
Overview

This sub-discipline Network Design (902) is concerned with the competencies required for network design in order to ensure that the business has a fit for purpose network infrastructure system. This includes overall network system design and the selection of hardware and software components that will meet the organisations requirements for the intended dimension of network traffic. A typical network will include any type of transmission medium and interface to a wide variety of wired and wireless devices which will support the delivery of products and services.

This sub discipline requires not only technical knowledge of individual hardware and software network products and services (or any combination of these) but also the architectural principles, standards and protocols that must be applied within the design of the network infrastructure. It is envisaged that those involved in network design should have a broad knowledge of all aspects of networking in order to produce the network designs, policies and documentation covering all transmission mediums in order to support the business requirements and strategy. This may include all aspects of communications infrastructure, internal and external, mobile, public and private, intranet and internet.

Working in the lead professional network design role (9026) is primarily focussed on focussed on leading the development of the network infrastructure design planning capability and strategy.

Performance criteria

You must be able to:

1. manage the effective design of critical enterprise networks in line with organisational requirements
2. direct the network design team to deliver optimised network solutions for the organisation in line with changing requirements
3. produce standard and ad hoc network design and architecture reports for senior management in line with organisational procedures
4. communicate strategic network infrastructure design results to senior management including board and other senior executives in line with organisational requirements
5. develop and maintain controls to ensure high quality network design
6. define and manage the policies and procedures for network stewardship and custodianship in line with legal, information security, and corporate risk and compliance requirements
7. be accountable for overall network infrastructure delivery including effort, schedule, budget and deliverables in line with organisational requirements
8. provide technical and strategic leadership to ensure effective delivery of the network design function
9. define the approach to effectively measure the value from the network infrastructure business case
10. provide regular and accurate status updates on benefits value

Knowledge and understanding

You need to know and understand:

1. how to design complex enterprise level networks
2. the organisational context for network architecture and design
3. the opportunities that network design can provide to improve data services and to improve organisational efficiency and performance
4. how to develop and maintain controls for network design quality
5. how to develop and communicate network design reports for senior management and stakeholders
6. how to undertake a cost benefit analysis for network design projects
7. how to define and manage policies and programs for network design
8. the impact that network design has on business services and offerings
9. the development of recruitment channels and sources of new talent in network design

Lead the Delivery of the Network Design Capability and Strategy

Developed by	e-skills
Version Number	1
Date Approved	December 2014
Indicative Review Date	April 2017
Validity	Current
Status	Original
Originating Organisation	e-skills UK
Original URN	ESKITP902601
Relevant Occupations	Information and Communication Technology; Information and Communication Technology Officer; Information and Communication Technology Professionals
Suite	IT and Telecoms
Keywords	Network Design, Network Infrastructure
