



Australian Government

Department of Education, Employment and Workplace Relations

ICTTEN5201A Install, configure and test a server

Release: 1

ICTTEN5201A Install, configure and test a server

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	<p>This unit describes the performance outcomes, skills and knowledge required to install and configure a server as part of an upgrade to an existing network or the implementation of a new network.</p> <p>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.</p>
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Application of the Unit

Application of the unit	<p>Officers employed by telecommunications companies and IT networking provisioning companies who carry out installation, maintenance and upgrade of ICT networks apply the skills and knowledge in this unit when working on:</p> <ul style="list-style-type: none"> • server installation, configuration and testing in field work • server operating systems, protocols and diagnostics required for integrating new and converging functionalities to the network.
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Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	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.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to install a server	1.1. Prepare for work in line with site specific safety requirements and enterprise occupational health and safety (OHS) processes and procedures 1.2. Notify customer to arrange access to site 1.3. Obtain <i>server applications</i> and features from <i>appropriate person</i> 1.4. Choose the most suitable <i>server</i> with reference to required server application and server features 1.5. Choose the most suitable <i>network operating system</i> features with reference to required server solution and technical <i>requirements</i> 1.6. Provide alternative server solutions with reference to required server application and server features 1.7. Review required installation options 1.8. Analyse data migration requirements 1.9. Apply backup and recovery requirements with reference to organisational policy 1.10. Analyse education and training requirements for support staff and in line with <i>client</i> , requirements and relevant enterprise policies 1.11. Create and document a deployment plan 1.12. Advise <i>user</i> group of deployment and potential down times
2. Install and configure the server	2.1. Backup and restore local data in preparation for installation 2.2. Install and configure the server as required by technical requirements and functional specifications 2.3. Install and undertake configuration activities using relevant operating system and application upgrades 2.4. Reconnect and reconfigure relevant connectivity devices
3. Test the server and reconfigure the network	3.1. Run the <i>system</i> testing for benchmarking against client specification and requirements according to test plan, and record outcomes 3.2. Analyse the error report and make changes as required 3.3. Test required changes or additions 3.4. Validate changes or additions against specifications
4. Complete	4.1. Make and document server <i>configuration</i> and

ELEMENT	PERFORMANCE CRITERIA
documentation and clean up work site	operational changes 4.2. Tabulate test results and complete all documentations for users 4.3. Complete client report and notify of status of the network 4.4. Clean up and restore worksite to client's satisfaction 4.5. Secure sign-off from appropriate person

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- communication skills to liaise with internal and external personnel on technical, operational and business related matters
- literacy skills to interpret technical documentation and write reports in required formats
- numeracy skills to take test measurements, interpret results and evaluate performance and interoperability of network
- planning and organisational skills to plan, prioritise and monitor own work
- problem solving and contingency management skills to adapt configuration procedures to requirements of network and reconfigure depending on differing operational contingencies, risk situations and environments
- research skills to interrogate vendor databases and websites to implement different configuration requirements to meet security levels
- technical skills to select and use server diagnostic test, application software and hardware to suit different network applications

Required knowledge

- Australian Computer Society Code of Ethics
- common network:
 - cable types and connectors
 - topologies
- compatibility issues and resolution procedures
- desktop applications and operating systems as required
- documentation skills for networks
- enterprise communication/training systems in relation to training and advising staff

REQUIRED SKILLS AND KNOWLEDGE

involved in the deployment

- features of:
 - current network operating systems (NOS)
 - current server applications compatibility issues and resolution procedures
- implementation and configuration of servers
- system backup procedures

Evidence Guide

EVIDENCE GUIDE	
<p>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.</p>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • analyse server and network operational issues • apply user applications and relate user needs when configuring a server • create technical and user documentation • install and configure server • test server and reconfigure network • troubleshoot server and network failures.
Context of and specific resources for assessment	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> • site where server installation may be conducted • relevant server specifications: <ul style="list-style-type: none"> • cabling • networked (LAN) computers • server diagnostic software • switch • technical requirements for a network • WAN service point of presence • workstations • relevant regulatory documentation that impacts on installation activities.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct observation of the candidate installing or updating network • oral or written questioning of required skills and knowledge • evaluation of report prepared by the candidate outlining testing procedures, test results and recommendation to network changes.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended,</p>

EVIDENCE GUIDE

	<p>for example:</p> <ul style="list-style-type: none"> • ICTTEN4198A Install, configure and test an internet protocol network. <p>Aboriginal people and other people from a non-English speaking background may have second language issues.</p> <p>Access must be provided to appropriate learning and assessment support when required.</p> <p>Assessment processes and techniques must be culturally appropriate, and appropriate to the oral communication skill level, and language and literacy capacity of the candidate and the work being performed.</p> <p>In all cases where practical assessment is used it will be combined with targeted questioning to assess required knowledge. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency.</p> <p>Where applicable, physical resources should include equipment modified for people with special needs.</p>
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Range Statement**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.

Server applications may include:

- database and data warehousing
- directory services
- file sharing

RANGE STATEMENT	
	<ul style="list-style-type: none"> • line of business applications • management • messaging • network and remote access • printer sharing • terminal services • web services.
<i>Appropriate person</i> may include:	<ul style="list-style-type: none"> • authorised business representative • client • IT support manager • network administrator • network manager • small or medium enterprise (SME) customer • small office home office (SOHO) customer • supervisor.
<i>Server</i> may include:	<ul style="list-style-type: none"> • application or web servers • BEA Weblogic servers • email servers • file and print servers • firewall servers • FTP servers • IBM VisualAge and WebSphere • Novell NDS servers • proxy or cache servers.
<i>Network operating system</i> may include latest versions of:	<ul style="list-style-type: none"> • Apple OS • Linux OS • Unix OS • Windows OS.
<i>Requirements</i> may be in reference to:	<ul style="list-style-type: none"> • application • business • database • network • people in the organisation • platform • system.
<i>Client</i> may include:	<ul style="list-style-type: none"> • external organisations • individuals • internal departments • internal employees.

RANGE STATEMENT	
User may include:	<ul style="list-style-type: none"> • department within the organisation • person within a department • third party.
System may include:	<ul style="list-style-type: none"> • application service provider • applications • databases • gateways • internet service provider (ISP) • operating systems • servers.
Configuration may include:	<ul style="list-style-type: none"> • access control needs • cache sizes • consumers and suppliers • database cache • directory configuration • domain name system (DNS) • entry cache • hostnames • IP addresses • large objects • lightweight directory access protocol (LDAP) clients • log file rotation • NetBIOS naming • network connectivity issues • port numbers • root domain name (DN) • search and write performance • server domains.

Unit Sector(s)

Unit sector	Telecommunications
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Telecommunications networks engineering
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