	UNIT ID: 2296
Domain	**NETWORKING**
Title:	**Demonstrate an understanding of next generation networks**
Level: 3	**Credits: 2**

Purpose

This unit standard is intended for those who demonstrate an understanding of next generation networks. People credited with this unit standard are able to demonstrate an understanding of next generation networks fundamentals, explain the migration from current networks to next generation networks with reference to OSI model, demonstrate an awareness of possible new services offered and their advantages, demonstrate an understanding of the next generation network technologies and architectures and describe the advantages of network convergence.

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

Special Notes

1. Entry information:

   Prerequisites:

   - 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. *Next Generation* - refers to any method or technology that is expected or intended to supersede present day techniques.

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

Elements and Performance Criteria

Element 1: Demonstrate an understanding of Next Generation Networks fundamentals

Range

Technological advancements may include but not limited to Internet Protocol and multiprotocol label switching.

Performance Criteria

1.1 Next generation networks are explained.

1.2 Features of next generation networks are specified.

1.3 Benefits of implementing next generation networks technology are outlined.

1.4 Technological advancements which enable the next generation network are explained.

Element 2: Explain the migration from current networks to Next Generation Networks with reference to OSI model

Performance Criteria

2.1 Basic theory of layer 1 and 3 is explained in terms of OSI model.

2.2 OSI model layer 1 is explained in terms of current networks.

2.3 OSI model layer 3 is explained in terms of converged networks.

Element 3: Demonstrate an awareness of possible new services offered and their advantages

Performance Criteria

3.1   Services enabled by the next generation network are explained.

3.2   Advantages of implementing next generation networks are explained.

Element 4: Demonstrate an understanding of the Next Generation Network Technologies and architectures

Performance criteria

4.1   Technologies involved in implementing next generation networks are explained.

4.2   Difference between current network architectures and next generation network architectures is explained.

Element 5: Describe the advantages of network convergence

Performance criteria

5.1   Networking convergence is explained.

5.2   Features of networking convergence are specified.

5.3   Advantages of a network convergence are specified.

5.4   Shortcomings of network convergence are explained.

Registration Data

Subfield:	Information and Communication Technology
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