

<b>Domain</b>	<b>NETWORKING</b>	<b>Unit ID: 2305</b>
<b>Title:</b>	<b>Demonstrate an understanding of Wide Area Network (WAN) and remote access technologies</b>	
<b>Level: 4</b>		<b>Credits: 7</b>

### **Purpose**

This unit standard is intended for those who demonstrate an understanding of Wide Area Network (WAN) and remote access technologies. People credited with this unit standard are able to specify the general characteristics of different WAN technologies define and describe the general characteristics of different internet access technologies and demonstrate an understanding of different remote access protocols and services.

This unit standard is intended for those who work in the networking environment.

### **Special Notes**

1. Entry information:

Prerequisite:

- None

2. Assessment evidence may be collected from a real or a simulated workplace in which networking operations are carried out.

3. Tools and equipment may include but are not limited to computer, external devices, storage devices and other and basic computer applications.

4. Performance of all elements in this unit standard must comply with industry standards.

5. Regulations and legislation relevant to this unit standard include the following:

- Labour Act 2007(Act No 11, 2007).
- Regulations relating to the health and safety of employees at work under schedule 1 (2) of the Labour Act No.11 of 2007 and all subsequent amendments.

### **Quality Assurance Requirements**

This unit standard and others within this sub-field may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details

of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority on [www.namqa.org](http://www.namqa.org) and the Namibia Training Authority on [www.nta.com.na](http://www.nta.com.na)

## **Elements and Performance Criteria**

### **Element 1: Specify the general characteristics of different WAN technologies**

#### **Performance Criteria**

- 1.1 Packet Switching is specified and described according to its speed, capacity and media type.
- 1.2 Circuit Switching is specified and described according to its speed, capacity and media type.
- 1.3 Integrated Services Digital Network (ISDN) is specified and described according to its speed, capacity and media type.
- 1.4 Fiber Distributed Data Interface (FDDI) is specified and described according to its speed, capacity and media type.
- 1.5 T1 (T- carrier level 1)/ E1/J1 is specified and described according to its speed, capacity and media type.
- 1.6 T- Carrier level 3 (T3) / E3/J3 is specified and described according to its speed, capacity and media type.
- 1.7 Optical Carrier (OC-x) is specified and described according to its speed, capacity and media type.
- 1.8 X.25 is specified and described according to its speed, capacity and media type.

### **Element 2: Define and describe the general characteristics of different Internet access technologies**

- 2.1 Digital Subscriber Line (DSL) access characteristics is defined and described.
- 2.2 Broadband cable (cable modem) access characteristics is defined and described.
- 2.3 Plain Old Telephone Service (POTS) / Public Switched Telephone Network (PSTN) access characteristics is defined and described.
- 2.4 Satellite access characteristics is defined and described.

2.5 Wireless access characteristics is defined and described.

**Element 3: Demonstrate an understanding of different remote access protocols and services**

**Performance Criteria**

- 3.1 Remote Access Services (RAS) functions are identified and defined.
- 3.2 Point-to-Point Protocol (PPP) functions are identified and defined.
- 3.3 Serial Line Internet Protocol (SLIP) functions are identified and defined.
- 3.4 Point to Point Protocol over Ethernet (PPPoE) functions are identified and defined.
- 3.5 Point-to-Point Tunnelling Protocol (PPTP) functions are identified and defined.
- 3.6 Virtual Private Network (VPN) functions are identified and defined.
- 3.7 Remote Desktop Protocol (RDP) functions are identified and defined.

**Registration Data**

<b>Subfield:</b>	Information and Communication Technology
<b>Date first registered:</b>	30 July 2020
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<b>Anticipated review:</b>	2025
<b>Body responsible for review:</b>	Namibia Training Authority