

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

1. Title	Perform design that can be interconnected with national and international gateways	
2. Code	ITCSNO515A	
3. Range	This UOC concerns designing network coverage to interconnect with national or international gateways such as IPX (IP Exchange). Network in this context could be data and/or voice (VOIP), wireline or mobile network	
4. Level	5	
5. Credit	5	
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"> • Extensively knowledgeable of the organisation’s business plan, interoperating challenges, services requirements and legal matters • Possess extensive knowledge of various standard network technologies for wired-line and mobile network such as ATM, GSM, LTE, NGN, etc. • Extensive knowledgeable and can exploit the advantages of open platform standards, virtualisation and green technology • Knowledgeable of the National or International gateway/exchange specifications • Possess extensive experience in IP and MPLS network infrastructure planning, deployment, and integration • Extensively knowledgeable in network design methodologies and objectives such as “dynamic network growth from market based driven”, network virtualisation provisioning, inter domain/operator resource management, etc. • Possess extensive experience with various inter-operator’s architecture functionalities such as seamless mobile users, roaming, terminals, and services between administrative domains, etc. • Experienced with operating network prototype or simulation tools <p>6.2 Perform design that can be interconnected with national and international gateways</p> <p>Be able to:</p> <ul style="list-style-type: none"> • Gather information related to the organisation’s network such as network technology, protocol, administrative systems, OSS, etc. • Work with gateway/exchange supplier to understand the specifications of the gateway/exchange • Formulate an initial design of the interconnection • Use NDP (Network Design Platform) tools to simulate the constructed network to determine feasibilities of different scenarios and implementation options to determine an optimal design that can be connected to the national or international gateways/exchanges • Ensure documentation of the network design with implementation details for connecting interface from intra-network to the national or international gateway/exchange is completed to required standard • Present and seek approval from stakeholders on the proposed design and proceed to deployment <p>6.3 Exhibit professionalism</p> <ul style="list-style-type: none"> • Produce network designs meeting national or international gateway standards that can enable administrative functions to operate seamlessly • Always take into consideration and strike a proper balance among all related technological, political, social, environmental and legal factors 	

7. Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: i. work with colleagues to understand the intra-network ii. work with national or international gateway/exchange operators to determine the specification of the network interface and administrative functions for interconnection iii. formulate a suitable design to interconnect intra-network with the national or international networks. The design should be well documented in a manner that can be easily understood by its readers iv. present effectively the design to stakeholders with suitable recommendation and seek approval for the design
Remark	