



Australian Government

ICTPMG804 Evaluate and use telecommunications management networks

Release: 1

ICTPMG804 Evaluate and use telecommunications management networks

Modification History

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

Application

This unit describes the skills and knowledge required to analyse, evaluate and monitor business performance using telecommunications management network (TMN) systems in the management of open systems in communications networks.

It applies to individuals who have a very high level of technical management skills and knowledge in telecommunications networks and systems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications – project management

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to evaluate and use telecommunications management network	1.1 Research and evaluate network management architectures in common carrier and extended models 1.2 Evaluate features and functionality of Standards Committee International Telecommunications Union (ITU-T) TMN architecture and network models 1.3 Research and evaluate techniques for collecting management information from network nodes using interrupts and polling 1.4 Analyse configuration management problems and produce assessment report on solutions by integrated network

	management systems
2. Analyse fault management and accountability procedures	2.1 Evaluate effectiveness of fault management processes from beginning to resolution, including automation of fault management 2.2 Analyse reasons for alarm correlation with process analysis and apply fault identification to network problems
3. Plan for reliability and survivability	3.1 Research and produce a report on quality of service (QoS) in a telecommunications context, including relevant international standards and range and type of possible monitoring parameters for QoS 3.2 Analyse reasons for service levels in telecommunications context 3.3 Perform linear and exponential trend analysis on real or simulated data for single monitoring parameter 3.4 Research and assess reliability and survivability in telecommunications context with reference to disaster and security management policies and procedures 3.5 Develop disaster recovery plan for telecommunications network
4. Research and report network management techniques	4.1 Research how accounting records are generated and used for both voice and data networks 4.2 Analyse process of generating bills from accounting records, configuration and client information 4.3 Research and report on network management techniques and standards used for internet 4.4 Research and report on standards used in simple network management protocol (SNMP) network management model and global system for mobiles (GSM) network 4.5 Analyse network management functions over CNET network simulation or similar data network and produce report on findings

Foundation Skills

This section describes the Foundation Skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
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Reading	1.1-1.3, 3.1, 3.4, 4.1, 4.3-4.5	- Analyses and interprets text to determine key information and applications - Interprets textual and numerical information in a variety of forms, and applies the knowledge gained to evaluate methodologies
Writing	1.2-1.4, 2.1, 2.2, 3.1-3.5, 4.2-4.5	- Produces accurate technical documents for a specific audience using clear and detailed language and visuals to convey explicit information - Prepares information that incorporates evaluation of information and specialised and cohesive language in a format and style appropriate for a specific audience
Oral Communication	3.1, 4.3, 4.4	Clearly articulates information using relevant language and persuasive techniques suitable for specific audiences
Numeracy	3.3, 4.1, 4.2	Applies mathematical techniques to analyse and report on technical requirements and implications
Get the work done	1.1-1.4, 2.1, 2.2, 3.1-3.5, 4.1-4.5	- Gathers and analyses data and seeks feedback to improve plans and processes - Makes high impact decisions in a complex and diverse environment, using input from a range of sources - Identifies key factors that impact on decisions and their outcomes, drawing on experience, competing priorities and decision making strategies where appropriate - Explores and incubates new and innovative ideas through unconstrained analysis and critical thinking - Uses digital technologies to manage business operations and actively investigates new technologies for strategic and operational purposes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPMG804 Evaluate and use telecommunications management networks	ICTPMG8149B Evaluate and use telecommunications management networks	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTPMG804 Evaluate and use telecommunications management networks

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Performance Evidence

Evidence of the ability to:

- research and evaluate the architectural features and functions of network management systems
- research and report on the following:
 - the major features, configuration and functions of management systems
 - fault management and accountability procedures
 - the major features and functions of quality of service (QoS) agreements
 - network management techniques
- analyse the major features of planning for reliability and survivability.

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:

- evaluate administrative network management systems
- review business models and business processes used in telecommunications management networks
- investigate enterprise solutions for a given situation
- evaluate operations network management systems
- determine organisational policies and procedures that relate to management systems
- evaluate the impact of the workplace and industry environment on the use of a telecommunications management system.

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 – project management field of work and include access to:

- a telecommunications operations site with a network management system
- networked computers with relevant software.

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 -

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