



Australian Government

ICTTEN606 Manage a common channel signalling network

Release: 1

ICTTEN606 Manage a common channel signalling network

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 combine technical and organisational assistance to provide signalling facilities to interconnect telecommunications over trunked networks.

It applies to individuals who may be responsible for small projects or parts of larger projects to provide a reliable service to customers and who work as technical officers or engineers for private and public organisations.

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

Unit Sector

Telecommunications – Telecommunications Networks Engineering

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Analyse signalling and digital path alarms and clear network faults	1.1 Obtain relevant legislation, codes, regulations and standards to prepare for the task 1.2 Activate alarm management system to produce a trouble report and verify common channel signalling (CCS) and data faults or problems 1.3 Investigate cause of alarm and analyse results to determine appropriate repair action and allocate resources 1.4 Monitor repair and restoration procedures to ensure commitment to specified timelines and initiate escalation procedures as

ELEMENT	PERFORMANCE CRITERIA
	appropriate and according to enterprise procedures 1.5 Reset alarms on completion of repair and monitor subsequent alarms to ensure no re-occurrence of the problem
2. Monitor integrity of data received on equipment ports	2.1 Activate alarm screens and monitor port times on a regular basis to ensure procedures are running 2.2 Clear port blockage and problems on completion of planned works and log in appropriate database 2.3 Monitor repair and restoration procedures to ensure commitment to specified timelines and initiate escalation procedures as appropriate and according to enterprise procedures
3. Monitor and acceptance test repair	3.1 Verify network stabilisation throughout repair and monitor repair action to ensure minimal impact on the overall network 3.2 Undertake acceptance testing according to prescribed operating procedures 3.3 Monitor network stability on completion and refer problems to appropriate area for action 3.4 Block alarms for out-of-service circuits
4. Coordinate CCS relationships	4.1 Log requests for relationship change and follow up problems with appropriate support staff 4.2 Monitor network stability and manage loading of data until the process is completed 4.3 Update models and enterprise systems
5. Coordinate CCS rearrangements	5.1 Log requests for rearrangement scenarios and verify feasibility of the rearrangement 5.2 Enter details of rearrangement in appropriate system and update system records 5.3 Monitor completed work for accuracy and network stability on completion 5.4 Produce a copy of documentation for future reference

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.2, 1.4, 2.3, 3.2	Organises, evaluates and interprets information from equipment and system manuals, specifications and relevant enterprise documentation
Writing	2.2, 4.1, 5.1, 5.2	Prepares clear and concise workplace documentation, including reports and recommendations, incorporating technical language to communicate complex information clearly and effectively
Numeracy	1.2, 1.3	Extracts and evaluates mathematical data embedded in a range of technical information
Navigate the world of work	1.5, 2.3	Considers and adheres to organisational procedures and protocols and legal and regulatory responsibilities when planning and undertaking work
Interact with others	3.3, 4.1	Selects and uses appropriate conventions and protocols when communicating with personnel in a range of work contexts
Get the work done	1.1-1.5, 2.1, 2.2, 3.1-3.4, 4.2, 4.3, 5.3, 5.4	- Sequences and schedules complex activities, monitors implementation and manages relevant communication - Uses analytical processes to decide on a course of action, establishing criteria for deciding between options and seeking input and advice from others, if necessary - Uses formal processes to monitor implementation of solutions and reflect on outcomes - Uses digital systems and tools to enter, store and analyse data

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN606 Manage a common channel signalling network	ICTTEN6047A Manage a common channel signalling network	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 ICTTEN606 Manage a common channel signalling network

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Performance Evidence

Evidence of ability to:

- identify and implement repair action within service assurance guidelines
- analyse and interpret alarms including common channel signalling (CCS) and digital path
- apply enterprise fault management priorities and escalation procedures
- resolve problems in a methodical and logical manner
- conduct appropriate tests and interpret results.

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:

- explain acceptance tests
- summarise alarm set-ups
- explain principles of the following aspects of common channel signalling (CCS):
 - architecture
 - protocols
 - signalling
 - testing
- describe CCS data and signalling pathways
- explain repair and restoration procedures
- outline switching network equipment operation.

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:

- a site with CCS network
- tests and equipment currently used in industry
- relevant legislation, codes, regulations and standards.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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