



Australian Government

Assessment Requirements for ICTNWK518

Design an enterprise wireless local area network

Release: 1

Assessment Requirements for ICTNWK518 Design an enterprise wireless local area network

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- assess wireless network performance requirements for the client
- measure and diagnose wireless working environment
- produce wireless models and network specifications appropriate to client requirements
- produce wireless network designs and component lists
- document the design and obtain client approval.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- identify and describe wireless network survey techniques, including:
 - audit and intrusion detection systems
 - auditing and penetration testing techniques
 - bandwidth and quality of service
 - factors affecting signal quality
- outline the key technical considerations for designing a wireless network, including:
 - features of antenna design
 - layer 2 and layer 3 design issues
 - impact of radio frequency
 - problems associated with topography and obstacles in radio transmission path
 - wireless topologies
 - wireless local area networks (WLAN) and wireless metropolitan access network (WMAN) solutions

- outline the key client organisation considerations when designing a wireless network, including:
 - small office home office (SOHO) and enterprise local area networks (LANs)
 - transmission control protocols or internet protocols (TCP/IP) and applications
 - wireless security strategies
 - security threats
- outline the software consideration when designing a wireless network, including:
 - network protocols and operating systems
 - security protocols, standards and data encryption.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the network industry, and include access to:

- network infrastructure, including wireless hardware and software
- network technical requirements
- real or simulated wireless networks
- appropriate diagnostic equipment and standards.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>