



Australian Government

ICTICT527 Develop and maintain blockchain solutions

Release: 1

ICTICT527 Develop and maintain blockchain solutions

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 identify, develop and maintain blockchain solutions to specified business needs.

It applies to those in roles, including senior software developers or blockchain developers, who perform the planning, development and implementation of new and existing technologies to business models in the Information and Communications Technology (ICT) and related industries.

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

Unit Sector

General ICT

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. Determine blockchain solution requirements	1.1 Establish blockchain objectives, purpose and requirements according to organisational needs 1.2 Identify organisational processes and transactional types suitable for blockchain technology 1.3 Identify organisational use-case according to organisational needs 1.4 Determine legislation and organisational policies and procedures for blockchain and determine impact on solution
2. Design blockchain solution components	2.1 Gather data according to organisational needs 2.2 Design integration workflow according to organisational need

	2.3 Determine security and platform for blockchain solution 2.4 Document design plan according to organisational needs
3. Implement blockchain solution	3.1 Set up required platform according to design plan 3.2 Initialise blockchain solution according to vendor specifications 3.3 Implement required consensus portal 3.4 Execute smart command in required platform according to blockchain solution 3.5 Debug and scale blockchain solution
4. Maintain blockchain solution	4.1 Test performance against organisational needs and requirements 4.2 Determine and conduct maintenance tests 4.3 Determine and document maintenance schedule 4.4 Submit documentation to required personnel and seek and respond to feedback

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	Monitors outcomes of decisions, considering results and identifying key concepts and principles that may be adaptable in the future
Numeracy	Uses mathematical formulae to calculate required equipment, undertake measurements and determine response times
Oral communication	Obtains information to confirm requirements and responsibilities distinctively using appropriate industry language
Reading	Recognises and interprets technical, manufacturer and organisational documentation to determine and confirm job requirements
Writing	Prepares documentation outlining maintenance schedule according to specified requirements
Planning and organising	Operates from a broad conceptual plan, developing the operational detail in stages, regularly reviewing priorities and performance during implementation, and identifying and addressing issues
Problem solving	Uses nuanced understanding of context to recognise anomalies and subtle deviations to normal expectations, focusing attention and remedying problems as they arise
Self-management	Takes full responsibility for identifying and considering relevant organisational protocols and requirements

SKILL	DESCRIPTION
	• Uses systematic processes, setting goals, gathering required information and identifying and evaluating options against agreed criteria
Technology	• Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world

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 ICTICT527 Develop and maintain blockchain solutions

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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, including evidence of the ability to:

- develop, implement and maintain a blockchain solution aligned to a specific organisational criterion.

In the course of the above, the candidate must:

- research and identify industry standard technology options.

Knowledge Evidence

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

- underlying blockchain principles applicable to developing and maintaining solutions
- objectives, purpose and requirements of blockchain solutions
- suitability of blockchain different transaction and data types
- transactional types and components suitable for blockchain technology
- techniques to debug, scale and test blockchain solutions
- capabilities and purpose of blockchain technology
- industry standard uses for applications.

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:

- industry standard software to access internet and web delivered information
- industry standard hardware to access internet and web delivered information
- client deliverables that assist in information gathering

- platforms providing distributed ledger applications
- blockchain best practice guidelines.

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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