



Australian Government

ICTICT528 Deploy smart contracts

Release: 1

ICTICT528 Deploy smart contracts

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 administer and manage smart contracts as a blockchain application. It involves the research, planning and deployment of blockchain applications for smart contracts suitable to specified business need.

It applies to those who work as senior software developers, blockchain developers, or those who are responsible for undertaking the assessment and implementation of new 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. Prepare to deploy blockchain technology	1.1 Establish organisational requirements for blockchain technology and contracts 1.2 Determine existing blockchain infrastructure 1.3 Identify data based on existing infrastructure and organisational requirements 1.4 Determine platform and security requirements
2. Plan deployment strategy	2.1 Determine and document deployment plan according to organisational requirements 2.2 Determine and document deployment timelines 2.3 Determine and document impact on organisational

	operations
3. Implement smart contracts technology	3.1 Deploy technology according to deployment plan 3.2 Determine alignment of technological capabilities against deployment plan 3.3 Determine and apply methods to align smart contract capability against deployment plan 3.4 Create documentation and seek and respond to feedback 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
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 articulate requirements and responsibilities distinctively using appropriate industry language intended for audience and environment
Reading	• Recognises and interprets technical, manufacturer and organisational documentation to determine and confirm job requirements
Writing	• Prepares documentation detailing deployment plan, timelines and impact on organisational operations using appropriate language for intended audience
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 • 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 ICTICT528 Deploy smart contracts

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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:

- deploy a smart contract using blockchain technology on at least two occasions.

In the course of the above, the candidate must:

- research organisational business model and determine required distributed ledger application
- demonstrate adherence to blockchain best practices and guidelines.

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:

- objectives, purpose and requirements of blockchain solutions
- blockchain principles that apply to deploying smart contracts
- functions and features of cryptography
- database rules relevant to deploying smart contracts
- transactional components
- industry standard uses for applications
- industry standard uses for ABI and bytecode variables
- uses and functions of Integrated Development Environment (IDE)
- libraries and languages relevant to deploying smart contracts
- security best practices and principles applicable to smart contracts.

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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