



Australian Government

ICTOPN601 Manage optical ethernet transmission

Release: 1

ICTOPN601 Manage optical ethernet transmission

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 manage an ethernet optical transmission system. It includes analysis of fault conditions that may occur.

It applies to individuals who work as members of a team with carrier telecommunications networks using optical technologies. Individuals in these roles are excellent communicators and skilled technicians.

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

Unit Sector

Telecommunications – Optical Networks

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. Plan to test optical ethernet link	1.1 Make worksite safe by identifying existing and potential site hazards 1.2 Determine the technical environment and network components 1.3 Report on infrastructure to ensure link is designed to meet performance requirements
2. Specify architecture requirements	2.1 Follow site specific safety requirements and enterprise work health and safety (WHS) procedures 2.2 Determine architecture components

	2.3 Determine functions and framework for the system to operate across network boundaries, taking into account performance criteria
3. Manage optical ethernet link	3.1 Conduct work in context of appropriate tests 3.2 Analyse test results 3.3 Provide a report on test results and compare with expected outcomes 3.4 Document test results and refer to appropriate person

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	2.1, 2.3, 3.2	Interprets textual information from relevant sources to identify and plan for all job requirements and adhere to procedures and standards
Writing	1.3, 3.3, 3.4	Accurately completes standard reports and documentation using clear and technically specific language and numerical data
Oral Communication	1.3	- Uses listening and questioning skills to confirm understanding of technical and operational requirements - Participates in a verbal exchange of ideas and solutions and uses appropriate, detailed and clear language to address internal and external personnel and clients
Numeracy	3.2	Uses mathematical formulae to evaluate technical data and interpret results
Navigate the world of work	1.1, 2.1, 3.1	- Works independently within parameters with a strong sense of responsibility and ownership of goals, plans, decisions and outcomes - Monitors adherence to legal and regulatory rights and responsibilities with specific reference to safe industry practices
Interact with others	3.4	Actively identifies requirements of important communication exchanges,

		selecting appropriate channels, format, tone and content to suit purpose and audience and monitoring impact
Get the work done	1.2, 2.2, 2.3	- Sequences and schedules complex activities, monitors implementation and manages relevant communication - Takes responsibility for high-impact decisions in complex situations involving many variables and constraints - Actively identifies systems, devices and applications with potential to meet current and/or future needs

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTOPN601 Manage optical ethernet transmission	ICTOPN6124A Manage optical ethernet transmission	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 ICTOPN601 Manage optical ethernet transmission

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Performance Evidence

Evidence of ability to:

- identify test performance parameters
- plan the test from performance requirements
- select and perform a testing regime on ethernet optical transmissions
- analyse and document test results
- comply with all work health and safety (WHS) requirements and work practices.

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 intricacies of optical ethernet systems including:
 - application in optical systems
 - system architecture
 - function and framework within a telecommunications environment
 - organisational policies and procedures
 - appropriate testing techniques and analysis
- explain specific work health and safety (WHS) requirements relating to:
 - handling of optical fibre
 - personal safety issues
 - use of laser light sources.

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 must be typical of those experienced in the Telecommunications – Optical Networks field of work and include access to:

- test equipment currently used in industry
- manufacturer's technical documentation, legislation, codes and standards.

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

Links

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