



Australian Government

ICTTEN415 Install and configure internet protocol TV in a home network

Release: 1

ICTTEN415 Install and configure internet protocol TV in a home network

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 arrange a secure internet protocol (IP) network for a customer.

It applies to individuals who install Next Generation Networks (NGNs). These IP networks provide fast internet, voice over internet protocol (VoIP), IPTV and internet TV services.

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 to implement IPTV in a home network	1.1 Obtain and clarify work health and safety (WHS) requirements and risk control measures and procedures for a given work area, with appropriate personnel 1.2 Evaluate existing customer home network equipment for operational status
2. Design IPTV integration to a home network to meet customer requirements	2.1 Prepare a configuration layout integrating IPTV to existing customer network using IPTV network elements to provide optimum video delivery service 2.2 Select IPTV network elements to provide optimum video delivery service

ELEMENT	PERFORMANCE CRITERIA
	2.3 Obtain configuration instructions for network elements 2.4 Design connection plan to integrate customer network elements and optimise system performance 2.5 Identify any connection problems and amend design plan
3. Implement IPTV design plan to a home network	3.1 Interconnect network elements according to design plan using manufacturer's instructions and IP addressing schemes 3.2 Configure and test network elements to provide integrated IPTV to the existing system 3.3 Provide a free-to-air (FTA) connection over digital video broadcasting – terrestrial (DVB-T) to complement the IPTV service 3.4 Set up customer specific operations as required 3.5 Configure security measures in an IPTV network to protect against security threats 3.6 Troubleshoot home network according to manufacturer's specifications and escalate unresolvable items to the service provider
4. Complete and document network installation	4.1 Restore worksite to safe condition, according to established safety procedures 4.2 Record and store essential installation information 4.3 Notify appropriate personnel of completion of the task 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
Reading	1.1, 3.1	Recognises and interprets complex technical specifications and related information
Writing	1.1, 2.4, 2.5, 4.2, 4.3	Uses clear, specific and industry-related terminology to produce plans and update workplace documentation
Oral Communication	4.3	- Articulates clearly and concisely to provide advice and guidance to customers and personnel - Uses well-developed listening and questioning techniques to confirm understanding

Navigate the world of work	1.1, 4.1	Takes personal responsibility for adherence to organisational procedures and protocols, and legal and regulatory responsibilities relevant to own work
Get the work done	1.1, 1.2, 2.1-2.3, 2.5, 3.1-3.6	- Understands key principles and concepts underpinning design and operation of digital systems and tools, and applies these when troubleshooting existing technology - Works logically and systematically to monitor, analyse and action job priorities - 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 resolve a predictable range of network problems, establishing criteria for deciding between options and seeking input and advice from others when escalating difficulties

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN415 Install and configure internet protocol TV in a home network	ICTTEN4126A Install and configure internet protocol TV in a home network	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 ICTTEN415 Install and configure internet protocol TV in a home network

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Performance Evidence

Evidence of ability to:

- create and follow implementation plans for internet protocol television (IPTV)
- install relevant network hardware and software
- configure and test IPTV network according to specified guidelines
- integrate IPTV to existing network
- produce appropriate documentation
- implement secure network.

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 competing video delivery over broadband networks
- outline current industry-accepted hardware and software products
- summarise IPTV configurations
- clarify IPTV protocols and encoding techniques
- summarise networking technologies, incorporating substantial depth in network operating systems and IP networks
- outline transmission technologies and protocols
- summarise video compression formats
- describe the common issue that affects home network performance.

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 site where installation and configuration of an IPTV network may be conducted
- equipment currently used in industry
- information on different protocols
- relevant technical information, legislative requirements and other site and project-related documentation.

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 -

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