



Australian Government

ICTICT822 Manage automated ICT system applications

Release: 1

ICTICT822 Manage automated ICT system applications

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 7.0.

Application

This unit describes the skills and knowledge required to apply the enterprise-wide operating system to system automation in a distributed computing environment as used in network applications.

It applies to network engineers who manage automated systems within a network and includes databases, files systems and user administration.

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

Unit Sector

General ICT

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 enterprise-wide operating systems	1.1 Obtain work details and scope from relevant personnel and arrange for access to information and communications technology (ICT) systems applications in compliance with security arrangements, legislation, codes, regulations and standards 1.2 Modify boot options and run enterprise-wide operating systems, according to agreed scope and organisational requirements 1.3 Shutdown the scoped networked operating system according to organisational procedures 1.4 Manage file commands and wildcards according to system requirements 1.5 Identify system commands and mount and unmount file systems 1.6 Verify the integrity of file systems and configure networking

ELEMENT	PERFORMANCE CRITERIA
	applications 1.7 Analyse, evaluate and apply enterprise-wide operating system features to given networking multi-user applications
2. Apply system functions	2.1 Utilise command line interfaces and interact with shells and commands to the networking application on distributed computing 2.2 Manage files and apply regular expressions with system functions 2.3 Identify text utilities and send text files and output streams 2.4 Evaluate and apply enterprise-wide operating system functions to a networking application on distributed computing and create menu options
3. Manage user login environment and customisation	3.1 Manage user and group accounts to the networking application on distributed computing 3.2 Change user and group profiles to allowed security access level 3.3 Scan log files and identify activity 3.4 Configure user environments for setting users and global profiles 3.5 Record required configuration settings
4. Manage system level functions	4.1 Identify the system 'cron' command and automate scheduling 4.2 Analyse the need for backup strategy in the required network application 4.3 Plan a backup strategy to maintain redundancy of the system 4.4 Configure the system to perform scheduled file backups to various media 4.5 Verify integrity of backup operations by restoring system using backup files 4.6 Configure system log files for administration and security needs 4.7 Manage a print server and print files to provide customer service 4.8 Document the configuration backup schedules and system logs
5. Complete evaluation and configuration documentation	5.1 Produce a report on the application of Unix features to given networking multi-user applications that use distributed computing 5.2 Document recommendations on system improvements according to organisational requirements 5.3 Produce a report on the management and configuration of user applications and system level functions

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Numeracy	• Applies a wide range of highly developed mathematical and problem-solving strategies and techniques to a wide range of contexts
Oral communication	• Presents complex and spoken communication in a broad range of contexts
Reading	• Evaluates and critiques ideas and information from a range of complex texts
Writing	• Generates complex written texts demonstrating sophisticated writing skills
Planning and organising	• Plans strategic priorities and outcomes when exposed to competing demands • Makes high-impact decisions in a complex and diverse environment, using input from a range of sources • Identifies key factors that impact on decisions and their outcomes, drawing on experience, competing priorities, and decision-making strategies where required
Problem solving	• Explores and incubates new and innovative ideas through unconstrained analysis and critical thinking to develop and improve the organisations goals
Technology	• Uses digital technologies to manage business operations and actively investigates new technologies for strategic and operational purposes

Unit Mapping Information

Supersedes and is equivalent to ICTICT815 Manage automated ICT system applications using enterprise wide operating system.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTICT822 Manage automated ICT system applications

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- manage at least one automated information and communications technology (ICT) system application.

In the course of the above, the candidate must:

- use functions using enterprise-wide operating systems
- analyse system functions based on data
- produce at least one report that evaluates the system
- document recommendations for system improvements.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- organisational regulations and procedures, regarding:
 - obtaining work details and scope from relevant personnel
 - arranging access to ICT systems applications
 - network security arrangements
 - report sign-off procedures
 - running enterprise-wide operating systems
- functions and features of:
 - enterprise-wide operating systems
 - automated ICT systems
 - networking multi-user applications
 - networking infrastructure
 - software simulation

- multiuser networking systems
- distributed computing functions
- disk partitions
- media file systems
- system commands
- special permission modes
- 'cron' commands
- automated scheduling
- command line interfaces
- networking shells and commands
- text files and utilities
- data backup strategies
- unix features
- modifying boot options
- methods to shutdown operating network systems
- system requirements for managing file commands and wildcards
- mounting and unmounting file systems
- utilising command line interfaces
- interacting with shells and network commands
- managing user and group accounts in networking applications
- scanning log files for activity
- configuring network applications
- encoding and programming techniques
- analysing and reporting on network security arrangements
- enterprise-wide operating system commands.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- a telecommunications operations site
- unix-based system
- special purpose tools, equipment and materials
- industry software packages
- enterprise objectives and policies.

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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