ICTNWK627 Implement voice applications over secure wireless networks

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with the Information and Communications Technology Training Package Version 8.0. Supersedes and is equivalent to ICTNWK606 Implement voice applications over secure wireless networks.

Application

This unit describes the skills and knowledge required to use a variety of networking tools, equipment, and protocols to design voice over wireless local area networks (VoWLANs). It includes securely implementing quality of service (QoS) and high bandwidth applications into wireless networks.

The unit applies to individuals who may have advanced information and communications technology (ICT) skills and knowledge and work in roles such as wireless help desk technicians, wireless network support specialists and wireless network engineers.

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

Unit Sector

Networking

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Assess wireless network architecture	1.1 Confirm work brief and tasks according to organisational policies and procedures 1.2 Analyse and select wireless network option according to work brief 1.3 Create wireless network architecture design considerations 1.4 Verify suitability and readiness of wireless network for voice over application

ELEMENT	PERFORMANCE CRITERIA
2. Implement VoWLAN	2.1 Configure wireless client devices according to work brief
	2.2 Create wireless local area network (WLAN) implementation and verification plan
	2.3 Select and source voice over application configuration components according to work brief
	2.4 Configure VoWLAN and confirm security control functionality
	2.5 Conduct network troubleshooting and rectify any issues
3. Apply QoS practices	3.1 Plan QoS design considerations for voice over internet protocol (VoIP) applications
	3.2 Design QoS deployment schemes according to work brief
	3.3 Analyse and select wireless multimedia (WMM) extension options according to work brief
	3.4 Select and source configuration hardware, software and tools
	3.5 Confirm component serviceability
	3.6 Test QoS network functionality and rectify any issues
4. Confirm multicast wireless environments	4.1 Analyse multicast concepts
	4.2 Assess implications for multicast over the lowest common denominator access point
	4.3 Confirm multicast requirements
	4.4 Devise structured troubleshooting methodology according to work brief
5. Secure high bandwidth network functions	5.1 Analyse latency-sensitive application requirements according to work brief
	5.2 Test video applications over the lowest common denominator access point in WLAN
	5.3 Calculate and predict bandwidth requirements for video applications over wireless network
	5.4 Confirm WLAN interconnectivity
	5.5 Develop and securely file documentation on completed work tasks according to organisational policies and procedures

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	• Interprets numerical data to calculate network interoperability
Reading	• Interprets complex technical information to confirm requirements
Writing	• Uses clear and detailed language in documentation to convey explicit information and technical requirements
Planning and organising	• Operates from a broad conceptual plan to identify functional features associated with the operation of complex networks
Problem solving	• Demonstrates a sophisticated use of principles, concepts, language and practices associated with the digital world and uses them to troubleshoot the uses of new technology
Technology	• Operates from a broad conceptual plan to identify functional, performance and management features associated with the operation of complex networks

Unit Mapping Information

Supersedes and is equivalent to ICTNWK606 Implement voice applications over secure wireless networks.

Links

Companion Volume Implementation Guide is found on VETNet - -
https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2