



Australian Government

ICTTEN601 Undertake qualification testing of new or enhanced equipment and systems

Release: 1

ICTTEN601 Undertake qualification testing of new or enhanced equipment and systems

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 inspect and test international telecommunications network equipment not previously installed in an Australian network. It involves assessing its suitability and compliance with local regulations and conditions for the carrier or asset owner.

It applies to individuals working as field officers, technicians or technical supervisors for carriers, contractors or other service providers, who verify compliance of new equipment or systems with Australian standards.

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. Ensure conformity of international design to Australian standards	1.1 Assess original international design to verify compliance with relevant Australian legislation, codes, regulations and standards 1.2 Reconfigure international design in consultation with customer 1.3 Rewrite design specifications to include configuration amendments
2. Plan and establish test regime	2.1 Plan type and number of tests to ensure full trial of new or enhanced design and greatest coverage for minimal tests

ELEMENT	PERFORMANCE CRITERIA
	2.2 Plan and establish test environment to ensure total validity of chosen tests 2.3 Design test regime of proposed system to test impact on existing systems 2.4 Confirm test regime in consultation with planners and verify test equipment meets required standards
3. Undertake tests	3.1 Conduct and document tests including live system tests in logical and sequential order to planned test regime 3.2 Negotiate problems experienced during tests with system experts or designers to plan contingency activity according to enterprise policy 3.3 Prepare and submit trouble reports according to enterprise policy
4. Analyse test results	4.1 Analyse test results against design specifications and planned outcomes 4.2 Prepare a report referring major deficiencies to designers with recommendations for design change 4.3 Analyse minor variances, plan solutions and document changes to specifications
5. Retest design changes	5.1 Implement design and specification changes and conduct further tests as required 5.2 Analyse test results to verify compliance with updated design specifications 5.3 Document results of tests according to enterprise policy

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	1.1, 3.2, 3.3, 4.1, 5.3	Organises, evaluates and critiques technical specifications, legislative, regulatory and policy requirements
Writing	1.3, 3.1, 3.3, 4.2,	Prepares clear and concise workplace documentation including reports incorporating technical language to

	4.3, 5.3	communicate recommendations clearly and effectively
Oral Communication	1.2, 2.4	Uses active listening, observational and questioning techniques to identify different perspectives and confirm, clarify or revise understanding
Numeracy	4.1, 5.2	Uses mathematical formulae to make calculations and necessary calibration changes by interpreting test results
Navigate the world of work	1.1, 3.2, 3.3, 5.3	Adheres to organisational procedures and protocols and legal and regulatory responsibilities, and considers these when planning and undertaking work
Interact with others	2.4, 3.2	- Collaborates with others to achieve joint outcomes, playing an active role in negotiating positive outcomes - Selects and uses appropriate conventions and protocols when communicating with personnel in a range of work contexts
Get the work done	2.1-2.3, 3.1, 3.2, 4.3, 5.1	- Takes responsibility for own workload, negotiating some key aspects with others - Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context for complex, high impact activities with strategic implications - Uses sophisticated understanding of principles, concepts, language and practices associated with the digital world to identify uses and potential of new technologies - Implements actions according to a predetermined plan, making adjustments if necessary - Uses formal, analytical and lateral thinking techniques for identifying issues, and generating and evaluating possible solutions

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN601 Undertake qualification testing of new or enhanced equipment and systems	ICTTEN6036A Undertake qualification testing of new or enhanced equipment and systems	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 ICTTEN601 Undertake qualification testing of new or enhanced equipment and systems

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Performance Evidence

Evidence of ability to:

- apply Australian standards to international designs
- identify customer's specific requirements
- configure and set up test regimes
- identify and conduct tests, including live system tests, and interpret and analyse results
- approach problem diagnosis systematically, eliminating causes
- re-test design changes
- prepare report, including deficiencies, analysis and recommendations.

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:

- explain the Australian standards applicable to system and equipment compliance
- outline necessary connections to carrier infrastructure or equipment
- evaluate the system design requiring testing
- explain network and equipment tests required for compliance
- outline common network architectures
- explain relevant international standards.

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:

- a test site where qualification testing of equipment and systems may be conducted
- equipment currently used in industry
- relevant Australian and international standards, codes, design specifications, manuals and reference materials.

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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