



Australian Government

UEEDV0009 Select and arrange data and voice equipment for local area networks

Release: 1

UEEDV0009 Select and arrange data and voice equipment for local area networks

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 select and arrange data and voice equipment for local area networks (LANs).

It includes selecting compliant equipment, arranging locations of equipment and cable routes, applying solutions based on calculated measures and completing network documentation.

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

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

UEECD0019 Fabricate, assemble and dismantle utilities industry components

UEECD0020 Fix and secure electrotechnology equipment

UEECD0051 Use drawings, diagrams, schedules, standards, codes and specifications

UEEDV0005 Install and maintain cabling for multiple access to telecommunication services

UEEDV0008 Install, modify and verify coaxial and structured communication copper cabling

UEEDV0006 Install and modify optical fibre performance data communication cabling

and

UEECD0043 Solve problems in direct current circuits

or

UEECD0044 Solve problems in multiple path circuits

UEECD0046 Solve problems in single path circuits

Competency Field

Data and Voice

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to select equipment

2 Arrange locations of equipment and cable routes

3 Select cables and equipment

PERFORMANCE CRITERIA

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

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|------------|--|
| 1.1 | Scope of work communications network is determined from documentation and/or discussions with relevant person/s |
| 1.2 | Work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures for the communications network area are identified, obtained and applied |
| 2.1 | Location of equipment is arranged in accordance with job specifications and relevant industry standards |
| 2.2 | Cable routes are planned to ensure maximum lengths in accordance with relevant industry standards and manufacturer specifications |
| 2.3 | Cable routes are planned in accordance with job specifications and relevant industry standards |
| 2.4 | Earthing is arranged in accordance with job specifications and relevant industry standards |
| 3.1 | Cable types are selected for the environment/s and performance requirements in accordance with job specifications and relevant industry standards |
| 3.2 | Cable sizes are selected for capacity and performance requirements in accordance with job specifications |
| 3.3 | Earthing components are selected for earthing requirements in accordance with job specifications and relevant industry standards |
| 3.4 | Network equipment is selected in accordance with WHS/OHS requirements and relevant industry standards |

	3.5	Electronic equipment types are selected for the environment/s and performance requirements in accordance with job specifications and relevant industry standards
4 Document communications network	4.1	Justifications for selections of cable and electronic equipment and relevant calculations are documented in accordance with workplace procedures
	4.2	Communications network arrangement and specifications for all selected items are documented in accordance with workplace procedures and forwarded to relevant person/s

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.

Selecting and arranging equipment for LANs, comprising a distribution frame, must include at least the following:

- two fibre outlets
- 20 sets of two data outlets
- one private automatic branch exchange customer access equipment (CAE)
- or Virtual PBX
- one server

Unit Mapping Information

This unit replaces and is equivalent to UEENEEF110A Select and arrange data and voice equipment for local area networks.

Links

Companion Volume implementation guides are found in VETNet - -

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

Assessment Requirements for UEEDV0009 Select and arrange data and voice equipment for local area networks

Modification History

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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, including using risk control measures
- arranging earthing in accordance with job specifications and relevant industry standards
- arranging locations of equipment and cable routes
- arranging network equipment
- documenting communications network
- documenting installation arrangements and specifications for items selected and reasons for the selections made
- documenting justifications for selections of cable and electronic equipment
- planning cable routes in accordance with job specifications and relevant industry standards
- preparing to select equipment
- selecting appropriate earthing components
- selecting cables and equipment
- selecting electronic equipment types
- selecting types and sizes of cables.

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:

- local area network (LAN) fundamentals
- performance of copper or fibre installation and termination
- customer switching system (CSS) customer access equipment (CAE)
- relevant manufacturer specifications
- relevant job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements
- relevant workplace documentation

- relevant workplace policies and procedures
- switches, hubs and routers.

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 selecting and arranging equipment for LANs
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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