



Australian Government

Assessment Requirements for UEECS0007 Design and implement network systems for internetworking

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, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (WHS/OHS) requirements
- arranging work team/group of relevant persons
- dealing with unplanned events
- designing internetworking system based on economic and effective solutions that meet design brief requirements
- designing internetworking system with economical design solutions
- detailing switching, routing and wide area network (WAN) technologies and specification for internetworking media in the design
- developing an internetworking system design brief
- documenting and presenting design for approval
- documenting internetworking installation and configuration activities
- identifying and rectifying system malfunctions and performance issues
- implementing strategies to ensure network development
- implementing internetworking system design, including advanced wireless local area network (LAN) technologies in internetworking system design
- monitoring quality of work
- negotiating alterations to internetworking system design
- planning work activities, including requirements for work team/group
- preparing to design internetworking systems
- presenting and discussing internetworking system design with relevant person/s
- troubleshooting internetworking system
- acquiring media for internetworking system design specification
- selecting relevant development tools and software.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of

the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- access lists configuration
- configure dynamic host configuration protocol (DHCP) service
- configure inter-virtual local area network (VLAN) routing
- configure spanning tree protocol
- configure VLAN trunking protocol
- design report presentation
- interior gateway protocol (IGP) configuration
- LAN design
- network performance assessment
- network security and risk management
- problem solving techniques
- relevant industry standards
- relevant manufacturer specifications
- relevant media
- relevant job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements
- relevant workplace budget, instructions, quality, policies and procedures
- relevant workplace documentation
- switch configuration
- VLAN configuration
- VLAN design
- WAN design
- WAN management and security
- WAN protocols
- WAN technologies
- wireless LAN configuration
- troubleshoot multi-VLAN issues
- layer 3 switching
- link aggregation and router redundancy
- dynamic routing
- interior gateway protocol (IGP) tuning and troubleshooting
- WAN monitoring
- quality of service
- network evolution
- network troubleshooting
- emerging technologies.

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 designing and implementing internetworking systems
- 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>