

Network Engineer (Level 4)



Phase 1

Induction & Initial Assessment



Phase 2

Training modules and contact from Skills Development Coach



Network Principles
(3 Parts)



Network Systems
& Architecture
(3 Parts)



Network Security
(3 Parts)



Phase 3

Assessment Gateway



Phase 4

End Point Assessment



Apprenticeship Standard Network Engineer (Level 4)

Blended Learning breakdown

		Training Centre	Remote
Phase 1	Induction & Initial Assessment		Skills Coach visit
Phase 2	Network Principles Parts 1 - 3 (CompTIA Network+ Exam)	3 days per part	Training Centre only
	Network Systems & Architecture Parts 1 - 3 (BCS exam)	2 days per part	40 hours self-study 6 remote training sessions
	Networking Security Parts 1 - 3 (BCS exam)	3 days per part	40 hours self-study 9 remote training sessions
Phase 3	Assessment Gateway	Up to 1 week*	Training Centre only
Phase 4	End Point Assessment	3 - 5 days	Training Centre only

*To be arranged by your Skills Development Coach

Course Details



Induction/Initial Assessment

Skills Development Coach will conduct the induction in their first visit

Functional Skills

If required, learners will sit a Maths and/or 3 English exams. Workshops can take up to 3 days. Each exam takes up to 2 hours.

Network Security

- Explain terminology for key IT security concepts
- Describe current vulnerabilities and threats associated with IT security
- Explain risk management methods and risk calculation tools
- Explain and know when to use IT security countermeasures and controls
- Understand how to configure Network Security
- Understand how to configure a network server to enhance security of the server, applications and data
- Describes elements of network security that can be configured on a server to enhance security
- Understand a range of tools and techniques to identify vulnerabilities and threats to a network server
- Understand the concepts of appropriate incident response for Information security incidents and identify different instances and escalate in an appropriate way



Network Systems & Architecture

- Develop a knowledge of the hardware and software components that form a Server
- Install and configure a Server (or configure partition(s) within a server) and test connection to an existing network
- Explain how to configure the elements required to enable a Server to perform a specified role
- Describe the concept of virtualisation and VMs
- Install and configure one or more virtual machines and manage resource allocation using a Hyper-Visor
- Explain the roles and services provided by servers
- Describe how to configure a range of network services and test their operation
- Explain middleware and application services in a networking context through examples and case studies.
- Describe the purpose, benefits and drawbacks of server workload balancing
- Describe a range of different storage solutions used in networks for online and offline storage
- Understand key storage protocols used for network attached storage,
- Describe how to configure network storage devices and profile file



Network Principles

- Describe the role performed by a network of computers and shared devices
- Describe concepts of physical and logical networks and state their main features and the advantages and disadvantages of each
- Explain the typical infrastructure components of physical networks
- Understand network protocol suites and conceptual models
- Explore the fundamentals of network conceptual models
- Compare and contrast the layers and the functionality of the OSI and TCP/IP models and associated devices
- Understand the concepts of IP addressing and routing and IP addressing schemes, Routing concepts and protocols
- Describe the differences between a class based (IPv4) and Classless (CIDR)
- Inter Domain Routing scheme (CIDR)
- Compare and contrast the advantages and disadvantages offered by static and dynamic for a Local Area Network



Assessment Gateway, Assessment Preparation & Administration Week

(Up to 1 week in the training centre)
Preparation week to understand the four elements of the gateway.

Assessment Phase

- Summative Portfolio
- Synoptic Project
- Technical Interview with SME
- Employer Reference

Achievement of Apprenticeship

BCS
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(Level 4)