



Australian Government

ICTTEN619 Test new software and hardware releases

Release: 1

ICTTEN619 Test new software and hardware releases

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 authenticate compliance and compatibility of software and hardware to an existing system for new software and hardware releases for an existing system or new infrastructure for convergence to Next Generation Networks (NGN).

It applies to individuals with high-level technical skills who make use of software test routines and test hardware for performance to manufacturer's and design specifications.

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. Plan testing of new software and hardware releases	1.1 Obtain manuals, specifications and instructions associated with new releases and identify areas of uncertainty for confirmation with the vendor 1.2 Plan the testing environment of the software and hardware release with relevant personnel 1.3 Determine resources required to assist with the test, and negotiate their availability 1.4 Determine and plan outage and notify relevant personnel 1.5 Notify relevant personnel of impact on the network during the test 1.6 Develop contingency plans to cater for likely problems during the test

ELEMENT	PERFORMANCE CRITERIA
2. Test software and hardware releases	2.1 Load new software and conduct tests using required test equipment according to vendor specifications 2.2 Evaluate test results to assess functionality and features of software and hardware according to vendor documentation 2.3 Test compatibility with existing network and take corrective action with vendor as required 2.4 Implement contingency plans in conjunction with network management if integrity of the network is compromised by the new release
3. Complete testing of software and hardware releases	3.1 Document test results and store according to enterprise policy 3.2 Discuss ongoing and likely problems with the vendor and initiate follow-up arrangements to confirm a permanent solution 3.3 Provide clearance for software and hardware release to be put in service in the system according to enterprise procedures 3.4 Update system documentation and service catalogue systems, where required and communicate with operational teams.

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	Extracts and evaluates technical data, including equipment specifications during testing phase
Oral communication	Articulates requirements and likely challenges when engaging with enterprise personnel, customers and contractors using relevant language suitable to diverse audiences and employs listening and questioning techniques to confirm understanding
Reading	Organises, evaluates and interprets technical documentation including software and hardware manuals, specifications and relevant enterprise policy and documentation
Writing	Prepares workplace documentation, including reports and recommendations, incorporating technical language to communicate complex information clearly and effectively
Teamwork	- Selects and uses relevant conventions and protocols when communicating with customers, vendors or technical personnel in a range of work contexts - Collaborates and cooperates with others to achieve joint outcomes

SKILL	DESCRIPTION
Planning and organising	• Uses a combination of formal, logical planning processes to identify required information, test strategies and resources
Problem solving	• Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information and identifying and evaluating options against agreed criteria • Uses formal, analytical and lateral thinking techniques for diagnosing problems, and generating and evaluating possible solutions
Self-management	• Adheres to organisational procedures and protocols when planning and undertaking work
Technology	• Uses advanced features of digital systems and tools to enter, store, test and analyse data

Unit Mapping Information

Supersedes and is equivalent to ICTTEN608 Verify new software and hardware releases.

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 ICTTEN619 Test new software and hardware releases

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 7.0.

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:

- test at least two newly released software items and at least two newly released hardware items within at least two networks.

In the course of the above, the candidate must:

- develop at least one plan for testing new software and hardware releases, including functionality and performance under load conditions
- develop a contingency plan for recognising potential causes of problems and their impact on service levels
- test compatibility of software and hardware within an existing network system
- analyse impact of integration of new hardware and software releases on the network and make recommendations for improvement.

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, system maintenance and upgrade procedures, regulations and standards, workplace health and safety (WHS) requirements for scoped work
- features of service catalogue systems
- methods of testing newly released software and hardware
- functions and features of software and hardware network contingency plans
- features and operating requirements of testing routines and equipment, key performance indicators (KPIs) and service level agreements
- information required to operate software and hardware according to test specifications
- manufacturer requirements and specifications for equipment operation

- specific organisational requirements surrounding activity and site conditions
- test methods, performance and integration requirements
- issues and challenges that occur with new software and hardware releases.

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:

- a system to verify compliance and compatibility of software and hardware
- test equipment currently used in industry
- systems manuals, vendor specifications and enterprise policy.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

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