



Australian Government

ICTTEN505 Commission telecommunications network equipment

Release: 1

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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 check plans, obtain and properly handle equipment and supplies, undertake tests, and complete administrative tasks.

It applies to individuals working as field officers, technicians or technical supervisors for 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 commissioning procedures	1.1 Prepare for work following work health and safety (WHS) requirements 1.2 Organise resources based on existing and potential site hazards 1.3 Contact network operations personnel for site access and network specifications 1.4 Determine the type and complexity of the network equipment from specifications 1.5 Establish commissioning dates and confirm with all parties 1.6 Determine commissioning parameters according to specification, and establish planned outage if required

ELEMENT	PERFORMANCE CRITERIA
	1.7 Obtain test equipment and check for suitability and accuracy 1.8 Produce a preliminary commissioning plan according to manufacturer's instructions and company guidelines for discussion with the customer 1.9 Inform affected customers of impending action and likely timing and impact by the work
2. Organise planned outages if necessary	2.1 Negotiate outage times with appropriate groups and affected customers to minimise any disruptions 2.2 Develop contingency plans if required and arrange for emergency communications 2.3 Notify alarm management centre of action planned 2.4 Obtain authority to proceed from relevant control centre and notify customers affected by the outage
3. Complete installation procedures of network equipment	3.1 Install applications programmes and management data according to specification to complete installation procedures 3.2 Complete all hardware connections according to commissioning instructions 3.3 Undertake all specified performance tests to ensure operation meets all prescribed parameters and specifications as detailed in the original design brief 3.4 Undertake tests to verify compatibility between the hardware and software 3.5 Correct performance defects or bring to the attention of designers for corrective action
4. Complete commissioning procedures with network management	4.1 Test alarms in conjunction with network management and operational groups to maintain network integrity 4.2 Simulate traffic tests through the new installation to emulate a live network 4.3 Test installed specific equipment features and operations administration maintenance system according to instructions 4.4 Diagnose, repair or escalate faults detected to the appropriate area when fault cannot be clearly diagnosed or repaired 4.5 Initiate vendor-related tests where required
5. Finalise commissioning tasks	5.1 Complete administrative tasks as required by enterprise 5.2 Undertake operational staff training where required 5.3 Restore site to customer's satisfaction

ELEMENT	PERFORMANCE CRITERIA
	5.4 Notify customer and obtain sign-off

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
Learning	5.2	Accepts new learning challenges, undertaking further training when required to contribute to ongoing organisational improvement
Reading	1.1, 1.4, 1.6, 1.8, 3.1-3.3, 4.3	Identifies, analyses and evaluates information to determine regulatory and technical requirements to assist with project planning
Writing	1.3, 1.5, 1.8, 1.9, 2.1-2.4, 5.1	Prepares written reports and workplace documentation that communicates complex information clearly and effectively
Oral Communication	1.3, 1.5, 1.9, 2.1-2.4	- Liaises with appropriate technical personnel and customers to ensure requirements are properly understood - Employs listening and questioning techniques to confirm understanding
Numeracy	3.3, 3.4, 4.1, 4.3	Uses mathematical formulae to make calculations and interpret test equipment settings and readings
Navigate the world of work	1.1	Keeps up-to-date with relevant legislation and considers implications of this when planning work, with specific reference to safety
Interact with others	2.4, 5.4	Selects and uses communication conventions and protocols to suit purpose and audience
Get the work done	1.2, 1.4, 1.5, 1.7, 2.2, 3.1- 3.5, 4.1, 4.2-4.5, 5.1, 5.3	- Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context to identify relevant information, test strategies and resources - Understands key principles and concepts underpinning design and operation of digital systems and tools and applies these as required - 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 • Uses analytical processes to decide on a course of action, establishing criteria for deciding between options and seeking input and advice from others before taking action when necessary
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Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN505 Commission telecommunication s network equipment	ICTTEN5059A Commission telecommunication s network equipment	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 ICTTEN505 Commission telecommunications network equipment

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Performance Evidence

Evidence of ability to:

- interact with enterprise personnel, customers and other contractors, keeping a customer focus and consideration of customer needs
- produce an outage management plan and contingency plan
- negotiate network activity and timing of commissioning
- commission networking equipment to plan or specification
- implement test plan, and interpret and analyse results against expected outcomes
- test alarms and alarm regime
- analyse faults, problems and anomalies and provide solutions
- comply with all related work health and safety (WHS) requirements and work practices.

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:

- outline electrical and/or optical properties to be measured
- evaluate a range of networking equipment and their operation
- consider legislation and licensing that govern installation of telecommunications equipment
- define spectrum allocation
- outline network operation procedures
- summarise power requirements and electrical safety
- describe transmission types and signals that may be encountered in telecommunications networks
- summarise the various tests and test equipment required for commissioning.

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 installation and commissioning procedures can be conducted
- relevant regulatory and equipment documentation impacting commissioning
- testing equipment currently used in industry.

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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