



Australian Government

ICTCLD506 Implement virtual network in cloud environments

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 design and configure a virtual network according to networking requirements for a multi-tiered application on a cloud platform.

The unit applies to cloud engineers, cloud systems administrators and those who work within cloud computing operations to program, implement and maintain cloud computing solutions to support 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. Prepare to design and configure virtual networks	1.1 Gather multi-tier application networking requirements according to business needs 1.2 Identify business and industry requirements for virtual network in cloud environment 1.3 Research and identify available security options for virtual network
2. Design and configure virtual networks	2.1 Design virtual network according to networking and business requirements for a multi-tier application 2.2 Allocate virtual network and subnets for documented IP ranges 2.3 Enable network gateways and its service as required

ELEMENTS	PERFORMANCE CRITERIA
	2.4 Configure route tables and routing targets as required 2.5 Configure security controls to support test environment 2.6 Check expected network traffic is permitted into, through and out of virtual network 2.7 Collect and monitor network traffic logs and metrics 2.8 Test external connectivity to a resource within virtual network and demonstrate only permitted traffic reaches the resource 2.9 Troubleshoot and fix errors as required
3. Configure virtual network peering	3.1 Establish peering connection between two virtual networks 3.2 Adjust routing tables to direct traffic between both networks 3.3 Demonstrate network connectivity between hosts in each network 3.4 Test and troubleshoot network peering configuration
4. Document virtual networks	4.1 Document work, including a network diagram, and submit to required personnel as required 4.2 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 user documentation detailing work 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 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>