



Australian Government

ICTNPL404 Evaluate the planning requirements for provisioning a telecommunications building facility

Release: 1

ICTNPL404 Evaluate the planning requirements for provisioning a telecommunications building facility

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 evaluate building service capability to meet present and future demands for a building facility housing telecommunications equipment, including gathering information and evaluating allowable types of building services, power systems, air conditioning, fire safety services, energy use and alarm systems within each technology.

It applies to individuals with a range of telecommunications skills and extensive knowledge of core and access network capabilities of the service provider. It prepares individuals for entry into planning and design for network additions and implementations to accommodate network growth and new technologies within the industry.

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

Unit Sector

Telecommunications – Network Planning

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Scope the project	1.1 Prepare for given work according to relevant legislation, codes, regulations and standards including work health and safety (WHS) processes and procedures 1.2 Obtain building plans and specifications from planning section 1.3 Determine type of facility and building services required to house

	telecommunications network equipment and plant to efficiently support the network 1.4 Determine the purpose of the main areas or rooms in the network building and note special requirements to support safe operation of the facility 1.5 Verify who is responsible for planning, provisioning, maintaining and operation of a facility
2. Evaluate power requirements	2.1 Assess how functions of the main power and building services support network equipment and the impact if building services are not provided correctly or fail 2.2 Produce a schematic diagram of the relationship of electrical components in an end-to-end power and building services system 2.3 Assess different types of power sources likely to supply network equipment and determine benefits or deficiencies 2.4 Determine how resiliency is built into provisioning of a reliable power supply and how different levels of reliability can be achieved 2.5 Evaluate the impact of energy use and energy loads in the facility and determine how energy use can be minimised
3. Evaluate requirements of air conditioning services	3.1 Assess the main types of air conditioning components or plant available and their suitability to building requirements, and draw a schematic diagram of proposed layout 3.2 Determine how different equipment rack heat dissipation and size of a load can affect cooling needs 3.3 Evaluate how deployment of network equipment and other supporting infrastructure can affect performance and loading of the installed air conditioner
4. Evaluate requirements of fire safety services	4.1 Assess type, functions and components of fire service protection systems for fire and smoke required in a network facility for the safety and protection of people and assets 4.2 Use the building plan to locate fire systems to be deployed to comply with fire regulations 4.3 Evaluate effect equipment deployments may have on fire services and its ability to protect the site and maintain regulatory obligations
5. Evaluate requirements of alarm systems	5.1 Determine alarm requirements from the building plan and specifications 5.2 Assess if basic monitoring is to be used with system or plant interrogation capabilities to produce an integrated alarm system for the facility 5.3 Determine where alarm systems are monitored and actioned and the personnel responsible 5.4 Evaluate what systems are used to connect power and building services

	output alarms, and the software requirements needed to allow interrogation
6. Produce evaluation document	6.1 Assess requirements for each building service needed to support the facility, allowing for projection of future network growth and building expansion 6.2 Produce an evaluation document on planning requirements for proposed provisioning including identified services to support the building facility

Foundation Skills

This section describes the Foundation Skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.3, 2.3, 2.4, 4.1, 4.2, 5.1-5.3, 6.1	Identifies and evaluates complex written and visual text in specialised workplace documentation to determine key information and specific requirements
Writing	1.2, 1.5, 2.2, 3.1, 5.3, 6.1, 6.2	Develops material for a specific audience using clear and detailed language and visuals employing expected forms and conventions
Oral Communication	1.2, 1.5, 5.3	Articulates technical information using an appropriate tone and vocabulary for the intended audience
Numeracy	2.2-2.5, 3.1-3.3, 4.3, 5.1, 5.4, 6.1, 6.2	Employs mathematical calculations to determine capabilities and limitations of different systems
Navigate the world of work	1.1	Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements
Get the work done	1.1-1.5, 2.1, 2.3-2.5, 3.1-3.3, 4.1, 4.3, 5.2-5.4, 6.1	- Takes responsibility for planning, sequencing and prioritising tasks and own workload for efficiency and effective outcomes - Makes routine decisions and implements standard procedures for routine tasks, using formal decision-making processes for more complex and non-routine situations

		• Addresses less predictable problems and initiates standard procedures in response, applying problem-solving processes in determining a solution
--	--	---

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTNPL404 Evaluate the planning requirements for provisioning a telecommunications building facility	ICTNPL4110A Evaluate the planning requirements for provisioning a telecommunications building facility	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 ICTNPL404 Evaluate the planning requirements for provisioning a telecommunications building facility

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Performance Evidence

Evidence of ability to:

- evaluate facilities used for housing network equipment and how they may be used for provisioning
- produce documentation that correctly associates responsibilities to planning, provisioning, maintenance and operation of a building facility
- evaluate planning requirements for telecommunications building facilities
- determine equipment for air conditioning systems and power supplies into building facilities
- determine requirements for energy use, alarm and fire safety services.

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:

- outline these aspects of network planning:
 - alarm monitoring and hierarchy of responsibility
 - capacity of air conditioning system on a given load
 - different building services supported at a network site
- describe basic monitoring and plant interrogation capabilities
- outline complexities of various levels of alarm as applied to building facilities
- identify general types of facilities within building housing network equipment
- outline services and equipment, including:
 - types of air conditioning
 - types of fire safety services

- types of power sources
- equipment deployments on fire safety services
- main energy loads associated in a facility
- identify regulatory obligations in relation to fire safety services
- identify software systems needed to allow alarm interrogation (outputs).

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 – Network Planning field of work and include access to:

- building facilities where planning requirements for provisioning may be conducted
- relevant regulatory and organisational procedures
- documentation that impacts work.

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

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>