



Australian Government

ICTTEN409 Commission an electronic system

Release: 1

ICTTEN409 Commission an electronic system

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 commission an electronic system with applications, including cellular telemetry, voice over IP (VoIP), radio frequency identification (RFID), supervisory control and data acquisition (SCADA) networks and SCADA security, telephony, data, video, IP television (IPTV) and multimedia.

It applies to individuals who may work as field officers and technicians employed by telecommunications carriers, service providers or contractors.

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
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to commission electronic system	1.1 Prepare for work following work health and safety (WHS) requirements 1.2 Organise resources based on existing and potential site hazards 1.3 Contact customer or network operations personnel for site access and network specifications 1.4 Determine function and requirements of electronic system from specifications 1.5 Identify potential security threats and vulnerability where remote monitoring and control via public telecommunications network or

ELEMENT	PERFORMANCE CRITERIA
	internet are used, and report to appropriate personnel 1.6 Verify installed electronic system and associated cabling conform to specifications, and assess compatibility of system units 1.7 Establish commissioning dates with all parties and establish planned outage 1.8 Check suitability and calibration status of test equipment 1.9 Produce a preliminary commissioning plan according to manufacturer's instructions and enterprise guidelines for discussion with the customer
2. Organise planned outages	2.1 Negotiate outage times with appropriate groups and affected customers to minimise disruptions 2.2 Arrange for emergency communications based on contingency plans 2.3 Notify alarm management centre of planned action 2.4 Obtain authority to proceed from relevant control centre and notify customers affected by the outage
3. Perform commissioning procedures	3.1 Configure electronic system parameters and install software according to manufacturer's specifications and customer requirements 3.2 Conduct tests according to manufacturer's specifications and industry practice 3.3 Conduct cut over according to project design and industry practice in consultation with appropriate personnel 3.4 Conduct a security audit, including remote threat analysis in applications where the public telecommunications network or internet is linked to the overall electronic system
4. Finalise commissioning	4.1 Record configuration information and update relevant databases according to enterprise and network guidelines 4.2 Notify appropriate person of commissioning results and work completion 4.3 Complete administrative tasks according to industry practice and enterprise guidelines

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	Interprets complex information to determine job requirements
Writing	1.9, 4.1	Completes technical workplace documentation using vocabulary and form appropriate to intended audience
Navigate the world of work	1.1, 1.5-1.7, 4.1, 4.3	Takes personal responsibility for following explicit and implicit policies, procedures and legislative requirements relevant to own work context
Interact with others	1.3, 1.5, 1.6, 2.1, 2.3, 2.4, 4.2	- Collaborates and negotiates with others to achieve specific goals - Selects appropriate form, channel and mode of communication when liaising with customers and personnel on technical and operational matters
Get the work done	1.2, 1.4, 1.7, 1.8, 1.9, 2.2, 3.1-3.4	- Considers a range of complex factors when completing set tasks to ensure work is completed accurately and safely - Recognises and anticipates a range of problems, actively looking for early warning signs and implementing contingency plans when appropriate - Uses digital technologies and systems to complete required tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN409 Commission an electronic system	ICTTEN4078A Commission an electronic system	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 ICTTEN409 Commission an electronic system

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Performance Evidence

Evidence of ability to:

- effectively negotiate arrangements for commissioning
- accurately configure electronic equipment and system parameters
- commission electronic system according to specifications and following work health and safety (WHS) requirements
- deal with faults and problems and provide solutions
- identify potential security threats and vulnerability.

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 acceptance testing
- formulate a commissioning procedure and commissioning tests for an electronic system
- identify electrical and optical properties to be measured
- evaluate an extensive range of networking equipment
- outline legislation and licensing associated with installation of telecommunications equipment
- outline network operation procedures
- explain power requirements and electrical safety
- explain setup and operation of test equipment applicable to a wide range of measurements
- outline transmission type and signals that may be encountered.

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 should be typical of those experienced in the telecommunications networks engineering field of work and include access to:

- sites on which installation and commissioning procedures may be conducted
- relevant regulatory and equipment documentation
- testing equipment currently used in industry.

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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