



Australian Government

UEECS0011 Design and manage enterprise computer networks

Release: 1

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to design and manage enterprise computer networks.

It includes safe working practices, the design and management of network and application services, core identity and access management components, directory services infrastructure components, designing physical and logical directory service topologies, designing for business continuity and data availability, and documenting all design and management activities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable

Competency Field

Computer Systems

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Develop design for a network

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for a given work area are identified, obtained and applied

- 1.2 Scope of the network design is determined from design brief and/or in consultation with relevant person/s
- 1.3 Business requirements for existing and projected business model, organisational and information technology management structures are analysed in accordance with workplace procedures
- 1.4 Design is developed to include business priorities, growth, growth strategy, regulatory framework, risk and relevant cost in accordance with workplace
- 1.5 Existing and planned technical and environment goals of the enterprise are evaluated and documented in accordance with workplace procedures and design specifications
- 1.6 Design is developed with relevant technical factors in accordance with workplace procedures and design specifications
- 1.7 Client access, end-user needs and usage patterns, and disaster recovery requirements are evaluated and documented
- 1.8 Design specifications, analysis and evaluations are documented in accordance with workplace procedures and design specifications
- 1.9 Network specification is presented and discussed with relevant person/s
- 1.10 Alterations to the network specification resulting from the presentation/discussion are negotiated with relevant person/s in accordance with workplace procedures

2 Design a network

- 2.1 Alternative network infrastructures and technologies are applied to network design
- 2.2 Network design is developed with required wide area network (WAN) infrastructure, internet connectivity, and implementation and management strategies
- 2.3 Risk management strategies are sought, obtained and incorporated into the network design
- 2.4 Network design is reviewed and adjusted to rectify any anomalies in accordance with workplace procedures

- 2.5 Network design proposal is documented in accordance with workplace procedures
 - 2.6 Network design is presented and discussed with relevant person/s
 - 2.7 Alterations to network design from the presentation/discussion are negotiated with relevant person/s in accordance with workplace procedures
 - 2.8 Optimised project charter design is documented and approval obtained from relevant person/s
- 3 Implement and manage a network**
 - 3.1 Server and client systems are installed and configured in accordance with design specifications and network industry standards
 - 3.2 User and group objects security is implemented in accordance with network specifications
 - 3.3 Directory services, data storage, shared resources, web, remote access and network security are managed to ensure operation of the network is in accordance with workplace procedures and design specifications
 - 3.4 Issues/problems are analysed to provide effective solutions in accordance with workplace procedures and design specifications
 - 3.5 Quality of work is monitored in accordance with workplace procedures and relevant industry standards
- 4 Diagnose network malfunctions**
 - 4.1 Network operation is monitored using network diagnostic tools and malfunctions are diagnosed to determine cause in accordance with workplace procedure and design specifications
 - 4.2 Network malfunctions are rectified using appropriate tests of the network in accordance with workplace procedures
 - 4.3 Approaches to issues/problems are analysed to provide most effective solutions
 - 4.4 Quality of work is monitored in accordance with workplace procedures and relevant industry standards
- 5 Report network management activities**
 - 5.1 Finalised project charter documentation is written and forwarded to relevant person/s in accordance with

workplace procedures

- 5.2** Network service records are maintained in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEENEED114A Design and manage enterprise computer networks.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>