



**Australian Government**

# **ICTNWK423 Manage network and data integrity**

**Release: 1**

# ICTNWK423 Manage network and data integrity

## 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 lead development of asset protection processes, determining threats and implementing controls to mitigate risk.

It applies to individuals in the Information Communications Technology (ICT) industries who are responsible for implementing and managing the organisational disaster recovery and asset protection policy and procedures of a network.

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

## Unit Sector

Networking

## 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. Assess organisational network and security policies | 1.1 Identify organisational security policies and procedures<br>1.2 Identify security access and user privileges according to organisational requirements<br>1.3 Determine compatibility of identified security access user privileges to organisational requirements |
| 2. Audit system assets                                 | 2.1 Conduct audit on system hardware and software assets according to organisational procedures and guidelines<br>2.2 Document audit findings according to organisational procedures<br>2.3 Lodge audit findings documents with required personnel                    |
| 3. Protect assets from threats                         | 3.1 Determine environmental threats to data                                                                                                                                                                                                                           |

| ELEMENT                        | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                | 3.2 Determine data protection systems and controls according to organisational requirements<br>3.3 Implement data protection systems according to organisational requirements<br>3.4 Implement and test antivirus and anti-malware solutions according to vendor specifications and organisational requirements                               |
| 4. Develop a backup solution   | 4.1 Determine data backup types compatible to organisational systems and requirements<br>4.2 Plan backup solution according to organisational requirements<br>4.3 Implement backup solution and restore backed up media<br>4.4 Implement real time backup and data sync solution according to organisational requirements                     |
| 5. Monitor network performance | 5.1 Determine available network performance monitoring tools compatible to existing network<br>5.2 Implement network performance monitoring tools according to task requirements<br>5.3 Document network performance expectations and actual performance according to organisational procedures<br>5.4 Lodge document with 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                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oral communication      | <ul style="list-style-type: none"><li>• Uses verbal techniques to confirm information and requirements, communicate ideas and gather feedback</li></ul>                                                |
| Reading                 | <ul style="list-style-type: none"><li>• Interprets textual information from relevant sources to identify software solutions and adherence to organisational security policies and procedures</li></ul> |
| Writing                 | <ul style="list-style-type: none"><li>• Prepares required documentation conveying explicit recommendations, requirements and information using specific and relevant language</li></ul>                |
| Planning and organising | <ul style="list-style-type: none"><li>• Determines job priorities, resources and equipment, and works logically and systematically to undertake clearly defined and familiar tasks</li></ul>           |

| SKILL           | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Problem solving | <ul style="list-style-type: none"><li>• Initiates standard procedures when applying solutions in networks, including systems management processes, and deploys rapid solutions to problems involving management of network assets</li></ul>                                                                                                                |
| Self-management | <ul style="list-style-type: none"><li>• Demonstrates an understanding of, and compliance with, explicit organisational policies and procedures</li><li>• Takes responsibility for routine decision making by selecting from a range of predetermined options in routine situations, identifying and taking some situational factors into account</li></ul> |
| Technology      | <ul style="list-style-type: none"><li>• Demonstrates an understanding of purposes, specific functions and key features of common digital systems and tools, and operates them effectively to complete routine tasks</li></ul>                                                                                                                              |

## Unit Mapping Information

Supersedes and is equivalent to ICTNWK403 Manage network and data integrity and ICTTEN511 Administer a data communications network.

## 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 ICTNWK423 Manage network and data integrity

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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:

- maintain and manage at least one network
- maintain data integrity whilst managing at least one network
- document and lodge outcomes and process.

In the course of the above, the candidate must:

- use industry standard tools to conduct audit on system assets
- implement and test antivirus solution
- employ systems to negate environmental threats
- demonstrate features of data backup, restore and system roll back
- perform network monitoring using a variety of current standard tools
- add network controls according to network and data integrity policies.

## 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:

- broad principles of current data integrity on a network, including:
  - auditing and control of user access
  - asset tracking and auditing
- industry standard antivirus solutions and techniques
- backup, restore and rollback procedures
- system and network monitoring tools and their related functions
- organisational structure and business functionality as they relate to data integrity
- tools and applications required to manage network and data integrity, including disaster recovery processes.

## 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:

- a site or prototype where network and data integrity strategies may be implemented and managed
- use of network support tools currently used in industry
- organisational security policies, manufacturer recommendations and network and data integrity protection standards.

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

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