



Australian Government

Assessment Requirements for 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.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- analysing business requirements
- analysing technical requirements
- analysing resources, services, network infrastructure, protocols and hosts, transmission control protocol and internet protocol (IP) hardware, planned upgrades, support and network and systems management
- applying alternative network infrastructures and technologies to network design
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including the use of risk control measures
- designing a network in accordance with design specifications and relevant industry standards
- diagnosing and rectifying the cause of network malfunctions
- documenting justification for network solutions
- evaluating and documenting client access, end-user needs and usage patterns, and disaster recovery requirements
- implementing and managing an enterprise network
- implementing network design
- obtaining and incorporating risk management strategies
- obtaining approval for network design specification
- presenting network specification
- reporting network management activities
- configuring of user and group objects, groups configuring accounts via a directory service, searching for objects, use of templates for creating user accounts and resetting accounts
- installing and configuring domain name system (DNS) servers, and creating and configuring DNS zones and records
- installing and configuring dynamic host configuration protocol (DHCP), managing and maintaining DHCP, implementing and maintaining IP address management
- implementing network connectivity solutions, implementing network address translation (NAT) and configuring routing
- implementing network policy server and configuring a RADIUS server, including RADIUS proxy
- implementing IPv4 and IPv6 addressing and implementing distributed file system

- implementing high performance network solutions
- determining scenarios and requirements for implementing software-defined networking (SDN).

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- design network considering company size, user and resource distribution, various site connectivity, bandwidth, service performance, availability and scalability, data and system access patterns, network roles and responsibilities and security considerations
- design and management of DHCP
- design and management of DNS
- design of network connectivity and remote access solutions
- design of core and distributed network solutions
- design of an advanced network infrastructure design and manage business continuity and data availability
- design and manage identity management components
- plan for network and application services
- problem-solving techniques
- relevant business requirements
- relevant manufacturer specifications and operating instructions
- relevant network diagnostic tools
- relevant network infrastructures
- relevant risk management strategies
- relevant technical requirements
- relevant WHS/OHS legislated requirements
- relevant workplace documentation, including network design proposal
- relevant workplace instructions, quality, policies and procedures.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to design and management of enterprise computer networks
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

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