



Australian Government

ICTTEN313 Work on and resolve recurrent network faults

Release: 1

ICTTEN313 Work on and resolve recurrent network faults

Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to use systematic and logical fault-finding techniques according to all safety requirements and work practices.

It applies to cablers and technicians who install and maintain a broad range of telecommunications networks.

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

Unit Sector

Telecommunications – Telecommunications Network 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. Prepare for fault-finding activity	1.1 Prepare for given work according to work health and safety (WHS) and environmental requirements 1.2 Arrange access to site according to required procedure 1.3 Locate existing and potential site hazards and take appropriate action as required 1.4 Gain required information on nature of recurrent fault and network type 1.5 Select appropriate hand and power tools for work to be performed according to industry standards 1.6 Set-up and check tools for use according to industry standards

ELEMENT	PERFORMANCE CRITERIA
2. Conduct activities for recurrent network fault-finding	2.1 Source and analyse fault information to establish nature of fault 2.2 Select test equipment and conduct appropriate test to identify potential faults ensuring the diagnostic process does not compromise integrity of network element or system 2.3 Evaluate test results to determine relevant symptoms of recurrent fault using appropriate methods and appropriate process 2.4 Locate probable cause, type and location of recurrent fault 2.5 Rectify fault or escalate to appropriate level as required
3. Report fault-findings and solutions	3.1 Prepare report on the diagnostic procedure, fault identification and fault clearance, according to industry standards 3.2 Update fault records database 3.3 Restore worksite according to industry standards 3.4 Notify relevant parties of job completion and obtain sign-off

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
Reading	Recognises and interprets technical documentation to determine important information
Writing	Uses clear, specific and industry-related terminology to develop basic reports and in all written tasks
Oral Communication	- Liaises with customers about technical requirements using specific and relevant language - Uses listening and questioning techniques to confirm understanding
Numeracy	Evaluates and reviews technical data for specifications
Navigate the world of work	- Appreciates implications of legal and regulatory responsibilities related to own role - Seeks advice about expectations when preparing for work
Get the work done	- Determines job priorities and works logically and systematically to undertake clearly defined and familiar tasks - Implements actions according to established procedures, making slight adjustments if necessary and addressing some unexpected issues

Skill	Description
	• Takes responsibility for routine decision-making by selecting from a range of predetermined options in routine situations, identifying and taking some situational factors into account • Diagnoses and implements standard solutions to for an increasing number of routine problems, seeking assistance from more experienced colleagues when required • Understands purposes and specific functions of common digital systems and uses them effectively to complete routine tasks

Unit Mapping Information

ICTTEN313 Work on and resolve recurrent network faults supersedes and is equivalent to ICTTEN303 Locate, identify and rectify recurrent network faults.

Links

Companion Volume Implementation Guides are available from VETNet -

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

Assessment Requirements for ICTTEN313 Work on and resolve recurrent network faults

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Performance Evidence

The candidate must demonstrate the ability to perform the tasks outlined in the elements, performance criteria, and foundation skills, and to:

- discuss faults with customers and co-workers
- test telecommunications networks to identify faults
- identify and rectify recurrent faults
- conduct and report on a fault-finding task in a telecommunications network for a range of faults
- use systematic and logical fault-finding techniques in telecommunications networks and field-testing procedures according to specific workplace situations
- comply with all work health and safety (WHS) and environmental requirements and work practices.

Note: Evidence must be provided at least once when a specific volume or frequency is not stated.

Knowledge Evidence

The candidate must demonstrate the knowledge required to perform the tasks outlined in the elements, performance criteria, and foundation skills, which includes knowledge about:

- relevant legislation, regulations, codes, standards, enterprise guidelines, formal agreements and contracts that impact on the work activity in particular:
 - WHS requirements and environmental procedures relating to the activity and site conditions
- Ohm's law, impedance and reactance formulas to solve alternating current (AC) electrical problems when diagnosing faults
- behaviour of faulty network elements including symptoms and impact on network
- test results and network element/system specifications
- operation and purpose of testing equipment

- summary of telecommunications networks
- performance testing and fault-finding techniques of telecommunications networks
- systematic and logical fault-finding
- types of power sources used in telecommunications networks
- managing faults on special services (such as police stations, hospitals, customers with heart monitors).

Assessment Conditions

Skills must be assessed in a workplace or simulated environment where conditions are typical of those in a telecommunications work environment or workplace.

Access is required to:

- site/s on which network testing and fault-finding can be conducted
- line transmission, optical and radio measurement equipment currently used in industry
- system documentation, and other site-related documentation necessary to conduct tests and fault-finding investigations.

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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