



Australian Government

ICTCLD507 Build and deploy resources on cloud platforms

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 configure, deploy and monitor a range of technology resources of core cloud computing service on a cloud platform.

The unit applies to cloud engineers, cloud systems administrators and those who work within cloud computing operations to provision, implement and maintain cloud computing solutions for a business with little guidance or supervision. These ICT professionals may work from designs developed by cloud architects and focus on operational concerns, including automation and maintaining cloud resources.

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. Prepare to deploy a cloud resource	1.1 Review and confirm deploying and configuring a cloud resource task according to business needs 1.2 Determine cloud computing technology resources according to business needs 1.3 Identify organisational policies and procedures required for cloud technology resources 1.4 Identify and confirm business purpose, use and plan of different cloud resources according to business needs
2. Deploy and configure the cloud resource	2.1 Identify interfaces and tools required to perform task that is repeatable and automatable

ELEMENTS	PERFORMANCE CRITERIA
	2.2 Define steps required to provision resource 2.3 Confirm and document testing required to demonstrate successful completion of task 2.4 Deploy and configure cloud resource 2.5 Configure required monitoring for cloud resource
3. Test the cloud resource	3.1 Execute test plan and demonstrate cloud resource meets task requirements and business need 3.2 Troubleshoot and resolve issues as required
4. Document and finalise task	4.1 Document procedure and results 4.2 Recommend further steps to reduce manual elements of the procedure through automation 4.3 Submit to required personnel 4.4 Communicate outcomes and obtain final task sign off from required personnel as required

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
Reading	Interprets complex technical and operational documentation to determine and confirm job requirements
Writing	- Prepares and develops complex documentation in required formats using clear succinct and detailed language to convey explicit information, requirements and recommendations - Writes and edits code and technical data in a logical manner using required syntax and language and ensuring flow
Problem solving	- Uses a mix of intuitive and formal processes to identify key information and issues, evaluates alternative strategies, anticipates 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>

Assessment Requirements for ICTCLD507 Build and deploy resources on cloud platforms

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, and to:

- deploy and configure at least 6 of the following different types of cloud resources, including but not limited to
- virtual machines
- container services
- load balancers and autoscaling
- serverless functions
- API gateways
- block or object storage
- managed databases
- DNS
- content delivery networks.

In the course of the above, the candidate must:

- use cloud management console, cloud software development kits or command line tools
- develop and execute test plans and demonstrate successful task completion
- consider procedural improvements to produce repeatable and automated deployments by reducing manual processes.

Knowledge Evidence

The candidate must demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit. This includes knowledge of:

- industry technology standards used in cloud computing solutions and services
- industry standard hardware and software products, their general features, capabilities and applications
- testing and debugging techniques of cloud resources and technologies

- purpose, benefits and features of cloud-based:
 - virtual machines and containers services
 - API gateways and serverless computing
 - load balancing and autoscaling
 - block and object storage
 - managed databases
 - DNS and content delivery networks
 - resource logging, monitoring and alerting tools
- repeatable and automated provisioning with
- software development kits
- command line tools
- infrastructure as code services.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- cloud vendor service provider
- cloud managed database service
- information and data sources required to design and implement cloud infrastructure
- integrated development environment (IDE)
- specific requirements and industry standards, organisational procedures and legislative requirements, including business and functionality requirements, as required
- internet and web browser
- secure shell (SSH) or remote desktop protocol (RDP) client to connect to cloud-hosted instances
- data to gather information from to determine output and user requirements, including user access and business protocols.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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