



Australian Government

Department of Education, Employment and Workplace Relations

ICANWK302A Identify and resolve network problems

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICAI1 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to document network-related problems, determine the resources required, solve the client problem or escalate the problem to a new support level.

Application of the Unit

This unit applies to frontline technical support personnel responsible for maintaining network continuity by isolating and rectifying network problems as they arise.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.</i>

Elements and Performance Criteria

1. Determine client requirements and identify if problem exists	1.1 Log calls from help-desk support staff 1.2 Determine and document <i>problem</i> based on <i>client</i> requirements
2. Determine whether problem is covered by policy	2.1 Verify the scope and coverage of maintenance and technical <i>support agreements</i> relative to the problem and client requirements 2.2 Provide assistance according to <i>organisational guidelines</i>
3. Carry out maintenance support on identified problem	3.1 Conduct diagnostic tests around identified problem 3.2 Complete maintenance according to organisational guidelines 3.3 Obtain new <i>components</i> as part of the resolution, where necessary 3.4 Store or dispose of components according to organisational guidelines and <i>environmental guidelines</i>
4. Prepare maintenance report and confirm solution	4.1 Prepare maintenance report according to organisational guidelines and support agreements 4.2 Refer unresolved <i>maintenance requirements</i> to appropriate higher level service area 4.3 Follow up with the client to determine <i>solution</i> success and close the report

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- communication skills to:
 - follow up with client
 - provide assistance according to organisational guidelines
 - provide clear and precise advice when logging calls from help-desk support staff
- literacy skills to:
 - document initial problem and recommendations to solve problem
 - prepare maintenance report in line with organisational guidelines and support agreements
- problem-solving skills to:
 - determine problems based on diagnostic tests
 - solve unknown problems in a range of contexts
- team participation skills to escalate maintenance
- technical skills to undertake maintenance tasks

Required knowledge

- environmentally sound recycling and disposal procedures
- networking procedures, including:
 - call logging
 - contracting and maintenance requirements
 - problem escalation procedures
- inventory processes
- network operating systems
- organisational information relating to network problems
- technical support agreements
- features and functions of technical systems.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>Evidence of the ability to:</p> <ul style="list-style-type: none"> • document network-related problems and determine the required resources • solve client problems or escalate the problem according to organisational guidelines • maintain the network with minimal disruption to clients.
Context of and specific resources for assessment	<p>Assessment must ensure access to:</p> <ul style="list-style-type: none"> • network • hardware • diagnostic tools, components and software • records and reports • organisational guidelines and procedures • appropriate learning and assessment support when required • modified equipment for people with special needs.
Method of assessment	<p>A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:</p> <ul style="list-style-type: none"> • direct observation of candidate: <ul style="list-style-type: none"> • identifying client problem and verifying the scope of support agreements • conducting diagnostic tests and carrying out maintenance support • verbal or written questioning to assess candidate's knowledge of organisational escalation procedures • review of documentation provided by candidate about client's problem and maintenance requirements.
Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate.</p> <p>Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level, language, literacy and numeracy capacity of the candidate and the work being performed.</p> <p>Indigenous people and other people from a non-English speaking</p>

	<p>background may need additional support.</p> <p>In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.</p>
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Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Problem</i> may include:	<ul style="list-style-type: none"> • issues affecting immediate work environment: <ul style="list-style-type: none"> • servers • workstations • routine and non-routine problems.
<i>Client</i> may include:	<ul style="list-style-type: none"> • employees • external organisations • individuals • internal departments.
<i>Support agreements</i> may include:	<ul style="list-style-type: none"> • cost • performance from escalated support levels • replacement • time • warranty.
<i>Organisational guidelines</i> may include:	<ul style="list-style-type: none"> • client-liaison policy • contracting arrangements relating to IT purchasing • logged call procedures • maintenance agreements • preventative maintenance and diagnostic policy • security procedures • warranties.
<i>Components</i> may include:	<ul style="list-style-type: none"> • CD and DVD drives • central processing unit (CPU) • complementary metal oxide semiconductor (CMOS) battery • fax or modem cards • interface cards • motherboards • power supply • random access memory (RAM).
<i>Environmental guidelines</i> may include:	<ul style="list-style-type: none"> • appropriate disposal or recycling of e-waste: <ul style="list-style-type: none"> • cathode ray tube (CRT) monitors • printed circuit boards • redundant hardware • recycling of packaging:

	<ul style="list-style-type: none">• cardboard• paper• polystyrene.
<i>Maintenance requirements</i> may include:	<ul style="list-style-type: none">• on-site response• remote diagnostics• return to depot.
<i>Solution</i> may include:	<ul style="list-style-type: none">• hardware:<ul style="list-style-type: none">• new• upgrade• implementing a new system• software:<ul style="list-style-type: none">• new• upgrades• user training.

Unit Sector(s)

Networking