

## JOB DESCRIPTION

APPENDIX C

Before completing this form, please read the BTP 'Guide to writing job descriptions for Police Staff roles' Appendix B to the SOP.

### A. POST DETAILS:

Job Title:	Network Architect	Current Grade:	
Department:	Technology	Area:	Force Headquarters
Reports To:	Chief Technology Officer	No of Posts:	1
Level of vetting:	MV	Post Number(s):	TBC

### B. PURPOSE OF THE POST: *Why the post exists and what it has to achieve*

Responsible for designing computer networks, including local area networks (LANs), wide area networks (WANs), the internet, intranets and other data communications systems. Creates, tests and evaluates networks.

Primary responsibilities

- analyse business requirements to develop technical network solutions and their framework.
- Design, test, and inspect data communications systems.
- Perform network modelling, analysis, and planning.
- Install hardware such as cables, hubs, routers, and wireless adaptors.
- Develop technology roadmaps from a Network perspective.
- Configure network drivers for software.
- analyse, engineer, and execute software functions.
- Develop test plans, implementation plans, and project timelines for various projects.
- Manage technology vendors.
- Stay abreast of how technology infrastructures are currently being optimised.
- Write functional requirements/specifications documents.
- Assess vendor development/test strategies.
- Perform network troubleshooting to isolate and diagnose common network problems.
- Upgrade network hardware and software components as required.

The production of network designs and design policies, strategies, architectures and documentation, covering voice, data, text, e-mail, facsimile and image, to support business requirements and strategy. This may incorporate all aspects of the communications infrastructure, internal and external, mobile, public and private, Internet, Intranet and call centres.

### C. DIMENSIONS OF THE POST: *The key statistics associated with the post*

#### Financial – Direct or Non-Direct

Directly responsible for the WAN project budget which is circa £10million

#### Staff Responsibilities – Direct or Non-Direct

Direct - None

Indirect - All project technical staff

#### Any Other Statistical Data

**D. PRINCIPAL ACCOUNTABILITIES:** *What the job is accountable for and required to deliver*
**Skills Framework for the Information Age**

*The Skills Framework for the Information Age (SFIA) provides a common reference model for the identification of the skills needed to develop effective Information Systems (IS) making use of Information Communications Technologies (ICT).*

Strategy and architecture									
Information strategy	0	1	2	3	4	5	6	7	
Information security									
Advice and guidance	0	1	2	3	4	5	6	7	
Technical specialism									
Technical strategy and planning	0	1	2	3	4	5	6	7	
Emerging technology monitoring									
Network planning									
Solution architecture									
Solution development and implementation									
Systems development	0	1	2	3	4	5	6	7	
Network design									
Procurement and management support									
Supply management	0	1	2	3	4	5	6	7	
Supplier relationship management									



## **Strategy and architecture**

### **Information strategy**

#### **Information security - Level 5: Ensure, advise:**

- Obtains and acts on vulnerability information and conducts security risk assessments for business applications and computer installations; provides authoritative advice and guidance on security strategies to manage the identified risk.
- Investigates major breaches of security, and recommends appropriate control improvements.
- Interprets security policy and contributes to development of standards and guidelines that comply with this.
- Performs risk assessment, business impact analysis and accreditation for all major information systems within the organisation.
- Ensures proportionate response to vulnerability information, including appropriate use of forensics.

### **Advice and guidance**

#### **Technical specialism - Level 6: Initiate, influence:**

- Provides organisational leadership and guidelines to promote the development and exploitation of technical knowledge in the organisation.

### **Technical strategy and planning**

#### **Emerging technology monitoring - Level 6: Initiate, influence:**

- Co-ordinates the identification and assessment of new and emerging hardware, software and communication technologies, products, methods and techniques.
- Evaluates likely relevance of these for the organisation.
- Provides regular briefings to staff and management.

#### **Network planning - Level 6: Initiate, influence:**

- Creates and maintains overall network plans to support the organisation's business strategy, agrees service level agreements with customers and plans all aspects of the infrastructure necessary to ensure provision of network services to meet such agreements.

#### **Solution architecture - Level 6: Initiate, influence:**

- Leads the development of architectures for complex systems, ensuring consistency with specified requirements agreed with both external, and internal customers.
- Takes full responsibility for the balance between functional, service quality and systems management requirements within a significant area of the organisation.
- Establishes policy and strategy for the selection of systems architecture components, and co-ordinates design activities, promoting the discipline to ensure consistency.
- Ensures that appropriate standards (corporate, industry, national and international) are adhered to.
- Within a business change programme, manages the target design, policies and standards, working proactively to maintain a stable, viable architecture and ensure consistency of design across projects within the programme.



## Solution development and implementation

### Systems development

#### Network design - Level 6: Initiate, influence:

- Takes responsibility for major aspects of network specification and design within the organisation.
- Produces network design policies, philosophies and criteria covering connectivity, capacity, interfacing, security, resilience, recovery, access and remote access.

## Procurement and management support

### Supply management

#### Supplier relationship management - Level 6: Initiate, influence:

- Influences policy and procedures covering the selection of suppliers, tendering and procurement, promoting good practice in third party management with respect to information security.
- Deploys highly developed commercial skills to identify external partners, engaging with professionals in other related disciplines (e.g procurement specialists, lawyers) as appropriate.
- Is responsible for defining commercial communications, and the management and maintenance of the relationship between the organisation and the supplier.
- Measures the perception about how services are delivered, how this influences the performance of the supplier and their perception of own organisation's performance.
- Ensures that processes and tools are in place to conduct benchmarking.
- Conducts supplier analysis and assesses effectiveness across the supply chain.
- Promotes good practice with regard to third party information security.

### E. LEVELS OF RESPONSIBILITY: *This is a SFIA Level 6 Role*

- **Autonomy** - Has defined authority and responsibility for a significant area of work, including technical, financial and quality aspects. Establishes organisational objectives and delegates responsibilities. Is accountable for actions and decisions taken by self and subordinates.
- **Influence** - Influences policy formation on the contribution of own specialism to business objectives. Influences a significant part of own organisation. Develops influential relationships with internal and external customers/suppliers/partners at senior management level, including industry leaders. Makes decisions which impact the work of employing organisations, achievement of organisational objectives and financial performance.
- **Complexity** - Performs highly complex work activities covering technical, financial and quality aspects. Contributes to the formulation and implementation of IT strategy. Creatively applies a wide range of technical and/or management principles.
- **Business Skills** - Absorbs complex technical information and communicates effectively at all levels to both technical and non-technical audiences. Assesses and evaluates risk. Understands the implications of new technologies. Demonstrates clear leadership and the ability to influence and persuade. Has a broad understanding of all aspects of IT and deep understanding of own specialism(s). Understands and communicates the role and impact of IT in the employing organisation and promotes compliance with relevant legislation. Takes the initiative to keep both own and subordinates' skills up to date and to maintain an awareness of developments in the IT industry.

**F. CONTACT WITH OTHERS:** *The frequent contacts the post holder has with others and for what purpose*

**Internal**

Validation of internal specific network requirements and therefore architecture design implications holding workshops and other information gathering forums to deliver the required specification. This will be up to Chief Officer Group level.

**External**

Liaison and negotiation with potential suppliers on all technical aspects regarding network topology and technical delivery.

**G. REQUIREMENTS:** *The skills, knowledge, experience, qualifications and training required to perform the job.*

**Qualifications and Training:**

Educated to degree level in a specific IT or engineering discipline or equivalent experience

**Experience:**

Extensive experience of the design and implementation of corporate networks for a multi sited organisation, utilising modern networking topologies to deliver the most efficient and effective core infrastructure.

**Knowledge:**

Good knowledge of core networking technologies together with an understanding of the key technology providers.

Good knowledge of emerging technologies and their applicability to the Force

Some knowledge of information security protocols including device and network encryption services.

**Skills:**



## BTP Framework

Business	0	1	2	3	4
Accountability				<input checked="" type="checkbox"/>	
Decision Making					<input checked="" type="checkbox"/>
Effective Communications				<input checked="" type="checkbox"/>	
Initiative				<input checked="" type="checkbox"/>	
Negotiating				<input checked="" type="checkbox"/>	
Problem Solving					<input checked="" type="checkbox"/>
Teamworking				<input checked="" type="checkbox"/>	
Technical	0	1	2	3	4
Internet Security Solutions (M86 or recognised equivalent)					<input checked="" type="checkbox"/>
LAN/WAN Switches and Hubs - installation and management					<input checked="" type="checkbox"/>
Networking concepts (incl. security, firewalls and TCP/IP)					<input checked="" type="checkbox"/>
Routers and Switches					<input checked="" type="checkbox"/>
VPN concepts					<input checked="" type="checkbox"/>
Wireless networking concepts					<input checked="" type="checkbox"/>

## Business

### Accountability - Level 3: Extensive Experience

- Provides feedback on individual and team performance.
- Establishes with others criteria on which success will be measured.
- Focuses and guides others in achieving business results.
- Communicates the parameters of delegated responsibility and decision-making authority within the team.

### Decision Making - Level 4: Subject matter depth and breadth

- Makes complex decisions for which there is no set procedure.
- Makes high-risk strategic decisions that have significant consequences.
- Draws sound, fact-based conclusions, particularly when under pressure or faced with ambiguity.
- Makes decisions in a volatile environment in which the weight given to any factor can change rapidly.

### Effective Communications - Level 3: Extensive Experience

- Tailors communication (e.g. content, style and medium) to diverse audiences.
- Utilises skill in presenting information, analysis, ideas and positions in a clear, succinct, accurate, convincing manner, as is appropriate with the audience.



- Reads cues from diverse listeners to assess when and how to change planned communication approach to effectively deliver message.
- Communicates equally effectively with all organisational levels.
- Understands others complex or underlying needs, motivations, emotions or concerns and communicates effectively despite the sensitivity of the situation.

**Initiative - Level 3: Extensive Experience**

- Maintains a level of energy and work activity to achieve goals.
- Actively seeks and identifies opportunities to contribute to and achieve goals.
- Suggests ways to achieve better results or add value beyond the current situation.
- Perseveres in seeking opportunities to advance organisational objectives in the near term.
- Identifies and acts on opportunities to improve organisational processes or outcomes.

**Negotiating - Level 3: Extensive Experience**

- Creates an open and constructive environment for negotiation and assures all parties that a fair solution will be attained.
- Persuades others to review their demands and change their original positions.
- Negotiates mutually acceptable agreements with all parties involved.
- Expresses ideas/solutions in an appropriate manner to overcome resistance, complaints and frustration from others.

**Problem Solving - Level 4: Subject matter depth and breadth**

- Identifies broad, highly complex problems based on a multitude of factors, many of which are complex and sweeping in nature, difficult to define and often contradictory (e.g. fiscal responsibility).
- While remaining guided by organisational values, identifies optimal solutions, thinking first in terms of possible approaches and flexibilities in the system vs. blind adherence to rules or procedures.
- Evaluates the effectiveness and efficiency of solutions after they have been implemented and identifies needed changes.
- Creates procedures to articulate the nature of problems and to identify and weigh alternate solutions.
- Evaluates the effectiveness of solutions using approaches tailored to the situation.

**Teamworking - Level 3: Extensive Experience**

- Listens to constructive feedback and incorporates suggestions to achieve collective objectives.
- Makes outstanding efforts to help other team members.
- Fosters team spirit.
- Ensures that all group members have an opportunity to contribute to group discussions.
- Helps build consensus among team members.

**Technical**

**Internet Security Solutions (M86 or recognised equivalent) - Level 4: Subject matter depth and breadth**

**LAN/WAN Switches and Hubs - installation and management - Level 4: Subject matter depth and breadth**

**Networking concepts (incl. security, firewalls and TCP/IP) - Level 4: Subject matter depth and breadth**



**Routers and Switches - Level 4: Subject matter depth and breadth**

**VPN concepts - Level 4: Subject matter depth and breadth**

**Wireless networking concepts - Level 4: Subject matter depth and breadth**

**H. AUTHORISATION DETAILS:**

Prepared By: Caroline Sparks

Date: 4 Aug 2015

Area Commander /FHQ HoD:

Date:

Evaluation Panel:

Date:

## Appendix: Legend



High priority



Normal priority



Low priority