Australian Government

Assessment Requirements for ICTTEN527 Plan wireless mesh networks

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 7.0.

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- plan at least two wireless mesh networks (WMN).

In the course of the above, the candidate must:

- evaluate and select wireless technology and mesh routing protocols
- prepare at least one report outlining WMN design solutions and recommendations for each planned WMN
- produce internet protocols (IP) addressing schemes.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- required legislation, codes, company work practices, regulations and standards, workplace health and safety (WHS) requirements for scoped work
- advantages and disadvantages of the following WMN components:
  - radiofrequency bands
  - wireless networking hardware, routers and gateways
  - IP
  - wireless and mesh-routing protocols
  - cable loss
- methods of determining and evaluating maximum line of sight distances
- functions and features of:
  - mesh nodes
  - links between mesh nodes
  - backbone links in mesh topology

- internet gateways
- wireless access points
- network routers
- access points
- antenna gain and polarisation
- IP addressing
- subnet masks
- network topologies
- network security
- firewalls
- decibels and required units
- required configuration schemes to secure networks
- calculations for effective isotropic radiated power (EIRP)
- transmission control protocol (TCP)-IP protocols
- workplace plans and reports.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- sites where planning a wireless mesh network may be conducted
- design criteria and other site-required documentation
- equipment specifications and technical documentation.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2