

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

1. Title	Carryout network entity problem analysis
2. Code	ITCSNO416A
3. Range	This UoC includes analysing problems when network is exhibiting abnormal behaviours. The concerning networks include telephony networks, data network, LAN, WAN, wireless or Mobile.
4. Level	4
5. Credit	3
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Possess the knowledge in the subject area</p> <ul style="list-style-type: none"> • Possess planning skills, analysing skills, testing techniques, with detailed knowledge on networks (wired and/or wireless) • Extensive knowledge of network diagrams • Comprehend manufacturer's specification • 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 • Capable of following the operational instructions of testing and measuring equipment • Knowledgeable of health and safety procedures • Possess knowledge of radio frequency concept and its hazards • Knowledgeable of regulatory requirements <p>6.2 Carryout network entity problem analysis</p> <p>Be able to:</p> <ul style="list-style-type: none"> • Perform preliminary analysis with visual checking for loose connections, damaged cable shielding or corrosive contacts, etc. • Plan a methodical approach to perform fault identification • Obtain appropriate tools and testing equipment to be used for fault identification. (Tools like: network performance tools for packet analysing, electrical measuring, RF measuring, etc.). Specialist advice may be obtained to assist the analysis • Determine that abnormality regularly occurs • Accurately record the measurements of the findings. If necessary, collect evidence, and compare with manufacturer's specification • Determine a possible solution or action required. Obtain manufacturer's documentation, if needed, to identify recommendations • Record accurately by filling in appropriate reports on findings, possible solutions and any actions taken or recommendations <p>6.3 Exhibit professionalism</p> <ul style="list-style-type: none"> • All steps must follow regulatory safety procedures while performing network analysis • Ensure all documents are created to meet the organisation quality and standards
7. Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: <ol style="list-style-type: none"> i. use different approaches to perform fault finding of network entities. This may be visual or using specialised tools ii. plan a methodical approach to perform the problem determination of the entity iii. perform and determine where problems exist, if any, in the entity iv. provide an accurate recommendation on corrective actions and document it in the organisation's required reporting format
Remark	