



Australian Government

ICTCLD504 Improve cloud-based infrastructure

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to assess, design, improve and monitor cloud architecture on a cloud platform, including security, reliability, scalability and cost optimisation impacts for a business.

The unit applies to cloud computing architects, cloud developers, cloud engineers and those engaged in gathering requirements, designing and implementing cloud computing solutions for a business.

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

Unit Sector

Cloud computing

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Analyse cloud architecture on a cloud platform	1.1 Identify and review business's cloud architecture design 1.2 Evaluate cloud architecture and identify business impact of design decisions 1.3 Identify design patterns and architectural options 1.4 Determine and assess benefits and differences of cloud computing and architectural design against current business model and needs 1.5 Confirm system design decisions according to business needs 1.6 Set business goals as they relate to security, reliability, high-performance and cost efficiencies of cloud architecture according to business requirements and needs

ELEMENTS	PERFORMANCE CRITERIA
2. Design and improve architecture on a cloud platform	2.1 Evaluate and confirm performance metrics for business applications according to business needs 2.2 Select and improve compute, storage, database and network resources according to business needs 2.3 Review and improve architecture required to enhance security, reliability, scalability and cost optimisation 2.4 Document and present proposed architecture for review to required personnel 2.5 Obtain sign off to proceed to deployment with required personnel
3. Deploy, monitor and test architecture on cloud platform	3.1 Deploy approved architecture on cloud platform 3.2 Monitor and measure architecture against performance metrics and business goals 3.3 Test and demonstrate security, reliability, scalability and cost optimisation of deployed resources 3.4 Apply short-term refinements to deployed resources according to test results
4. Finalise improvements on a cloud platform	4.1 Document as-deployed architecture and test results, and highlight changes and improvements from approved design 4.2 Describe long-term improvement strategies and their benefits as applied to deployed resources 4.3 Obtain final sign off from required personnel

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
Oral communication	• Uses listening and questioning techniques to confirm requirements and articulate complex concepts • Presents proposed solutions to required personnel using appropriate industry language
Reading	• Interprets complex technical and operational documentation to determine and confirm job requirements
Writing	• Writes and edits code and technical data in a logical manner using required syntax and language
Problem solving	• Uses a mix of intuitive and formal processes to identify key information and issues, evaluates alternative strategies, anticipates

SKILL	DESCRIPTION
	consequences and considers implementation issues and contingencies • Uses knowledge of context to address common problems in cloud computing applications and cloud-based environments
Self-management	• Demonstrates a sophisticated knowledge of principles, concepts, language and practices associated with cloud computing and the digital world and uses them to troubleshoot and understand the uses and potential of new technology

Unit Mapping Information

No equivalent unit. New unit.

Links

Companion Volume Implementation Guide is found on VETNet -

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