



Australian Government

Assessment Requirements for ICTRFN603 Monitor the capacity of and recommend changes to 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 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:

- monitor the capacity of at least two cellular mobile networks and recommend at least two changes.

In the course of the above, the candidate must:

- source and analyse data to prepare a plan indicating growth potential and recommendations for meeting growth goals
- use tools and software packages for forecasting and measurement
- identify site and channel capacity, required network growth and forecasting growth
- adhere to legislative and organisational procedures and requirements.

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:

- characteristics of traffic levels from network management systems
- features of enterprise plans
- functions and features of capacity trigger criteria
- coverage and cell parameters of cellular mobile networks
- types and features of transmission mediums and paths
- methods to calculate return on investment (ROI)
- blocking, non-blocking and grade of service
- features of Erlang B measurements
- features and operating requirements of required monitoring equipment
- methods to measure cell traffic capacity
- methods to:

- analyse and interpret statistical data as applied to teletraffic measurement
- prepare and conduct a capacity measurement
- required legislation, codes of practice and other formal agreements that directly impact radio communications site transmission
- functions and features of:
 - transmission lines
 - transmitter and receiver architecture and their impact on radio communications traffic
- switching architecture with specific reference to space and time switching
- types of adjustments required to meet the standards of particular sites and environmental conditions
- typical challenges that occur in telecommunications cellular capacity design and how they are addressed.

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 with cellular mobile network
- capacity monitoring data and equipment.

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>