



Australian Government

ICTTEN315 Determine and apply technologies within a telecommunications system

Release: 1

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Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to determine and apply common technologies used for transmission of both analog and digital signals within telecommunications systems.

It applies to entry-level workers in the telecommunications industry.

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

Unit Sector

Telecommunications – Telecommunications Network 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. Categorise and record technologies in use within a given telecommunications system	1.1 Categorise and document basic operational features of telecommunications technologies within a given system 1.2 Categorise and document features and connected devices used for coding and decoding internet signals within a given system 1.3 Categorise and record components within a local area network (LAN)
2. Record data encoding methodologies in use within a given telecommunications system	2.1 Identify and document encoding technologies within a given network 2.2 Identify and document basic principles of data error correction and measuring techniques within a given system

ELEMENT	PERFORMANCE CRITERIA
	2.3 Identify and verify modulation techniques used within a given system
3. Select and apply twisted pair components used within a given telecommunications system	3.1 Select twisted pair components for a given telecommunications system 3.2 Install and connect twisted pair components in the given telecommunications system 3.3 Test operations of twisted pair components 3.4 Check, document and handover system to end user
4. Select and apply coaxial components used within a given telecommunications system	4.1 Select coaxial components for a given telecommunications system 4.2 Install and connect coaxial components in the given telecommunications system 4.3 Test operations of coaxial components 4.4 Check, document and handover system to end user
5. Select and apply wireless components used within a given telecommunications system	5.1 Select wireless components for a given telecommunications system 5.2 Install and connect wireless components in the given telecommunications system 5.3 Test operations of wireless components 5.4 Check, document and handover system to end user

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
Learning	<ul style="list-style-type: none"> Identifies, plans and implements strategies to manage gaps in cyber security knowledge
Reading	<ul style="list-style-type: none"> Analyses and consolidates information and data from sources, against defined criteria and requirements, and checks for accuracy and completeness Recognises and interprets textual information to determine specific information about security incidents
Writing	<ul style="list-style-type: none"> Develops material for a specific audience, using clear and detailed language in order to convey explicit information

Skill	Description
Oral Communication	<ul style="list-style-type: none">• Articulates information clearly, using specific and relevant language suitable to audience to convey recommendations and provide verbal reports• Uses listening and questioning techniques to confirm understanding
Numeracy	<ul style="list-style-type: none">• Extracts and evaluates the mathematical information embedded in a range of tasks and texts
Navigate the world of work	<ul style="list-style-type: none">• Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements
Interact with others	<ul style="list-style-type: none">• Selects form, channel and mode of communication for a specific purpose relevant to own role
Get the work done	<ul style="list-style-type: none">• Gathers and analyses data, and seeks feedback, to improve plans and processes• Explores and incubates new ideas through unconstrained analysis and critical thinking, to develop and improve the enterprise telecommunications technologies

Unit Mapping Information

No equivalent unit. New unit.

Links

Companion Volume Implementation Guides are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>