



Australian Government

ICTTEN414 Repair telecommunication system faults

Release: 1

ICTTEN414 Repair telecommunication system faults

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 examine a customer report or a maintenance schedule, and diagnose faults which may be in optical, computer, radio, satellite, security or radio frequency identification (RFID) systems found in customer and service provider access networks.

It applies to individuals working as field officers, technicians or technical supervisors from carriers, contractors or other service providers.

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. Prepare for equipment repairs	1.1 Obtain relevant legislation, codes, regulations and compliance standards for conducting work 1.2 Identify hazards, make worksite safe according to relevant safety legislation and company work practices and use personal protective equipment 1.3 Notify customer and other appropriate personnel of work, and arrange for site access and security where required 1.4 Obtain fault details to determine type of system fault 1.5 Determine the type of repair required according to enterprise

ELEMENT	PERFORMANCE CRITERIA
	guidelines, site requirements and type of equipment, and arrange for additional technical support as appropriate 1.6 Confirm if warranties and service agreements covering identified repairs exist 1.7 Obtain tools and necessary hardware and ensure replacement parts and material is delivered to the worksite at the required time
2. Repair fault	2.1 Follow work health and safety (WHS) and environmental requirements when carrying out repair or replacement tasks 2.2 Notify appropriate personnel of service disruption and remove network equipment from service 2.3 Diagnose the fault and carry out repair work on equipment according to manufacturer's or enterprise procedures 2.4 Test equipment to manufacturer's specifications following repairs and return to live operation for testing overall performance
3. Complete repair work documentation and administrative tasks	3.1 Notify customer and other appropriate personnel of completion of repair work according to enterprise guidelines 3.2 Record any changes to equipment and store according to enterprise guidelines 3.3 Dispose of waste and debris from worksite according to environmental requirements and enterprise guidelines 3.4 Complete administrative tasks and make recommendations for improvements under quality assurance system

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	1.5, 1.6, 2.3, 3.1, 3.3, 3.4	Recognises and interprets complex technical documentation and standards to determine job requirements
Writing	1.3, 2.2, 3.1, 3.2, 3.4	Uses clear, specific and industry-related terminology to produce and update workplace documentation
Oral	1.3, 2.2, 3.1	Provides information using language appropriate to audience and context

Communication		Uses well-developed listening and questioning techniques to confirm understanding
Numeracy	1.5	Uses mathematical formulae to interpret numerical data including equipment specifications
Navigate the world of work	1.2, 2.1, 3.3	Takes personal responsibility for adherence to legal and regulatory responsibilities relevant to own work context
Interact with others	1.3, 2.2, 3.1	Selects and uses appropriate conventions and protocols when communicating with customers and technical staff in a range of work contexts
Get the work done	1.1, 1.3-1.5, 1.7, 2.3, 2.4	- Understands key principles and concepts underpinning design and operation of digital systems and tools, and applies these when troubleshooting existing technology - Works logically and systematically to monitor, analyse and action job priorities - Implements actions according to a predetermined plan, making adjustments if necessary - Makes decisions quickly and intuitively in familiar situations requiring immediate attention, drawing on past experience to identify key variables and determine the best course of action - Initiates standard procedures when responding to familiar problems within immediate context

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN414 Repair telecommunication system faults	ICTTEN4102A Repair telecommunication system faults	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 ICTTEN414 Repair telecommunication system faults

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Performance Evidence

Evidence of ability to:

- communicate effectively with customers and other personnel, using appropriate technical and non-technical language to ensure understanding
- diagnose and identify faults methodically, using fault history and recognition of likely causes
- repair telecommunication equipment according to manufacturer's or enterprise procedures, applying related work health and safety (WHS) requirements and work practices
- test equipment following repairs and put back into commission
- communicate with personnel and customers during and upon completion of works.

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:

- describe anti-static procedures required to protect equipment under repair
- outline enterprise policies and procedures
- summarise fault diagnosis techniques
- describe general fault-finding techniques and test equipment
- outline work health and safety (WHS) requirements and work practices
- identify commonly used and emerging products
- explain safety requirements and standards
- summarise telecommunications network and equipment fault types and rectification
- describe telecommunications network and equipment types
- provide a detailed explanation of test equipment.

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:

- sites on which diagnosis and repair of communication equipment may be conducted
- test equipment currently used in industry
- manufacturer's technical documentation.

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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