



Network Engineer Apprenticeship Standard

The main purpose of a Network Engineer is to design, install, maintain and support communication networks within an organisation or between organisations. Network engineers need to maintain high levels of operation and communication networks in order to provide

maximum performance and availability for their users, such as staff, clients, customers and suppliers. They will understand network configuration, cloud, network administration and monitoring tools, and be able to give technical advice and guidance.

Entry Requirements

This programme is for employees in networking roles, whether newly recruited or already employed. Newly recruited employees should ideally hold a Level 3 or equivalent IT qualification on entry.

Maths and English

Apprentices achieve their Level 2 English and Maths qualification as part of their apprenticeship.

End Point Assessment (EPA)

Knowledge, skills and behaviours will be tested by an independent End Point Assessor, who will be appointed by your employer. Prior to your EPA, you will attend a Gateway Meeting with your employer, GPSTL Skills Coach and your mentor/supervisor/manager, who will review your progress and confirm that all of the requirements of your apprenticeship have been met. You will then be referred for EPA

The EPA will take the form of a summative portfolio, synoptic project, employer reference

and interview and will be organised at a time and date convenient to both yourself and your employer. The vendor and module certifications, Self-Assessment and Level 2 Maths and English must be complete prior to the EPA taking place.

The outcome of your EPA test will be graded either Pass/Merit/Distinction/Fail





Main Qualification Structure

Technical Competencies

Can design simple networks from a well-defined specification and apply appropriate security products and processes

Can install and configure network components, including switches, routers and firewalls

Can optimise the performance of network systems and services

Can monitor, test and adjust network systems and performance to meet accepted standards using diagnostic tools, analysers and other equipment

Can apply diagnostic tools and techniques to identify the causes of network performance issues

Can apply structured approaches to troubleshooting network issues and repair faults in hardware, software products and the network

Can undertake system upgrades to network hardware, software and operating systems

Can integrate network related software into an existing network environment

Can interpret written requirements and technical specifications for network activities and maintain accurate records of network maintenance activities

Can log and respond to network service calls and provide technical network support to end users as required

Can document work done in accordance with agreed procedures

Can operate within the parameters of service level agreements, standards and/or agreed response times

Can operate effectively in the business environment and responds to business issues related to network engineering

Underpinning Skills, Attitudes and Behaviours

Logical and creative thinking skills

Analytical and problem solving skills

Ability to work independently and to take responsibility

Can use own initiative

A thorough and organised approach

Ability to work with a range of internal and external people

Ability to communicate effectively in a variety of situations

Maintain a productive, professional and secure working environment



Knowledge Modules

Module	Content	Certificated via
I – Network Principles	Understands and applies the principles of networking, protocols and associated technologies (specifically this should include the latest published versions of OSI layer model, IP,TCP/IP, routing and switching,WANs, LANs	Cisco ICND I & 2*
	Understands and applies the applied maths required to be a network engineer (e.g. algorithms, data, binary, probability and statistics)	
2 – Network Systems and Architecture	Understands the causes and consequences of system failure including load balance and storage protocols and responds appropriately	BCS Level 4 Diploma in Network Systems and Architecture*
	Understands the architecture of a typical business IT system, including hardware, OS, server, virtualisation, middleware and applications	
3 – Network Security	Understands and responds to security threats, firewalls and vulnerabilities	BCS Level 4 Diploma in Network Security*

^{*} Alternative vendor qualification opportunities can be chosen. For example, and depending on the Apprentice's current level of knowledge: CompTIA Network+, Microsoft MCP Installing and Configuring Windows Server 2012, CompTIA Security+, Cisco ICND1 and IINS (CCNA Security).

Duration

Typically this apprenticeship will take 18-24 months.

Typical Job Roles

The content is applicable to a variety of roles, including:

- Network Technician
- Network Engineer
- Systems Engineer
- Network Administrator

Progression

The content of the qualification links with the knowledge and skills required for the Cyber Security Technologist apprenticeship standard.

Upon completion, apprentices can enter Cyber Security roles such as; Cyber Operations Manager, Security Architect, Security Analyst, Risk Analyst and Cyber Security Specialist.

Modules and vendor qualifications can also be a basis for continuing professional development in the apprentice's chosen field.

Qualifications

Knowledge modules are certified by BCS – The Chartered Institute for IT. ICNDI & 2 qualifications are certified by Cisco and are delivered by GPSTL under our learning partner status. Where chosen, MCP qualifications are certified by Microsoft and are delivered by GPSTL under our Silver learning partner status.

Level

This is a Level 4 apprenticeship.

Find Out More

Visit our website for more information about our apprenticeship programmes: www.gpstl-apprenticeships.co.uk

Still Confused?

Contact our expert team today for more information on this apprenticeship:

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