the Executing Agent.

For more questions on legal policies, please contact:

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NCN 255 8229
Email Simona.Rocchi@ncia.nato.int
Email Demand.Management@ncia.nato.int

\(^5\) NCIO Charter C-M 2012(0049) – 14 June 2012
Finance Policies
This section introduces the main elements of the Agency's funding model and pricing policy. Customers are advised to consult their Account Manager for further details.

Customer Funding Regime (CFR)
Established on 1 July 2012, under the Charter of the NCIO, the Agency constitutes an integral part of the North Atlantic Treaty Organization.

The NCI Agency is an integral part of NATO and per its Charter is customer-funded. In NATO, Customer Funding is a regime whereby the costs of the activities of an organization are recovered by charging customers for the services provided, based on agreed costs, scope and timelines, rather than by funding contributions from member nations. The NCI Agency charges its customers for the direct costs of the services provided based on the approved Customer Rates. Customer Rates are endorsed by the ASB, approved for customers by NATO Budget Committee, fixed for one year and non-negotiable.

As a customer funded organization, and as an integral part of NATO, the NCI Agency works with its customers on different terms as those applicable to a commercial company. NCI Agency aims for a positive cash flow position during the delivery of a service or during the execution of a project. When either due to the high value or the long duration of the service or project, upfront payment in full is not deemed practical, the NCI Agency will apply payment milestones with a maximum of one invoice per calendar quarter.

Pricing
In accordance with the Customer Funding Regulatory Framework, either firm, fixed pricing or cost reimbursable pricing of services may be used for concluding agreements with customers but with the following conditions:

- For external customers [NATO FEDERATION], as a rule cost reimbursable pricing will be the norm, thereby ensuring that the financial risk is borne by the customer, not NATO. This will apply to all agreements with external customers signed following Council approval of the Regulatory Framework;
- Exceptionally, where firm fixed price contracts for external customers are beneficial for the Alliance, the Agency will ensure that NATO common funding is indemnified against any contractual losses incurred;
- For ICT services, in keeping with the equal treatment principle and to ensure uniformity and efficiency in service provision and administration within the ICT area, firm fixed pricing for all Service Level Agreements is required;
- For internal customers [NATO ENTERPRISE] acquiring NCI Agency services other than ICT, either pricing method is acceptable. The choice should favour simplicity and reduced administration provided that satisfactory cost transparency and accountability exist;
- The NCI Agency will maintain the capacity to reconcile invoiced amounts against the actual cost of services provided.

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6 NCIO Charter C-M 2012(0049) dated 14 June 2012
7 AC/337-N(2014)0035 dated 12 June 2014
8 BC-D(2014)00036 dated 9 July 2014
For more questions on pricing policies and customer pricing principles please contact:

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Chief, Finance Business Management
NCI Agency HQ
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1110 Brussels, Belgium
Tel +32 2 707 8325
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Email Demand.Management@ncia.nato.int
Chapter 4 – Service Request and Prioritization

The purpose of this section is to outline the interim processes and procedures for the provision and prioritization of NCI Agency supported services. It is to be used by all organizations or entities that require NCI Agency services to fulfill their requirements.

Figure 6 - Service Request Process shows the current service request procedure differentiating between the request for services covered under existing Service Level Agreement (SLA)/Service Support Framework (SSF)/Service Support Agreement (SSA), and the new request for service.
Customer Request Procedure

Once a Customer has identified the service(s) expects from the NCI Agency, to secure and formalise the requirements he/she should fill-in a Customer Request Form (CRF) accessible on-line on Online CSC.

Once submitted, the customer’s request triggers Demand Management (DM) to initiate the Customer Request Flow which basically goes through the following states: Initiation, Verification, Engagement with customer, Validation, Processing the Request, Providing the resulting service(s) or information, Closing the Request followed by a Customer Satisfaction Survey.

Upon receiving the CRF, the Requestor and all other contact details entered will be verified against the Customer Contact database. If the request is valid, a reference is generated and an advisory notification sent to the Requestor. This is where the customer engagement process happens. After this stage, an Account Manager is assigned to validate the request, confirm its priority and advance it through the process. The Account Manager provides an acknowledgement of the request to the customer and assesses the relevance of it in accordance with the NCI Agency Customer Services Catalogue (CSC). In the case the request does not match the NCI Agency’s competencies or mission, Service Strategy Directorate is involved and a communication to the customer is prepared by the Account Manager.

Following the positive assessment of the customer’s request, the Account Manager begins the start-up stage, where feasibility is addressed. In case the project feasibility assessment reveals customer’s expectations cannot be met, the Account Manager communicates with the customer, potentially addressing possible changes to the expectations.

When the assessment of the start-up is positive, a Project/SLA Manager is assigned and a proposal is then developed, under the accountability of Demand Management. Once ready, the Proposal is coordinated amongst the contributing bodies in the NCI Agency (formal internal staffing process) and sent out to customer under the responsibility of Demand Management. The respective Account Manager is in charge of negotiating,
tracking the validity period and ensuring communication is done with the customer when reaching the expiration date of the proposals.

When the customer acceptance is received and endorsed by the NCI Agency, the project execution starts under the responsibility of the Project Manager. When all deliverables have been provided to the customer, the Project Closure is requested by the Project Manager, supported by a Project Closure Highlight Report and approved by the Project Board.

Following the Project Closure Report submission, a Customer Satisfaction Form is prepared and sent to the customer under the responsibility of the relevant Account Manager. It allows for performance measure and lessons learned analysis used to enhance the overall service performance and to identify follow-up business opportunities.

Following return of the feedback from the Customer or expiration of the deadline for answer, Demand Management approves the closure of the project. The analysis of this feedback is conducted by the Strategic Partnership and Customer Relationship Management (SP&CRM) branch and results in the update of the Customer Register and, if necessary or appropriate, of the Customer Engagement Plan.

For more questions please contact your respective Account Manager or CSU POC:

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Global Account Manager
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**Mr David Bizley**
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### CIS Support Units / Elements

<table>
<thead>
<tr>
<th>CIS Support Units / Elements</th>
<th>HQ Location</th>
<th>Telephone Contact Details</th>
<th>Email Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSE Athens</td>
<td>Athens - Greece</td>
<td>+30 210 607 9921</td>
<td><a href="mailto:Fotios.Katsantas@nr.ncia.nato.int">Fotios.Katsantas@nr.ncia.nato.int</a></td>
</tr>
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</tr>
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<tr>
<td>CSU Uedem</td>
<td>Uedem – Germany</td>
<td>+49 2824 978 2501</td>
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<tr>
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<td>+31 45 526 3877</td>
<td><a href="mailto:Marc.Steinmetz@ncia.nato.int">Marc.Steinmetz@ncia.nato.int</a></td>
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</table>

### Prioritization of Restoration

Customers must consider the priority of the services that have been requested. Priority indicates the relative order or sequence in which a series of items should be addressed — be they Incidents, Customer Requests, or Changes. Priority is primarily driven by a combination of Urgency and Impact, but it is also influenced by considerations of resource availability, risk and expected effort.

Based on the combination of assigned Impact and Urgency, the Priority is calculated as shown in the table below with “1” being the highest Priority and “4” being the lowest.

<table>
<thead>
<tr>
<th>Impact</th>
<th>Urgency</th>
<th>Critical</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
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<td>Priority 2</td>
<td>Priority 4</td>
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<td>Significant/Large</td>
<td>Priority 1</td>
<td>Priority 2</td>
<td>Priority 3</td>
<td>Priority 4</td>
<td></td>
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<tr>
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<td>Priority 2</td>
<td>Priority 2</td>
<td>Priority 3</td>
<td>Priority 4</td>
<td></td>
</tr>
<tr>
<td>Minor/Localized</td>
<td>Priority 2</td>
<td>Priority 3</td>
<td>Priority 3</td>
<td>Priority 4</td>
<td></td>
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</table>

### Table 4 - CSU/CSE Points of Contact

### Table 5 - Prioritization Model
Prioritization Model Criteria

**Priority** is defined as the sequence in which incidents, problems and customer requests are to be dealt with. Priority is determined based on the **Impact** to the business and the **Urgency**, the speed or time frame, within which the user business requires resolution. The priority defined by the customer(s) has to be laid down according to the resource availability during the negotiation of the SLA.

It is very important to consider the implications of assigning various priority levels to an incident, customer request(s) or change record. A higher priority customer request entails escalation and notification to higher levels within the organizational hierarchy. Therefore, a low priority incident or Customer Request generally should not be reprioritized just to expedite their resolution. The Priority assigned to a record for the resolution of an incident or Customer Request or the implementation of a change depends upon:

- The impact on the business, size, scope, complexity of the incident, issues, customer request or change;
- The urgency to the business, time within the resolution is required.

**Impact** is ranked in terms of business criticality for each incident or Customer Request. The impact of an incident or Customer Request is generally equivalent to the extent to which they lead to the degradation of a service relative to the agreed upon service levels. Typically, the extent of systems affected and/or the number of users affected defines the scope of the impact.

Generally, impact is differentiated by relative scope and the overall effect on the business. The differentiation among services that are critical, essential and non-critical to the mission is usually determined in consultation with the service providers and the customers and formalized in Service Level Agreements.

The following Impact Table describes the guidelines for distinguishing various levels of impact for Incidents and Customer Request:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Guidelines</th>
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</thead>
<tbody>
<tr>
<td>1. Extensive/Widespread</td>
<td>Business critical system or mission critical features/functionalities are unavailable or not reachable</td>
</tr>
<tr>
<td>2. Significant/Large</td>
<td>Business critical system is severely degraded or mission critical features/functionalities are partially lost or not reachable Non-business critical system and/or service affected</td>
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<tr>
<td>3. Moderate/Limited</td>
<td>Any system and/or service is degraded or non-business critical functions or features are non-operational or unavailable to users</td>
</tr>
<tr>
<td>4. Minor/Localized</td>
<td>Any system and/or service is experiencing minor degradation or non-business critical functions or features are not operational or unavailable to users</td>
</tr>
</tbody>
</table>

Table 6 - Impact Guidelines

**Urgency** is a second measure which indicates the speed required to achieve resolution or the extent to which the business can bear delay in the resolution of any specific incident or Customer Request. VIP status may also influence the urgency level.

Urgency is defined as the time, within which resolution is required or the extent to which the business or user can bear delay in reaching resolution. It is determined by the necessary time frame, within which an issue must be resolved in order to satisfy business or user requirements. The potential financial impact of a particular service’s downtime on the business may also influence the Urgency. If a service is simply degraded or there is a known temporary solution, the degree of Urgency will generally be lower than for a service that is completely unavailable with no known temporary solution.
Urgency Table Guidance

The following Urgency Table describes the guidelines for various types of Urgency for incidents and Customer Requests:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Guidelines</th>
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</thead>
</table>
| Critical | • Response includes immediate and sustained effort  
| | • Hierarchical escalation is invoked  
| | • Customers are unable to work and no temporary solution is available |
| High | • Assigned support team responds immediately, assesses the current situation  
| | • Customers require expedited restoration or implementation of service but can bear minimal delay  
| | • Customers may or may not have a temporary solution available or a temporary solution may only provide partial relief |
| Medium | • Assigned support team responds using standard procedures and operates within normal supervisory management structures  
| | • Customers may or may not have a temporary solution available or a temporary solution may only provide partial relief |
| Low | • Assigned support team responds using standard procedures and operates within normal supervisory management structures  
| | • Customers may be inconvenienced, but suitable temporary solution is available to allow the customer to continue working or a delay in resolution is considered acceptable |

Table 7 - Urgency Guidelines
Chapter 5 – Support Terms and Conditions

Support Services based on ITIL 2011

The NCI Agency has adopted ITIL 2011 as best practice for IT-Support Management.

The Information Technology Infrastructure Library (ITIL) 2011 is a set of practices for IT Service Management (ITSM) that focuses on aligning IT services with the needs of business.

ITIL 2011 describes processes, procedures, tasks and checklists that are not organization-specific, used by an organization for establishing integration with the organization's strategy, delivering value and maintaining a minimum level of competency. It allows the organization to establish a baseline from which it can plan, implement and measure. It is used to demonstrate compliance and to measure improvement.

Assistance Using Service

Assistance in using the service is provided in the respective service provision agreement (SLA, LOA, MOU etc.)

Levels of Support for C4ISR Services

The standardization of Support structures over various parts of the current NCI Agency is based on ITIL 2011. NCI Agency has adopted a simplified Support Services Structure that depicts current practices.

- Level 0 Support
- Level 1 Support
- Level 2 Support
- Level 3 Support

The levels of support delivered to customer are in line with the agreed levels below and differ for NATO ENTERPRISE and FEDERATION Customers.

Levels of Support for NATO ENTERPRISE Customers

**Level 0:** This level comprises the customer/user self-service.

**Level 1:** Is user facing and is the first line of technical support. This level is offered by the Service Desk. They will log, categorize, prioritize, diagnose and resolve incidents within the boundaries of their training and permissions. This level is responsible for escalating incidents to Level 2.

**Level 2:** Applies specialist skills to provide technical support to incident investigation and diagnosis. This level performs End to End service monitoring and takes actions to resolve the incident and recover the services impacted. This is offered by Network Operations Centre (NOP) and by Network and System Operators. Level 2 will be responsible for escalating incidents and identified problems to the engineering level of support (Level 3).

**Level 3:** This level provides specialist service and resource support for individual services and systems. They will normally be the service, System Managers or SMEs. This level will liaise and work with external product and service suppliers.
Levels of Support for NATO FEDERATION Customers

**Level 0:** This level comprises the customer/user self-service.

**Level 1:** Is user facing and is the first line of technical support. The core assumption is that Level 1 support will be present in the nation itself taking care of its national C4ISR architecture. Another assumption is that where applicable National Level 1 support will be able to take on (part of) the Level 1 support needed for NATO C4ISR capabilities. This last assumption will be based upon any formal agreements entered into between the two parties. Nations can choose to invest in proficiency level of their own national support staff, or outsource (part of) Level 1 support for NATO C4ISR capabilities to NCI Agency.

**Level 2:** Applies specialist skills to provide technical support to incident investigation and diagnosis. This level performs End to End service monitoring and takes actions to resolve the incident and recover the services impacted. The core assumption is that this level of support will be present in the Nation itself taking care of its national C4ISR Architecture. When related to NATO C4ISR service support, we can limit the scope to software problems (excluding hardware issues). Since currently there are no networked solutions the NCI Agency could use to support remotely, this support level probably has to be executed locally while consulting external expertise (e.g. NCI Agency or industry). With adequate training and with the right reference material regarding known problems and solutions, most issues are probably solvable with national support personal. The NCI Agency or industry could possible support this by providing a reference database, telephone support, email support etc. to local national Level 2 support personnel.

**Level 3:** This level provides specialist service and resource support for individual services and systems. They will normally be the service, System Managers or SMEs. If coordinated efforts between local Level 2 and external Level 2 personnel do not solve the issue, this issue can either be raised to Level 3, or be raised to on-site support (as part of Level 3 support). On-site Support is physical intervention at a specific national site to solve issues that are site related/isolated. Specific for this on-site support is that it is ad-hoc; therefore resources cannot be planned in advance.
Chapter 6 – Strategic Partnership and Customer Relationship Management

Strategic Partnership and Customer Relationship Management (SP&CRM) takes a holistic view of customer engagement, and defines the overall model for managing the Agency’s interactions with customers. The SP&CRM approach is to provide strategic direction, planning and oversight that can be executed as decentralised processes throughout the Agency.

The branch exercises configuration management and control over the list of eligible customers and over a strategic level Customer Engagement Plan (CEP) that enables a coherent approach towards cooperation and relationship development through synergies and optimisation of customer interactions.

For senior level engagement on SP&CRM please contact:
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Figure 8 - Customer Relationship at a Glance
Strategic Partnership

The NCI Agency and its NATO ENTERPRISE partners do not share a typical strategic partnership, in the commonly accepted business sense, because both customer and supplier emanate from the same supra-organisation. Rather, the NCI Agency undertakes the role of ICT services supplier through a pre-defined programme of customer funded projects and service agreements; the component of partnership is derived from our shared acceptance of alliance-wide strategic goals and objectives.

To exploit this partnership, in the day-to-day delivery of C4ISR projects and services, the NCI Agency maintains an embedded staff presence within SHAPE and HQ SACT. These offices represent the “tip of the spear” in the agency’s execution of Customer Engagement with the NATO ENTERPRISE, throughout the delivery value chain.

The NCI Agency approach to Customer Engagement, with its NATO ENTERPRISE strategic partners, is described within the NCI Agency Customer Engagement Programme (CEP). DDM is accountable to the NCI Agency General Manager for the development and execution of the CEP.

Strategic Partnership Offices

For the Agency’s Strategic Partners (ACO and ACT) the NCI Agency maintains a small, embedded staff presence, adding value across the full spectrum of the NCI Agency’s business. These Strategic Partnership Offices (SPO’s) provide a bi-directional gateway to interact, intelligently, between supplier and customer. At the Strategic Partnership level, they are in charge of relationship management, an enduring, day to day process to manage expectations, facilitate conflict resolution and more generally, represent the NCI Agency’s interests and act as “one-stop” NCI Agency presence in each of the HQs. There is also NCI Agency staff performing the SPO function for NATO HQ/Agencies and NATO Nations.

For more questions, please contact:

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10 ACO, ACT, NATO HQ & Agencies and the Investment Committee (IC) for NSIP. Note: Director DM is not currently accountable for customer engagement with the IC.


12 Customer Engagement through: Customer Enquiries; Relationship Management; Education and Expectation Management.
Customer Relationship Management

Within the NCI Agency, the Customer Relationship Management (CRM) team is responsible for initiating and developing engagements with the customers, building towards strategic partnerships. CRM is also in charge for developing and maintaining the NCI Agency Customer Engagement Plan, monitoring and reporting upon Customer Satisfaction and maintaining critical information about each Customers’ service requirements.

![Diagram of Customer Relationship Management Key Deliverables](Figure 9 - Customer Relationship Management Key Deliverables)

CRM maintains the NCI Agency’s Customer Register including the official NCI Agency Customer List and works with Account Managers (AMs) to maintain oversight of Customer portfolios.

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C&I Partnerships and Multinational Projects Development

C&IP and MN Projects Development takes a requirement-driven and customer-centric approach to establish non-Commonly Funded collaboration frameworks. With a mind-set towards solving real customer problems, it builds on continued engagement through an established cooperation development process. The collaboration framework and scope are validated through feasibility studies and agreed through the project preparation stage, in advance of the C&IP or MN Project Partnership being established. This approach
significantly reduces the risk on the projects execution and is aligned with the NATO Smart Defence and Connected Forces Initiatives.

For latest information on C&IPs and MN Projects Development please refer to the respective section of the online CSC via this link:

https://dnbl.ncia.nato.int/nciaservicecatalogue/SitePages/Services.aspx

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**Chapter 7 - List of Services**

The colour-coding of the services corresponds to the CSC Service Model. Detailed Service Descriptions are provided in Online CSC under the “Services” button: 

https://dnbl.ncia.nato.int/nciaservicecatalogue/SitePages/Services.aspx

### Special Community of Interest Services (SCOI)

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<th>Organizational Element</th>
<th>Standard Service (Budget) or Service Group</th>
<th>Budget Activity Code*</th>
<th>Catalogue Item (Service)</th>
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*The Budget Activity Codes are only indicative and subject to confirmation by NCI Agency*
# Standard Client Services (SCS)

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*The Budget Activity Codes are only indicative and subject to confirmation by NCI Agency

# User Access Services (UAS)

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### Other Services (OS)

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Part II: SERVICE DESCRIPTIONS

Chapter 8 – Detailed Service Descriptions

Detailed Service Descriptions are also available in the online CSC, under the “Services” button:

https://dnbl.ncia.nato.int/nciaservicecatalogue/SitePages/Services.aspx

Printout can be provided on request upon submission of Customer Request Form.

For more information on Service Descriptions contact:

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1110 Brussels, Belgium
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NCN 255 8359
Email Bart.VanMiert@ncia.nato.int
Email Demand.Management@ncia.nato.int
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1. Service Description

The Defence Planning Support to NATO Service provides a full-spectrum technical consultancy, analysis and advice service to the NATO Defence Planning Process (NDPP), in particular:

The Defence Planning Support to NATO Service provides a full-spectrum technical consultancy, analysis and advice service to the NATO Defence Planning Process (NDPP), in particular:

- **Step 2 (Determine Requirements):** Analysts in the Operational Analysis Service Line support NATO primarily through the Capability Requirements Review (CRR). This identifies the Minimum Capability Requirements (MCR) NATO needs to meet Political Guidance, and conducts a comparison between NATO/National capabilities and MCR to identify capabilities to be maintained, capability shortfalls and surpluses in capability.

- **Step 3 (Apportion Requirements and Set Targets):** NCI Agency analysts support ACT with development and application of optimization model to apportion the identified requirements (MCR in Step 2) to NATO and the Nations. This requires significant expertise in the data analysis and management capability of extremely large data sets (the inventories of 28 nations covering over 200 different capabilities).

- **Step 5 Review Results:** Analysts support NATO in undertaking the Suitability and Risk Assessment (SRA) which assesses potential risk of the Alliance not having the required capabilities to meet its Level of Ambition.

The support provided by this service enables the Alliance to have an analytically rigorous, transparent and traceable Defence Planning Process.

In order to deliver full-spectrum support to NDPP, OA SL analysts need to draw upon a diverse range of analytical and customer facing techniques and methods. This has included the following:

**Development of Also Support to Decision Makers in the Development of New Methodologies**

Examples include providing inputs to the development of the high level overall methodology to implement Step 2 of the NDPP, to more detailed methodologies such as developing a methodology to capture specific emerging capability requirements such as Cyber Defence, AirC2, interoperability requirements, etc.

**Subject Matter Expertise**

NDPP captures requirements for over 200 individual military and non-military capabilities across land, maritime, air, C3, and joint/enabling domains. Analysts providing DP support to NATO have themselves many years of experience in these domains, and have also built up extensive networks of Subject Matter Experts (SMEs) across NATO and in the nations. This expertise can also be exploited for other purposes such as capturing or validating detailed User Requirements.

**Provision of Analysis**

Analysts providing DP support to NATO are well versed with a range of modelling techniques and tools and are comfortable analysing very large data sets to support decision makers in developing capability requirements.
Examples of tools include:

**JDARTS**
This is a bespoke toolset that has been developed by the OA SL to support NATO Defence Planning.

**Spreadsheet - Database Models and Datasets**
For example in developing aeromedical evacuation requirements, over 38,000 individual ISAF medical evacuation reports were validated, processed and analysed to support the development of requirements in the latest CRR

**COTS Tools Such as ArcGIS and SIMUL8**
For example ArcGIS has been used to help visualize the airbase requirements needed across SACEUR’s Area of Responsibility.

**NATO-developed tools such as MCM Expert and TMD SIM**
Have been used to support Maritime Mine Countermeasure and Ballistic Missile Defence (BMD) capability requirements respectively.

**Development of Scenarios**
Analysts are experienced in developing feasible credible scenarios consistent with NATO’s level of ambition, with feasible threats, appropriate planning timelines, in order to support capture and validation of capability requirements.

**Decision Support**
Analysts are very familiar with the application of Hard and Soft OA techniques to facilitate SMEs decision making processes. Examples have included supporting flag officers in prioritising Alliance Shortfall Areas through development and implementation of a rank prioritisation support tool.

**Joint Defence Planning Analysis and Requirements Toolset (JDARTS)**
NCI Agency Joint Defence Planning Analysis and Requirements Toolset (JDARTS) is an integrated federation of software applications developed to support capability-based Defence Planning within NATO.

JDARTS delivers a federated, collaborative, networked environment for joint, capability-based defence planning and gives the Alliance and Nations a unique and powerful analytical toolset. Capability requirements can be identified, quantified and subsequently compared against the spectrum of forces and capabilities available to fulfil the requirement.

By supporting the identification of capability requirements and shortfalls within the NATO Defence Planning Process, JDARTS has made a major contribution to the ongoing transformation of NATO. Furthermore, JDARTS is being adopted by an increasing number of nations in support of national defence planning.

**The key features of JDARTS:**
- Collaborative, networked environment for Joint, capability-based Defence Planning.
- JDARTS Capability Assignment Logic consolidates output from detailed operational analysis and simulation studies with expert military assessments by NATO Defence Planners.
- Provides integrated federation of complementary applications for scenario-based analysis.
- Flexible, fully customizable and adaptive to national requirements.

The following individual tools form J-DARTS:

- **D-MIST (DP- Mission Study Tool)**, used to support the NATO task decomposition process within planning situations.
- **D-SIGN (DP-Scenario and Geographical Analysis)**, used to develop planning situations through a geographical interface.
• D-CALC (DP – Capability Assignment Logic Calculator), used to derive force requirements by applying capability assignment logic, supports step 2 in the above list.
• D-RUM (DP – Requirements and Unit Matching), used to interface generic and real world unit capability data, and including the D-RSDC configuration component.
• D-EFT (DP – Extended Fulfilment Tool), used in determining the optimum fulfilment of force requirements with real world units.

The large quantities of data needed to support this toolset are held in a central data repository (CDR) which is implemented in Microsoft’s SQL Server. The J-DARTS admin tool (D-RSDC) allows for the administration of the common data tables.

2. Value Added
The NCI Agency Defence Planning Support Service has a proven track record of providing support to NATO Defence Planning and NATO transformation for over 20 years. Our support gives NATO Capability Development transparency, traceability, and analytical rigour.

3. Locations
Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

4. Dependencies
Not Applicable.

5. Available Networks
Consultancy services may be provided irrespective of security domain.

6. Support Availability
Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
1. Service Description

The **Defence Planning Support to Nations** service provides Allies, Partners and multinational Organizations with insight to the analytic foundations of NATO Defence Planning as well as access to the analytic support software applications employed by NATO. This understanding enables informed decisions as to adoption of elements of the benchmark NATO processes for national use.

- The Defence Planning Support to Nations service offers the framework for flexible provision of NCI Agency analytical support through either bilateral or multinational collaboration projects. Expert exploitation of established NATO processes and tools allows Defence Planning Support to Nations to deliver financial efficiencies and economies of scale to national sponsors across a broad spectrum of Defence Planning (DP) related activities, including: Education and training with NATO analytic approaches;
- Facilitation and delivery of customised Defence Planning studies;
- Release, installation and in-service support of tools and models;
- Customised enhancements and developments of tools and models;
- Enhance integration between existing Operations Planning and Defence Planning tools and processes to minimise implementation costs to nations.

The NCI Agency provides Defence Planning analytical consultancy and customized tool/model to national sponsors to implement robust capability-based planning processes, drawing on established NATO best practice but tailored to fit national needs. This allows sponsor nations to benefit directly from NCI Agency’s unique analytic expertise and from decades of collective investment in NATO Defence planning. In addition, more specifically, NCI Agency expertise supports adoption of appropriate elements of the established NATO process:

- Insight, enhancement and development of representative Case Studies (i.e. scenarios).
- Structured mission analysis (mission-to-task decomposition).
- Development and application of models/tools such as the Joint Defence Planning Analysis and Requirements Toolset (JDARTS).
- Support implementation of robust national capability-based planning processes.
- Exploit established NATO best practice, but tailored to fit national needs.
- Deliver NDPP analytical consultancy.
- Facilitate use of NATO DP tools & models.

**Joint Defence Planning Analysis and Requirements Toolset (JDARTS)**

The NCI Agency Joint Defence Planning Analysis and Requirements Toolset (JDARTS) is an integrated federation of software applications developed to support capability-based Defence Planning within NATO.
• JDARTS delivers a federated, collaborative, networked environment for joint, capability-based defence planning and gives the Alliance and Nations a unique and powerful analytical toolset. JDARTS provides the Alliance with a unique and powerful analytical toolset. Capability requirements can be identified, quantified and subsequently compared against the spectrum of forces and capabilities available to fulfil the requirement.

• By supporting the identification of capability requirements and shortfalls within the NATO Defence Planning Process, JDARTS has made a major contribution to the on-going transformation of NATO. Furthermore, JDARTS is being adopted by an increasing number of nations in support of national defence planning.

The key features of JDARTS:

• Collaborative, networked environment for Joint, capability-based Defence Planning.
• JDARTS Capability Assignment Logic consolidates output from detailed operational analysis and simulation studies with expert military assessments by NATO Defence Planners.
• Provides integrated federation of complementary applications for scenario-based analysis.
• Flexible, fully customizable and adaptive to national requirements.

The following individual tools form J-DARTS:

• D-MIST (DP - Mission Study Tool), used to support the NATO task decomposition process within planning situations.
• D-SIGN (DP-Scenario and Geographical Analysis), used to develop planning situations through a geographical interface.
• D-CALC (DP - Capability Assignment Logic Calculator), used to derive force requirements by applying capability assignment logic.
• D-RUM (DP - Requirements and Unit Matching), used to interface generic and real world unit capability data, and including the D-RSDC configuration component.
• D-EFT (DP - Extended Fulfilment Tool), used in determining the optimum fulfilment of force requirements with real world units.

The large quantities of data needed to support this toolset are held in a central data repository (CDR) which is implemented in Microsoft’s SQL Server. The J-DARTS admin tool (D-RSDC) allows for the administration of the common data tables.

2. Value Added

Defence Planning Support for Nations delivers Defence Planning analytical consultancy and customised tool/model provision to national sponsors to support implementation of robust capability-based planning processes, drawing on established NATO best practice but tailored to fit national needs.

DPS for Nations enables sponsor nations to benefit directly from NCI Agency’s unique analytic expertise and from decades of collective investment in NATO Defence Planning.

3. Locations

Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

NCI Agency maintains a deployable JDARTS network that can be used within nations for training and evaluation activities.

NCI Agency technicians will deploy to nations to facilitate JDARTS installation and establishment.
4. Dependencies
Lease of the NATO JDARTS Defence Planning databases to Allies requires prior approval from Allied Command Transformation (ACT). DPS for Nations can facilitate this approval process.

5. Available Networks
Consultancy services may be provided irrespective of security domain.

6. Support Availability
Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. Prerequisites
Not Applicable.

8. Additional Information
Defence Planning Support for Nations is facilitating the establishment of the Multinational Alliance Defence Analysis and Planning for Transformation (MN ADAPT) Tier 1 Smart Defence project.

MN ADAPT will provide both a cost effective delivery vehicle for tailored Defence Planning Support and also act as a forum for nations to develop and share evolving best practice on the application of these methods to national defence planning.

The NCI Agency is working closely with Lead Nation Norway to ensure successful establishment of this Smart Defence project.
SCOI03 - Operations Assessment Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Operational Analysis (OA)</th>
</tr>
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<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Operations Assessment Service</td>
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<tr>
<td>Service Area:</td>
<td>Operational and Planning Support Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Other Services - Operations Assessment Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

1. Service Description
The Operations Assessment Service provides analytical support to NATO or National HQs, planning groups or other bodies in establishing goals, gathering data and evidence to measure progress in Alliance operations against these goals, and visualizing/reporting results. This is principally in the field of Crisis Response Operations (CRO). Operations Assessment experts are also available to support Operations Assessment concept and doctrine development and experimentation (CDE), and training up to the political-military Strategic Level.

2. Value Added
Improving Operations Assessment planning and execution delivers more effective decision making in CRO and elsewhere by giving commanders and their staff increased credibility and confidence in their objectives and the evidence basis which underpins their progress assessment.

Better Operations Assessment also permits scarce collection and analytical resources to be utilized more efficiently, and improves the linkages between tactical, operational and strategic decision makers.

3. Locations
Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

4. Dependencies
Not Applicable.

5. Available Networks
Consultancy services may be provided irrespective of security domain.

6. Support Availability
Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
SCOI04 - Operational Analysis Support to HQs

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Operational Analysis (OA)</th>
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<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Operational Analysis Support to HQs</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Operational and Planning Support Services</td>
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<td>Service Group:</td>
<td>Other Services - Operational Analysis Support to HQs</td>
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<tr>
<td>Service Type:</td>
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</table>

1. Service Description

Through this service the NCI Agency provides direct analytical support to HQs. Experienced, professional Operational Analysts are available to provide task-tailored analytical support to operational HQs within the NATO Command and Force Structures. Flexible support can be provided on-site at HQs' static or deployed locations, or remotely through reach back arrangements. NCI Agency analysts are experienced in integrating into HQ teams and augmenting existing OA capabilities as and when required. Operational Analysts work with HQ staff to develop analytical requirements and implement solutions.

OA services can support many areas of an HQ's planning and operations. Services generally include development and implementation of statistical and mathematical methods for the analysis of operational data including:

- Analysis of time-series, geospatial, and survey data.
- Streamlining of existing HQ data collection/analysis processes through the development of ad hoc software tools and scripts (e.g. Excel VBA, and ArcGIS scripting).
- Implementation of advanced analytical and mathematical techniques for data analysis, including mathematical modelling and optimization algorithms.
- Development of operational assessment frameworks and data collection plans.
- Presentation of analytical results to senior leadership.

Agency Operational Analysts have been providing on-site and reach back analytical support to ISAF HQ and JFCBS, including the deployment of an Operational Analyst to ISAF HQ continuously since 2010.

2. Value Added

Through this service, the Agency is able to provide HQ decision makers with recommendations based on unbiased and technically sound analysis.

The Agency is able to provide continuous access to technically skilled professional Operational Analysts of a calibre that Nations typically find difficult to offer. Agency Operational Analysts can provide continuity of analytical support when operational turnover is high, such as in operational HQs.

The NCI Agency has the largest professional Operational Analysis staff in NATO with experience of NATO planning and operations going back over 20 years. From this resource pool customers can expect to receive timely experienced support, familiar with NATO ICT and processes, tailored to augment any local OA capability either in HQ or in theatre, or internally.

3. Locations

Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

4. Dependencies

Not Applicable.

5. Available Networks

Consultancy services may be provided irrespective of security domain.
6. **Support Availability**
Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. **Prerequisites**
Not Applicable.

8. **Additional Information**
Not Applicable.
SCOI05 - Information Knowledge Management (IKM) Requirement Service

<table>
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<tr>
<th>Organizational Element:</th>
<th>Operational Analysis (OA)</th>
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<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Information Knowledge Management (IKM) Requirement Service</td>
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<td>Service Area:</td>
<td>Operational and Planning Support Services</td>
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<td>Service Group:</td>
<td>Other Services - Information Knowledge Management (IKM) Requirement Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Not Applicable</td>
</tr>
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</table>

1. Service Description

NATO faces a continual challenge presented by the increasingly knowledge-intensive and information-intensive character of modern operations. The NCI Agency provides IKM expertise skilled in the development and employment of Organizational IKM Policy, operational IM concepts, and the derivation and analysis of user’s operational Information Management (IM) requirements to help address this need. This includes:

- Broad and in-depth knowledge of the managerial value of relevant theories and current developments in the domain of IKM, with a focus on leveraging operational benefits from better information management and knowledge application.
  - Information use and knowledge mapping in Organizations to recommend changes in structures, skills, processes and tools.
  - Information Exchange Requirements estimating - analysis of historical communications data to inform information needs.
  - Process, information flow, and scenario driven requirements modelling.
  - IM Governance Development – Policy.
  - Taxonomy and Maturity Model development and implementation.

The NCI Agency has developed this expertise through a proven track record of delivering IKM projects:

**IM Policy Support** - supporting the creation of the NATO IM Authority and development of NATO’s top level IM guidance documents, NATO Information Management Policy (NIMP), the Primary Directive on Information Management (PDIM), and the IM Strategic Plan.

**Operational IKM** - identifying and addressing operational information needs in NATO Missions since 2004 (SFOR, EUFOR, KFOR and ISAF) resulting in the definition and development of key capabilities including JOCWatch and LMTWeb.

**MSA Concepts** - developed IM concepts for Maritime Situational Awareness and the operational context for trialling semantic interoperability technologies.

**Information Audit of HQ KFOR** - understanding the Organization’s information assets, flows and key processes to enable rationalization and improve reuse of available information resources.

**ACO as a Knowledge Centric Organization (KCO)** - using examples and specific best-practice cases from Industry to define the characteristics, benefits and measures of a KCO in terms of people, processes and tools for application across ACO.

**NATO Information Management Capability Maturity Model** - building on Industry best practice to develop a method and tools for self-assessment and Organizational improvement in line with NATO IM policy.

**EIM Programme** - supported NATO HQ’s Enterprise Information Management (EIM) programme with user requirements, Industry bid evaluation, and taxonomy development.
Records Retention and Disposition Schedule Development - improved records retention and disposition practices by producing taxonomy of record types, their retention and archiving requirements, drafting records retention and disposition schedule, and a plan to implement classification and retention mechanisms into existing document management tools.

Analysis of workflow efficiency - evaluation of workload, office response times and bottle necks, based on data extracted from existing task management tools (Tasker Tracker).

IKM Organizational Design - definition and design of a new IKM Organization for the International Military Staff, including roles, responsibilities, functions and skills.

2. Value Added
Our specialists are intimately familiar with the new NATO IM Framework and the business of static and operational HQs, operation centres and supporting NATO systems. This makes them ideally placed to propose and, working in multidisciplinary cross capability teams, deliver tangible operational benefits by improving IM structures, skills, processes and tools in line with emerging NATO policies.

- Recognized expertise in development and employment of the NATO IM Framework and preservation policy.
- The ability to combine domain knowledge in NATO IM policy, Organizations, processes and tools with industry best practice in IKM.
- Proven experience in derivation and analysis of user’s requirements to improve users’ business effectiveness.

3. Locations
Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

4. Dependencies
Not Applicable.

5. Available Networks
Consultancy services may be provided irrespective of security domain.

6. Support Availability
Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
SOCI06 - Organizational Analysis

<table>
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<tr>
<th>Organizational Element:</th>
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<td>Other Services - Organizational Analysis</td>
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<td>Service Type:</td>
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</tr>
</tbody>
</table>

1. Service Description

The Organizational Analysis service provides the capability to undertake process analysis and organizational change in support of the development of civilian structures, military headquarters (ranging from the tactical to strategic) up to the redesign of the whole NATO Command structures.

Typically, the NCI Agency operational analysts will be provided to lead or support a team conducting an organizational study. The expertise can be applied to one or more of the following stages:

- Analysis of the ‘as-is’ situation. Examples include: conduct of a stakeholder study, as-is process analysis, on-line staff questionnaires/surveys, analysis of current mission fulfilment, analysis of waste and duplication, identification of areas for improvement.
- Provision of the ‘to-be’ structures or changes. Examples include: development of organizational metrics, Organizational themes, HQ and Command structures, derivation and redesign of main processes, assessment of required skills and relative workload, simulation of HQ staff structures under different operational scenarios, balancing the Manpower Cap (% cut) against the requirement, derivation of sub-structures/statements of function, assessment of the scale of the change management task, derivation of individual posts and automation of the production of job descriptions (in line with agreed policy and processes), provision of statistical analysis of bids/gaps, derivation of transition plans.
- Option development and selection. Examples include the use of metrics and transparent multi-criteria decision analysis techniques to assist the decision maker to make auditable and evidence based decisions on structural changes.

2. Value Added

The NCI Agency’s operational analysts have a proven track record in conducting organizational analysis, with direct experience in HQ Functional, Process and NCS PE reviews since 2000. This includes:

- HQ Immediate Reaction Task Force (Land) (IRTF (L)) Concept Development and Experimentation (CDE);
- SHAPE Business Process Review (BPR);
- KFOR HQ Functional Restructuring;
- Allied Command Europe (ACE) Functional Review;
- NATO Command Structure (NCS) Peacetime Establishment Functional Review (NCS FR 2003- );
- JFC HQ Brunssum Business Process (Re)-Engineering;
- Allied Command Operations (ACO) Further Manpower Savings Study (FMSS);
- International Military Staff (IMS) Fundamental Review (IMS FR);
- International Security Assistance Force (ISAF) HQ/CJ1 Support;
- ACO Organizational Development – Command Group SHAPE Info Flow and Coordination project (2006);
- ISAF HQ/JFC HQ Brunssum/SDC Incident Reporting;
- Creation and maintenance of NATO Occupational area Codes (NOC);
- NATO INFOSEC BPR;
- Production of a manpower costing model for Phase II of the 2008 PE Review;
• ISAF HQ CJOC process study;
• Evaluation of the generation and use of job description information within NATO manpower processes;
• Production, development and maintenance of the Establishment Review Tool (ERT) for the production of NATO job descriptions and Civilian Classification Proposals (CCP). Incorporates integration of the ERT with the Manpower Analysis & Planning System (MAPS);
• Host Nation for the procurement of the NCS Automated Personnel Management System (APMS) for the NCS.

This experience has provided both a deep understanding of NATO manpower processes and policy and expertise in Organizational and manpower analysis in the NATO domain. This knowledge, blended with core analytical skills and enabled by market leading Business Process Analysis Tools, provide a robust and flexible capability to tackle Organizational problems.

3. Locations
Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

4. Dependencies
Not Applicable.

5. Available Networks
Consultancy services may be provided irrespective of security domain.

6. Support Availability
Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
SCOI07 - Operational and User Requirements Service

1. Service Description
The Operational and User Requirements Service provides Operational Analysis expertise to support, through exploitation of products and knowledge from any of the other OA services, a range of areas including architecture development, CIS user requirements capture and validation, and training.

Operational analysts familiar with the operational community and their needs can assist sponsors with the development of detailed operational requirements (supported by the analysis of underlying processes) to guide product development.

This in-depth knowledge of the operational environment in which functional services are used is exploited to support the development of architectures as well as the training of users in the utilization of functional area services throughout their lifecycle.

2. Value Added
Our OA staff has extensive knowledge and experience of military operational environments brought to bear to support architecture development, CIS user requirements capture and validation, training support.

OA brings in a holistic perspective in the capture of user requirements, leading to the identification of high quality system operational requirements.

Potential to reduce system development costs as a result of robust user requirements which inform decisions on system functionality and performance prior to significant resources investment in developing a solution.

3. Locations
Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

4. Dependencies
Not Applicable.

5. Available Networks
Consultancy services may be provided irrespective of security domain.

6. Support Availability
Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
SCOI08 - General Operational Analysis Service

<table>
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<tr>
<th>Organizational Element:</th>
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<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>General Operational Analysis Service</td>
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<td>Service Area:</td>
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<td>Service Type:</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

1. **Service Description**
   The General Operational Analysis service provides ad hoc Operational Analysis consultancy to the NATO enterprise. This involves the application of tailored analytical methods to solve complex problems as typically faced by organizational leaders and operational commanders. The NCI Agency offers experienced operational analysts to work alongside and support decision makers, over any period of time.

   The types of OA methods applied to deliver this service include quantitative and qualitative approaches, “red teaming” and alternative analysis (ALtA), wargaming, scenario development, seminars and structured knowledge elicitation.

   This type of service can be provided for instance to support decision making in HQs, planning and command groups, predominantly in the field of Crisis Response Operations (CROs), Education, Training, Exercises and Evaluation (ETEE), and Concept Development and Experimentation (CDE). Support may be provided during a CRO, ETEE or CDE event, or through a structured training programme or on an on-call consultancy basis.

2. **Value Added**
   Operational Analysis adds value to planners and decision makers by strengthening decision making, accountability and creativity through a range of analytical and consultancy/facilitation methods.

   The NCI Agency offers access to professional Operational Analysts with unrivalled knowledge of the NATO Enterprise and the ability to deliver interdisciplinary, tailored and timely analyses.

3. **Locations**
   Consultancy services may be delivered via reach back from NCI Agency major sites or at the sponsor’s location as required by the tasking. This can include deployment to operational theatres where applicable.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Consultancy services may be provided irrespective of security domain.

6. **Support Availability**
   Consultancy services are typically provided in line with the sponsor’s working arrangements, predominantly business hours and on-call when necessary.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Not Applicable.
SCOI09 - C2 Planning Service

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<th>Organizational Element:</th>
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<td>Service Type:</td>
<td>Planning COI Applications [not currently in the C3 Capability Taxonomy but could be considered for inclusion at the User-Facing Capabilities layer in future revisions]</td>
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</table>

1. Service Description

The C2 Planning Service supports the Crisis Management and Operations Planning Processes as described in ACO's Comprehensive Operations Planning Directive (COPD) or similar national processes. The service provides a distributed, multi-level and collaborative environment to develop crisis response and operations planning products that include knowledge development through systems analysis, planning, operations assessment, crisis response measures and ORBAT management and reporting. The service allows the development and publication of various planning process products in a standard, holistic and collaborative manner whilst respecting privacy needs.

The Tools for Operations Planning Functional Services (TOPFAS) and NATO Crisis Response System (NCRS) are the toolsets used for the service. Main elements of the TOPFAS tool-suite and NCRS are described below.

**TOPFAS**

TOPFAS is an integrated set of collaborative planning and decision support tools to support Systems Analysis, Operations Planning, Execution, and Assessment of operational campaigns. It enables NATO’s Comprehensive Approach as described in the Comprehensive Operations Planning Directive (COPD). Information objects created in any one of the tools are available in all others, providing seamless transition of products between various functions of the operations planning group. The current modules of TOPFAS are described below.

**TOPFAS - System Analysis Tool (SAT)**

SAT supports the systems analysis of the engagement space for holistic Situational Awareness and Understanding (SA/SU). Systems analysts can describe the engagement space as a system with system design and influence relationship diagrams. SA/SU can be gained by examining causal loops in relationships and system element ranking according to their centrality using network analysis techniques.

**TOPFAS - Operations Planning Tool (OPT)**

OPT is a campaign planning tool that helps answering what, where, when and who questions by providing causal, geo-spatial, temporal and resource views. Multiple strategic options and operational and tactical courses of action can be developed and synchronized in space and time. Multi-actor perspectives can be represented in the same plan.

**Campaign Assessment Tool (CAT)**

CAT supports measuring progress towards the planned end-state through measures of effectiveness and measures of performance. It allows assessment planning, metric data collection and reporting as well as statistical data analysis including causality and trend analyses. Findings are fed back for future planning.

**TOPFAS - ORBAT Management Tool (OMT)**

OMT helps building and viewing order of battle (ORBAT) information like the identification, on-hand strength of materiel and personnel, command structure and current disposition for Friendly, Neutral
and Opposing forces in support of the operational planning process. It also allows the management of national and NRF (NATO Response Force) ORBATs.

**TOPFAS Web Portal (TWP)**

The information content created by the specialist functional groups using TOPFAS can be shared with the wider community of interest using the web technology. A TOPFAS Portal dynamically publishes the information created by analysts, planners and assessors to those who need it. The TOPFAS Web Services provide the same information to other CIS tools. Domain ontology for planning objects, to facilitate information exchange with other systems via web services, is also provided.

**TOPFAS - User Management Tool (UMT)**

UMT allows administrators to manage users. Users can have one or more functional pre-defined roles like ‘Analyst’, ‘Planner’ or ‘Assessor’. Roles can be assigned to individual users or user groups. The creation of customized roles is also supported. Furthermore UMT is used to manage which plans are replicated between databases at different TOPFAS sites.

**NATO Crisis Response System (NCRS)**

The NATO Crisis Response System (NCRS) is complementing the NATO concepts, capabilities and arrangements. It aims to provide the Alliance with a comprehensive set of options and measures to manage and respond to crises including sudden shifts in the security environment, by taking full advantage of the tools and capabilities available to NATO. The purpose of the NCRS is to provide for required preparedness and support for crisis and conflict prevention and for crisis management across the range of Article 5 and Non-Article 5 operations. The NCRS as a whole is the overarching system for Crisis Management (CM) against which all planning processes should be designed. NCRS is planned to be integrated into TOPFAS by 2017.

2. **Value Added**

C2 Planning Service can provide benefits to the Crisis Response and Operations Planning Process in the areas of standardization, productivity, quality and distributed collaboration. Some of the specific benefits are:

- Consistency through standard graphical planning environment;
- Process Support for the COPD through use of templates and workflows;
- Time saving through automated briefing and document generation;
- Faster communication of knowledge, intent and direction through visualization;
- Data integrity through a single repository of planning objects “One way to know a fact”;
- Quality control through auditing of changes and built-in business-rules;
- Enhanced synergy and coherence through an integrated System Analysis-Planning-Assessment Environment;
- Distributed Strategic, Operational and tactical level Collaborative Planning;
- Improved Information sharing with the broader Community-of-Interest.

3. **Locations**

The end-user facing elements of the service is available at the user sites with centralized reach back capability. For geographically distributed collaborative planning, multiple locations are serviced concurrently with transparent data replication service underneath.

4. **Dependencies**

Not applicable.

5. **Available Networks**

In NATO, the service is available on the NS domain. However, the service can be provided on the customer’s choice of security domain as well. In case of national security domains, the customer is responsible for its accreditation. Current service does not have cross-domain accreditation.
6. **Support Availability**  
For ACO, as specified in the centralized corporate SLA. For other customers, default is normal business hours of NCI Agency The Hague. On-call or 24/7 support can be provided optionally if required.

7. **Prerequisites**  
Standard Workplace Services (including, Infrastructure Services, Office Automation Applications) is required.

The service can be provided as standalone solution but also as part of Bi-SC AIS to make use available Core Enterprise, Enterprise Support and SOA Platform Services.

Effective use of C2 Planning Services is also dependent on appropriate training and mentoring which are provided as sub-services.

8. **Additional Information**  
The C2 Planning Service is currently provided to NATO Command Structure, NATO Force Structure and a number of national educational and operational commands.
**SCOI10 - Nuclear Service**

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<th><strong>Organizational Element:</strong></th>
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<tr>
<td><strong>Service Type:</strong></td>
<td>Nuclear COI Applications</td>
</tr>
</tbody>
</table>

Due to the classification, this service description can only be obtained on request by contacting the Agency:

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Email [Demand.Management@ncia.nato.int](mailto:Demand.Management@ncia.nato.int)
SCOI11 - Missile Defence C2 Service

<table>
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<td>Service Type:</td>
<td>IAMD COI Applications [C3 Capability Taxonomy currently includes Missile Defence COI Applications but could consider IAMD COI Applications in future revisions]</td>
</tr>
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</table>

1. Service Description
The Missile Defence C2 Service offers a set of tools to provide users with standardized capabilities for receiving early warning of ballistic missile threat launches, an integrated tactical air and missile defence picture display and a tool for planning of dispositions and taskings for deployed units able to conduct active defence against these threats.

The tools offered by the service are Shared Early Warning (SEW), TMD Planning Tool (PlaTo) and TMD C2 Link 16 Interoperability Demonstrator (LSID).

1.1. Shared Early Warning (SEW)
SEW is NATO's 24/7 early warning capability to disseminate Tactical Ballistic Missile (TBM) launch data, provided to NATO by US national capabilities, to military HQs and also political representatives in NATO Nations.

SEW users receive visual and audio alerts when each missile launch is reported, and the system visualizes the reported launch and predicted impact points on map displays. Past missile launches can be reviewed with key data on threat characteristics such as missile type, range and flight time. The means are available to create and play back missile launch simulation scenarios for exercises and training.

1.2. TMD Planning Tool (PlaTo)
PlaTo is released to the operational community as an Operations, Training, and Exercise (OT&E) Module of NATO Integrated Command and Control (ICC) as part of the Theatre Missile Defence (TMD) and the Ballistic Missile Defence (BMD) Interim Capabilities.

Functionality modules in PlaTo support the operator in the generation of:
- Prioritized Critical Asset Lists (PCAL)
- Joint PCAL (JPCAL)
- Joint Prioritised Defended Asset List (JPDAL)
- Threat Analysis
- Mission Tasks
- Consolidated Mission Reports as a Defence Design.

All this can be done in a collaborative fashion, by means of a central database.

PlaTo is currently fielded as part of NATO’s Interim BMD Capability and is intended to be replaced with the future deployment of AirC2IS.

1.3. TMD C2 Link 16 Information Display (LSID)
LSID Display Module Version 3.1.0 is deployed as an Operations, Training and Exercise (OT&E) Module of NATO ICC to display TMD Situational Awareness (SA). LSID provides a Real Time (RT) tactical data link (TDL) Ballistic Missile picture, as well as Defence Resource state and status information. It accomplishes this by receiving, processing and Tactical Data Link messages in either variety of formats. The picture is incorporated directly into the existing ICC map.
LSID Display Module is designed and used to:

- Receive and handle missile and platform related Link-16 messages
- Establish a Near Real Time Recognized Missile Picture
- Provide situational Awareness of the BM battle.

The user can display PlaTo’s Red ORBAT and Defence Design Information for a more accurate representation of the operational environment.

LSID can also be used for analysis of an operation or exercise with its enhanced internal recording and playback functionality which allows the user to review all related factors in the missile battlespace, such as platform positions, their hot/cold inventories, missile positions, impact points, and engagements.

LSID is currently fielded as part of NATO’s Interim BMD Capability and is intended to be replaced with the future deployment of AirC2IS.

2. Value Added
The MD C2 Service can provide benefits to users in the areas of standardization, productivity, quality, distributed collaboration and situation awareness. Some of the specific benefits are:

- Standardized NATO warning and situation awareness of ballistic missile threat launches relevant to NATO supporting high level pol/mil consultation and decision making.
- Operationally validated and tested tools to support collaborative and integrated theatre missile defence tactical planning
- Integration of theatre missile defence planning and tactical information with NATOs ICC system.

Training and Exercise support
This service provides full or partial on-site training support, including but not limited to:

- SEW Operations
- PlaTo Defence Design production
- PlaTo System Administration
- LSID user training
- Scenario generation
- Simulation production
- Exercise support

3. Locations
The end-user facing elements of the service is available at the user sites with centralized reach back capability.

4. Dependencies
Not applicable.

5. Available Networks
The SEW service is available on the NS domain. Plato and LSID may be deployed on NS or user-requested environments.

6. Support Availability
For ACO, as specified in the centralized corporate SLA. For other customers, default is normal business hours of NCI Agency The Hague. On-call or 24/7 support can be provided optionally if required.

7. Prerequisites
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) is required.
Effective use of MD C2 Services is dependent on appropriate training and mentoring which are offered as sub-services.

8. **Additional Information**
The MD C2 Service is currently provided to the NATO Command Structure, NATO Force Structure and a number of national educational and operational commands.
SCOI12 - CBRNE C2 Service

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<th>Organizational Element:</th>
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<td>CBRN CS Service</td>
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<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
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<td>Service Group:</td>
<td>CBRN C2 Service</td>
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<td>Service Type:</td>
<td>CBRN COI Applications [not currently in the C3 Capability Taxonomy but could be considered for inclusion at the User-Facing Capabilities layer in future revisions]</td>
</tr>
</tbody>
</table>

1. Service Description
The CBRN C2 Service offers subject matter expert support for the CBRN-Analysis tool procured by ACO and deployed at a number of HQs as an interim CBRN capability for hazard warning and reporting until CBRN FS implementation is achieved (currently foreseen in 2017). CBRN-Analysis is a commercially available product. The CBRN C2 service can provide training on this tool and in particular, assist with the development of relevant scenarios, or databases in preparation for training and exercise use by NATO HQs.

2. Value Added
The CBRN C2 Service can provide benefits to users in the areas of standardization, productivity, and quality. The service can also provide expertise in missile defence consequence of intercept (COI) aspects of CBRN operations.

3. Locations
The end-user facing elements of the service are available at the user sites with centralized reach back capability.

4. Dependencies
Not applicable.

5. Available Networks
Not applicable.

6. Support Availability
For ACO, as specified in the centralized corporate SLA. For other customers, default is normal business hours of NCI Agency The Hague. On-call or 24/7 support can be provided optionally if required.

7. Prerequisites
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) is required.

Effective use of CBRN C2 Services is dependent on availability of CBRN-Analysis at user locations.

8. Additional Information
Not Applicable.
SCOI13 - C2 Mission Support Service

<table>
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<td>C3 and Enterprise Services</td>
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<td>Service Group:</td>
<td>C2 Mission Support Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Joint COI Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**
   The C2 Mission Support Service (MSS) provides integrated C2 mission support services and cross-cutting technical services in support of operational missions and exercises, including ISAF, the NATO Response Force and deployable functional services support. The service is provided in conjunction with the Operations and Exercises Service Line, NATO CIS Group and other relevant organizations. The service is provided by a team of deployable military and civilian personnel with specialized C2 functional service knowledge and deployed in support of operations and exercises using dedicated deployable equipment.

Integration Core (INT-CORE)

One of the tools that can be used to provide the C2 Mission Support Service is the INT-CORE which is an information exchange mechanism amongst heterogeneous systems originally not designed to interoperate with each other. INT-CORE facilitates a tailored information exchange brokerage effectively and rapidly according to the demands of the mission.

2. **Value Added**
   In order to operate C2 systems at deployed locations, local on-site presence of technical experts is required. Unfortunately, deployed locations often present challenging and at times hostile working environments. Sending scarce civilian technical experts is not always possible due to capacity issues or contractual regulations.

   The C2 Mission Support Service enables the effective use of NATO C2 Services in deployed locations during exercises and actual operations eliminating the need of the customers to provide their own technical experts when deployed.

3. **Locations**
   The C2 Mission Support Service is normally provided at deployed locations such as operational theatres or exercise locations but can also be provided at static locations if so required.

4. **Dependencies**
   Not applicable.

5. **Available Networks**
   The C2 Mission Support Service is not network dependent.

6. **Support Availability**
   For ACO, as specified in the centralized corporate SLA. For other customers, default is normal business hours of NCI Agency Mons/The Hague. On-call or 24/7 support can be provided optionally if required.

7. **Prerequisites**
   The customer should be using one or more NATO C2 Services.

8. **Additional Information**
   Not Applicable.
SCO14 - Situational Awareness Service

**Organizational Element:** Command & Control (C2)

**Standard Service (Budget) or Service Group:** C2 Mission Support Services

**Service Area:** C3 and Enterprise Services

**Service Group:** Situational Awareness Service

**Service Type:** COI Enabling Services

1. **Service Description**

The Situational Awareness (SA) Service supports the establishment and sharing of a common view of the battle space. It improves the Forces’ situational awareness and their decision-making processes by linking information products and operational pictures together and providing the additional layer of functionalities in order to monitor the area of interest and understand evolving situations. The primary focus of the SA services is to provide the Common Operational Picture (COP) for missions or areas of responsibility based on the Commander’s decision. The COP provides the base layer for C2 systems to further contribute and expand on this information required for executing their own processes (Battlespace management, logistics, targeting, MEDEVAC, etc.).

- SA services are based on 2 major products used within NATO and by National forces:
  - NCOP (NATO Common Operational Picture), introduced in 2014.
  - IGeoSIT (NATO interim Geospatial Situation Intelligence Tool).

The main elements of the tool suite are described below:

NCOP supersedes in the NATO Command Structure the Joint Common Operational Picture operational (JCOP) capability including the Interim Geo-Spatial Intelligence Tool (iGeoSIT) component currently providing situational awareness tools. Both core products and associated services are available for use by the NATO Force Structure and nations at static and deployed locations.

1.1. **NATO Common Operational Picture (NCOP)**

NCOP is a Functional Service enabling NATO to establish and share a common view of the battle space with forces and partners. NCOP also contributes to the Ballistic Missile Defence capability by integrating specific functions and interfaces for BMD.

NCOP enables situational awareness based on information received from various NATO and National systems, collating and harmonizing this information into mission-tailored Operational Pictures and making the COP information available to NATO forces in a timely and responsive manner through different means including a web-access capability (Geo COP Editor). NCOP also includes a large set of tailoring capabilities in order to represent and exploit the information in various manners, as well as a management tool to control and disseminate the COP to the different commands involved in the supervision of an operation.

NCOP has interoperability built in with a large set of standard or dedicated interfaces, allowing to build the most complete Common Operational Picture based on various authoritative data sources:

- **XML:** NATO Vector Graphics 1.4, 1.5, 2.0, NVG Streaming, Google KML, IP1/SIP3 (NFFI), other specific web services
- **OGC:** Web Map services (WMS/WFS/WMC)
- **Security:** NATO XML Security Labels specifications
- **MTF:** AdatP-3 BL11 and BL13, OTH-Gold, IP1 (NFFI)
- **Databases and files direct access** (standard DBs, Excel files)
- **Dedicated NATO software interfaces:** MCCIS, TOPFAS, ICC (WISI), and NIRIS.
1.2. iGeoSIT
iGeoSIT is a client / server application that provides users with up-to-date geospatial intelligence information that can be used to access and visualize operational information from NATO theatres anywhere within the network. iGeoSIT provides an intuitive graphical user interface. You can access geospatial datasets (such as maps and satellite imagery) and operational data (such as mine situation reports, bridge information, incidents, events, etc.) from various theatre HQ cells (J2, J3...).

The visualized operational data is served directly from the relevant theatre HQ in real time. Therefore, iGeoSIT provides the situational awareness picture, which is identical with the one used by the relevant theatre HQ. There are numerous operational data layers available at various levels of classification. iGeoSIT combines into one ‘COP’ geospatial maps with operational data to provide a lightweight and complete situational awareness capability. iGeoSIT has been in use within NATO and Nations for several years.

iGeoSIT interoperability for operational data includes standard databases, NATO Vector Graphics and KML. Geospatial data is served using the standard OGC WMS interfaces.

1.3. JCOP
The toolset formerly known as ‘JCOP’ is currently only made available through its primary subset ‘iGeoSIT’. Other components of ‘JCOP’ are now discarded and replaced by other FS such as NCOP and LC2IS.

2. Value Added
The Situational Awareness Service provides benefits to all levels of command (from strategic to tactical HQs) in their business processes such as horizon scanning, area of interest monitoring, Crisis Monitoring and Crisis Response, mission execution. Some of the specific benefits are:

- Easy access to large dataset from various sources and information systems.
- Comprehensive data representation capabilities including graphical relationships, charts and tailored filtering for faster understanding of the situation.
- Controlled dissemination across commands participating in the same operation.
- COP management processes natively supported following NATO’s directives.
- Time saving through briefing support tools.
- Improved Information sharing with all Communities-of-Interests.

3. Locations
The end-user facing elements of the service are available at the user sites with local or remote server capability. Multiple locations are serviced concurrently with controlled data replication service underneath.

4. Dependencies
Not Applicable.

5. Available Networks
In NATO, the service is available on the NS domain. However, the service can be provided on the customer’s choice of security domain as well. In case of national security domains, the customer is responsible for its accreditation. Current service (NCOP) is technically capable of Cross-Domain information exchange by using XML Security Labels supported by NATO XML Guard.

6. Support Availability
For ACO, as specified in the centralized corporate SLA. For other customers, default is normal business hours of NCI Agency The Hague. On-call or 24/7 support can be provided optionally if required.

7. Prerequisites
In the NATO context, approved geospatial dataset are to be provided by CoreGIS.
Standard Workplace Services (including, Infrastructure Services, Office Automation Applications) is required.

The service can be provided as standalone solution but also as part of Bi-SC AIS to make use available Core Enterprise, Enterprise Support and SOA Platform Services.

Effective use of Situational Awareness Services is also dependent on appropriate training and mentoring which are provided as sub-services.

8. Additional Information
The Situational Awareness Services are currently provided to NATO Command Structure, NATO Force Structure and a number of national educational and operational commands.
**SCO15 - National C2 Support Service**

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<tr>
<th>Organizational Element:</th>
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<td>National C2 Support Service</td>
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<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
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<td>National C2 Support Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Joint COI Applications</td>
</tr>
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</table>

1. **Service Description**
Nations have a need to optimize financial investments in operational software products. Increasingly, NATO Nations are seeking to exploit the NATO first policy. Re-use of NATO capabilities instead of new National development. The National C2 Support Service includes installation, configuration management, updates, training and education, and support to NATO C2 systems in exercises and operations. National C2 Support Service also supports NATO and partner nations in joining NATO or mission network environments (such as Afghan Mission Network (AMN) or Federated Mission Networking (FMN)) during operations or exercises. The service is composed of activities such as technical guidance, installation and training, security accreditation, 3rd part licence procurement, etc.

2. **Value Added**
As an important element of the Smart Defence initiative, the re-use of NATO capabilities:
- Complement and leverage on NATO common funded software capabilities,
- Are coherent and interoperable with NATO software capabilities (now and in the future), and,
- Realize economies of scale and scope by sharing costs and capabilities for commonly required services between multiple nations.

The National C2 Support Service eases a nation’s efforts to join a mission network and helps it to achieve it in the most cost effective manner. The expertise built-up from previous cases is used to address potential issues and problems before they occur, thus save both time and cost.

3. **Locations**
The National C2 Support Service is generally not tied to a location but certain activities such as security testing are performed in Mons, Belgium.

4. **Dependencies**
Not applicable.

5. **Available Networks**
The National C2 Support Service is can be provided for the chosen national network.

6. **Support Availability**
The default is normal business hours of NCI Agency Mons/The Hague.

7. **Prerequisites**
Not Applicable.

8. **Additional Information**
Not Applicable.
NATO UNCLASSIFIED

SCOI16 – C2 Interoperability Test and Assessment (IOTA) Service

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<td>Service Group:</td>
<td>C2 Interoperability Test and Assessment (IOTA) Service</td>
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<tr>
<td>Service Type:</td>
<td>SMC Applications</td>
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</table>

1. Service Description
The NATO C2-Enabling Interoperability Test and Assessment (C2 IOTA) service is an expertise-based service designed to address interoperability throughout the lifecycle of the C2 capabilities.

It leverages upon several C2-Enabling services and applications that support Data Quality, Source Activity, Connectivity and Interoperability Assessments based on NATO Standards. These services capitalize on the XML capture of NATO information exchange specifications based on the NATO STANAG Transformation Framework (STF).

C2 IOTA provides a web-based net-enabled interoperability, test and assessment and data monitoring service for partners exchanging all types of C2 Enabling tactical data, including JREAP, Link 16, NFFI, FFI XML-MTF, GMTI, and experimental data such as NIEM AIRTRAK, POSREP and OBSPOS messages. The set of tools available within the ISS portfolio are leveraged, as needed, to provide the agreed set of interoperability test and assessment services requested by the customers.

C2 IOTA Tools & Services are available to all NATO and Nations, in-theatre and within interoperability assessment events, supporting the Connected Forces Initiative (CFI) Increased Exercises and Better Use of Technology pillars by leveraging on existing C2 enabling technologies, tools and services to promote and gauge interoperability within exercises, operational network analysis and interoperability assessments.

NIRIS, O-ANT and SMACQ tools form the toolsets used for the service and their main characteristics are described below.

1.1. NIRIS
NIRIS has been developed to meet the Minimum Capability Requirement (MCR) for collection, dissemination and provision of situational awareness information to Command & Control. NIRIS is currently the most widely used system providing situational information services for automated AirC2 and information system within NATO.

NIRIS is an Enabling Service (see C3 Classification Taxonomy) ensuring proper situational awareness via the provision of a set of services to enable data collection, dissemination and transformation of information in an interoperable manner based on NATO and commercial standards (e.g. Tactical Data Links (TDL), OTH-Gold, Friendly Force Tracking (FFT), and Civilian Convoy).

NIRIS is an essential service for several Communities of Interest (COIs) within the Air, Land, Maritime, Joint, Logistic, and Intelligence domains, acting as a middle layer service between the data producers (e.g. assets, FFT and C2 systems) and information consumers (e.g. Air (ICC, NECCIS), Logistic (CORSOM), JCOP (iGeoSiT, JCOP manager)). NIRIS makes information collected from multiple sources available to decision makers as battle space objects (BSO).

1.2. ANT
The Online Analyser for Networked Tactical-Data (O-ANT) provides a quick and easy way to analyse whether the information produced by a tactical source is compliant with a selected STANAG and Revision. STANAGs supported are Link16, JREAP, AIS, VMF, NFFI, Link22, Link11 and AdatP-3 B11 among many others.
O-ANT verification is based on XML-generated files for the STANAG Specifications. This method results in a one-to-one mapping between the standard and the way OANT interprets the messages, words and fields. The field verification is based on DFI/DFI used in the STANAGs when available.

O-ANT provides two user interfaces, a thick application (O-ANT SWING) for more insight detailed analysis, and a web version (O-ANT WEB), designed to be deployed in a distributed environment, with instances running as close as possible to the sources of information being monitored and analysed.

O-ANT is available as part of the NIRIS 3.7 distribution media.

O-ANT is an independent tool and it can leverage on the C2 Traffic Monitoring and Analysis Platform (C2 TMAP) to provide an unobtrusive HW/SW solution for tapping into network traffic as well as the potential to provide data to C2 SMACQ for further analysis.

1.3. SMACQ

Service to Monitor and Assess Connectivity and Quality (SMACQ) is a COI-enabling SMC Data Exchange Monitoring (DEM) service developed under the ACT Experimental Program of Work sponsorship. SMACQ is able to monitor the data exchange of operational information dissemination networks and provide insight and assessment of the data quality, connectivity, source activity and compliancy of the data and the exchange protocols, based on NATO-agreed standards including STANAGs. It was developed to improve visibility into the quality of live tactical data used in operational decision making to achieve, maintain and improve the trust of the stakeholders on the quality of the available data.

Typically, Commercial-Off-The-Shelf (COTS) tools are focused in the data exchange assessment on the network layer of the OSI stack, and they are capable to partially support the task as they are able to monitor standard protocols within the OSI stack such as HTTP, FTP, etc. But those tools are incapable of addressing whether the data exchange of structured data at the Functional Area Services application layer is properly accomplished and if the data is structured in accordance with the standards.

Since there is no way to constantly monitor and assess the operational data streams, connectivity and data quality from the functional perspective, the operational community is not in the position to quickly and easily determine if the information can be trusted and the CIS community is not in the position to effectively and efficiently troubleshoot problems with information dissemination and data quality.

1.4. Information Exchange Gateway for Functional Services (IEG-FS)

Cross-domain services are implemented through Information Exchange Gateways (IEGs). IEGs support the integration of both data and voice services between distinct security domains, while protecting information assets of the participants in a federated environment. A number of gateway classes have been identified as follows:

1.5. NATO Secret to NATO Secret enclaves (IEG scenario A).
   - NATO Secret to NATO-Nation Secret enclave (IEG scenario B).
   - NATO Secret to NATO-led Mission Secret enclave (IEG scenario C).
   - NATO Secret to Non-NATO Nations or International Organizations (IEG scenario D).
   - IEG-FS can support scenario B and C which are the most relevant for NATO and partner nations.
   - NATO Metadata Registry and Repository (NMRR) - Vocabulary Management Service (VMS)

The NATO Metadata Registry and Repository (NMRR) and Vocabulary Management Service (VMS) are essential components in the implementation of the NATO Network Enabled Capability (NNEC), which is a central enabler for realization of the Federated Mission Networking (FMN) and Connected Forces Initiative (CFI).

The NMRR current in-use capability stores XML artefacts that represent structural and semantic metadata, including information exchange specifications, vocabularies and mappings between vocabularies. The aim of the current in-use capability is to support interoperability by facilitating configuration management, quality management and change control of registered specifications and support propagation of specification changes to the software applications affected.
The Vocabulary Management Service (VMS) is a critical instrument for data harmonization across multiple communities to ensure semantic interoperability in information exchanges. The aim of the VMS demonstrator is to facilitate harmonization of data elements through the registration of Community of Interest (COI) vocabularies to include the data elements and message structures (where the latter provide the usage context of the data elements), which can be browsed at the data element level. This facilitates the harmonization or reuse of such data elements or, at a minimum, the mapping of relations between them for greater cross-community understanding.

From an administrative perspective, the current in-use capability provides a “one-stop-shop” where developers, standardization experts and other design-time users can find information exchange specifications in a machine-readable format.

From an operational perspective, the current in-use capability can support run-time usage by providing an interface for automated clients, allowing them to retrieve information exchange specifications during run-time. For example, a translation service can use the run-time interface for retrieving the mapping between two different vocabularies in order to translate between them.

The current in-use capability is associated with a set of detailed user and functional requirements and specifications. It is the result of several years of research and development (R&D) funded through Allied Command Transformations (ACT). Its usage will allow addressing data management and XML artefacts configuration control, while building knowledge, governance and content, all of which will be required when the industrialized solution will be operational.

2. Value Added

- C2 IOTA enables synergies, economies of scale and sharing of results and lessons learned (comparing apples to apples) for improved Standards-based interoperability test and assessments across the full capability lifecycle—from capability definition, through interoperability test & evaluation, into operational use. The following are examples of the benefits gained by a wide range of users:
  - NATO Standardization bodies can test and verify quality and content of STANAGs for completeness, correctness, ambiguities and vagueness in order to improve the specifications and fostering out-of-the-box interoperability of the implementing systems/services.
  - War fighters (J3 and J6) are provided up-to-date web access to shared assessments and improved situational awareness of data flows, source activity, connectivity, and exchanged data quality, increasing trust in the information used to support decision making. They will be in a position to identify and report shortfall areas, in-theatre, to improve interoperability between our systems and services, thus directly contributing to the operational effectiveness of the Alliance and Partner Nations.
  - Operational network, service management and control and interoperability assessment groups (e.g. CIS Support Units (CSUs), OPS centres, or Exercise/Focus Area Analysis Teams) have access to a smarter, improved and shared means of monitoring connectivity and data quality, to identify, understand and troubleshoot issues in a timely manner. They will also have an improved post-analysis/forensics analysis capability to be able to identify interoperability shortfalls within their area and gain the ability to collaboratively verify results.
  - System/Service developers will gain insight into STANAG compliancy and data content of messages exchanged, enabling analysis on connectivity and data flow. They will be able to continuously perform self-assessment “pre-testing” as they are developing to identify issues before interoperability testing with partners, and trouble-shoot interoperability challenges between partners.
  - In addition to the common benefits of an IEG, IEG-FS has specific features tailored to the exchange of Functional Services data (such as Data Link information). In particular, it allows

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13 Realization of an industrialized capability is planned through the NATO Security Investment Program (NSIP) and the current estimated date of completion is in year 2019.
close to real-time Functional Services data to be shared in a timely manner between entities, while at the same time allowing the information to be sanitised in line with the need-to-know principle, i.e. only allowing certain information to be released.

- Sharing and reuse of information exchange specifications often leads to more efficient and effective design and implementation of interoperable systems and services. The NMRR is considered a rich source of information for those COIs that are involved in the development and (re)use of data standards. Visibility, accessibility and understanding of the machine-readable representations of these specifications and standards will contribute to enhanced interoperability between the systems implementing these specifications and/or data structures.

3. **Locations**

The end-user facing elements of the technical service are available at the user sites with centralized reach back capability. For geographically distributed data quality, source activity and connectivity monitoring, multiple locations are serviced concurrently with locally installed instances of the C2 IOTA tools underneath.

C2 IOTA tools and services can be deployed to any location. C2 IOTA has been used to:

- Enhance interoperability assessment quality at multiple venues, including CWIX, Unified Vision and TDL CaT ITS.
- Support various NATO interoperability exercises, such as Combined Endeavour and MAJIC Exercises (MAJEX).
- Monitor and assess operational networks.

Additionally, the service is planned to be used among the entire NATO command structure and Afghan Mission Network to both monitor and pre-empt problems as well as to aid in the incident management process.

The NMRR and VMS are hosted by the NCI Agency and accessible via the Internet at [http://nmrr.ncia.nato.int](http://nmrr.ncia.nato.int) and [http://nmrr.ncia.nato.int/vm](http://nmrr.ncia.nato.int/vm) respectively. Access is controlled via a user authentication (username / password) mechanism.

The NMRR is planned to be deployed as part of the services in support of the NATO C3 Board structure.

4. **Dependencies**

Not applicable.

5. **Available Networks**

This is an expertise-based service provided to customers on their networks.

In NATO, the service is available on the NS domain. However, the service can be provided on the customer's choice of security domain as well. In case of national security domains, the customer is responsible for its accreditation.

IEG-FS typically operates at secret level. In particular, it has been used in the following scenarios based on Limited Authorization to Operate (LATO):

- NRF CIS certification exercises since 2010 (Steadfast Cobalt).
- NRF Operational Certification exercise since 2013 (Steadfast Jazz, Trident Juncture).
- Italian national network in exercises and is in the process of being accredited for their future operational network.

At the time of writing IEG-FS is undergoing security accreditation and Approved Fielded Product List (AFPL) testing to enable deployment on the PAN (NU), MS and NS networks. There is also an ongoing effort to certify it with the Common Criteria for Information Technology Security Evaluation.

The NMRR and VMS is available on the Internet and is NATO Unclassified.
6. Support Availability
This is an Expertise-based Service provided to customers during normal business hours.

7. Prerequisites
C2 IOTA services can be based on both Expertise and Technical Services. In order to deploy C2 IOTA, appropriate pre-planning is required to determine and address any facility, security and/or network certification requirements. Effective use of C2 IOTA Services is also dependent on appropriate training and mentoring which are provided as sub-services. To operate IEG-FS in Scenario C the NCI Agency XML Labelling Guard is required. As software prerequisites, IEG-FS requires:

- Java Runtime Environment;
- Windows 2008 R2 64bit.

For operation under scenario C, a defined data labelling policy is required together with a sanitisation policy.

8. Additional Information
C2 IOTA Expertise and Technical-based services can be utilized to facilitate and support the following activities:

- Exercise Support Services;
- Integration into C4ISR architectures to support data exchange, source activity and connectivity Installation & Early Life Support Services.

The scope of the C2 IOTA tools and services are selectable based on the needs of the customer.
SCO17 - C2 Collaboration Service

1. Service Description
The C2 Collaboration Service supports the operational community by providing a federated chat network to allow users to communicate in near real-time or semi-synchronously via text messages, whether between two users directly, within ad hoc groups, or within persistent chat rooms.

The secure Joint Chat (JChat) toolset is used for the service. Main elements of JChat are described below:

Secure Joint Chat (JChat)
The purpose of the federated chat network is to allow users to communicate in near real-time or semi-synchronously via text messages, whether between two users directly, within ad hoc groups, or within persistent chat rooms.

The NATO JChat systems and services are designed from the ground up to be interoperable amongst the nations and to enable the connecting of single soldiers on the ground with their fellow sailors and airmen in an austere environment.

Tactical chat applications are used in a similar manner to Combat Net Radio, allowing all-informed exchange of information within specific groups. They are used both informally, for staff level coordination and collaboration, and formally, for rapid all-informed reporting and tasking.

JChat is centred on time critical operations in order to prevent casualties and to minimize reaction time. JChat provides a seamless communication chat facility between components in support of:

- Close Air Support
- Intra-Theatre Airlift System (ITAS) missions
- Joint Fires/Artillery coordination
- Joint Targeting/ Time Sensitive and Dynamic Targeting
- Joint Personnel Recovery/ MEDEVAC missions
- Unmanned Aerial System (UAS) / Sensor Search Request and coordination

This is achieved through the use of well-defined and widely adopted industry and open standards. During its lifetime, JChat has evolved in response to changes in requirements, technology, hardware, and in other parts of its operating environment. JChat is still maintained by the NCI Agency and version 3.0 is under development. The expected trend is an increased usage, the reason being that more user sites will utilize JChat as the NATO Tactical Chat tool due to NRF rotation and that JChat will be used to build up the Chat Capability for ACCS LOC 1.

2. Value Added
The use of interoperable communication and collaboration systems has become a key centre of gravity for military effectiveness. Communication by chat is used daily by operators to pass information, coordinate operations and support collaborative decision making.

JChat includes full support of the basic open standards as specified by the eXtensible Messaging and Presence Protocol (XMPP) Internet standards as well as the most common extensions. As such it exceeds the minimum requirements for text chat.
• A NATO Chat system to integrate with their own national chat system.
• A NATO Dynamic Chat Forms (DCF) system to integrate with their own national systems.
• Can act as a NATO XMPP message broker to be integrated with external C2 Applications.
• Provision of GEO-White boarding capabilities.
• Support compliancy testing.
• Supports the exploration of Federated Mission Networking (FMN) requirements.

3. Locations
JChat is used throughout the NATO command structure, in both static and deployed HQs, as well as by various nations.

4. Dependencies
Not Applicable.

5. Available Networks
The JChat software suite runs on Commercial-off-the-Shelf (COTS) workstations connected to a Local Area Network (LAN) of any classification. It is on the Approved Fielded Products List (AFPL) for the ISAF MS and NS networks.

The LANs that JChat operates on may be interconnected via the NATO Secure Wide Area Network (NS WAN), thus allowing any nations to federate with the NATO chat system.

JChat applications can be used across security domains if an appropriate proxy is available as part of the cross domain security solution.

In conjunction with the Collaboration Gateway (CG) and Data Sync Guard (DSG) solutions, the JChat client may also be used for cross domain chat as it has been developed to support security labelling.

6. Support Availability
The NCI Agency OPS Centre is manning a Customer Service Desk (CSD). They also host a support website on the NU and NS. The CSD is the primary point of contact for JChat support.

Technical Bulletins are published with technical information. This can range from publishing known bugs with workaround, to recommended hardware and software requirements, to installation instructions for Service Updates. Since JChat is developed and maintained by the NCI Agency, all expertise is available in one organization.

7. Prerequisites
Client: The JChat client is owned by NCI Agency. It can be delivered in accordance with the NCI Agency’s regulations under a NATO license. The JChat client may be used in combination with any XMPP compliant server. The JChat client uses the XMPP open standard and can be used independently of any specific products or vendors.

Server: Nations are free to select an XMPP server of their choice. A list of available options can be found at http://xmpp.org/servers.

8. Additional Information
Not Applicable.
SCOI18 - Operational Reporting Service

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1. Service Description
The Incident Management Service supports the Joint Operations Community of Interest through provision of relevant functional applications and technical assistance for incident information collection, dissemination and reporting. The Joint Operations Centre Watch (JOCCWatch) is the toolset used for the service. Main elements JOCCWatch are described below:

**JOCCWatch**

JOCCWatch is a web-based electronic event log. It is designed to support Watch Keepers and Shift Directors in Operations Centres (CJOCC, JOCs etc.) to record and disseminate incident information in a standardized and structured manner. JOCCWatch facilitates greater situational awareness for decision makers from subordinate commands to their HQ and provides event data for analysis of the battlespace for future adaptations of operational tactics, techniques and procedures.

JOCCWatch interoperates with several NATO and national systems, such as LOGFAS, iGeoSIT and Integrated Command and Control (ICC), to exchange and display incident data as part of the Common Operational Picture (COP) contributing to overall situational awareness and analysis in the Area of Operations (AOO).

It integrates with NATO’s instant messaging service to facilitate incident reporting between commands.

**JOCCWatch provides CJOCC staff with:**

- A simple interface to capture the basic information that describes operational incidents, their time, location and other relevant details.
- A notification mechanism (RSS Feed) to alert interested users to updates on the latest published incident information so that they can view the full details.
- A way to publish incident information through the HQ information portal to other staff both in the HQ and at other commands.
- A web service based incident reporting capability that allows the sending of pre-formatted Incident Spot Reports (INCSPOTREPS) that can be incorporated into a second installation (e.g. at a higher HQ) for their consumption.
- A search capability to allow for structured searches within the incident repository.
- The capability, by exporting to Microsoft Excel, to extract historical statistical data from the incidents entered.
- An audit of the incidents in the campaign, showing the information that was available to the CJOCC at any time – and a record of who had entered it. After the operation has ended, this can form part of the Commander’s Diary or the Official Operational Record.

**Interoperability:**

- RSS (Really Simple Syndication) is a protocol that can be used to poll JOCCWatch periodically to get a list of new incidents and their summary. RSS readers (e.g. MS Outlook) can display this list and notify users when a new incident arrives.
- OIR (Operational Incident Reporting) web service is to make all incident record fields available to other systems. This web service publishes all incident related data fields.
• KML web service can be used to show incidents in the Google Earth application or other KML compatible clients.
• NVG (NATO Vector Graphics) web service is used to export incidents as a map overlay. The NVG 1.4 format is extendible and therefore can contain more incident fields than the previous 0.3 version.

2. **Value Added**
JOCWatch provides a common web-based interface to allow operation centre staff to manage, analyse and publish information on incidents. The tool supports federation of logs across an area of interest. With audit of incidents recorded during any campaign it becomes part of an official operational Record.

3. **Locations**
JOCWatch is used in the NATO command structure and all NATO operations e.g. ISAF and KFOR. JOCWatch is also used by various NATO nations (e.g. in Africa to support French operations) and during NATO exercises and trainings.

4. **Dependencies**
Not Applicable.

5. **Available Networks**
No restriction, JOCWatch is on the Approved Fielded Products List (AFPL) for both MS and NS networks.

6. **Support Availability**
NCI Agency OPS Centre is manning a Customer Service Desk (CSD). They also host a support website on the NU and NS. The CSD is the primary point of contact for JOCWatch support.

Since JOCWatch is developed and maintained by the NCI Agency, all expertise is available in one Organization.

7. **Prerequisites**
• Windows Server 2008 R2.
• IIS 7.5 with .NET Framework 4.0.
• PostgreSQL 9.0.
• Internet Explorer 8.0+ (client)
• The optional JOCWatch import notification feature depends on the presence of a XMPP compliant chat server such as the Tactical Chat Server (TCS) which is also used by JChat clients.

8. **Additional Information**
Not Applicable.
SCOI19 - Joint Targeting Service

Organizational Element: Command & Control (C2)
Standard Service (Budget) or Service Group: Joint Targeting Service
Service Area: C3 and Enterprise Services
Service Group: Joint Targeting Service
Service Type: Joint COI Applications

1. Service Description
The Joint Targeting Service supports the Joint Command and Control community of interest by providing functional applications and technical assistance for integrated joint objective and effects-based targeting, target development, target list management, target folder preparation, target imagery management and battle damage assessment. Tracking and prosecuting of time-sensitive targets in a dynamic fashion is also supported.

The NATO Joint Targeting System (JTS) is the toolset used for the service. Main elements of the JTS tool-suite are described below.

JTS/FAST Toolset: The NATO Joint Targeting System (JTS) provides a network-enabled capability for integrated joint objective and effects-based targeting, target development, target list management, target folder preparation, target imagery management and battle damage assessment.

JTS is in compliance with the ACE Directive 80-70 “Campaign Synchronization and Joint Targeting” and covers the full NATO Joint Targeting Cycle. Furthermore, JTS includes a module for Dynamic or Time-Sensitive Targeting (TST): the Flexible, Advanced C2 Services for NATO Time-Sensitive Targeting, or FAST. This module is designed as a coordination tool to aid in the tracking and prosecuting of time-sensitive targets. It enables collaboration, and efficient and timely exchange of critical information between staff participating in the TST process.

JTS is used throughout all command levels in NATO, both static and deployed, as well as nationally by various nations.

JTS/FAST supports:
- Deliberate and Dynamic Targeting;
- Kinetic and Non-Kinetic Targeting;
- ATO planning cycle;
- Effects-Based Targeting (JFX);
- Time-Sensitive Targeting (TST);
- High Value Individual (HVI);
- Target Development;
- Target Folder Preparation;
- Objective Management;
- Target List Management;
- Target Nomination Process;
- Target Media Management;
- Weaponeering Solutions;
- Battle Damage Assessment (BDA);
- Campaign Synchronization.

JTS was developed by the NCI Agency as an interim capability addressing NATO’s joint targeting needs. The development of JTS was initiated about a decade ago and resulted in a number of versions and updates. The current version of JTS is version 3.1 which was release in April 2012.
During its lifetime, JTS has evolved in response to changes in requirements, in technology, in hardware, and in other parts of its operating environment. JTS is still maintained by the NCI Agency and version 4.0 is under development.

Eventually the capabilities provided by JTS will be industrialised through a NSIP project. The Joint Targeting Services are included within Capability Package (CP) 9C0107. This effort was initiated in 2013 with an anticipated delivery schedule of 2019.

The expected trend is an increase of use as more user sites will utilize JTS/FAST as NATO targeting tools due to NRF rotation and that JTS/FAST will be used to build up the Joint and Time Sensitive Targeting Capability for ACCS LOC 1.

### JTS 3.1 Modules and Capabilities

| JTS | JTS is equipped with functionality to assist the user in objective and effects-based targeting, campaign synchronisation, target development, target list management, target folder preparation, target imagery management and battle damage assessment. |
| FAST | The FAST module has been implemented to support access to critical data and the exchange of information between personnel participating in the Time-Sensitive Targeting (TST) process as a coordination and collaboration tool, designed to aid in the tracking and prosecuting of TSTs. |
| JTS Web | Provides web-enabled capabilities for JTS to display target and target list information on web browsers. |

2. **Value Added**

   JTS is NATO’s System of Records for Joint Targeting (AJP-3.9 / AD 80-70).

   JTS is used in multi-national NATO operations (ISAF, OUP).

3. **Locations**

   JTS is used throughout the NATO command structure, in both static and deployed HQs, as well as by various nations.

4. **Dependencies**

   Not Applicable.

5. **Available Networks**

   The latest version of JTS 3.1 is on the AFPLs for on both MS and NS networks.

   The JTS software is NU. There are a number of NR configuration and help files that are delivered separately, but the software runs fine without these files. The classification of an operationally used JTS system is depending on the data stored in JTS database.

6. **Support Availability**

   The NCI Agency OPS Centre is manning a Customer Service Desk (CSD). They also host a support website on the NU and NS. The CSD is the primary point of contact for JTS support.

   Technical Bulletins are published with technical information. This can range from publishing known bugs with workaround, to recommended hardware and software requirements, to installation instructions for Service Updates. Since JTS is developed and maintained by the NCI Agency, all expertise is available in one organization.

7. **Prerequisites**

   - Windows Desktop;
   - Windows Server 2003 or 2008;
   - Luciad GIS Component;
• ORACLE 10.2 RDBMD;
• Hardware: Modern Microsoft Windows Compatible Server or Sun SPARC or x86 Server;
• Web Server: Apache Tomcat.

8. **Additional Information**

Not Applicable.
1. Service Description
The Land C2 Information Service supports the Land Community of Interest by providing functional applications to operational staffs to support the planning, execution and the assessment of land-based operations.

The Land C2 Information Service aims to:

- Enable and improve the effective Command & Control of NATO Land Forces;
- Support NATO commanders in their decision making process;
- Improve information exchange: horizontally within the Land Headquarters and with other components. Vertically through the chain of command.

Land C2 Information Service provides interfaces with other NATO and national functional services enabling the sharing and exchange of mission critical information to build the Recognized Ground Picture and enrich the Common Operational Picture.

The Land C2 Information System (LC2IS) is the main toolset used for the Land C2 Information Service. The main elements of the LC2IS are described below.

1.1. The Land C2 Information System (LC2IS)
The current version of LC2IS is Increment 1.1 (INC-1.1). It includes also the capabilities of Increment 1.0, developed and released in 2009.

- LC2IS provides a suite of Functional Services to support operational land staff in the execution of their operational missions, processes and tasks.
- LC2IS can share information and interoperate with other NATO Functional services and National Land Command and Control systems. For this purpose, it supports a wide set of NATO interoperability standards such as NVG, ADatP-3 and MIP.
- LC2IS can operate in security domains up to NATO Secret.
- LC2IS is intended to be implemented and available in different fixed and deployed NATO Headquarters and therefore supports collaborative work and distribution of information between multiple distributed sites.

Fully integrated in the Bi-SC AIS Infrastructure, LC2IS INC-1.1 consists of three main components:

- The Web Portal
- The rich View and Overlay Editor (Desktop Application, DA)
- The web View and Overlay Editor (Web Application, WA)

1.1.1 Web Portal
The Web Portal is based on Microsoft Office SharePoint and provides a centralized access to all LC2IS data and applications. The same SharePoint platform can be shared with other NATO tools such as the NATO COP (NCOP) and the Document Handling System (DHS).

1.1.2 Desktop Application (DA)
The Desktop Application is a View and Overlay Editor installed on the workstation and providing a large palette of functionalities.
1.1.3 **Web Application (WA)**

The Web Application is very simple to use View and Overlay Editor that can be used through a web browser from any connected workstation.

1.2. **List of Functionality**

- “Single sign-on” and “role-based” access to data and application through a SharePoint Portal
- Administration of the HQ, Users, Data and Applications
- Administration and Configuration of the LC2IS HQ (roles, users, rights)
- Organization and management of workspaces
- Administration of C2 Information Products (C2IP) (document and associated metadata)
- Battle Space Object (BSO) Management: capability to enrich/specialize the operational data model
- MIP and NFFI gateway management
- (OGC) WMS configuration
- Multi-sites deployments
- Inter-sites synchronisation through the notion of contracts
- Visualisation and Edition of Tactical Overlays
- Desktop Application (Rich View and Overlay Editor)
- Web Application (Web View and Overlay Editor)
- Use of WMS services and/or LC2IS local maps
- Map Workshop (for LC2IS local maps management only)
- Workspaces management
- Edition of multimedia documents (Word, Excel, etc.)
- MS Office suite
- Collaborative redaction of documents (like FRAGO) and workflow
- Support for data exchange with other FASs, systems and data sources
- Production / exchanges of text messages (APP11, OTH-T Gold)
- Production / exchanges of AdatP3 messages
- Import of TOPFAS planning document (COA, CONOPS, SOR and OPLAN)
- MIP Block 2 exchanges
- Excel Import / Export
- NVG (1.4 and 1.5) Import / Export
- XML Import / Export
- Exchanges with NVG and JIPS services with filtering and mapping capabilities
- Exchanges with INT-CORE services through canonical forms (LAND, SIGACTS, JC3IEDM Units)
- Interface with (iGeoSIT) Data Broker for the data import from generic data providers
- Mission Applications embedded in the Desktop Application
- ORBAT management (friendly, neutral or enemy)
- Air / Aviation de-confliction and coordination measure representation
- Targeting (NSTL, RSTL and PTL management)
- Management of Civil-Military Operations plans and Geo-statistical indicators
- Minefields activation time
- Engineering Report and Road Status
- Simplify or Advanced balance of Forces
- Group of nationality management
- State boards management
- Calculation of Personnel and equipment combat effectiveness
- Conflict detection
- Logistic services (logistic, Medical, Maintenance, Personnel and Stocks)
- Export the logistic conduct
- Movement planning (Formations, plan a movement and planning calculation)
- NBC/CBRN Services (Weather condition calculation, NBC cloud arrival time)
- Manage the friendly forces to warm of a NBC warning or strike
- Intelligence plans, NAIs table and event table (CMAP and alert matrix)
- Export of the Signals events
- Comparison and Extrapolation tools

1.3. Interoperability
LC2IS INC-1.1 provides a set of Interoperability & Information Exchange mechanisms with external systems such as ADatP-3 Baseline 11 and 12 (Formatted messages), Multilateral Interoperability Programme (MIP) Block 2 (Data replication via the Data Exchange Model) and NATO Friendly Force Information (NFFI v 1.3 message data with Interface Profile IP1) for receiving track data from NATO and National Force Tracking Systems.

1.4. System Architecture
LC2IS INC-1.1 supports Service Oriented architectures, interfaces and technologies like: emerging Web-Service Interfaces-WSI and XML schemas, NATO Vector Graphics (NVG 1.4 and 1.5) and Publish-Subscribe interactions. These interfaces enable other components to access LC2IS data and services as well as LC2IS accessing services provided by other NATO and National C2IS components.

LC2IS Client-Server deployment architecture is based on a set of dedicated servers that can be deployed either in a virtualized or physical hosting environment.

The deployment architecture is flexible. The system can be either deployed on a “Single server” architecture with 4 dedicated servers, or on a “Full Server” architecture with 6 dedicated servers. Taking into account performance, availability and maintainability requirements, these servers can also be shared with other components. The LC2IS INC-1.1 servers are the following:

- One or two MOSS Web Front End Servers, depending on performance requirements.
- One or two SQL Server, depending on performance requirements.
- One LC2IS NFFI Server
- One LC2IS MIP Server
- Planned Functionality

The scope for LC2IS INC-2 - as described in Capability Package 107 - includes: an upgrade of LC2IS INC-1.1 based on the change and enhancement proposals captured from users of INC-1.1, the support to deep operations and targeting guidance processes, the capabilities for effects based operations, the support to military general engineering, to include mobility, support, counter mobility support and survivability support. LC2IS INC-2 will also extend the interoperability support including updated and additional interfaces, including the support for MIP Block 3.1.

The scope for LC2IS INC-3 - as described in Capability Package 107 - includes: an upgrade of INC-2 capabilities added for effects based operations, the support to military general engineering, including mobility support, counter mobility support and survivability support.

The scope of INC-2 has been defined more precisely in the ACT Project Baseline Document (PBD). Requirements are currently being specified in preparation for the acquisition process.

2. Value Added
LC2IS supports the two NATO top level processes “Maintain Situational Awareness” and “Execute and Manage Operations” and interface with the “Conduct Operational Planning” process supported by the C2 Planning Service. Thus, LC2IS contributes to shorten the Information Decision Action (IDA) cycles inherent to Command & Control mission execution.

LC2IS can support - from a Land perspective - all types of joint operations, in particular:
• Training and exercises during peace time or pre-deployment activities;
• Disaster relief operations;
• Crisis Response Operations (CRO);
• Article 5 operations.

Benefits that the operational community can achieve by using LC2IS include the following:

• More effective, efficient and accurate management of the Recognized Ground Picture (RGP) with contributions by different Commands.
• Improved sharing of data, information and knowledge within the Land Community-of-Interest.
• Improved support for operations planning and FRAGO production.
• Enhancement of the NATO Situation Awareness (by feeding the NCOP with the RGP).
• Time saving through automated import of RGP contributions, automated briefing and message import and generation.

3. Locations
LC2IS INC-1.1 is available by beginning of 2015 in each HQ of the NATO Command Structure, including support, training and exercise support sites (NCI Agency/NCISS, JFTC, and JWC).

Remote access to an LC2IS Site Installation is provided via the network to Commands who do not require a full local capability (such as AIRCOM and MARCOM).

4. Dependencies
Not Applicable.

5. Available Networks
LC2IS service is available operationally on the NS domain and in selected MS domains networks. Unclassified disconnected installations are also available at training and support sites.

6. Support Availability
LC2IS first level support is provided by NCI Agency CSU’s and Exercise Support teams. Second and third level support is provided centrally by NCI Agency Mons. For third and fourth-level support NCI Agency relies on the industry (LC2IS development Contractor, Thales Communications and Security, France) LC2IS support is provided according to a corporate SLA.

7. Prerequisites
LC2IS requires a Microsoft Active Directory service and the following main Commercial off the Shelf Software products installed on the target platform:

• Microsoft SQL Server 2008 Standard Edition SP3 (x64) (servers).
• Microsoft Office SharePoint Server 2007 Standard Edition – SP3 (x64) (servers).
• Microsoft Windows Seven SP1 Enterprise (x64) (workstations).
• WinZip 12 Standard Edition and WinZip Command Line Support Add-on 2.3.
• RepliWeb Directory Synchronization 3.0.

LC2IS can be configured as a standalone capability. However, in the normal configuration as Functional Service of the Bi-SC AIS – it requires a Mapping Service (such as Core-GIS or iGeoSIT). LC2IS can also coexist on the same software platform with other Bi-SC AIS tools such as DHS and JOCUWatch.

8. Additional Information
The LC2IS INC-1.1 is implemented in Q3-2014 in a subset of the NATO Command Structure, with a full coverage planned to be achieved by Q1-2015.
LC2IS INC-1.1 is a candidate service to support Graduated Forces Land HQ’s. The LC2IS INC-2 requirements are being defined. The procurement process is expected to start by end of 2014 and is envisaged to be completed (FOC) in 2018.
SCOI21 - Computer Assisted Exercise (CAX)

Organizational Element: Education & Training
Standard Service (Budget) or Service Group: Other Service
Service Area: Other Services
Service Group: Other Services
Service Type: Other Services

1. Service Description
The Simulation Exercise service provides end to end simulation services. Included in this are:

- Simulation Design – Full simulation design service;
- Simulation Production – Including single-site and multi-site production;
- Simulation Conversion Services;
- Populate and maintain simulation databases.

Simulation Design – to include:
- Highly aggregated constructive simulation, (e.g. Joint Theatre Level Simulation);
- High fidelity entity level simulation (3D visualisation tool), (e.g. Virtual Battlespace 2);
- Aggregated constructive tactical conflict simulation, (e.g. JCATS).

Simulation Production – to include:
- Force Generation;
- Geo Data;
- Scenario.

Simulation Conversion Services – to include:
- Providing the ability to convert scenarios to different formats to allow interoperability between different systems/units.

Populate and maintain simulation databases – to include:
- Force Generation;
- Geo Data;
- Scenario.

C2 Stimulation:
- Provide input into the C2 systems to generate real time exercise simulated environment and white noise.

Local on-site support:
- 2 x dedicated CAX support posts.

External support:
- Exercise and Training Service Line provide additional on-site support when required.
- Roland’s and Associates Developer and Debugger services purchased by the local agency if required during the exercise execution stage.

2. Value Added
Provides real time C2 Stimulated data for realistic training provisions.

3. Locations
NCI Agency CSU Stavanger only.
4. Dependencies
Depending on scenario and exercise required, to include but not limited to:

- Networks
- Personnel

5. Available Networks
- Mission Networks
- Exercise Networks
- Exercise Development Networks
- NATO Secret
- NATO Unclassified
- PI LAN

6. Support Availability
- Daily Support – in accordance with normal working hours (e.g. support of database build, geo data scenario and validation).
- Exercise Support – in accordance with the relevant exercise support plan (e.g. Trident Exercise and associated planning phases).

7. Prerequisites
Timely provision of the following:

- Upgrade to existing simulations;
- Databases;
- Scenario and geo data;
- Training audience requirements;
- Exercise support duration.

8. Additional Information
Not Applicable.
### SCO122 - Maritime C2 Information Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Command &amp; Control (C2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Maritime C2 Information Service</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Other Services - Maritime C2 Information Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Maritime COI Applications</td>
</tr>
</tbody>
</table>

#### 1. Service Description

The Maritime C2 Information Service supports the Maritime Commander and his/her staff to automatically acquire and maintain large quantities of information for display and analysis. It helps the Maritime Community of Interest to electronically process multiple source data, display the information in various Command, Control and Intelligence (C2I) applications, and provide users with the ability to manipulate the data to assist both strategic and tactical commanders (and their staffs) in decision making processes. It also allows the visualization of this information in a high resolution map covering large areas without losing detail.

The Maritime Command and Control Information System (MCCIS) is used to provide this service. Main elements of the MCCIS is described below.

In addition, a network-enabled Maritime Situational Awareness (MSA) demonstrator capability is provided to support of maritime and joint operations.

Improvements to the Maritime C2 Information Service is underway though NATO acquisition.

#### 1.1. Maritime Command and Control Information System (MCCIS)

The MCCIS is a Military Maritime Command and Control System that has been developed and maintained for members of the North Atlantic Treaty Organization (NATO). The NATO C2 System, Maritime Command and Control Information System (MCCIS) is designed to provide military users with naval operational data in a multi-national environment through Over the Horizon Targeting (OTH-T)-GOLD and Allied Data Publication No 3 (ADatP-3) messages. The MCCIS system provides capabilities to acquire and manage C2 situational awareness data.

The system provides network services (e-mail, chat, net meeting), Web Information Service Environment capabilities (WISE), access to databases, using operational applications, and easy web page development. MCCIS supports planning and controlling naval operations, and provides the Recognized Maritime Picture (RMP). MCCIS provides maritime operations data such as naval mission planning, naval mission reporting, situational awareness, resource management and intelligence. MCCIS allows naval commanders and staffs to automatically receive, analyse, display, and manipulate data, while supporting more accurate, timely decisions. The system is built around hardware and a software environment based on industry standards and widely accepted components.

Today, the MCCIS product and community contribute a high quality Recognized Maritime Picture (RMP), Recognized Air Picture (RAP) and Recognized Grand Picture (RGP) to NATO’s situational awareness and Common Operational Picture.

#### 1.2. MSA Toolset (MSAT): Baseline for Rapid Iterative Transformational Experimentation (BRITE)

The current MSA Toolset is based on the Baseline for Rapid Iterative Transformational Experimentation (BRITE) software version 2.1.1.

- BRITE provides a diverse web based set of integrated command and control services that are fully compatible with NNEC tenets.
- BRITE is capable of ingesting information from National, Industrial and open sources to compile a Recognised Maritime Picture (RMP) for “White” Shipping.
One of the key strengths of the MSA Toolset is the automatic anomaly detection provided by various smart agents.

The smart agents significantly help operators in processing large amounts of information in a short period of time.

BRITE is extensible and allows additional functionality and services to be added to the core installation.

1.3. MSA Training and Support: Description of Expertise available for support

No formal training support is provided for the MSA Toolset.

1st Level Support expertise is provided by the CSUs and includes system administration, networking support and specific diagnostic capability.

2nd Level support is provided by the NCI Agency and includes general diagnostics, ongoing development and software maintenance. Specific expertise in the various BRITE technologies is available for this.

2. Value Added

The primary value of the Maritime C2 Information Service is to allow NATO and National customers to visualize, transmit and share Maritime C2 related information. This enables the production of the NATO Recognised Maritime Picture (RMP). This picture is created from data received from multiple NATO and National level sources and is transmitted to throughout the NATO to various commands and Customer Support Units (CSUs).

MCCIS 6.1, released by the NCI Agency in January 2013 provides the following capabilities:

- Acquire, maintain and distribute large quantities of information.
- Analyse and evaluate that data to support decision-making in a peacetime, crisis, or exercise scenario situation.
- Geographic mapping and image display.
- Water Space Management (WSM): A system for managing water and air use by submarine, surface, and air units. It is a planning and management tool that is used to allocate, assign, use, and monitor multiple allied assets in a confined water space at sea.
- Common Operating Picture (COP) display.
- Geographical displays for maintaining track data and creating/managing places, areas, and routes.
- Graphic subsystem to support geographical and graphical displays.
- Integrated message processing capability.
- Decision Aids and planning tools.
- Link 16 / MTC (Multi-TADIL Capability, Provided by the Link16 / MTC segment’s capability to run multiple Link 16 at MCCIS.
- Link 11 TADIL-A/B (Tactical Digital Information Link) segment’s to run Link 11 at MCCIS.
- External communications interfaces.
- Tactical communications.
- A security subsystem designed for current security policies while allowing connectivity with required external interfaces.
- A powerful web browser interface that can be accessed by any computer in the NATO Secret Wide Area Network.
- NATO formatted message support.
- NATO databases 29 Jane’s books, Lloyd’s Register Fair play, World Port Index, Digital Aeronautical Fighting Information File, and The World Fact book (CIA) and more.
- Internal electronic mail system.
- Image manipulation and briefing support.
MCCIS 6.1 introduced many new capabilities and improvements on performance and stability over previous versions. The WSM (Water Space Management) engine was greatly enhanced to provide Submarine movements and Allied vessel avoidance systems through the CGRS (Common Grid Reference System). MCCIS 6.1 also integrated the IHS Fair play Seaweb database, included a distribution of JCHAT and was also the first version to support 2 separate hardware architectures, the HP PA-RISC servers and the HP Integrity servers.

3. Locations
The primary location for MCCIS in NATO is in MARCOM, Northwood, UK. MARCOM is home to the NATO Maritime Operational Command, from where the Recognized Maritime Picture (RMP) is produced.

- The NATO Command Structure uses MCCIS to provide various recognized pictures, such as the RMP (Recognized Maritime Picture), COP (Common Operational Picture), RAP (Recognized Air Picture) and RGP (Recognized Grand Picture).
- **Operation Unified Protector** (31 Mar 2011 – 31 Oct 2011) to protect civilians and civilian-populated areas under threat of attack in Libya.
- Operations Ocean Shield - Counter Piracy off the Horn of Africa. Since August 2009, NATO warships and aircraft have been patrolling the waters off the Horn of Africa.
- **NATO SNMG 1-2** Standing NATO Maritime Group One and Two, command ships and participation warships.
- **SNNCMG1-2** Standing NATO Mine Countermeasures Group One and Two, command ships and participation warships.
- **MARCOM - COMSUB** - Water space Management Control of Submarine movements and interference checking.
- **NCISS Latina** - Operators, specialists and System Administration Courses.
- **Nations** - Maritime C2 Information Exchange – Sharing data with 22 nations.
- MCCIS is used as the primary Maritime C2 system for 13 nations.
- MCCIS is used on board various NATO and National warships (Aircraft Carriers, Cruisers, Destroyers, Frigates, Corvettes, Mine Counter Measure, Intelligence Collectors, and Submarines).

4. Dependencies
Not Applicable.

5. Available Networks
MCCIS is approved for operational usage on the NS Network as well as National networks which have an equivalent level of security classification.

6. Support Availability
First level support for MCCIS is provided by local CSUs. Second and some third level support services are provided by the Maritime Office in NCI Agency, Mons. These services are available during office hours.

Local Systems Administrators at each CSU can be trained in MCCIS operations via attendance at one or more of the 7 official MCCIS training courses provided by NCISS Latina.

7. Prerequisites
MCCIS can be hosted on several models of High-end HP workstations that can operate as stand-alone client/server architecture or act as hosts for PC X-terminals.

The PC X-terminals that are referred to as Mid-level workstations are typically top-of-the-line PCs that access the MCCIS through X-terminal software applications, such as Exceed. To the operator, the
difference is transparent. He/she is, in effect, conducting a virtual session on the high-end workstation from within the PC environment.

In order to use MCCIS effectively, either as an operator, or as an administrator, it is strongly encouraged to undertake the appropriate MCCIS training courses at NCISS Latina.

8. Additional Information
MCCIS relies on data provided by Nations via the NATO RMP. MCCIS can then display the received data or distribute it to other NATO or National systems via data sharing capabilities.

MCCIS is also installed in estimated 500 static and dynamic sites across NATO and National locations.
SCOI23 - Environmental Information Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Command &amp; Control (C2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mapping to 2015 SSL (Standard Service List):</td>
<td>Environmental FS</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Environmental Information Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Environmental COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description
The Environmental Information Service supports the meteorological and oceanographic communities of interest by providing functional applications to collect, view, analyse and share weather information.

The Recognized Environment Picture is essential to minimize fratricide and collateral damage in ongoing operations, enable NATO to operationally exploit the environment for the best operational advantage while reducing NATO and Non NATO Troop Contributing Nations’ risk to personnel and manpower due to weather-related events throughout NATO’s current exercises and operations. It is also a requirement for maintaining air operations in theatre.

The Tools of NAMIS are Data Transfer Layer (DTL), Data Distribution Tool (DDT), Visualization Tool (VT) and Application Layer (AL). They are actively being used for the service. Definitions and functions of these Tools are described below.

Improvement of the Environmental Service is underway through NATO acquisition.

1.1. NAMIS
NAMIS provides the only first-in and sustained NATO Meteorological and Oceanographic (METOC) data source for the NATO Command and Force Structure. NAMIS is used to provide direct weather support to NATO-led operations by providing coherent, comprehensive, and harmonized weather information and products throughout ACO activities. NAMIS provides first-in as well as sustained METOC capability to NATO deployed combined operations. NAMIS is used as the primary source of METOC data in ISAF, KFOR, EUFOR and all exercises. The Tools of NAMIS are described below.

1.2. NAMIS – Data Transfer Layer (DTL)
Data Transfer Layer is a physical file transfer environment of the NAMIS. Layer is running on DMZ, NU, PAN and NS domains. Data diode between NU-PAN and NS regulates data traffic to NS site. With mutual concurrence of National authorities and ACO, a VPN is established to maintain Data Transfer. DTL provides bidirectional data transfer between BGIC (German National MetOc Agency) and Nations. The only exception is NS connectivity. Because, by definition, data flow from NU - PAN to NS is one directional via data diodes.

1.3. NAMIS – Data Distribution Tool (DDT)
NAMIS uses a Data Distribution Tool named as Moving Weather (MW). It is a COTS product and vendor is IBL. MW runs as a message distribution system. BGIC is primary MetOc Information provider for NATO. BGIC collects and concatenates MetOc information from National sources. BGIC also maintains/operates DMZ server as the primary MetOC Data provider instance on NU domain. On the NU – PAN network backbone there is a mutual MetOC information flow among BGIC and client Nations. Nations are responsible to provide their national MetOc observations and predictions to BGIC and on opposite direction BGIC provides validated, concatenated MetOC data to Nations via ACO. MW is the tool maintaining subject data traffic among BGIC – SHAPE and Nations.

1.4. NAMIS – Visualization Tool (VT)
NAMIS has a Visualization Tool named as Visual Weather (VW). It is a COTS product. Vendors are UK Met Office and IBL. VW is used as a visualization environment of raw MetOc data. There are 20 licenses.
under control of the SHAPE MetOc Section. VW provides propagation of tabular, raw MetOc data on a visual screen and visual analysis opportunities to clients.

1.5. NAMIS – Application Layer (AL)
NAMIS has 2 various application software layers. They are NAMIS Basic and NAMIS Primary applications. These are client applications for MetOC SMEs. Features and capabilities of NAMIS Primary license are more than the NAMIS Basic. MetOC SMEs can perform analysis and can produce value added MetOC products via these licenses. Those are COTS products of UK Met Office. SHAPE MetOc Section controls 20 various type of application licenses.

2. Value Added
Environmental Information Service can provide benefits to the NATO Command Structure (NCS) and NATO Force Structure (NFS) for NATO-led operations and for exercises by providing coherent, comprehensive, and harmonized weather information and products. Some of the specific benefits are:

- Consistency through standard MetOc messages.
- Rough validation and combination of various National MetOc raw data.
- Standardization and central control of NATO MetOc data.
- Raw and value added MetOc information sharing among NCS clients.
- Data integrity through a single repository of MetOc data.
- Data traffic control and management through cluster servers and data diodes on variously classified domains.
- Enhanced visual analysis and operation/exercise support via sustained MetOc data compared with National MetOc systems.
- Improved Information sharing with the broader Community-of-Interest compared with National MetOc systems.

3. Locations
The end-user facing elements of the service are available at the user sites. These sites are located in SHAPE, JFC Brunssum, JFC Naples, HQ AIRCOM (Ramstein), HQ MARCOM (Northwood), HQ LANDCOM (Izmir), CAOC Uedem, DACCC Poggio Renatico, CAOC Torrejon, HQ IJC and HQ KAF-Afghanistan, HQ KFOR(Pristine), NRF HQs, BGIC-Germany, HQ EUROCORPS (Strasbourg).

4. Dependencies
Not Applicable.

5. Available Networks
In NATO, the service is available on the DMZ, NU – PAN and NS domains. Nations are connected to service via DMZ, some clients are connected via NU – PAN and some other clients are connected via NS domains.

6. Support Availability
Normal business hours of NCI Agency Mons.

7. Prerequisites
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) is required.

The service can be provided as standalone solution but also as part of Bi-SC AIS to make use available core and enabling services such as Core-GIS, and Symbology Server.

Effective use of Environmental Information Service is also dependent on appropriate training and mentoring which are provided as SHAPE MetOc section.

8. Additional Information
The Environmental Information Service is currently provided to NATO Command Structure, NATO Force Structure and a number of National Commands.
O&M funds are provided through the NCCB.
Licenses are required for the data distribution (3 instances) and the visualization layer of the system (up to 20 licenses).
SCOI24 - Intel Applications Support Service

**Organizational Element:** Joint Intelligence Surveillance and Reconnaisance (JISR)

| Standard Service (Budget) or Service Group: | Information Management Services |
| Service Area:                              | C3 and Enterprise Services       |
| Service Group:                             | Intelligence Applications Services |

**Service Type:**

**Service Description**

Engineering and technical services provided to deliver coherent O&M support to NATO Intel Applications. The service allows operational user communities to request timely expert support in order to maintain and sustain NATO Intel applications and to capture user feedback and recommendations for system improvements.

**1.1. NATO Intel Toolbox (NITB)**

NITB is an integrated software capability which provides a collection of intelligence tools in a single application allowing the customer to stay in the same environment while working with different types of information. The NITB data can be easily searched based on numerous criteria and the results can be overlaid on a map or previewed in the browser. NITB is a primary workspace for NATO Intelligence staff and it mainly provides a consolidation of several information repositories and workflow tools. The plug-in architecture allows for rapid prototyping and development of new modules.

Currently NITB includes:

- Intelligence Requirements Management (IRM former RFIMS);
- All Sources Analysis (ASAS);
- Locally Employed Personnel (LEP);
- Image Product Library (IMART).

**Capabilities:**

- Management of information repositories for generic, multipurpose intelligence analytic products and their associated metadata, image product library, etc.;
- The Requests for Information (RFI) and Requests for Collection (RFC) management;
- Management of the local persons for hire in theatre (including black/white lists control);
- Comprehensive search functions (including Google-like search);
- Information exchange to the Nations via the Battlefield Information Collection and Exploitation Systems (BICES) and other functional area services;
- Configurable RSS feeds and e-mail alerts.

**Sub Services:**

- Assistance to NITB implementation, integration and customization;
- Operations and maintenance (HW and SW upgrade, release and change management, system administration, monitoring, etc.);
- Training sessions for NITB users and administrators either at NCI Agency or on-site;
- Support of NITB users during the preparation and conduct of operations, exercises and experiments;
- Joint Ops/Intel Information System (JOIIS).

**1.2. JOIIS**

JOIIS is a NATO-wide situation awareness tool which supports management and analysis of the Battle Space Objects (BSOs) relevant to the local commanders.
Capabilities:

- Management and analysis of the BSOs with comprehensive search functions (including on map search) indicating position of each unit, place, target, event, individual or organization;
- Visualisation of the BSOs and the search results on a map background (iGeoSIT, CoreGIS or other using WMS standard) with standard military symbols (APP6-B and 2525C);
- Briefings and reports generation (i.e. AirIntRep);
- Counter Improvised Explosive Devices (C-IED) information management;
- The Surface-to-Air Missiles (SAMs) range-rings displayed on a map background;
- Tracking of selected unit or person.

Sub-services:

- Assistance to JOIIS implementation, integration and customization;
- Operations and maintenance (HW and SW upgrade, release and change management, system administration, monitoring, etc.);
- Training sessions for JOIIS users and administrators either at NCI Agency or on-site;
- JOIIS support during the preparation and conduct of operations, exercises and experiments.

1.3. Analyst Notebook (ANB)

ANB offers a visual analysis environment designed to help analysts to turn large sets of disparate information into high-quality, actionable intelligence and to help identify, predict and prevent criminal, terrorist and fraudulent activities.

A flexible data acquisition approach allows analysts to more quickly collate both structured and unstructured information to help build a single, cohesive intelligence picture. The flexible data model and visualization environment coupled with a wide range of visual analysis tools help users build multiple views for detailed network, temporal, statistical, or geospatial analysis and reduce the time taken to identify key connections, networks, patterns and trends that may exist. The results gained from this detailed analysis can be shared via intuitive and visual briefing charts or visualizations that can be included in end intelligence products.

Capabilities:

- Acquire data from disparate sources in order to piece together a coordinated picture that allows for an effective, more accurate analysis of available information.
- Establish key “who, what, where, when and why” information by analysing and visualizing data in multiple ways including association, temporal, geospatial, statistical and spreadsheet views.
- Identify connections, patterns, trends and key intelligence within a wide range of data types that might otherwise be missed.
- Discover duplicate information within data by leveraging intelligent semantic smart matching capabilities.
- Increase understanding of key individuals or groups within criminal and terrorist networks and the roles they may play, helping to guide future operational planning and resource allocation.
- Create clear and concise briefing charts to simplify complex data in support of more timely and accurate operational decision making.

Sub Services:

- Assistance to ANB implementation and integration.
- Operations and maintenance (HW and SW upgrade, release and change management).
- Training sessions for ANB users and administrators either at NCI Agency or on-site.
- Support of ANB users during the preparation and conduct of operations, exercises and experiments.
1.4. INTEL Functional Services (INTEL FS)

INTEL FS is a component of the Bi-Strategic Command Automated Info System (Bi-SC AIS) and defined through the CP OA0110. It aims to consolidating and integrating existing operational capabilities and industrialize mature requirements.

Capabilities:
- Support the management of the intelligence processes.
- Provide search and analytical capabilities.
- Support the generation and the management of Intelligence Information.
- Provide specialized functionalities in support of specific domains (imagery, signals intelligence, and counter-intelligence).
- Provide intelligence collaboration and synchronisation mechanisms.
- Support interoperability with external systems.
- Manage Users and Permissions.

Sub Services:
- Assistance to INTEL FS implementation and integration.
- Operations and maintenance (HW and SW upgrade, release and change management).
- Training sessions for INTEL FS users and administrators either at NCI Agency or on-site.
- Support of INTEL FS users during the preparation and conduct of operations, exercises and experiments.

2. Value Added

Synchronised, coordinated and efficient O&M services from the expert and highly experienced NATO team responsible for the original design, development and integration of all NATO Intel tools. Standardization, productivity, quality and distributed collaboration. Some of the specific benefits are:
- Consistency through standardized O&M processes and practices;
- Quality control through robust audit, regular monitoring and configuration management processes;
- Enhanced synergy and coherence through an integrated environment of Intel systems support;
- Deep understanding and appreciation of Intel User Requirements;
- In-depth technical and operational knowledge of NATO Intel Tools and capabilities.

3. Locations
- Mons (Belgium)
- The Hague (Netherlands)

4. Dependencies
Not Applicable.

5. Available Networks
- NU
- NS
- Mission Secret (MS)

6. Support Availability
- Internet, NU and NS: business hours of the NCI Agency and/or on-call
- ISAF: 24/7

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
1. **Service Description**
   Develop and maintain the NCI Agency JISR segment and solution architectures, including:
   - Develop and maintain the components of the NATO JISR Architecture for which the NCI Agency is the responsible architect authority.
   - Provide support to the development and maintenance of the components of the NATO JISR Architecture for which external organizations are the responsible architect authorities.
   - Produce architecture artefacts as required to support subsequent activities including requirement specification and elaboration into solution and implementation architectures and to enable interoperability.

   **Expertise available for support:**
   - NATO Architecture Framework;
   - TOGAF;
   - UML, SOAML, BPMN and other modelling languages and notations;
   - Experience in the development of enterprise and solution architectures;
   - JISR COI expertise.

2. **Value Added**
   - Provide the customer with a common language for describing the JISR business domain and for articulating requirements.
   - Improve maturity, stability, consistency and disambiguation in the collective understanding of the JISR COI.
   - Improve interoperability between the JISR COI and other NATO and Nations COIs.
   - Consistent definitions of concepts that are projected through strategic, solution and implementation architectures.
   - Domain/ Model Driven Architecture development approach using service definition languages provided by standardization Organizations.

3. **Locations**
   The Hague, the Netherlands

4. **Dependencies**
   Availability of expertise required for JISR Architecture Development

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   On-call.

7. **Prerequisites**
   - Access to enterprise architecture development tools and support
   - Availability of human resources and expertise

8. **Additional Information**
   Not Applicable.
SCOI26 - Open Source Intelligence Support Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Joint Intelligence Surveillance and Reconnaissance (JISR)</th>
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<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Intelligence Applications Services</td>
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<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
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<tr>
<td>Service Group:</td>
<td>Open Source Intelligence Support Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Geospatial Applications, JISR COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description
The Open Source Intelligence (OSINT) Support service offers subject matter expertise support for the OSINT application which enables users to discover, search for and retrieve information from open sources, analyse and compile this information into Intelligence in order to support the Operational Task "Provide Operational Intelligence, Surveillance, and Reconnaissance".

Alliance Open Source System (AOSS)
The AOSS service provides end-to-end OSINT services. Included in this area:

Capabilities:
- Watcher Service – Providing notification of OSINT events (also on mobile devices);
- Email Subscription – COI related content dispatching;
- Blog generation – Automatic population of COI Blogs;
- Geocoding – Generation of layers according to interest to be used in GIS systems

Sub-services:
- Assistance to AOSS implementation, integration and customization;
- Operations and maintenance (HW and SW upgrade, release and change management, system administration, monitoring, etc.);
- Training sessions for AOSS users and administrators either at NCI Agency or on-site;
- AOSS support during the preparation and conduct of operations, exercises and experiments.

This service provides full or partial training support in the information gathering process and design and production of tailor made reports, including but not limited to:

- On Site Production;
- On Site Training;
- Provide already enriched content treated by our system;
- Provide personnel for setting up the crawlers;
- Provide personnel for setting up the taxonomies and the content enrichment (metadata);
- Provide personnel for other related tasks.

2. Value Added
With an estimated 80% of required information available for use in an open source for specific information vital for a deep analysis in newspapers, magazines, industry newsletters, television transcripts, and blogs. By using OSINT services, the Intel Analysts are able to get pertinent and essential information in the most effective way.

OSINT is unclassified and available, but link-crawling search engines like Google do not always access it. By researching various sources online, the OSINT service provides more information about what a company, individual, group, or country is up to, but it’s not always easily found. The use of OSINT has grown within the private sector as well as being a mainstay of the military and the intelligence services for years.
• **Uncovering:** Knowing who knows about the data and knowing where to look and we get the appropriate data are the key process which leverages distributed centres of expertise and archival knowledge.

• **Discrimination:** Careful discrimination between good and bad sources, current and outdated sources and relevant and irrelevant sources is part of the unique value of the process.

• **Refining:** *The most important value added* by the process is that of Refining; the final research report may be as short as a paragraph or a page.

• **Delivery:** The best intelligence/research in the world is useless if it cannot be delivered to the client in a timely fashion and in a format that can be easily understood.

3. **Locations**
   - ACO-wide
   - Internet
   - All operation theatres

4. **Dependencies**
   - Reuters Content downloader: proprietary Reuter’s client.
   - HP Autonomy IDOL: Semantic search engine.
   - Apache Tomcat: Host for Geocode.
   - Apache Lucene: Host for the gazetteer.
   - AOSS Geocode: Entity extraction and Geo localisation.
   - GeoNames gazetteer.
   - Data Diode: to cross classification boundaries.

5. **Available Networks**
   - Internet facing DMZ.
   - NU.
   - NS.
   - Mission Secret (MS).

6. **Support Availability**
   - Internet, NU and NS: business hours of the NCI Agency and/or on-call.
   - ISAF: 24/7.

7. **Prerequisites**
   - Equipment and access to the appropriate network.
8. Additional Information

Key Metrics / Indicators.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Name of Service Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>user-perceived delay</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>browser performance monitor and a resource performance monitor</td>
</tr>
<tr>
<td>Unit</td>
<td>Milliseconds</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Time between the moment the user clicks on the link and the page is finally displayed</td>
</tr>
<tr>
<td>Target</td>
<td>Metric &lt; 5 seconds</td>
</tr>
<tr>
<td>Applicability</td>
<td>TBD</td>
</tr>
</tbody>
</table>

**Table 8 - User-perceived delay**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Name of Service Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Does the user find the result he was looking for</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>Web log analysis</td>
</tr>
<tr>
<td>Unit</td>
<td>Result pages seen, and result selected</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Has the user clicked on a result within the first 3 pages of results?</td>
</tr>
<tr>
<td>Target</td>
<td>Metric &lt; 3 pages</td>
</tr>
<tr>
<td>Applicability</td>
<td>TBD</td>
</tr>
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</table>

**Table 9 - Accuracy of the search engines result**
SCOl27 - Human Intelligence (HUMINT) Support Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Joint Intelligence Surveillance and Reconnaissance (JISR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Intelligence Applications Service</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Human Intelligence (HUMINT) Support Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>JISR COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description

The HUMINT Support service offers subject matter expertise support to the HUMINT application which enables users to collect intelligence provided by human sources. It includes the systematic and controlled collection and exploitation of HUMINT by interaction with human sources, objects, or individuals. It has the ability to provide information regarding an actor’s intentions, morale, and relationships among individuals and organizations. HUMINT activities involve safeguarding and exploitation of HUMINT sources, and efficient HUMINT collection, reporting and analysis integrated within the overall intelligence environment to provide decision makers with timely and accurate information necessary for conducting successful military operations.

HUMINT Management and Reporting Tool (HMART)

- Comparison – Soft Information
  - Definition: The soft information fields are those personal characteristics which can be easily observed and which do not, in themselves constitute an identity.
  - Examples: Age or estimated age, hair colour, eye colour, stance, weight, tribe, name etc.
  - Usage: these soft characteristics can be exchanged/assessed without revealing identity and a ‘heuristic’ association score is calculated.

- Comparison – Hard Identification
  - Definition: The hard identification fields are those personal details which do, in combination, reveal in whole or in part and in a comprising way the identity of a source.
  - Examples: Mug shot photos, name, date of birth, address, employer, job function, etc.

- Comparison – Absolute Identification
  - Definition: The absolute identification fields are those personal details which do, individually, reveal in whole an absolute identity of a source but which do not, if compromised, provide a particularly useful form of identity with which to directly find/contact a source.
  - Biometrics (Fingerprints, Iris, DNA).
  - Usage: If available, these details are the primary ones to be exchanged in a source de-confliction process.

Sub-Services:
1. HMART implementation, integration and customization.
2. Operations and maintenance (HW and SW upgrade, annual biometric maintenance licences, release and change management, system administration, monitoring, etc.).
3. Training of HMART users and administrators either at the NCI Agency, HUMINT Centre of Excellence (HCOE) or on-site.
4. HMART support during the preparation and conduct of operations, exercises and experiments.
5. Information gathering technical and training support.

This service provides full or partial technical and training support in the HUMINT information gathering process and design and production of tailor made reports, including but not limited to:
On-site Deployments.
On-site Production.
On-site Training.

2. Value Added
Not Applicable.

3. Locations
- KFOR.
- ISAF.
- NRFS.
- Static Headquarters.
- Nations on request.

4. Dependencies
The following components are required to deliver full functionality:
- ABIS 6.5.1
  - Licenced.
- MS4W Map Server and Data.
- NITB 3.0 baseline/HMART baseline.

5. Available Networks
It is operated on standalone workstations or laptops not connected to any network.

6. Support Availability
- Nations: to be specified in the specialized corporate SLA.
- ISAF 24/7.
- Other customers: business hours of the NCI Agency and/or on-call.

7. Prerequisites
Hardware:
- Eclypt Encrypted Disks
- OS Level Software
- VC++ 2005/2008/2010/2012 Runtime
- VC80_CRT/VC100_CRT
- MS SQL Server 2008 R2 Express/Standard
- MySQL
- Java 1.6.0
- .NET Runtime 4

Service Layer Software:
- Open Office 3.3
- Ghost Script
- IIS with ASP.NET and CGI configured
- Apache Tomcat 7

Application Layer Software:
- Acrobat Reader
- Google Chrome
- IE9

8. Additional Information
Not Applicable.
SCOI28 - Support to All Source Analysis Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
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<td>Support to All Source Analysis Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>JISR COI Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**

The Support to All Source Analysis service offers subject matter expertise to support:

- All aspects of the All Source Analysis function in NATO and the Nations;
- Full All Source Analysis Capability Lifecycle.

Amplification on the type of support available is provided below.

1.1. **Support to Development of Doctrine, Directives and TTPs**

This service provides support to the development of NATO and Nations Doctrine, Directives and TTPs in the context of the All Source Analysis service; this includes:

- Contributions from recent state-of-the-art, lessons learned, research and development and best practices activities;
- JISR Subject Matter Expertise including Comprehensive Preparation of the Operational Environment (CPOE) and Joint Intelligence Preparation of the Operational Environment (JIPOE);
- Review, collation, de-confliction and editing.

1.2. **Support to Full Capability Development Lifecycle**

Full Capability Development Lifecycle support to the All Source Analysis function includes:

- Consultation; research; analysis; transformation;
- Elicitation, elaboration and management of requirements;
- Engineering services;
- Project management support;
- Acquisition support;
- Support to lifecycle segments including service design and service transition;
- Prototyping.

1.3. **Standardization**

In the context of All Source Analysis Standardization services provided include:

- Support to STANAG development and maintenance, for example: STANAG 2433 Alnt-P3;
- Coherence and de-confliction amongst standards.

1.4. **Support to Exercises and Trials**

Support for All Source Analysis in Exercises and Trials includes:

- Management and Provision of Exercise Data;
- Development of Scenarios and Vignettes;
- Provision and configuration of tooling;
- Provision of exercise support personnel;
- Expertise and experience in exercising the Joint All Source Intelligence Cell (JASIC) concept (e.g.: MAJEX13, Unified Vision 14).
1.5. Tools
Expertise in the following NATO All Source Analysis tools is available:

- NATO Intelligence Toolbox (NITB);
- Joint Operations Intelligence Information System (JOIIS);
- Intelligence Functional Area Services (Intel FS);
- I2 Analyst Notebook;
- MAJIIC CSD;
- Alliance Open Source System (AOSS);
- Full Motion Video (FMV) Dissemination, Storage and Retrieval (DSAR) system.

2. Value Added
The Support to All Source Analysis Services provides the following benefits to its consumers:

- Increased scope and quality; decreased costs and lead times of All Source Analysis Capability Development;
- Increased Coherence and Interoperability between NATO and Nations All Source Analysis capabilities;
- Sharing and coordinated promulgation of lessons learned, best practices, state of the art and other technological advances;
- Leverage of Smart Defence effects.

3. Locations
The Support to All Source Analysis Services is available from:

- Mons, Belgium
- The Hague, the Netherlands

4. Dependencies
TBD

5. Available Networks
TBD

6. Support Availability
TBD

7. Prerequisites
TBD

8. Additional Information
Not Applicable.
SCOI29 - Information Requirements Management (IRM) & Collection Management (CM) Support Service

<table>
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<tr>
<th>Organizational Element:</th>
<th>Joint Intelligence Surveillance and Reconnaissance (JISR)</th>
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<tbody>
<tr>
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<td>Service Area:</td>
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<td>Service Group:</td>
<td>Information Requirements Management (IRM) &amp; Collection Management (CM) Support Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>JISR COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description
This service provides support to the IRM & CM communities in NATO and the nations in their effort to develop efficient and effective IRM & CM capabilities.

This IRM & CM Support Service comprises the following subservices and tools:

- Educate and inform on recent research and development activities, technological developments.
- Contribute to the revision of JISR doctrine and NATO directives.
- Carry out research & development (e.g. MAJIIC) in support of the transformation to more effective and efficient IRM & CM including exploring applied methods and techniques for automated support to planning.
- Elicitation, elaboration and management of requirements.
- Support to capability packages; engineering services; project support; acquisition support.
- Support to lifecycle segments including service design and service transition.
- Improve the quality of requirement specifications and application support by supporting the development of consistent and unambiguous definitions of IRM & CM concepts.
- IRM & CM Information, Service and Workflow Model Architecture; Standards: STANAG 2149, 3277, 3377.
- Application specific: Intel-FS, ICMT.

Expertise available within this service includes doctrine; TTPs; process and procedures; methods and techniques for automation.

2. Value Added
Provide this service as described in “Detailed Service Description” and “Sub-Service/System or Tool” above to the IRM & CM community in NATO and the nations. A non-exhaustive list of stakeholders/customers utilizing this service:

- NATO and National IRM & CM Authorities (panels, operational, ...);
- MAJIIC;
- AGS (including CiK and TCN);
- etc.

3. Locations
NCI Agency Locations from where service is currently available (applicable mostly in cases of CSUs/ local SLAs).

4. Dependencies
Dependent on the JISR Architecture Development Service.

5. Available Networks
Not applicable.
6. Support Availability
   TBD.

7. Prerequisites
   TBD.

8. Additional Information
   Not Applicable.
SCOI30 - Signals Intelligence (SIGINT) Support Service

Organizational Element: Joint Intelligence Surveillance and Reconnaissance (JISR)

Standard Service (Budget) or Service Group: Intelligence Applications Service

Service Area: C3 and Enterprise Services

Service Group: Signals Intelligence (SIGINT) Support Service

Service Type: Geospatial Applications; JISR COI Applications

1. Service Description
The Signals Intelligence (SIGINT) Support service offers subject matter expertise for the Signals Intelligence Communications and Information System (COINS). COINS provides a trusted platform for the dissemination, storage and processing of signal intelligence information to SACEUR, the NATO Commands, NACSI Nations and accredited partner Nations up to and including CTS/B level. The capability can be provided in a static HQ or cell or as a deployable kit.

1.1. SIGINT COINS Central Management and Administration:
- Assistance in the definition, development and implementation of new requirements.
- Provision of technical advice and expertise to NACSI nations, NACSI and NATO Commands directly or at meetings of relevant bodies and COI’s.
- Information management support services – change management of information.
- Development and implementation of new hard- and software baselines whenever the trusted baseline requires changes.
- Change Control and Authorization support services - Chairing the SIGINT COINS Working Group; processing the CCP’s and implementing the approved solutions resulting from the decisions of the WG.
- Exercise and operations support services – planning, provisioning, maintenance, user and logistics support of deployable SIGINT COINS kits.
- Documentation services – development of security related documentation and technical documentation and manuals.
- High Available Server Cluster and Storage system to ensure continuity of service.
- Security services – Authentication, certification, DLP and Malware protection Management, patch Management, event collection, security and system event monitoring.
- Data Management services – data storage, data maintenance (backup/ restore), data exchange and data import.
- Database services – SQL server based; maintenance and information management of specialized Databases.
- SharePoint services – Portals, document libraries, COI’s, and other functions provided through SharePoint upon user request.
- Translation services – Tailored translation tool trusted by NACSI Nations and NATO.
- Email and messaging services – MS Exchange and MS Lync based linked to SharePoint.
- Planning services - SIGINT COINS configuration management in support of changes at the site or establishing a new site.
- License management services.

1.2. SIGINT COINS Remote Support:
- 1st, 2nd and 3rd level user support – trouble shooting of hard- and software related problems
- User support hotline – assistance for not hard- or software related problems
- Liaison with other services – e.g. crypto management, EMSEC, CSSC (equipment repair/ exchange)
- Security accreditation support – assistance for accreditation and reaccreditation of sites.

2. Value Added
SIGINT COINS provides robust, secure communications between NATO Commands, NACSI nations and partner nations to allow improved exchange of vital, time sensitive special intelligence information and the applications to generate those products required by the Signals Intelligence Community.

3. Locations
NATO Commands, NACSI Nations, partners authorized by NACSI and NATO led operations.

4. Dependencies
- NCGS (NS-WAN) or BICES connectivity.
- Crypto Management and Distribution services.
- Technical and logistical support services.
- CTS Registry services.

5. Available Networks
SIGINT COINS is a cryptographically isolated network.

6. Support Availability
The service is available 24/7, support is limited to business hours (NCI Agency Mons) and on-call in urgent cases.

7. Prerequisites
- Operational validation confirmed by SHAPE J2.
- Authorization to deliver the requested type of installation by SHAPE J2.
- NATO Class I area or national equivalent.
- TEMPEST report for the area where the equipment will be installed.
- Personnel cleared for CTS/B and a need to know.
- NATO Secret WAN/ BICES connection 100 Mb/s Full Duplex.
- Circuit for the connection of SIGINT COINS to NS-WAN/ BICES.

8. Additional Information
Not Applicable.
1. Service Description

Surveillance and Reconnaissance Capabilities in NATO are provided by the Nations and by NATO-owned and operated assets such as NATO Airborne Early Warning and Control (NAEW&C) Force and the future NATO Alliance Ground Surveillance (AGS) Force. These capabilities directly contribute to Joint ISR, Air, Land, Maritime and EW Communities of Interest (COIs) by providing ISR Collection, Exploitation, Command and Control, and Battle Management services.

Joint ISR Service Line supports Surveillance and Reconnaissance (S&R) Capabilities with specific Subject Matter Expertise (SME) ranging from requirements analysis to capability development and operations. S&R capabilities include air, ground, sea and space-based ISR assets, as well as unmanned systems and automation. Additionally, the Joint ISR Service Line supports Allied Command Transformation (ACT) with specific technical and scientific advice. SME support services closely follow the V-Model of Systems Engineering activities. Some examples are provided below.

1.1. Requirements Analysis

Requirements Analysis captures user requirements and converts them into technical requirements for new and future systems that will be acquired or developed to achieve a given level of ambition for Surveillance and Reconnaissance capabilities. SME services in this area include:

- Capturing new or changing missions;
- Analysis of operational tasks and associated capability requirements;
- Breakdown of capability requirements into equipment, procedure and training needs;
- Identification of potential technical solutions;
- Feasibility analysis.

1.2. Concept Development and Experimentation

SME services related to Concept Development and Experimentation include:

- Development of Concept of Operations (CONOPS) and Concept of Employment (CONEMP) for specific platforms and capabilities;
- Development of Tactics, Techniques and Procedures (TTPs);
- Prototyping, integration and testing of new technical solutions;
- Supporting experiments and exercises to prove new concepts and solutions.

1.3. Integration and Interoperability Development and Testing

The NCI Agency has broad experience in integration and interoperability of Surveillance and Reconnaissance systems gained through multinational interoperability programs (e.g. MAJIIC), NATO capabilities (e.g. AGS, NAEW) and support to national programs. The Joint ISR Service Line develops and hosts MAJIIC interoperability exercises and NATO AGS Capability Test bed (NACT) on behalf of the Nations participating in these programs. Our specific expertise includes:
• NATO systems and capabilities (e.g. Functional Area Services, Data Links, NAEW, AGS);
• Standardization agreements (STANAGs) related to Joint ISR;
• Joint ISR STANAGs compliance testing and interoperability development;
• NAEW Airborne Network Capability (ANC) providing an interface between airborne and surface based ISR capabilities.

1.4. Support to Operations
Joint ISR Service Line provides subject matter expertise to support ongoing operations with mission specific analysis and technical services. These may include:

• Development of mission specific databases;
• Collection and analysis of mission data;
• Lessons learned analysis;
• Prototype development to meet emergent mission requirements (e.g. the NAEW ANC).

2. Value Added
The NCI Agency has extensive expertise in both NATO and national Surveillance and Reconnaissance systems gained through major programs such as NAEW, AGS and MAJIIC, recent operations in Afghanistan, Libya and the Mediterranean, and continued support to ACT. The Joint ISR Service Line employs a unique combination of technical and operational experts from several NATO nations with years of experience as developers and operators of state-of-the-art Surveillance and Reconnaissance capabilities.

In particular, the JISR Team supports NAEW Force Command with their CD&E activities and hosts the NATO AGS Capability Test bed for AGS interoperability testing. Architecture support is provided to strategic commands and NATO working groups for JISR and AGS architectures and specific exercises (e.g. UV14). The Team has supported several nations participating in the MAJIIC program, as well as NAEW and AGS programs, to implement NATO STANAGs and achieve technical and operational interoperability.

The JISR Team deployed prototype systems and supported surveillance and reconnaissance systems procurement for the ISAF mission and provided key mission specific expertise to support NAEW Force in ISAF and OUP operations.

This extensive experience and knowledge base is offered to the Nations in order to develop and procure advanced, integrated and interoperable Surveillance and Reconnaissance capabilities.

3. Locations
Subject Matter Expertise for Air and Ground Surveillance systems is mainly provided from NCI Agency location The Hague, the Netherlands.

4. Dependencies
Not Applicable.

5. Available Networks
Capabilities at any classification as well as cross-domain capabilities are supported.

6. Support Availability
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
**SCOI32 - Surveillance and Reconnaissance Systems Interoperability Services**

<table>
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<tr>
<th>Organizational Element:</th>
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<tbody>
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<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Surveillance and Reconnaissance Systems Interoperability Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>JISR COI Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**
Interoperability of surveillance and reconnaissance systems is a key enabler in NATO since NATO operations are essentially coalition operations involving both NATO-owned and national assets. Interoperability is the glue that keeps the Alliance together at the technical and operational levels. Several doctrinal documents and standardization agreements (STANAGs) are developed and maintained to achieve interoperability amongst NATO nations. The Agency’s Joint ISR team has specific expertise on those elements of NATO doctrine and standards related to Surveillance and Reconnaissance Systems.

Interoperability of surveillance and reconnaissance systems is historically based on NATO’s ISR Interoperability Architecture (NIIA) – currently being updated – and the ISR STANAG’s mandated by the NIIA. The Agency has extensive experience on NIIA and ISR STANAGs gained through multinational interoperability projects such as MAJIC and through its support to the Alliance Ground Surveillance (AGS) program. Several Functional Area Services (FAS) developed and procured by the Agency (e.g. NITB, Intel FS) also rely on ISR STANAGs to deliver integrated and interoperable capabilities to the Alliance.

The specific services and expertise provided under this service group are listed in the following paragraphs.

1.1. **STANAG Implementation Support**
NATO STANAGs are complex documents describing a combination of civil and military standards, NATO-specific requirements and implementation guidelines for various communities and applications. NATO has a formal process for STANAG compliance testing and accreditation owned by the STANAG Custodian Support Teams (CST). However, the practical application of this process requires specific tools, sample data, automated procedures, test plans and test cases to support various aspects of testing such as functionality, completeness, correctness, security, etc.

In general, ‘STANAG compliance’ does not have a simple straightforward definition, but is based on the specific application and interoperability requirements. In some cases, implementation of the minimum requirements is enough to achieve the level of interoperability for an application while in others the parties need to agree on specific implementation guidelines and ‘business rules’ in order to be interoperable. Furthermore, operational procedures and workflows have to be defined and supported by the technical capabilities in order to achieve interoperability at the operational level.

Our STANAG Implementation Support service guides nations and their industries through the complex process of STANAG implementation and enables them to focus their efforts in order to achieve the maximum level of interoperability with their NATO partners in terms of data formats (e.g. imagery, video, GMTI), IRM&CM processes (e.g.: requests, tasking, reporting) and NATO doctrine. Out of more than fifty ISR-related standards some examples of common ISR STANAGs that are supported with specific test data and tools include the following:

- STANAG 4545: NATO Secondary Imagery Format;
- STANAG 4609: NATO Motion Imagery Standard;
- STANAG 4607: NATO Ground Moving Target Indicator Format;
1.2. STANAG Compliance and Interoperability Testing

STANAG implementation cannot be successful without proper technical and functional testing in an environment properly equipped with test tools, test procedures, test data and baseline NATO systems. Over the last decade JISR Service Line has incrementally developed the required Test bed environment and know-how to support the nations with impartial and unbiased interoperability testing services. A breakdown of activities in this area is shown below:

- Development of test objectives and test procedures;
- Development of test procedures;
- Provision of real and synthetic test data;
- Provision of NATO baseline systems and corresponding subject matter expertise;
- STANAG compliance testing;
- Hosting and supporting test events, including test management and tools;
- Establishment and operation of dedicated test beds;
- ISR workflow development and compliance testing.

1.3. Operational Testing and Inclusion in Approved Fielded Product List (AFPL)

The NCI Agency maintains a list of approved fielded products for software and hardware that can be installed on existing operational NATO networks. Commercial products go through rigorous security and performance testing at our reference facilities in Mons to be approved for fielding. As part of or in addition to interoperability testing, the JISR Service Line supports nations in the process of AFPL testing and approval.

2. Value Added

The NCI Agency has more than 10 years of interoperability development and testing expertise within its JISR Service Line gained through major programs such as CAESAR, MAJIIC, and AGS as well as direct support to national capabilities. The Agency has further developed architectures for ISR interoperability integrating national assets and key NATO capabilities such as Airborne Early Warning Force (NAEW) and AGS.

The Agency is the Technical Manager for MAJIIC project and maintains the NATO know-how on STANAG-based interoperability since the early days starting with Paris Interoperability Experiment and Coalition Aerial Surveillance and Reconnaissance (CAESAR) projects.

Our know-how on interoperability, as well as test tools, test data and laboratory assets are offered to the Nations to support their interoperability development and testing initiatives, either for individual nations or as a ‘coalition of the willing’.

3. Locations

Interoperability Support service is mainly provided from NCI Agency location in The Hague, the Netherlands.

4. Dependencies

Not Applicable.
5. **Available Networks**
Capabilities at any classification as well as cross-domain capabilities are supported via the Distributed Networked Battle Labs and MAJIIC CDT environments. CFBLNet can be used for classified testing and experimentation, including NATO exercises or multinational events.

6. **Support Availability**
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.

7. **Prerequisites**
Not Applicable.

8. **Additional Information**
Arrangements between JISR Service Line and various NATO and multi-national bodies are detailed below as examples of Interoperability Support:

- **MAJIIC Project**: The Multi-intelligence All-source Joint ISR Interoperability Coalition (MAJIIC 2) project has long been regarded as the ‘tip of the spear’ in multinational ISR interoperability. Standards and procedures developed by the MAJIIC nations are reflected in several NATO standards and procurement efforts. The NCI Agency is appointed as the Technical Management Authority and provides technical support to all MAJIIC activities including architecture, technical and operational Working Groups, Technical Interoperability Events (TIE), and simulated and live MAJIIC exercises (MAJEX).

- **NATO AGS Test bed (NACT)**: On behalf of NATO AGS Management Agency, the NCI Agency established the NACT to support interoperability development and testing by AGS Industry. The tested provides an environment where AGS systems from four main contractors can interact with each other and with baseline NATO systems in order to assess and develop interoperability. Both ad-hoc and contractual events are supported. Besides the tested environment, the NCI Agency provides test tools, test data, STANAG compliance testing and specific advice on interoperability issues.
1. Service Description
The Joint ISR Service Line supports deployment, integration and operation of Surveillance and Reconnaissance Capabilities in operational theatres and during exercises and trials. For new capabilities to meet urgent operational requirements, these services are included in procurement contracts, where the NCI Agency is responsible for the deployment of the capability including operational testing, training, handover to the users and maintenance arrangements. Through our field offices, the Agency provides on-site engineering and administrative support to these activities. Additionally, our subject matter experts help users with the development of operational concepts and procedures as needed for new JISR capabilities. During exercises and trials, a team of subject matter experts and engineers are deployed to support all phases of exercise planning and execution, including scenario development, configuration management, deployment and operation of NATO systems, data logging, analysis, and reporting. Our team also provides specific technical and scientific support to individual NATO and national units during operations in order to prepare mission data, to perform post-mission analysis of ISR data and to help resolve any technical issues.

1.1. Fielding and Supporting ISR Systems in Operational Theatres and/or Exercises
Included in procurement contracts for operational systems or through specific arrangements per exercise/event, this service covers the following areas:

- On-site support to deployment and fielding of new capabilities in operational theatres.
- Integration and operational testing support to new concept/procedure development.
- SME support for exercise planning and scenario development.
- SME support for operational and prototype NATO systems as well as test and analysis tools during exercises.
- Data collection, analysis and reporting during exercises and trials.

1.2. Technical and Scientific Support to Operations
Based on the specific needs of a mission, the Joint ISR Service Line can support preparation and analysis of mission data and help to resolve any issues with specific mission systems. Although heavily dependent on specific missions and tasks, some examples of this service include the following:

- Development of mission-specific data sets, e.g. for ESM systems, radars and electro-optical sensors;
- Analysis of ISR data to enhance data sets and/or resolve system issues;
- Rapid prototyping and software development for specific mission needs and urgent requirements.

2. Value Added
The NCI Agency has extensive experience in procuring and fielding C4ISR systems and capabilities in recent operations. For example, the Agency has been providing full lifecycle support from requirements capture to deployment and maintenance of systems to meet urgent operational requirements in ISAF.
In the area of Joint ISR, the Agency fielded and supported a wide range of complex systems including software, hardware and sensors such as EO/IR sensors, radars, scanners, etc. Joint ISR Service Line further supported NATO AWACS with operational prototypes for IP-based network connectivity and by providing ESM databases and analysis tools during ISAF and OUP operations.

The Joint ISR Service Line has a unique ability to deploy systems and qualified personnel with expertise on NATO ISR systems, infrastructure and procedures. Nations can benefit from our services to deploy and support their national systems in operational theatres and NATO exercises. During operations the Agency can provide technical services as required for specific mission needs, especially in the area of interoperability and integration with NATO systems.

3. Locations
Support to Joint ISR Operations, Exercises and Trials is provided on-site as required with reach back support from NCI Agency facilities in The Hague.

4. Dependencies
Not Applicable.

5. Available Networks
Capabilities at any classification as well as cross-domain capabilities are supported.

6. Support Availability
Support is provided on a 24 hr basis as required by operational or exercise tempo. Reach back support is normally provided during office hours with specific arrangements as required.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
SCOI34 - Sensors Support Service

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<th>Organizational Element:</th>
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<td>Standard Service (Budget) or Service Group:</td>
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<td>Sensors Support Service</td>
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<tr>
<td>Service Type:</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

1. Service Description
The Sensors Support service provides full lifecycle support for NATO or National sensor programs for increased Situational Awareness.

The service provides in-depth support to customers including Subject Matter Expertise, requirement capture, project management, installation and testing for all aspects of sensor performance analysis and procurement.

1.1. Products
The following Sensor Services related products can be distinguished:
- Scientific, technical, market and feasibility studies; like architecture and performance studies, novel and innovative sensor assessment and interface to industry;
- Interoperability and standardization compliancy verifications (STANAGs);
- Support to development of operational documents (SECOP, CONOPs and TTP);
- Sensor procurement on behalf of NATO or Nations, including requirements definition, bid evaluation, contract implementation, testing and evaluation, system acceptance and full lifecycle logistics support.

1.2. Services
Navigation and NAVWAR services cover a wide range of services, as demonstrated by the range of related products. Many of these services can be tailored to the specific needs of the NATO entity or the Nation requesting support.

2. Value Added
Coherent and comprehensive support based upon knowledge and experience gained from many NATO and national sensors projects. Specifically:
- In-depth understanding and appreciation of Sensor Requirements;
- Standardization / interoperability with NATO Sensor related system;
- Risk reduction of sensor programmes;
- Cost savings based upon synergy with past and existing programmes;
- Consistency and scientific rigour through theoretical and practical technical expertise;
- Technical and operational knowledge of NATO Sensor systems.

3. Locations
Subject Matter Expertise for Navigation is mainly provided from the NCI Agency location in The Hague, the Netherlands.

4. Dependencies
The service can be offered as components in the individual support areas, or as a full package of services for sensor procurement. The services will take into account interdependencies with ongoing NATO or national projects or system architectures where appropriate.

5. Available Networks
Capabilities at any classification as well as cross-domain capabilities are supported.
6. **Support Availability**  
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.

7. **Prerequisites**  
Not Applicable.

8. **Additional Information**  
NATO customers using the JISR SL Sensor products, expertise and services include: NATO AIRC2 PO for a Deployable Air Defence Radar (DADR) and a Deployable Passive Electronic ZZZ (DPET), the NCI Agency Radar Procurement Office (RPMO) for Fixed Air Defence Radar systems for Poland, Hungary and the Czech Republic, a NATO Nation for the procurement of Fixed Air Defence Radar systems from a national budget but based on the NATO procurement practices.
SCOI35 - Electronic Warfare Support Service

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<th>Organizational Element:</th>
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<tr>
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<td>Service Group:</td>
<td>Electronic Warfare Support Service</td>
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<tr>
<td>Service Type:</td>
<td>EW COI Applications</td>
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</table>

1. Service Description
Electronic Warfare is an essential element of current and future NATO operations. This area comprises a wide range of services supporting NATO commanders to optimize the use of and benefit from the radio frequency spectrum, while denying adversaries the same.

The JISR SL mainly focuses on Electronic Support (ES) and to a lesser extent on Electronic Protection (EP) and Electronic Attack (EA). Electronic Support services includes spectrum analysis, database management (NEDB), cooperative ESM operations (CESMO), direction finding and EW-related networks (e.g. STANAG 4658).

The in-depth level of knowledge on EW topics allows the JISR SL to support Nations with further services on Electronic Protection and Electronic Attack if required.

1.1. Products
The following EW Services related products can be distinguished:
- Scientific, technical, market and feasibility studies; like architecture and performance studies, novel and innovative sensor assessment and interface to industry.
- Interoperability and standardization compliance verifications (STANAGs);
- Support to the development of operational documents (SECOP, CONOPs and TTP).
- EW system procurement on behalf of NATO or Nations, including requirements definition, bid evaluation, contract implementation, testing and evaluation, system acceptance and full lifecycle logistics support.

1.2. Services
The NCI Agency has several on-going projects in the EW area and provides services in all stages of the lifecycle - through support to development of CONOPs, requirements capture, acquisition, support to operations, and O&M. Specific services that are offered in this area are:
- Identification and refinement of requirements;
- Development of CONOPs and standards;
- Market analysis and technology awareness;
- Invitation For Bids Generation / Bid Evaluation;
- Testing and evaluation;
- Project Management;
- Subject Matter Expertise;
- Support to Operations.

2. Value Added
Coherent and comprehensive support based upon knowledge and experience gained from many NATO and national Electronic Warfare projects. Specifically:
- In-depth understanding and appreciation of Electronic Warfare Requirements;
- Standardization / interoperability with NATO EW related system and concepts;
- Risk reduction of EW programmes;
- Cost savings based upon synergy with past and existing programmes;

NATO UNCLASSIFIED
Consistency and scientific rigour through theoretical and practical technical expertise;
Technical and operational knowledge of NATO EW systems.

3. Locations
Subject Matter Expertise for EW services is mainly provided from the NCI Agency locations in The Hague, the Netherlands, and Brussels, Belgium.

4. Dependencies
The service can be offered as components in the individual support areas, or as a full package of services for sensor procurement. The services will take into account interdependencies with ongoing NATO or national projects or system architectures where appropriate.

5. Available Networks
Capabilities at any classification as well as cross-domain capabilities are supported.

6. Support Availability
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.

7. Prerequisites
Not Applicable.

8. Additional Information
NATO customers using the JISR SL Electronic Warfare products, expertise and services include the NATO E3A Component for the installation and optimization of the E-3A ESM system, the maintenance and extension of the NATO Emitter Database, the SIGINT ESM Working Group for developing and testing the concept of Cooperative ESM Operations (CESMO, STANAG 4658) and of the NATO Common Electronic Reporting Format (NCERF, STANAG 4633). The JISR SL is also engaged in the procurement of the NEDB Next Generation (NEDB-NG) and provides support to implementation of CP9C0107-Functional Services for Operations, specifically for C2 of EW. Additionally, the JISR SL supports the procurement of the ACCS Deployable Sensor Element through provision of Sensor Engineering SMW services.
SCOI36 - Counter Terrorism Support Service

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<tr>
<th>Organizational Element:</th>
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<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
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<tr>
<td>Service Group:</td>
<td>Other Services - Counter Terrorism Support Service</td>
</tr>
<tr>
<td>Service Type:</td>
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</tbody>
</table>

1. Service Description

Counter Terrorism (CT) represents one of the core defence areas identified by NATO. During the past 10 years, the NCI Agency has continuously supported the implementation of the NATO Headquarters’ Defence against Terrorism Programme of Work (DAT POW). Within this framework numerous studies were conducted looking into emerging technologies that can support the fight against terrorism. The expertise accumulated within the JISR SL has been shared with international communities through lectures at DAT Centre of Excellence.

The Joint ISR Service Line supports NATO and Nations in the Counter Terrorism (CT) domain with specific Subject Matter Expertise (SME) that covers:

- Understanding terrorism organizations;
- Sensor and Information systems to prevent terrorist attacks;
- Solutions to Attack the Network;
- Countering threat networks.

The Services offered in the CT domain covers:

- Scientific, technical, market and feasibility studies;
- Design, implementation, testing and maintenance of sensor and information systems in support to prevention of terrorist attacks;
- Support to trials, exercises and training.

2. Value Added

The NCI Agency holds extensive expertise in addressing CT topics coherently by taking account the technical and operational aspects into account. The NCI Agency has unique knowledge of information exchange capabilities in NATO including attention to standardization aspects. This expertise is essential in defining the Coalition response and readiness to terrorism threats.

This extensive experience and knowledge base is offered to the Nations in order to develop and procure advanced, integrated and interoperable Surveillance and Reconnaissance capabilities.

3. Locations

Subject Matter Expertise for Counter Terrorism is mainly provided from NCI Agency location The Hague, the Netherlands.

4. Dependencies

Not Applicable.

5. Available Networks

Capabilities at any classification as well as cross-domain capabilities are supported.

6. Support Availability

Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.
7. **Prerequisites**
Not Applicable.

8. **Additional Information**
NATO customers using the JISR SL Counter Terrorism, expertise and services include: NATO HQ, and DAT COE.
SCOI37 - Navigation Support Service

**Organizational Element:** Joint Intelligence, Surveillance & Reconnaissance (JISR)

**Standard Service (Budget) or Service Group:** Electronic Warfare & Sensors Services

**Service Area:** C3 and Enterprise Services

**Service Group:** Other Services - Navigation Support Service

**Service Type:** Not Applicable

1. **Service Description**
   In NATO, ‘Navigation’ and ‘Navigation Warfare’ is the responsibility of the NATO Consultation, Command and Control Board (NC3B) Capability Panel on Identification and Navigation (CaP2) and its subordinate Capability Team (CaT) on Navigation Warfare.

   Navigation Warfare (NAVWAR) is “the prevention of hostile use of Positioning, Navigation and Timing (PNT) information while protecting the unimpeded use of this information by NATO Forces and preserving peaceful use of this information outside the area of operations” [STANAG 4621].

   NATO Forces use PNT information in a number of required applications including: navigation, targeting, guidance, situational awareness (SA), search and rescue, and time synchronisation. Since NATO Forces heavily (and increasingly) rely on PNT information, the availability of this information must be actively protected.

   Navigations Services range from studies concerning the impact of PNT denial, the use of multi-constellation solutions via concept development (CONOPS, STANAGs, TTPs) to supporting Nations and NATO entities with tools related to NAVWAR during trials, exercises and deployments.

1.1. **Products**
   The following Navigation and NAVWAR related products can be distinguished:
   - Scientific, technical, market and feasibility studies;
   - Interoperability and standardization compliancy verifications (STANAGs);
   - Support to development of operational documents (SECOP, CONOPs and TTP);
   - Support to trials, exercises and training w.r.t. vignette development, technical evaluation and report writing;
   - Navigation Warfare Test Bed (NWTB) to enhance operational scenarios with realistic and reliable/repeatable events during training, trials and exercises;
   - Ground-based Asset by the NCI Agency for Direction and Geo Location Finding (GANDALF), deployable direction finder for geo-locating GPS-jammers and reporting Lines of Bearing;
   - Training courses for Electronic Warfare operators to familiarize with GPS jammers, the effects of jamming and options to geo-locate these jammers with own equipment.

1.2. **Services**
   Navigation and NAVWAR services cover a wide range of services, as demonstrated by the range of related products. Many of these services can be tailored to the specific needs of the NATO entity or the Nation requesting support.

2. **Value Added**
   This service provides the customer with access to the JISR SL extensive expertise in the following domains connected to navigation/navigation warfare:
   - Sensors and systems for navigation, both civil and military;
• Active PNT denial systems like GPS jammers and the geo-location thereof, stand alone or via NATO’s Cooperative ESM Operations methodology (STANAG 4658);

• Processing of Navigation Warfare related information in the NATO C2 environment (SIGINT EW Operations Centre (SEWOC), Joint All Source Intelligence Cell (JASICS), NavWar Analysis Cell (NAC));

• Impact assessment of GPS jamming in operational scenarios, including effects calculations to support operational decision making.

3. Locations
Subject Matter Expertise for Navigation is mainly provided from the NCI Agency location in The Hague, the Netherlands.

4. Dependencies
As the GPS network is operated and controlled by the United States, access to detailed information on the GPS constellation from entities like the US Joint Navigation Warfare Centre is required. In addition, the European Union is bringing a European equivalent to GPS online, called GALILEO, which also contributes to the NATO goals concerning NavWar.

5. Available Networks
Capabilities at any classification as well as cross-domain capabilities are supported.

6. Support Availability
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.

7. Prerequisites
Not Applicable.

8. Additional Information
NATO customers using the JISR SL Navigation products, expertise and services include: NATO Headquarters, the NC3B Capability Panel on Identification and Navigation (CP2) and subsequent Working Groups.
SCOI38 - Identification Support Service

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<tr>
<th>Organizational Element:</th>
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<tbody>
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<td>Standard Service (Budget) or Service Group:</td>
<td>Other Services - Identification Support Service</td>
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<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
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<tr>
<td>Service Group:</td>
<td>Identification Support Service</td>
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<tr>
<td>Service Type:</td>
<td>Not Applicable</td>
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</tbody>
</table>

1. Service Description
In NATO, Navigation’ and ‘Navigation Warfare’ is the responsibility of the NATO Consultation, Command and Control Board (NC3B) Capability Panel on Identification and Navigation (CaP2) and its subordinate Capability Team (CaT) on Navigation Warfare.

Identification is a core competency within the NATO Command and Control system, where the JISR SL contributes through the conduct of studies, the provision of consultancy services and the development and testing of STANAGs. Identification is not only restricted to the military domain, but also relates to developments in civil Air Traffic Management, especially the implementation of new ATM concepts and systems like Mode S, ADS-B etc.

1.1. Products
The following Identification related products can be distinguished:
- Scientific, technical, market and feasibility studies;
- Interoperability and standardization compliancy verifications (STANAGs);
- Support to development of operational documents (SECOP, CONOPs and TTP);
- Support to concept development like data combining procedures (e.g. in support to IFF, TMB, Identity Intelligence etc.).

1.2. Services
Identification services cover a wide range of activities and products, as demonstrated by the range of related products. Many of these services can be tailored to the specific needs of the NATO entity or the Nation requesting support.

2. Value Added
This service provides the customer with access to the JISR SL extensive expertise in the following domains connected to identification:
- Sensors and systems for identification, both civil and military;
- Concepts and techniques for data combination, e.g. the NATO IDCP.

3. Locations
Subject Matter Expertise for Identification is mainly provided from the NCI Agency location in The Hague, the Netherlands.

4. Dependencies
Identification.

5. Available Networks
Capabilities at any classification as well as cross-domain capabilities are supported.

6. Support Availability
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.
7. **Prerequisites**  
Not Applicable.

8. **Additional Information**  
NATO customers using the JISR SL Identification products, expertise and services include: NATO Headquarters, the NC3B Capability Panel on Identification and Navigation (CP2) and subsequent Working Groups.
SCOI39 – Core GIS Geospatial Services

<table>
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<tr>
<th>Organizational Element:</th>
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<td>Service Area:</td>
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<td>Service Group:</td>
<td>Other Services - Geospatial Information and Intelligence</td>
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<tr>
<td>Service Type:</td>
<td>Geospatial Applications</td>
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</tbody>
</table>

1. Service Description

Geospatial Services in NATO are provided by the Nations and by NATO-owned and operated assets such as the NATO Core Geographic Information System (GIS) as described in the Allied Joint Doctrine for the Geospatial Support.

The Geospatial Information and Intelligence service provides NATO customers with a suite of data, services and products that ensure all phases of military operations are conducted based on the same spatial reference. The system supports the complete geospatial information lifecycle. It is used by two main communities: specialized geospatial sections and the broad community of Functional Services (FSs) users. It is Commercial-Off-The-Shelf (COTS) based and uses the ArcGIS product suite from Esri with minor NATO-specific customization. The current capability consists of:

- Cartographic Workshop components, which allow Geo-Technicians to create and maintain the Digital Geographic Information baselines, generate products, and publish and maintain geospatial services.
- The NATO Geospatial Information and Intelligence Server components, which provide services such as Web Map Service (WMS), Web Feature Service (WFS), Web Coverage Service (WCS), Web Processing Services (WP) and storage infrastructure.
- The Component Based Framework for the development of additional functional components by Functional Services.

A breakdown of Geospatial Information and Intelligence related services provided by the NCI Agency is listed below.

1.1. NATO Core GIS O&M and technical advice

The Geospatial Branch of the JISR SL provides a reference implementation facility of Geospatial Information and Intelligence to all COI SS to support all phases of system development of current and future baselines. Furthermore, NATO customers can also benefit from Geospatial Information and Intelligence engineering and technical O&M services for:

- **O&M First Level Support:**
  Includes incident management, routine administration, and local problem isolation and resolution.
- **O&M Second Level Support:**
  Includes central service management, systemic problem isolation and resolution, capability-level maintenance, and management of deficiency reports and repairs.
- **O&M Third Level Support:**
  Involves the investigation of the development baseline including source code, identifying potential Request for Changes such as software patches and updates.
- **Web services best practices:**
  The JISR geospatial services group supports NATO customers on the development of specific Geospatial Information and Intelligence service related best practices, and efficient procedures.
to publish complex geospatial information content and automated web-processing services (WPS) in support of FASs.

- **Data preparation:**
  If required the NCI Agency can provide either reach-back or on-site technical support for data preparation and deployment of complex web services to customer’s IT infrastructure.

### 1.2. Supporting lifecycle of GIS systems

The service is intended to provide full lifecycle support of GIS systems such as the NATO Geospatial Information and Intelligence or National owned geospatial systems/capabilities. The service provides comprehensive support to customers including:

**Subject Matter Expert (SME) advice to ensure:**
- Best use of geospatial data, products and Geospatial capabilities.
- That the Geospatial capabilities are properly translated into Concept of Operations (CONOPS), Standing Operating Procedures (SOPs) and Tactics, Techniques and Procedures (TTPs).

**GIS training:**
- Develop and deliver GIS/CIS related training packages tailored according customer needs.
- Requirements engineering; system design; functional specification; interface definitions; prototyping; procurement; configuration and installation procedures; standards conformance testing; interoperability testing; accreditation support; system acceptance.

### 1.3. Geospatial Acquisition Services

Geospatial Acquisition Services are provided by the JISR SL in the area of GIS acquisition. Over the years, the Geospatial Branch of the JISR SL has developed experience in acquiring GIS capabilities of different size and complexity. The following services can be provided to both NATO and national entities:

- Acquisition requirements analysis;
- Preparing price proposal for the identified GIS solution;
- Managing contracts for GIS design, development and integration;
- Managing GIS systems’ documentation, testing and acceptance;
- Development of fast acquisition procedures required for operational theatres, which includes:
  - Managing equipment delivery to the respective places (Depots);
  - Managing integrated logistic support of system working in theatres;
  - Managing industry players bidding for such projects and contractors working for theatres implementing GIS capabilities.

### 2. Value Added

The main mission of the Geospatial Information and Intelligence service is to enable fighting off the same map by providing timely, accurate and guaranteed geospatial information to the NATO coalition. It not only allows access to geospatial information but also storage, management, analysis and visualization of any spatial data produced and used by C2 and FASs.

The Geospatial Information and Intelligence service ensure that all phases of military operations are conducted on the same spatial reference. Furthermore it provides the Accredited/Single Geospatial Information Service Provision (authoritative repository for Geospatial Information).

In order to efficiently maintain, develop geospatial capabilities and obtain lifecycle savings, customers can take advantage of NCI Agency/SME advice that covers the full range of development aspects defined in the NATO DOTMLPFI comprehensive approach.

### 3. Locations

Geospatial Information and Intelligence service is available at the user sites with centralized management reach back capability from NCI Agency location Mons, Belgium.
Subject Matter Expertise advice for Core GIS related services can be provided by the NCI Agency locations either from The Hague, the Netherlands, or Mons, Belgium.

4. Dependencies
Geospatial Information and Intelligence service O&M services depend on the underlying ICT and Core Enterprise infrastructure services.

5. Available Networks
NATO Bi-SC Geospatial Information and Intelligence service is available on the NS, MS, KFOR and ISAF network. However, the service can be provided on the customer’s choice of security domain as well. In case of national security domain, the customer is responsible for the accreditation and license module.

6. Support Availability
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.

7. Prerequisites
Not Applicable.

8. Additional Information
NATO Geospatial Information and Intelligence service is a core component of the BI-SC Automated Information Systems (AIS) programme. The system provides the ability to efficiently use authoritative spatial information through the static and missions-specific command and force structures, along all phases of the NATO crisis management process (situational awareness, planning and execution). Currently the system is fielded at the NATO Command Structure except Bydgoszcz and JALLC, ACT, KFOR, ISAF and NATO CIS School in Latina.
**SCOI40 - Geospatial Standardization Service**

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<td>Other Services - Geospatial Standardization Service</td>
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<tr>
<td>Service Type:</td>
<td>Geospatial Applications</td>
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</table>

### 1. Service Description

Geospatial Services in NATO are provided by the Nations and by NATO-owned and operated assets such as the NATO Core GIS. Geospatial Services are providing the full range of services across all military functions to achieve geospatial superiority.

Interoperability never happens by accident. Standardization is the key enabler for interoperability because only unambiguous interface, format, structure and content specifications empower system implementers to create components of a Service Oriented Architecture where all components work nicely together without modification. Geospatial Standardization has to fit into the overarching infrastructure of NATO and therefore has to be based on introduced or emerging IT standards endorsed in NATO. All standardized technical specifications need to be engineered in a consensus process.

NATO Core GIS and Functional Area Services which deal with data that bear a geospatial property are based on Commercial-Off-The-Shelf (COTS) products. Therefore it is important to monitor and influence the standardization efforts conducted by civil Committees for Geospatial Standardization. Civilian standards have to be profiled according to military requirements.

A breakdown of key services included within the geospatial standardization service is provided below.

#### 1.1. Requirements Analysis

Before any technical work can start, it needs to be clear where standards can improve geospatial business processes, interoperability with functional systems and interaction with services of other communities of interest. Requirements Analysis captures user requirements and converts them into technical requirements for new and future systems and services. STANAGs are binding for all future acquisitions and developments and therefore it is crucial that they are necessary and sufficient to fulfil the user’s needs. Geospatial Standardization requirements analysis services in this area include:

- Capturing new or changing standardization requirements;
- Collecting and maintaining an overview of National and commercial geospatial standards;
- Analysing interoperability issues originating from experiments or from operational usage of geospatial services.

#### 1.2. Gap Analysis

Any standardization proposal needs to verify available standards in the field to identify what is missing as well as potential conflicts of new geospatial standardization requirements. The analysis of the gap between existing standards and identified and endorsed requirements results in services provided by NCI Agency:

- Formulate standardization proposals with strong business cases and detailed justification;
- Provide a draft standardization task (ST) document;
- Identify civil or national standards which may be endorsed or adapted for military standards;
- Compare different approaches and propose a way forward;
- Translate geospatial visions into a standardization strategy and roadmap;
- Support standardization leaders and visionaries in realising the roadmap.
1.3. Technical SME support
NCI Agency has broad experience in designing, implementing and operating geospatial solutions. With a strong theoretical background in GIS technology in connection with this operational experience NCI Agency can provide support as subject matter experts in these areas:

- Drafting technical specifications;
- Reviewing technical specifications;
- Advice and coaching technical experts in drafting geospatial standards;
- Geo-processing services specification for terrain and spatial data analysis;
- Standardized algorithms and parameters for geo-analytics.

1.4. Support in Standardization Processes
The process from identifying a requirement to the ratified standard is complex and can be quite lengthy. By knowing the process and the critical milestones, and by interacting with the technical standardization committee, the Agency can provide support to the standardization process as follows:

- Project lead for standardization tasks;
- Standardization coordination and project management;
- Standardization technical coherence;
- (UML) Modelling;
- Hosting Standards and hosting standardization support registries.

1.5. Support in Standards Implementation
Standards are only of use to the end user once they are implemented. And the implementation needs to be tested and verified to be standard-compliant.

NCI Agency can provide the following services:

- Standard compliance testing;
- Implementation prioritisation, because not all standards are of high importance;
- Technical advice;
- Implementation of adapters or wrappers to support standard interfaces and formats.

2. Value Added
Interoperability is the key enabler for the NATO Network Enabled Capabilities. Loosely coupled services are required to build the Service Oriented Architecture. All services need to interact smoothly and consistently. This can only be achieved with implementations of sound standards.

Standards are developed by communities of interest and they get ratified by these communities who benefit from the standards. However technical skills are not always available for the standards development. This is where the Geospatial Standardization Service can provide their expertise to support and accelerate the development of relevant geospatial standards.

3. Locations
NCI Agency location in The Hague, the Netherlands.

4. Dependencies
Not Applicable.

5. Available Networks
Services for development of standards at all NATO classification level are supported.

6. Support Availability
Support is provided during regular business hours.

7. Prerequisites
Not Applicable.
8. **Additional Information**

- NCI Agency was the initiator for the development of the NATO Geospatial Metadata profile (STANAG 2586);
- NCI Agency is a major contributor to the NATO Geospatial Information Framework (NGIF, STANAG 2592);
- NCI Agency is participating in the NATO Joint Geospatial Standardization Working Group (JGSWG) of the NATO Standardization Office;
- NCI Agency is participating in the Defence Geospatial Information Working Group (DGiWG);
- NCI Agency staff used to contribute to Open Geospatial Consortium (OGC) and ISO/TC 211 Geospatial Information in developing the ISO 19100 series of geospatial standards.
**SCO141 - GIS Integration and Interoperability Service**

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</tr>
<tr>
<td>Service Type:</td>
<td>Geospatial Applications</td>
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</tbody>
</table>

1. **Service Description**

Geospatial Services in NATO are provided by the Nations and by NATO-owned and operated assets such as the NATO Core GIS. Geospatial Services are providing the full range of services across all military functions to achieve geospatial superiority.

GIS Integration and Interoperability services are critical building blocks for the success definition of GIS enterprise architectures and IT roadmaps. The Geospatial Branch of the JISR SL provides subject matter expertise and engineering advice in the areas of GIS Integration and interoperability. A breakdown of key services is provided below.

1.1. **GIS requirements**

Requirements analysis, also called requirements engineering, is the process by which user requirements are captured and converted into technical requirements for new and future systems and services. With an extensive experience in the area of requirement capturing and analysis, our service includes:

- Collecting geographical information system (GIS) data requirements and functionality.
- Translating to functional and non-functional system requirements.
- Analysing integration and geospatial interoperability aspects, identification of potential solutions, including Prototyping and Experimentation.
- Compiling System Requirement Specification for bidding.

1.2. **Web processing services**

The widely adoption of Open Geospatial Consortium (OGC) Web Processing Services (WPS) by GIS vendors marks a paradigm shift from services providing data towards services providing information. As a result of this situation complex geospatial analyses, which makes use of analytical models, can now be directly requested and consumed by Functional Service applications (users) without any intervention of expert Geo Staff. The Geospatial Branch of the JISR SL provides customers with subject matter expert advice for the development of complex analytical models and WPS configuration. A breakdown of analytical models and respective WPS that potentially could be developed is provided below:

- Battle-space area (BAE) evaluation;
- Intelligence preparation of the battle-space (IPB);
- Mobility and counter mobility and manoeuvre assessments;
- Network analysis;
- Surface analysis;
- Site selection (based upon criteria analysis);
- Trend analysis.

1.3. **Component based framework (reusability)**

Core GIS is the single source of geospatial information of the Bi-SC AIS. In order to scope and integrate the geo requirements of Functional Area Services (FASs), the project also provides a ‘toolset’, the Core GIS Component Based Framework (CBF), which facilitates integration of FASs with the Core GIS via web services as well as the implementation of GIS functionality based on discrete COTS components that can be re-used throughout the NATO FAS’s.
In order to maximise reusability and correct integration of CBF components by FAS developers the following services are available:

- Technical advice on how to integrate with Core GIS geospatial capabilities, and guidance towards getting started using the CBF to implement FAS GIS requirements.
- Recommended implementation options for each FAS geo requirement using the Core GIS CBF.
- Drafting of Interface Control Documentation defining the standard web interfaces as well as the CBF components that can be used by FAS developers.

1.4. Compliance testing standards
- Development of compliance testing standards to validate GIS integration and geospatial interoperability.
- SME support for the execution of the tests.

1.5. Architecture work
The Core GIS architecture has successfully adopted open standards (geospatial standards and Information Technology standards) and implemented specifications (e.g. from organizations such as ISO, DGIWG/IGEOWG, W3C, OASIS, OGC) that form the basis for interoperability. This provides a high-level of interoperability across the Core and Functional Services of the Bi-SC AIS, and with the Nations. Interoperability is just one of many critical aspects to be taken into account in the definition of the GIS system architecture. With an extensive experience in the area of GIS architecture work our services include:

- Enterprise GIS system design;
- Definition of GIS roadmaps to meet specific customer needs;
- Identification and assessment of emerging trends and GIS technologies;
- Identification and troubleshooting of performance problems.

2. Value Added
GIS Integration and Geospatial Interoperability are key factors to achieve Information and technology superiority. The adoption of web services by the NATO Geospatial community supports the NNEC concepts and therefore maximises interoperability with NATO and national FASs.

To facilitate easy integration of the NATO Geospatial Core Capability a Component Based Framework (CBF) is available to FASs developers. This way GIS functionality can be reused across desktop, web and mobile platforms.

The geospatial services group of JISR SL provides subject matter expert and engineering advice on GIS integration and provides solutions to solve geospatial interoperability issues with different FASs.

3. Locations
Subject Matter Expert advice for Core GIS related services can be provided by NCI Agency location The Hague, the Netherlands.

4. Dependencies
Not Applicable.

5. Available Networks
Services for GIS integration and interoperability at all NATO classification level are supported.

6. Support Availability
Support is provided during regular business hours. Special arrangements are made for direct. Support to operations as needed.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
SCOI42 - Geospatial Production Service

Organizational Element: Joint Intelligence, Surveillance and Reconnaissance (JISR)

Standard Service (Budget) or Service Group: Joint ISR

Service Area: C3 and Enterprise Services

Service Group: Other Services - Geospatial Production Service

Service Type: Geospatial Applications

1. Service Description
Geospatial Services in NATO are provided by the Nations and by NATO-owned and operated assets such as the NATO Core GIS. Geospatial Services are providing the full range of services across all military functions to achieve geospatial superiority.

Geospatial production services are essential for bringing a consolidated set of data to the end-user. The Geospatial Branch of the JISR SL provides subject matter expertise for the whole range of aspects dealing with geospatial data production.

A breakdown of key services is provided below.

1.1. Geospatial data processing for operations and exercises
For exercises as for real operations, geospatial data is needed for efficient mission planning and execution. The Geospatial services group of JISR SL deals with any kind of data (vector data, maps, imagery, elevation or 3D) and is providing significant geospatial data production support to NATO bodies, such as the Joint Warfare Centre (JWC) for exercise support and operational HQs in theatre for operational support. The activities include:

- Establishing Technical Processing Workflows (TPWs) from raw data to its final GIS-ready state in compliance with standard specifications for GI production (STANAGs) for: standard (e.g. ONC, JNC, TPC, JOG, TLM, Hydrographic charts, Town plans, etc.) and tailored maps (e.g. special maps, MISC maps, etc.) at all scales;
- commercial imagery processing (block-bundle-other certification, colour balancing, mosaicking, compression, etc.) to highest quality standards;
- elevation data processing and fused 3D models;
- rapid mapping techniques for time-critical events.

Technical advice and support for the preparation of geospatial data and products, which include:
- Conditioning and re-formatting of Geospatial Information (GI) (In this case, information content is extracted from recent and precise high resolution imagery and then overprinted on outdated maps. Also it might include the overprinting of a new grid and/or additional marginalia).
- Provision of techniques to alter the content of geospatial data and to produce synthetic map series in various formats (GIS use and ready-to-print maps) to fit exercise scenario purposes and to meet the needs of all user communities.
- Execution of source data survey and acquisition of all kinds of geospatial data.
- Maintenance and management of geospatial data holdings.
- Development of methodologies that combine the functionality of multiple COTS software packages into a single streamlined map production workflow for optimized quality and turnaround time.
- On-site support and training for all geospatial data production related tasks.
1.2. GIS Vector data production
Availability of vector data is a crucial element to ensure efficient geospatial support to NATO HQs. Production of vector data sets (e.g. high density road network layer) is a complex and technical demanding task involving SME’s within the GIS/cartographic area. The Geospatial services group of JISR SL offers the following type of support in this expertise area:

- Evaluation of potential source data;
- Development of GIS data models, workflows and production methodologies tailored to the project specification;
- Development of Quality Assurance (QA) and Quality Control (QC) procedures to standardize production output;
- Data capturing (digitization) of feature data according to the product specifications;
- Capturing of metadata information down to a feature instance level as required;
- Integration of relevant attribute information;
- Provide GIS-ready data sets to be exploited by core GIS capability;
- Execution of on-site field surveys/data collection to complement existing source data.

1.3. State of the art geospatial production facility
Geospatial data is generally complex in nature and often very large in terms of disk space. A state of the art, high-end production facility is required for efficient processing of such datasets. The Geospatial services group of JISR SL combines many years of hands-on experience maintaining an in-house facility to the latest industry standards in terms of hardware, software and licensing. Services provided include:

- HW/SW requirement capture and analysis, and translation into potential solutions;
- Consultancy for GIS production facilities;
- Training and knowledge transfer on facility management;
- Support on maintenance of facilities (e.g. in Commands, in Theatre) as well as the rapid adoption of the existing Geo-capabilities to potential changes in a mission;

2. Value Added
Nations as well as the geo staff at the NCS have been successfully using the geospatial production services for the execution of complex production mapping tasks. Established and proven workflows are essential to ensure a consistent dataset and high quality products. In order to meet this critical requirement the geospatial production service has developed processing workflows that standardize and automate the creation of cartographic outputs.

3. Locations
Subject Matter Expert advice for Core GIS related services can be provided by the NCI Agency location from The Hague, the Netherlands.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
Support is provided during regular business hours. Special arrangements are made for direct support to operations as needed.

7. Prerequisites
Not Applicable.

8. Additional Information
The Geospatial Branch of the JISR SL has supported JWC in production of the last exercise settings (MadaVerde, Cerasia, Skolkan and Sorotan)
1. **Service Description**

Geospatial Services in NATO are provided by the Nations and by NATO-owned and operated assets such as the NATO Core GIS. Geospatial Services are providing the full range of services across all military functions to achieve geospatial superiority.

Geospatial Intelligence (GeoINT) Support services provided by the JISR SL offers Subject Matter Expertise (SME) to support a variety of areas ranging from requirements analysis to capability development and operations, including source data identification, fusion and analysis. The Geospatial Branch of the JISR SL has developed novel GeoINT workflows over the years which can be shared and trained.

A breakdown of key services is provided below.

### 1.1. Requirements Analysis

Requirements Analysis captures user requirements and converts them into technical requirements for new and future systems and services that will be acquired/developed and operated to achieve a given level of ambition for GeoINT services. GeoINT support services in this area include:

- Capturing new or changing GeoINT requirements (incl. special communities such as SOF);
- Collecting and maintaining overview of National and commercial GeoINT capabilities;
- GeoINT capability requirements definitions and identification of potential technical solutions;
- Feasibility analysis incl. Prototyping and Experimentation.

### 1.2. Identification/capturing of source data

GeoINT support services related to identification/capturing of source data include:

- Spatially enable data based on NATO Geospatial Metadata Profile;
- Spatial DB harmonisation to support fusion and analysis;
- Capture very high resolution aerial imagery and surface data using NCI Agency owned UAV;
- Identify/Select/Acquire/Process commercial satellite imagery for GeoINT;
- Manual, automated/semi-automated imagery based feature extraction;
- Multispectral/Hyperspectral/Radar-imagery based information classifications.

### 1.3. GeoINT fusion/analysis and training

The NCI Agency has broad experience in the operational fusion/analysis and training of GeoINT data. Our specific expertise includes:

- Environmental assessments;
- Intelligence preparation of the battle field (IPB);
- Mission specific GIS analysis (Cross Country Mobility (CCM)/Routing, Helicopter landing sites/formation movement assessments, flood risk models, etc.);
- Documentation and training of mission specific GeoINT analysis;
- Development and operation of automated GeoINT fusion engines (NATO Core GIS hosted).
1.4. GeoINT presentation

The JISR Geospatial Services Branch provides a wide range of GeoINT presentation services, such as:

- Development and operation of GeoINT templates;
- Dynamic (Google-Earth like) 3-D visualisation environments (online/offline);
- Near real time GeoINT data/analysis visualisation technology;
- GeoINT results presented in STANAG compliant map frames;
- Mobile Apps.

2. Value Added

The NCI Agency has extensive expertise in both NATO and national GeoINT capabilities and operations. NCI Agency GeoINT services are provided to most NATO operations while on the ground NCI Agency GeoINT data capturing tasks have been performed extensively in Afghanistan and Kosovo. The NATO Core GIS includes advanced image processing software (SW) as well as GIS SW, which is extensively used by NCI Agency staff for the full range of GeoINT, including IMINT aspects.

GeoINT capability enhancements are frequently developed, provided and trained, including the ISAF SOF community. For example, the NCI Agency is developing a number of GIS analytical routines which can be executed by Core GIS as web-processing services. The NCI Agency will also support the standardization of these routines and implementation can be provided on demand.

The NCI Agency maintains a state-of-the-art GeoINT facility which can respond to most operational GeoINT reach back tasks within shortest turn-around times.

The extensive experience and knowledge base regarding GeoINT is offered to the Nations in order to assure technological and procedural alignment with current and future NATO GeoINT services.

3. Locations

NCI Agency location The Hague, the Netherlands.

4. Dependencies

Not Applicable.

5. Available Networks

GeoINT services at all NATO classification level are supported.

6. Support Availability

Support is provided during regular business hours. In case of operational tasking, 24/7 working modus.

7. Prerequisites

Not Applicable.

8. Additional Information

- The NCI Agency has provided GeoINT support to Nations in the past. It is expected that the NCI Agency will become a technology enabler for the Smart Defence Multinational Geospatial Support Group (GSG) Initiative. This will include various aspects mentioned above.
- The US Geospatial Intelligence Foundation (USGIF) has awarded the 2009 Geospatial-Intelligence Achievement Award (category military) to NCI Agency SME’s.
SCOl44 - Finance, Procurement/Acquisition & Travel Application Services

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| Service Type: | Business Applications [not currently in the C3 Capability Taxonomy but could be considered for inclusion at the User-Facing Capabilities layer in future revisions] |

1. **Service Description**

The Finance, Procurement/Acquisition & Travel Application Services enable streamlined budget execution, accounting, procurement, payments and travel processes and provide transparency, flexibility and control over allocated and delegated budgets.

The Centralized NATO Automated Financial System (CNAFS, also called FinS) is the system used to implement these services. CNAFS/FinS is an Enterprise Resource Planning (ERP) system based on the Oracle E-Business Suite Release 12.

The main functionalities supported by CNAFS/FinS are:

- General Ledger;
- Payables;
- Receivables;
- Cash Management;
- Assets;
- Purchasing;
- Advanced Procurement (I Procurement, Procurement Contracts, Services Procurement, Sourcing);
- Travel Management (Travel Requests and Travel Claims).

2. **Value Added**

Implemented processes and business flows are compliant with the NATO Financial Regulations (NFR's), Procurement Directives and International Public Sector Accounting Standards (IPSAS).

These services facilitate NATO Strategic Commands, other Military Commands, Agencies and other Organizations in doing their core business which in turn supports SACEUR’s and SACT’s mission. At the creation of the NCSA Agency, Director NCSA strongly supported the implementation of these services because "This will obviate the need for the delegation of the NCSA budgets to the local ACO/ACT HQ J8 Organization. It will streamline the budget execution and accounting processes and provide greater transparency, flexibility and control over allocated and delegated budgets.”

3. **Locations**

CNAFS/FinS is a central implementation which is being hosted by NCI Agency SSBA out of SHAPE (Mons, Belgium). The services are available at all sites with connectivity to the NU WAN (including REACH).

4. **Dependencies**

Not applicable.

5. **Available Networks**

The services are available at all sites with connectivity to the NU WAN (including REACH).
6. **Support Availability**  
Level 1 support is handled by the Application System Administrator belonging to the User Community. This includes access management and request fulfilment.

The NCI Agency SSBA Oracle E-Business Suite System Manager is owner of the following ITIL processes in which the customer/user is an actor:

- Incident Management;
- Problem Management;
- Change management;
- Release and deployment management;
- Service validation and testing.

These level 2 and 3 support processes are executed by dedicated NCI Agency SSBA Application Management and Technical Management teams at SHAPE (Mons, Belgium) during business hours.

7. **Prerequisites**  
Standard Workplace Services (including Network Services, Desktop Services, Windows Platform Services and Mail Services) are required.

8. **Additional Information**

- CNAFS/FinS has interfaces with the NATO Depot & Support System (NDSS) and with the NATO Personnel Management Information System (PMIS).
- CIS Asset Management is also integrated into CNAFS/FinS.
- The implementation of HR functionality into CNAFS/FinS is in the pipeline.
- CNAFS/FinS is in scope of CP 9C0103 “Functional Services for Logistics C2 (LOG FS)”. 

SCOI45 - Human Resources Application Services

Organizational Element: Service Support and Business Applications (SSBA)
Standard Service (Budget) or Service Group: Business Application Services
Service Area: C3 and Enterprise Services
Service Group: Business Application Services
Service Type: Business Applications [not currently in the C3 Capability Taxonomy but could be considered for inclusion at the User-Facing Capabilities layer in future revisions]

1. Service Description
The Human Resources Application Services deliver applications to support the management of personnel, jobs and organizations in the NATO static and deployed Command Structure. These applications enable the users to access, collect, store, manage, analyse, present, process and disseminate human resource information. The two main applications are the Automated Personnel Management System (APMS) and the Taleo online recruitment solution (Taleo).

APMS is a Human Resource management tool which supports the following main processes at the NATO Command Structure, static and deployed, and at the NCI Agency:
- Personnel Management;
- Organizations Management;
- Assignment;
- Deployed Personnel Support Management;
- Training Management.

Taleo provides a cloud-based state-of-the-art solution and is being used extensively to support the recruitment processes for civilian personnel at the NATO International Staff, NATO International Military Staff, NCI Agency and NATO Alliance Ground Surveillance Management Agency. For this purpose Taleo supports both NATO internal and external recruitment campaigns.

1.1. Personnel management
The Automated Personnel Management System (APMS) supports the following day-to-day personnel management processes:
- In-processing (arrivals);
- Out-processing (departures);
- Absence Management (availability management: leave, travel, training, deployment...);
- Passes and Permits Management (recording only);
- Decorations Management (recording only);
- Employee Self-Service.

1.2. Organization management
APMS supports the following organization management processes:
- Skill-set management (Competences management);
- Job description management;
- Organizational structure management;
- Manpower modelling;
- Manpower reporting;
- CEtoPE link management.
1.3. Assignment
APMS supports the assignment (posting) of skilled and available personnel to jobs (posts). In particular it provides a “Job Hunter” functionality.

1.4. Deployed Personnel Support Management
APMS provides functionalities to support deployed personnel: APMS provides functionalities to manage accommodation assets in deployed locations, to support the management of arrivals, departures in and out of deployed locations and to support the management of theatre specific passes and permits.

1.5. Training Management
APMS supports the management of personnel applications for training courses, and the management of training related reference data (training course providers and training objectives).

1.6. Recruiting
Taleo, the cloud-based state-of-the-art solution offered by Oracle (Software as Service), supports the recruitment process from the publication of a job opportunity on online job boards, to the collection and management of applications, and to the selection of a candidate. It supports both NATO internal and external recruitment campaigns.

2. Value Added

2.1. Automated Personnel Management System (APMS)
Implementation of the Automated Personnel Management System enabled the establishment of common procedures and data standard, improved accuracy, relevance and timelines of information and reduced HR Personnel workload: at a local level the use of APMS supports day-to-day personnel management, supports Manpower modelling, CE and Crises Response Operations (CRO) manpower and manning management, reduces analysis and reporting workloads and produces standard executive summaries and reports.

As a result, APMS provides the Personnel management functional services which fully support SACEUR’s and SACT’s mission.

Furthermore, enforcement of APMS as the authoritative data source for Command Structure Personnel also improved personnel data inputs to other systems (e.g. for security in/out processing at SHAPE).

2.2. Taleo online recruitment solution (Taleo)
Implementation of Taleo resulted not only in significant recruitment effort reductions not only with the automation of simple but time-consuming tasks but also in faster recruitment campaigns. Additionally such a state-of-the-art tool is expected to support user Organizations in attracting talented candidates in greater numbers, especially for technology related opportunities.

A combined solution with NATO HQ provides a significantly greater application experience to the end user. Having the ability to search and apply for vacancies with various parts of NATO on the same site is a significant advantage to candidates, as is the sharing of candidate application history amongst the NATO bodies, hence materializing tangible progress in the direction of shared services in the Human Resource management area.

3. Locations

3.1. Automated Personnel Management System (APMS)
APMS is a central implementation which is being hosted by NCI Agency, out of SHAPE (Mons, Belgium).

3.2. Taleo online recruitment solution (Taleo)
Taleo is a cloud-based, Software as a Service solution, hosted and maintained by Oracle.
4. Dependencies [DRAFT]

4.1. Automated Personnel Management System (APMS)
A number of services are dependent upon the provision of personnel data by APMS: Access management services (AMIS, TACTIC), Directory services (NEDS), Training course management services (e-ITEP).

4.2. Taleo online recruitment solution (Taleo)
Not Applicable.

5. Available Networks

5.1 Automated Personnel Management System (APMS)
The services are available at all sites with connectivity to the NS WAN, the NU WAN (not REACH) or the MS WAN. The service is also temporarily available on the SHAPE NR enclave. Data is replicated across network boundaries.

5.2 Taleo online recruitment solution (Taleo)
The services are available from the Internet, NU WAN and from REACH.

6. Support Availability

6.1 Automated Personnel Management System (APMS)
SHAPE J1 HRDS centrally provides Level 1 and Level 2 support (inclusive support for data management, data replication and user layer configuration) as well as training services.
The NCI Agency SSBA Service Line centrally provides Level 3 support.

6.2 Taleo online recruitment solution (Taleo)
Level 1 of support is provided by local helpdesks.
The NCI Agency SSBA Service Line centrally provides Level 2 and 3 support.

7. Prerequisites

7.1 Automated Personnel Management System (APMS)
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services, Browser\textsuperscript{14}, Mail and Calendar Services) are required. Remote Desktop client is also required, except for Employee Self-Service.

Effective use of APMS is also dependent on appropriate training and mentoring.
APMS is based on several COTS packages. NATO has procured a limited number of server instances and user licences.

7.2 Taleo online recruitment solution (Taleo)

Network Services, Browser\textsuperscript{15} and Mail Services are required.

No training is required for candidates. Online off the shelves training packages are available for recruiters (back-end functionalities).

Licencing is based on the headcount of the organization.

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\textsuperscript{14} Users are strongly recommended to use a recent version of Internet Explorer.
\textsuperscript{15} Most browsers are supported for candidates' access to Taleo (front-end). However recruiters accessing Taleo (back-end) are strongly recommended to use a recent version of Internet Explorer. Maintaining Java up to date is also strongly recommended.
8. Additional Information

8.1 Automated Personnel Management System (APMS)
The next major release of APMS (APMS FOC) is planned for delivery in June 2015; this new release will fully support the Establishment Review process, support Identity Management with the generation of NUID and EID for NATO personnel, and many enhancements will be brought to functionalities already provided. But most importantly, APMS FOC will be fully web-based; as a result, not only user experience will significantly improve but also Remote Desktop clients will no longer be required.

Implementation of possible solutions to access APMS functionalities from the REACH network is being investigated.

The following processes are not supported by APMS:

- Contract Management, On-boarding and Separation;
- Configuration of security passes/badges;
- Benefits Administration Management;
- Talent/Career Management (Appraisal, Performance Management, Career Management, Learning and Development);
- Policies and Procedures Management;
- Morale and Welfare Management.
- Medical Services Provision

8.2 Taleo online recruitment solution (Taleo)
Implementation of a NATO-wide recruitment solution is being investigated on the basis of Taleo.
SC0I46 - Project Management Application Service

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1. Service Description
The Project Management Application Service delivers applications that support end-to-end Project Management processes and activities, including:

- Project Start-up;
- Project Planning;
- Project Base lining;
- Resource Management;
- Project Execution and Control;
- Time Accounting;
- Reporting;
- Project Collaboration.

The Project Management Application Service also delivers applications that support Portfolio Management processes. The Enterprise Project Management system (EPM) is the system used to implement these services. EPM is a Project and Portfolio Management System (PPM) based on Microsoft SharePoint 2010, Project Server 2010 and Microsoft Project Professional 2010. Section 8 provides additional information about future extensions of the service.

1.1. Project Start-Up
Project Management Application Services provides the capability for projects to be started following a clearly defined and controlled process. The combination of procedures and tailored workflow tool (based on K2) allows a clear Project Start-Up process.

1.2. Project Planning
Project Management Application Services provides the capability to project managers to plan their projects in a coherent and controlled way. By the use of customized templates system and internally developed project protections, all projects are stored in a central repository allowing for relevant live reporting. Project planning information is then published to the Time Accounting System.

1.3. Project Base lining
The Project Base lining system delivered by Project Management Application Services provides the capacity to take budget snapshots (Baselines) of projects at several stages in their life cycle. Those snapshots can then be used with other capabilities like reporting or Project Execution and Control or interfaced to a financial system.

1.4. Resource Management
Project Management Application Services provides the capability to Resource Managers to effectively manage their resources. Based on an approval process starting from resource planning from the Project Manager, Resource Manager have the possibility to review resources requests in regard to resource capacity and other assignments and to act on those request (approve, reject).
1.5. Project Execution and Control
Project Management Application Services provides the capability to project Managers to effectively execute and control project progress on effort and cost. Closely linked to Project Baseline and Time Accounting system, Project execution and control provides real time data on project status and proactively inform them in case of variance.

1.6. Time Accounting System
The Time Accounting System provides the capacity to Staff members to have access to their assignment information on projects and non-project activities and to report time spent against them. Timesheet information is then submitted to the Project Manager(s) for approval and update of the project plans.

1.7. Reporting
The Reporting system offers unlimited capabilities of reporting. Reports can be based on Project management data and also crossed with other systems like Core Financial System.

1.8. Project Collaboration
Based on SharePoint technology, the project collaboration aspect of Project Management Application Services provides the capacity to store, share and act on project related information such as documents, issues and project risks.

2. Value Added
The implementation of the Enterprise Project Management System enables the enforcement of common project management procedures, data centralization, accurate control on project progress and expenses, resource management, execution & control, and reporting. The consolidated portfolio view of all the projects and assigned resources has also a direct added value on the ability to support current and future projects, making it easier to redirect resources to meet new evolving requests, as well as providing real time reporting on projects performances.

3. Locations
EPM is a distributed implementation for high availability which is being hosted by the NCI Agency CES Service Line in Brussels and The Hague. The services are available at all sites with connectivity to the NR WAN (including REACH).

4. Dependencies
Not applicable.

5. Available Networks
The services are available at all sites with connectivity to the NR WAN (including REACH).

6. Support Availability
Service support can be provided at the level required through the use of SLA framework and can include Level 1, 2 and 3 support (i.e. advanced technical support and expert level troubleshooting).

Level 1 support is provided by the Service Desk for technical matters and by the Project Management specialized group for functional aspects.

Level 2 and 3 support is centrally provided during NCI Agency Brussels business hours by dedicated Application Management and Technical Management Teams under the supervision of the NCI Agency SSBA Project Management Application Service Owner.

7. Prerequisites
Standard Workplace Services (including Network Services, Desktop Services, Windows Platform Services, and Mail Services) are required.

8. Additional Information
Future extension of this service can be envisioned in terms of:
• Locations:
  o NCI Agency locations
  o Other locations
• Versions: use of SharePoint 2013, Project Server 2013 and Microsoft Project Professional 2013
• Functionality: On requests, customized integrated project management functionalities can be developed and deployed.
• Network: On request, Project Management Application service can be deployed on NU or NS classification level networks.
### SCOI47 - Asset Management Application Service

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1. **Service Description**

   The Asset Management Application Service delivers applications that enable users to collect, process, present and distribute consolidated information of assets with a lifecycle perspective, from acquisition to disposal. These applications are implemented based on the Oracle E-Business Suite Release 12, and support the following processes:

   - Inventory Management;
   - Order Management;
   - Asset Cost Accounting.

   The Asset Lifecycle Management process (asset classification, capitalization and depreciation) is supported by the Fixed Asset Management application delivered as part of Financial FS.

   The Asset Management service currently supports the centralized management of CIS assets at the NCI Agency and it is technically implemented within the Centralized NATO Automated Financial System (CNAFS), leveraging on the integration with other Oracle E-Business products (Procurement/Acquisition, Fixed Asset Management) to drive better visibility and decision-making, sustainable financial discipline, regulatory compliance, and optimized asset management processes.

   With respect to CIS assets, the Software Asset Management process (other than pure inventory management) is currently out of the service scope.

   This service provides basis for enabling future integration with the following services:

   - Procurement/Acquisition (external);
   - Configuration Management;
   - Enterprise Asset Management.

   Section 8 provides additional information about future extensions of the service.

1.1. **Inventory Management**

   The Inventory Management application supports the following activities:

   - Item management, including item creation, codification, serialization and classification;
   - Asset movements, including receipt, shipping and transfer;
   - Inventory quantity and value management at each location and customer;
   - Physical inventory and periodical cycle counting;
   - Inventory replenishment;
   - Inventory reporting.

1.2. **Order Management**

   The Order Management application, integrated with Procurement/Acquisition, supports the following activities:
Customer Account Management, including:

- MRAH and Custodian management;
- Shipping, delivery addresses management;
- Internal Order fulfilment (e.g. Customer to Depot);
- External fulfilment.

1.3. Asset Cost Accounting
The Asset Cost Accounting application supports the following activities:

- Asset valuation and Weighted Average Cost (WAC) calculation;
- Inventory accounting, reconciliation and auditing.

2. Value Added
The introduction of a centralized Inventory and Order Management capability, integrated with the already existing procurement\(^ {16}\) and finance capabilities, enables to close loopholes in the asset lifecycle management, helping to achieve the requirements of the IPSAS regulations.

The consolidated view of all assets also has a direct bearing on the ability to support current and future operations, making it easier to redirect resources to meet new and evolving requirements, as well as improving the operating cost by avoiding duplicated procurement and rationalizing inventory and assets.

3. Locations
Asset Management is a central implementation which is being hosted by the NCI Agency SSBA Service Line from SHAPE (Mons, Belgium).

The services are available at sites with connectivity to the NU WAN (including REACH).

- NCI Agency DSO/ CIS Sustainment and Support Centre (CSSC): acting as the central CIS Asset Management Depot and the entity responsible at tactical level for the centralized CIS Asset Management
  - CIS Support Units (CSUs): acting as units to group asset customers (MRAH)\(^ {17}\)
- NPC Glons.

4. Dependencies
Oracle E-Business Suite version 12.1.3 Finance and Procurement / Acquisition.

5. Available Networks
The service is available at sites with connectivity to the NU WAN (including REACH).

6. Support Availability
Service support can be provided at the level required through the use of the SLA framework and can include Level 1, 2 and 3 support (i.e. support to basic customer issues, advanced technical support and expert level troubleshooting).

Level 1 support is provided by the Logistic user community (currently CSSC); Access Management is centrally provided for CNAFS by the Finance user community, with future plans to be provided by the Business Application Services (BAS) group in the future.

Level 2 and 3 support is centrally provided during SHAPE (Mons, Belgium) business hours by dedicated Application Management and Technical Management Teams under the supervision of the NCI Agency SSBA Oracle E-Business Suite System Manager.

\(^ {16}\) Oracle based Procurement only.

\(^ {17}\) CSUs are not currently provided with direct access to these services; CSSC is performing the necessary transactions on their behalf and provides them with periodic reports; the requirements will be revisited by DSO in 2015.
7. **Prerequisites**  
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) are required.

The service is not intended to be implemented as a “stand-alone” service but in conjunction with the Finance and Procurement services.

Effective use of Asset Management applications is also dependent on appropriate training and mentoring which are provided as sub-services. Training infrastructure is maintained (CNAFS/FinS environment shared with Finance community).

This service requires Oracle licenses and support for Inventory Management and Order Management modules.

8. **Additional Information**  
Future extension of this service can be envisioned in terms of:

Locations:
- NCI Agency locations at The Hague and Brussels;
- Other depots.

Asset types:
- Extension to Non-CIS Assets.

Functionality:
- Enterprise Asset Management for tracking labour cost and complex assemblies;
- Integration with external procurement;
- Integration with configuration management (ITSM);
- Integration with Software Asset Management.
SCOI48 - Logistics Functional Area Application Service

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1. Service Description
The Logistics Functional Area Application Service delivers applications which enable the users to collect, store, manage, analyse, present and distribute information in support of logistics operations. The main processes supported are:

- Stockpile planning;
- Deployment and sustainment planning;
- Movement and transport of personnel and equipment;
- Reception, staging, onward movement and integration;
- Logistics reporting.

Logistic Functional Area Services (LOGFAS) system is the toolset used for this service. Main elements of LOGFAS are described below.

1.1. Stockpile Planning Application Services
Allied Commands Resource Optimization Software System (ACROSS) supports the stockpile planning efforts of the SCs and nations across all component operations. ACROSS consists of the sub-software modules Air Defence Munitions Expenditure Module (ADMEM), Air to Ground Munitions Expenditure Module (AGMEM), Land forces Munitions Expenditure Module (LEMEM), Maritime Munitions Expenditure Module (MARMEM). All sub-systems follow target orientated methodology and are used to calculate requirements on battle decisive munitions to defeat targets by conventional means according to the NATO level of ambition.

1.2. Movement and Transportation Application Services
These services are provided by the following modules:

- Allied Deployment and Movement System (ADAMS) supports strategic deployment planning and facilitates multinational deployment planning and information transfer. ADAMS assists movement and transportation planners in developing deployment plans and testing their feasibility by enabling the rapid preparation, de-confliction and dissemination of plans between nations and NATO commands.
- Effective Visible Execution (EVE) supports the prioritization, de-confliction and coordination of actual movement flow execution plans and provides visibility of movement. During execution, planners are able to monitor, with the support of EVE the progress of planned activities and adjust plans to meet operational objectives.
- Coalition Reception, Staging and Onward Movement (CORSOM) enables the performance of detailed planning for reception, staging and onward movement (RSOM) and provides visualization and oversight of theatre movements during both deployment execution and sustainment operations.

1.3. Logistics Reporting Application Services
The LOGFAS logistics reporting capability provides the means for the timely provision of logistic updates and mission tailored information about all functional areas in logistics. The JFCs and national commanders at appropriate HQ will utilize LOGREP to gain visibility for logistic assessment and planning in peace, as well as for logistic support of any operation. The LOGFAS logistics reporting capability supports the LOGUPDATE and LOGASSESSREP reports as defined in Bi-SC Directive 80-3 Vol. V.
GeoManager (GEOMAN) enables to manage, and present all types of geographical data of logistics interest such as logistics infrastructure and transportation networks.

1.4. Sustainment Planning Application Services
The Sustainment Planning Module (SPM) enables NATO and national planners to calculate sustainment requirements for operations, to check the sustainability of a given set of units in a given time interval, to calculate the packaging requirements for the sustainment of a set of forces assigned to an operational plan and to support the calculation of strategic stockpile planning for supplies other than battle decisive munitions.

2. Value Added
The standardization of logistics data and data formats and their timely exchange is the key to the success of complex logistics operations, especially to facilitate the coordination between the many deploying forces from multiple nations, with limited logistic assets and infrastructure capabilities. LOGFAS addresses the technical requirement to minimize the planning time for NATO deployments and to maximize the capability for rapid exchange of the associated plans, reports and other information. Furthermore LOGFAS allows the user to query logistics information for specific item(s) across multiple units and nations. The LOGFAS system has been in use since 1995 and has successfully supported many NATO operations and exercises.

3. Locations
Although LOGFAS is primarily intended to serve NATO forces, it could be used in any operation within the framework of a multinational force. LOGFAS could also be utilized, adapted as necessary, and agreed by participating nations, for operations led by the European Union (EU), or a coalition of NATO and non-NATO nations, when such utilization would not be against NATO’s interests, upon agreement by Allies.

LOGFAS is currently available at the NATO strategic and operational commands and as part of NATO Deployable CIS Capability. There are also several instances of the service provided in ISAF as part of the AMN. LOGFAS services are also used by NATO Force Structure elements and nations.

4. Dependencies
Not applicable.

5. Available Networks
In NATO, the service is available on the NS and ISAF AMN domain. However, the service can be provided on the customer’s choice of security domain as well. In case of national security domains, the customer is responsible for its accreditation.

6. Support Availability
For ACO, as specified in the centralized corporate SLA. For other customers, service support can be provided at the level required through the use of SLA framework.

7. Prerequisites
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) is required.

The service can be provided as standalone solution but also as part of Bi-SC AIS to make use available core and enabling services such as Core-GIS, Active Directory, Symbology Server, Track Management and COP Management Services.

Effective use of LOGFAS is also dependent on appropriate training and mentoring which are provided as sub-services.
8. Additional Information
LOGFAS interoperates with NATO and national systems. Among these are NATO’s operational planning tool, TOPFAS, event management tool, JOCWatch, text based collaboration tool JChat, track management tool, NIRIS, and situation awareness tools IGeoSit and NCOP.
SCOI49 - Logistics Business Intelligence and Decision Support (LOGBIDS)

Application Services

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1. Service Description
The Logistics Business Intelligence and Decision Support Application Services support the realization of NATO’s logistics C2 capability which aims to enhance NATO deploy ability and sustainability by making collective logistics easier through support to the development of Bi-SC Automated Information Systems (AIS) and the exploitation of information, networks, and technology. The program ensures logistic information capabilities are internally consistent and coordinated as well as externally coherent with NATO’s strategic concept, the wider aspects of Bi-SC AIS and the tenets of the NATO Network Enabled Capability.

The capability builds on the consolidation and development of logistics information systems to be delivered by the LOGFS CP Projects 0IS03042 and 0IS03043. LOG FS CP addendum Project 0IS03044 provides the basis for the development of further functionalities to address the visibility component of NATO Operational Logistics Chain Management (OLCM) capability: NATO’s forward looking logistics concept that links the main actors (NATO Commander, Commander J4 or equivalent, Joint Logistics Support Group (JLSG) commander, Nations, Host Nations and Third Party Logistics Support and Services) in the planning and provision of logistic support. This will be undertaken in a way that recognizes the CP’s role as the ‘material’ component of the OLCM capability’s DOTMLFPI lines of development by aligning itself with emerging policy, processes and doctrine and ensuring integration through the necessary education and training.

With the delivery of deferred capabilities, this Project will develop Logistics OLCM Visibility as a critical enabling platform for Project 0IS03046 which will deliver OLCM Logistics Collaborative Planning (LCP) and Logistics Decision Support. Improved logistics information and enhanced visibility will provide earlier identification of logistics critical areas, opportunities and solutions and will lead to improved coordination and collaboration between NATO and nations.

The services offered by NCI Agency are:

- Architectural support to Business Process Modelling;
- User Operational Requirement Analysis and Capture;
- Experimentation;
- Training and Exercises;
- Concept development and studies;
- Technical support to NATO-Nation Logistics Interoperability.

2. Value added
The NCI Agency staff has actively supported the program since its onset in 2006, and offers subject matter experience and expertise as well as technical tools, prototypes and interoperability test bed platforms. The services provided have been invaluable for the LOGFS 42/43 acquisition program as well as the preparations for the LOGFS 44/46 acquisition program.

3. Location
Primary venue for the transformational experimentation of Logistics Interoperability prototypes is Coalition Warrior Interoperability Exercise (CWIX).

NATO UNCLASSIFIED 167
4. Dependencies
Not applicable.

5. Available Networks
Not applicable.

6. Support Availability
Not applicable.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
1. **Service Description**

This service provides operation, support, maintenance and system management tasks related to the Integrated Engineering Management System (IEMS), which is an integrated asset management tool containing essential management information for all SHAPE Base Support Group (BSG) in order to answer the SHAPE customer.

IEMS has different modules in order to support the SHAPE Base Support Group in:

- Project management (Projects monitoring, estimations, ...);
- Buildings management;
- Warehouse management (+- 15000 items, Stock management, issues, turn-in, reservations of material, Order via Open End Contracts, Purchase request, Control Expendable items management, work clothes management, ...);
- Budget management (Open-End contracts and Purchase Requests, Status of funds, ...);
- Budget Long Range (projects + utilities on 5 years basis);
- Reimbursable customers management (billing for reimbursable customers);
- Capital items management;
- Non expendable items management (+ inventory for all SHAPE);
- Utilities consumption management (Gas, Oil, Electricity, Water, Cleaning);
- PWL Personnel management;
- Timekeeping management for LWRs and LWS;
- Fire Brigade management;
- Proposal Disposal Office management;
- Bunker management.

2. **Value Added**

The Integrated Engineering Management System Support service enables SHAPE BSG/ISS staff to maintain the SHAPE infrastructure within the accepted and agreed response time.

3. **Location**

IEMS Services are installed on NCI Agency Servers. The Services are used by SHAPE Base Support Group in Mons.

4. **Dependencies**

Not applicable.

5. **Available Networks**

IEMS runs on NATO Unclassified Network.

6. **Support Availability**

- NCI Agency Service Desk (Mons)
- NCI Agency Control Centre (Mons) (Business hours plus on-call 24/7)
7. **Prerequisites**  
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) is required.

8. **Additional Information**  
Not Applicable.
1. Service Description
NATO Asset/Consignment Tracking Application Support Service enables monitoring the location of ISAF consignments along a multinational operated air-bridge from Central Europe into the operational theatre. The system uses Radio Frequency Identification (RFID) equipment and services based technology. The current RFID CT system is composed of: a Central RFID Consignment Tracking (CT) Site with servers running the NCTS Web Application as well as COTS software, active RFID tags and NATO Operational RFID CT Nodes within the ISAF air-bridge furnished with equipment for writing and reading data to/from RFID tags and connected to the central servers via the Internet.

The NCI Agency provides system management services for the operation and maintenance of NATO Consignment Tracking System (NCTS). These services include the management of installations and upgrades, system monitoring and support management, system administrator and end-user training management.

2. Value Added
NATO Consignment Tracking enables to track consignments from deployment, roulements, sustainment and redeployment to/from the theatre of operation. It reduces manpower, commodity and equipment requirements and the logistical footprints in theatre.

3. Locations
NATO Operational RFID CT Nodes are CIS Depot at Joint Force Headquarters, Brunssum (NLD), Geilenkirchen Airbase (DEU), and Kabul Afghanistan International Airport (KAIA) and Kabul Depot 26 and two additional nodes in Kandahar: Depot 38 and Kilo Hangar. The servers are based in NCI Agency, Mons (BEL).

4. Dependencies
Not applicable.

5. Available Networks
NCTS Runs on Internet and NATO Unclassified Networks. The system also mirrors information in the NATO Secret Network through the use of a Diode.

6. Support
Both remote and local support is provided to NCTS. There are ongoing efforts to extend the support to 24/7.

7. Prerequisites
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) is required.
NCTS interoperates with NATO Depot Supply System (NDSS) for NDSS Consignments.

8. Additional Information
Not Applicable.
SCOIS2 - Medical and Health Service Support Application Services

Organizational Element: Service Support and Business Applications (SSBA)

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</table>

1. Service Description

The Medical and Health Service Support Application Services support the transformation of Medical CIS Capabilities through prototype development, experimentation and scientific research and development. The service provision to the medical staff covers all stages of medical support, i.e., planning, execution, and analysis.

The currently supported medical processes and functions are:

- Medical Planning:
  - Casualty Rate Estimation;
  - Medical Capability Directory;
  - Medical Support Simulation;
  - Medical Support Planning;
- Medical Management:
  - Patient Tracking;
  - Patient Regulating;
  - Medical Reporting.
- Clinical Support:
  - Electronic Treatment Records;
  - Trauma Registry.
- Health Surveillance:
  - Disease Surveillance;
  - EpiNATO reporting;
  - Force Health Status.
- Medical Intelligence (MEDINTEL)
- TeleMedicine

The support provided under this Service directly contributes to the development and validation of medical CIS requirements, as well as to the standardization of medical data and data formats.

Currently, operational support is also provided to ISAF in support of medical reporting and medical mission management processes. The Medical CIS Tools provided to ISAF enable the users to collect, store, manage, analyse, present and distribute information in support of the coordination of the medical support provided in the theatre.

The Medical CIS Tools which are operationally used in ISAF are described below.

1.1. Medical Reporting Application Services

The Medical Reporting Tools are currently based on Microsoft Office products aiming to provide maximum automation in support of collating information from subordinate commands and external systems. The supported report formats are Medical Situation Report (MEDSITREP) and Medical
Assessment Report (MEDASSESSREP). The tools also provide analysis capability on the MEDASSESSREPs and information collected from the medical units via the MedCOP tool.

1.2. Patient Regulating Application Services
The Theatre Medical Evacuation (MEDEVAC) Tracker (TMT) and MEDEVAC Analysis Tool (known as Annex A to MEDASSESSREP) support the Patient Regulating processes. Maximum automation is provided to collect information from external systems (e.g., JOCWatch) and transfer data between the tools.

2. Value Added
Synchronized, coordinated and efficient services are provided by the expert team experienced in the original design, development and integration of all NATO Medical tools and systems. With well-defined requirement management, clear and high-quality input can be provided to the applicable acquisition projects in order to avoid a loss on investment. The standardization of medical data and data formats and the timely exchange of medical data is the key to the success of complex medical support operations, especially to facilitate the coordination between the many deployed forces from different nations, with limited medical assets and infrastructure capabilities. Interoperability with the applicable NATO (e.g., NCOP) and national systems is improved through extensive experimentation. In ISAF, with the standardized reporting templates and automated collation of information, the time spent for the creation of reports is substantially reduced and the accuracy is improved. With the analysis tools, statistics and assessment reports are produced promptly providing timely data and information to the decision makers.

3. Locations
The Medical CIS Tools are currently available at the ISAF Theatre of operations. Primary venue for the transformational experimentation of MEDICS CIS prototypes is Coalition Warrior Interoperability Exercise (CWIX).

4. Dependencies
Not applicable.

5. Available Networks
In NATO, the Medical CIS Tools are available on ISAF AMN domain. However, the service can be provided on the customer's choice of security domain as well. In case of national security domains, the customer is responsible for its accreditation. For experimentation and scientific support, not applicable.

6. Support Availability
For the Medical CIS Tools in ISAF, as specified in the ISAF POW. For other customers interested in the Medical CIS Tools, service support can be provided at the level required through the use of SLA framework.

7. Prerequisites
Standard Workplace Services (including, Network Services, Desktop Services, Windows Platform Services) is required.

The Medical CIS Tools collect information from the de-facto NATO event management tool, i.e. JOCWatch, as well as MEDCOP, which is a SharePoint based tool used in ISAF

Effective use of MEDICS CIS Tools is also dependent on appropriate training and mentoring which are provided as sub-services.

18 SharePoint-based tool developed in-house by ISAF.
8. Additional Information
Existing systems and services are exploited for maximum re-use in support of medical processes: e.g.,
the Operations Planning system, TOPFAS supporting Medical Support Planning, the Intelligence
Functional Services (INTEL-FS) supporting MEDINTEL, and the Logistics Asset Tracking supporting Patient
Tracking processes.
SCOI53 - Training Objective Development and Management Application Service

**Organizational Element:** Education & Training (E&T)  
**Standard Service (Budget) or Service Group:** Collective Training and eXercise Application Services  
**Service Area:** C4ISR Enabling Services  
**Service Group:** Collective Training and eXercise Application Services  
**Service Type:** ETEE COI Applications

1. **Service Description**

The Training Objective Development and Management Application Service supports exercise training audiences and associated training organizations in producing a structured and prioritized set of training objectives for a particular training event and phase in a collaborative and distributed manner according to the process in the Bi-SC Directive 75-3 Annex V.

In addition, the Application Service supports exercise training audiences and associated training organizations in managing training objective resource conditions in a distributed and collaborative manner according to the guidance described in the Bi-SC Directive 75-3 Annex V throughout the exercise preparation phase.

**System: Training Objective Management Module (TOMM)**

The Training Objective Management Module (TOMM) is a web-based application that allows registered users to:

- Act as a Training Objective Manager capable of managing the contributions and workflow of the TO development process including the prioritisation.
- Act as Training Objective Scripter capable of defining the content of training objectives, the associated resourcing conditions and standards.
- Act as a resourcing condition owner capable of commenting and acknowledging resource requirements.
- Develop training objectives according to the stages and format specified in the Bi-SC Directive 75-3 Annex V.
- Review training objectives and associated resource conditions in a collaborative and distributed manner.
- Manage and track the achievability state of the training objective resourcing conditions.
- Prioritise training objectives and re-organise their sequence accordingly.
- Review and update the achievability of resource conditions in a dashboard until the start of the exercise.

2. **Value Added**

This application service supports exercise training objective owners and supporting resource condition owners in developing training objectives according to the Bi-SC Directive 75-3 in a structured manner. It adds value to the process of developing and managing training objectives by:

- Providing support for a collaborative and distributed way of working.
- Providing support for the workflow between the stages of development.
- Providing an explicit statement of resource requirement and acknowledgment by resource owner.
- Providing a real time up to date dashboard of the state of achievability of training objectives throughout the exercise planning and preparation process.
- Reducing travel and coordination effort.
- Enabling a wider participation in the process by training audience personnel and resource owners.
3. **Locations**  
For the NCS, the service is available to all registered users of the Bi-SC AIS. For the NCS, the service can be made available on a stand-alone environment on specific request.

For the NFS, NATO nations and approved partner nations, the system that supports this service can be deployed on approved government servers and workstations.

4. **Dependencies**  
Included in the installation system documentation.

5. **Available Networks**  
For the NCS on PAN, NS, MS environment.

6. **Support Availability**  
For the NCS, the service is offered as specified in the relevant agreements.

7. **Prerequisites**  
For the NCS, access to the service requires the relevant user desktop and connectivity services.

8. **Additional Information**  
For the NCS, the service offering can be expanded to include:

- User training through regularly scheduled centralised training sessions.
- On-site user training re-using on existing training materials.
- On-site tailored user training.
- Level 2 and 3 incident and problem management support on a routine availability for extended or 24/7 operations.
- Level 2 and 3 incident and problem management support on a high criticality availability for extended working hours.
- Level 2 and 3 incident and problem management support on a high criticality availability for 24/7 operations.

For the NFS, NATO and partner nations, the service is offered on the basis of access to the system “as is.”

For the NFS, NATO and partner nations, the service can be expanded to include:

- System installation and maintenance.
- User training through regularly scheduled centralised training sessions.
- System administration training through regularly scheduled centralised training sessions.
- On-site user training re-using on existing training materials.
- On-site system administration training.
- On-site tailored user training.
- Levels 1, 2 and 3 incident and problem management support on a specific availability basis for regular working conditions.
- Levels 1, 2 and 3 incident and problem management support on a specific availability basis for high criticality periods.
- Distribution of new application baselines and updates.
- Hosting on publicly accessible network, administered server with regular backups and transfer of data to user upon request.
1. **Service Description**

The Setting Development and Management Application Service supports exercise scenario designers in developing, managing and documenting the scenario modules 1 through 3 that are specified in annex M of the Bi-SC Directive 75-3 in a structured and collaborative manner. Version management is explicitly supported.

**System: Joint Exercise Scenario Tool (JEST)**

The JEST system is a web-based application that supports the collaborative and structured development and management of exercise scenario modules 1 through 3 described in the Bi-SC Directive 75-3 annex M. Specifically, JEST offers the following features:

- Roles and rights can be allocated to specific users;
- Settings can be versioned;
- For modules 1 and 3, the road to crisis, relevant treaties and agreements as well as strategic initiation documents can be defined and stored.
- For module 2, the regional actors, important personalities, relevant ORBATs and background traffic flows can be described to a level of detail that allows descriptive documents like fact books and country books to be generated.
- Country books can be generated automatically with selected content.
  - Lead-in documents can be generated based on a configurable scenario date which allows the scenario documentation to be shifted in time flexibly and consistently.

2. **Value Added**

This application service supports exercise scenario developers in creating and managing a considerable amount of data in a structured and consistent manner according to the Bi-SC Directive. It adds value to the process of developing and managing setting data by:

- Providing support for a collaborative and distributed way of working;
- Providing support for the versioning of a consistent set of scenario data;
- Providing a structured and re-usable description for scenario actors, personalities, ORBATs and background traffic;
- Generating standardized country books based on selected setting information.

3. **Locations**

For the NCS, the service is available to all registered users of the Bi-SC AIS.

For the NCS, the service can be made available on a stand-alone environment on specific request.

For the NFS, NATO Nations and approved partner nations, the system that supports this service can be deployed on approved government servers and workstations.

4. **Dependencies**

Included in the installation system documentation.

5. **Available Networks**

For the NCS on PAN, NS, MS environment.
6. **Support Availability**  
For the NCS, the service is offered as specified in the relevant agreements.

7. **Prerequisites**  
For the NCS, access to the service requires the relevant user desktop and connectivity services.

8. **Additional Information**  
For the NCS, the service offering can be expanded to include:

- User training through regularly scheduled centralised training sessions;
- On-site user training re-using on existing training materials;
- On-site tailored user training;
- Level 2 and 3 incident and problem management support on a routine availability for extended or 24/7 operations;
- Level 2 and 3 incident and problem management support on a high criticality availability for extended working hours;
- Level 2 and 3 incident and problem management support on a high criticality availability for 24/7 operations.

For the NFS, NATO and partner nations, the service is offered on the basis of access to the system “as is.”

For the NFS, NATO and partner nations, the service can be expanded to include:

- System installation and maintenance;
- User training through regularly scheduled centralised training sessions;
- System administration training through regularly scheduled centralised training sessions;
- On-site user training re-using on existing training materials;
- on-site system administration training;
- On-site tailored user training;
- Levels 1, 2 and 3 incident and problem management support on a specific availability basis for regular working conditions;
- Levels 1, 2 and 3 incident and problem management support on a specific availability basis for high criticality periods;
- Distribution of new application baselines and updates;
- Hosting on publicly accessible network, administered server with regular backups and transfer of data to user upon request.
SCOI55 - MEL/MIL Development and Management Application Service

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1. **Service Description**

The MEL/MIL (Master Event List/Master Incident List) Development and Management Application Service supports exercise scenario designers in developing the MEL/MIL for an exercise in a structured and deliberate manner according to the process specified in annex M of the Bi-SC Directive 75-3. The application service also supports an exercise control organization in executing the MEL/MIL during an exercise in a collaborative and distributed manner. The exercise observation and analysis process is also supported.

1.1. **System: Joint Exercise Management Module (JEMM)**

- The JEMM system is a web-based application that supports the collaborative and structured development, execution, observation and analysis of an exercise MEL/MIL. Specifically, JEMM offers the following features:
  - Prepare and develop the MEL/MIL as specified in the Bi-SC 75-3 Directive;
  - Prepare and describe the synchronisation with simulation-based or live support to the exercise;
  - Manage the execution of the MEL/MIL;
  - Manage the synchronisation of activities with simulation-based or live support to the exercise;
  - Prepare and manage the collection of observations by observer/trainers;
  - Analyse the collected observations and assess the progress of training objective achievement;
  - Assign roles and rights to various users to perform tasks relevant to their participation in the exercise;
  - Tailor the workflow of the execution and observation processes;
  - Document MEL/MIL, observations and analysis results.

1.2. **System: Exercise Control Common Operational Picture (EXCON COP)**

- The EXCON COP system is a client application that supports the combined visualisation of MEL/MIL actions, of the current state of live or simulated entities and of reported events in space and in time in a user-defined manner. The EXCON COP offers the following features:
  - Map-based de-cluttered presentation of MEL/MIL actions combined with selected live or simulated entities;
  - Real-time updating from available information sources;
  - Creation of user-specific presentation layers that can be personal or shared with other users.

1.3. **System: Exercise Information Services (EXIS)**

- The EXIS provides a structured and documented web-service and supporting management capability to configure information providers. Exercise control business applications like EXCON COP or regular office automation tools like Excel can connect to the EXIS web-service. The specific features are:
  - A controlled and documented web-service that allows information providers to populate the service in a structured manner;
  - A management interface that allows the user to configure provider information;
  - A set of providers relevant for the NATO context: JEMM, JTLS, JCATS, VBS-2, Excel, JOCWatch, ICC.
2. **Value Added**
This application service supports exercise scenario managers, control staff, observers and analysts in performing their tasks in the preparation and execution of an exercise in a distributed and collaborative manner. It adds value to the process of developing, executing, observing and analysing an exercise by:

- Providing support for a collaborative and distributed way of working during the preparation and the execution of an exercise MEL/MIL.
- Providing a structured way of describing the MEL/MIL according to the Bi-SC 75-3.
- Establishing an explicit relationship between training objectives and MEL/MIL.
- Establishing explicit relationships between training objectives, observations and analysis.
- Implementing a tailored workflow for the development and execution of a MEL/MIL.
- Implementing a tailored set of states for observations and analysis that are linked to training objectives.
- Providing in a single configurable view, the elements of exercise information that are critical to the implementation of specific roles in the exercise control Organization.
- Providing the ability to add new sources of exercise information without having to modify the exercise control business applications.
- Documented capability to rapidly build exercise control dashboards using regular office automation tools.

3. **Locations**
For the NCS, the service is available to all registered users of the Bi-SC AIS.
For the NCS, the service can be made available on a stand-alone environment on specific request.
For the NFS, NATO nations and approved partner nations, the system that supports this service can be deployed on approved government servers and workstations.

4. **Dependencies**
Included in the installation system documentation.

5. **Available Networks**
For the NCS on PAN, NS, MS environment

6. **Support Availability**
For the NCS, the service is offered as specified in the relevant agreements.

7. **Prerequisites**
For the NCS, access to the service requires the relevant user desktop and connectivity services.

8. **Additional Information**
For the NCS, the service offering can be expanded to include:

- User training through regularly scheduled centralised training sessions;
- On-site user training re-using on existing training materials;
- On-site tailored user training;
- Level 2 and 3 incident and problem management support on a routine availability for extended or 24/7 operations;
- Level 2 and 3 incident and problem management support on a high criticality availability for extended working hours;
- Level 2 and 3 incident and problem management support on a high criticality availability for 24/7 operations;
- For the NFS, NATO and partner nations, the service is offered on the basis of access to the system “as is.”
- For the NFS, NATO and partner nations, the service can be expanded to include:
- System installation and maintenance;
• User training through regularly scheduled centralised training sessions;
• System administration training through regularly scheduled centralised training sessions;
• On-site user training re-using on existing training materials;
• On-site system administration training;
• On-site tailored user training;
• Levels 1, 2 and 3 incident and problem management support on a specific availability basis for regular working conditions;
• Levels 1, 2 and 3 incident and problem management support on a specific availability basis for high criticality periods;
• Distribution of new application baselines and updates;
• Hosting on publicly accessible network, administered server with regular backups and transfer of data to user upon request.
**SCOI56 - Joint Simulation Application Service**

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1. **Service Description**

The joint simulation application service supports an exercise control organization in maintaining a virtual situation of the battle space consistent in time and space in accordance with the decisions taken by the training audience and with the activities of other relevant actors in the synthetic world. In addition the service supports the exercise control organization in generating relevant and compatible information flows to the training audience automated command and control systems and in extracting structured order information from training audience systems.

1.1. **System: Joint Theatre Level Simulation (JTLS)**

- The JTLS system is a Commercial-Off-The-Shelf simulation application with a web-based interface application that supports the distributed and collaborative execution of training audience orders and exercise control guidance in a synthetic world. JTLS maintains the status of the synthetic environment and all represented joint forces in time and space. Specifically, JTLS offers the following features:
  - Capture and manage aggregated information about entities that are relevant to the conduct and context of NATO joint major and small operations at various levels of intensity in a crisis response or collective defence context;
  - Manage the behaviour of entities in time and space that are relevant to the conduct and context of NATO joint major and small operations at various levels of intensity including intelligence, logistics and combat aspects;
  - Provides support to produce aggregated information output about entities that are relevant to the conduct and context of NATO major and small operations at various levels of intensity in a crisis response or collective defence context.

1.2. **System: Joint Conflict and Tactical Simulation (JCATS)**

- The JCATS system is a US Government-Off-The-Shelf simulation application with a tailor-made interface application that supports the distributed and collaborative execution of training audience orders and exercise control guidance in a synthetic world. JCATS maintains the status of the synthetic environment and all represented joint forces in time and space. Specifically, JTLS offers the following features:
  - Capture and manage detailed information about entities that are relevant to the conduct and context of NATO joint major and small operations at various levels of intensity in a crisis response or collective defence context;
  - Manage the behaviour of entities in time and space that are relevant to the conduct and context of NATO joint major and small operations at various levels of intensity including intelligence, logistics and combat aspects;
  - Provides support to produce detailed information output about entities that are relevant to the conduct and context of NATO major and small operations at various levels of intensity in a crisis response or collective defence context;
  - VBS-2: The VBS-2 system is a commercial immersive training application that can be used to simulate a real-time video stream. It can be used stand-alone or connected to the JCATS model.
1.3. System: JTLS-ICCMediation-ware (JIM)

The JIM system supports the exercise control organization by providing an automated interface between the JTLS model and the ICC tool used by the air community to develop airspace coordination (ACO) and air tasking orders (ATO). JIM supports initialisation of an ICC exercise database, automated ACO and an ATO translation, management of air current operations and automated ICC status updating.

1.4. System: Report Generator (RepGen)

The report generator application supports the exercise control organization in generating standardized information flows, like ADatP-3, OTH-Gold and tactical data link formats that can be processed by training audience command and control systems.

1.5. System: Map and Unit Builder (MUB)

The MUB system is a client application that supports the exercise design team in building a JTLS hexagonal terrain using standard geographic vector data including relevant infrastructure information. In addition, the MUB assists exercise designers in setting the initial positions of units on the terrain.

1.6. System: JTLS ORBAT Editor (JOE)

The JOE system supports exercise planners in building that part of the ORBAT for which they are responsible in a stand-alone manner in a format that is compatible with JTLS. An exported set of ORBAT files can be consolidated into a central JTLS exercise database by the exercise database developers.

1.7. System: JCATS ORBAT Builder (JOB)

The JOB system supports exercise planners in building that part of the ORBAT for which they are responsible in a stand-alone manner in a format that is compatible with JCATS. An exported ORBAT file can be consolidated into a central JCATS exercise dataset by the exercise database developers.

2. Value Added

This application service supports exercise designers and control organization in gathering and in managing all the detailed synthetic data that is required to realistically produce information flows towards the training and its supporting command and control applications in a manner that is consistent in time and space based on the activities and capabilities of deployed forces. The application service allows the many contributors to the preparation and execution of a computer assisted exercise (CAX) to perform their tasks in a distributed and collaborative manner. It adds value to the CAX preparation and execution process by:

- Providing support for a collaborative and distributed way of collecting all relevant ORBAT data in an efficient manner.
- Providing interoperability with NATO command and control systems in an efficient and flexible manner.
- Providing support for different levels of information detail depending on the requirements of the exercise training audience.
- Providing a very broad set of automated behaviours that allow the state of the synthetic world to be maintained in an automated manner.
- Providing the ability to capture execution data and re-using it for after-action-review processes.

3. Locations

For the NCS, the service is available to all registered users of NATO exercise networks.
For the NCS, the service can be made available on a stand-alone environment on specific request.
For the NFS, NATO nations and approved partner nations, the system that supports this service can be deployed on approved government servers and workstations.
4. Dependencies
Included in the installation system documentation.

5. Available Networks
For the NCS on MS environment

6. Support Availability
For the NCS, the service is offered as specified in the relevant agreements.

7. Prerequisites
For the NCS, access to the service requires the relevant user desktop and connectivity services.

8. Additional Information
For the NCS, the service offering can be expanded to include:
- User training through regularly scheduled centralised training sessions
- On-site user training re-using on existing training materials
- On-site tailored user training
- Level 2 and 3 incident and problem management support on a routine availability for extended or 24/7 operations.
- Level 2 and 3 incident and problem management support on a high criticality availability for extended working hours.
- Level 2 and 3 incident and problem management support on a high criticality availability for 24/7 operations.
- For the NFS, NATO and partner nations, the service is offered on the basis of access to the system “as is” for the non-commercial or non-government systems.
- For the NFS, NATO and partner nations, the service can be expanded to include:
  - System installation and maintenance
  - User training through regularly scheduled centralised training sessions
  - System administration training through regularly scheduled centralised training sessions
  - On-site user training re-using on existing training materials
  - On-site system administration training
  - On-site tailored user training
  - Levels 1, 2 and 3 incident and problem management support on a specific availability basis for regular working conditions
  - Levels 1, 2 and 3 incident and problem management support on a specific availability basis for high criticality periods
  - Distribution of new application baselines and updates.
1. **Service Description**

The AirC2 Simulation Application Service supports air command exercise control organizations in maintaining a virtual situation of the battle space consistent in time and space in accordance with the decisions taken by the training audience and with the activities of other relevant actors in the synthetic world. In addition, the service supports the exercise control organization in generating relevant and compatible information flows to the training audience’s automated air command and control systems and in extracting structured order information those systems.

1.1. **System: Integrated Training Capability (ITC)**

The ITC system builds upon a Commercial-Off-The-Shelf simulation framework (FLAMES). ITC provides an air exercise control organization with the ability to simulate air operations as defined in an Airspace Coordination (ACO) and Air Tasking Order (ATO) for two opposing and one neutral side. An exercise controller can manage the overall execution of the scenario and influence the adjudication of simulation outcomes. The resulting status updates are fed automatically into the Integrated Command and Control (ICC) in the form of air tracks, status updates and messages.

1.2. **System: Interactive Simulation Package (ISP)**

The ISP system supports air control and reporting centres (CRC) in practicing their procedures by providing air tracks into the CRC systems and by enabling an exercise controller to manage the scenario execution.

2. **Value Added**

This application service supports exercise designers and control organization in the AirC2 community in gathering and in managing all the detailed synthetic data that is required to realistically produce information flows towards the training audience and its supporting AirC2 systems. The application service allows the many contributors to the preparation and execution of an AirC2 computer assisted exercise (CAX) to perform their tasks in a distributed and collaborative manner. It adds value to the CAX preparation and execution process by:

- Providing support for a collaborative and distributed way of collecting all relevant ORBAT data in an efficient manner using a familiar interface.
- Providing interoperability with NATO Air command and control systems in an efficient and flexible manner.
- Providing a very broad set of automated behaviours that allow the state of the synthetic world to be maintained in an automated manner.

3. **Locations**

For the NCS, the service is available to all registered users of NATO AirC2 and exercise networks. For the NCS, the service can be made available on a stand-alone environment on specific request. For the NFS, NATO nations and approved partner nations, the system that supports this service can be deployed on approved government servers and workstations.

4. **Dependencies**

Included in the installation system documentation.
5. **Available Networks**  
For the NCS on MS environment

6. **Support Availability**  
For the NCS, the service is offered as specified in the relevant agreements.

7. **Prerequisites**  
For the NCS, access to the service requires the relevant user desktop and connectivity services.

8. **Additional Information**  
For the NCS, the service offering can be expanded to include:

- User training through regularly scheduled centralised training sessions;
- On-site user training re-using existing training materials;
- On-site tailored user training;
- Level 2 and 3 incident and problem management support on a routine availability for extended or 24/7 operations;
- Level 2 and 3 incident and problem management support on a high criticality availability for extended working hours;
- Level 2 and 3 incident and problem management support on a high criticality availability for 24/7 operations;
- For the NFS, NATO and partner nations, the service is offered on the basis of access to the system “as is” including a runtime version of FLAMES.

For the NFS, NATO and partner nations, the service can be expanded to include:

- System installation and maintenance;
- User training through regularly scheduled centralised training sessions;
- System administration training through regularly scheduled centralised training sessions;
- On-site user training re-using existing training materials;
- On-site system administration training;
- On-site tailored user training;
- Levels 1, 2 and 3 incident and problem management support on a specific availability basis for regular working conditions;
- Levels 1, 2 and 3 incident and problem management support on a specific availability basis for high criticality periods;
- Distribution of new application baselines and updates.
SC0158 - Exercise Evaluation Application Service

Organizational Element: Education & Training (E&T)
Standard Service (Budget) or Service Group: Collective Training and eXercise Application Services
Service Area: C4ISR Enabling Services
Service Group: Collective Training and eXercise Applications
Service Type: ETEE COI Applications

1. Service Description
The Exercise Evaluation Application Service supports an exercise evaluation organization in specifying evaluation criteria, in planning the required observation tasks and in collecting observations.

Exercise Evaluation Planning, Reporting and Observation Module (EEPROM)
The EEPROM system is a web-based application that supports the collaborative and structured development and management of exercise evaluation criteria, exercise observation tasking and collected exercise observations. The system supports a role-based specification of users that defines their particular contribution to the overall evaluation process. Evaluations are organized by exercise.

2. Value Added
This application service supports exercise evaluators in developing and executing the exercise evaluation. It adds value to the evaluation process by:

- Providing support for a collaborative and distributed way of working based on the roles that are assigned to each individual;
- Providing an explicit ability to task evaluation teams of individuals;
- Providing a single repository of evaluation observations;
- Providing a real-time view of the state of evaluation;
- Supporting the creation of an exercise evaluation.

3. Locations
For the NCS, the service is available to all registered users of the Bi-SC AIS.
For the NCS, the service can be made available on a stand-alone environment on specific request.
For the NFS, NATO nations and approved partner nations, the system that supports this service can be deployed on approved government servers and workstations.

4. Dependencies
Included in the installation system documentation

5. Available Networks
For the NCS on PAN, NS, MS environment.

6. Support Availability
For the NCS, the service is offered as specified in the relevant agreements.

7. Prerequisites
For the NCS, access to the service requires the relevant user desktop and connectivity services.

8. Additional Information
For the NCS, the service offering can be expanded to include:

- User training through regularly scheduled centralised training sessions;
- On-site user training re-using on existing training materials;
- On-site tailored user training;
• Level 2 and 3 incident and problem management support on a routine availability for extended or 24/7 operations;
• Level 2 and 3 incident and problem management support on a high criticality availability for extended working hours;
• Level 2 and 3 incident and problem management support on a high criticality availability for 24/7 operations.

For the NFS, NATO and partner nations, the service is offered on the basis of access to the system “as is.”

For the NFS, NATO and partner nations, the service can be expanded to include:

• System installation and maintenance;
• User training through regularly scheduled centralised training sessions;
• System administration training through regularly scheduled centralised training sessions;
• On-site user training re-using on existing training materials;
• On-site system administration training;
• On-site tailored user training;
• Levels 1, 2 and 3 incident and problem management support on a specific availability basis for regular working conditions;
• Levels 1, 2 and 3 incident and problem management support on a specific availability basis for high criticality periods;
• Distribution of new application baselines and updates;
• Hosting on publicly accessible network, administered server with regular backups and transfer of data to user upon request.
SCOI59 - Individual Training Application Development Service

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1. **Service Description**
The Individual Training Application Development Service provides Subject Matter Expertise (SME) and supporting tools for the design, development, delivery and maintenance of highly interactive, immersive training packages.

2. **Value Added**
This service provides considerable experience, proven methods and effective platforms for the development of highly interactive individual training applications. It adds value to the process of developing and delivering individual training by:
   - Providing proven experience in developing and delivering individual training packages;
   - Providing a consistent approach to the delivery of individual training.

3. **Locations**
The service is provided from the Agency office in The Hague. Training applications can be deployed as required by the users.

4. **Dependencies**
Not Applicable.

5. **Available Networks**
Depends on the required environment.

6. **Support Availability**
For the NCS, the service is offered as specified in the relevant agreements.

7. **Prerequisites**
Not Applicable.

8. **Additional Information**
The service offering can be expanded to include:
   - Operation and maintenance of existing training packages;
   - Incident and problem management support as required by the training Organization.
SCOI60 - Collective Training and eXercise SME Services

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1. **Service Description**
   The Collective Training And Exercise Subject Matter Expertise Services support exercise planners and control organizations in the development and management of content for the training objective, setting, MEL/MIL, joint simulation, AirC2 and evaluation application services. In addition the service can support the development of complex modelling and simulation concepts.

2. **Value Added**
   This service provides access to the considerable experience and proven methods that have been employed by the E&T experts in the practical preparation and execution of exercises in NATO and in nations. The expertise can add value to:
   - The concrete utilisation of application services by providing access to practical experience and doctrinally proven methods for developing content and managing execution;
   - The development of novel capabilities by providing access to the experience gained through experimentation and development of training and exercise events and supporting services.

3. **Locations**
   The service is provided from the Agency office in The Hague. The expertise can be delivered to requested sites.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   As agreed in specific arrangements.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Not Applicable.
**SCOI61 - NATO CIS/FS Training Requirements Collection and Course Management Service**

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### 1. Service Description

The NATO CIS/FS Training Requirements Collection and Course Management Service provides the NCS, NFS, NATO and partner nations with:

- A catalogue of courses that is maintained based on in-service NATO CIS and FS capabilities and that can be delivered either on-site at the NCISS or at remote locations;
- A requirements collection effort resulting in a documented volume of courses compiled in a course programme and potentially assigned seats per requesting entity;
- An opportunities prioritization effort that balances the course programme with the available course delivery capacity;
- Real-time course programme operations management that enables the training delivery to be responsive to changing and emerging requirement.

### 2. Value Added

This service adds value by providing a team of training management experts that manages the requirements collection process, the course volume prioritization process and the actual course programme on a daily basis.

### 3. Locations

The service is provided from the NCISS in Latina.

### 4. Dependencies

Not Applicable.

### 5. Available Network

Not Applicable.

### 6. Support Availability

As agreed in specific arrangements.

### 7. Prerequisites

Input from agency service lines on in-service NATO CIS and FS lifecycle plans to determine course catalogue modifications.

Input from NCS, NFS, NATO and partner nations on course participation requirements.

Input from SHAPE on course participation priorities.

### 8. Additional Information

Not Applicable.
1. Service Description
The NATO CIS/FS Training Package Development, Maintenance and Improvement Service provides the NCS, NFS, NATO and partner nations with a set of training packages consisting of trainers, equipment and software that:

- Meet the requirements of the annual CIS/FS training programme;
- Can be executed within the constraints of the students;
- Evolve based on modifications in the training subjects and on course feedback.

2. Value Added
This service adds value by providing a team of professional CIS/FS trainers capable of developing, maintaining and improving the course materials required to fulfil the agreed annual CIS/FS training programme to the standard required by NATO.

The added value also consists of a team of professional CIS/FS trainers who are fully conversant in the subjects of the course materials that need to be delivered.

3. Locations
The service is provided from the NCISS in Latina.

4. Dependencies
Not Applicable.

5. Available Network
Not Applicable.

6. Support Availability
As agreed in specific arrangements.

7. Prerequisites
Provision by the various CIS/FS sponsors of training materials, including equipment for their respective areas of responsibility.

Provision by the various CIS/FS sponsors of transition plans and of associated updated training materials, or at a minimum of a description of modified features.

8. Additional Information
Not Applicable.
**SCOI63 - NATO CIS/FS Training Programme Delivery Service**

**Organizational Element:** Education & Training (E&T)  
**Standard Service (Budget) or Service Group:** Other Services - Individual Education and Training Services  
**Service Area:** C4ISR Enabling Services  
**Service Group:** Individual Education and Training Services  
**Service Type:** ETEE COI Applications

1. **Service Description**  
The NATO CIS/FS Training Programme Delivery Service provides the NCS, NFS, NATO and partner nations with access to a documented set of CIS/FS training opportunities for which they can register and which is provided either at the site of the NATO CIS School or at the most efficient site for specific target audiences. This service provides the agreed CIS/FS training programme to the agreed volume.

2. **Value Added**  
This service adds value by providing the delivery of an agreed set of CIS/FS training courses to the agreed volume to the agreed NATO standard.

3. **Locations**  
The service is provided from the NCISS in Latina. Upon request, it may be delivered at other sites.

4. **Dependencies**  
Not Applicable.

5. **Available Networks**  
Not Applicable.

6. **Support Availability**  
As agreed in specific arrangements.

7. **Prerequisites**  
The availability of mobile training kits to support off-site training.  
The availability of an effective NATO CIS school infrastructure and real life support environment.

8. **Additional Information**  
Not Applicable.
SCOI64 - NATO AirC2 Training Requirements Collection and Course Management Service

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1. Service Description
The NATO AirC2 Training Requirements Collection and Course Management Service provides the NCS, NFS, NATO and partner nations with:

- A catalogue of courses that is maintained based on in-service NATO AirC2 capabilities and that can be delivered either on-site in Glons or at remote locations;
- A requirements collection effort resulting in a documented volume of courses compiled in a course programme and potentially assigned seats per requesting entity;
- An opportunities prioritisation effort that balances the course programme with the available course delivery capacity;
- Real-time course programme operations management that enables the training delivery to be responsive to changing and emerging requirement.

2. Value Added
This service adds value by providing a team of training management experts that manages the requirements collection process, the course volume prioritisation process and the actual course programme on a daily basis.

3. Locations
The service is provided from Glons.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
As agreed in specific arrangements.

7. Prerequisites
Input from agency service lines on in-service AirC2 lifecycle plans to determine course catalogue modifications.
Input from NCS, NFS, NATO and partner nations on course participation requirements.

8. Additional Information
Not Applicable.
SCOI65 - NATO AirC2 Training Package Development, Maintenance and Improvement Service

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</table>

1. **Service Description**
The NATO AirC2 training package development, maintenance and improvement service provides the NCS, NFS, NATO and partner nations with a set of training packages consisting of trainers, equipment and software that:

- Meet the requirements of the annual AirC2 training programme;
- Can be executed within the constraints of the students;
- Evolve based on modifications in the training subjects and on course feedback.

2. **Value Added**
This service adds value by providing a team of professional AirC2 trainers capable of developing, maintaining and improving the course materials required to fulfil the agreed annual CIS/FS training programme to the standard required by NATO. The added value also consists of a team of professional AirC2 trainers who are fully conversant in the subjects of the course materials that need to be delivered.

3. **Locations**
The service is provided from the NCISS in Latina.

4. **Dependencies**
Not Applicable.

5. **Available Networks**
Not Applicable.

6. **Support Availability**
As agreed in specific arrangements.

7. **Prerequisites**
Provision by the AirC2 sponsor of training materials including equipment for their respective areas of responsibility.

Provision by the AirC2 sponsor of transition plans and of associated updated training materials or at a minimum of a description of modified features.

8. **Additional Information**
Not Applicable.
**SCOI66 - NATO AirC2 Training Programme Delivery Service**

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Education &amp; Training (E&amp;T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Other Services - Individual Education and Training Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Individual Education and Training Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>ETEE COI Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**
   The NATO AirC2 Training Programme Delivery Service provides the NCS, NFS, NATO and partner nations with access to a documented set of AirC2 training opportunities for which they can register and which is provided either at the site in Glons or at the most efficient site for specific target audiences. This service provides the agreed AirC2 training programme to the agreed volume.

2. **Value Added**
   This service adds value by providing the delivery of an agreed set of AirC2 training courses to the agreed volume to the agreed NATO standard.

3. **Locations**
   The service is provided from Glons. Upon request, it may be delivered at other sites.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   As agreed in specific arrangements.

7. **Prerequisites**
   The availability of mobile training kits to support off-site training.
   The availability of an effective AirC2 infrastructure and real life support environment.

8. **Additional Information**
   Not Applicable.
SCOI67 - Technical Foundation Training Requirements Collection and Course Management Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Education &amp; Training (E&amp;T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Other Services - Individual Education and Training Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Individual Education and Training Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>ETEE COI Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**
   The Technical Foundation Training Requirements Collection and Course Management Service provides the NCS, NFS, NATO and partner nations with:
   - A catalogue of courses that is maintained based on in-service office automation software and CIS procedures that can be delivered on-site in Mons;
   - A requirements collection effort resulting in a documented volume of courses compiled in a course programme and potentially assigned seats per requesting entity;
   - An opportunities prioritisation effort that balances the course programme with the available course delivery capacity;
   - Real-time course programme operations management that enables the training delivery to be responsive to changing and emerging requirement.

2. **Value Added**
   This service adds value by providing a team of training management experts that manages the requirements collection process, the course volume prioritisation process and the actual course programme on a daily basis.

3. **Locations**
   The service is provided from Mons.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   As agreed in specific arrangements.

7. **Prerequisites**
   Input from agency service lines on in-service office automation lifecycle plans and CIS procedures to determine course catalogue modifications. Input from NCS, NFS, NATO and partner nations on course participation requirements.

8. **Additional Information**
   Not Applicable.
SCOI68 - Technical Foundation Training package Development, Maintenance and Improvement Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Education &amp; Training (E&amp;T)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Other Services - Individual Education and Training Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Individual Education and Training Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>ETEE COI Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**
   The technical foundation training package development, maintenance and improvement service provides the NCS, NFS, NATO and partner nations with a set of training packages consisting of trainers, equipment and software that:
   - Meet the requirements of the annual technical foundation training programme;
   - Can be executed within the constraints of the students;
   - Evolve based on modifications in the training subjects and on course feedback.

2. **Value Added**
   This service adds value by providing a team of professional technical foundation trainers capable of developing, maintaining and improving the course materials required to fulfil the agreed annual CIS/FS training programme to the standard required by NATO. The added value also consists of a team of professional technical foundation trainers who are fully conversant in the subjects of the course materials that need to be delivered.

3. **Locations**
   The service is provided from Mons.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   As agreed in specific arrangements.

7. **Prerequisites**
   Provision by the responsible NCI Agency Service Line of transition plans and associated training materials, or at a minimum of a description of modified features.

8. **Additional Information**
   Not Applicable.
SCOI69 - Technical Foundation Training Programme Delivery Service

1. Service Description
The Technical Foundation Training Programme Delivery Service provides the NCS, NFS, NATO and partner nations with access to a documented set of technical foundation training opportunities for which they can register and which is provided at the site of Mons or at the most efficient site for specific target audiences. This service provides the agreed technical foundation training programme to the agreed volume.

2. Value Added
This service adds value by providing the delivery of an agreed set of technical foundation training courses to the agreed volume to the agreed NATO standard.

3. Locations
The service is provided from Mons. Upon request, it may be delivered at other sites.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
As agreed in specific arrangements.

7. Prerequisites
The availability of an effective infrastructure and real life support environment.

8. Additional Information
Not Applicable.
SCOI70 - Information Management Tools

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Core Enterprise Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Information Management Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise-wide ICT Services</td>
</tr>
<tr>
<td>Global Services Grouping:</td>
<td>Information Management Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Information Management Services</td>
</tr>
</tbody>
</table>

1. Service Description
The Information Management tools are a set of individual services that provide NATO commands with official records management services (DHS), tracking of Organizational tasks (TTE), and a prescriptive or free form Information Management portal hosted by NATO Information portal (NIP).

All those tools can be run in standalone mode, but will be best used in a coordinated way to build a set of coherent services empowering information and knowledge management, and providing the value added that portal services can offer in a secured environment.

1.1. Tasker Tracker Enterprise (TTE)
Tasker Tracker Enterprise is a state full workflow and collaboration tool which extends a Microsoft SharePoint platform. It is highly configurable and may be aligned with the way that the organization processes (or wishes to process) taskers. It provides a complete suite of tools to assist in the collaboration process such as the integrated document management services and search engine which are standard SharePoint features. Others features, such as the sub-tasking tool and the traffic light monitoring system are unique to Tasker Tracker Enterprise. These services should be considered as a tool kit from which organizations are free to choose the features and services they require. Deployments of Tasker Tracker Enterprise are configurable to each environment and organization.

Tasker Tracker Enterprise is very adaptable and flexible to adapt to organizational changes over time.

1.2. Document Handling System (DHS)
NATO’s complex organizational structure, strict security requirements and high turnover of military personnel presented numerous challenges to the exchange of information and knowledge until the delivery of the Document Handling System. The DHS is the first enterprise-wide application in NATO and provides standardized document creation, management, storage and retrieval as well as collaboration tools that are fully integrated with the user’s desktop. The DHS provides services and functionality for both the staff officer and Record Centre (registry) staff. The DHS' customizable organizational and data structures, versioning, check-in/check-out functionality, alerting capability and access mechanisms integrated with the Active Directory support the day-to-day operations of the Command. The addition of a combination of robust searching and browsing capabilities improves the staff officer’s ability to find, retrieve and access needed information more quickly, thus improving overall information awareness and reducing the decision making process time.

1.3. NATO Information Portal (NIP)
The NIP provides portal services on the NATO Secret (NS) network with the following features:
- A geo-redundant, SharePoint enterprise platform;
- A cloud oriented infrastructure for availability and flexibility;
- A federated search engine (FAST) to index the available authoritative data sources (i.e. file servers, other web sites, DHS sites and Functional Service information stores);
- An interface to the DHS which serves as the command’s local authoritative data source for their official documents/records;
- An interface to TTE that allows prescriptive tasking management;
- A set of corporate templates for granting portal uniformity.
1.4. Expertise available for support:
The support team for DHS, TTE and NIP are located in NCI Agency. The support team includes both NCI Agency and contractor resources to provide immediate or deferred support depending on the event to be handled.

Support can be provided to cover:
- Specialized configuration for your organization;
- Training support for your users (on-site or DVD).

2. Value Added
2.1 TTE
For several years NATO has recognized the need to improve the way in which organizational tasking activities, known as Taskers, are raised, delegated, monitored and managed. More than just a tracking tool for process managers, TTE successfully combines a collaboration platform which provides integrated services to support production, sub-task delegation, situational awareness and business intelligence.

2.2 DHS
DHS solves the Commands’ immediate problems of storage (structure), information access control, and finding/locating information across the enterprise, and retrieving the needed information to support the Information and Knowledge Management (IKM) life-cycle. This capability supports the move of Commands towards a Knowledge Centric Organization (KCO); thus supporting the goals of achieving Information Superiority and improving the decision making process. DHS is fully compliant with the current NATO metadata standards. It is integrated with the domains Active Directory where the user’s information (name, command and office) is automatically populated and traceable. It provides Records Management capabilities that directly support the registry functions by automating official Records Management’s data with common structures, versioning and access mechanisms. DHS comes with 3 Feature Packs (FP) providing archiving, and key word search functionality and adds 15 templates.

2.3 NIP
The success of NATO operations and missions require a common understanding of a complex environment. For effective coordination and execution, this understanding depends on effective collaboration and information exchange between headquarters, commands, and deployed forces. Information Management through IM tools such as portals, search engines, information coherence, integrity and accessibility are key elements to achieve this outcome.

3. Locations
NCI Agency Locations from where those services are currently available are the following:

<table>
<thead>
<tr>
<th>Command/site</th>
<th>DHS</th>
<th>TTE</th>
<th>NIP (2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bi-SC AIS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHAPE Mons</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>JFC Brunssum</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>JFC Naples</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>MC Northwood</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>JEWCS Yeovilton</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JALLC Monsanto</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>NURC La Spezia</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Command</td>
<td>TTE</td>
<td>DHS</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>NCISS Latina</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>NSO Oberammergau</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NDC Rome</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HQ SACT</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Air Command Ramstein</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Command Izmir</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JWC Stavanger</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JFTC Bydgoszcz</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HQ KFOR</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Commands</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMS Brussels</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>ISAF</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st GNC</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

### 4. Dependencies
To ensure full integration, TTE and DHS should be installed on the same MOSS 2007 farm. TTE can be implemented on the NS, KFOR SECRET, mission training network, and NR networks. DHS can be implemented on the NS, ISAF SECRET, KFOR SECRET, mission training network, and NR networks. NIP will be implemented on the NS network for phase 1.

### 5. Available Networks
Not Applicable

### 6. Support Availability
First Level support is provided through local Service Desk personnel.

Second Level support includes local adaptations and verification of the configuration (user names, active directory configuration, other configuration settings, platform features, etc.). This is provided by locally available functional and system administrators.

Third Level of support includes discrepancy and bug reports and corrections, advanced configuration adjustments and urgent updates. This is provided through the centralized support team in Mons and is available during normal business hours.

### 7. Prerequisites
For users and functional administrators, functional documentation including CBT is available. Customized courses can be organized on demand. System administrators should be qualified in SHAREPOINT (MOSS 2007 for DHS and TTE, SP 2013 for the NIP) and SQL server administration, as well as MS Server 2008 administration.
8. Additional Information

In the future (P95, CP 150), TTE and DHS will be replaced by a fully integrated set of IM services including an Electronic Document Management System (EDMS) and a Workflow tool. These will be available through the centralized infrastructure provided by the IT Modernization program and will make full use of updated technology platforms.
SCOI71 - Air Command and Control System First Level of Operational Capability (ACCS LOC1) Support

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AirC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Air COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description

The Air Command and Control System (ACCS) First Level of Operational Capability (LOC1) is based on commonly and nationally funded entities. The commonly funded entities are the Combined Air Operations Centre (CAOC) and the Air Control Centre/RAP Production Centre/Sensor Fusion Post (ARS). A CAOC or an ARS may be static or Deployable (DCAOC and DARS). The combined implementation of a CAOC and an ARS constitutes a CARS.

The Capability Package (CP) 5A0109\(^{19}\) titled “The Air Command & Control System (ACCS) Foundation Operational Capability” foresees the implementation of 5 static CAOCs, 18 static ARS, 2 DCAOCs, 2 DARS and 1 DCAOC Training Facility.

The ACCS LOC1 is implemented in two phases namely “Validation” and “Replication”:

The Validation phase covers the development of the core S/W, the implementation of the Software Test & Validation Facility (STVF) at Glons, 4 static sites\(^{20}\), 1 DARS garrisoned at Nieuw Milligen (NL) and 1 DCAOC garrisoned at Uedem (GE).

The replication phase covers the installation of hardware and communication as well as the implementation of the validated core S/W at 13 new static sites, a DCAOC, a DARS and a Training Facility for DCAOC.

Resulting from the recent changes of the NATO Command Structure (NCS) there will be an additional ACCS system installed at the Air Command (DEU) and the deployable elements will be collocated in the Deployable Air Command and Control Centre (DACCC).

The ACCS LOC1 will comprise the following product variants:

<table>
<thead>
<tr>
<th>Product Variant</th>
<th>Description</th>
</tr>
</thead>
</table>
| (D)ARS | The (deployable) ARS is a combination of the individual ACCS entities ACC, RPC and SFP. The Air Control Centre (ACC) is the entity in charge of air mission control to manage both the main defence forces within the design area and a proportion of the rapid reaction force. The ACC:  
  - Is the real-time (RT) battle management entity;  
  - Performs air mission control for all types of manned air missions and SAM weapons within a designed area;  
  - Provides SAM weapon preparation; |
The RAP Production Centre (RPC) is an air surveillance entity which produces and disseminates the RAP data within its assigned AOR, it:
- Receives land and maritime surface tracks and sub-surface tracks from external links and disseminates them to the ACCS users.
- Manages its subordinate and allocated ACCS surveillance areas in accordance with orders and priorities received from the CAOC.

The Sensor Fusion Post (SFP) is an air surveillance entity which is in charge of the receipt of data from various sensor sources, both from within or outside the ACCS programme, to provide the basis for establishment and the maintenance of an RAP.

The SFP:
- Develops a local air picture (LAP) through the fusion of data from both active and passive sensors;
- Reports on the status and performance of subordinate sensors;
- Controls the sensor detection and responds to anti-radiation missile (ARM) threat and electronic counter-measures (ECM) activity.

(D)CAOC

The (deployable) CAOC is the entity in charge of the tasking of the assigned air assets, it:
- Plans and conducts the tasking of air operations and C² resources configuration within a designed Area of Responsibility (AOR);
- Supervises and monitors execution of tasking and analyses the results;
- Coordinates with land, maritime and national forces as well as with other NATO and National agencies.

Reference: PMO-PS-Product_Sheet_ACCS Versed on: 1.0, Date: 31 August 2012

The NCI Agency, AirC2 PO&S offers a number of services for utilizing and supporting ACCS LOC1. A high level overview of offered services is presented within the following chapters. References to generic and detailed service descriptions are included as well.

The detailed services applicable for ACCS LOC1 have been developed for providing in-service-support. The detailed service descriptions have been agreed with the current customer, have all been authorized for activation and will be activated when the respective ACCS LOC1 variant or artefact will become available for providing the service.

1.1. Customer Support

For ACCS LOC1 customer support, the following active services are offered:

- First Line Support as detailed in Service Description sheet XAA;
- Second/Third Line Support as detailed in Service Description XAB;
- Warranty as detailed in Service Description XAC.

The following service is offered once the ACCS LOC1 artefacts become available:

- Delivery Services detailed in Service Description XAD.

Above list of services is required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.

1.2. Site Intervention

On-site installation support and corrective maintenance (repair) operations are required to install and to restore the system to its operating state through activities that are beyond the capabilities of the site’s personnel. The following services are prepared:
• Repair on-site as detailed in Service Description sheet XBB;
• Installation as detailed in Service Description sheet XBC;
• Test as detailed in Service Description sheet XBD.

1.3. Operational Support
The operational support is aimed at gathering and managing operational data and assessing the impact of changes affecting system interfaces. The following operational support services are prepared for ACCS LOC1:

• System Status and Statistics as detailed in Service Description sheet XCB;
• Interoperability as detailed in Service Description sheet XCC;
• Support Administration of Operational Databases as detailed in Service Description sheet XCE.

1.4. Management
In regard to managing an instantiated ACCS LOC1 site and related artefacts, the following management services are prepared:

• License Management as detailed in Service Description sheet XDC;
• Configuration Management as detailed in Service Description sheet XDD;

This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

1.5. Training
The following training services are prepared for ACCS LOC1:

• Individual Technical Training as detailed in Service Description sheet XFA;
• Collective Training & Simulation as detailed in Service Description sheet XFB.

1.6. Engineering
The engineering services are aiming at enabling, sustaining and maintaining the operational capabilities provided by ACCS LOC upon entering the in-service phase. The following services are prepared:

• Safety Engineering as detailed in Service Description sheet XGB;
• Security Engineering as detailed in Service Description sheet XGC;
• Data Engineering as detailed in Service Description sheet XGF;
• Deployable Equipment as detailed in Service Description sheet XGI;
• Obsolescence management as detailed in Service Description sheet XGJ;
• Documentation as detailed in Service Description sheet XGK;
• Product Correction and Enhancements as detailed in Service Description sheet XGL.

2. Value Added
ACCS LOC1 and related services offer a unique opportunity for NATO and for Nations for meeting minimum requirements for Air Command and Control by utilizing an integrated system approach. Using ACCS LOC1 elements and provided services will allow achieving economy of sales for the capability as well as for providing services.

In addition and through the integrated AirC2 system approach, the standardization, interoperability and integration of national units into the NATO Command or Force Structure will be alleviated.

3. Locations
The ACCS LOC1 support is provided from the AirC2 PO&S, location Glons. The Centralized Service Desk (CSD) at Glons acts as a focal point for requesting services.

4. Dependencies
The capabilities provided by ACCS LOC1 are depending on data provided by external systems, such as active and passive sensors, on operational networks providing data transport services and interoperability with other Command and Control systems interacting with ACCS LOC1. A specific
instantiation of an ACCS LOC1 site will need to take those aspects into account for achieving the operational value intended by the operational user. Support for achieving a successful site instantiation is provided through the services outlined above.

5. **Available Networks**
ACCS LOC1 is developed and prepared for operating at NATO Secret.

6. **Support Availability**
All services are provided during standard working hours. Support during extended hours can be provided as requested by and charged to the customer.

The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

<table>
<thead>
<tr>
<th>Days of the Week</th>
<th>Opening Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday – Thursday</td>
<td>08:00 – 16:30</td>
</tr>
<tr>
<td>Friday</td>
<td>08:00 – 14:30</td>
</tr>
<tr>
<td>Saturday/Sunday/SHAPE Holidays</td>
<td>Closed</td>
</tr>
</tbody>
</table>

7. **Prerequisites**
ACCS LOC1 capabilities are currently being delivered to NATO by the prime contractor in a phased approach. Elements of ACCS LOC1, like the voice communication system have already been delivered and customer support services for those elements which are already in service are activated. All other ACCS LOC1 elements and services will be activated based on the contractual situation.

8. **Additional Information**

**Key Metrics / Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the responsiveness of the focal point of contact for requesting services or information. Any request forwarded to the focal point is subject to this metric regardless the type of service or information requested. In case the support organization reveals that the requested service or information is new or not related to an established service, the service organization will try to identify the right POC within the Agency for handling the request.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measure the time between the focal point had been approached and an initial response had been provided.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Days</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between the time the focal point of contact has been approached and an initial response returned to the requestor.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Initial response to any request within two working days for 90% of all requests. Support for re-routing service requests to the appropriate POC within the Agency within five working days for 90% of all requests.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>All requests received by the focal point of contact.</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the time required for instantiating a new service for an existing or new customer at the customer’s location.</td>
</tr>
</tbody>
</table>
| **Measurement Method** | Measuring the time between the services has been successfully instantiated and has become operational at the user locations appointed by requestor and the time the initial request has been issued by the customer. This will cover the time required for handling the request, for assessing feasibility, establishing the legal
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>framework (if required), preparation and delivery or instantiation of the requested service.</td>
<td></td>
</tr>
<tr>
<td>Unit</td>
<td>Weeks</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Difference of Service instantiated and provided at the customers location and the time the service has been requested.</td>
</tr>
<tr>
<td>Target</td>
<td>Instantiation and provision of new high level services within twelve weeks for 70% of related requests. Instantiation and provision of new sub-services for an existing service within eight weeks for 70% of related requests.</td>
</tr>
<tr>
<td>Applicability</td>
<td>All high services which are operational and available.</td>
</tr>
<tr>
<td>Indicator</td>
<td>Mean Time Before Recovery</td>
</tr>
<tr>
<td>Description</td>
<td>This indicator aims at measuring the time necessary between a service disruptions is acknowledged by the first line (CSD) and the full recovery of the service. This indicator does not preclude that service can be restored in a degraded mode within shorter time.</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>Measuring the time between service disruption notification and service recovery announcement by the CSD.</td>
</tr>
<tr>
<td>Unit</td>
<td>Minutes – for services provided in collaboration with Customer Facing Units. Days – for services provided by remote assistance and back-office support.</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Difference between the service recovery announcement and the service disruption notification.</td>
</tr>
<tr>
<td>Target</td>
<td>As instantiated through and documented by the relevant SLA.</td>
</tr>
<tr>
<td>Applicability</td>
<td>Core services with operational impact based on the priority and documented in the applicable SLA.</td>
</tr>
</tbody>
</table>
**SCOI72 - ACCS Sensor Integration Module (ASIM) Support**

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AIRC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Technical Services – Community of Interest (COI) Specific Services - Air COI Services, Sensor Services</td>
</tr>
</tbody>
</table>

1. **Service Description**

The ACCS Sensor Integration Module (ASIM) is a product whose purpose is to provide an interim component to integrated Air Command and Control Systems that facilitates and extends existing capabilities and interfaces for the cost effective integration of existing legacy sensors and sensor data interfaces. The first use case of ASIM encompasses the integration within the Air Command and Control System (ACCS) Level of Operational Capability 1 (LOC1).

The primary purpose of ASIM is to allow legacy sensors and sensor data sources to be connected with ACCS and provide target reports. If a sensor can be controlled, e.g. Mode 4 interrogation, ASIM allows these orders to be translated and sent to the sensor. This exchange of data is fully automated and will not require operator attention. Failures and safety related events are also forwarded to ACCS as radar failure reports. ASIM appears to both ACCS and sensor as a transparent system.

ASIM supports the following Sensors and Sensor data Interface types:

<table>
<thead>
<tr>
<th>ASTERIX</th>
<th>CD2</th>
<th>(A)S29</th>
<th>JASR8</th>
<th>RSRP</th>
</tr>
</thead>
<tbody>
<tr>
<td>S743D</td>
<td>RMP</td>
<td>T101</td>
<td>SRT</td>
<td>DDL</td>
</tr>
<tr>
<td>Cardion</td>
<td>RAT31DL</td>
<td>HADR</td>
<td>T92</td>
<td>AWCIES</td>
</tr>
</tbody>
</table>


The NCI Agency’s AirC2 PO&S offers a number of services for utilizing and supporting ASIM in operational and training environments and provides other services related to ASIM such as Management, Training and Engineering support. A high level overview of offered services for ASIM is presented within the following chapters. References to detailed service descriptions, agreed with the current customer, are included in the following chapters.

1.1. **Customer support**

The ASIM in-service support includes full customer support as follows:

- First line support as detailed in Service Description sheet XAA;
- Second line support as detailed in Service Description sheet XAB;
- Delivery Services detailed in Service Description XAD;

Above list of services are required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.

1.2. **Site intervention**

On-site installation support and corrective maintenance (repair) operations are required to install and to restore the system to its operating state through activities that are beyond the capabilities of the site’s personnel. The ASIM in-service support includes site intervention such as coordination with operational users; software, database, and possibly hardware installation and installation and connectivity testing. Following services are offered for ASIM:

- Repair on-site as detailed in Service Description sheet XBB;
• Installation as detailed in Service Description sheet XBC;
• Test as detailed in Service Description sheet XBD.

1.3. Operational support
The operational support is aimed at gathering and managing operational data and assessing the impact of changes affecting system interfaces. The following operational support service is offered for ASIM:
• Interoperability Services as detailed in Service Description sheet XCC.

1.4. Management support
In regard to manage an ASIM installation and related artefacts, the following management service is offered:
• Configuration Management as detailed in Service Description sheet XDD.
This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

1.5. Training
The following training is provided for ASIM:
• Individual Technical Training as detailed in Service Description sheet XFA.

1.6. Engineering support
The engineering services are aiming at enabling, sustaining and maintaining the operational capabilities provided by ASIM. This includes safety, security and data engineering as well as developing updates for ASIM applications as required for system maintenance including addressing obsolescence. The following services are offered:
• Safety Engineering as detailed in Service Description sheet XGB;
• Security Engineering as detailed in Service Description sheet XGC;
• Data Engineering as detailed in Service Description sheet XGF;
• Obsolescence management as detailed in Service Description sheet XGJ;
• Documentation as detailed in Service Description sheet XGK;
• Product Correction and Enhancements as detailed in Service Description sheet XGL.

2. Value Added
ASIM services offer a unique opportunity for NATO and contributing Nations to seamlessly integrate their sensors to meet the operational needs for the NATO Integrated Air and Missile Defence System (NATINAMDS). Sensors require high investment costs, therefore, there in service time is longer than for C2 systems. The necessity to connect these legacy sensors to the NATO standard AWCIES will remain. When required, additional supported RADAR types can be added. However, when legacy RADAR types are replaced by AWCIES compliant RADAR types, this requirement disappears. Throughout the ACCS life-cycle, cost effective and efficient ASIM support is provided in close coordination with the ACCS Lifecycle Configuration Control Board (LCCB).

3. Locations
The ASIM support is provided from the AirC2 PO&S, location Glons. The Centralized Service Desk (CSD) at Glons acts as the main point of contact for ASIM.

4. Dependencies
ASIM depends on provision of sensor data through a capable data communication infrastructure. The related serial communication requirements vary depending on site configuration. ASIM is designed to handle up to at least 24 sensors which eventually can be interfaced using serial connections (synchronous or asynchronous). Support for the serial converters: MPS-1000 (Performance Technologies) as well as the UCCI (ADD Engineering) is implemented. The AWCIES interface, required to integrate ASIM into the C2 system, can be established using a separate Ethernet connection.
A graphical console from MASE version 5.2.0 and later can be used to display exchanged target reports for allowing monitor and assess the quality of service.

5. Available Networks
ASIM is normally operated over NATO SECRET domains.

6. Support Availability
All services are provided during Glons standard working hours. Support during extended hours can be requested by, and charged to, the customer.

The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

<table>
<thead>
<tr>
<th>Days of the Week</th>
<th>Opening Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday – Thursday</td>
<td>08:00 – 16:30</td>
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<tr>
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<td>08:00 – 14:30</td>
</tr>
<tr>
<td>Saturday/Sunday/SHAPE Holidays</td>
<td>Closed</td>
</tr>
</tbody>
</table>

7. Prerequisites
ASIM is a real-time system and requires operational hardware performant enough for avoiding the risk of losing information. ASIM is designed to operate on Oracle Solaris provided through the NATO Integrated Solaris Platform (NISP).

ASIM can be employed collocated with the CZ system or non-collocated, i.e. reception and translation of legacy sensor format to an internal format at one location and translation from the internal format to the AWCIES sensor format at another location. In this case, an additional server at each non-collocated site plus connectivity to these is required.

8. Additional Information
Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>This indicator aims at measuring the responsiveness of the focal point of contact for requesting services or information. Any request forwarded to the focal point is subject to this metric regardless the type of service or information requested. In case the support organization reveals that the requested service or information is new or not related to an established service, the service organization will try to identify the right POC within the Agency for handling the request.</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>Measure the time between the focal point had been approached and an initial response had been provided.</td>
</tr>
<tr>
<td>Unit</td>
<td>Days</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Difference between the time the focal point of contact has been approached and an initial response returned to the requestor.</td>
</tr>
<tr>
<td>Target</td>
<td>Initial response to any request within two working days for 90% of all requests. Support for re-routing service requests to the appropriate POC within the Agency within five working days for 90% of all requests.</td>
</tr>
<tr>
<td>Applicability</td>
<td>All requests received by the focal point of contact.</td>
</tr>
<tr>
<td>Indicator</td>
<td>Service instantiation time</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the time required for instantiating a new service for an existing or new customer at the customer’s location.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measuring the time between the services has been successfully instantiated and has become operational at the user locations appointed by requestor and the time the initial request has been issued by the customer. This will cover the time required for handling the request, for assessing feasibility, establishing the legal framework (if required), preparation and delivery or instantiation of the requested service.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Weeks</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference of Service instantiated and provided at the customers location and the time the service has been requested.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Instantiation and provision of new high level services within twelve weeks for 70% of related requests. Instantiation and provision of new sub-services for an existing service within eight weeks for 70% of related requests.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>All high services which are operational and available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Mean Time Before Recovery</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the time necessary between a service disruptions is acknowledged by the first line (CSD) and the full recovery of the service. This indicator does not preclude that service can be restored in a degraded mode within shorter time.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measuring the time between service disruption notification and service recovery announcement by the CSD.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Minutes – for services provided in collaboration with Customer Facing Units. Days – for services provided by remote assistance and back-office support.</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between the service recovery announcement and the service disruption notification.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>As instantiated through and documented by the relevant SLA.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Core services with operational impact based on the priority and documented in the applicable SLA.</td>
</tr>
</tbody>
</table>
SCOI73 – MASE - MICE

Organizational Element: AirC2 PO&S
Standard Service (Budget) or Service Group: AirC2 Services
Service Area: C3 and Enterprise Services
Service Group: AirC2 Services
Service Type: Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Air COI Applications

1. Service Description
Multi Airborne Early Warning Ground Integration Segment (AEGIS) Site Emulator (MASE)
Including MASE Integrated Console Environment (MICE) Support. The Multi-AEGIS Site Emulator (MASE) is a flexible, low cost, state-of-the-art solution to support the execution of air operations. To assist the MASE user in gaining and maintaining air superiority, three major functional areas are supported:

- Production of a real-time recognized air picture (RAP) based upon connections to both local and remote radars;
- Identification and exchange of the RAP with other military or civilian entities;
- Battle space management and provision of weapons guidance solutions.

MASE consists of client and server applications which run on Commercial-off-the-shelf (COTS) platforms. The client (MASE Console) provides the GUI for both the MASE system and the CRC System Interface (CSI) system. The Client can be used as either a client for the MASE system, a client for the CSI system or as a client for the integrated MASE / CSI system.

In recent years, the client has been totally re-designed to provide a modern, state-of-the-art Java-based graphical user interface (GUI) known as MASE Integrated Console Environment (MICE).

The following MASE product variants are available and supported:

<table>
<thead>
<tr>
<th>Product variant</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MASE Complete</td>
<td>Represents the full range of MASE applications and documentation. It contains the complete contents of the MASE Console package and in addition to the contents of the MASE Console it contains the MASE Server software and Link 1 receiver software.</td>
</tr>
<tr>
<td>MASE Console</td>
<td>Represents the full range of applications and documentation for sites wishing to run MASE but without the MASE server. It contains the functionality of the Radar receiver, Flight plan receiver, data recorder, data replay and Graphical User Interface.</td>
</tr>
<tr>
<td>MICE Console</td>
<td>Represents state of the art GUI providing operator interface for both the MASE and CSI systems.</td>
</tr>
<tr>
<td>MASE Remote Console</td>
<td>The MASE Remote Console (MRC) is a NATO Unclassified RAP visualization capability which was designed and built for the prime use in Partner Nations as a support activity for Partner Nation integration into NATINAMDS. The MRC is a receiver of data, consuming and visualizing track data received through Link 1 and flight plan information. It is based upon the MASE Console and provides the user with the same displays as the MASE Console release.</td>
</tr>
</tbody>
</table>

Reference: PMO-PS-Product Sheet MASE, Versed on: 1.0, Date: 31. August 2012

The NCI Agency, AirC2 PO&S offers a number of services for utilizing and supporting MASE in operational and training environments and provides other services related to MASE such as Management and Engineering support. A high level overview of offered services for MASE is presented within the following chapters. References to detailed service descriptions as agreed with the current customers are included in the following chapters.
1.1. Customer Support
The MASE customer support includes the following services:

- First Line Support as detailed in Service Description sheet XAA;
- Second/Third Line Support as detailed in Service Description XAB;
- Delivery Services detailed in Service Description XAD.

Above list of services is required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.

1.2. Site Intervention
On-site installation support and corrective maintenance (repair) operations are required to install and to restore the system to its operating state through activities that are beyond the capabilities of the site’s personnel. The following services are offered for MASE:

- Repair on-site as detailed in Service Description sheet XBB;
- Installation as detailed in Service Description sheet XBC;
- Test as detailed in Service Description sheet XBD.

1.3. Operational Support
The operational support is aimed at gathering and managing operational data and assessing the impact of changes related changing system interfaces. For MASE, the following operational support service is offered:

- Interoperability as detailed in Service Description sheet XCC.

1.4. Management
In regard to managing the instantiated MASE site and its related applications, the following management service is offered for MASE:

- Configuration Management as detailed in Service Description sheet XDD.

This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

1.5. Engineering
The engineering services offered are aiming at enabling and maintaining operational functions provided through MASE and enable integration of MASE into the site’s infrastructure. The following engineering services are offered for MASE:

- Safety Engineering as detailed in Service Description sheet XGB;
- Security Engineering as detailed in Service Description sheet XGC;
- Data Engineering as detailed in Service Description sheet XGF;
- Obsolescence management as detailed in Service Description sheet XGJ;
- Documentation as detailed in Service Description sheet XGK;
- Product Correction and Enhancements as detailed in Service Description sheet XGL.

2. Value Added
MASE is the Command and Control system installed in the majority of Control and Reporting Centres (CRC’s) throughout NATO. Due to the wide dissemination of the MASE product, many operators from different nations are familiar with the NATO toolset for producing and exchanging RAP. In addition, the same GUI is now used for MASE as the CSI system, widening the use of both the MASE and MICE consoles.

Both military and civilian radars can be connected using a large variety of interface protocols on dedicated lines or packet switched networks. The sensor data from these sources is processed using a
multi radar tracker, which produces the real-time air picture for processing locally and also with other CRC units.

Flight plan data from civilian or military Air Traffic Control (ATC) centres are received, correlated with the real-time air picture and displayed to the operational user to support identification of aircraft. This provides for an identified recognized Air Picture.

With the use of the CSI system, MASE provides for an integrated solution for controlling resources on Link 1, Link 11 and Link 16.

3. Locations
The MASE support is provided from the AirC2 PO&S, location Glons. The Centralized Service Desk (CSD) at Glons acts as a focal point for MASE.

4. Dependencies
To run the MASE system in a secured operating system, NPC Integrated Solaris Platform (NISP) is required. MASE is always released after testing with the latest NISP release. In integrated mode, the exchange of data on Link 11 and Link 16 requires the use of the CRC System Interface System (CSI).

5. Available Networks
MASE can be implemented at NATO controlled security domains and networks as well in national environments as long as they are compliant to NATO security standards.

6. Support Availability
All services are provided during standard working hours. Support during extended hours can be provided as requested by and charged to the customer.

The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

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</table>

7. Prerequisites
MASE relies on an infrastructure able to host MASE applications and enabling intra and inter-site data exchange through networking services. Serial Link 1 connections require that inter CRC infrastructure exists allowing the transport of serial data.

The use of serial radar interfaces and serial flight plan feeds also requires that infrastructure exists to support the transportation of radar data and flight plan data across serial lines.

The use of networked radar data and flight plan feeds requires that the infrastructure can support TCP IP interfaces to a wide area network upon which the radar and flight plan data can be received.
8. Additional Information

Key Metrics / Indicators

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<tr>
<td>Unit</td>
<td>Weeks</td>
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<td>Algorithm</td>
<td>Difference of Service instantiated and provided at the customers location and the time the service has been requested.</td>
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<tr>
<td>Target</td>
<td>Instantiation and provision of new high level services within twelve weeks for 70% of related requests. Instantiation and provision of new sub-services for an existing service within eight weeks for 70% of related requests.</td>
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<tr>
<td>Applicability</td>
<td>All high services which are operational and available.</td>
</tr>
<tr>
<td>Indicator</td>
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</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Core services with operational impact based on the priority and documented in the applicable SLA.</td>
</tr>
</tbody>
</table>
SCOI74 - Air Situation Data Exchange (ASDE) Support

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AirC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
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<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Air COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description

The ASDE system consists of an ASDE buffer and a certified Link-1 Forward Filter (L1FF) and operates as a secure gateway between the existing NATO Air Defence Systems (in CRCs), or the future Air Command and Control System (ACCS), and the air surveillance system of Partner nations using the Link 1 protocol. The ASDE system receives air situation data from a NATO CRC via Link 1, and forwards the data, after screening and filtering based on selectable and adaptable criteria, to the Partner nation via dedicated commercial communication lines using the Link 1 protocol.

ASDE will be operated in one of the following four operational modes:
- Peacetime Operations Mode (POM);
- Exercise Operations Mode (EOM);
- Crisis Response Operations Mode (CROM);
- Article 5 Operations Mode (A5OM).

The respective mode of operation will determine the security filtering rules that will be applied to the air situation data being transmitted to the partner nation. Additionally, the ASDE system receives air situation data in Link 1 format from the Partner Nation site and forwards it to the NATO CRC. The incoming data will be screened and validated for integrity before it is forwarded to the NATO system.

<table>
<thead>
<tr>
<th>Product variant</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASDE</td>
<td>Represents the full range of ASDE applications (ASDE Buffer and Link 1 Forward Filter) and documentation. It comprises all artefacts for the supported platform (NISP 3.5.0)</td>
</tr>
</tbody>
</table>

Reference: PMO-PS-Product Sheet ASDE, Versed on: 1.0, Date: 31. August 2012

The NCI Agency, AirC2 PO&S offers a number of services for utilizing and supporting ASDE in the operational environment. A high level overview of offered services for ASDE is presented within the following chapters. References to detailed service descriptions as agreed with the current customers are included in the following chapters.

1.1. Customer Support

The ASDE customer support includes the following services:
- First Line Support as detailed in Service Description sheet XAA;
- Second/Third Line Support as detailed in Service Description XAB;
- Warranty as detailed in Service Description XAC;
- Delivery Services detailed in Service Description XAD;

Above list of services is required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.
1.2. Site Intervention
On-site installation support and corrective maintenance (repair) operations are required to install and restore the system to its operating state through activities that are beyond the capabilities of the site’s personnel. The following services are offered for ASDE:

- Repair on-site as detailed in Service Description sheet XBB;
- Installation as detailed in Service Description sheet XBC;
- Test as detailed in Service Description sheet XBD.

1.3. Management
In regard to managing the installed ASDE sites, the following management service is offered for MASE:

- Configuration Management as detailed in Service Description sheet XDD.

This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

1.4. Engineering
The engineering services offered are aimed at enabling and maintaining operational functions provided through ASDE and the integration of ASDE into the site’s infrastructure. The following engineering services are offered for MASE:

- Safety Engineering as detailed in Service Description sheet XGB;
- Security Engineering as detailed in Service Description sheet XGC;
- Data Engineering as detailed in Service Description sheet XGF;
- Obsolescence management as detailed in Service Description sheet XGJ;
- Documentation as detailed in Service Description sheet XGK;
- Product Correction and Enhancements as detailed in Service Description sheet XGL.

2. Value Added
ASDE Service currently offers a unique solution for NATO Nations to share the Recognized Air Picture (RAP) with partner nations. It is the only certified solution for RAP exchange between NATO and Partner Nations.

The ACCS Software Committee (ASC) has additionally approved, (114th ASC meeting held at the NPC 12-14 June 2009), the concept of a symmetrical NATO configuration interconnecting two NATO entities operating at different classification levels, i.e. at NS such as a future ARS, and NC as a current CRC. This specific use does not require filtering but only an integrity check in the symmetrical mode of operation, ASDE provides the boundary protection for connecting NATO Secret systems to a NATO Confidential system using a Link 1 connection.

3. Locations
The ASDE support is provided from the AirC2 PO&S, location Glons. The Centralized Service Desk (CSD) at Glons acts as a focal point for ASDE.

4. Dependencies
ASDE is delivered with all required software, including the operating system. The ASDE system is dependent on a specific version of the operating system (NISP 3.5.0). NISP 3.5.0 is a tailored version of the Solaris operating system and is released by the Centralized Service Desk (CSD) at Glons.

5. Available Networks
ASDE is specifically designed for use on NATO Link 1 networks.

6. Support Availability
All services are provided during Glons standard working hours. Support during extended hours can be provided as requested by and charged to the customer.
The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

<table>
<thead>
<tr>
<th>Days of the Week</th>
<th>Opening Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday – Thursday</td>
<td>08:00 – 16:30</td>
</tr>
<tr>
<td>Friday</td>
<td>08:00 – 14:30</td>
</tr>
<tr>
<td>Saturday/Sunday/SHAPE Holidays</td>
<td>Closed</td>
</tr>
</tbody>
</table>

7. Prerequisites
ASDE relies upon a communication infrastructure between the NATO site and the Partner Nation capable of supporting the exchange of Link 1 packets. ASDE must be installed in a secure environment. The ASDE L1FF system, as installed, has been subject to certification and must not be modified without prior authorization.

8. Additional Information
   Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the responsiveness of the focal point of contact for requesting services or information. Any request forwarded to the focal point is subject to this metric regardless the type of service or information requested. In case the support organization reveals that the requested service or information is new or not related to an established service, the service organization will try to identify the right POC within the Agency for handling the request.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measure the time between the focal point had been approached and an initial response had been provided.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Days</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between the time the focal point of contact has been approached and an initial response returned to the requestor.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Initial response to any request within two working days for 90% of all requests. Support for re-routing service requests to the appropriate POC within the Agency within five working days for 90% of all requests.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>All requests received by the focal point of contact.</td>
</tr>
</tbody>
</table>
### Indicator: Service instantiation time

**Description**
This indicator aims at measuring the time required for instantiating a new service for an existing or new customer at the customer's location.

**Measurement Method**
Measuring the time between the services has been successfully instantiated and has become operational at the user locations appointed by requestor and the time the initial request has been issued by the customer. This will cover the time required for handling the request, for assessing feasibility, establishing the legal framework (if required), preparation and delivery or instantiation of the requested service.

**Unit**
Weeks

**Algorithm**
Difference of Service instantiated and provided at the customer's location and the time the service has been requested.

**Target**
- Instantiation and provision of new high level services within twelve weeks for 70% of related requests.
- Instantiation and provision of new sub-services for an existing service within eight weeks for 70% of related requests.

**Applicability**
All high services which are operational and available.

### Indicator: Mean Time Before Recovery

**Description**
This indicator aims at measuring the time necessary between a service disruptions is acknowledged by the first line (CSD) and the full recovery of the service. This indicator does not preclude that service can be restored in a degraded mode within shorter time.

**Measurement Method**
Measuring the time between service disruption notification and service recovery announcement by the CSD.

**Unit**
Minutes – for services provided in collaboration with Customer Facing Units.
Days – for services provided by remote assistance and back-office support.

**Algorithm**
Difference between the service recovery announcement and the service disruption notification.

**Target**
As instantiated through and documented by the relevant SLA.

**Applicability**
Core services with operational impact based on the priority and documented in the applicable SLA.
1. **Service Description**

ISP is used for the generation and execution of exercises for air (defence) operations, especially focusing at the NATO Integrated Air and Missile Defence System (NATINAMDS) community. ISP can be used standalone to produce ISP scenarios centrally and remotely. The scenarios can then be replayed to simulate radar input, IJMS input and DIS input.

ISP provides the capabilities to:

- Model airborne, sensor and ECM exercise elements and to engineer scenarios by retrieval, positioning, manoeuvring, altering and manipulation of various elements via the graphical user interface.
- Execute and control scenarios by starting, stopping, pausing, rewinding and forwarding the exercises.
- Activate and deactivate radar sensors. Provide exercise support for flight plan printouts for missions and provide the generation of flight plans which will be visible within the Multi AEGIS Site Emulator (MASE) system or any other system using the ADEXP flight plan message format for direct flight plan injection.
- Allow for the control of simulated fighter aircrafts using manoeuvrable targets.

All input generated is generated using RSRP, DIS, IJMS and ADEXP Flight Plan interfaces,

The following ISP product variants are available and supported:

<table>
<thead>
<tr>
<th>Product Variant</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISP Complete</td>
<td>Represents the full range of ISP applications and documentation. It comprises all artefacts for all supported platforms of the ISP Product.</td>
</tr>
</tbody>
</table>

Reference: PMO-PS-Product Sheet ISP, Versed on: 2.0, Date: 31. August 2012

The NCI Agency, AirC2 PO&S offers a number of services for utilizing and supporting ISP in operational and training environments and provides other services related to ISP such as Management, Training and Engineering support. A high level overview of offered services for ISP is presented within the following chapters. References to detailed service descriptions as agreed with the current customers are included in the following chapters.

1.1. **Customer Support**

The ISP customer support includes the following services:

- First Line Support as detailed in Service Description sheet XAA;
- Second/Third Line Support as detailed in Service Description XAB;
- Delivery Services detailed in Service Description XAD.

Above list of services is required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.
1.2. Site Intervention
On-site installation support and corrective maintenance (repair) operations are required to install and to restore the system to its operating state through activities that are beyond the capabilities of the site’s personnel. The following services are offered for ISP:

- Repair on-site as detailed in Service Description sheet XBB;
- Installation as detailed in Service Description sheet XBC;
- Test as detailed in Service Description sheet XBD.

1.3. Management
In regard to managing the instantiated ISP site and its related applications, the following management service is offered for ISP:

- Configuration Management as detailed in Service Description sheet XDD.

This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

1.4. Training
The training services are offered to familiarize site personnel for utilizing and sustain the ISP for AirC2 operations. The following training service is offered for ISP:

- Collective Training & Simulation as detailed in Service Description sheet XFB.

1.5. Engineering
The engineering services offered are aiming at enabling and maintaining operational functions provided through ISP and enable integration of ISP into the site’s infrastructure. The following engineering services are offered for ISP:

- Data Engineering as detailed in Service Description sheet XGF;
- Obsolescence management as detailed in Service Description sheet XGJ;
- Documentation as detailed in Service Description sheet XGK;
- Product Correction and Enhancements as detailed in Service Description sheet XGL.

2. Value Added
ISP services offer a unique opportunity for NATO and for Nations for training upon NATO Command and Control systems in a controlled environment, without the expense of having dedicated live missions to support training activities.

3. Locations
The ISP support is provided from the AirC2 PO&S, location Glons. The Centralized Service Desk (CSD) at Glons acts as a focal point for ISP.

4. Dependencies
ISP can be installed under a secured operating system using NPC Integrated Solaris Package (NISP).

5. Available Networks
ISP can be implemented at NATO controlled security domains and networks as well in national environments as long as they are compliant to NATO security standards.

6. Support Availability
All services are provided during standard working hours. Support during extended hours can be provided as requested by and charged to the customer.

The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.
Days of the Week | Opening Hours
---|---
Monday – Thursday | 08:00 – 16:30
Friday | 08:00 – 14:30
Saturday/Sunday/SHAPE Holidays | Closed

7. Prerequisites
Not Applicable.

8. Additional Information
Key Metrics / Indicators

<table>
<thead>
<tr>
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<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
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<td>Measurement Method</td>
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<tr>
<td>Unit</td>
<td>Days</td>
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<tr>
<td>Algorithm</td>
<td>Difference between the time the focal point of contact has been approached and an initial response returned to the requestor.</td>
</tr>
<tr>
<td>Target</td>
<td>Initial response to any request within two working days for 90% of all requests. Support for re-routing service requests to the appropriate POC within the Agency within five working days for 90% of all requests.</td>
</tr>
<tr>
<td>Applicability</td>
<td>All requests received by the focal point of contact.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
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<th>Service instantiation time</th>
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</tr>
<tr>
<td>Unit</td>
<td>Weeks</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Difference of Service instantiated and provided at the customers location and the time the service has been requested.</td>
</tr>
<tr>
<td>Target</td>
<td>Instantiation and provision of new high level services within twelve weeks for 70% of related requests. Instantiation and provision of new sub-services for an existing service within eight weeks for 70% of related requests.</td>
</tr>
<tr>
<td>Applicability</td>
<td>All high services which are operational and available.</td>
</tr>
<tr>
<td>Indicator</td>
<td>Mean Time Before Recovery</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------</td>
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<tr>
<td><strong>Description</strong></td>
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<tr>
<td><strong>Measurement Method</strong></td>
<td>Measuring the time between service disruption notification and service recovery announcement by the CSD.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Minutes – for services provided in collaboration with Customer Facing Units. Days – for services provided by remote assistance and back-office support.</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between the service recovery announcement and the service disruption notification.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>As instantiated through and documented by the relevant SLA.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Core services with operational impact based on the priority and documented in the applicable SLA.</td>
</tr>
</tbody>
</table>
SCO176 – NATO-Wide Integrated Command and Control (ICC) Software Support for Air Operations

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AirC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Air COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description

The NATO-wide Integrated Command and Control Software for Air Operations (ICC) is an integrated Command, Control, Communications and Intelligence/Information (C3I2) system that provides information management and decision support to NATO air operation activities during peacetime, exercise and crises. Currently, ICC provides functional support for the most critical AirC2 functions at the Joint Force Command, Air Command, and Combined Air Operations Centre levels.

ICC also supports NATO’s interim Ballistic Missile Defence (BMD) capability by including functions for BMD situational awareness and BMD Planning and Tasking.

ICC consists of client and server applications which run on Commercial-off-the-shelf (COTS) platforms and uses an Oracle relational database management system and is presented with a state-of-the-art Java-based graphical user interface (GUI).

The following ICC product variants are available and supported:

<table>
<thead>
<tr>
<th>Product Variant</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC Complete</td>
<td>Represents the full range of ICC applications and documentation. It comprises all artefacts for all supported platforms, Commercial COTS required and all Operating System platforms to instantiate ICC sites with running ICC server and client applications within the site’s local area network.</td>
</tr>
<tr>
<td>ICC Windows Server</td>
<td>Represents applications required to instantiate a Windows based ICC server. Together with Oracle 10g SE, it is a cost effective solution for small and training sites which can live with the limitations related using Oracle 10g SE</td>
</tr>
<tr>
<td>ICC Client</td>
<td>Represents all ICC client applications offered to sites either for utilising only a subset of the ICC capabilities provided by the ICC client applications or which do not instantiate the ICC server installation locally but connecting through a WAN to ICC servers installed at another ICC site. The ICC client provides interfaces to various data sources including situational awareness data and being able to parse and display ATO messages.</td>
</tr>
<tr>
<td>ICC ISI SDK</td>
<td>The ICC system interface (ISI) software development kit (SDK) is required by system integrators and maintainers to implement an interface to the ICC database through the ISI.</td>
</tr>
<tr>
<td>PlaTo</td>
<td>The interim BMD planning and tasking tools (PlaTo) is an add-on installable component to ICC offered to sites for planning and tasking of Ballistic Missile Defence operations.</td>
</tr>
</tbody>
</table>


The NCI Agency, AirC2 PO&S offers a number of services for utilizing and supporting ICC in operational and training environments and provides other services related to ICC such as Management, Training and Engineering support. A high level overview of offered services for ICC is presented within the following chapters. References to detailed service descriptions as agreed with the current customers are included in the following chapters.
1.1. Customer Support
The ICC customer support includes the following services:
- First Line Support as detailed in Service Description sheet XAA;
- Second/Third Line Support as detailed in Service Description XAB;
- Delivery Services detailed in Service Description XAD;

Above list of services is required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.

1.2. Site Intervention
On-site installation support and corrective maintenance (repair) operations are required to install and to restore the system to its operating state through activities that are beyond the capabilities of the site’s personnel. The following services are offered for ICC:
- Repair on-site as detailed in Service Description sheet XBB;
- Installation as detailed in Service Description sheet XBC.

1.3. Operational Support
The operational support is aimed at gathering and managing operational data and assessing the impact of changes related changing system interfaces. For ICC, the following operational support service is offered:
- Interoperability as detailed in Service Description sheet XCC.

1.4. Management
In regard to managing the instantiated ICC site and its related applications, the following management service is offered for ICC:
- Configuration Management as detailed in Service Description sheet XDD;

This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

1.5. Training
The training services are offered to familiarize site personnel for utilizing and sustain the ICC for AirC2 operations. The following training service is offered for ICC:
- Individual Technical Training as detailed in Service Description sheet XFA.

1.6. Engineering
The engineering services offered are aiming at enabling and maintaining operational functions provided through ICC and enable integration of ICC into the site’s infrastructure. The following engineering services are offered for ICC:
- Security Engineering as detailed in Service Description sheet XGC;
- Obsolescence management as detailed in Service Description sheet XGJ;
- Documentation as detailed in Service Description sheet XGK;
- Product Correction and Enhancements as detailed in Service Description sheet XGL.

2. Value Added
ICC services offer a unique opportunity for NATO and for Nations for meeting minimum requirements for AirC2 planning and tasking. Using these services leverages capabilities, support concepts and services developed by NATO for satisfying and sustaining ACO’s operational needs. ICC is currently used for the conduct of NATO operations, both static and deployed, and including the NATO Response Force. Due to the fact that ICC is used at almost all NATO units across various levels of command, using ICC in a national Command and Control context will ensure interoperability with NATO standards and operational procedures.
3. Locations
The ICC support is provided from the AirC2 PO&S, location Glons. The Centralized Service Desk (CSD) at Glons acts as a focal point for ICC.

4. Dependencies
ICC can be utilized at several levels of operational command, reaching from the execution, tactical and strategic level and requires to be integrated into the operational command structure. ICC also provides interfaces for interacting with other systems and data provider at various levels. For enabling to support joint or time sensitive targeting functions with ICC, interconnection and integration with a Joint Targeting System (JTS) is required. For utilizing enhanced collaboration services with ICC, the Joint Tactical Chat services (JCHAT) need to be available within the ICC operational installation. For receiving and displaying situational awareness data with the ICC client, a supported NIRIS version is required.

5. Available Networks
The security classification of an instantiated and configured ICC installation depends on the classification of the data processed and stored by ICC and the classification of the respective security domain ICC is installed and operating. For NATO, ICC is typically installed in a NATO Secret Environment. The ICC software itself is delivered as a NATO Unclassified package but adheres to the security regulations required to process and store data up to NATO Secret.

6. Support Availability
All services are provided during standard working hours. Support during extended hours can be provided as requested by and charged to the customer.

The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

<table>
<thead>
<tr>
<th>Days of the Week</th>
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</tr>
</tbody>
</table>

6.1 Prerequisites
ICC relies on an infrastructure able to host ICC applications and enabling intra and inter-site data exchange through networking services. ICC server applications require a supported NATO Integrated Solaris Platform (NISP) or Windows server operating system together with a licensed Oracle RDMS.

6.2 Additional Information
Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Measurement Method</td>
<td>Measure the time between the focal point had been approached and an initial response had been provided.</td>
</tr>
<tr>
<td>Unit</td>
<td>Days</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Difference between the time the focal point of contact has been approached and an initial response returned to the requestor.</td>
</tr>
</tbody>
</table>
### Target
- Initial response to any request within two working days for 90% of all requests.
- Support for re-routing service requests to the appropriate POC within the Agency within five working days for 90% of all requests.

### Applicability
- All requests received by the focal point of contact.

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<th>Indicator</th>
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<td><strong>Unit</strong></td>
<td>Weeks</td>
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<tr>
<td><strong>Algorithm</strong></td>
<td>Difference of Service instantiated and provided at the customers location and the time the service has been requested.</td>
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<tr>
<td><strong>Target</strong></td>
<td>Instantiation and provision of new high level services within twelve weeks for 70% of related requests. Instantiation and provision of new sub-services for an existing service within eight weeks for 70% of related requests.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>All high services which are operational and available.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Indicator</th>
<th>Mean Time Before Recovery</th>
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<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the time necessary between a service disruptions is acknowledged by the first line (CSD) and the full recovery of the service. This indicator does not preclude that service can be restored in a degraded mode within shorter time.</td>
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<tr>
<td><strong>Measurement Method</strong></td>
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<td><strong>Unit</strong></td>
<td>Minutes – for services provided in collaboration with Customer Facing Units. Days – for services provided by remote assistance and back-office support.</td>
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<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between the service recovery announcement and the service disruption notification.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>As instantiated through and documented by the relevant SLA.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Core services with operational impact based on the priority and documented in the applicable SLA.</td>
</tr>
</tbody>
</table>
SCOI77 - NATO Integrated Solaris Platform (NISP) Support

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AirC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
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<tr>
<td>Service Group:</td>
<td>AirC2 Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information Systems (CIS) Capabilities – Technical Services – Infrastructure Services</td>
</tr>
</tbody>
</table>

1. **Service Description**

The NATO Integrated Solaris Platform (NISP) has been developed as a tool to work alongside the Oracle Solaris operating system (OS), simplifying the Solaris installation and common system administration tasks. NISP provides the means for implementing a networked platform, open to a range of applications, which ensures site installations are easier to maintain and can be supported centrally. NISP has become the standardised general purpose system configuration tool, suitable for all applications supported by AirC2 PO&S with the exception of ACCS LOC1.

Reference: PMO-PS-Product Sheet NISP, version 2.0, dated 13 September 2012

The NCI Agency’s AirC2 PO&S offers a number of services for utilizing and supporting NISP in operational and training environments and provides other services related to NISP such as Management, Training and Engineering support. A high level overview of offered services for NISP is presented within the following chapters. References to detailed service descriptions, as agreed with the current customers, are included in the following chapters.

1.1. **Customer Support**

The NISP customer support includes the following services:

- First Line Support as detailed in Service Description sheet XAA;
- Second/Third Line Support as detailed in Service Description XAB;
- Delivery Services detailed in Service Description XAD.

Above list of services is required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.

1.2. **Site Intervention**

On-site installation support and corrective maintenance (repair) operations are required to install and to restore the system to its operating state through activities that are beyond the capabilities of the site’s personnel. The following service is offered for NISP:

- Installation as detailed in Service Description sheet XBC.

1.3. **Management**

In regard to managing NISP related baselines and to react on user requests the following management service is offered for NISP:

- Configuration Management as detailed in Service Description sheet XDD.

This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

1.4. **Training**

The training services are offered to familiarize site personnel for utilizing and sustaining NISP as a secured OS platform for hosting applications. The following training service is offered for NISP:
• Individual Technical Training as detailed in Service Description sheet XFA.

1.5. Engineering
The engineering services offered are aiming at enabling and maintaining capabilities and functions provided through NISP and enable integration of NISP into the CIS Core Enterprise Infrastructure. The following engineering services are offered for NISP:

• Security Engineering as detailed in Service Description sheet XGC;
• Obsolescence management as detailed in Service Description sheet XGJ;
• Documentation as detailed in Service Description sheet XGK;
• Product Correction and Enhancements as detailed in Service Description sheet XGL.

2. Value Added
NISP services offer, for a wide user community across several NATO and national sites, that the highly configurable Unix Operating System (OS), Oracle Solaris, is installed in a consistent fashion and can be easily maintained and centrally supported. In addition, NISP allows sites to employ system administrators, without the need for them to have an in-depth knowledge of the inner workings of Solaris or site customizations. This is especially useful for military sites with frequent personnel changes. In other words, NISP provides mainly UNIX scripts that help system administrators carry out some of their specific duties, such as system configuration and services, as well as user management.

NISP can be installed on physical computer hardware and on virtual hosts and offers functions enabling and supporting integration of UNIX and Windows domains as well as virtualization. NISP offers integration of highly available, performant and stable UNIX based services and applications integrated into a hybrid CIS infrastructure.

3. Locations
The NISP support is provided from the AirC2 PO&S, location Glons. The Centralized Service Desk (CSD) at Glons acts as a focal point for NISP.

4. Dependencies
There are no dependencies for utilizing NISP as a secured UNIX OS platform.

5. Available Networks
The security classification of an instantiated and configured NISP installation depends on the classification of the data processed and stored by the applications hosted by this platform. For NATO, NISP is typically installed and integrated in and has been approved for networks reaching from NATO Unclassified to NATO Secret. The NISP itself is provided as a NATO Unclassified package. An UNIX based OS Platform build with NISP adheres to the security regulations required to process and store data up to NATO Secret.

6. Support Availability
All services are provided during standard working hours. Support during extended hours can be provided as requested by and charged to the customer.

The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

<table>
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<tr>
<td>Friday</td>
<td>08:00 – 14:30</td>
</tr>
<tr>
<td>Saturday/Sunday/SHAPE Holidays</td>
<td>Closed</td>
</tr>
</tbody>
</table>

7. Prerequisites
NISP requires a supported hardware or virtual host for installation.
### 8. Additional Information

**Key Metrics / Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the responsiveness of the focal point of contact for requesting services or information. Any request forwarded to the focal point is subject to this metric regardless the type of service or information requested. In case the support organization reveals that the requested service or information is new or not related to an established service, the service organization will try to identify the right POC within the Agency for handling the request.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measure the time between the focal point had been approached and an initial response had been provided.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Days</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between the time the focal point of contact has been approached and an initial response returned to the requestor.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Initial response to any request within two working days for 90% of all requests. Support for re-routing service requests to the appropriate POC within the Agency within five working days for 90% of all requests.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>All requests received by the focal point of contact.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Service instantiation time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the time required for instantiating a new service for an existing or new customer at the customer’s location.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measuring the time between the services has been successfully instantiated and has become operational at the user locations appointed by requestor and the time the initial request has been issued by the customer. This will cover the time required for handling the request, for assessing feasibility, establishing the legal framework (if required), preparation and delivery or instantiation of the requested service.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Weeks</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference of Service instantiated and provided at the customers location and the time the service has been requested.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Instantiation and provision of new high level services within twelve weeks for 70% of related requests. Instantiation and provision of new sub-services for an existing service within eight weeks for 70% of related requests.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>All high services which are operational and available.</td>
</tr>
<tr>
<td>Indicator</td>
<td>Mean Time Before Recovery</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>This indicator aims at measuring the time necessary between a service disruptions is acknowledged by the first line (CSD) and the full recovery of the service. This indicator does not preclude that service can be restored in a degraded mode within shorter time.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measuring the time between service disruption notification and service recovery announcement by the CSD.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Minutes – for services provided in collaboration with Customer Facing Units. Days – for services provided by remote assistance and back-office support.</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between the service recovery announcement and the service disruption notification.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>As instantiated through and documented by the relevant SLA.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Core services with operational impact based on the priority and documented in the applicable SLA.</td>
</tr>
</tbody>
</table>
SCOI78 - Air Command and Control Information Services (AirC2IS) Support

Organizational Element: AirC2 PO&S
Standard Service (Budget) or Service Group: AirC2 Services
Service Area: C3 and Enterprise Services
Service Group: AirC2 Services
Service Type: Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Air COI Applications

1. Service Description
The Air Command and Control Information Services (AirC2IS) is a component of the Bi-Strategic Command Automated Information System (Bi-SC AIS). It is a non-real-time C2 system which will support air staff at all levels and locations of the NATO Command Structure.

AirC2IS is developed in three increments. The current increment is currently procured and deployed under the lead of the C2 Service Line. While this procurement continues, the first baselines have already been deployed and in-service support has started.

The current AirC2IS Baseline 2 (BL2) has been deployed at AIRCOM early 2014. This capability includes an Air Information Portal, a collaborative tool for development of the Air Operations Directive (AOD) and an integration core to support interfaces to other systems. BL2 is integrated with the ICC, Document Handling System (DHS), Core GIS and Active Directory.

The next AirC2IS operational baseline, BL3, will build on top of BL2 capability with modules for ORBAT management, TBMD planning, situational awareness, air logistics, and CONOPs development. AirC2IS BL3 is planned to be deployed in the first half 2015.

The NCI Agency’s AirC2 PO&S offers an initial set of services for supporting AirC2IS. As soon as more capabilities and other sites are coming on-line, the list of services offered will be expanded for satisfying the operational need.

The following chapters provide a high level overview of offered services for AirC2IS. This overview references detailed service descriptions as agreed with the current AirC2 PO&S customer.

Customer Support
The AirC2IS customer support includes the following services:

- First Line Support as detailed in Service Description sheet XAA;
- Second/Third Line Support as detailed in Service Description XAB;
- Warranty Services as detailed in Service Description XAC.

The above list of services represents the initial set of services provided by AirC2 PO&S.

2. Value Added
AirC2IS Services offer a unique opportunity for NATO and for Nations for meeting minimum requirements for AirC2 information services. Using the services offered within this document leverages capabilities and support concepts developed by NATO for satisfying and sustaining ACO’s operational needs.

3. Locations
The AirC2IS support is provided from the AirC2 PO&S, location Glons in collaboration with the Customer Facing Unit (CSU) collocated with AIRCOM. The Centralized Service Desk (CSD) at Glons acts as a focal point for requesting services.
4. Dependencies
Current AirC2IS instances depend on external data providers like ICC and Core GIS. For situational awareness, NIRIS is required.

5. Available Networks
AirC2IS is operating in a NATO Secret Environment.

6. Support Availability
All services are provided during standard working hours. Support during extended hours can be provided as requested by and charged to the customer.

The CSD provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

<table>
<thead>
<tr>
<th>Days of the Week</th>
<th>Opening Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday – Thursday</td>
<td>08:00 – 16:30</td>
</tr>
<tr>
<td>Friday</td>
<td>08:00 – 14:30</td>
</tr>
<tr>
<td>Saturday/Sunday/SHAPE Holidays</td>
<td>Closed</td>
</tr>
</tbody>
</table>

7. Prerequisites
AirC2IS relies on an infrastructure allowing integration and interfacing with ICC, the Document Handling System (DHS), the Core GIS and Active Directory.

8. Additional Information
Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>This indicator aims at measuring the responsiveness of the focal point of contact for requesting services or information. Any request forwarded to the focal point is subject to this metric regardless the type of service or information requested. In case the support organization reveals that the requested service or information is new or not related to an established service, the service organization will try to identify the right POC within the Agency for handling the request.</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>Measure the time between the focal point had been approached and an initial response had been provided.</td>
</tr>
<tr>
<td>Unit</td>
<td>Days</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Difference between the time the focal point of contact has been approached and an initial response returned to the requestor.</td>
</tr>
<tr>
<td>Target</td>
<td>Initial response to any request within two working days for 90% of all requests. Support for re-routing service requests to the appropriate POC within the Agency within five working days for 90% of all requests.</td>
</tr>
<tr>
<td>Applicability</td>
<td>All requests received by the focal point of contact.</td>
</tr>
</tbody>
</table>
### Indicator: Mean Time Before Recovery

| Description | This indicator aims at measuring the time necessary between a service disruption being acknowledged by the first line (CSD) and the full recovery of the service. This indicator does not preclude that service can be restored in a degraded mode within shorter time. |
| Measurement Method | Measuring the time between service disruption notification and service recovery announcement by the CSD. |
| Unit | Minutes – for services provided in collaboration with Customer Facing Units. Days – for services provided by remote assistance and back-office support. |
| Algorithm | Difference between the service recovery announcement and the service disruption notification. |
| Target | As instantiated through and documented by the relevant SLA. |
| Applicability | Core services with operational impact based on the priority and documented in the applicable SLA. |
SC0I79 - CRC System Interface support (CSI)

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AirC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Centrally Provided Services; AirC2 Product and Services; NPC</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C2 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>AirC2 PO&amp;S</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information System (CIS) Capabilities – User Facing Capabilities – Air COI Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**

The CRC System Interface (CSI) is NATO’s most comprehensive and complete data-link buffer. The CSI supports real-time data exchange between various Command and Control elements including navy vessels, NATO Airborne Early Warning (NAEW) aircrafts, headquarters and even fighter aircraft using standardized NATO data links, including ATDL1, Link 1, Link 11A, Link 11B and Link 16. In addition to its data exchange capability, CSI provides a full control capability for ground based air defence (GBAD) and interceptors in making use of the tactical data links implemented.

The CSI functionality includes:

- Data transmission and forwarding on a multitude of NATO data links;
- Generation of a real-time recognized COP including air, missile, surface and ground elements coupled with intelligence information received from data links;
- GBAD control functionality on various data links including Link 16;
- Interceptor control capability on Link 16;
- Surface connectivity on Link 11A.

The CSI can be used as a stand-alone system, in combination with any CRC host system, or as an extension to the MASE system. When being used with MASE, it seamlessly integrates into the MASE Integrated Console thus allowing a CRC operator to work on a single COP consisting of air, missile, surface and ground entities reported on the various NATO data links. Other use cases include CSI on ships to connect naval vessels with a Link 16 network or a remote HQ and CSI as ERCS replacement in control and Reporting Centers.

1.1. **System Engineering Support**

The CSI System Engineering Support includes the following services:

- Maintenance of software and documentation;
- Advising on hardware configuration changes;
- Activities for implementing changes;
- Hardware and Software Obsolescence management;
- Periodic products software and documentation deliveries;
- Interoperability problems support;
- Assistance in the Tactical Data Link areas;
- Maintenance of a database of safety assessment/cases for the maintained software.

1.2. **Post Design Services (PDS)**

Post Design Services include engineering services necessary to solve actual or anticipated operational and logistics support problems that may affect the CSI’s operational readiness.

1.3. **Documentation**

NCI Agency maintains, update and distribute technical data and publications necessary for performing system support and providing technical services.
1.4. Project Management
Project management and procurement services for CSI-related projects.

1.5. Training Support
Training support is provided for operators, administrators and technicians responsible for the CSI system. Tactical Data Link training courses can also be delivered and they can be tailored for the receiving audience.

Training support is provided both on site and at CSI Section premises in Glons.

1.6. Configuration Management
The NCI Agency executes software/hardware configuration management tasks as delegated by the Configuration Management Board (CMB). In practice NCI Agency provide the day-to-day configuration management support and the CMB retain approval/disapproval authority.

1.7. Maintenance Support
The NCI Agency will carry out repair, overhaul and rebuild of economically repairable end items, assemblies and sub-assemblies. The procedure to be followed when preparing for and implementing repair/overhaul services will be such as to achieve maximum cost-effectiveness. The Services maintenance support includes programmed scheduled repair/overhaul and un-programmed maintenance.

1.8. Supply Support
NCI Agency to fill requisitions will apply the following supply methods: brokerage, stockage, repair and mutual emergency support.

1.9. Transportation
The NCI Agency will provide transportation service in support of shipping products/systems to the customers.

1.10. Procurement
The NCI Agency may procure materiel or services at the request of the Participant in accordance with any procurement rule applicable to the NCI Agency.

1.11. Quality and Safety Assurance
The NCI Agency will execute all activities related to the CSI MOU in the framework of it Quality and Safety Management System.

2. Value Added
The software products of the CSI family provide a complete and integrated set of state of the art applications that enable the users to implement:

- Link 1, Link 11B, Link 11(A) and Link 16 connectivity and crosslink forwarding including the management of respective communication equipment;
- Correlation of the data received to generate a real-time COP;
- GBAD and interceptor control capability on various data Links;
- Tactical Data Link Networks management;
- Communication equipment control and monitoring.

3. Locations
The CSI support is provided from the AirC2 PO&S, location Glons. The CSD at Glons acts as a focal point for CSI related service requests. Personnel from the CSI Section is dedicated to executing the service requests.

4. Dependencies
Not Applicable
5. **Available Networks**  
The CSI system can operate at NATO controlled security domains and networks as well in national environments as long as they are compliant to NATO security standards.

6. **Support Availability**  
All services are provided during standard working hours.

The NCI Agency’s AirC2 PO&S provides core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.

<table>
<thead>
<tr>
<th>Days of the Week</th>
<th>Opening Hours</th>
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<td>Saturday/Sunday/SHAPE Holidays</td>
<td>Closed</td>
</tr>
</tbody>
</table>

Emergency support requests outside standard working hours are dispatched to a mobile service number. Extended service hours may be agreed for temporary periods.

7. **Prerequisites**  
Prerequisites for using the Link 11A and Link 16 functionality are the installation of respective communication devices which are not part of the CSI system.

For the usage of Link 1 and Link 11B, respective modems and communication lines are required.

8. **Additional Information**  
The NCI Agency provides the CSI related services under the umbrella of a Memorandum of Understanding. All subscribers to the services need to join the MOU.

In accordance with the MOU, the support services are defined in detail in an annual Programme of Work (POW) that is approved by the service subscribers.

**Key Metrics / Indicators**

Table 1: CSI POW Implementation

<table>
<thead>
<tr>
<th>Indicator</th>
<th>PoW Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>This indicator measures the level of implementation of the annual CSI POW.</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>The level of implementation is measured in percentage per POW line item/objective.</td>
</tr>
<tr>
<td>Unit</td>
<td>%</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Difference between actual and estimated man power; Achievement of POW objectives</td>
</tr>
<tr>
<td>Target</td>
<td>Metric ≥ 85%</td>
</tr>
<tr>
<td>Applicability</td>
<td>All POW line items/objectives</td>
</tr>
</tbody>
</table>
1. Service Description

The Ship-Shore-Buffer is a flexible, low-cost, state-of-the-art solution to support the communication between Air Defence Ground Systems, Maritime Forces and Airborne Early Warning via Tactical Data Links. To assist the SSSB users in gaining and maintaining the Tactical Data Links communication the following areas are supported:

- Tactical Data Link formats: Link 1, Link 11, Link 11B, Link 22, JReaP;
- Non-Tactical Data Link formats: AIS (Automatic Identification System);
- Tactical Data Link transports: SIMPLE;
- Maintaining and exchanging of a real-time Recognised Air, Surface and Subsurface Picture (RASSP) based on TDL and non-TDL inputs;
- Controlling and monitoring Link 11 and Link 22 TDL Networks;
- Controlling and monitoring local and remote communication equipment associated to the TDL channels: Antennas, Radios, Switching Boxes, Modems, and Multiplexers etc.;
- Diagnosis of TLD communication infrastructure.

The SSSB system consists of a server and a client application which run on Commercial-Off-The-Shelf (COTS) platforms. The Buffer Operational Server (BOS) is the server application and the SSSB Console (CONS) is the client application. The data connection between server and client application is extremely efficient and allow the use of the client in local and remote mode using low bandwidth communication lines without any degradation of the user experience.

The SSSB server and client applications implement a sophisticated scripting language which allows full automation of user operations and training scenarios. Additionally the synchronization scripting commands and the support of distributed architectures allows the SSSB server and client applications to be used for TDL training and TDL testing.

The SSSB Server and client applications have been developed completely using the JAVA programming language to allow not only to support all the available hardware and software platforms but also to achieve a very short time in implementing enhancement and corrections as required by the SSSB user’s community.

Part of the SSSB System products there is the Open-System-Communication-Control (OSCC) system which provides full control of communication equipment. OSCC is a client/server application which runs on COTS platforms. OSCC support already more than 50 communication equipment which range from radios (transmitters, receivers and transceivers), matrices (antenna, analogue and digital audio), Data Terminal Sets (DTS), discrete signals etc. Additional equipment can be added also by third parties using the OSCC Software Development Kit (SDK).

OSCC, for its distributed design, can support local and remote connections, full or limited access to equipment parameters from users with different authorization rights.
OSCC integrates VoIP/RoIP functions for voice coordination and to connect to military and civilian telephone networks.

The NCI Agency has developed specific Diagnostic Tools to assist the troubleshooting of TDL communication problems. The SSSB Diagnostic Tools can be used either by site personnel or by NCI Agency personnel when in depth troubleshooting is required.

The NCI Agency’s AirC2 PO&S offers a number of services for utilizing and supporting SSSB in operational and training environments and provides other services related to SSSB such as Management and Engineering support. A high level overview of offered services for SSSB is presented within the following chapters, a detailed description is provided in the SSSB MOU document.

1.1. System Engineering Support
The SSSB System Engineering Support includes the following services:

- Maintenance of software and documentation;
- Advising on hardware configuration changes;
- Activities for implementing changes;
- Hardware and Software Obsolescence management;
- Periodic products software and documentation deliveries;
- Interoperability problems support;
- Assistance in the Tactical Data Link areas;
- Maintenance of a database of safety assessment/cases for the maintained software.

Above list of services is accessible through a helpdesk service offered by the Agency.

1.2. Post Design Services (PDS)
Post Design Services include engineering services necessary to solve actual or anticipated operational and logistics support problems that may affect the SSSB’s operational readiness.

1.3. Documentation
The NCI Agency maintains, updates and distributes technical data and publications necessary for performing system support and providing technical services.

1.4. Project Management
Project management and procurement services for SSSB-related projects.

1.5. Training Support
Training support is provided for operators, administrators and technicians responsible for the SSSB system.

Tactical Data Link training courses can also be delivered and they can be tailored for the receiving audience.

Training support is provided both on site and at SSSB Section premises in Glons.

1.6. Configuration Management
The NCI Agency executes software/hardware configuration management tasks as delegated by the Configuration Management Board (CMB). In practice, the NCI Agency provides the day-to-day configuration management support and the CMB retain approval/disapproval authority.

1.7. Troubleshooting for Communication
On-site support for troubleshooting of the communication sub-system up to the Data Terminal Set. The NCI Agency provides support, on request of the SSSB Participants, for troubleshooting of communication equipment beyond normal site capability. Repair of faulty elements remains the responsibility of the respective Participant. The NCI Agency can support on-site troubleshooting of communication beyond the DTS, if required.
1.8. Maintenance Support
The NCI Agency will carry out repair, overhaul and rebuild of economically repairable end items, assemblies and sub-assemblies. The procedure to be followed when preparing for and implementing repair/overhaul services will be such as to achieve maximum cost-effectiveness. The Services maintenance support includes programmed scheduled repair/overhaul and un-programmed maintenance.

1.9. Supply Support
To fill requisitions the NCI Agency will apply the following supply methods: brokerage, stock, repair and mutual emergency support.

1.10. Transportation
The NCI Agency will provide transportation services in support of shipping products/systems to the customers.

1.11. Procurement
The NCI Agency may procure materiel or services at the request of the Participant in accordance with any procurement rule applicable to the NCI Agency.

1.12. Quality and Safety Assurance
The NCI Agency will execute all activities related to the SSSB MOU in the framework of it Quality and Safety Management System.

2. Value Added
The software products of the SSSB family provide a complete and integrated set of state of the art applications that enable the users to apply full control of:

- Tactical Data Link channel resources;
- Tactical Data Link Networks management;
- Voice coordination channels and;
- Communication equipment control and monitoring.

The technology insertions developed by the NCI Agency for the SSSB System has resulted in the definition of a new architecture for the deployment of the NATO SSSB Modernization Project based on IP interfaces to allow a flexible use of local and remote resource among all NATO SSSB installations.

SSSB provides a migration path from Link 11 to Link 22 supporting mixed Link 11/22 environment. The migration support covers all the Link 22 aspects from TDL messages, Network management, radio resources, TDL interoperability, communication monitor and troubleshooting.

3. Locations
The SSSB support is provided from the AirC2 PO&S, location Glons. The SSSB Help Desk at Glons acts as a focal point for SSSB. The Centralized Service Desk (CSD) at Glons can redirect customer requests to the SSSB Helpdesk.

4. Dependencies
The SSSB system when used in a secured operating system requires the NPC Integrated Solaris Platform (NISP).

5. Available Networks
The SSSB system can operate at NATO controlled security domains and networks as well in national environments as long as they are compliant to NATO security standards.

6. Support Availability
All services are provided during standard working hours. The SSSB Help Desk and CSD provide core services on daily 8 hours over 5 days Belgium local time principle in accordance with the table below.
7. Prerequisites
SSSB relies on an infrastructure able to host SSSB applications and enabling intra and inter-site data exchange through networking services.

Serial Link 1 connections require that inter CRC infrastructure exists allowing the transport of serial data. SSSB support dedicated serial lines and virtual serial lines over network connections.

Link 11 connections require local and/or remote HF/UHF radio infrastructure, Data Terminal Set modem and Link 11 cryptographic equipment. SSSB provides direct support of all existing format of DTS models and interfaces as well as Link 11 cryptographic equipment. SSSB support both dedicated and IP communication for remote Link 11 infrastructures.

Serial Link 11B connections require secure connections with the remote systems. SSSB supports dedicated serial lines and virtual serial lines over network connections.

AIS connections require either a dedicated receiver or a connection to a National AIS concentrator facility. In the latter case, due to the different security levels, it is mandatory the use a serial diode between the systems.

SIMPLE connections require secure lines. Generally the SSSB SIMPLE ports are connected to the CFBLNet or NATO WAN networks.

8. Additional Information

Key Metrics / Indicators

The support provided by the NCI Agency for the SSSB system covers so many areas that a list of all the applicable key metrics will not provide any additional value. The Key Metric that can summarize all of them is the one that measure the grade of implementation of the Program of Work (PoW), as agreed by the Participants to the SSSB MOU.

SSSB PoW Implementation

<table>
<thead>
<tr>
<th>Indicator</th>
<th>PoW Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>This indicator measure the level of implementation of the PoW activities agreed the SSSB Board (Participants to the SSSB MOU). The PoW is a mixed set of Common Activities, like Software Maintenance, and Had Hoc Activities.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Measuring the percentage of implementation of PoW activities.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>%</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Difference between actual and estimated man power</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Metric ≥ 85%</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>All PoW entries</td>
</tr>
</tbody>
</table>
**SCOI81 - Interim Ballistic Missile Defence (iBMD)**

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>BMD Programme Office and Services (BMD PO&amp;S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>BMD Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>BMD PO&amp;S</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Missile Defence Community of Interest (COI) Applications</td>
</tr>
</tbody>
</table>

1. **Service Description**

The iBMD capability was installed in 2012 in its primary location at HQ AIRCOM in Ramstein, Germany. As a capability provided by a System of Systems (SoS), the iBMD comprises a set of dedicated work positions enabling users to operate Bi-Strategic Command Automated Information Services (Bi-SC AIS) functional services including:

1) the BMD Planning Tool (PlaTo);
2) the Link Sixteen Intelligent Decision maker (LSID) adjunct to the Integrated Command and Control (ICC) system;
3) Networked Interoperable Real-time Information Services (NIRIS), and
4) The Tool for Operational Planning, Force Activation and Simulation (TOPFAS).

A key iBMD subsystem is the NATO Air Command and Control System (ACCS), which provides a key role integrating command and control systems and providing BMD situational awareness. The iBMD also features a chat and voice installation that provides secure communications with remote users for direct command and control. A national feed provides a Shared Early Warning capability to the iBMD.

An ALTBMD Interim capability Van (AIV) located at CAOC Uedem serves as a hot backup to the iBMD installation at HQ AIRCOM, increasing the overall iBMD system availability.

The systems that are part of the iBMD capability operate on the NATO General Communications System (NGCS) network.

The services provided for the Interim Ballistic Missile Defence (iBMD) capability are owned and operated by the BMD PO&S, with relevant contributions and support from the AirC2 PO&S and various NCI Agency Service Lines.

1.1. **Levels of Support**

The NCI Agency’s BMD PO&S keeps oversight of the iBMD services and the introduction of iBMD related functionality into involved systems.

An iBMD system support manager function has been established for coordinating and managing the operational support for the operational capability.

NCI Agency CSU Ramstein provides local support (Level 1 or first level) to the iBMD and can remotely manage the AIV. First level (local) support to the AIV is also provided by NCI Agency CSU Uedem.

In collaboration with those Service Lines responsible for individual systems building the iBMD capability, the BMD PO&S ensures that 2nd and 3rd level support is provided for iBMD related systems, specifically:

- BMD PO&S provides:
  - Overall iBMD System Support Management from Gions;
  - Configuration Management from Brussels;
AirC2 PO&S provides:
- iBMD ACCS TMD1 support;
- ICC support.

C2 Service Line provides:
- LSID support;
- NIRIS support;
- JCHAT support;
- TOPFAS support.

Network Services and IT Infrastructure (NSII) Service Line provide support to:
- Secure Voice installations;
- NGCS connectivity for iBMD.

1.2. Customer Support
iBMD customer support includes the following services:
- First Line Support;
- Second/Third Line Support.

These services are required as a minimum for obtaining the software and seeking assistance through a central service desk offered by the Agency.

NCI Agency CSUs Ramstein and Uedem provide local support (Level 1 or first level) to the iBMD as a SoS. First level support includes dealing with iBMD users on site to track, address, and resolve their requests for support as possible.

The BMD PO&S, in collaboration with the Agency’s Service Lines responsible for the individual subsystems of iBMD, ensures that 2nd and 3rd level support is provided for iBMD to address and resolve technical issues and change requests that cannot be resolved at first level.

For the ACCS TMD component of iBMD, the Service Support Centre (SSC) Service Desk (CSD) at NCI Agency Glons provides first and second line support and manages customer requests using ITIL best practice (Request Fulfilment, Incident, Problem, and Change Management) where applicable. For more information on this support, refer to the AirC2 PO&S First Line Support (FLS) and Second Line Support (SLS) Service Descriptions.

1.3. Management
In regard to managing the instantiated iBMD sites and their related applications, the following management services are offered for iBMD:
- System Management

1.4. Configuration Management
The purpose of System Management is to provide overarching support to the iBMD as a SoS and ensure that the BMD services can be delivered in accordance with the availability requirements described in the relevant Service Level Agreements.

The iBMD System Support Manager is the focal point or first Point of Contact for any issue or change request related iBMD, and coordinates the involvement of other support functions as required.

The purpose of Configuration Management (CM) is to establish and maintain the integrity of work products using configuration identification, configuration control, configuration status accounting, and
configuration audits. This management service is an enabler for other services and should be considered as a mandatory service together with customer support services.

Configuration Management for the iBMD is performed by the BMD PO&S in Brussels. The BMD PO&S coordinate the involvement of other NCI Agency departments as required. In particular, the SSC at NCI Agency Glons provides a set of Configuration Management oriented services, including Change Management and Configuration Status Accounting for the ACCS TMD subsystem of iBMD. For more information on this, refer to the AirC2 PO&S Configuration Management Service Description.

1.5. Training
The training services are offered to familiarize site personnel with administration of iBMD subsystems. The reader can refer to the relevant service description sheets provided by NCI Agency Service Lines in regard to training on iBMD Subsystems.

A main training provider for iBMD is the E&T SL located at the AirC2 PO&S, Location Glons. This E&T SL, AirC2 related Training Branch (TRB) develops, maintains and provides system and configuration management training for technical personnel on ACCS and COMMS equipment. For more information, refer to the AirC2 PO&S Individual Technical Training Service Description.

2. Value Added
NATO is developing a capability to protect the Alliance’s European populations, territory and forces against ballistic missile attacks, as decided at the Lisbon Summit in November 2010.

At the Chicago NATO Summit on 20-21 May 2012, NATO Heads of State and Government declared an interim ballistic missile defence (iBMD) capability. With the iBMD, NATO can integrate sensor information, build and distribute a comprehensive and real-time BMD operational picture and exercise command and control of voluntary national contributions provided by Allies.

3. Locations
The iBMD support is provided by the BMD PO&S locations in The Hague and Brussels and the AirC2 PO&S locations in Glons and Brussels. The Centralized Service Desk (CSD) at Mons acts as a focal point for all iBMD issues escalated by the Customer Support Units (CSU) at Ramstein and Uedem.

4. Dependencies
The iBMD capability is provided by functionality made available through a System of Systems. It is composed of instances and interconnections of other NATO systems (ACCS, ICC, NIRIS, NGCS, etc.) and non-NATO systems. As a consequence, all issues affecting the overall capability or requests for changes have to be coordinated with the respective system’s service provider.

5. Available Networks
All iBMD components are interconnected through the NGCS. National feeds are provided through NATO-National static gateways or through NATO DCIS equipment.

6. Support Availability
Support on site is provided by the CSU Ramstein and CSU Uedem. Centralized support is provided from different NCI Agency locations (as explained in section 1.1) during standard working hours. Centralized support during extended hours can be provided as requested by and charged to the customer.

7. Prerequisites
- iBMD relies on an infrastructure able to host iBMD applications and enabling intra and inter-site data exchange through networking services.
- iBMD applications server applications include ACCS TMD, ICC, LSID, PlaTo, NIRIS, on the NPC recommended platforms and OS.
- iBMD applications also include collaborative services such as email, chat, secure voice and secure voice ops loop.
• iBMD relies on some core connectivity services, NATO-National Boundary Protection Devices (BPDs), static and deployable communications.

8. Additional Information
Key Metrics / Indicators

Key Metrics for the iBMD service are the systems availability and Mean Time to Restore (MTTR). These metrics will be defined in detail in the relevant Service Level Agreements between the NCI Agency and ACO in representation of the operational users.
Subject Matter Expertise for SOA Platform Services and Enterprise Identity Management

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Core Enterprise Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>As per BC-D(2014)0040-ADD1 301, Appendix 1 (for budget purposes)</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise-wide ICT Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Platform as a Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Subject Matter Expertise Consultancy</td>
</tr>
</tbody>
</table>

1. Service Description

Subject Matter Expertise for SOA Platform Services is offered as a service to customers within the agency as well as to external customers.

The usage of the SOA Platform Services aims to reduce development and design costs and time while ensuring the required degree of interoperability and conformity of systems. It involves numerous interconnected components required to provide a comprehensive capability, covering the following fields and areas:

- Enterprise Identity and Access Management Services;
- Integration Platform Services;
- Information Platform Services;
- Registry and Repository Services;
- Web and Portal Hosting Services.

As such the SOA Platform is an inherently complex aspect in the design of systems for the agency and other NATO bodies and members. Due to the complexity and criticality of the SOA Platform, there is a need to support individual communities to realize the benefits inherent in an enterprise capability. Subject Matter Expertise is provided as professional consultancy to customers within the agency and with external customers as required. The services cover consultancy in the following areas:

- Concept development and experimentation (see section 1.1);
- Requirement Analysis (see section 1.2);
- Standards Development and Compliance (see section 1.3);
- Architectural support (see section 1.4);
- Scientific Investigations (see section 1.5);
- Project and Programme Management (see section 1.6);
- Operations Support (see section 1.7).

1.1. Concept Development and Experimentation

SME services related to Concept Development and Experimentation include:

- Development of Concept of Operations (CONOPS) and Concept of Employment (CONEMP) for specific platforms and capabilities;
- Development of Tactics, Techniques and Procedures (TTPs);
- Prototyping, integration and testing of new and modified technical solutions;
- Validation of concepts through focussed testing campaigns.

1.2. Requirements Analysis

Requirements Analysis captures user requirements in a structured manner and converts them into technical (functional and non-functional) requirements for new and future systems that will be acquired or developed to achieve a given level of ambition. SME services in this area include:
Capturing new or changing requirements;
Requirements management and analysis;
DOTMLPFI analysis to identify needs;
Identification of potential technical solutions;
Concept proposals;
Feasibility analysis.

1.3. Standards Development and Compliance
SMEs are available to provide technical expertise in support of the development, verification and compliance of standards and STANAGs for the SOA Platform service areas. This includes providing expertise to participate in NATO working groups, workshops, committees as well as Alliance or national activities.

This service provides guidance to NATO HQ, commands and agencies and to nations through the complex process of NATO Standard and STANAG implementation and enables them to focus their efforts in order to achieve the maximum level of interoperability with their NATO partners in terms of interfaces, (meta) data formats, processes and products.

Some of the services provided include:

- Service Interface Profile (SIP) development and validation;
- Testing and validation of a systems conformance to SIPs;
- Implementation guidance and design patterns;
- NATO Standard development support;
- STANAG development support;
- NATO Standard and STANAG implementation guidance;
- NATO Standard and STANAG compliance testing.

1.4. Architectural Support
The SOA Platform services architecture has adopted and promoted open standards, proposed several Service Interface Profiles (SIP) and included de facto and de jure standards (e.g. IETF, ISO, W3C, OASIS, etc.) that form the basis for future Alliance interoperability. With extensive experience in the area of SOA Platform services architecture work, our SME consultancy includes:

- Enterprise system design;
- Definition of roadmaps to meet specific customer needs;
- Identification and assessment of emerging trends and technologies;
- Provide inputs to the Enterprise Architecture;
- Development and modification of Reference and Target Architectures for SOA Platform Services.

1.5. Scientific Investigations
Execute the Scientific Programmes of Work (POW) within a research area of SOA Platform Services. Liaise with industrial, academic and national research streams and align research focus with ongoing and future capability developments within the Alliance. This includes information sharing between stakeholders throughout NATO as well as in NATO Nations and Partners, industry and academia.

Research results will be used as input to NATO and national procurement processes to enhance the interoperability and information sharing in the Alliance and missions.

1.6. Project and Programme Management
Conduct and manage projects and programmes in accordance with the NCI Agency processes based on the PRINCE2 methodology. This service includes resourcing with appropriate expertise, the definition of acquisition requirements and contracting strategy, followed by a competitive outsourcing to industry from the 28 NATO nations with professional management of the contracted vendors. Liaison with professional acquisition, legal and financial resources is inherent in this service. It includes partnering
with industry to ensure that the latest, state-of-the-art technology is implemented in a coherent and cost-effective way.

1.7. Support to Operations
SOA Platform Services subject matter expertise is provided to support ongoing operations with mission specific analysis and technical services. This includes:

- Development of mission specific databases;
- Collection and analysis of mission data;
- Prototype development to meet emergent mission requirements;
- Lessons learned analysis.

2. Value Added
NATO commands, agencies and partners are constantly challenged by the need for more transparency against the need to share information. SOA Platform Services consultancy supports the full life cycle for defining, specifying, procuring, and operating the defined services.

The SOA Platform subject matter experts have been involved in defining and specifying the services and standards in this area for over 10 years from the NNEC Feasibility Study through to and including C3 Taxonomy and Core Enterprise Services Capability Package (CP150).

3. Locations
The SOA Platform Services Subject Matter expertise may be provided at NCI Agency sites or customer specified sites at the discretion of the customer.

4. Dependencies
The SME service offering is only dependent on the availability of resources within the CES Service Line and other service lines with supporting expertise.

5. Available Networks
See Item 3.

6. Support Availability
Services are normally provided during normal business hours. Special conditions may be negotiated for operations and exercise support.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
SCOI83 - Military Training and Exercise Programme Support

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Operations and Exercises (O&amp;E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td></td>
</tr>
<tr>
<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Other Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td></td>
</tr>
</tbody>
</table>

1. **Service Description**
   Specialized consultancy for NCI Agency services in support of events in the NATO Military Training and Exercise Programme.

2. **Value Added**
   For those personnel appointed as Officer Conducting Exercise (OCE) or similar event roles, the process for delivering NCI Agency services for events in the NATO Military Training and Exercise Programme is a one-off activity and often potentially cumbersome. This service aims to dramatically reduce the time OCEs and similar appointees spend arranging NCI Agency services for NATO Military Training and Exercise Programme events by providing a body of Subject Matter Expertise to oversee requirements capture, tracking and tasking. The service also aims to satisfy the requirements of a variety of directives requiring NCI Agency and NATO CIS Group assets to be coordinated to best effect for NATO Military Training and Exercise Programme events.

3. **Locations**
   Subject to provision of funding for travel and, for civilian staff travel and per diem, the Military Training and Exercise Programme Support service is designed to be used anywhere.

4. **Dependencies**
   Only requirements that are identified as available for events in the NATO Military Training and Exercise Programme within the NCI Agency’s existing catalogue of services can be captured, tracked and tasked. Requirements that fall outside the existing catalogue of services will be declined with a recommendation for referral to the relevant projects branch.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   The Military Training and Exercise Programme Support service is available during normal working hours only.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Not Applicable.
SCO184 – KOFA milFS Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>IT Infrastructure User-facing Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Airc2/Communications</td>
</tr>
<tr>
<td>Service Group:</td>
<td>N/A</td>
</tr>
<tr>
<td>Service Type:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1. Service Description
KOFA milFS (Kontrollausstattung Flugabfertigung militärische Flugsicherung, engl. Control equipment for military flight clearance and C2) service is a customer-tailored sophisticated voice communication system (VCS) for all military air traffic control services on over 20 German military airfields and two mobile towers. Within CAOC Uedem it provides following VCS services to DEU air control and defence entities mainly, but also other national assets in the northern region:

- Direct Telephone connectivity to all system sites.
- Loops (Air Surveillance, Tactical Loops, and Training Loops.
- Connectivity to remote Radios (VHF/ UHF and SATCOM)
- Voice Recording

The system including operation and maintenance (O&M) is provided by Germany free of charge. Local nation O&M service provider is IT Sector 3. NCI Agency Uedem liaise between the Service provider and our customer CAOC Uedem. The system administration, operation and maintenance is restricted “German Eyes only”.

As interim solution KOFA, handling the delay of digital voice loop project, has been distributed to all northern region countries and is – beside JChat – the main communication tool within CAOC Uedem’s AOR (Area of Responsibility).

1.1. Expertise available for support
KOFA milFS is managed by the national CIS service provider IT Sector 3 Kalkar on 24/7 for Level 1 service. The service includes

- network access
- managing active network devices
- Patching and Updating

Local Incident Management up to Level 2 is provided during normal duty hours.
Level 3 support by FREQUENTIS is managed by DEU air force upon request by IT Sector 3. This services has been free of charge in the past.

1.2. Anticipated change in service
CAOC Uedem is using a Non-IP version of KOFA milFS no longer being supported by the manufacturer. KOFA had been planned to be replaced by ACCS VCS in 2005. The long delay in the ACCS project has led to the need to introduce a more modern interim solution, digital voice loop. It is anticipated that digital voice loop becomes operational in 2015. Since the new service has no interface to radio services (not in minimum operational requirement definition in 2012), but standard operating procedures require this access both systems might run in parallel for some time. IT Sector 3 announced that the service level 1 and 2 are ensured until 2017.

2. Value Added
This service provides the customer the ability to control its AOR for air policing.
3. **Locations**  
NCI Agency CSU Uedem for the main system. Voice communication terminals are distributed to several CRCs in CAOC Uedem’s AOR.

4. **Dependencies**  
KOFA Service is managed and maintained by the national CIS support unit IT Sector 3 Kalkar.

5. **Available Networks**  
NATO UNCLASSIFIED (closed loop).

6. **Support Availability**  
Support through Service Desk and SME depend on the yearly negotiations between the local customer and the NCI Agency and will be at provided 24/7 at least on level 1, during normal business hours on level 2.

See 1.2 for further information.

7. **Prerequisites**  
Not Applicable.

8. **Additional Information**  
KOFA System will be replaced by the Digital voice loop service. Digital voice loop service is the interim solution for the communication capabilities of the CAOC Uedem with its CRCs until ACCS is fully operational.

Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Name of Service Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Availability of the service KOFA</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>IT Service Management Tool (SDE)</td>
</tr>
<tr>
<td>Unit</td>
<td>Unit of measurement used: % of non-availability against the number of users and availability</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Any error reported by the customer in the media readiness report is a non-satisfaction.</td>
</tr>
<tr>
<td>Target</td>
<td>Metric ≥ 95% (Green)</td>
</tr>
<tr>
<td>Applicability</td>
<td>Main Service</td>
</tr>
</tbody>
</table>
SCS01 - REACH Client Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Standard Client Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise Wide Information and Communications Technology (ICT)</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Standard Client Services</td>
</tr>
</tbody>
</table>

1. Service Description

IT desktop services offers a comprehensive set of features that provides the user with a suite of network services and office automation functionality. The IT desktop services capability is setup to support the process of providing users with access to user devices, applications and data and technology resources. Provisioning can be thought of as a combination of the duties of a service provider, where users are given access to data repositories or granted authorization to systems, applications and databases based on a user account services, and supplying users with the appropriate fit-for-purpose client form factor hardware resources, such as desktops, laptops or smart phones. User and client mobility is to be supported through a holistic client agnostic concept: dependent on where the user is (location), the user identity (who), and what the user has (client, user identify proof) access will be granted to various services.

The IT desktop Service Consist of the following (user-based) subservices:

- Client Desktop Provisioning;
- Client Device;
- Client Application Provisioning;
- (W)LAN access services;
- Printing/scanning.

1.1. Client Desktop Provisioning

Client Desktop Provisioning Services, includes the standard NATO (enterprise) desktop applications and desktop and client provisioning infrastructure services.

The Client Provisioning service is an essential back-end service providing the capability to deploy Operating Systems for clients, and make software available for user to use on (terminal) server, desktop, laptops and other client devices.

The client desktop provisioning service includes the ability to deploy the standard NATO desktop to various client form factors (see 1.2).

A key feature of this service is the management of user devices providing users with managed, secured and tailored base configuration needed by the authorized user.

An added value for the newer devices: laptops, tablets and PDA-smartphones is support for mobility; which frees the user from the desk and allows secure remote connectivity.

Typically the standard desktop includes the following facilities:

- Internet Browser;
- Microsoft Office Professional Suite (Outlook, Excel, Word, PowerPoint);
- Unified Communication and Collaboration clients (location dependent: Lync and/or VTC client);
- Security tools and labelling;
- Document authoring and readers.
1.2. Client Device
The following client devices can be supported:
- Fixed Desktop (traditional workstation);
- Thin Client/Zero Client;
- Laptop;
- Tablet;
- PDA-Smartphone;
- VTC client.

Included (when applicable) is the provision of a user token (e.g. smartcard) that allows a user to securely authenticate to the various networked (application) services.

1.3. Client Application Provisioning (including App Store)
With any of the possible client platform provisioning solutions specific business applications are needed for users to be able to do their work. All business applications shall be managed centrally and deployed from central repositories accessible from an App Store.

Users will access an App Store, via the NCI Agency’s Service Catalogue where they can select business applications for download. As many of the business applications have license and cost implications, a workflow checks if the user’s management must approve funding and the application’s deployment.

To provide an effective client service in a centrally managed manner as a heterogeneous software portfolio a combination of the following application provisioning technologies are used:
- Through a central software deployment solution software can be advertised for access by users, deployed to a desktop and installed locally. Through the central management console, the software can be kept up to date, with patches and new releases. For mobile devices this is implemented in the form of an App Store.
- In addition to installing (and updating) software locally, it is also possible to use applications without leaving a “footprint” on the local Operating System.
- Application streaming provides a method of delivering applications to the Client Platform, without the need for a local installation. Application Streaming retains centralized application management, whilst using local processing power to run the applications. A package is prepared on a central server and is then streamed to clients the first time the application is run, after which the application runs locally until a new configuration is deployed centrally.
- Alternatively remote applications (that run completely in the Data Centre) and accessed via a terminal services can be provided.

1.4. (W)LAN client access services
Provision of wired or wireless access for client devices is achieved by provisioning of (W) LAN facilities in combination of the required device for access to the (W) LAN environment.

1.5. Printing/Scanning
Printing and scanning are an integral part of the IT desktop service. This service gives the user printed output and the ability scan documents and send them to the user’s email account.

2. Value Added
The Business Case for the IT desktop services proposition is linked to the following key principles:
- Lower TCO for IT desktop services;
- High Availability and IT continuity of services in support of Business Continuity;
• Flexibility and Scalability;
• Cost Reduction of end user licensing: Application provisioning is based on usage patterns (pay per use model);
• Metering.

For laptop, tablet and PDA devices:

• User Mobility will enable users to have access to information anywhere and anytime;
• User Mobility will make it possible to achieve more efficient usage of required office-floor space.

3. Locations
IT desktop services are offered on a local basis for the NS and NU/NR networks for fixed desktop installations.

IT desktop mobile client devices are supported in all NATO locations and places where users can either connect to the Internet or connect to a local NATO (W) LAN service.

Generic NATO (W) LAN access may be constrained due to current localisation of (W) LAN solutions in various NATO locations.

4. Dependencies
(In building) Availability of cabling and Technical equipment rooms for (W) LAN access points/switching devices.

Availability of Application and Core Services either in a location of the centralised Data Centres. For this please consult the (Local/Central) Application Portfolio as reflected elsewhere in the Customer Catalogue.

5. Available Networks
Please see point 3

6. Support Availability
Monday/Tuesday/Wednesday/Thursday 0830 - 1730, Friday 0830 – 1530 CET/CEST, weekend & Silent Hours – On-call routed through NCI Agency Centralized Service Desk.

7. Prerequisites
The Infrastructure as a Service (IaaS) customer, supported by the CES SL IaaS engineers, must perform a detailed application profiling analysis and preferably validate this, using realistic user loads, with support from CES and IV&V SL.

8. Additional Information
Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Uptime of service</td>
</tr>
<tr>
<td>Measurement Method</td>
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</tr>
<tr>
<td>Unit</td>
<td>% availability per month</td>
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<tr>
<td>Algorithm</td>
<td>Intrinsic availability</td>
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<td>Target</td>
<td>99.5%</td>
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<tr>
<td>Applicability</td>
<td>Client Desktop Provisioning</td>
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<td></td>
<td>Client Application Provisioning</td>
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<tr>
<td></td>
<td>(W)LAN access services</td>
</tr>
</tbody>
</table>
### Network Access Performance

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Network Access Performance</th>
</tr>
</thead>
</table>
| **Description** | Network Access Performance in terms of:  
- Latency  
- Throughput for Access Point  
- WAP device capacity |
| **Measurement Method** | Usage of standard network monitoring devices |
| **Unit** |  
- Latency: ms  
- Throughput Gbps  
- % loading |
| **Algorithm** | Measurement of performance leveled over 1 month |
| **Target** |  
Latency: Metric <= 10 ms  
Throughput for access device: 1Gbps (LAN), 125 Mbps (WLAN)  
Loading of WAP devices <= 80% |
| **Applicability** | (W)LAN services |

### Desktop services performance

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Desktop services performance</th>
</tr>
</thead>
</table>
| **Description** | Response time for desktop operation  
- User operation  
- Web based access |
| **Measurement Method** | Maximum delay |
| **Unit** | Ms |
| **Algorithm** | Determine response after activation (click) or move |
| **Target** |  
For desktop operation (mouse move, etc.): < 100 ms  
For Web based access (browser including active code): <100 ms |
| **Applicability** | Client Desktop Provisioning |
SCS02 - REACH Network Based Printing and Scanning Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Standard Client Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>CES</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise Wide Information and Communications Technology (ICT)</td>
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<tr>
<td>Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Standard Client Services</td>
</tr>
</tbody>
</table>

1. Service Description
The Print and scanning offering consists of the following two subservices:
- Network based print and scanning service
- Print and scanning devices

1.1. Network Based Print and Scanning Service
The print and scanning service provides ‘follow me printing’ (meaning a user can print from any domain printer) via a user badge authentication to the printing device. The printout volume of this service has been derived based on the current printing statistics of the current headquarters. Its (price per print page) cost is based on a global printing limit and print page constraints per user. Scanning is an additional feature of the printer and therefore this portion of the Service does not incur an increase in cost.

1.2. Print and Scanning Device
The following Multi-Functional Printing (MFP) devices are available:
1. MFP High Volume Printer;
2. MFP Normal (small workgroup) Printer;
3. Small personal printer [exception].

2. Value Added
The Business Case for the Network Based Print and Scanning Service is that Printing can be metered and reduced to fewer (centralised) locations in the building.

3. Locations
Network Based Print and Scanning is available:
- At individual HQ-command locations for the NS and NU networks.
- At all authorised location where the NCI Agency Business Network (NR) can be provided.

4. Dependencies
Requires integration with a NATO provided badge/smart card as in use for physical/logical access.

5. Available Networks
Please see point 3

6. Support Availability
Monday/Tuesday/Wednesday/Thursday 0830 – 1730, Friday 0830 – 1530 CET/CEST, Weekend & Silent Hours – On Call routed through NCI Agency Centralized Service Desk

7. Prerequisites
Provisions (building facility) are made for printer locations (rooms, Class I/II).
8. Additional Information
Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Printing Volume per Month</td>
</tr>
<tr>
<td><strong>Measurement</strong></td>
<td># or printed pages per Month</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Number of printed pages (double sided)</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Monitor per user printed pages per month.</td>
</tr>
<tr>
<td></td>
<td>Monitor per printer number of printed pages.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Maximum average 40 pages per user per month</td>
</tr>
<tr>
<td></td>
<td>Individual limits to be settle to fall within the total</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Network based print and scanning service</td>
</tr>
<tr>
<td></td>
<td>MFP device</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Availability of Network Print and Scanning Service</td>
</tr>
<tr>
<td><strong>Measurement</strong></td>
<td>Availability of the network based print and scanning service (* unavailability of individual devices is subject to incident management process that triggers replacement of the device with the SLA determined time)</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>% Availability of total time measures per month.</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Application Data Storage Threshold is hit creating an event.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Metric &lt;=99.5%</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Network based print and scanning service</td>
</tr>
</tbody>
</table>
SCS03 – Global Satellite Phones

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Standard Client Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise Wide Information and Communications Technology (ICT)</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Standard Client Services</td>
</tr>
</tbody>
</table>

1. Service Description
The Global Satellite Phone Service allows deployed users to have international access granted for voice and data worldwide via satellite services over commercial frequency bands.

2. Value Added
For users with the INMARSAT or IRIDIUM handsets they will be able to communicate from remote areas where commercial GSM is unavailable or when outside of the current telecom network. For users with a Global GSM they can reach in to local GSM networks for international calling and data (where available).

3. Locations
Joint Forces Command Naples

4. Dependencies
INMARSAT and IRIDIUM users will require commercial satellites for their operation, Global GSM users will require a signal from a local telecom provider.

5. Available Networks
Not Applicable

6. Support Availability
Global satellite service will operate continuously throughout the year. Customer Service Desk business hours are available Monday to Thursday, 8:00 – 17:00, and Friday, 8:00 – 15:00. Priority 1 incidents (Critical High Impact/High Urgency) will be managed 24/7.

7. Prerequisites
INMARSAT and IRIDIUM require a clear line-of-site (LOS) view to the satellite. Global GSM users require a cell tower signal for communications.

8. Additional Information
Global satellite phone services will be authorized for up to 1 instance for INMARSAT and 6 instances for Iridium within JFC Naples. International access granted both voice and data World Wide via commercial dedicated for Iridium and INMARSAT.

2 SIM chips with 500 Euros preloaded for world wide access will be available for use when a user requires international access outside of Italy or the currently provided telecom network.
<table>
<thead>
<tr>
<th><strong>Indicator</strong></th>
<th><strong>Global Satellite Phones Service Availability</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Service availability reporting will be used to determine the quality of a provide service.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Service Desk Express (SDE) incident reporting will be utilized for reporting performance on a quarterly basis.</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>The percentage (%) of service availability.</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Availability will be determined by the ratio of the total time the application has been capable of being used (total available time) during a 3 month period (quarter) and the total length of time (3 months). To determine the outage length, only incidents closed during the examined quarter will be considered. The total number of users will be considered to determine the total available time. Outage length is calculated by adding the total time each incident has remained opened and by multiplying it by the number of users affected by the incident. Total Available Time is calculated by the number of work days per quarter. Workday is 8 hours Monday – Thursday (8.30-16.30), 6 hours Friday (8.30-14.30). Availability = 100 * (Total available time - (\sum) outage length) / total available time</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>SLA Target is ≥ 98% operational availability. (Note: 97% ≤ availability ≤ 98% is AMBER, below 97% availability is RED)</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Entire Service.</td>
</tr>
</tbody>
</table>
SCS04 – Television Services, IPTV

Organizational Element: Standard Client Services
Standard Service (Budget) or Service Group: N/A
Service Area: Enterprise Wide Information and Communications Technology (ICT)
Service Group: Standard Client Services
Service Type: Standard Client Services

1. Service Description
Support of locally installed TV sets including the connectivity between the COAX input and the TV set.

1.1. Sub Service/System or Tool 1: System/Tool/Subservice Name
NCI Agency CSU Brunssum (NCBS) provides the following end-to-end services to enable TV capability:
- TV broadcasts displayed on a TV set or other video display system;
- Signal provisioning according 8. Additional Information;
- Maintenance and operation of the IP TV signal server in H 106 Basement fed by the Satellite Head station;
- Distribution of the IPTV signal to the customer’s location via the network infrastructure.

1.2. Sub Service/System or Tool 2:
- Incident Management (Level 2 and 3 support);
- Procurement Request handling for new or exchanged equipment;
- Exchange of non-operational equipment based on stock availability;
- Close co-operation with JFCBS Conference Services AV Manager in case of Incident Management;
- Configuration Control;
- Support in Operations and Exercises;

2. Value Added
This service provides the customer the ability to view TV channels on unclassified systems at all times with local service handling at operating hours.

3. Locations
NCI Agency CSU Brunssum.

4. Dependencies
The acceptance of the service restoration is done through the JFCBS Conference Services AV Manager against the system functionality. If the problem cannot be resolved within the same visit a work plan will be issued and a cost assessment drafted for approval.
If the repair does not require hardware replacement, immediate correction of the problem must be started accounting the applicable hourly labour rate according FTE rates of the current Local SLA.

5. Available Networks
Not Applicable

6. Support Availability
Lifecycle management activities including asset and configuration management, procurement, delivery, installation and software license management. Support through Service Desk and SME depend on the yearly negotiations between the local customer and NCI Agency and will be at minimum provided during normal business hours.
7. Prerequisites
External Service Providers including individual employees working in CLASS I and CLASS II areas need to be in the possession of a NATO Secret clearance.

8. Additional Information
NCBS only provides up to third level CIS support; the service includes the procurement of replacements and writing off of non-functioning systems.

Non-IP TVs:
NCBS takes over the responsibility from the room COAX input to the TV set. The responsibility of NCI Agency NCBS starts in case of non-IP TV coax input to converters after the converter. JFCBS BSG is responsible for the built of valid TV signals.

IP TV:
NCBS takes over the responsibility from the room COAX/ FO input to the TV set. In case of coax input to converters the responsibility of NCBS starts after the converter. TV signal converter (Set Top Box (IP TV network interface which converts LAN stream into TV signal)) will be maintained and installed by NCBS.

- Customer provides the required IP TV Channel list;
- JFCBS HQ Brunssum sets the local site wiring and keeps the responsibility for the distribution systems.

Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Name of Service Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Availability of the service</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>IT Service Management Tool (SDE)</td>
</tr>
<tr>
<td>Unit</td>
<td>Unit of measurement used: % of non-availability against the number of users and availability</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Any error reported by the customer in the media readiness report is a non-satisfaction.</td>
</tr>
<tr>
<td>Target</td>
<td>Metric ≥ 95% (Green)</td>
</tr>
<tr>
<td>Applicability</td>
<td>Main Service</td>
</tr>
</tbody>
</table>
SCS05 - End User ADP Training

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>User Training Services - Local</td>
</tr>
<tr>
<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td></td>
</tr>
</tbody>
</table>

1. **Service Description**
The End User ADP Training includes the following services:

   - On a bi-annual schedule, all new JEWCS joiners will be provided a training session up to 2 hours long on how to use CIS at JEWCS.
   - When CIS equipment is signed out to JEWCS staff, they will be offered instruction on how to use it, up to 20 minutes in duration.

2. **Value Added**
   Not Applicable.

3. **Locations**
   Not Applicable.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   Not Applicable.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Not Applicable.
1. Service Description

IT desktop services offers a comprehensive set of features that provides the user with a suite of network services and office automation functionality.

The IT desktop services capability is setup to support the process of providing users with access to user devices, applications, data and technology resources. Provisioning can be thought of as a combination of the duties of a service provider, where users are given access to data repositories or granted authorization to systems, applications and databases based on a user account services, and supplying users with the appropriate fit-for-purpose client form factor hardware resources, such as desktops, laptops or smart phones. User and client mobility is to be supported through a holistic client agnostic concept: dependent on where the user is (location), the user identity (who), and what the user has (client, user identify proof) access will be granted to various services.

The IT desktop Service Consist of the following (user-based) subservices:

- Client Desktop Provisioning
- Client Device
- Client Application Provisioning
- (W)LAN access services
- Printing/scanning

1.1. Client Desktop Provisioning

Client Desktop Provisioning Services, includes the standard NATO (enterprise) desktop applications and desktop and client provisioning infrastructure services.

The Client Provisioning service is an essential back-end service providing the capability to deploy Operating Systems for clients, and make software available for user to use on (terminal) server, desktop, laptops and other client devices.

The client desktop provisioning service includes the ability to deploy the standard NATO desktop to various client form factors (see 1.2).

A key feature of this service is the management of user devices providing users with managed, secured and tailored base configuration needed by the authorized user.

An added value for the newer devices: laptops, tablets and PDA-smartphones is support for mobility; which frees the user from the desk and allows secure remote connectivity.

Typically the standard desktop includes the following facilities:

- Internet Browser
- Microsoft Office Professional Suite (Outlook, Excel, Word, PowerPoint)
- Unified Communication and Collaboration clients (location dependent: Lync and/or VTC client)
- Security tools and labelling
- Document authoring and readers
1.2. Client Device
The following client devices can be supported:

- Fixed Desktop (traditional workstation)
- Thin Client/Zero Client
- Laptop
- Tablet
- PDA-Smartphone
- VTC client

Included (when applicable) is the provision of a user token (e.g. smartcard) that allows a user to securely authenticate to the various networked (application) services.

1.3. Client Application Provisioning (Including App Store)

With any of the possible client platform provisioning solutions specific business applications are needed for users to be able to do their work. All business applications shall be managed centrally and deployed from central repositories accessible from an App Store.

Users will access an App Store, via the NCI Agency’s Service Catalogue where they can select business applications for download. As many of the business applications have license and cost implications, a workflow checks if the user’s management must approve funding and the application’s deployment.

To provide an effective client service in a centrally managed manner as a heterogeneous software portfolio a combination of the following application provisioning technologies are used:

- Through a central software deployment solution software can be advertised for access by users, deployed to a desktop and installed locally. Through the central management console, the software can be kept up to date, with patches and new releases. For mobile devices this is implemented in the form of an App Store.
- In addition to installing (and updating) software locally, it is also possible to use applications without leaving a “footprint” on the local Operating System.
  - Application streaming provides a method of delivering applications to the Client Platform, without the need for a local installation. Application Streaming retains centralized application management, whilst using local processing power to run the applications. A package is prepared on a central server and is then streamed to clients the first time the application is run, after which the application runs locally until a new configuration is deployed centrally.
  - Alternatively remote applications (that run completely in the Datacenter) and accessed via a terminal services can be provided.

1.4. (W)LAN client access services

Provision of wired or wireless access for client devices is achieved by provisioning of (W)LAN facilities in combination of the required device for access to the (W)LAN environment.

1.5. Printing/Scanning

Printing and scanning are an integral part of the IT desktop service. This service gives the user printed output and the ability scan documents and send them to the user’s email account.

2. Value Added

The Business Case for the IT desktop services proposition is linked to the following key principles:

- Lower TCO for IT desktop services
- High Availability and IT continuity of services in support of Business Continuity
- Flexibility and Scalability
Cost Reduction of end user licensing: Application provisioning is based on usage patterns (pay per use model).

Metering

For laptop, tablet and PDA devices:

- User Mobility will enable users to have access to information anywhere and anytime.
- User Mobility will make it possible to achieve more efficient usage of required office-floor space.

3. Locations

IT Desktop services if offered on a local basis for the NIS and NU/NR networks for fixed desktop installations.

IT desktop mobile client devices are supported in all NATO locations and places where users can either connect to the internet or connect to a local NATO (W) LAN service.

- Generic NATO (W) LAN access may be constrained due to current localisation of (W) LAN solutions in various NATO locations.

4. Dependencies

In building) Availability of cabling and Technical equipment rooms for (W) LAN access points/switching devices.

Availability of Application and Core Services either in a location of the centralised Datacentres. For this please consult the (Local/Central) Application Portfolio as reflected elsewhere in the Customer Catalogue.

5. Available Networks

See point 3.

6. Support Availability

Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST, Weekend & Silent Hours – On-call routed through NCI Agency Centralized Service Desk.

7. Prerequisites

The Infrastructure as a Service (IaaS) customer, supported by the CES SL IaaS engineers, must perform a detailed application profiling analysis and preferably validate this, using realistic user loads, with support from CES and IV&V SL.

8. Additional Information

Key Metrics / Indicators.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Uptime of service</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>% X</td>
</tr>
<tr>
<td>Unit</td>
<td>% availability per month</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Intrinsic availability</td>
</tr>
<tr>
<td>Target</td>
<td>99.5%</td>
</tr>
<tr>
<td>Applicability</td>
<td>Client Desktop Provisioning</td>
</tr>
<tr>
<td></td>
<td>Client Application Provisioning</td>
</tr>
<tr>
<td></td>
<td>(W)LAN access services</td>
</tr>
<tr>
<td>Indicator</td>
<td>Network Access Performance</td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td>Network Access Performance in terms of:</td>
</tr>
<tr>
<td></td>
<td>• Latency</td>
</tr>
<tr>
<td></td>
<td>• Throughput for Access Point</td>
</tr>
<tr>
<td></td>
<td>• WAP device capacity</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Usage of standard network monitoring devices</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>• Latency: ms</td>
</tr>
<tr>
<td></td>
<td>• Throughput Gbps</td>
</tr>
<tr>
<td></td>
<td>• % loading</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Measurement of performance leveled over 1 month</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Latency: Metric &lt;= 10 ms</td>
</tr>
<tr>
<td></td>
<td>Throughput for access device: 1Gbps (LAN), 125 Mbps (WLAN)</td>
</tr>
<tr>
<td></td>
<td>Loading of WAP devices &lt;= 80%</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>(W)LAN services</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Desktop services performance</th>
<th>Desktop services performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Response time for desktop operation</td>
</tr>
<tr>
<td></td>
<td>• User operation</td>
</tr>
<tr>
<td></td>
<td>• Web based access</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Maximum delay</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Ms</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Determine response after activation (click) or move</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>For desktop operation (mouse move, etc.): &lt; 100 ms</td>
</tr>
<tr>
<td></td>
<td>For Web based access (browser including active code): &lt;100 ms</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Client Desktop Provisioning</td>
</tr>
</tbody>
</table>
SCS07 - Network Based Printing and Scanning Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Radio Communications Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>IT-infrastructure User-Facing services - Local</td>
</tr>
</tbody>
</table>

1. Service Description
The Print and scanning offering consists of the following two subservices:
- Network based print and scanning service;
- Print and scanning devices.

1.1. Network based print and scanning service
The print and scanning service provides ‘follow me printing’ (meaning a user can print from any domain printer) via a user badge authentication to the printing device. The printout volume of this service has been derived based on the current printing statistics of the current headquarters. Its (price per print page) cost is based on a global printing limit and print page constraints per user. Scanning is an additional feature of the printer and therefore this portion of the Service does not incur an increase in cost.

1.2. Print and Scanning Devices
The following Multi-Functional Printing (MFP) devices are available:
- MFP High Volume Printer;
- MFP Normal (small workgroup) Printer;
- Small personal printer [exception].

2. Value Added
The business case for the Network Based Print and Scanning Service is that Printing can be metered and reduced to fewer (centralised) locations in the building.

3. Locations
Network Based Print and Scanning is available:
- At individual HQ-command locations for the NS and NU networks;
- At all authorised location where the NCI Agency Business Network (NR) can be provided.

4. Dependencies
Requires integration with a NATO provided badge/smart card as in use for physical/logical access.

5. Available Networks
See Point 3

6. Support Availability
- Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST,
- Weekend & Silent Hours – On Call routed through NCI Agency Centralized Service Desk.

7. Prerequisites
Provisions (building facility) are made for printer locations (rooms, Class I/II).
## 8. Additional Information

### Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Printing Volume per Month</td>
</tr>
<tr>
<td><strong>Measurement</strong></td>
<td><strong>Method</strong></td>
</tr>
<tr>
<td># or printed pages per Month</td>
<td></td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Number of printed pages (double sided)</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Monitor per user printed pages per month. Monitor per printer number of printed pages</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Maximum average 40 pages per user per month Individual limits to be settle to fall within the total</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Network based print and scanning service MFP device</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Availability of Network Print and Scanning Service</td>
</tr>
<tr>
<td><strong>Measurement</strong></td>
<td><strong>Method</strong></td>
</tr>
<tr>
<td>Availability of the network based print and scanning service (* unavailability of individual devices is subject to incident management process that triggers replacement of the device with the SLA determined</td>
<td></td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>% Availability of total time measures per month.</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Application Data Storage Threshold is hit creating an event.</td>
</tr>
<tr>
<td><strong>Target</strong></td>
<td>Metric &lt;=99.5%</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>Network based print and scanning service MFP device</td>
</tr>
</tbody>
</table>
SCS08 – Radio Communications Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Radio Communications Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Audio Visuals Services</td>
</tr>
</tbody>
</table>

1. Service Description
This service includes all methods of radio communication including UHF, HF, DLOS and PMR. Local first responder radios, BRASS, Broadcast Ship Shore and Maritime rear link.

2. Value Added
This service allows customer to pass voice and data communications over various distances and allows terrestrial connectivity with remote locations.

3. Locations
This service is available at multiple locations.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable

6. Support Availability
Not Applicable.

7. Prerequisites
Not Applicable.

8. Additional Information
SCS09 - Voice Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Voice Service-Local</td>
</tr>
<tr>
<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Standard Client Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Audio Visuals Services</td>
</tr>
</tbody>
</table>

1. Service Description
A full range of Voice services on all NATO networks (NU, NR, and NS). Both fixed and mobile options (including satellite phones) are available. Additional options include conferencing, hunt groups, voice mail, call intercept, call forwarding, Chief Secretary Setups and fully detailed billing.

2. Value Added
Voice services allow easy communication between parties, from any locations. Mobile voice services further enhance the flexibility and allow individuals to communicate from almost anywhere. Conferencing options enhance collaborative working and can reduce travel costs, replacing the requirement to travel to a central location.

3. Locations
These services are available at multiple locations, including in the deployed arena.

4. Dependencies
Not Applicable

5. Available Networks
Available on NU, NR and NS.

6. Support Availability
Not Applicable.

7. Prerequisites
Not Applicable.

8. Additional Information
UAS01 – User Account Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>User Access Service</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise-Wide Information and Communications Technology (ICT)</td>
</tr>
<tr>
<td>Service Group:</td>
<td>User Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>User Access Services</td>
</tr>
</tbody>
</table>

1. Service Description
User Account services as part of the User Access Services provide login-id and access to the Enterprise ICT environment.

The User Account services capability is setup to support the process of providing users with the logical access to user devices, applications, data and technology resources. Provisioning can be thought of as a combination of the duties of a service provider, where users are given access to data repositories or granted authorization to systems, applications and databases based on a unique user identity. User rights and privileges shall be monitored and tracked to ensure the security of the enterprise resources. User and client mobility is to be supported through a holistic client agnostic concept: dependent on where the user is (location), the user identity (who), and what the user has (client, user identify proof) access will be granted to various services.

2. Value Added
The business case for the user account services proposition is linked to the following key principles:
- Lower TCO for IT desktop services allowing different ratios between users and client devices, decoupling a direct interrelationship between users and devices;
- High availability and IT continuity of services in support of business continuity;
- Flexibility and scalability.

3. Locations
User Account services are offered on a local basis for the NCI Agency managed NS and NU networks.

4. Dependencies
Availability of Application and Core Services either in a location of the centralized Datacentres. For this please consult the (Local/Central) Application Portfolio as reflected elsewhere in the Customer Catalogue.

5. Available Networks
Not Applicable.

6. Support Availability
Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST, Weekend & Silent Hours – on-call routed through the NCI Agency Centralized Service Desk Monitoring available through NCI Agency’s Network Control Centre.

7. Prerequisites
Availability of Enterprise Access services is a pre-requisite.
8. Additional Information
Key Metrics / Indicators

Availability Key Metric:

<table>
<thead>
<tr>
<th>Description</th>
<th>Uptime of service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Methods</td>
<td>% X</td>
</tr>
<tr>
<td>Unit</td>
<td>% availability per month</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Intrinsic availability</td>
</tr>
<tr>
<td>Target</td>
<td>99.5%</td>
</tr>
</tbody>
</table>

Service Delivery Performance – User Account Generation:

<table>
<thead>
<tr>
<th>Description</th>
<th>Time from request submission to creation of user access credentials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement Method</td>
<td>Usage of incident management/request fulfilment toolsets</td>
</tr>
<tr>
<td>Unit</td>
<td>Time: days</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Measurement of performance levelled over 1 month</td>
</tr>
<tr>
<td>Description</td>
<td>Time from request submission to creation of user access credentials</td>
</tr>
</tbody>
</table>
UAS02 – File Share Services- / Data Backup Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>IT-infrastructure User-Facing services - Local</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Service</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>User Access Services</td>
</tr>
</tbody>
</table>

1. Service Description
The NCI Agency provides a space over the network for files storage. File sharing can be accessed from any site connected to the network. Additionally security rules can be applied if requested.

2. Value Added
Centrally stored files are accessible from any place connected to the network and are secured according to NATO rules. Data loss prevention mechanisms are implemented (regular backups).

3. Locations
CSU Bydgoszcz.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
Business Hours.

7. Prerequisites
Infrastructure, physical and network security procedures are met. Customer must subscribe to NCI Agency network services.

8. Additional Information
1. **Service Description**
Directory Services provides an authoritative repository of information and network based resources. This service provides management of these resources, controls who can access them and ensures overall consistency of data.

2. **Value Added**
Provides consistency of data, data integrity & accuracy. Will also contribute to the establishment of identity management.

3. **Locations**
The service is provided to multiple locations.

4. **Dependencies**
Not Applicable.

5. **Available Networks**
All Networks

6. **Support Availability**
All Networks

7. **Prerequisites**
Not Applicable

8. **Additional Information**
UAS04 - SME Support for IT Federation (Information Exchange Gateways)

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Core Enterprise Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>As per BC-D(2014)0040-ADD1 301, Appendix 1 (for budget purposes)</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise-wide ICT Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Infrastructure Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Information Exchange Gateways</td>
</tr>
</tbody>
</table>

1. Service Description
Subject Matter Expertise is offered as a consultancy service to internal and external customers. The support includes investigation, experimentation and recommendations for IT solutions addressing issues arising when connecting the Bi-SC AIS and NATO-led mission AIS to other NATO or National AIS operating at the same or other classification levels.

The solutions offered are typically known in NATO as Information Exchange Gateways (IEG). IEG solutions are generically applied to interconnect AISs transparently to the source and destinations applications or services.

SME support included in this service offering is as follows:

- Requirements Analysis (see section 1.1):
  - Information Exchange Requirements;
  - Security Requirements;
  - Management Requirements;
  - Joining, Operating and Leaving Requirements;
  - Boundary Protection Requirements;
  - Data Guard Devices.

- Labelling Services (Security Marking) (see section 1.2):
  - NATO to National Label Mapping;
  - Confidentiality Labelling Standard and STANAG Compliance analysis and validation.

- Metadata Services (see section 1.3):
  - NATO to National Metadata Mapping;
  - Metadata binding profile development;
  - Metadata binding profile compliance analysis and validation.

- Procurement and Project Management (see section 1.4):
  - Information Exchange Gateway solution procurement.

- Scientific Investigations (see section 1.5):
  - IT Federation concept development.
  - Testing and Validation efforts.

1.1. Requirements Analysis
Requirements Analysis captures information exchange requirements in a structured manner and converts them into technical (functional and non-functional) requirements for new and future solutions that will be acquired or developed to achieve a given level of ambition. SME services in this area include:
Capturing new or changing information exchange requirements;
Requirements management and analysis;
DOTMLPFI analysis to identify needs;
Identification of potential technical solutions;
Concept proposals;
Feasibility analysis.

1.2. Labelling Services (Security Marking)
If a data object originates outside of the NATO security domain, using a national or non-national security policy, the Originator Confidentiality Label may have a policy identifier that is not recognized by NATO. For this use case the Alternative Confidentiality Label is used to store the NATO equivalent of the Originator Confidentiality Label. It is assumed that bilateral agreements between NATO and national or non-national security domains exist for the assignment of Alternative Confidentiality Labels and their values. The equivalent situation exists for NATO-originated labelling information intended for delivery to a national or non-national security domain. In this case, the NATO-compliant label needs to be mapped to the destination security policy.

Confidentiality Labelling SME services include the provision of support to align national and non-national policies and standards to the NATO Confidentiality Labelling Standard and STANAG by assisting with the investigation and analysis of mapping originator labels to compliant alternative labels.

For coalitions, including the Federated Mission Networking (FMN), the use of the NATO Security Policy and standards for Day 0 deployments (or as an intermediate policy for transiting from one domain to another) will rely on the accurate mapping of NATO to national or non-national labels and vice versa. The preparation of Security Policy Information Files (SPIF) for non-NATO policies and assistance with the development of translation or mapping tables to populate the Alternative Label fields is an offered service.

1.3. Metadata Services
The mapping of metadata from one domain to another is a service offered by our SMEs only. Such a mapping is crucial to maintain coherence of shared information where it is released beyond a Community of Interest (CoI).

In addition, the development of Binding Profiles - used to bind metadata (including Confidentiality Label) to the target data object – is supported where special data types or protocols require new binding definitions. This service is particularly beneficial for applications and Functional Area Services requiring access control and release within and between Cols.

Testing and validation services of new or revised Binding Profiles may be requested.

1.4. Project and Programme Management
Conduct and manage projects and programmes for Information Exchange Gateway procurement in accordance with the NCI Agency processes based on the PRINCE2 methodology. This service includes resourcing with appropriate expertise, the definition of acquisition requirements and contracting strategy, followed by a competitive outsourcing to industry from the 28 NATO Nations with professional management of the contracted vendors. Liaison with professional acquisition, legal and financial resources is inherent in this service.

It includes partnering with industry to ensure that the latest, state-of-the-art technology is implemented in a coherent and cost-effective way.

1.5. Scientific Investigations
Execute the Scientific Programmes of Work (POW) within research areas related to information exchange within and between domains of varying governing security policies. Liaise with industrial, academic and national research streams and align research focus with ongoing and future capability
developments within the Alliance. This includes information sharing between stakeholders throughout NATO as well as in NATO Nations and Partners, industry and academia.

Research results will be used as input to NATO and national procurement processes to enhance the interoperability and information sharing in the Alliance and missions.

2. Value Added
Information sharing and communication between users of diverse NATO and National IT systems is the foundation of NATO’s strategy for FMN, Connected Forces Initiative, etc. While efforts are being made to define and procure systems that are interoperable by design, the requirement for experienced SMEs to undertake the work described herein will endure for the foreseeable future. The Core Enterprise Service line is able to provide SMEs with the knowledge and experience to undertake IT Federation tasks on behalf of NATO and Nations.

3. Locations
The Information Technology Federation Subject Matter expertise may be provided at NCI Agency sites or customer specified sites at the discretion of the customer.

4. Dependencies
The coordination and involvement of SMEs in the Cyber Security Service Line will be ensured with any request for SME support for this area.

5. Available Networks
See Item 3.

6. Support Availability
Services are normally provided during normal business hours. Special conditions may be negotiated for operations and exercise support.

7. Prerequisites
Not Applicable.

8. Additional Information
To be provided.
EAS01 – Network Monitoring and Control Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Operations Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Ops Centre</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Ops Centre</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Network Monitoring and Control Services (NM&amp;CS)</td>
</tr>
</tbody>
</table>

1. Service Description
Network Monitoring and Control Services are provided by the Network Control Centre as an Ops Centre Entity. The NCC is responsible for providing monitoring of all Networks provided by the Agency to Customers for their users.

The NCC manages the event management process and is responsible for the escalation of incidents affecting corporate networks and services that are delivered through them as required. The NCC provides end-to-end visibility across all networks and services, including Cyber Security services under arrangements with the CS and NS&II SLs.

The NCC is located in the Primary Ops Centre and is backed up by the Alternate NCC in the alternate Ops Centre location. Both elements can provide the service independently if required. The Network Monitoring and Control Services are provided as a 24/7 service. Response times are determined by SLA.

2. Value Added
The Network Monitoring & Control Services provide centralised event management on any Network NCI Agency provides. The full range of this service is available at one location backed up in another. It speeds up the incident detection and provides control and comprehensive monitoring capabilities at a central location.

3. Locations
Service is available to multiple locations.

4. Dependencies
Currently, NM&C Services are only provided for the Open Systems Interconnection (OSI) layers 1-3 of the Networks for specific Networks. In the future it will be enabled to provide monitoring capabilities on all the OSI layers to provide the Ops Centre with a comprehensive overview of the full range of provided services.

5. Available Networks
The NM&C Services are available on the following Networks:
- NU and/or NS domains with the capability to expand to Mission Secret NS;
- Protected Business Network as soon as implemented.

Minerva and Mission networks currently have their own NM&C Services capabilities that will survive as long as the special Network domain exist and/or the NCC can provide the same level of service.

6. Support Availability
NM&C Services are available 24/7.

7. Prerequisites
NM&C Services are standing capabilities that come with Network and Infrastructure Service that are provided. It can only be provided as a sub-service for other services the NCI Agency provides.

8. Additional Information
EAS02 – Centralized Service Desk

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Operations Centre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Ops Centre</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Ops Centre</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Ops Centre</td>
</tr>
</tbody>
</table>

1. **Service Description**

   The CSD acts as a single point of contact for authorised users of all Networks, CIS Services and Applications provided by the Agency. The CSD will log, categorize and resolve/escalate and manage all incidents and requests from authorised users.

   The current range of Toolsets used to support the service is diverse. Several Service Management toolsets are in-use.

   The Service Desk function is a sub-service of other services the NCI-Agency provides. The CSD comprises sub-elements in the primary and Alternate Ops Centre locations that together form the CSD but the sub-elements can provide the service independently if required. This is a 24/7 service, with resolution times determined by SLA.

2. **Value Added**

   The Centralized Service Desk will be available as sub-service for all locations via one single telephone extension for any applicable service. Since the CSD will be responsible for all Services and Networks there will be efficiencies in terms of overall costs and Incident/Request resolution times. The full range of the Agency’s support capabilities will be available via a single point of contact.

3. **Locations**

   Service is available to multiple locations.

4. **Dependencies**

   Currently the CSD is under development. Legacy Service Desks are available at many locations and will be centralised on after another.

5. **Available Networks**

   A SD function is provided for any Network that the NCI Agency provides. The CSD is available for the following Networks:

   - NS;
   - NR(Reach);
   - NU.

   Minerva and Mission networks currently have their own local SD that will survive as long as the special Network domain exist and/or the CSD can provide the same level of service.

6. **Support Availability**

   The Service of the CSD is available 24/7 depending on the SLA.

7. **Prerequisites**

   Customers/ user must adhere to security regulations for the specific Network to get access and to request existing services to be agreed in SLAs.

8. **Additional Information**
EAS03 - Web and Portal Hosting

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Core Enterprise Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mapping to 2015 SLS (Standard Service List):</td>
<td>Infrastructure as a Service Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise-wide Information and Communications Technology (ICT)</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Platform as a Service</td>
</tr>
</tbody>
</table>

1. Service Description
Web Hosting Services provide an environment for operating web applications and services that can include capabilities such as management, security, transaction, load balancing and distributed deployment for federated applications.

These features are provided by a service container, a component that manages the service lifecycle and underlying resources (such as memory, storage and CPU). Examples of service containers are: Application Servers, middleware systems, Enterprise Service Buses (ESB) and legacy integration systems.

The application or web service execution takes place in the container’s runtime environment, including (but not limited to) the Java Runtime Environment (JRE) and the .NET framework. The main features a hosting service provides are:

- Deployment of web services and applications;
- Monitoring of web services and applications;
- Load balancing incoming service requests among other request processors to ensure service availability;
- Securing web services and applications by authenticating and authorizing users;
- Controlling the overall resource allocation to improve web service performance using techniques such as memory sharing techniques, database pooling queues, resource caching, etc.

Typically the hosting service is supplied according to a Service Level Agreement (SLA) contract that specifies and regulates the web service operational metrics, for example reliability, availability, scalability, monitoring, technical support, data transfer, liabilities, backups, etc.

A more sophisticated type of Hosting Services provided are Portal Services, which provide a richer user interface and some or all of the following features:

- Social collaboration by sharing information among users communities;
- Process workflows for activities;
- Content Management by publishing, managing and archiving documents or media content;
- Search user or documents;
- User notifications via email and alerts.

All of these are offered as pre-defined components that a user, being a web operator or a web designer, can easily combine in web pages to provide a specific functionality.

These pre-defined components make use of SOA and Integration Platform services and Enterprise Support Services to deliver the core functionality.

Web Presentation Service
The Web Presentation Services allow combining rich content from different data sources into a single client web page or desktop, using a combination of Web 2.0 technologies such as HTML snippets, scripting code (JavaScript), on demand code (AJAX, JSON), web service calls and proprietary code (Flash, ActiveX and so on).
There are several implementation options to provide this type of service: portlets, widgets, gadgets, feeds and web parts.

**Web Caching Service**
The Web Caching Service speeds up the web application responsiveness by using local copies of content from already processed client requests. The service makes use of the characteristics of the requested content, the client behaviour and a caching algorithm to decide whether the local content is valid for the client or needs to be re-processed again. If the local content is still valid, that is, not expired, then the service returns it to the client right away, therefore reducing processing time and transfer bandwidth.

**Web Proxy Service**
The Web Proxy Service increases the responsiveness and the security for the web service calls by intercepting the client’s requests and the server responses before being processed. The web service sits between the web service client and the server, acting as a client or as a server transparently to the user.

2. **Value Added**
The value added to the customer’s business case is:

- Reduces the TCO for the web applications by using the shared hosting infrastructure: software and hardware;
- Provides High Availability (HA) and IT continuity of services;
- Enhances the web application flexibility and scalability due to the ready-for-use hosting features;
- Metering and controlling web applications;
- Saves costs for simple functions that can be delivered by using the existing portal components instead of purchasing a dedicated COTS;
- Increases the web application performance;
- Improves the overall user working efficiency by collaborating via the portal: sharing information, documents or meeting conclusions;
- Improves the security of the information.

3. **Locations**
The Web and Portal Hosting services will be available to all:

- Locations that can be (inter)connected to the NSWAN at NATO, Mission, Exercise Secret Classification Level;
- Locations that can be (inter)connected to the NGCS NU/NR WAN or through the Internet at Unclassified, NATO Unclassified or NATO Restricted Classification Level;
- NATO National sites;
- NATO Partner sites.

4. **Dependencies**
The Web and Portal Hosting Services depend on the following underlying services for providing:

- Single Sign On (Enterprise Identity Management);
- Social Collaboration (Unified Communications and Collaboration Services);
- Content Management, Workflow and Search (Information Management Services).

Web and Portal Hosting services support the IM Tools DHS, TTE, NIP and Search services.

5. **Available Networks**
See item 3.

6. **Support Availability**
Monday/Tuesday/Wednesday/Thursday 0830 - 1730, Friday 0830 – 1530 CET/CEST
Weekend & Silent Hours – On Call routed through NCI Agency Centralized Service Desk
Monitoring available through the NCI Agency’s Network Control Centre

7. **Prerequisites**
   Availability of the Infrastructure as a Service (IaaS) to provide the necessary underlying infrastructure. Availability of the dependant services (see section 4 Dependencies).

8. **Additional Information**
EAS04 - Infrastructure as a Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Infrastructure as a Service</td>
</tr>
</tbody>
</table>

1. **Service Description**

   The IaaS foundation services are providing an Infrastructure as a Service (IaaS) Cloud based platform that will allow owners of applications to host applications and provide required end user business services.

   The IaaS foundation services offering is a combination of the following seven sub-services:
   - (Virtual) Processing Services;
   - Block Storage Services;
   - File Storage Services (NAS);
   - Network Operating System Services;
   - Data Replication Services;
   - Network Load Balancing Services;
   - WAN acceleration services.

2. **Value Added**

   The Business Case for the IaaS proposition is linked to the following key principles:
   - Lower TCO for Infrastructure Services;
   - High Availability and IT continuity of services in support of Business Continuity;
   - Flexibility and Scalability;
   - Metering;
   - Secure Multi-Tenancy.

3. **Locations**

   IaaS enabled service provision can be considered for the following locations/situations:

   Locations that can be (inter)connected to the NSWAN at either NATO, Mission, Exercise Secret Classification Level.

   Locations that can be (inter)connected to the NGCS NU/NR WAN or through the Internet at Unclassified, NATO Unclassified or NATO Restricted Classification Level.

4. **Dependencies**

   Currently the CSD is under development. Legacy Service Desks are available at many locations and will be centralised on after another.

5. **Available Networks**

   Not Applicable

6. **Support Availability**

   Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST, Weekend & Silent Hours – On Call routed through NCI Agency Centralized Service Desk

7. **Prerequisites**

   The IaaS customer shall, supported by the CES SL IaaS engineers, perform a detailed application profiling analysis and preferably validate this, using realistic user loads, with support from CES and IV&V SL.
8. Additional Information
Key Metrics/Indicators

Below certain key Technical Metrics for IaaS are defined.

Usage of these technical metrics come on top of the defined availability level (see 8.1) that will inform levels of redundancy/synchronous replication/backup and recovered parameters.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Processing Capacity/Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Processing Capacity (for either physical or virtual machine)</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>Processor Load Monitoring Tool</td>
</tr>
<tr>
<td>Unit</td>
<td>(V)CPU required: # of CPU, # of Cores per CPU</td>
</tr>
<tr>
<td></td>
<td>Unit of measurement used: % load</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Application Performance (Processing) below identified threshold:</td>
</tr>
<tr>
<td></td>
<td>Dependency on Application Monitoring Performance Measurement but key indicator is the user response time</td>
</tr>
<tr>
<td>Target</td>
<td>Metric ≥ 70%</td>
</tr>
<tr>
<td>Applicability</td>
<td>(Virtual) Processing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Storage Capacity and Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Storage Capacity (for either physical or virtual machine)</td>
</tr>
<tr>
<td></td>
<td>Diversified per storage tier: 1/2/3</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>Storage utilization monitoring (% storage capacity used measured in Gigabyte/Terabyte)</td>
</tr>
<tr>
<td></td>
<td>Time needed to backup and restore Application Data (per unit of storage)</td>
</tr>
<tr>
<td>Unit</td>
<td>Gigabyte/Terabyte diversified per storage tier</td>
</tr>
<tr>
<td></td>
<td>Storage Type (NAS, SAN, type of Disk SSD, SATA, etc.)</td>
</tr>
<tr>
<td></td>
<td>Disk Access Speed (RPPM)</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Application Data Storage Threshold is hit creating an event.</td>
</tr>
<tr>
<td>Target</td>
<td>Metric ≥ 80%</td>
</tr>
<tr>
<td>Applicability</td>
<td>Storage Services</td>
</tr>
<tr>
<td>Indicator</td>
<td>IaaS infrastructure networking performance</td>
</tr>
<tr>
<td>---------------</td>
<td>---------------------------------------------</td>
</tr>
</tbody>
</table>
| Description   | IaaS Infrastructure Networking Performance mapped to the following functions:  
User<>Application<> IaaS end user performance  
Accessibility to the Application Services from multiple access points (DCs) - redundancy  
Sync-Async Data Replication capacity and performance |
| Measurement Method | End-user Application Services Response time  
# Access Point Concurrently supported: uptime and capacity  
Replication time constraints and capacity |
| Unit          | Milliseconds (delay)  
# Access points, capacity in number of concurrent users.  
Milliseconds (sync < 5 or async) + storage capacity |
| Algorithm     | Application Response time Monitoring tool (threshold based)  
Statistics (uptime per access point) + number of concurrent users |
| Target        | Depends per app (web based < 90 ms,)  
80%  
80% |
| Applicability | Network Operating System Services  
Data Replication Services  
Network Load Balancing Services  
WAN acceleration services |
EAS05 - HTTP Browsing to BICES Network

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>IT infrastructure services - Local</td>
</tr>
<tr>
<td>Service Area:</td>
<td>N/A</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1. **Service Description**
   Battlefield Information Collection and Exploitation System (BICES) is a NATO Nations intelligence product including LOCE (Linc Operational Intelligence Centres Europe) connectivity.

   BICES is a web based Functional Service.

2. **Value Added**
   This service provides the customer client access to BICES in order to retrieve intelligence data on classified systems at all times with local service handling at operating hours.

3. **Locations**
   CSU Brunssum

4. **Dependencies**
   Not Applicable

5. **Available Networks**
   NATO SECRET

6. **Support Availability**
   Lifecycle management activities includes connectivity management only. Support through Service Desk and SME depend on the yearly negotiations between the local customer and NCI Agency and will be at minimum provided during normal business hours.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Name of Service Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Availability of the service</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>IT Service Management Tool (SDE)</td>
</tr>
<tr>
<td>Unit</td>
<td>Unit of measurement used: % of non-availability against the number of users and availability</td>
</tr>
<tr>
<td>Algorithm</td>
<td>Any error reported by the customer in the media readiness report is a non-satisfaction.</td>
</tr>
<tr>
<td>Target</td>
<td>Metric ≥ 95% (Green)</td>
</tr>
<tr>
<td>Applicability</td>
<td>Main Service</td>
</tr>
</tbody>
</table>
EAS06 - Collaboration Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Core Enterprise Services (CES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise-Wide Information and Communications Technology (ICT)</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Unified Communication and Collaboration Services</td>
</tr>
</tbody>
</table>

1. Service Description
Text-Based Collaboration Services provides a capability to exchange relatively brief text messages, in near real-time, between network addressable entities.

Audio-based Collaboration Services provide a two-way audio transmission between different parties on the network, including call set-up and call co-ordination in a bi-directional manner. These services also provide simultaneous audio conferencing among two or more remote points by means of a Multipoint Control Unit (MCU).

Video-based Collaboration Services provide a two-way video transmission between different parties on the network, including call set-up, call co-ordination, full motion display of events and participants in a bi-directional manner, support for the management of directing the cameras, ranging from fixed position, to sender directed, to receiver directed, to automated sound pickup.

2. Value Added
- Enables the customer business to exchange near real-time brief text messages;
- Provides the customer business with two-way audio transmission between different parties, including audio conferencing functionality;
- Provide the customer business to perform two-way video transmission and conferencing between different parties on the network;
- Provide the customer with functionality, advertising the network availability of entities;
- Provide the customer with white boarding and application sharing functionality;
- Provide the customer with functionality for managing calendars, the timing of tasks and task assignments for users.

3. Locations
NATO Static locations, NATO Operations and Exercises.

4. Dependencies
- Network
- Cryptos
- Operating System
- Active Directory

5. Available Networks
Available on NU, NR, NS, MISSION SECRET EXERCISE

6. Support Availability
Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST, Weekend & Silent Hours – On Call routed through NCI Agency Centralized Service Desk

7. Prerequisites
Not Applicable

8. Additional Information
EAS08 - Military Message Handling System

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Core Enterprise Services (CES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or</td>
<td>Military Messaging Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td></td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise Wide Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td></td>
</tr>
</tbody>
</table>

1. **Service Description**

Formal Message Transfer Services provide a reliable, store and forward message transfer service for both users and applications in support of organizational messaging (messaging between organizations and organizational units). The service supports different qualities of service for different message priorities (e.g. expediting higher priority messages, timing out higher priority messages more quickly) to honour the precedence of the formal messages. The Formal Message Transfer Service supports a range of elements of service (EoS) including access management, alternate recipients, conversion prohibition, deferred delivery, delivery notification, distribution list expansion, latest delivery, and message security labelling.

Informal Messaging Services provide the capability to exchange digital messages (electronic mail or email) from a provider to one or more recipients using a store and forward model. They provide the ability to accept, forward, deliver and store messages. Messages can be relayed from one domain to another.

2. **Value Added**

Provides the customer business message transfer service for both users and applications in support of organizational messaging.

3. **Locations**

NATO Static locations, NATO Operations and Exercises.

4. **Dependencies**

- Network
- Cryptos
- Operating System
- Active Directory

5. **Available Networks**

Formal Messaging available on:
NS, MISSION SECRET EXERCISE, national networks.

Informal Messaging available on:
NU, NR, NS, MISSION SECRET (ISAF, EUFOR, KFOR, EXERCISE)

6. **Support Availability**

Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST,
Weekend & Silent Hours – On-call routed through NCI Agency Centralized Service Desk.

7. **Prerequisites**

Not Applicable.

8. **Additional Information**
EAS09 - Internet Services Gateway

Organizational Element: Core Enterprise Services (CES)
Standard Service (Budget) or Service Group: Internet Access Service
Service Area: Enterprise-Wide Information and Communications Technology (ICT)
Service Group: Enterprise Access Services
Service Type: Enterprise Infrastructure Services

1. Service Description
Internet Services Gateway provides users capability to access, use or participate internet resources. The provided Internet access is delivered through secure, resilient and integrated Gateway connected at High speed with the Internet. Service technical controls are in place in order to enhance users experience in a secure and controlled framework.

2. Value Added
Exposure to the nowadays hostile Internet environment is delivered in a secure controlled manner giving the organization assurance on prevention Internet related incidents (malware, exploits, and data leak protection).

3. Locations
All enterprise locations where LAN is connected to the NU WAN.

4. Dependencies
Internet network access, enterprise firewalls, NCIRC capability.

5. Available Networks
NU connected to the NU WAN.

6. Support Availability
Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST, Weekend & Silent Hours – On Call routed through NCI Agency Centralized Service Desk.

7. Prerequisites
Workstation to be compliant with NCIRC and Enterprise guidelines.

8. Additional Information
Key Metrics / Indicators

<table>
<thead>
<tr>
<th>Key Quality Performance Indicators (KQI)</th>
<th>SLA Target Level</th>
<th>Measurement Points</th>
<th>Measurement Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability (Av)</td>
<td>99,5% &lt; Av</td>
<td>To include complete availability of:</td>
<td>No greater than 5 minutes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Web Publishing Service</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Remote Access</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Internet access</td>
<td></td>
</tr>
<tr>
<td>Response Time (RT)</td>
<td>500 ms &gt; RT</td>
<td>Response Time shall be measured by averaging sample measurements taken during a calendar month at the Internet Facing Router</td>
<td>No greater than 5 minutes</td>
</tr>
</tbody>
</table>

NATO UNCLASSIFIED
**EAS10 - VTC Services**

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Network Services and IT Infrastructure (NSII)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Video Services (VTC)</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Centralized VTC Services</td>
</tr>
</tbody>
</table>

1. **Service Description**
   This service will provide:
   - Provision of a user interface that allow users to directly schedule conferences, book rooms and invite participants via Microsoft Outlook or a web-based interface;
   - VTC Concierge Service, scheduling;
   - Conferencing;
   - Recording, playback, streaming;
   - Resolution of VTC and VTC-connectivity issues;
   - Monitoring of VTCs to interact as required (dependent on SLA);
   - Service is available as a Secure and Non-Secure Service;
   - Third party connectivity available through an undefined connection.

2. **Value Added**
   VTC services will allow Command & Control to be exercised more easily, at all levels. These services allow individuals and groups to interact and meetings to take place, without the need for parties to travel to a single location.

3. **Locations**
   VTC services will be offered across the enterprise, in both dedicated VTC suites and as a desktop capability.

4. **Dependencies**
   Customers will have to provide ‘VTC Facilitators’ that are the local on-site customer representative responsible for providing (Level 0) customer advice and for identifying and raising issues during normal VTC operations to the VTC SG.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   The Service of the VTC Services Group could be available 24/7 depending on the SLA.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Not Applicable.
EAS11 - SATCOM

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Network Services and IT Infrastructure (NSII)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>SATCOM services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Satellite Communications</td>
</tr>
</tbody>
</table>

1. **Service Description**
   The SATCOM service includes all aspects of Satellite Communications service provision from satellite phones to large data rate satellite ground terminals.

2. **Value Added**
   SATCOM services allow the customer to extend their communications networks anywhere in the world. The service is scalable to support a variety of different deployments in both size and complexity. The majority of systems and networks can be extended in this way, allowing deployed elements to reach back to the home base and allowing for Command & Control to more easily be exercised from outside of the deployed theatre.

3. **Locations**
   This service is available in multiple locations.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not applicable.

6. **Support Availability**
   Not Applicable.

7. **Prerequisites**
   Not Applicable

8. **Additional Information**
   **Key Metrics / Indicators**
   - Number of incidents reported on SATCOM Services
   - Number of problems reported on SATCOM Services
   - Number of service requests for SATCOM Services
   - Customer satisfaction percentage increase
EAS12 – Cyber Security SME Support Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Cyber Security Service Line</th>
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</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>CIS Security Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Service</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>SME</td>
</tr>
</tbody>
</table>

1. **Service Description**

Cyber Security Subject Matter Expertise Support Service provides in-depth specialist knowledge, advice and guidance to its customers. These services/activities are:

- **Cyber Security Support to Exercises**: Provision of exercise support activities to include duties as SPOC for exercise coordination, planning, resourcing and execution; exercise participation activities and exercise control activities.

- **Cyber Risk Assessment Services**
  - Risk Communication & Education: Educate all relevant stakeholders to understand the risk associated with using the CIS for the objectives currently being undertaken.
  - Coordination in Security Risk Assessment Working Groups: Support, lead, or coordinate Security Risk Assessment Working Groups for NATO programmes or projects.

- **Cyber Security Architecture Services**
  - Definition of security focussed mission and NCI Agency enterprise objectives, expectations, and responsibilities: Review of overarching (high level) architectures and target architectures ensuring compliance to NATO Security Policies and architectural coherence among projects and systems.
  - Security Architecture (Adoption): Provide adequate organization of CIS security requirements into an security architecture for any CIS system in order to ensure efficient usage of security resources that is aligned with high-level direction and guidance.


- **Cyber Security Tool Selection**: Development of guidance in the selection of specific CIS security tools. Support and advice on Information Assurance products evaluation and certification. This service may support the maintenance of the NATO Information Assurance Product Catalogue (NIAPC).

- **Crypto Compliance Support**
  
  Provision of:
  - Crypto Logistic Support and Maintenance Inspections
  - Crypto Installation, Site Surveys and Inspections
  - COMSEC Account Inspections

- **Business Continuity Planning Cyber Security Consultancy**: Create and contribute to contingency plans for the continued operation of a CIS when a disaster or other serious incident occurs.
• **CIS Project Cyber Security Research and Consultancy**
  Provision of:
  - Cyber Security Consultancy: Consultancy on security aspects of implementation, configuration, management and support of NATO CIS software, systems and devices.
  - Research CIS Security: Systematically investigate areas related to CIS Security in order to establish new technologies and approaches that can improve CIS Security.

• **CIS Security Data Mining and Business Intelligence**: Provision of non real-time, non-investigation-related CIS Security Data Analysis for strategic trend projection. This includes business development screening of existing services for possible expansion.

• **Cyber Security Education and Training Support Services**: Provide technical and policy aspects of guidance on Cyber Security Education and Training.

• **Cyber Security Communications Service**
  Provision of:
  - Bulletins (inc NIMBL), portals and other communications with Cyber Security communities if interest;
  - Generation of reactive advisories to mitigate discovered vulnerabilities or to reduce the impact of newly emerged threats;
  - Cyber Defence Information;
  - Expertise in cyber information sharing utilising Sharepoint technology.

• **CIS Components and Supply Chain Trustworthiness Analysis**: Analyse and evaluate the extent to which one can rely on a CIS component, be it hardware, software, or both, to function as intended. The assessment can be made through either a set of assurance techniques or less rigorous means.
  - Plan for, collect information about, assess, and handle the level of trust that can be placed in the components of a CIS based on the supply of sub-components, manufacturing, and logistics.

• **Cyber Security Tool Selection**: Development of guidance in the selection of specific CIS security tools. Support and advice on Information Assurance products evaluation and certification. This service may support the maintenance of the NATO Information Assurance Product Catalogue (NIAPC).

2. **Value Added**
  - Development of coherent enterprise security architecture;
  - Able to conduct more realistic and beneficial exercises;
  - The expert identification of vulnerabilities;
  - Provision of deep expertise in CIS security risk assessment;
  - Reduction of security risk to CIS;
  - Reduction of the risk of compromise to NATO;
  - Sufficient Redundancy and Resilience for Business Purposes;
  - Proven way forward to increase/maintain security;
  - Quality forecasts in Cyber Security Developments;
  - Assurance that CIS equipment used to process information classified NC and above is installed in accordance with the Directives;
  - Assurance of minimised TEMPEST risk and regulatory compliance;
  - Reduction of the risk of compromise to NATO classified information due to the escape of compromising emanations.
3. **Locations**
   Service is offered to multiple locations

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   All

6. **Support Availability**
   Not Applicable.

7. **Prerequisites**
   Resource allocation; common-funded or customer funded support or specific project funded support (e.g., SLAs, C3B POW, ACT POW, and specific CIS projects).

8. **Additional Information**
EAS13 - Cyber Security Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Cyber Security (CS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>CIS Security Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Cyber Security Services</td>
</tr>
</tbody>
</table>

1. Service Description

Cyber Security Services offer layered security to all NATO Networks, via a variety of technologies, processes and activities. The below listed services/activities enable secure conduct of the Alliance operations, and business in the NEC environment and in the context of NATO C4ISR. The following activities are provided either through NATO Computer Incident Response Capabilities (NCIRC IOC/FOC) or through other means such as Crypto Management and Logistic Support, Security Certificate Services, Help Desk Services to cover the broad spectrum of services in security areas. These Services/Activities are:

- **Cyber Security Incident Management**: The provision of a centralised Incident Handling and Response. This includes but is not limited to; Incident Triage, Event Correlation, Incident Handling & Response, Alerting, Reporting, Assisting with Recovery and Incident analysis, monitoring, evaluating and recovering from COMSEC incidents, violations and insecurities.

- **Cyber Security OPCEN Help-Desk**: Provision of a 24/7 presence of specialists to give advice on potential cyber security incidents (and appropriate escalations as required), cryptographic equipment installation, configuration, keying, operation, trouble shooting and related technical or engineering issues, production of user configuration data sheets and user documentation for IP encryption devices.

- **Malware Detection, Analysis and Information Sharing**: Enterprise malware prevention, detection and eradication. Provision of resources to carry out technical analysis on suspicious application code and sharing of technical characteristics of malware within a trusted community.

- **Cyber Security Tools Management and Consultancy Service**:
  - Security logs collection, retention and expertise: NCIRC TC supports a wide range of data sources and can tailor a solution for its customers whenever requested, including provision of expertise in customised development of log parsers, log collection, correlation/SIEM management.
  - IDS/IPS Management and Tuning: The configuration, maintenance and operations of Intrusion Detection Systems at Network and Host level.

- **Forensic Analysis**: Provision of resources to perform online (OCF) and stand-alone (SCF) computer forensics analysis.

- **NCIRC TC RRT**: Provision of resources, knowledge and coordination to support the deployment of the NCIRC Rapid Reaction Team.

- **Crypto Management and Logistic Support**: Provision of;
  - Cryptographic Device Implementation
  - Cryptographic Device Procurement Support
  - Operational Control of the Crypto Forward Support Points.
  - Cryptographic Keying Material Distribution
- **CARDS, EKMS, NEKMS and DEKMS Services:**
  - Provision of resources to deliver the NATO wide accountability, receipt, transfer, supersession and destruction of cryptographic keying material and equipment.
  - Maintenance of the CARDS Servers and authorisation for CARDS access to COMSEC custodians.
  - Provision of specialist advice on cryptographic equipment installation, configuration, keying, operation, trouble shooting and related technical or engineering issues.
  - Provision of helpdesk functions for DEKMS and NEKMS.
  - Provision of the main point of entry for DACAN Electronic Key Management System (DEKMS) into NATO. Interface for DEKMS to NATO EKMS (NEKMS) for NATO wide distribution of crypto electronic keys (+50000 Keys/Year).

- **Security Certificate Services:** A service used for the creation and issuance of digital certificates to end-user (both human and non-human). This service will be provided from a Registration Authority (RA). The RA will be only interface to the NATO PKI system to create and issue digital certificates. The service provided also includes the revocation process. RA’s will be installed locally to provide services to the end user both human and non-human. This Service includes Provision of:
  - Certificate Authority Services for NS/MS, NU/NR and NMS
  - Revocation services to NS/MS, NU/NR and NMS
  - Lifecycle Management of Digital Certificates/Entities
  - Training of Registration Authority Personnel

- **Data at rest IA Services:** Provision of NATO Off Line Crypto Equipment (NOLCE) keying Authority. Distribution and keying of all NATO Offline systems (Eclypt, SIR, Flagstone, etc.).

- **Online Vulnerability Assessment and Remediation**
  - Provision of Enterprise On-Line Vulnerability Assessment resources to carry out continuous and dynamic evaluations / audits of CIS infrastructures/systems to identify any vulnerabilities in Software or configurations and to provide detailed reports
  - Remediation: Processing 30 day follow up sheet replies. Advising on mitigation techniques escalating issues and closing vulnerabilities at sites.

- **On-Site Vulnerability Assessment (Level 1-4) and Remediation:**
  - Level 1 Assessment: Provision of resources to carry out Level 1 On-Site Vulnerability Assessment of CIS infrastructures/systems to identify any vulnerabilities in Hardware, Software or configurations and to provide detailed reports.
  - Level 2 Assessment: In addition to a Level 1 Assessment: Provide resources to carry out Audit and Compliance checks on NATO CIS, to ensure compliance with NATO Policies, Directives and Guidance documents including NCIRC TC Security Guidance and Caveats to approved CCPs1.
  - Level 3 Assessment: To evaluate the security of computer systems or networks by simulating an attack from malicious outsiders or insiders and to provide detailed reports.
  - Level 4 Assessment: To carry out Level 4 Vulnerability Assessments to evaluate the security of computer systems or networks by simulating an attack from malicious outsiders or insiders with no notice other than unit commander and security officer and to provide detailed reports.
  - Remediation: Processing 30 day follow up sheet replies. Advising on mitigation techniques escalating issues and closing vulnerabilities at sites.

- **TRANSEC Vulnerability Assessment:** Provision of real time monitoring of an organisation’s non secure communications (GSM, analogue, digital and VoIP), with the purpose of presenting
realistic and effective countermeasures to limit the disclosure of intelligence information to unauthorised personnel/agencies.

- **TEMPEST / EMSEC Assessments**
  - TEMPEST Facility Zoning and Equipment TEMPEST Level Testing: Provision of electronic evaluation of NATO Facilities and Buildings where NATO Classified information is processed in order to determine their Facility Zone Rating. Including advice to local IA staff on TEMPEST issues.
  - EMSEC Vulnerability Assessments: Provision of Vulnerability Assessments within a Zoned Facility. The service includes advice to local IA staff on TEMPEST issues.

- **Website Assessment**: Provision of resources to assess NATO Internet facing Web sites for security mis-configuration, vulnerabilities and coding bad practices.

- **Internet Facing Email Content Monitoring**: Checking of all Inbound/Outbound Internet e-mail to ensure compliance with NATO and applicable local Security Policies; such checks include malicious code, executable content, encrypted content, SPAM, and Classified Data content.

- **Internet Web Site Monitoring**: The ability to centrally monitor customer’s Internet-facing Web Sites for unauthorised changes and to take appropriate reporting/remedial actions.

- **Host and Network Intrusion Detection & Prevention Monitoring**
  - The provision of centrally managed and monitored Host-based Intrusion Detection & Prevention technologies to detect, log, report, and stop/block malicious activity against critical infrastructure assets.
  - The provision of centrally managed and monitored Network-based technologies.

- **Gateway Security Services- Data Diodes, Firewalls, Guard Services, Mailguard and VPN Services**: Gateway Security Services provide a secure interconnection of different networks or network sections in order to protect an organization’s key information. Includes Data Diodes, Firewalls, Guard, Mailguard and VPN Sub-Services.

- **Cyber Security Configuration Support**: Security configuration settings for in-use and future NATO Approved CIS Applications software and Networking devices and Operating Systems software.

- **CIS Protection Support**: Guidance for the implementation, configuration and management of NATO Enterprise-wide endpoint security software.

- **Limited Technical Security Inspections**: Provision of Limited Technical Security Inspection at locations utilising:
  - Radio Frequency sweep;
  - Thermal Imaging sweep;
  - Detailed Physical search.

2. **Value Added**
The Cyber Defence Services enable network operators to guarantee Availability, Confidentiality and Integrity of the data on their networks. This allows networks to gain accreditation, gives the user confidence that the data will be protected to the required standard and allows information to be shared to facilitate better working practices and more effective output.

3. **Locations**
This Service is available across all NATO networks in multiple locations.
4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
Not Applicable.

7. Prerequisites
Resource allocation; common-funded or customer funded support or specific project funded support (e.g., SLAs, C3B POW, ACT POW, and specific CIS projects).

8. Additional Information
Key Metrics / Indicators
- Time taken to detect Malware;
- Number of faulty crypto devices issued;
- Time taken to produce EMSEC report/ Crypto Inspection report/ InfoSec report;
- Availability of CARDS/ NEKMS;
- Customer satisfaction;
- Number of incidents caused by Cyber Defence Services;
- Number of incidents reported related to Cyber Defence.
EAS14 - Configuration Management Services (CMDB)

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Service Management and Control (SMC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>SMC Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>CM Service</td>
</tr>
</tbody>
</table>

1. **Service Description**
   This service will provide:
   - The use of a configuration management database (CMDB) to store all relevant data relating to Service assets and their attributes;
   - Organized views of the data and a means to examine and interrogate it;
   - Linkages between assets to allow a complete map of each service to be viewed.

2. **Value Added**
   The Configuration Management Service can reduce costs and capture waste within the hardware, software and applications space. The configuration management service supports other processes across the ITSM lifecycle. These include Incident Management, Change Management, and Problem Management etc. as well as Licence Management. This should result in fewer incidents, quicker resolution of incidents and problems, greater control of the network and ultimately less downtime and therefore a greater return on investment (ROI).

3. **Locations**
   The configuration management service will be available in all locations via a web interface, although it will be mainly utilized in the Ops Centre, supporting other processes.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   Not Applicable.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Key Metrics / Indicators:
   - Percentage of inaccuracy in CIs within the CMDB;
   - Number of incidents attributed to inaccurate CMDB information;
   - Percentage of unauthorised CI’s in the IT infrastructure;
   - Percentage of software licences used.
EAS15 - Service Management Tooling Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Service Management and Control (SMC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>SMC Services</td>
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<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td></td>
</tr>
</tbody>
</table>

1. **Service Description**
   This service will provide:
   Automated support to all IT Service Management (ITSM) lifecycle processes, including: Incident Management, Problem Management, Change Management, Release management, Knowledge Management, Service Level Management, Customer Relationship Management.

2. **Value Added**
   The Service Management Tooling Services will provide the single source of Service Management related information, providing scalable access to all involved stakeholders.

3. **Locations**
   The configuration management service will be available in all locations via a web interface, although it will be mainly utilised in the Ops Centre, supporting other processes.

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable.

6. **Support Availability**
   Not Applicable.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Key Metrics / Indicators
   - Number on incidents per month
   - Incident resolution time
   - Service availability
   - Problem resolution time
   - Number of knowledge articles
   - Number of customer complaints
EAS16 - Test Verification and Validation Collaboration Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Independent Verification and Validation (IV&amp;V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Other Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Test, verification and validation</td>
</tr>
</tbody>
</table>

1. Service Description

IV&V Collaboration Services provide customers with the ability to work in a Test, Verification and Validation (TVV) Community of Interest (COI) supporting their specific test, verification and validation needs. Other members of these COIs include the NCI Agency, other NATO Agencies, nations and industrial partners. IV&V Collaboration Services provides possibilities to:

- Access information repositories created by other members of the community;
- Allows customers to share their TVV reports, plans, test cases and other associated documents;
- Connect labs of COI members together to conduct TVV events;
- Create portals for new communities of interest, exercises and other TVV events.
- All collaborative services include requirements definition, all start-up work, on-going operation of maintenance and regular technical upgrades/maintenance. Customers receive a complete end-to-end service so they can focus on the TVV efforts with their specific community of interest.

2. Value Added

IV&V Collaboration Services provide the ideal mechanism through which to share expertise, publish results, work together, share lessons learned and link labs together. These services complement the Verification and Validation Services offered by the Agency by providing the environment in which to work more effectively when conducting test, verification and validation efforts.

3. Locations

Any external or internal customer of the NCI Agency, regardless of location, can make use of this service. Under certain circumstances, coalition partners may also utilize this service.

These services are offered through the use of resources located in Mons, BEL and The Hague, NLD. The exact mix of resources is determined by resource availability and the need for specific subject matter expertise. The IVV Service Line may also use previously external expertise or other internal Subject Matter Expertise (SME) when appropriate.

4. Dependencies

Not Applicable.

5. Available Networks

Not Applicable.

6. Support Availability

This service is available during European business hours. During the execution of distributed V&V events, IV&V service line personnel will make themselves available to accommodate time zone differences. Also, when required by operational circumstances, IV&V personnel will conduct these services outside normal business hours.

7. Prerequisites

Not Applicable.

8. Additional Information

Not Applicable.
EAS17 - Internet Access Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Internet Access Service - Local</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Internet Access</td>
</tr>
</tbody>
</table>

1. Service Description
The internet Access service incorporates all elements required to provide fixed or wireless internet access to customers.

2. Value Added
The Internet Access Service - Local- Cabled gives customers access to the internet, allowing them to conduct open source intelligence gathering, administration, welfare and many other activities based on the customer need. Wireless access has the additional benefit of allowing flexibility in the working environment.

3. Locations
This service is available at multiple CSUs.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
Not Applicable.

7. Prerequisites
Not Applicable.

8. Additional Information
Key Metrics / Indicators
- Number of incidents reported on Internet Access Service;
- Number of problems reported on Internet Access Service;
- Number of service requests for Internet Access Service;
- Customer satisfaction percentage increase.
**EAS18 - Web Hosting Services**

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSUs and CES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>IT-infrastructure User-Facing services - Local</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C4ISR Enabling Service</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Web Hosting</td>
</tr>
</tbody>
</table>

1. **Service Description**

Web Hosting Services provide an environment for operating web applications and services that can include capabilities such as management, security, transaction, load balancing and distributed deployment for federated applications.

These features are provided by a service container, a component that manages the service lifecycle and underlying resources (such as memory, storage and CPU). Examples of service containers are: Application Servers, middleware systems, Enterprise Service Buses (ESB) and legacy integration systems.

2. **Value Added**

The value added to the customer’s business case is:

- Reduces the TCO for the web applications by using the shared hosting infrastructure: software and hardware;
- Provides High Availability (HA) and IT continuity of services;
- Enhances the web application flexibility and scalability due to the ready-for-use hosting features;
- Metering and controlling web applications;
- Saves costs for simple functions that can be delivered by using the existing portal components instead of purchasing a dedicated COTS;
- Increases the web application performance;
- Improves the overall user working efficiency by collaborating via the portal: sharing information, documents or meeting conclusions;
- Improves the security of the information.

3. **Locations**

Web Hosting Services are available at multiple locations.

4. **Dependencies**

Not Applicable

5. **Available Networks**

Not Applicable.

6. **Support Availability**

Monday/Tuesday/Wednesday/Thursday 0830 -1730, Friday 0830 – 1530 CET/CEST

Weekend & Silent Hours – On-call routed through NCI Agency Centralized Service Desk

Monitoring available through NCI Agency Network Control Centre (may not be possible if locally provided).

7. **Prerequisites**

The Web and Portal Hosting Services depend on the following underlying services for providing:

- Single Sign On (Enterprise Identity Management)
- Social Collaboration (Unified Communications and Collaboration Services)
- Content Management, Workflow and Search (Information Management Services)

Web and Portal Hosting services support the IM Tools DHS, TTE, NIP and Search services.
8. Additional Information

Key Metrics / Indicators:

- Number of incidents reported on Web Hosting Services;
- Number of problems reported on Web Hosting Services;
- Number of service requests for Web Hosting Services.
EAS19 - NATO VLF MSK

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>CSU Northwood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Radio Communications Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td></td>
</tr>
</tbody>
</table>

1. **Service Description**
   The Very Low Frequency (VLF) services provides a common user VLF radio network for interconnections between NATO authorities ashore and naval force supporting NATO operations and exercises.

2. **Value Added**
   Not Applicable.

3. **Locations**
   Northwood GBR (COMSUBNATO), Glucksburg DEU (CINCGERFLEET), Reitan NOR (NJHQ) and Naples, ITA (COMSUBSOUTH)

4. **Dependencies**
   Not Applicable.

5. **Available Networks**
   Not Applicable

6. **Support Availability**
   Not Applicable.

7. **Prerequisites**
   Not Applicable.

8. **Additional Information**
   Not Applicable.
EAS20 - Network Infrastructure Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Network Services and IT Infrastructure (NSII)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Network Layer Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td></td>
</tr>
</tbody>
</table>

1. Service Description
This service will include elements of the following:
- Packet Transport Services;
- Bandwidth Management Services;
- Network Edge Devices;
- NATO Core Switches.

2. Value Added
The Network Infrastructure Services provide all infrastructure that other systems, networks and services utilize. This is a vital component of the majority of business services and are used as building blocks to create these top level business services.

3. Locations
The Network Infrastructure Services will be available at all locations.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
Support arrangements will vary dependent upon the requirements of the customer and captured in the top level SLA.

7. Prerequisites
Not Applicable

8. Additional Information
Key Metrics / Indicators:
- No of associated incidents;
- Amount of downtime attributed to Network Infrastructure Incidents;
- Number of Network Infrastructure related Service Requests.
EAS21 - Transmission Services

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Service Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Transmission Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td>Internal Support Services Focus but Across All Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>Enterprise Access Service</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information System (CIS) Capabilities. Technical services</td>
</tr>
</tbody>
</table>

1. Service Description
Transmission Services provide the transmission fabric, capacity and physical connectivity required by the Network Infrastructure Services to deliver any-to-any connectivity to users, with differentiated service levels.

Transmission Services are delivered as raw or managed capacity over wired or wireless transmission bearers. The former can be local area, metro area, or wide area (e.g. leased lines, dark fibre). The latter can be line of sight (LOS) or beyond line of sight (BLOS).

Transmission Services are defined by the attributes of the physical link, the capacity provisioning and monitoring mechanisms, and the physical and management interfaces presented to the Network Infrastructure Services. Transmission Services can be largely outsourced to 3rd parties (Commercial Service Providers and/or National Defence Networks NDNs).

2. Value Added
Transmission Services are relied upon by the Network Infrastructure Services, and by the Transport Services in particular, which integrate different transmission bearers, effectively using their capacity and geographical reach to create resilient transport overlays in support of the Access Services on top.

3. Locations
The Transmission Services will be available at multiple locations.

4. Dependencies
- Leased Services (circuits leased from various providers)
- Digital Line of Sight (DLOS)
- National Defence Network (NDN) - usage of national network by NATO

5. Available Networks
All NATO Networks.

6. Support Availability
Support arrangements will vary dependent upon the requirements of the customer and captured in the top level SLA.

7. Prerequisites
Not Applicable

8. Additional Information
Key Metrics / Indicators:
Number of incidents attributed to Transmission services.
EAS22 – CP149 IFB1 (Dragon Fly) Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Network Services &amp; IT Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td></td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>CSUs</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information System (CIS) Capabilities. Technical services.</td>
</tr>
</tbody>
</table>

1. Service Description
CP149 IFB1 (Dragon Fly) is a NATO owned CIS Deployable Point of presence, capable of providing three different networks. This system is being operated and deployed by the NCISG. CSSC services consists in applying asset management, third level repair intervention and scheduled 3rd level maintenance including minor repairs on all CIS (or CIS related) components and the CIS Support equipment.

1.1. Sub Service/System or Tool 1
- Asset management
- Transportation: Shipping of CIS equipment to CSSC and back to customer/user, in relation to classification of considered equipment
- PMI on CIS equipment: Level 3 maintenance activities on different Main CIS and Sub systems if present (ie. Transmission systems Information and Network equipment, etc), either deployable or static.
- PMI on CIS Supporting PGS (Power Generating Systems): Level 3 maintenance activities on CIS related PGS if present, either deployable or static.
- PMI on CIS supporting ECU (Environmental Control Units): Level 3 maintenance activities on CIS related ECUs if present, either deployable or static.
- Supply management: Spare and spare parts management in relation to a specific PMI.

1.2. Sub Service/System or Tool 2: External Carrier Service
Out-sourced transportation services for collecting and delivering systems.

1.3. Description of Expertise Available for Support (If Applicable)
- Configuration tracking of provided (D)CIS
- Maintaining database for PMI results
- Tracking of faults
- Tracking modifications

2. Value Added
Customer will have an up-to-date and functional equipment/system, tested in line with manufacturer specification or applicable standards (EU, StanAg,)

3. Locations
Policy is to provide all maintenance activities at CSSC location. Activities done on-site if at CSSC not applicable (usually operational reason).

4. Dependencies
Not Applicable.

5. Available Networks
All NATO Networks.
6. **Support Availability**
Business hours (Through the tasking standby GSM the CSSC is more or less on a 24/7 base reachable for support).

7. **Prerequisites**
   - Customer Generic:
   - Adequate trained user
   - Level-1-2 PMI conducted
   - Periodically reporting of status
   - On-Site PMI
   - Facility to operate system
   - Facility to maintain system
   - Availability of logistical support
   - If required Force protection

8. **Additional Information**
Depending on system offered for PMI: Aligned efficient maintenance process from Material Management to Engineering and Maintenance and back.

   One-stop-shop: MMG-PGS-ECU-TRS-NIS-TSE-MMG

   Key Metrics / Indicators: Not Applicable.
EAS23 – Support to Theatre Liaison Kit (TLK) Service

DPOP (Deployable Point of Presence)

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>Network Services &amp; IT Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td></td>
</tr>
<tr>
<td>Service Area:</td>
<td>Enterprise Access Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>CIS Sustainment Support Centre (CSSC)</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information System (CIS) Capabilities. Technical services.</td>
</tr>
</tbody>
</table>

1. Service Description
TLK is a NATO owned CIS Deployable Point of presence, capable of providing a classified connection to a liaison team. CSSC services consists in applying asset management, third level repair intervention and scheduled 3rd level maintenance including minor repairs on all CIS (or CIS related) components and the CIS Support equipment.

1.1. Sub Service/System or Tool 1
- Asset management
- Transportation: Shipping of CIS equipment to CSSC and back to customer/user, in relation to classification of considered equipment
- PMI on CIS equipment: Level 3 maintenance activities on different Main CIS and Sub systems if present (ie. Transmission systems Information and Network equipment, etc), either deployable or static.
- PMI on CIS Supporting PGS (Power Generating Systems): Level 3 maintenance activities on CIS related PGS if present, either deployable or static.
- PMI on CIS supporting ECU (Environmental Control Units): Level 3 maintenance activities on CIS related ECUs if present, either deployable or static.
- Supply management: Spare and spare parts management in relation to a specific PMI.
- Crypto support: Specific support linked to cryptologic equipment in relation to a specific PMI

1.2. Sub Service/System or Tool 2: External Carrier Service
Out-sourced transportation services for collecting and delivering systems.

1.3. (If Applicable, Description of Expertise Available for Support)
- Configuration tracking of provided (D)CIS
- Maintaining database for PMI results
- Tracking of faults
- Tracking modifications

2. Value Added
Customer will have an up-to-date and functional equipment/system, tested in line with manufacturer specification or applicable standards (EU, StanAg,)

3. Locations
Policy is to provide all maintenance activities at CSSC location. Activities done on-site if at CSSC not applicable (usually operational reason).

4. Dependencies
Not Applicable.

5. Available Networks
All NATO Networks.
6. **Support Availability**
Business hours (Through the tasking standby GSM the CSSC is more or less on a 24/7 base reachable for support).

7. **Prerequisites**
- Customer Generic:
- Adequate trained user
- Level-1-2 PMI conducted
- Periodically reporting of status
- On-Site PMI
- Facility to operate system
- Facility to maintain system
- Availability of logistical support
- If required Force protection

8. **Additional Information**
Depending on system offered for PMI: Aligned efficient maintenance process from Material Management to Engineering and Maintenance and back.
One-stop-shop: MMG-PGS-ECU-TRS-NIS-TSE-MMG
Key Metrics / Indicators: Not Applicable.
OS01 - Acquisition Service

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>ACQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Other Services</td>
</tr>
<tr>
<td>Service Area:</td>
<td></td>
</tr>
<tr>
<td>Service Group:</td>
<td>Other Services</td>
</tr>
<tr>
<td>Service Type:</td>
<td></td>
</tr>
</tbody>
</table>

1. **Service Description**

The Agency provides:

- State-of-the-art acquisition and procurement;
- Services for the NATO Security Investment Programme and the Budget Committee program for which the NCI Agency is Nation;
- The same services for other NATO entities and for NATO members Nations that have requested the full acquisition cycle as Host Nation, as Procurement Nation or only subject matter expertise as requested.

2. **Value Added**

Value to Customer comes from:

- Centralized procurement efforts;
- Ensured compliance with relevant regulations/guidance;
- Repeatable and reusable purchase vehicles;
- Leveraging existing industry contacts.

3. **Locations**

This service is available at multiple locations.

4. **Dependencies**

The ACQ Services are quite often part of a larger Agency wide tasking as Host Nation or Procurement Nation but can be independent for earmarked procurements for goods or services.

5. **Available Networks**

Not Applicable.

6. **Support Availability**

Normal Business Hours from Monday till Friday from 8:00H till 17:00H.

7. **Prerequisites**

Not Applicable.

8. **Additional Information**

Not Applicable.
OS02 - System Engineering Acquisition Support

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AirC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>AirC2 PO&amp;S – Acquisition support</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>AirC2 PO&amp;S – Acquisition support</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Air COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description
The System Engineering Acquisition Support service provides the required technical and system support for the design, implementation, integration and test of operational, functional and non-functional requirements (software and hardware) in the Command and Control Operational Domains. It is largely an internal service focussing on ongoing AirC2 and TMD planning and execution systems assigned to AirC2 PO&S.

1.1. Provision of technical expertise to System acquisition
This service advises on the technical feasibility and cohesion of acquisition projects. It encompasses review, acceptance and provision of technical and architectural expertise and experience in large scale heavily integrated software intensive systems in the following domains:

- Surveillance;
- Tactical Data Links (including Network Management);
- Air Mission Control (including Air Traffic Control and integration with Civil Air Space, Threat Evaluation);
- Active and Passive Sensor Integration;
- Campaign Planning and Tasking;
- Current Operations;
- C2 Resource Management;
- Airspace Management;
- Meteo.

1.2. Provision of technical and process expertise to contracting and quality management
This service provides process related support to quality audit and bid evaluation activities. It encompasses technical support and evaluation (accuracy, feasibility, consistency and completeness) to the following procurement processes:

- Technical bid evaluation;
- QA process audit.

1.3. Provision of domain expertise to software acquisition
This service provides domain expertise support to technical acquisition activities to SHAPE and Nations in procuring interoperable Command and Controls capabilities both for Air and TMD domains as follows:

- Technical support to contract milestone reviews, technical interchange meetings, contract deliverable reviews and related technical project meetings;
- Contract deliverables review to ensure that the contractors have correctly interpreted the relevant specifications;
- Monitoring the contractor’s progress during the design, implementation, production, integration, verification and validation;
- Review of Test plans and procedures, and test results to ensure requirements are correctly addressed;
• Perform the analysis of Cost Estimates, Statement of Work, Technical and Site Specific Specifications for all the system related activities;
• Monitoring the implementation of the contract(s) and advising host nations as required;
• Liaison with SHAPE and representatives of the User Communities to provide guidance on the system engineering impact of operational decisions.

2. **Value Added**
The System Engineering acquisition support helps the customer to act as a smart customer in complex Systems based upon software intensive acquisition activities. By relying on the provided System Engineering process expertise, strategic speciality engineering and domain expertise, the customer can assess feasibility (cost and schedule), suitability and coherence of bids, proposed solutions and changes, contractual deliverables, baselines and roadmaps.

3. **Locations**
The service is currently based in AirC2 PO&S, Brussels and frequently operates on-site and at contractor locations.

4. **Dependencies**
There are no dependencies to the provided services.

5. **Available Networks**
Since this is an engineering service, no dependency on networks.

6. **Support Availability**
Support is available in normal business hours.

7. **Prerequisites**
No Applicable.

8. **Additional Information**
The System Engineering support service is currently mainly provided to projects as they are assigned to AirC2 PO&S.
OS03 - Software Engineering Acquisition Support

<table>
<thead>
<tr>
<th>Organizational Element:</th>
<th>AirC2 PO&amp;S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>AirC2 PO&amp;S – Acquisition Support</td>
</tr>
<tr>
<td>Service Area:</td>
<td>C3 and Enterprise Services</td>
</tr>
<tr>
<td>Service Group:</td>
<td>AirC2 PO&amp;S – Acquisition Support</td>
</tr>
<tr>
<td>Service Type:</td>
<td>Communication and Information Systems (CIS) Capabilities – User Facing Capabilities – Air COI Applications</td>
</tr>
</tbody>
</table>

1. Service Description
The service Software Acquisition Support service provides the required technical and system/software architecture support, technical procurement oversight, risk assessment, speciality engineering, AirC2 domain expertise and implementation guidance for software intensive systems. It is largely an internal service focussing on ongoing AirC2 and TMD planning and execution systems assigned to AirC2 PO&S.

1.1. Provision of technical expertise to software acquisition
This service advises on the technical and architectural feasibility and cohesion of software acquisition projects. It encompasses review, acceptance and provision of technical and architectural expertise and experience in large scale heavily integrated software intensive systems in the following areas:

- Platform coherence and evolution;
- Technology evolution and migration;
- HMI/ergonomic concepts;
- Platform management;
- System performance;
- Recording & reduction systems;
- GIS-technology;
- Software security;
- Performance engineering;
- Database management;
- Application servers;
- Web/portal technology;
- Tactical data links and military messaging.

1.2. Provision of technical and process expertise to contracting and quality management
This service provides process related support to quality audit and bid evaluation activities. It encompasses technical support and evaluation (accuracy, feasibility, consistency and completeness) to the following procurement processes:

- Technical bid evaluation;
- QA process audit.

1.3. Provision of domain expertise to software acquisition
This service provides domain expertise support to technical acquisition activities in the following operational, functional and non-functional domains:

- Surveillance;
- Tactical Data Links (including Network Management);
- Air Mission Control (including Air Traffic Control and integration with Civil Air Space, Threat Evaluation);
- Sensors and Sensor Integration;
2. **Value Added**
   The technical software acquisition support helps the customer to act as a smart customer in complex software intensive acquisition activities. By relying on the provided platform and software process expertise, strategic specialty engineering and domain expertise, the customer can assess feasibility (cost and schedule), suitability and coherence of bids, proposed solutions and changes, contractual deliverables, baselines and roadmaps.

3. **Locations**
The service is currently based in AirC2 PO&S, Brussels and frequently operates on-site and at contractor locations

4. **Dependencies**
There are no dependencies to the provided services.

5. **Available Networks**
Since this is an engineering service, no dependency on networks.

6. **Support Availability**
Support is available in normal business hours.

7. **Prerequisites**
Not Applicable.

8. **Additional Information**
The system engineering support service is currently mainly provided to projects as they are assigned to AirC2 PO&S.
1. **Service Description**
Covers the range of accounting services which are covered through the use of the Agency’s financial system; they include Accounts Receivable, Accounts Payable, Treasury and General Ledger transactions. The services are based on the execution of transactions whereby the customer provides details on the actions to be performed in the financial systems through templates to be filled out on respectively orders, incoming and outgoing invoices and general transactions (customer is provided read access to the financial system and has access to all available reports). The service is limited to the execution of the transactions in the financial system and does not include the overall accounting responsibility which remains with the customer. As a result the interim or end of year closing transactions (other than those related to reconcile or close transactional data) needed to produce interim or yearly financial statements, are not included in this service, nor are the actual interim or yearly financial statements. The service also includes the technical, functional and training support to the financial system.

1.1. **Sub Service 1: Accounts Payable (AP)**
Processing the accounts payable transactions within the Procure to Pay Process within the Agency’s financial system:
- Process and approve Purchase Orders (PO’s) and Travel Orders (TO’s) entered by the staff;
- Processing of Travel Claims and the resulting vouchers;
- Clearing Travel PO’s, closing open PO’s, reconciling budget and PO lines;
- Booking of accruals;
- Processing Accounts Payable vouchers/transactions.

1.2. **Sub Service: Accounts Receivable (AR)**
Processing the accounts receivable transactions within the Order to Cash Process within the Agency’s financial system:
- Input in the financial system of outgoing invoices/calls for contributions;
- Providing aging reports on the AR balances;
- Dunning of AR;
- Follow up/verification that AR is in sync with General Ledger (GL).

1.3. **Sub Service: Treasury and General Ledger Transactions**
Processing Treasury and GL transactions within the different processes within the Agency’s financial system:
- Processing Payroll vouchers in GL;
- Processing of payments (vouchers, payroll, cash calls and transfers);
- Processing bank statements in GL;
- Reconciliation of bank accounts to the GL;
- Input of GL transactions based on instructions provided (includes posting foreign exchange results, partial payments, transfers, end of year entries, revaluation journals, closing accounts, etc.).
1.4. Sub Service: End of period/year Actions
Actions provided in the framework of period/year closings and related to the transactions processed by the accounting staff within the different processes within the Agency’s financial system:

- Analysis and correction of open PO and budget value;
- Check for budget errors or remaining pending statuses;
- Validate database by running queries in the system;
- Cleaning open travel PO’s;
- Reconcile budget status with PO lines and publication of end of period/year budget status report;
- Reconcile budget commitments and GL expenses;
- Run budget status report and reconcile with GL prior to start payments on new period;
- Reconcile AR module with GL accounts;
- Assist customer in analysis on open AR amounts;
- Run AR aging report;
- Run AP aging report;
- Run period/year trial balances on actuals/accruals;
- Validate AP account balances in GL;
- Process end of period/year closing transactions based on instructions provided by the customer;
- Run revaluation process on assets and liability accounts;
- Run end of year process and close current period/year GL.

1.5. Sub Service: Management support
Management support on all financial transactions processed by the accounting staff within the different processes within the Agency’s financial system:

- Financial support to staff performing all above actions in accordance with the NATO Financial Regulations and the NATO Accounting Framework (based on a modified set of the International Public Sector Accounting Standards - IPSAS).
- Management support on functional use/issues related to the financial system used by the Agency.
- Provide audit assistance in the provision of access to the financial system and/or any transaction records kept by the Agency on behalf of the customer.

2. Value Added
The customer basically entrusts the execution of all its financial transactions to the Agency through the use of its financial system.

3. Locations
This service is available at all NCI Agency Locations.

4. Dependencies
The services are limited to the execution of financial transactions by the Agency whereby the Customer retains overall accounting responsibility (codification of accounting entries is still with the customer as are the production of any interim or yearly financial statements).

5. Available Networks
This service is implemented on the NATO Restricted Network.

6. Support Availability
The support is available through the normal working hours of the Agency.
7. **Prerequisites**
Under these services the customer is still expected to assume overall accounting responsibility and is thus to be knowledgeable on the Agency’s financial system and its Chart of Accounts.

8. **Additional Information**
Other services such as overall accounting responsibility or budget development/management services are to be contracted separately.

**Key Metrics / Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Name of Service Metric</th>
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<tbody>
<tr>
<td><strong>Description</strong></td>
<td>The customer will basically measure the performance by the time within which the Agency executes the transaction after having been given the instruction.</td>
</tr>
<tr>
<td><strong>Measurement Method</strong></td>
<td>Financial system data</td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td>Time</td>
</tr>
<tr>
<td><strong>Algorithm</strong></td>
<td>Any error reported by the customer in the media readiness report is a non-satisfaction.</td>
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<tr>
<td><strong>Target</strong></td>
<td>Metric ≥ X hours</td>
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| **Applicability** | Sub Service 1 = 24 hours for PO's
Sub Service 2 = 48 hours for AR
Sub Service 3 = 48 hours for AP payments, bank reconciliation within 5 days upon the end of the month
Sub Service 4 = best effort |
OS05 - Project Management for External Stakeholders

<table>
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<tr>
<th>Organizational Element:</th>
<th>Multiple Service Lines</th>
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<tr>
<td>Standard Service (Budget) or Service Group:</td>
<td>Other Services</td>
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<td>Service Group:</td>
<td>Other Services</td>
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<td>Service Type:</td>
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1. Service Description
Conduct and management of projects and programmes according to PRINCE2 methodology. This service includes the definition of acquisition requirements and contracting strategy, followed by a competitive outsourcing to industry from the 28 NATO nations. It includes as well partnering with industry to ensure that the latest, state-of-the-art technology is implemented in a coherent and cost-effective way.

2. Value Added
Efficient and flexible management results.

3. Locations
This Service is available at multiple locations.

4. Dependencies
Not Applicable.

5. Available Networks
Not Applicable.

6. Support Availability
Not Applicable.

7. Prerequisites
Not Applicable.

8. Additional Information
Not Applicable.
## References

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<tr>
<td>1</td>
<td>AC/322-N(2012)0092, C3 Classification Taxonomy, 24 May 2012</td>
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<td>2</td>
<td>CIO Charter C-M 2012(0049) – 14 June 2012</td>
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<td>4</td>
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<td>5</td>
<td>NC3A Catalogue of Expertise, Products and Services, 2012</td>
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<td>NCI Agency Rationalized Service Catalogue Template, 28 January 2013</td>
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<td>7</td>
<td>BICES Service Catalogue, 2010</td>
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<td>8</td>
<td>BLST Services Catalogue, NC3A-RD-2780, 2009</td>
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<td>10</td>
<td>Service Lines Descriptions Master Document, 30 Oct 2013</td>
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<td>11</td>
<td>NCI Agency Organizational Design, enclosure 1 to NCIA/GM/2013/064, 30 October 2013</td>
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# List of Acronyms

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## Acronyms

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<th>Acronyms</th>
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<td>CR</td>
<td>Cost Reimbursable</td>
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<td>MTRS</td>
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<td>NCISS</td>
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<td>NATO Information Assurance Technical</td>
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<td>NMRR</td>
<td>NATO Meta Data Registry and Repository</td>
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<td>Description</td>
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<td>SRA</td>
<td>the Suitability and Risk Assessment</td>
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<td>SSA</td>
<td>Service Support Agreement</td>
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<td>SSBA - SL</td>
<td>Service Support and Business Applications</td>
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<td>SSB</td>
<td>Service Support Framework</td>
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<td>STF</td>
<td>SHIP-SHORE-SHIP-BUFFER</td>
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<td>Situational Understanding</td>
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<td>TA</td>
<td>Technical Agreement</td>
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<td>TDL</td>
<td>Tactical Data Links</td>
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<td>WMS</td>
<td>Web Map Service</td>
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Annex A – Demand Management Customer Request Form

Latest version of the CRF is available in the online CSC, button “Customer Request Form”: https://dnbl.ncia.nato.int/nciaservicecatalogue/SitePages/Services.aspx
Customer Request Form

Find more information on the request submission and process under: https://www.ncia.nato.int/Pages/Demand-Management.aspx

<table>
<thead>
<tr>
<th>Requestor/Organization</th>
<th>1. Organization:</th>
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</thead>
<tbody>
<tr>
<td>2. Unit/Site:</td>
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<tr>
<td>3. Office:</td>
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<td>4. Street:</td>
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<td>5. PO Box:</td>
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<td>6. Postal Code:</td>
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<td>7. City:</td>
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<td>8. Country:</td>
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</table>

| Invoicing Address       | 1. Organization: |
| (only if different from Requestor) | 2. Unit/Site: |
|                          | 3. Office:      |
|                          | 4. Street:      |
|                          | Number:         |
|                          | 5. PO Box:      |
|                          | 6. Postal Code: |
|                          | 7. City:        |
|                          | 8. Country:     |

| Point Of Contact        | 1. First Name: |
| (for background information) | 2. Last Name: |
|                          | 3. Rank/ Title: |
|                          | 4. Job Title:  |
|                          | 5. Business phone: |
|                          | 6. Mobile phone: |
|                          | 7. Unclassified Email address: |
|                          | 8. NS Wan Email: |
|                           | *if applicable* |

| Nature of Request:      | Provide Feedback Annex I [ ] | Request Services Annex I [ ] |
|                         | Request Software Annex II [ ] | Request a Meeting or Visit Annex III [ ] |

| Title of Request:       | |

CRF Version 2.0
NCI Agency I Demand Management
ANNEX I: Request a Service or Provide Feedback

Please select the service from the “Services” section on the front page of the NCI Agency Customer Services Catalogue at the following link “NCI Agency Customer Services Catalogue” or at www.ncia.nato.int (under ‘Our Service’).

An aid to navigating the Catalogue is available in the “Service Model”, which is under the “Introduction to the NCI Agency” section on the front page of the NCI Agency Customer Services Catalogue.

Select Service ID and Service Name from the NCI Agency Customer Services Catalogue

<table>
<thead>
<tr>
<th>Service ID (i.e. EAS01)</th>
<th>Service Name (e.g. Network Monitoring and Control Service)</th>
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</tbody>
</table>

☐ Request unlisted service, provide additional information or provide feedback here:

CRF Version 2.0
Proposed milestones (Start Date – End Date – Key Milestones)

Budget available
*Please indicate any relevant information regarding deadline for budget availability, critical payment milestones, or ceiling.*

Commercial Partner
If your request is for a commercial partner, please provide the company details below.

1. Organization:
2. Unit/Site:
3. Office:
4. Street:
5. Street Number:
6. PO Box:
7. Post Code:
8. City:
9. Country:
10. POC First Name:
11. POC Last Name:
12. POC Rank/Title:
13. POC Job Title

If your request requires obtaining software, please continue with Annex II.
If not, your request is ready to be signed and submitted. Please go to the end of the form.
ANNEX II: Request for NATO Software Tools

Please select the software from the “NATO Software Tools” section on the front page of the NCI Agency Customer Services Catalogue at the following link “NCI Agency Customer Services Catalogue” or at www.ncia.nato.int (under ‘Our Service’). If the software you require is not listed in the “NATO Software Tools” section, additional software is also listed in the drop-down list on the “Services” section of the Customer Services Catalogue.

In addition, to the standard delivery of NATO Software Tools, NCI Agency also offers a selected set of software under a Routine Delivery Licence Agreement covering the release of NATO-owned software tools to the Ministry of Defence of NATO Nations and elements of the NATO Force Structure. The NATO entities which have signed this Licence Agreement can download them directly through the Customer Services Catalogue (for those that are registered) or order them through this Customer Request Form.

Standard Delivery Software

<table>
<thead>
<tr>
<th>Service ID (i.e. CSOI44 where available)</th>
<th>Tool Acronym (e.g. CNAFS/FinS Where available)</th>
<th>Service Name (e.g. Centralized NATO Automated Financial System)</th>
</tr>
</thead>
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<tr>
<td>ICM</td>
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<tr>
<td>DHS</td>
<td>SCOI70</td>
<td>Document Handling System</td>
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<td>TTE</td>
<td>SCOI70</td>
<td>Tasker Tracker Enterprise</td>
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<td>EP</td>
<td>EAS03</td>
<td>Enterprise Portal</td>
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<td>Training &amp; Simulation</td>
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<td>JEMM</td>
<td>SCOI55</td>
<td>Joint Exercise Management Module</td>
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<td>JEST</td>
<td>SCOI54</td>
<td>Joint Exercise Scenario Tool</td>
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<td>JPECT / FLAMES</td>
<td>SCOI57</td>
<td>Joint Planning and Execution Coordination Tools / Flexible Analysis, Modelling and Exercise System</td>
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<td>Maritime</td>
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<td>DARE</td>
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<td>MCMEXPERT</td>
<td>SCOI01 / SCOI22</td>
<td>Mine Counter Measures Expert</td>
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<td>LOGFAS</td>
<td>SCOI48</td>
<td>Logistic Functional Area Services including:</td>
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<td></td>
<td></td>
<td>- CORSOM: Coalition Reception, Staging and Onward Movement</td>
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<tr>
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<td></td>
<td>- ACROSS: Allied Commands Resource Optimization System Software</td>
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<td>EVEWeb</td>
<td>SCOI48</td>
<td>Effective Visible Execution</td>
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<td>Joint &amp; Common</td>
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<tr>
<td>iGeoSiT</td>
<td>SCOI47</td>
<td>Interim Geo-Spatial Intelligence Tool (Luciad license not included)</td>
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<td>COP-IM</td>
<td>SCOI14</td>
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<td>JCHAT</td>
<td>SCOI17</td>
<td>Secure Joint Tactical Chat</td>
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<td>JOC Watch</td>
<td>SCOI18</td>
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<td>SCOI16</td>
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<td>OANT</td>
<td>SCOI16</td>
<td>Online Analyser for Networked Tactical Data Link</td>
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<td>SCOI24</td>
<td>NATO Intel Toolbox</td>
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<td>JOII S</td>
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<td>TOPFAS</td>
<td>SCOI09</td>
<td>Tool for Operations Planning Functional Area Services (MARIA Teleplan Software not included)</td>
</tr>
</tbody>
</table>

CRF Version 2.0
The NCI Agency offers SCOI76, NATO Wide Integrated Command and Control Software for Air Operations (ICC) (ICC Complete NU and ICC Complete NR). This services contain licenced commercial software. If you request these products, you must provide a valid Oracle Customer Support Identifier (CSI). Without a CSI your request may not be processed correctly. Please contact your local Oracle representative of contact the NCI Agency, Air Command and Control Programme Office & Services, NATO Programming Centre, Delivery Manager: +32 4 289 9475, productdelivery.glons@ncia.nato.int or via the internet at https://wwwnpc.ncia.nato.int.

If applicable, provide your Oracle CSI number:

Summary of the Request and intended use of the software product:

---

Usage of the Software

**Mode of operation:**

- Evaluation and Testing
- Operational Use
- Exercise
- Training
- Other

**Domains:**

**Number of Work Stations:**

---

**Commercial Partner**

*If your request is for a commercial partner, please provide the company details.*

1. Organization:
2. Unit/Site:
3. Office:
4. Street:
5. Number:
6. PO Box:
7. Postal Code:
8. City:
9. Country:
10. POC First Name:
11. POC Last Name:
12. POC Rank/Title
13. POC Job Title

---

Usage of the Software by the Commercial Partner:

If you need any service related to this request, such as installation support, training etc. please ensure you have filled in Services (ANNEX I). If not, your request is ready to be signed and submitted. Please go to the end of the form.
ANNEX III: Visit/Meeting Request Form

Topic of the Event

Event location and timeline:

☐ NCI Agency Brussels (BEL)  ☐ NCI Agency The Hague (NLD)  ☐ NCI Agency Mons (BEL)
☐ Other:

☐ Invitation for NCI Agency to participate in external event
  ☐ Formal Event
  ☐ Social Event

Event Location: ____________________________________________
Indicative timeline: ____________ to ____________

Indicate composition of delegation (head of delegation, areas of responsibilities)

Detailed description of visit/meeting (aim, intention, goals, objectives) attach Annexes if needed

Provide information if applicable:

a. Previous engagements / events relevant to this event

b. Projects With NCI Agency relevant to the event

c. Areas of cooperation with NCI Agency relevant to the event

d. Potential areas of future cooperation

Once you submit the form we will acknowledge receipt within 3 working days

Click in the area above to sign the form!
Centralized Service Desk Phone Numbers

Belgium: +32 65 44 3177
Netherlands: +31 70374 3177
Italy: +39 081 721 3177
Germany +49 282 4978 3177

Other National numbers will be promulgated as and when they become available

NATO Communications and Information Agency
Agence OTAN d’information et de communication
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1110 Brussels
Belgium
Tel. +32 2 707 4111