

Specification of Competency Standards
for the Information & Communications Technology Industry
Unit of Competency

Functional Area - Network Infrastructure and Operation

Title	Perform network testing
Code	111107L4
Range	This UoC defines the competency required for performing network performance and/or capacity tests which include telephone network, Personal Area Network (PAN), Local Area Network (LAN), Wide Area Network (WAN) / Low Power Wide Area Network (LPWAN), Metropolitan Area Network (MAN), wireless (Mobile or WiFi) or wireline, etc.
Level	4
Credit	3 (For Reference Only)
Competency	<p>Performance Requirements</p> <p>1. Possess the knowledge in the subject area</p> <ul style="list-style-type: none"> • Be able to: <ul style="list-style-type: none"> ○ Possess extensive experience in test planning, and testing procedures and analysis of test results or statistics from testing equipment ○ Able to comprehend and follow test plans, network infrastructure diagrams and configuration setting specifications ○ Possess extensive experience with network performance analysis, defining metrics for testing of networks and network components. ○ Experienced with network optimisation techniques such as queuing theory, routing, switching and transmission optimisation. ○ Possess extensive experience with using testing tools and setting up testing environments ○ Knowledgeable of health and safety rules and hazards related to the equipment and/or tools being used during testing <p>2. Perform network testing</p> <ul style="list-style-type: none"> • Be able to: <ul style="list-style-type: none"> ○ Comprehend the network testing requirements from test plans and test procedures of test cases ○ Plan and setup test environments. Define test baselines and specify how to collect evidence of test cases ○ Perform the test cases as per the test plan and collect test results with evidence like: logs, monitoring reports, network equipment configurations ○ Analyse results and compare with baseline to determine: <ul style="list-style-type: none"> ▪ Any incorrect testing procedure – in such case correct or change testing methods or procedures ▪ Network performing normally ▪ Network performing poorly ○ Document the testing procedures, setups, and results, conforming to the organisation standard and summaries the results, with any particular actions required and/or any particular areas to be noted ○ Present the testing results to stakeholders for action or decision making <p>3. Exhibit professionalism</p> <ul style="list-style-type: none"> • Be able to: <ul style="list-style-type: none"> ○ Follow safety procedures at every step during the setup and while performing testing

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	<ul style="list-style-type: none">○ Ensure all documentations are carried out in accordance with the organisation's policies and standards
Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ul style="list-style-type: none">• follow test plan, design the testing procedures, setup test environments and carryout network testing systematically in accordance with the test case requirements• document the whole testing scenario, results and any observations, in accordance with the organisation documentation standards
Remark	