Assessment Requirements for ICTNWK561 Design enterprise wireless local area networks

Assessment Requirements for ICTNWK561 Design enterprise wireless local area networks

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:

- design at least two enterprise wireless local area networks.

In the course of the above, the candidate must:

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

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:

- wireless network survey techniques, including:
  - audit and intrusion detection systems
  - auditing and penetration testing techniques
  - bandwidth and quality of service
  - factors affecting signal quality
- 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
  - Wi-Fi access points
- key client organisation considerations when designing a wireless network, including:
  - small office home office (SOHO) and enterprise local area networks (LANs)
  - transmission control protocols and internet protocols (TCP/IP) and applications
  - wireless security strategies
  - security threats
- software considerations when designing wireless networks, including:
  - network protocols and operating systems
  - security protocols, standards and data encryption
- organisational requirements regarding:
  - discussing and documenting current and future network needs for clients
  - preparing implementation plans
  - presenting network designs to clients
- required legislation, codes, company work practices, regulations and standards, work health and safety (WHS) requirements for scoped work.

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:

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

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