



Australian Government

ICTTEN418 Install and test a radio frequency identification system

Release: 1

ICTTEN418 Install and test a radio frequency identification 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 for installation of either a new logistical or security network or upgrade of an existing system.

It applies to individuals who integrate new and converging functionalities to information and communications technology (ICT) networks. They are employed by telecommunications and information technology networking provisioning companies specialising in radio frequency identification (RFID) technology.

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 install specified RFID system	1.1 Prepare for given work according to relevant legislation, work health and safety (WHS) regulations, codes, and standards 1.2 Arrange site access according to required procedure 1.3 Choose the most suitable RFID system based on specifications and in consultation with appropriate person 1.4 Evaluate options for equipment installation siting and antenna positioning to include effects of electromagnetic interference and shielding

ELEMENT	PERFORMANCE CRITERIA
	1.5 Investigate causes of interference with RFID systems 1.6 Specify network element requirements for the installation and any training requirements for clients 1.7 Create a deployment plan including down times and advise the user group 1.8 Obtain all components and devices required for the RFID system
2. Install specified RFID system and resolve any faults	2.1 Install interrogators or readers according to given plan 2.2 Install tags and document correct procedures for locating and orienting tags 2.3 Install and undertake network configuration activities using relevant operating system and application upgrades to integrate RFID system into the overall network 2.4 Troubleshoot problems between interrogators or readers, tags and networks, including tuning for optimum performance and rectify any faults
3. Test RFID installation according to specification and standards	3.1 Test system installation according to design specifications and standards including optimum placement of tags, data transmission completeness and record outcomes 3.2 Carry out any changes 3.3 Validate changes or additions against specifications 3.4 Document the test results
4. Complete documentation in compliance with customer requirements and clean worksite	4.1 Complete all documentation for users according to the design and customer requirements 4.2 Complete report and notify client of network status and standards applying to the installation 4.3 Clean up and restore worksite to client's satisfaction 4.4 Secure sign-off from 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	1.1-1.3, 2.1, 3.3, 4.1	Recognises and interprets technical, legislative and operational documentation to determine job requirements
Writing	1.6,1.7, 2.2, 3.4, 4.1, 4.2	Uses clear, specific and industry-related terminology to produce and update workplace documentation, including user and training documentation in required formats
Oral Communication	1.3, 1.6, 1.7	- Clearly liaises with internal and external personnel on technical, operational and business related matters - Uses listening and questioning skills to confirm understanding for requirements
Numeracy	3.1	Undertakes test measurements, interprets results and evaluates performance and interoperability of RFID system
Navigate the world of work	1.1, 4.3	- Takes personal responsibility for adherence to legal and regulatory responsibilities relevant to own work - Recognises and follows explicit and implicit protocols and meets expectations associated with own role
Interact with others	4.4	Cooperates with others as part of familiar, routine activities and contributes to specific activities requiring joint responsibility and accountability
Get the work done	1.2-1.5, 1.8, 2.1-2.4, 3.1, 3.2	- Understands key principles and concepts underpinning design and operation of digital systems and tools, and applies these as required - Takes responsibility for own workload, negotiating some key aspects with others - Implements actions according to a predetermined plan, making adjustments if necessary - Makes decisions quickly and intuitively in familiar situations requiring immediate attention, drawing on past experience to identify key variables and determine the best course of action - Recognises and anticipates an increasing range of familiar problems, their symptoms and causes, depending on differing operational contingencies, risk situations and environments

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTTEN418 Install and test a radio frequency identification system	ICTTEN4202A Install and test a radio frequency identification 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 ICTTEN418 Install and test a radio frequency identification system

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Performance Evidence

Evidence of ability to:

- plan installation
- use basic research skills for adapting radio frequency identification (RFID) technologies to specified plan and design
- implement and verify RFID operations
- implement RFID architecture across a secure environment
- encode RFID tags and attach to items
- integrate RFID information into business applications
- configure network with IP addressing
- cable and test RFID network
- create technical and user documentation.

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 the client business domain, business function and organisation
- describe common network cable types and connectors
- summarise compatibility issues and resolution procedures
- describe configuration of internet protocol (IP) networks
- describe current industry-accepted hardware and software products used in RFID systems
- explain desktop applications and operating systems as required
- summarise enterprise communication and training systems in relation to training and advising staff involved in deployment
- summarise network topologies
- outline RFID technologies including:

- network operating systems
- protocols
- interrogators and sensors
- wireless technologies
- cabling standards.

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:

- a site where RFID installation may be conducted
- field measurement equipment currently used in industry
- relevant network element specifications
- technical requirements for an RFID network
- cabling
- networked (LAN) computers
- workstations
- RFID diagnostic software
- wide area network (WAN) service point of presence.

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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