ICTTEN426 Design network projects

Release: 1

ICTTEN426 Design network projects

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 plan, design, construct and manage access, building or core telecommunications networks.

It applies to individuals working as technical officers, communications workers or engineers, from private and public organisations who plan, design and manage access, building and core network technologies for a service provider.

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
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Analyse different types of network technologies	1.1 Review available network technologies and compare them for application to the expansion or augmentation of network services
	1.2 Examine various techniques for access networks to provide service to green fields, brown fields and rehabilitation projects
	1.3 Examine various techniques for building and core networks to provide for new service, capacity expansion and equipment recovery projects
	1.4 Determine the type of network by accessing and using network information sources
	1.5 Produce a brief on how network architecture components relate to

ELEMENT	PERFORMANCE CRITERIA
	the larger network and their impact on the work
	1.6 Develop an installation activity schedule to minimise workplace disruption and according to relevant regulation and standards
	1.7 Evaluate equipment type and technologies to be considered to determine availability and compatibility with existing network equipment
2. Apply deployment and construction practices for network technologies	2.1 Review conduit and jointing chamber standards and practices for the access network
	2.2 Examine standards, practices and requirements for locating telecommunications infrastructure in the access network
	2.3 Examine standards, practices and requirements for locating and standing racks and cabinets and supporting infrastructure
	2.4 Examine capacity and practices for cabling and patching of twisted pair, coax and fibre distribution frames
3. Review network standards and prepare draft design	3.1 Review client's network deployment rules and apply to a network design
	3.2 Produce preliminary plan or design on deployment of the network that maintains integrity of access, building or core networks
	3.3 Establishing a solution for unforeseen problems through discussions with appropriate personnel, with consideration to job specifications, safety and enterprise procedures to establish a solution
	3.4 Review plan to ensure it complies with all applicable standards and codes required when working on network, and where appropriate make adjustments
	3.5 Produce final design including recommendations agreed with customer

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, 1.6, 3.3	• Recognises and interprets technical and non-technical documentation to incorporate important information in designs

Writing	1.5, 1.6, 3.1, 3.2, 3.4, 3.5	• Uses clear, specific and industry-related terminology to document technical requirements and procedures
Oral Communication	3.3	• Liaises with appropriate personnel about technical and operational requirements using specific and relevant language • Uses listening and questioning techniques to confirm understanding
Navigate the world of work	2.1-2.4, 3.1, 3.3, 3.4	• Takes personal responsibility for adherence to legal and regulatory responsibilities and practices relevant to own work • Recognises and follows organisational procedures protocols and meets expectations associated with own role
Interacts with others	3.3	• Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction
Get the work done	1.1-1.3, 1.7, 3.3	• Determines job priorities and works logically and systematically to undertake clearly defined and familiar tasks • Implements actions according to a predetermined plan, making slight adjustments if necessary and addressing some unexpected issues • 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 • Diagnoses and implements standard solutions to unexpected situations based on safety requirements and specified work outcomes • Reflects on ways digital systems and tools are used to achieve work goals, and recognises strategic and operational applications

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN426 Design	ICTTEN4241A Design network	Updated to meet	Equivalent unit

PwC's Skills for Australia

Code and title current version	Code and title previous version	Comments	Equivalence status
network projects	projects	Standards for Training Packages	

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