

		Unit ID:2304
Domain	NETWORKING	
Title:	Demonstrate an understanding of wired and wireless network	
Level: 4		Credits: 7

Purpose

This unit standard is intended for those who demonstrate an understanding of Wired and Wireless Network. People credited with this unit standard are able to specify the general characteristics of different wireless technologies, identify factors which affect the range and performance of wireless network services, identify factors which affect the range and performance of a wired network services, identify tools required for the installation of a wired network, identify tools required for the installation of wireless network, describe two common/major wireless network installations and describe two common/major wired network installations.

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 & 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 and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Specify the general characteristics of different wireless technologies

Performance Criteria

- 1.1 802.11 (frequency hopping spread spectrum) is specified and described according to carrier, speed, frequency, transmission type and topology.
- 1.2 802.11x (direct sequence spread spectrum) is specified and described according to carrier, speed, frequency, transmission type and topology.
- 1.3 Infrared is specified and described according to carrier, speed, frequency, transmission type and topology.
- 1.4 Bluetooth is specified and described according to carrier, speed, frequency, transmission type and topology.

Element 2: Identify factors which affect the range and performance of wireless network services

Performance Criteria

- 2.1 Wireless interference factors are identified and described.
- 2.2 Wireless antenna types are identified and their capabilities and capacity are described.
- 2.3 Environmental factors that affect wireless network performance are identified and described.

Element 3: Identify factors which affect the range and performance of a wired network services

Performance Criteria

- 3.1 Wire interference factors are identified and described.
- 3.2 Wire cable types are identified and their capabilities and capacity are described.
- 3.3 Environmental factors that affect wired network performance are identified and described.

Element 4: Identify tools required for the installation of a wired network

Performance Criteria

- 4.1 Wire crimping tools are identified, classified and grouped according to their functions.
- 4.2 Wire media testers are identified, classified and grouped according to their functions.
- 4.3 Supporting equipment are identified and explained.

Element 5: Describe two common/major wireless network installations

Performance Criteria

- 5.1 Wireless Ad-Hoc mode installation is described
- 5.2 Wireless infrastructure mode installation is described.

Element 6: Identify tools required for the installation of wireless network

Performance Criteria

- 6.1 Wireless installation tools are identified, classified and grouped according to their functions.
- 6.2 Wireless testers are identified, classified and grouped according to their functions.
- 6.3 Supporting equipment are identified and explained.

Element 7: Describe two common/major wired network installations

Performance Criteria

- 7.1 Local Area Network (LAN) installation is described.
- 7.2 Wide Area Network (WAN) installation is described.

Registration Data

Subfield:	Information and Communication Technology
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