



Australian Government

Department of Education, Employment and Workplace Relations

ICANWK407A Install and configure client-server applications and services

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICA11 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to install, configure and maintain client-server application services in a networked environment.

Application of the Unit

This unit applies to network administrators and network support staff who implement the installation and configuration of client-server based software. This includes installing, maintaining and supporting server-side applications as well as client applications on network workstations, in both Windows-based and Linux-based networks.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</i>

Elements and Performance Criteria

1. Determine client-server software requirements	1.1 Select a client-server solution that best fits the desired outcome for a given scenario 1.2 Select hardware required to implement the client-server solution for the desired outcome 1.3 Select an appropriate host operating system for the chosen client-server software
2. Obtain and configure server application software, according to industry best practice	2.1 Investigate the range of client-server products available for the desired outcome, including commercial and open source 2.2 Identify hardware requirements 2.3 Identify available operating system platforms to host the client-server software
3. Install, configure, and manage services to meet business requirements	3.1 Install client-server software to both server and client hardware according to business guidelines 3.2 Configure the client-server software, according to vendor guidelines 3.3 Monitor client-server performance to ensure performance, according to business requirements 3.4 Manage the installation of upgrades and patches to the client-server software environment 3.5 Back up and maintain client-server software
4. Assess configuration effect on overall network design	4.1 Identify appropriate utilities to monitor and determine network performance 4.2 Create network performance benchmarks prior to and on completion of client-server software installation 4.3 Compare benchmarks to assess performance effect on network after installation of client-server software
5. Test and sign off	5.1 Test operation of the client-server software to ensure client requirements are met 5.2 Obtain sign-off from appropriate person

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to evaluate business and reporting requirements
- communication skills to liaise with internal and external personnel on technical, operational and business-related matters
- literacy skills to:
 - interpret technical documentation
 - write reports in required formats
- planning and organisational skills to analyse and organise business operating system requirements
- problem-solving and management skills to adapt, maintain and troubleshoot configuration and operational requirements of client-server software and reconfigure according to business requirements
- numeracy skills to analyse required memory, hard disk and performance requirements
- research skills to determine best-fit software to satisfy business requirements
- technical skills to:
 - select and use server and network diagnostics
 - test application software and hardware to suit different client server applications.

Required knowledge

- broad knowledge of:
 - client-server concepts
 - computer hardware and software skills
 - IP addressing
 - networking fundamentals
 - operating systems
- detailed knowledge of:
 - operating system help and support utilities
 - procedures for implementing backup and recovery
 - software installation and configuration, including user account and password management
 - troubleshooting tools and techniques, including network diagnostic utilities.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: • install and configure server-based client-server software • install and configure client software to communicate with appropriate server software • test operation of client-server software • identify and implement required updates for client-server software • monitor performance of client server software • backup and maintain client-server software.
Context of and specific resources for assessment	Assessment must ensure access to: • administrative access to a client server-based network • appropriate client-server software • appropriate learning and assessment support when required. Where applicable, physical resources should include equipment modified for people with special needs.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: • direct observation of the candidate installing or updating client-server software • verbal or written questioning of required skills and knowledge • evaluation of prepared report outlining testing procedures, test results and recommendations.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed. Indigenous people and other people from a non-English speaking background may need additional support. In cases where practical assessment is used it should be combined

	with targeted questioning to assess required knowledge.
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Client-server solution may include:	• accounting client server software • customer relationship management (CRM) • database management software • enterprise resource planning (ERP) • file transfer protocol (FTP) services • information services software • mail services • payroll • SharePoint services • support desk • web services.
Appropriate utilities may include:	• proprietary • third party • those included with the host operating system.

Unit Sector(s)

_Networking