



Australian Government

Assessment Requirements for ICTTEN512 Design and implement an enterprise voice over

Release: 1

Assessment Requirements for ICTTEN512 Design and implement an enterprise voice over IP network

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Performance Evidence

Evidence of ability to:

- design and implement infrastructure for enterprise voice over internet protocol (VoIP) and unified communications (UC) systems to meet business requirements using converged networks
- evaluate network traffic protocols and bandwidth considerations
- configure a UC network
- assess performance of convergent networks
- test and verify security access levels.

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:

- compare session initiation protocol (SIP), H.323 protocol and media gateway control protocol (MGCP) or media gateway control (Megaco)
- define latency, jitter and wander, and implement methods for reducing or eliminating them using jitter buffer, quality of service (QoS), traffic shaping and virtual local area networks (VLANs)
- describe the format of a SIP uniform resource identifier (URI)
- evaluate and implement SIP trunking to connect enterprise internet protocol (IP)-based communications systems over long distances
- identify common G.7xx codes and describe the impact of compression on voice quality
- define components of SIP
- examine functions of signalling protocols for converged networks
- summarise the following:
 - the client business domain, business function and organisation

- current and emerging industry accepted hardware and software products
- current and emerging transmission technologies and protocols
- networking technologies.

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 telecommunications networks engineering field of work and include access to:

- a live network
- networked computers
- network design documentation
- equipment specifications
- network components.

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 guides are found in VETNet -

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