JOB DESCRIPTION

Post Details:

Post Title:	**Senior Engineer (Wireless Transmissions Services)**	Organisational Element:	AirC2 Center
Rank/Grade:	G17	Job Family:	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. . They also provide technical guidance to junior engineers and collaborate with other.

Duties and Responsibilities:

Information security

- Provides advice and guidance on security strategies to manage identified risks and ensure adoption and adherence to standards.
- Contributes to development of information security policy, standards and guidelines.
- Obtains and acts on vulnerability information and conducts security risk assessments, business impact analysis and accreditation on complex information systems.
- Investigates major breaches of security, and recommends appropriate control improvements.
- Develops new architectures that mitigate the risks posed by new technologies and business practices.

Systems design

- Designs large or complex systems and undertakes impact analysis on major design options and trade-offs.
- Ensures that the system design balances functional and non-functional requirements.
- Reviews systems designs and ensures that appropriate methods, tools and techniques are applied effectively.
- Makes recommendations and assesses and manages associated risks.
- Adopts and adapts system design methods, tools and techniques.
- Contributes to development of system design policies, standards and selection of architecture components.

Systems integration and build

- Plans and drives activities to develop organisational systems integration and build capabilities including automation and continuous integration.
- Identifies, evaluates and manages the adoption of tools, techniques and processes to create a robust integration framework.
- Provides authoritative advice and guidance on any aspect of systems integration.
- Leads integration work in line with the agreed system and service design.
- Assesses risks and takes preventative action.
- Measures and monitors applications of standards.
- Contributes to the development of organisational policies, standards, and guidelines for systems integration.

Real-time/embedded systems development

- Designs and develops real-time/embedded architectures and systems to meet agreed system requirements.
- Plans and manages the development of complex real-time/embedded systems and selects the approaches and techniques to be used.
- Analyses design options and trade-offs between hardware and software, makes recommendations and assesses and manages associated risks.

- Ensures that effective validation, verification and testing is undertaken throughout development.
- Oversees the integration of multiple sub-systems into the overall system.

Radio frequency engineering
- Monitors system performance, recommends equipment modifications and changes to operating procedures, servicing methods and schedules.
- Develops maintenance schedules and procedures.
- Approves equipment upgrades and modifications.
- Reviews industry and national standards on relevant RF protocols and regulations.
- Measures and evaluates the effectiveness of RF devices and software.

Systems installation and removal
- Takes responsibility for installation and/or decommissioning projects.
- Provides effective team leadership, including information flow to and from the customer during project work.
- Develops and implements quality plans and method statements.
- Monitors the effectiveness of installations and ensures that appropriate recommendations for change are made.

Wireless Technologies
- Compares applications of wireless technology with other industry professionals or organizations.
- Directs implementation processes for a new wireless system.
- Creates development procedures for wireless systems based on new business requirements.
- Determines information transmission types in a specific wireless environment.
- Supervises the operation of procedures in wireless system projects.
- Designs the framework and infrastructure of a wireless system.

Additional duties for this post:
- Acquire and maintain an in-depth knowledge of the SSSB system configuration items and hardware and software interfaces.
- Conducting individual and integrated system testing;
- Performing system installations both in-house and on-site;
- Executing role of "Lead Engineer" for the assigned projects;
- Performs training both in-house and on site for maintainers and administrators of SSSB systems;
- Supporting the provision of technical advice to the nations;
- Deputize for higher grade staff, if required;
- Perform other duties as may be required.

Education, Experience and Training (essential):

Education:

A minimum requirement of a Bachelor's degree at a nationally recognized/certified University in a related discipline and 3 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 10 years extensive and progressive expertise in duties related to the function of the post.

Experience:

At least 3 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.

Provable ability to understand operational requirements and translate them into technical and/or implementation requirements.

Experience with laboratory and field trials planning, execution and evaluation.

Good knowledge of modern communication systems technology trends, for different frequency bands and applications.

Good knowledge of project management methodologies.

Good problem solving and analytical skills.

Ability to communicate effectively orally, using tact and diplomacy, and in writing with good briefing skills.

Experience in leading small teams, preferably in international environment.

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:

- Communication/Electronic/Electric Engineer

Experience:

Experience in the following specific areas:

- Modern radio communications techniques, protocols and standards;
- Radio communication networks operation, specification, design or testing;

- Good knowledge of radio wave propagation, including propagation mechanisms, impairments and associated mitigation techniques;

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.
- *Leading and Managing -* Provides others with a clear direction; motivates and empowers others; attracts and develops staff of a high calibre; provides staff with development opportunities and coaching; sets appropriate standards of behaviour.

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.