



Australian Government

ICTNWK556 Identify and resolve network problems

Release: 1

ICTNWK556 Identify and resolve network problems

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 troubleshoot local area network (LAN), wide area network (WAN) and wireless network problems.

It applies to individuals working as network managers, network engineers and technical specialists or similar, and who generally work independently with limited supervision. Individuals at this level perform a broad range of problem-solving activities including troubleshooting, evaluating and analysing networks and planning and developing new systems and procedures.

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. Implement network monitoring	<ul style="list-style-type: none">1.1 Set up required network monitoring logs and produce a management information base (MIB) according to organisational requirements1.2 Benchmark network performance and establish network performance reference point1.3 Identify critical activity levels and network capacity1.4 Plan and document network performance review schedule according to organisational requirements and technical specifications1.5 Determine additional network enhancing resource requirements

ELEMENT	PERFORMANCE CRITERIA
	according to organisational requirements and technical specifications
2. Prepare to troubleshoot network problems	2.1 Determine major network problems according to organisational reporting requirements 2.2 Identify organisational and vendor support services and network resolution plan 2.3 Plan and document network problem reporting and resolution plan 2.4 Lodge plan according to organisational requirements
3. Diagnose network faults	3.1 Establish fault hierarchy using data from previous resolution attempts 3.2 Progressively isolate and resolve fault according to technical specifications 3.3 Document fault resolution steps according to organisational requirements
4. Rectify faults	4.1 Isolate repair requirements according to technical specifications 4.2 Replace and reconfigure equipment and software 4.3 Test network and confirm fault rectification against technical requirements 4.4 Document outcomes according to organisational policies and procedures 4.5 Document user downtimes and submit report to required personnel
5. Finalise fault rectification process	5.1 Review fault resolution and determine likelihood for reoccurrence 5.2 Determine and document planned maintenance and upgrade requirements 5.3 Submit maintenance plan to required personnel 5.4 Seek and respond to feedback from required personnel

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

SKILL	DESCRIPTION
Learning	<ul style="list-style-type: none">Demonstrates consideration of strategic and operational potential of digital trends to achieve work goals, enhance work processes, create opportunities and enhance or reduce risks

SKILL	DESCRIPTION
Numeracy	<ul style="list-style-type: none">Performs mathematical calculations to analyse costs and values to accurately determine performance
Oral communication	<ul style="list-style-type: none">Uses highly developed listening and questioning techniques to understand others' perspectives and articulates complex information to required personnel
Reading	<ul style="list-style-type: none">Draws knowledge from written technical material, equipment manuals and other specifications to determine and confirm job requirements
Writing	<ul style="list-style-type: none">Develops a broad range of material such as reports and test documentation for a specific audience, using clear and detailed language to convey explicit information
Teamwork	<ul style="list-style-type: none">Identifies the requirements of important communication exchanges, selecting required channels, format, tone and content to suit purpose and audience
Planning and organising	<ul style="list-style-type: none">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	<ul style="list-style-type: none">Uses nuanced knowledge of context to recognise anomalies in a network environment and subtle deviations to normal expectations, focussing attention and solving problems as they arise
Self-management	<ul style="list-style-type: none">Demonstrates the importance of knowledge, monitoring and controlling access to digitally stored and transmitted informationIdentifies a need for further information or seek advice from required experts
Technology	<ul style="list-style-type: none">Demonstrates a sophisticated knowledge of principles, concepts, language and practices associated with the digital world

Unit Mapping Information

Supersedes and is equivalent to ICTNWK532 Identify and resolve network problems.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>