



Australian Government

ICTRFN303 Install WiMAX customer premises equipment broadband wireless access equipment

Release: 1

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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 connect, set up and test Worldwide Interoperability for Microwave Access (WiMAX) customer premises equipment (CPE) in homes and commercial premises.

It applies to individuals working as technicians who connect indoor units to a customer network.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications – radio frequency networks

Elements and Performance Criteria

Elements	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 WiMAX equipment installation	1.1 Arrange access to site according to required procedure 1.2 Verify customer requirements, type of WiMAX CPE equipment and location of proposed installation according to plans obtained from authorised personnel 1.3 Prepare tools, equipment and CPE required for installation
2. Install outdoor unit and antenna	2.1 Make worksite safe by identifying existing and potential hazards 2.2 Comply with relevant legislation, codes, regulations and standards,

	work health and safety (WHS) and environmental requirements 2.3 Mount outdoor unit according to manufacturer's specifications and enterprise plans 2.4 Connect outdoor unit to indoor unit using specified cable 2.5 Position antenna towards distant WiMAX base station for preliminary orientation 2.6 Align unit for maximum signal strength using received signal strength indication (RSSI) display 2.7 Record installation and alignment details 2.8 Connect indoor unit and accessories to customer equipment
3. Test performance of installation	3.1 Test WiMAX CPE according to manufacturer's procedures 3.2 Check operating environment does not degrade test results 3.3 Evaluate test results to verify operational performance with customer
4. Restore site and complete documentation	4.1 Restore worksite to customer's satisfaction 4.2 Complete reports on installation 4.3 Notify customer 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, 1.2, 2.3, 3.1	Recognises and interprets textual information from relevant sources to determine job specifications and regulatory and legislative requirements
Writing	2.7, 4.2, 4.3	Uses clear, specific and industry related terminology to complete and update workplace documentation and in written communications with customers
Numeracy	2.6, 3.3	Analyses numerical information to interpret technical data
Oral Communication	1.2, 4.3	- Uses specific and relevant language to clearly articulate technical information - Uses appropriate tone and listening techniques to

		determine the understanding of others
Navigate the world of work	2.1, 2.2	• Takes personal responsibility for adherence to legal and regulatory requirements, with specific reference to safe industry practices • Understands the nature and purpose of own role and associated responsibilities
Get the work done	1.1-1.3, 2.3-2.6, 2.8, 3.1, 3.2, 4.1	• Determines job priorities and sequences the steps involved in clearly defined and familiar tasks, and identifies and assembles the resources and access required • Takes responsibility for routine decision making by selecting from a range of predetermined options in routine situations, identifying and taking some situational factors into account • Identifies and implements standard solutions for typical installation challenges • Reflects on outcomes and identifies what worked and where things could be done differently in the future

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTRFN303 Install WiMAX customer premises equipment broadband wireless access equipment	ICTRFN3146A Install WiMAX customer premises equipment broadband wireless access equipment	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 ICTRFN303 Install WiMAX customer premises equipment broadband wireless access equipment

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Performance Evidence

Evidence of the ability to:

- ensure that the site access, resources and installation requirements are confirmed prior to installation
- install and test Worldwide Interoperability for Microwave Access (WiMAX) customer premises equipment (CPE) outdoor units
- install indoor unit and connect to customer network
- reinstate site, document and complete installation reports.

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:

- describe the wireless standard 'WiMAX' including:
 - general characteristics of WiMAX networks e.g. mobile broadband and internet access
 - applications of WiMAX technology
 - terminology associated with WiMAX technologies
 - range and function of gateway devices
 - protocols IEEE 802.16 and IEEE 802.11
- identify and discuss the relevant legislation, codes, regulations and standards, work health and safety (WHS) and environmental requirements
- explain the impact of location on microwave propagation and losses.

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 – radio frequency networks field of work and include access to:

- sites on which WiMAX installations can be conducted
- tools and equipment required for installation
- relevant regulatory and equipment documentation.

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

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