



Australian Government

ICTCYS401 Design and implement network security infrastructure for an organisation

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 set up network security infrastructure scalable to a medium to large organisation.

It applies to individuals who work as networking engineers and cloud engineers and specialise in cyber security in an Information and Communications Technology (ICT) and digital team environment.

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

Unit Sector

Cyber security

Elements and Performance Criteria

ELEMENT	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 implement network security infrastructure	1.1 Obtain work details and scope from required personnel and arrange for site access in compliance with required security arrangements, legislation, codes, regulations and standards 1.2 Establish security threats impacting organisation with required personnel and assess its likelihood 1.3 Confirm and document established requirements and risks according to organisational procedures
2. Design network security infrastructure	2.1 Establish requirements and features of network security infrastructure 2.2 Identify and evaluate a range of industry standard network security providers

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	2.3 Discuss and confirm selected network security provider with required personnel according to infrastructure requirements
3. Implement network security infrastructure	3.1 Establish and create secure network boundaries 3.2 Implement server, application and user security technologies according to network security requirements 3.3 Confirm required levels of user access throughout organisation 3.4 Establish maintenance and alert processes for risk and security threats according to organisational procedures
4. Finalise and monitor network security infrastructure	4.1 Test deployment of network security infrastructure and its components according to organisational testing procedures 4.2 Gather and review test results and logs and adjust accordingly 4.3 Confirm completion of requirements with required personnel 4.4 Document work performed and results according to organisational procedures 4.5 Conduct routine reviews of network security infrastructure according to organisational procedures

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
Learning	<ul style="list-style-type: none"> Identifies and gathers information applicable to business, infrastructure and network
Reading	<ul style="list-style-type: none"> Selects and applies network infrastructure features and procedures suited to job requirements and system design from range of routine texts
Writing	<ul style="list-style-type: none"> Uses required and industry specific terminology in documenting research findings and network security policies
Technology	<ul style="list-style-type: none"> Uses required technological tools and software in designing and implementing network security infrastructure Applies skills in systems administration, network security, applications and programming

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>