



## JOB DESCRIPTION

### Post Details:

Post Title:	<b>Wireless Transmissions Services Engineer</b>	Organisational Element:	AirC2 Center
Rank/Grade:	G15	Job Family:	Digital Backbone Engineering
Military/Civilian:	Civilian	Location:	The Hague, NL

### Organisation context:

This is a position within the NATO Communications and Information Agency (NCI Agency), an organization of the North Atlantic Treaty Organization (NATO).

To strengthen the Alliance through connecting its forces, the NCI Agency delivers secure, coherent, cost effective and interoperable communications and information systems in support of consultation, command & control and enabling intelligence, surveillance and reconnaissance capabilities, for NATO, where and when required. It includes IT support to the Alliances' business processes (to include provision of IT shared services) to the NATO HQ, the Command Structure and NATO Agencies.

### Organisational Element Statement of Functions:

The AirC2 Centre delivers planning, development, procurement, implementation and In-Service Support of NATO authorised AirC2 capabilities across the Alliance and bilaterally in the European Nations of the Alliance, satisfying the operational requirements, assuring the coherence, integrity and interoperability of the involved NATO and national systems and sub-systems. In doing so, the AirC2 Centre contributes to NATO's Integrated Air and Missile Defence operations and continuously evolves NATO authorised systems and services to empower seamless, resilient and adaptable NATO operations in a multi domain environment.

The Maritime Interface Service Area is responsible for the In-Service-Support (ISS) of the Ship-Shore-Ship-Buffer (SSSB) System and associated software family of products. The Maritime Interface Service Area provides cross domain capability between the Air Maritime domains ensuring the Operational User can coordinate Air and Maritime activity.

### Job role description:

A Wireless Transmission Services Engineer is a professional responsible for designing and maintaining wireless transmission systems and services using technologies relevant to military applications. Typical technical areas encompass Strategic/Long Range to International Mobile Telecommunication technologies. This invokes supporting technical studies, prototyping and experimentation, contributions to the conception, development and execution of programs and projects, support to military exercises and service delivery operations in close sustenance of planning and execution of lifecycle management activities

associated to NATO Digital Backbone. Moreover, this professional shall actively support the improvement of efficiency and effectiveness of service and capability delivery, namely by ensuring all the deliverables are compliant with as best practices and highest standards, and seeking maximization of interoperability, reuse and synergies within the technical solutions delivered.

## **Duties and Responsibilities:**

### **Information security**

- Applies and maintains specific security controls as required by organisational policy and local risk assessments.
- Communicates security risks and issues to business managers and others.
- Performs basic risk assessments for small information systems.
- Contributes to the identification of risks that arise from potential technical solution architectures.
- Suggests alternate solutions or countermeasures to mitigate risks.
- Defines secure systems configurations in compliance with intended architectures.
- Supports investigation of suspected attacks and security breaches.

### **Systems design**

- Designs system components using appropriate modelling techniques following agreed architectures, design standards, patterns and methodology.
- Identifies and evaluates alternative design options and trade-offs.
- Creates multiple design views to address the concerns of the different stakeholders and to handle functional and non-functional requirements.
- Models, simulates or prototypes the behaviour of proposed system components to enable approval by stakeholders.
- Produces detailed design specifications to form the basis for the construction of systems.
- Reviews, verifies and improves own designs against specifications.

### **Systems integration and build**

- Provides technical expertise to enable the configuration of system components and equipment for systems testing.
- Collaborates with technical teams to develop and agree system integration plans and report on progress.
- Defines complex/new integration builds.
- Ensures that integration test environments are correctly configured.
- Designs, performs and reports results of tests of the integration build.
- Identifies and documents system integration components for recording in the configuration management system.
- Recommends and implements improvements to processes and tools.

### **Real-time/embedded systems development**

- Designs, builds and integrates medium-complexity real-time/embedded components as part of an overall larger systems design.
- Follows agreed standards and uses specialist tools such as in-circuit emulators and logic analysers.
- Drives specialist hardware, typically sensors and actuators, and optimises component code for performance.
- Applies a range of approaches to the verification and testing of real-time components.

### **Radio frequency engineering**

- Deploys, sets up, tunes and calibrates RF devices and software following maintenance schedules and using appropriate tools and test equipment.
- Incorporates hardware/firmware modifications.
- Interprets automatic fault/performance indications and resolves faults down to discrete component level or escalates according to given procedures.
- Implements communication protocols between system elements in accordance with defined standards.
- Integrates RF devices with software applications, incorporating dynamic reconfiguration of elements under software control to optimise their operational performance.

### **Systems installation and removal**

- Installs or removes hardware and/or software, using supplied installation instructions and tools, including handover to the client.
- Uses standard procedures and diagnostic tools to test installations, correct problems, and document results.
- Records details of all components that have been installed and removed.
- Assists users and follows agreed procedures for further help or escalation.
- Contributes to the development of installation procedures and standards.

### **Wireless Technologies**

- Addresses problems in wireless applications and devices to ensure the transmission of information.
- Conducts routine maintenance on wireless devices and systems.
- Participates in the installation process of wireless system projects.
- Implements local wireless infrastructure (i.e., software, hardware, peripherals).
- Employs appropriate protocols for specific wireless services.

### **Additional duties for this post:**

- Acquire and maintain an in-depth knowledge of the SSSB system configuration items and hardware and software interfaces.
- Acquire and maintain knowledge of SSSB system design including wireless communication.
- Perform final quality control checks on all releasable system components and documentation.
- Perform training both in-house and on site for administrators and maintainers of SSSB systems.
- Evaluate the compatibility of new COTS releases and integrating them into the SSSB configurations.
- Deputize for higher grade staff, if required;
- Performs other duties as may be required.

**Education, Experience and Training (essential):**

**Education:**

A minimum requirement of a Bachelor's degree at a nationally recognised/certified University in a related discipline and 2 years post-related experience.

Or exceptionally, the lack of a university degree may be compensated by the demonstration of a candidate's particular abilities or experience that is/are of interest to NCI Agency, that is, at least 6 years extensive and progressive expertise in duties related to the function of the post.

**Experience:**

At least 2 years of experience in designing, implementing and maintaining wireless communications systems, preferably for military applications;

Practical experience in writing, analysing and commenting on technical documents, system drawings, wiring schematics;

Ability to understand operational requirements and translate them into technical and/or implementation requirements;

Experience on system troubleshooting, fault analysis and failure isolation.

Experience in conducting independent and standalone on-site activities.

Experience and up-to-date knowledge of operating systems, computer system architectures, client/server, LAN/WAN and network concepts.

Knowledge of and practical experience in administering networked systems for different operating systems.

**Training/Certifications:**

None.

**Education, Experience and Training (desirable):**

**Education:**

- Electronic/Electric Engineer

**Experience:**

- Knowledge of electronic circuit design and development.
- Experience in attending technical interchange meetings and project progress meetings with project owners and contractors.
- Experience in the design, development and maintenance of NATO Air Defence (AD) systems; military data links operations/technical/procedures (eg. Link 1, Link 11, Link 11B, Link 16, Link 22 and JReaP-C).
- Prior experience of working in an international environment comprising both military and civilian elements

**Training/Certifications:**

None.

**Behavioural competencies:**

- *Relating and Networking* - Easily establishes good relationships with customers and staff; relates well to people at all levels; builds wide and effective networks of contacts; uses humour appropriately to bring warmth to relationships with others.
- *Delivering Results and Meeting Customer Expectations* - Focuses on customer needs and satisfaction; sets high standards for quality and quantity; monitors and maintains quality and productivity; works in a systematic, methodical and orderly way; consistently achieves project goals.
- *Adapting and Responding to Change* - Adapts to changing circumstances; tolerates ambiguity; accepts new ideas and change initiatives; adapts interpersonal style to suit different people or situations; shows an interest in new experiences.

**Language:**

A thorough knowledge of one of the two NATO languages, both written and spoken, is essential and some knowledge of the other is desirable.

**NOTE:** Most of the work of the NCI Agency is conducted in the English language.

**Travel:**

Business travel to NATO and national (NATO and non-NATO) facilities as well as frequent travel between the NCI Agency offices;

May be required to undertake duty travel to operational sites and theatres inside and outside NATO boundaries.

**Work Environment:**

Normal office environment.