

Specification of Competency Standards for ICT Operation and Support

Unit of Competency

Functional Area: System and Hardware Support

Title	Troubleshoot Operating System issues
Code	107906L3
Range	This unit of competency applies to IT support personnel who are involved with supporting Operating Systems (OS) in an organisation. An OS is basically a very large and complex program that interfaces between the hardware and applications. When the OS is being used its design and programming issues will surface and support personnel will need to minimise the effects on the user. This UoC concerns mainly on troubleshooting common OS issues in desktop environment.
Level	3
Credit	3
Competency	<p>Performance Requirements</p> <p>1. Knowledge for troubleshooting Operating System issues</p> <ul style="list-style-type: none">• Possess good communication and literacy skills for handling user and/or comprehending documents (technical manual, user manual, problem report, etc.)• Possess good OS supporting skills, including system scripting• Possess good troubleshooting skills• Possess basic knowledge of computing hardware, Operating System, applications and network equipment• Possess the knowledge to plan work or follow organisation procedures and guidelines• Possess good knowledge of OS troubleshoot tools

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Competency	<p>2. Troubleshoot Operating System issues</p> <ul style="list-style-type: none"> • Comprehend the issues and symptoms of the OS issues from the problem report or from user and plan how to troubleshoot the OS issues • Backup the computing system before attempting to troubleshoot issues. The backup can be used to restore the computing system to before troubleshooting activities state • Attempt to reproduce the issues that were reported, and collect as much information as possible for problem analysis, such as: on screen error message, event/system logs, input activities, etc. • For cases when computing system cannot boot, the hard disk and/or the BIOS must be troubleshot and corrected before being able to troubleshoot OS issues. Areas to troubleshoot include but not limited to the following: <ul style="list-style-type: none"> • Disk for damaged disk • Bad sectors • Corrupted boot partition • Corrupted master boot record • Incorrect boot priority setting in BIOS or loss of BIOS settings • Once the computing system is booted, additional troubleshooting tool may be installed to help diagnose the following common causes of OS issues to be troubleshot, include but not limited to: <ul style="list-style-type: none"> • Install/upgrade issues • Configuration setting (network, security, etc.) • Connectivity (client/server, VPN, etc.) • Device drivers • User setting and access permissions • Performance • Application compatibility and allocation of resources • Formulate solutions for correcting OS issues, may require to consult colleagues or other sources, to rectify the OS having issues • Apply solution to rectify OS issues. But a restoration of computing system to point of prior troubleshooting may be required • Perform simple tests to ensure OS issues have been rectified • Update internal documents/records on problem report system and history log of the problematic computing system <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Apply industry best practices when supporting operating systems • Follow organisation safety procedures when handling any hardware or equipment during the troubleshooting process
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none"> • Gather sufficient information from user, problem report, internal records, etc. to gain a preliminary understanding of OS issues • Systematically plan and apply troubleshooting methodologies to reproduce and identify the cause of OS issues • Use diagnostic tools and system functions during the problem identification stage • To provide rectification to the OS issues and follow the organisation's procedures and guidelines for completing after event documents
Remark	