



## Network and Infrastructure - ITO

### Occupational Family/Code – Science & Technology: SIT

Profile created: 2005 05

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| Occupation<br>Summary | Selection of<br>Competencies | Knowledge | Skills | Personal<br>Attributes |
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This competency profile comprises competencies for two related but separate roles working in Data Centre Operations in the Information Technology Office:

**Network** - Employees in these roles are involved in the design, implementation, and operation of an enterprise-wide data network infrastructure. This includes all LAN, MAN and WAN infrastructure, the core network, security and physical infrastructure in the government’s data centre, and supporting services such as DNS, DHCP and WINS. They identify potential network service-level problems before they occur and implement solutions as well as manage the restoration of service caused by local or remote network outages. They are also responsible for all core network infrastructure configurations; installations; patch and security management; maintenance and monitoring; and backup and recovery.

**Server** - Employees in these roles are involved in providing technical support for server operations for the Information Technology Office and its government partnering agencies. They provide server support for over 100 Intel and RISC servers and centrally hosted applications, databases, and LAN-based server systems. Server operations provide management, maintenance and support for the many multiple systems and applications for all of government. This includes mission critical applications (e.g., health care systems, and financial systems) that must operate seven days per week and 24 hours per day

For some positions, employees may need to be available after hours to perform some of the duties.



## Knowledge

Knowledge is the baseline of information acquired through work and life experiences, learning situations and formal education which enables an individual to perform from an informed perspective.

### Acts/Regulations/ Legislation

- Knowledge of ministerial programs standards, policies and expectations. **(Learn)**
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### Theories/Principles

- Knowledge of strategic and project planning techniques. **(Bring – senior/Learn – junior)**

*Specifically:*

*Project management methodology established by the Project Management Institute (PMI), otherwise known as Project Management Body of Knowledge (PMBOK)*

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### Technical

- Technical Knowledge of networking architecture. **(Bring)**
- Knowledge of operating systems. **(Bring)**

*Specifically (Network):*

*One or more of the following, depending on the specific position: Microsoft, Check Point, CISCO (The level of knowledge required in these would be typically gained through certification.)*

*Specifically (Server):*

*Current knowledge in Windows 2K/2K3 including active directory design and management in a large scale environment (The level of knowledge required in these would be typically gained through M/S certification.)*



- Knowledge of computer hardware and architecture. **(Bring)**

*Specifically (Network):*

*Network hardware such as CISCO, Check Point, Nokia, Nortel*

*Specifically (Server):*

*Tier 1 computer server hardware, SAN storage, clustering technologies, backup/restore technology (The level of knowledge required in these would be obtained through experience in a large-scale environment.)*

- Knowledge of commercial software applications. **(Bring)**

*Specifically (Network):*

*One or more of the following for monitoring, probing and analyzing network traffic: VISIO for network documentation (including the 7 OSI layers), Protocol IS, wiring standards, network design*

*Specifically (Server):*

*One or more of the following (depending on what is being supported): SQL Server Exchange, IIS, SMS. These are required to design and support clustering solutions, SAN technologies and redundant network connects on the server. (The level of knowledge required would typically be obtained through Microsoft certification.)*

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## Skills

Skills are those demonstrated abilities, or proficiencies, which one has learned from his/her past. These are acquired/developed from past work and life experience, including volunteer work, independent study, life events, community and leisure activities, and formal training.

Skills are demonstrable, measurable and are transferable from one situation to another.

## Communication

- Ability to write a variety of detailed, accurate and clear (technical) material such as user, systems and requirements documentation and procedures, project plans, letters, requests for proposals, feasibility studies, recommendations and reports, at a level appropriate to the target groups. **(Bring)**

*Personal attributes which may link with this skill statement include: logical, concise, creative, thorough...*

- Ability to orally explain or present (technical) information to a wide variety of technical and non-technical individuals and/or groups in a clear, accurate and understandable manner. **(Bring)**

*Personal attributes which may link with this skill statement include: self-confident, concise, creative...*

- Ability to demonstrate and promote the use and value of new technology, programs and services in a manner that creates understanding, captures interest and enhances users' computer skills. **(Bring- senior/Learn – junior)**

*Personal attributes which may link with this skill statement include: self-confident, concise, logical, creative...*

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## Leadership

- Ability to constructively lead, advise and encourage others to achieve success in their work and contribute to the effectiveness of the work team.  
**(Bring/Learn – Network; Learn – Server)**

*Personal attributes which may link with this skill statement include: honest/accountable/disciplined, assertive, diplomatic/tactful...*

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## Problem Solving

- Ability to independently interpret, comprehend and apply technical instructions and concepts to successfully acquire, install, modify, configure and maintain hardware and software components and administer networks. **(Bring)**

*Personal attributes which may link with this skill statement include: logical, thorough, adaptable/flexible...*

- Ability to diagnose technical problems such as delays, malfunctions and errors in order to determine the true cause of the problem and provide a (workable/reasonable/optimal) solution in a reasonable timeframe. **(Bring)**

*Personal attributes which may link with this skill statement include: creative, logical, thorough, organized...*

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## Team/Independence

- Ability to work independently and participate as a team member to meet the needs of clients and co-workers and to build productive, positive work relationships. **(Bring)**

*Personal attributes which may link with this skill statement include: adaptable/flexible, patient...*

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## Organizational

- Ability to independently prioritize and organize one's own workload to meet tight deadlines and successfully complete projects in a changing environment. **(Bring)**

*Personal attributes which may link with this skill statement include: organized, thorough...*

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### Analytical

- Ability to identify, explore and evaluate options on data, processes and methodologies, information technology and potential systems design to make feasible recommendations.  
**(Bring – senior/Learn – junior)**

*Personal attributes which may link with this skill statement include: logical, concise...*

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### Technical

- Ability to design new or adapt existing systems/applications taking into account design alternatives, business requirements, and cost, resource and time constraints.  
**(Bring- senior/Learn – junior)**

*Personal attributes which may link with this skill statement include: creative, logical, organized, thorough...*

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## Personal Attributes

### (Bring)

Personal Attributes identify qualities of character, which a person must have to be an effective and successful performer in the job. They are the underlying characteristics, which are deep and enduring parts of an individual expressed most of the time. They are one's personal style or personal effectiveness, which can be described as feelings, attitudes, habits and traits. Each of these is demonstrated through one's behaviour.

The personal attributes are stated under the skill competencies for which they may be most critical.

**Personal attributes for the Network and Infrastructure positions include:**

#### To Be...

- Logical
- Organized
- Methodical
- Learning oriented
- Adaptable/flexible
- Thorough
- Creative
- Concise
- Visionary
- Self-confident
- Diplomatic/tactful
- Patient
- Honest/accountable/disciplined
- Assertive

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