ICTNWK611 Configure call processing network elements for secure VoIP networks

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 1.0.

Application

This unit describes the skills and knowledge required to use tools, equipment, software and protocols to install or upgrade call processing network elements for secure and reliable internet protocol (IP)-based communications networks.

It applies to individuals with advanced information communications technology (ICT) skills who are working as advanced voice over internet protocol (VoIP) network support specialists, VoIP network engineers and VoIP systems installers.

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. Plan to implement enterprise IP communications	1.1 Produce design considerations for planning and implementing IP-based voice communications networks 1.2 Produce a solutions plan to meet business expectations 1.3 Select the required resources to effectively install or upgrade voice management servers 1.4 Perform, test and evaluate the installation or upgrade of voice call management software against the solutions plan
2. Plan, configure and test	2.1 Produce a topology of the voice network and plan the

ELEMENT	PERFORMANCE CRITERIA
call processing network elements for a single-site deployment	location of the call processing network elements to best support the business requirements
	2.2 Install and test voice servers to support user requirements, third-party session initiation protocol (SIP) phones and lightweight directory access protocol (LDAP) integration
	2.3 Install and configure local area network (LAN) switches to support IP phones
	2.4 Configure and test voice gateways according to gateway requirements to allow for internal calls and external calls and provide voice features
	2.5 Configure and test the integration of voice servers with other media systems
	2.6 Test and evaluate final configuration against the design requirements
3. Manage security and privacy of IP voice network	3.1 Produce design and installation templates for bulk deployment across the enterprise
	3.2 Research and implement the use of a network support model to manage the performance and security of the IP voice network
	3.3 Design and conduct simple security deployment scenarios to test the integrity and security of the voice network

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	1.4, 2.4, 2.6, 3.2	• Recognises and interprets complex technical information to determine and adhere to design requirements
Writing	1.1, 1.2, 2.1, 3.1	• Develops a broad range of material, including planning documentation, design and installation templates for a specific audience using clear and detailed language to convey explicit information, requirements and recommendations
Numeracy	1.3, 1.4, 2.2,	• Interprets numerical data in planning phase and undertakes measurements to evaluate performance and interoperability

	2.4-2.6	of network
		• Uses mathematical formulas and calculations to estimate and plan resource requirements
Get the work done	1.1, 1.3, 1.4, 2.1-2.6, 3.2	• Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world, and uses these to troubleshoot and understand the uses and potential of new technology
		• Uses a broad range of strategies to store, access and organise virtual information, recognising that design choices will influence what information is retrieved and how it may be interpreted and used
		• Is acutely aware of the importance of understanding, monitoring and controlling access to digitally stored and transmitted information
		• Uses a mix of intuitive and formal processes to identify key information and issues, evaluate alternative strategies, anticipate consequences and consider implementation issues and contingencies
		• May use formal analytical and lateral thinking techniques for identifying issues and generating and evaluating possible solutions

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTNWK611 Configure call processing network elements for secure VoIP networks	ICANWK611A Configure call processing network elements for secure VoIP networks	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

PwC's Skills for Australia