



Australian Government

ICTOPN503 Plan for an optical system upgrade and cut over

Release: 1

ICTOPN503 Plan for an optical system upgrade and cut over

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 the activities of a major upgrade of optical systems from specifications provided by the planning and design section or its equivalent. Major upgrades in enterprise networks or a telecommunications service provider's network involve cut over activities to integrate additional work into the existing network.

It applies to individuals who work as members of a team and use high-level communication and technical skills to provide services in Next Generation Networks (NGN) using emerging technologies.

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. Gather information to prepare upgrade activity plan	1.1 Obtain relevant legislation, codes, regulations and standards for compliance when conducting work 1.2 Obtain design specifications from the planning and design section to determine scope and nature of the upgrade 1.3 Analyse the design specification and design plan, and determine accuracy of the design plan to site installation and requirements with customer

	1.4 Determine network equipment types and obtain installation details from manufacturer 1.5 Prepare an equipment and component list and source vendors for procurement
2. Prepare upgrade activity plans	2.1 Prepare a detailed installation plan of the upgrade for the installer 2.2 Prepare a detailed installation procedure to carry out the upgrade to minimise impact to customer 2.3 Prepare pre-installation optical tests on existing equipment to determine benchmarks and performance levels prior to the upgrade 2.4 Prepare post-installation optical tests on upgrade to ensure upgraded system is achieving desired results 2.5 Prepare monitoring schedule to progressively assess upgrade progress 2.6 Prepare contingency plan for backing out if upgrade is not progressing according to schedule and disruptions to customer are excessive 2.7 Prepare cut over procedures
3. Complete documentation	3.1 Update documentation 3.2 Submit planning activity document for approval

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	1.1, 1.3	Interprets textual information from relevant sources to identify and plan for all job requirements and adhere to procedures and standards
Writing	1.5, 2.1, 2.2, 2.5-2.7, 3.1-3.2,	Accurately completes relevant reports and documentation using clear and technically specific language, numerical data and diagrammatic information
Oral Communication	1.2	Uses listening and questioning skills to confirm understanding of requirements, participates in a verbal exchange of ideas and solutions and uses

		appropriate, detailed and clear language to address key personnel
Numeracy	2.3, 2.4, 2.6	• Uses mathematical equations to evaluate technical data • Uses basic arithmetic to determine work schedules
Navigate the world of work	1.1	• Understands how own role meshes with others and contributes to broader work goals • Monitors adherence to legal and regulatory rights and responsibilities with specific reference to safe industry practices
Interact with others	3.1, 3.2	• 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	1.1-1.5, 2.1-2.7	• Develops plans to manage relatively complex, non-routine tasks with an awareness of how they may contribute to longer term operational and strategic goals • Takes responsibility for high-impact decisions in complex situations involving many variables and constraints • Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world and uses these to troubleshoot and understand uses and potential of new technology • When dealing with complex issues, may use intuition to identify the general problem area, switching to analytical processes to clarify goals and key issues and using lateral thinking processes to generate possible solutions

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTOPN503 Plan for an optical system upgrade and cut over	ICTOPN5120A Plan for an optical system upgrade and cut over	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 ICTOPN503 Plan for an optical system upgrade and cut over

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Performance Evidence

Evidence of ability to:

- prepare upgrade plan incorporating the following:
 - a detailed installation plan and installation procedures
 - pre-installation and post-installation test methods and results
 - a monitoring schedule to assess progress of the upgrade
 - a contingency plan.

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:

- explain alarms and backup systems that apply to optical networks
- describe escalation and outage procedures
- explain network management systems
- outline fundamentals of telecommunications networks and equipment
- summarise telecommunications monitoring tools
- outline telecommunications test equipment and test setups
- evaluate telecommunications wiring practices
- explain upgrade and post-upgrade routines.

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:

- a site where upgrade and cut over may be planned
- equipment, software, test and monitoring equipment currently used in industry
- relevant regulatory, equipment, enterprise and vendor documentation that impacts work activities.

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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