



Australian Government

Assessment Requirements for ICTTEN609 Produce and evaluate architecture designs for convergent cellular mobile 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 2.0.

Performance Evidence

Evidence of ability to:

- provide a detailed summary of the client's business domain when designing network
- provide a detailed summary of current industry-accepted network hardware and software products and their general features and capabilities, when designing a general packet radio service (GPRS) (2.5G) and 3G network
- design viable GPRS (2.5G) and 3G network solutions to meet particular business needs
- research design features of 4G cellular networks.

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:

- outline general features and capabilities of current industry security products, devices and procedures
- provide detailed information regarding global system for mobile (GSM), GPRS (2.5G) and 3G network design
- provide a detailed summary of current industry-accepted cellular mobile network protocols
- summarise technical characteristics of GPRS systems including:
 - capability classes and multi-slot classes
 - coding schemes
 - data rates
 - management systems when evaluating roaming features
 - operating frequencies and modulation schemes

- remote user issues when establishing siting and types of antennas, terminals, processors, required protocols and GPRS (2.5G) and 3G network architecture, based on technical specifications and user requirements
- explain concepts of three or more current industry network development and design methodologies used when designing networks.

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 should be typical of those experienced in the telecommunications networks engineering field of work and include access to:

- cellular mobile network structures
- client requirements
- expected traffic volume
- information on a range of IT business solutions
- technical specifications
- vendors and vendor offerings and pricing.

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>