



Australian Government

UEECS0006 Design and implement multi-layer switching for internetworking systems

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 implement multi-layer switching for internetworking systems.

It includes working safely, applying design principles, complying with relevant industry standards, incorporating advanced multi-layer switching technologies access, documenting design and monitoring performance.

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 Prepare to design internetworking systems

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

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| | 1.2 | Scope of design brief for advanced multi-layer switching technologies is developed and documented in accordance with workplace procedures and in consultation with relevant person/s |
| | 1.3 | Work team/group is arranged of relevant persons in accordance with design brief and workplace procedures |
| | 1.4 | Activities are planned in accordance with workplace procedures for timelines and in consultation with others involved |
| | 1.5 | Strategies are implemented to ensure network development is in accordance with design brief and workplace procedures |
| 2 | Design internetworking systems | |
| | 2.1 | Internetworking system is designed with economical design solutions in accordance with design brief, relevant industry standards and workplace procedures |
| | 2.2 | Advanced multi-layer switching technologies are included in internetworking system design in accordance with relevant industry standards and workplace procedures |
| | 2.3 | Internetworking system design specification of required media is in accordance with relevant industry standards |
| | 2.4 | Internetworking system design is documented in accordance with workplace procedures |
| | 2.5 | Internetworking system design is presented and discussed with relevant person/s in accordance with workplace procedures |
| | 2.6 | Alterations to the internetworking system design resulting from the presentation/discussion are negotiated with relevant person/s in accordance with workplace procedures |
| | 2.7 | Final internetworking system design is documented and approval obtained from relevant person/s in accordance with workplace procedures |
| 3 | Implement internetworking systems | |
| | 3.1 | Activities are planned in accordance with workplace procedures for timelines and in consultation with others involved |
| | 3.2 | Relevant development tools and software are selected in |

accordance with design brief and relevant industry standards

- 3.3 Advance routing technologies are installed, configured and tested in accordance with design brief and relevant industry standards
- 3.4 System malfunctions are identified and rectified using techniques in accordance with workplace procedures and relevant industry standards
- 3.5 Unplanned events are analysed to provide solutions in accordance with workplace procedures
- 3.6 Quality of work is monitored in accordance with workplace procedures and relevant industry standards
- 3.7 Final internetworking system design and implementation are documented in accordance 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.

Designing and implementing advanced configuration of multi-layer switching in an internetworking system must include at least the following:

- between two local area networks (LANs) to form a wide area network (WAN) or
- between a LAN and the internet

Unit Mapping Information

This unit replaces and is equivalent to UEENEED121A Design and implement multi-layer switching for Internetworking systems.

Links

Companion Volume implementation guides are found in VETNet - -

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