

**Functional Area: Network Infrastructure & Operation (Planning & Design)**

1. Title	Design new network/equipment that can be integrated with the current network(s)	
2. Code	ITCSNO512A	
3. Range	This UOC applied to designing a new network or equipment that needs to be compatible of existing network or equipment. Networks include, voice, data, wireless, WAN, MAN, LAN and equipment may be any components of the network either hardware or software.	
4. Level	5	
5. Credit	5	
6. Competency	<p>6.1 Possess the knowledge in the subject area</p> <p>6.2 Design new network/equipment that can be integrated with the current network(s)</p> <p>6.3 Exhibit professionalism</p>	<p><u>Performance Requirement</u></p> <ul style="list-style-type: none"> <li>• Conversant with the features or function capacity of the current network or equipment</li> <li>• Expert of network architectures, technologies, (data, voice, wireless, RF technologies), network components, software application, etc</li> <li>• Possess extensive experience in performing requirement analysis with effective communication skills for effective gathering of requirements and field information</li> <li>• Expert of software design techniques</li> </ul> <p>Be able to:</p> <ul style="list-style-type: none"> <li>• Work with colleagues, customers, vendors to understand various entities of the current network or equipment. This may include interfaces, performances, operating characteristics, etc</li> <li>• Acquire the requirements of the new network or equipment, such as performance, demographic coverage, resilience, etc</li> <li>• Analyse and evaluate various impacts such as physical attributes, environmental, current networks, laws, cost, and manpower; together with new requirements to formulate possible options</li> <li>• Formulate a design plan conforming to enterprise or customer requirements using appropriate design techniques</li> <li>• Include relevant new design in the design plan inclusive all technical characteristics, functions, performance, network diagrams, resource required to develop the network or equipment</li> <li>• Present the design plan to stakeholders with recommendations</li> <li>• Always take into consideration and strike a proper balance among all related technological, political, social, environmental and legal factors</li> <li>• Design networks or equipment to comply with government regulations and follow the organisation standards and policies</li> </ul>
7. Assessment Criteria	<p>The integrated outcome requirements of this UoC are the abilities to:</p> <ol style="list-style-type: none"> <li>i. communicate with various stakeholders (colleagues, customers, etc.) to identify current status of network or equipment and new requirements of new network or equipment</li> <li>ii. analyse the impact of proposed equipment or network on existing network infrastructure before proceeding to the actual design</li> </ol>	
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