



Australian Government

ICTTEN617 Manage common channel signalling networks

Release: 1

ICTTEN617 Manage common channel signalling networks

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 7.0.

Application

This unit describes the skills and knowledge required to combine technical and organisational assistance to provide signalling facilities to interconnect 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 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 work details and scope from relevant personnel and arrange for site access in compliance with required security arrangements, legislation, codes, regulations and standards 1.2 Activate alarm management system, produce a trouble report and verify common channel signalling (CCS) and data faults 1.3 Investigate cause of alarm, analyse results, determine required repair action and allocate resources according to organisational requirements 1.4 Monitor repair and restoration procedures and confirm commitment to specified timelines 1.5 Initiate escalation procedures according to enterprise procedures 1.6 Reset alarms on completion of repair and monitor subsequent

ELEMENT	PERFORMANCE CRITERIA
	alarms to confirm 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 confirm procedures are running 2.2 Clear port blockage and problems on completion of planned works and log in required database 2.3 Monitor repair and restoration procedures to confirm commitment to specified timelines and initiate escalation procedures as required and according to enterprise procedures
3. Monitor and acceptance test repair	3.1 Verify network stabilisation throughout repair and monitor repair action and confirm minimal impact on the network 3.2 Conduct acceptance testing according to prescribed operating procedures 3.3 Monitor network stability on completion and refer problems to required 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 required 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 required 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 those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	Extracts and evaluates mathematical data embedded in a range of technical information
Reading	Organises, evaluates and interprets information from equipment and system manuals, specifications and relevant enterprise documentation

SKILL	DESCRIPTION
Writing	• Prepares workplace documentation, including reports and recommendations, incorporating technical language to communicate complex information clearly and effectively
Teamwork	• Selects and uses relevant conventions and protocols when communicating with personnel in a range of work contexts
Planning and organising	• Sequences and schedules complex activities, monitors implementation and manages required communication
Problem solving	• 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
Self-management	• Considers and adheres to organisational procedures and protocols and legal and regulatory responsibilities when planning and undertaking work
Technology	• Uses digital systems and tools to enter, store and analyse data

Unit Mapping Information

Supersedes and is equivalent to ICTTEN606 Manage a common channel signalling network.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for ICTTEN617 Manage common channel signalling networks

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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:

- manage at least two common channel signalling networks.

In the course of the above, the candidate must:

- identify and implement repair actions 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 required tests and interpret results.

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:

- required legislation, codes, company work practices, regulations and standards, workplace health and safety (WHS) requirements for scoped work
- functions and features of:
 - alarm management systems
 - trouble reports
 - data faults
 - network repair and restoration procedures
 - acceptance tests
 - CCS data and signalling pathways
- system monitoring alerts and alarm set-ups
- principles of the following aspects of CCS:
 - architecture

- protocols
- signalling
- testing
- repair and restoration procedures
- switching network equipment operation
- workplace documentation.

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:

- a site with CCS network
- tests and equipment currently used in industry
- required 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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