



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **ICAS5199B Manage business websites and servers**

**Release: 1**

## ICAS5199B Manage business websites and servers

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	<p>This unit defines the competency required to maintain and manage business websites and the associated servers.</p> <p>The following unit is linked and forms an appropriate cluster:</p> <ul style="list-style-type: none"> <li>• ICAA6157B Develop technical requirements for a business solution</li> </ul> <p>No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.</p>
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### Application of the Unit

<b>Application of the unit</b>	
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### Licensing/Regulatory Information

Refer to Unit Descriptor

### Pre-Requisites

<b>Prerequisite units</b>		
	ICAS4191B	Maintain website performance

## Employability Skills Information

<b>Employability skills</b>	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. Maintain business website and contents	1.1. Establish personnel policies and procedures for managing access and changes to all aspects of the business website 1.2. Design and start a training program for teaching staff how to use procedures and policies as well as making changes to the business website 1.3. Evaluate and test site analysis software on a non-live <i>server</i> to verify all features and functions are safe for use on a live <i>server</i> 1.4. Generate site summary reports in line with the organisational quality management program or guidelines 1.5. Review reports found to have generated security flaws 1.6. Check links for functionality and ongoing relevance 1.7. Modify web pages according to changing business requirements and analysis of site summary report 1.8. Maintain and debug <i>database</i> information according to site and information requirements
2. Maintain business security of the website	2.1. Establish a security response procedure to control information placed on the business website by developers, designers and end-users 2.2. Develop a <i>security plan</i> 2.3. Test site security according to organisational requirements of the <i>security plan</i> 2.4. Maintain site security using information from security vendors and technical media outlets
3. Monitor business website performance	3.1. Select <i>server analysis tools</i> with reference to organisational requirements and the range of functionalities requiring monitoring 3.2. Determine business website load metrics and performance indicators in line with organisational requirements 3.3. Measure business website server performance with <i>server analysis tools</i> 3.4. Identify and document business options for performance improvement 3.5. Submit website server performance reports to <i>client</i>
4. Undertake capacity planning	4.1. Determine future peak volumes by measuring page usage and volume accesses

ELEMENT	PERFORMANCE CRITERIA
	<p>4.2. Develop an upgrade program to deal with increasing load and performance issues</p> <p>4.3. Set performance benchmarks to take into consideration possible future scenarios for each relevant load metric</p> <p>4.4. Determine options for upgrade path for <i>equipment</i> needs based on research and business website performance growth forecasting</p>

## Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
<p>This section describes the skills and knowledge required for this unit.</p>
<p><b>Required skills</b></p>
<ul style="list-style-type: none"> <li>• Use of a current site server, web server log file analysis and traffic tracking software</li> <li>• Use of a current forecasting methodology for identifying traffic peaks</li> <li>• Maintaining firewalls</li> <li>• Maintaining VPN gateways</li> <li>• Request for proposals (RFPs)</li> <li>• Intrusion detection software</li> <li>• Integrity checking software</li> </ul>
<p><b>Required knowledge</b></p>
<ul style="list-style-type: none"> <li>• Website architecture</li> <li>• Website security issues</li> <li>• Queuing systems</li> <li>• SGML and associated standards</li> <li>• Bottlenecks and methods of correction</li> <li>• Workload metrics</li> <li>• User request classes</li> <li>• Electronic Commerce Modelling Language</li> </ul>

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
<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>	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Evidence of the following is essential:</p> <ul style="list-style-type: none"> <li>• Assessment must confirm the ability to maintain a consistent and constantly performing website that meets the stated business strategies and directions.</li> </ul> <p>To demonstrate competency in this unit the learner will require access to:</p> <ul style="list-style-type: none"> <li>• Site servers and web servers</li> <li>• Business website</li> <li>• Site server software</li> <li>• Analysis software</li> <li>• Requirements documentation</li> <li>• Business planning documentation</li> </ul>
<b>Context of and specific resources for assessment</b>	<p>Performance issues and response times remain a primary concern of business and business websites. Optimising the performance of the website and associated servers will ensure smooth functionality of the pages and effective operation of commercial transactions through the site.</p> <p>The breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and coordination would be characteristic.</p> <p>The demonstration of competency may also require self-directed application of knowledge and skills, with substantial depth in some areas where judgement is required in planning and selecting appropriate equipment, services and techniques for self and others.</p>

<b>EVIDENCE GUIDE</b>	
	<p>Assessment must ensure:</p> <ul style="list-style-type: none"> <li>• Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or team coordination may also be involved.</li> </ul>
<b>Method of assessment</b>	<p>The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1.</p> <ul style="list-style-type: none"> <li>• Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency.</li> <li>• Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.</li> </ul>
<b>Guidance information for assessment</b>	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example:</p> <ul style="list-style-type: none"> <li>• ICAA6157B Develop technical requirements for a business solution</li> </ul>

<b>EVIDENCE GUIDE</b>	
	<p>An individual demonstrating this competency would be able to:</p> <ul style="list-style-type: none"> <li>• Demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas</li> <li>• Analyse and plan approaches to technical problems or management requirements</li> <li>• Transfer and apply theoretical concepts and/or technical or creative skills to a range of situations</li> <li>• Evaluate information, using it to forecast for planning or research purposes</li> <li>• Take responsibility for own outputs in relation to broad quantity and quality parameters</li> <li>• Take some responsibility for the achievement of group outcomes</li> <li>• Maintain knowledge of industry products and services</li> </ul>

## Range Statement

<b>RANGE STATEMENT</b>	
<p>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.</p>	
<p><b><i>Servers</i></b> may include:</p>	<ul style="list-style-type: none"> <li>• Apache HTTP server</li> <li>• IBM VisualAge and WebSphere</li> <li>• Microsoft-Internet-Information-Server, Microsoft-IIS</li> <li>• NetDynamics</li> <li>• Lotus Domino</li> <li>• Zope</li> <li>• Netscape Enterprise server, Netscape-FastTrack, Netscapebusiness</li> <li>• Sun Microsystems iPlanet web server</li> <li>• iPlanet-Enterprise</li> <li>• Sun Microsystems Java web server</li> </ul>



<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• Email servers</li> <li>• File and print servers</li> <li>• FTP servers</li> <li>• Proxy servers</li> </ul>
<i>Database</i> may include:	<ul style="list-style-type: none"> <li>• Oracle</li> <li>• Sybase</li> <li>• Microsoft SQL server</li> <li>• Ingres</li> <li>• DB2</li> <li>• Informix</li> <li>• mSQL</li> <li>• MySQL</li> <li>• SQL server</li> </ul>
<i>Server analysis tools</i> may include:	<ul style="list-style-type: none"> <li>• Apache JSSI</li> <li>• Apache Jmeter</li> </ul>
<i>Security plan</i> may include:	<ul style="list-style-type: none"> <li>• theft</li> <li>• viruses</li> <li>• standards (including archival, back-up, network)</li> <li>• privacy</li> <li>• audits</li> <li>• alerts and usually relates directly to the security objectives of the organisation</li> </ul>
<i>Client</i> may include but is not limited to:	<ul style="list-style-type: none"> <li>• internal departments</li> <li>• external organisations</li> <li>• individual people</li> <li>• employees</li> </ul>
<i>Equipment</i> may include but is not limited to:	<ul style="list-style-type: none"> <li>• workstations</li> <li>• personal computers</li> <li>• modems or other connectivity devices</li> <li>• printers</li> <li>• DSL modems</li> <li>• hard drives</li> <li>• monitors</li> <li>• switches</li> <li>• hubs</li> <li>• personal digital assistant (PDA)</li> <li>• other peripheral devices</li> </ul>

### Unit Sector(s)

Unit sector	Support
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### Co-requisite units

Co-requisite units		

### Competency field

Competency field	
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