Functional Area: Network Infrastructure & Operation (Operation / Support & Maintenance)

1. Title	Perform network equipment problem analysis
2. Code	ITCSNO417A
3. Range	This UoC includes analysing problems associated with network equipment. The concerning equipment include but not limited to telephony, data network equipment, antennae, radio systems, transceiving equipment, multiplexors, routers, home media, modems, etc.
4. Level	4
5. Credit	3
6. Competency	<table><tr><td>6.1 Possess the knowledge in the subject area</td><td>Performance Requirement • Possess good planning skills and problem analysing skills • Comprehend the manufacturer documentation of the concerning equipment • Extensively experienced with the functions and operations of the concerned network equipment • Capable of following the operational instructions of testing and measuring equipment • Possess extensive knowledge of various protocols standards and network technologies which could be wired-line or mobile network such as ATM, IEEE 802.x, TCP/IP, GSM, LTE, NGN, MPLS, etc • Knowledgeable of health and safety procedures • Possess good knowledge of radio frequency theory and hazards associated with mobile equipment • Possess knowledge of regulatory requirements</td></tr><tr><td>6.2 Perform network equipment problem analysis</td><td>Be able to: • Plan a methodical approach to perform fault isolation and identification • Perform a preliminary visual checking and ensure power supply is connected and turned on. The visual checks include: loose connections, damaged cable shielding or corrosive contacts, etc. • Obtain appropriate tools and testing equipment to be used for fault identification. (Tools like: voltmeter, cable measuring tools, electrical measuring tool, radio measuring, software measuring and analysis tools, etc.). Specialist advice may be obtained to assist the analysis • Setup the tools and test environment as per manufacturer's specifications or company standards • Check if electronic equipment are functionally tested in accordance with maintenance manual for fault determination • Determine and confirm that the fault regularly occurs • Formulate possible solutions or actions. Obtain manufacturer's recommendation, if needed • Record accurately and complete appropriate reports of findings, possible solutions, any actions taken or recommendations</td></tr><tr><td>6.3 Exhibit professionalism</td><td>• While performing network equipment problem analysis, all steps must follow regulatory safety procedures particularly when handling and operating any electrical testing tools • Documents are created to meet the organisation quality and standards .</td></tr></table>
7. Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: i. understand and familiarise with the operating characteristics or functions of the network equipment from manuals, colleagues or specialists ii. use a methodical approach to plan the problem determination of the network equipment iii. perform and determine where problems exist, if any, in the network equipment iv. provide an accurate recommendation or corrective actions for the network equipment v. document the problem analysis methodology and the recommendation/action in the organisation's required reporting format
Remark	