



Australian Government

Department of Education, Employment and Workplace Relations

ICANWK501A Plan, implement and test enterprise communication solutions

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 manage deployment and administration of an enterprise messaging environment and enterprise-wide content management and collaboration tools.

Application of the Unit

This unit applies to an information technology (IT) professional who configures and deploys software to supply mail, collaboration and messaging services in an enterprise environment.

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. Plan, implement and test an enterprise email solution	1.1 Plan implementation to provide mail services to meet business requirements 1.2 Prepare existing network for mail server installation 1.3 Install and configure mail servers 1.4 Configure users, mailboxes, address lists, distribution lists and user constraints 1.5 Configure mail-client access 1.6 Configure message integrity and anti-spam, antivirus and anti-phishing measures 1.7 Configure message transport to deliver mail within and outside enterprise 1.8 Monitor mail-system performance 1.9 Implement measures to provide high availability and data recovery 1.10 Test functionality
2. Plan, implement and test remote access to email	2.1 Plan remote access to mail 2.2 Configure mail system to provide remote access 2.3 Test remote mail access
3. Plan, implement and test an enterprise web portal or content management solution	3.1 Plan namespace and server roles and deploy web portal or content-management software 3.2 Configure access and security 3.3 Configure network infrastructure 3.4 Manage design and customisation of portal and related services 3.5 Monitor performance and logs 3.6 Implement measures to provide high availability and disaster recovery 3.7 Test functionality
4. Plan, implement and test business collaboration tools	4.1 Plan namespace and server roles and deploy business collaboration software 4.2 Configure access and security 4.3 Configure network infrastructure 4.4 Customise to meet business requirements 4.5 Monitor performance and logs

	4.6 Implement measures to provide high availability and disaster recovery 4.7 Test functionality
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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
 - write reports in required formats
- numeracy skills to:
 - take test measurements
 - interpret results
 - evaluate performance and interoperability of communication services
- planning and organisational skills to plan, design and implement a communications solution
- problem-solving skills in a predictable range of network and software compatibility problems
- research skills to interrogate vendor databases and websites
- technical skills to install and configure multiple server applications in a complex network environment.

Required knowledge

- detailed knowledge of:
 - mail server application
 - some business collaboration tools
 - web portal or content management software
- overview knowledge of:
 - administering database servers to support portal applications
 - backup and restoration of data
 - firewall configuration
 - network load-balancing for applications
 - network server or directory administration
 - networking infrastructure
 - security and authentication practices
 - web server administration.

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: • design and implement an enterprise mail system • design and implement an enterprise web portal or content management system • design and implement business collaboration tools • configure network, servers and application software to provide optimal performance, meet security requirements and avoid known conflicts • configure applications to meet customisation requirements • monitor and test the performance of aspects of the solution.
Context of and specific resources for assessment	Assessment must ensure access to: • site where server applications can be installed • networked servers • workstations • switch • wide area network (WAN) service point of presence • client requirements • 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: • evaluation of design report for an enterprise communication solution • direct observation of the candidate installing and configuring an enterprise communication solution • verbal or written questioning of required skills and knowledge • evaluation of report that outlines testing procedures, test results and changes made as a result of testing • review of report that outlines the design process, including challenges faced and how these were addressed • evaluation of design and implementation of the system in

	terms of performance and suitability for business needs.
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.

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.

<i>Prepare existing network</i> may include:	• checking for incompatibilities with existing systems • configuring domain names system (DNS) to support mail server • installing any prerequisites • reconfiguring other network services to support mail • removing unsupported legacy components • updating server operating systems to latest version • using vendor tools to check network for readiness to install mail server.
<i>Mail server</i> may include:	• Axigen Mail Server • Linux or Unix Sendmail • Microsoft Exchange • Open Xchange Server • Postfix.
<i>Mail-client access</i> may include:	• authentication • certificates • internet message access protocol (IMAP) • integration with other services, such as file sharing • mobile devices • post office protocol (POP).
<i>Message integrity</i> may include:	• certificates • encryption • Information Rights Management • secure or multipurpose internet mail extensions (SMIME or MIME) • transport layer security (TLS).
<i>Mail-system performance</i> may include:	• connectivity: • mail clients to server • simple mail transfer protocol (SMTP) client to server • SMTP server to server • databases • mail flow.
<i>Measures to provide high</i>	• automatic server failover

availability and data recovery may include:	• backups of configuration • backups of databases • clustering • deleted item retention • replicating databases.
Remote access may include:	• web-based mail client • virtual private network (VPN) • mobile phone or other device.
Web portal or content-management software may include:	• IBM websphere • JBoss • Microsoft SharePoint • Moodle or Equella • Oracle.
Security may include:	• access policies • application authentication • database permissions • information rights management • roles and site permissions.
Network infrastructure may include:	• firewall configuration • name resolution • network load balancing.
Business collaboration software may include:	• Cisco collaboration tools • Domino or Lotus • Groupwise (Novell) • Microsoft SharePoint • Moodle or Equella • wiki engines.

Unit Sector(s)

Networking