



Australian Government

ICTTEN520 Commission network equipment

Release: 1

ICTTEN520 Commission network equipment

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 commission network equipment by creating check plans, obtain and properly handling equipment and supplies, conduct tests, and complete administrative tasks.

It applies to individuals working as field officers, technicians and technical supervisors for carriers, contractors and other telecommunications network service providers.

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. Prepare to commission network equipment	1.1 Obtain network specifications from relevant personnel and arrange for site access in compliance with required security arrangements, legislation, codes, regulations and standards 1.2 Identify existing site hazards and organise required resources 1.3 Determine the type and complexity of required network equipment 1.4 Establish equipment commissioning dates, change management processes and policies, and confirm with all relevant personnel and stakeholders 1.5 Determine commissioning parameters according to specification, and establish planned outages 1.6 Obtain test equipment and check for suitability and accuracy

ELEMENT	PERFORMANCE CRITERIA
	1.7 Produce a preliminary commissioning plan according to manufacturer instructions and company guidelines 1.8 Inform affected customers of impending actions, likely timing and impact of the work
2. Organise required planned outages	2.1 Negotiate outage times with relevant personnel and affected customers and minimise disruptions 2.2 Develop required contingency plans and arrange for emergency communications 2.3 Notify relevant personnel of planned action 2.4 Obtain authority to proceed from relevant personnel and notify customers affected by the outage according to organisational procedures
3. Complete installation procedures of network equipment	3.1 Install applications programmes and management data according to specifications and complete installation procedures 3.2 Complete all hardware connections according to commissioning instructions 3.3 Conduct all specified performance tests and confirm operation meets all prescribed parameters and specifications detailed in the original network specifications 3.4 Verify and test compatibility between hardware and software 3.5 Correct performance defects and notify relevant personnel of corrective action
4. Complete commissioning procedures	4.1 Test system monitoring alerts and alarms in conjunction with network management and operational groups 4.2 Test installed specific equipment features and operations administration maintenance system according to instructions 4.3 Diagnose, repair and escalate faults detected to the required area when fault cannot be clearly diagnosed or repaired 4.4 Initiate vendor-required tests, where required
5. Finish commissioning network equipment	5.1 Complete administrative tasks as required by enterprise 5.2 Conduct operational staff training where required 5.3 Restore site to customers satisfaction 5.4 Notify customer and obtain required 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
Numeracy	• Uses mathematical formulae to make calculations and interpret test equipment settings and readings
Oral communication	• Liaises with required technical personnel and customers to confirm requirements are properly understood • Employs listening and questioning techniques to confirm understanding
Reading	• Identifies, analyses and evaluates information to determine regulatory and technical requirements to assist with project planning
Writing	• Prepares written reports and workplace documentation that communicates complex information clearly and effectively
Teamwork	• Selects and uses communication conventions and protocols to suit purpose and audience
Planning and organising	• Uses a combination of formal, logical planning processes to identify required information, test strategies and resources • Makes decisions in familiar situations requiring immediate attention, drawing on past experience to identify key variables and determine the best course of action
Technology	• Understands key principles and concepts underpinning design and operation of digital systems and tools and applies these as required

Unit Mapping Information

Supersedes and is equivalent to ICTTEN505 Commission telecommunications network equipment.

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 ICTTEN520 Commission network equipment

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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:

- commission at least three different types of network equipment.

In the course of the above, the candidate must:

- interact with enterprise personnel, customers and other contractors, keeping a customer focus and consideration of customer needs
- produce at least one outage management plan and at least one contingency plan
- negotiate network activity and timing of commissioning
- commission networking equipment according to specifications
- implement test plan, interpret and analyse results against expected outcomes
- test system monitoring alerts and alarms
- analyse faults, problems and anomalies and provide solutions
- comply with all required workplace health and safety (WHS) requirements and work practices.

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, WHS requirements for scoped work
- functions and features of:
 - preliminary commissioning plans
 - outage management plans
 - contingency plans
- electrical and optical properties
- operating functions and features of networking equipment

- functions and features of power requirements and electrical safety
- transmission types and signals that are encountered in networks
- tests and test equipment required for commissioning.

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:

- sites on which installation and commissioning procedures can be conducted
- required 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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