



Australian Government

ICTTEN605 Implement planned network changes with minimal impact to the customer

Release: 1

ICTTEN605 Implement planned network changes with minimal impact to the customer

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 effectively upgrade network equipment, increase network capacity, install new network elements and change existing network elements. It involves control of planned routine maintenance activities on the network.

It applies to individuals with high-level technical skills, working for service providers, asset owners and contractors, who coordinate activities of maintenance personnel and address compliance issues associated with service level agreements.

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 network changes plan	1.1 Obtain relevant legislation, codes, regulations and standards for compliance when conducting work 1.2 Evaluate work order with relevant personnel and identify likely effects, on the network and impact on customers, of the planned changes 1.3 Develop network engineering strategies including management of outages with involvement of the network operations centre (NOC)

ELEMENT	PERFORMANCE CRITERIA
	1.4 Prepare and produce a network changes plan for approval according to enterprise practice
2. Implement and test network changes prior to customer utilisation	2.1 Implement network changes according to network engineering strategies following work health and safety (WHS) and environmental requirements with minimal impact to customer traffic 2.2 Conduct integration testing of newly installed equipment to ensure interoperability with existing equipment and network 2.3 Conduct performance test to assess network changes as stated in manufacturer's specifications and enterprise acceptance testing procedures 2.4 Analyse test results and rectify problems or escalate according to enterprise procedures 2.5 Initiate quality assurance procedures to ensure confidence in quality of processes according to enterprise policy 2.6 Prepare reports for the appropriate area within the enterprise
3. Enable functionality of network changes to customer	3.1 Monitor network stability prior to connecting customer traffic and take action to rectify any problems 3.2 Enable full functionality of network changes to customer according to the network changes plan, and monitor network to ensure continued stability 3.3 Prepare appropriate documentation according to enterprise requirements
4. Assess and report on implementation of network changes	4.1 Use monitoring data to evaluate performance of the network changes and impact to customers according to network engineering strategies and customer requirements 4.2 Document implementation of planned network changes and recommend any further improvements as part of the enterprise's 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	1.1, 2.3-2.5, 3.2, 3.3, 4.1	Organises, evaluates and interprets equipment and system manuals and specifications, and relevant enterprise policy and documentation
Writing	1.4, 2.6, 3.3, 4.2	Prepares clear and concise workplace documentation including reports and recommendations incorporating technical language to communicate complex information clearly and effectively
Oral Communication	1.2	Uses active listening, observational and questioning techniques to identify different perspectives and confirm, clarify or revise understanding
Navigate the world of work	2.1, 2.5, 4.2	- Considers and adheres to organisational procedures and protocols and legal and regulatory responsibilities when planning and undertaking work - Seeks to improve policies and procedures to better meet organisational goals
Get the work done	1.1-1.3, 2.2-2.5, 3.1, 3.2, 4.1	- Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context for complex, high-impact activities with strategic implications - Uses digital systems and tools to enter, store and analyse data - Considers strategic and operational potential of digital trends to achieve work goals, and enhance work processes and solutions - May use formal, analytical and lateral thinking techniques for identifying issues, generating and evaluating possible solutions and escalating issues to others when appropriate

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN605 Implement planned network changes with minimal impact to the	ICTTEN6045A Implement planned network changes with minimal impact to the customer	Updated to meet Standards for Training Packages.	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
customer			

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 ICTTEN605 Implement planned network changes with minimal impact to the customer

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Performance Evidence

Evidence of ability to:

- evaluate planned network changes, including impact on customer
- develop network engineering strategies to manage outages
- implement network changes
- conduct integration testing, analyse results and rectify faults
- enable full functionality of network changes.

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 compatibility and interoperability of system types
- explain factors affecting network stability
- identify and describe the function of network hardware
- summarise internet protocol (IP) based networks
- outline legislation and licensing requirements relevant to work activity
- provide a detailed summary of optical networks
- explain quality assurance procedures
- identify and describe the function of network software
- evaluate the test equipment suitable for tests to be made, and describe calibration procedures
- outline types of customer networks.

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 where network changes may be conducted
- testing equipment currently used in industry
- systems manuals, 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 guides are found in VETNet -

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