

Domain**COMPUTER SYSTEM SUPPORT****Title: Demonstrate an understanding of emerging technologies****Level: 3****Credits: 6****Purpose**

This unit standard is intended for those who demonstrate an understanding of in server administration. People credited with this unit standard are able to demonstrate an understanding of e-commerce, demonstrate understanding and benefits of cloud computing architecture (CCA) demonstrate understanding of virtualization, apply and demonstrate an understanding of unified communication and apply and demonstrate an understanding of network convergence.

This unit standard is intended for those who work as computer system supporters.

Special Notes

1. Entry information:

Prerequisites:

- None

2. This unit standard is to be delivered and assessed in the context of information and communication technology.

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

4. Glossary of terms

- *'E-commerce'* is a type of industry where the buying and selling of products =or services is conducted over electronic systems such as the Internet and other computer networks
- *'Protocol'* is the special set of rules that end points in a telecommunication connection use when they communicate. Protocols specify interactions between the communicating entities.
- *'Internet Protocol'* is the principal communications rule in the Internet protocol suite for relaying data grams across network boundaries.
- *'World Wide Web'* an information system on the Internet which allows documents to be connected to other documents by hypertext links, enabling the user to search for information by moving from one document to another.

- *'Ecommerce security'* is a part of the information security framework and is specifically applied to the components that affect e-commerce that include computer security, data security and other wider realms of the information security framework.
 - *Encryption*-is the process of encoding messages or information in such a way that only authorized parties can read it.
 - *Web Payment Systems*- it's a system which allows any individual or business with an email address to securely and quickly send and receive payments online.
 - *E-marketing* - using digital technologies to help sell your goods or services.
 - *Auction*- is a process of buying and selling goods or services by offering them up for bid, taking bids, and then selling the item to the highest bidder.
 - *Portal*- a site that functions as a point of access to information on the internet.
 - *Community*- is a web site (or group of web sites) that is a virtual community. A web community may take the form of a social network service, an internet forum, a group of blogs, or another kind of social software web application.
5. Tools and equipment may include but are not limited to computer, external devices, storage devices and other and basic computer applications.
 6. Performance of all elements in this unit standard must comply with industry standards.
 7. 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: Demonstrate an understanding of e-commerce

Performance Criteria

- 1.1 Concept of E-commerce is explained.
- 1.2 Business models in e-commerce areas are demonstrated.
- 1.3 Business-to-consumer (B2C) is illustrated.
- 1.4 Business-to-business (B2B) is illustrated.
- 1.5 Business-to-Government (B2G) is illustrated.
- 1.6 Impact of Internet in business, strategy, structure, and process is outlined.

Element 2: Demonstrate understanding and benefits of cloud computing architecture

Range

Cloud computing may include but is not limited to infrastructure (IaaS), platform (PaaS), software (SaaS).

Applications such as customer relationship management and business process services such as sales force.com.

Cloud applications may include platforms like (You Tube, Vimeo, Flickr, Slides share and Skype) and data like (images, video, presentations and voice).

Cloud types may include but are not limited to public cloud, private cloud, community cloud, hybrid cloud and combined cloud.

Benefits of cloud computing may include but are not limited to software as a service, reduced software maintenance, increased reliability, environmentally friendliness, cost reduction and portability/accessibility.

Performance Criteria

- 2.1 Cloud computing is explained.
- 2.2 Types of cloud computing are explained.
- 2.3 Architectures in cloud computing are illustrated and applied.
- 2.4 Network Infrastructure in cloud computing is outlined.
- 2.6 Cloud computing application availability and reliability are outlined.
- 2.7 Cloud computing security is explained.
- 2.8 Cost implications of cloud computing applications are explained.

2.9 Cloud computing mobility implications are explained.

Element 3: Demonstrate understanding of virtualization

Performance Criteria

- 3.1 Concept of virtualization is explained.
- 3.2 Different types of virtualization are explained.
- 3.3 Usage of virtualization is demonstrated.
- 3.4 Benefits of virtualization are illustrated.

Element 4: Apply and demonstrate an understanding of unified communication

Performance Criteria

- 4.1 Unified communication is explained.
- 4.2 Components of unified communication are identified.
- 4.3 Usage of unified communication is demonstrated.
- 4.4 Benefits of unified communication are illustrated.

Element 5: Apply and demonstrate an understanding of network convergence

Performance Criteria

- 5.1 Network convergence is explained.
- 5.2 Components of network convergence are identified.
- 5.3 Usage of network convergence is demonstrated.
- 5.4 Benefits of network convergence are illustrated.

Registration Data

Subfield:	Information and Communication Technology
Date first registered:	30 July 2020
Date this version registered:	30 July 2020
Anticipated review:	2025
Body responsible for review:	Namibia Training Authority