



TECHNICAL &  
VOCATIONAL  
EDUCATION &  
TRAINING

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# National Competency Standard for IT TECHNICIAN

## Qualifications Code: SOC02S09VI

*[Endorsed by the MALDIVES ACCREDITATION BOARD (MAB)]*

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## **PREFACE**

The goal of the Employment Skills Training Project (ESTP) is to increase the number of Maldivians, men and women, actively participating in the labor force and employed with the assistance of the Asian development Bank the Project will support the expansion of demand driven employment-oriented skills training in priority occupations and improve the capacity to develop and deliver Competency Based Skill Training (CBST). The Project aims to (i) provide youth with employment-oriented skills training; (ii) improve public perception of training and employment in locally available skills-oriented occupations; (iii) make available employment-related information to more Maldivians; and (iv) strengthen the capacity for labor administration and for labor market analysis.

The focal point of this project is the delivery of CBST to satisfy employer demand-driven needs. The National Competency Standards (NCS) provide the base for this training. Initially training will be focused in five key sectors: tourism, fisheries and agriculture, transport, construction and the social sectors. These sectors are included in the national development priority and play a vital to the continued economic growth of the country.

The NCS are developed in consultation with Employment Sector Councils representing employers. They are designed using a consensus format endorsed by the Maldives Accreditation Board (MAB) to maintain uniformity of approach and the consistency of content amongst occupations. This single format also simplifies benchmarking the NCS against relevant regional and international standards.

NCS specify the standards of performance of a competent worker and the various contexts in which the work may take place. NCS also describes the knowledge, skills and attitudes required in a particular occupation. They provides explicit advice to assessors and employers regarding the knowledge, skills and attitudes to be demonstrated by the candidates seeking formal recognition for the competency acquired following training or through work experience. By sharing this information, all participants in the training process have the same understanding of the training required and the standard to be reached for certification. Certification also becomes portable and can be recognized by other employers and in other countries with similar standards.

NCS are the foundation for the implementation of the Technical Vocational Education and Training (TVET) system in Maldives. They ensure that all skills, regardless of where or how they were developed

can be assessed and recognized. They also form the foundation for the Maldives National Qualification Framework (MNQF), management by the MAB, which provides certification to those who meet the NCS.

NCS are developed by the TVET Section of Ministry of Higher Education, Employment and Social Security. The NCS are validated by the Employment Sector Councils of the respective sectors and endorsed by the Maldives Accreditation Board.

Ms. Fathimath Thasneem

Project Manager

ESTP

Ms. Mariyam Noordheen

Director General

TVET

Dr. Ahmed

Deputy Director

MAB

<b>Technical Panel members</b>		
<b>Name</b>	<b>Designation</b>	<b>Company</b>
Hussain Zahid	Director	Civil Service Commission
Hafsath Aleem	System Analyst	NCIT
Fathumath Ashan	Deputy Director	STO
Shafraz Hussain	Junior officer from IT dep	BML
Ahmed Fathih	Senior HR Officer	MTCC
Dhunya Abdul Hadhy	IT Specialist	TVET
Ali Abdulla	General Manager	CYRYX
Hasma Rasheed	Senior Computer Programmer	Ministry of Health and Family
<b>Developer</b>		
<b>Name</b>	<b>Designation</b>	<b>Company</b>
Ali Shameem	Competency Standard Writer	Edhuru Annex .
<b>Employment Sector Councils</b>		
<b>Name</b>	<b>Designation</b>	<b>Company</b>
Mr.Ahmed Shareef	Chairman	Cyrix Computer Training Centre
Ms.Fathimath Nasheedha	Assistant Director	Ministry of Health
Mr.Mohamed Rashad	Assistant Director	Ministry of Education
Mr.Hussein Rasheed	HR Manager	ADK Hospital
Mr.Mohammed Rifuath Sidqee	Acting Dean	Maldives College of Higher Education(FET)
Ms.Sonia Helene Ali	Assistant Director	Ministry of Health
Ms.Fathimath Yumna	Assistant Director	Min. of Gender and Family
Ms.Fathimath Sahuda	Social Development Officer	Min. of Higher Education, Employment and Social Security
Ms.Aminath Eenas	Counselor	Min. Gender and Family
Ms. Asiya Ibrahim	Lecturer	FHS
Ms. Aishath Ahmed Didi	Asst. Lecturer	FHS
<b>National Competency Standard has been endorsed by</b>		
Chairman, Social Sector Council		Vice Chairman, Social Sector Council
<b>Contact for Comments</b>		
Technical Vocational Education and Training Section Ministry of Higher Education Employment and Social Security Haveeree Hingun, Male/ Maldives Telephone: 3347411, Fax: 3347493 Email: <a href="mailto:PIU@employment.gov.mv">PIU@employment.gov.mv</a>		
Date of Endorsement	Date of revision	
	-	

## Key for coding

<b>Coding Competency Standards and Related Material</b>	
<b>Description</b>	<b>Represented by</b>
Industry sector	Three letter
Occupation within a industry sector	Two digits 01 - 99
Competency Standard	s
Unit of Competence in a standard	U 01 - 99
Common competency	1
Core competency	2
Optional/ Elective competency	3
Assessment Resource Material	A
Learning Resource Material	L
Curricula	C
Qualification	Q1, Q2 etc
MNFQ level of qualification	L1, L2 etc
Version of year	V1, V2 etc
Year endorsement of standard qualification	By two digits example - 07

Key for coding and Abbreviation

SOC            Social sector

<b>1. Endorsement Application for Qualification 01</b>	
<b>2. NATIONAL CERTIFICATE III IN IT TECHNICIAN</b>	
<b>2. Qualification code:</b> SOC02SQ1L209	<b>Total Number of Credits: 46</b>
<b>3. Purpose of the qualification</b>	
<ul style="list-style-type: none"> <li>The holders of this qualification are expected to work as IT Technician and will be working under the supervision of a system Administrator</li> </ul>	
<b>4. Regulations for the qualification</b>	National Certificate II in IT Technician will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12+13+14+15+16+17
<b>5. Schedule of Units</b>	
<b>Unit Title</b>	<b>Unit Code</b>
Work effectively in an information technology environment	SOC02S2U01V1
Apply occupational health and safety procedures	SOC02S2U02V1
Operate a word processing and Database applications (Word Processing)	SOC02S2U03V1
Operate a word processing and Database applications (spreadsheets)	SOC02S2U04V1
Operate a word processing and Database applications (Database)	SOC02S2U05V1
Operate a word processing and Database applications (Presentation)	SOC02S2U06V1
Operate computer hardware	SOC02S2U07V1
Determine client computing problems and actions	SOC02S2U08V1
Maintain equipment/Software inventory	SOC02S2U09V1
Work hardware peripherals	SOC02S2U10V1
Install software applications	SOC02S2U11V1
Integrate commercial computing packaging	SOC02S2U12V1
Maintain System integrity	SOC02S2U13V1
Install Computer Systems and Networks	SOC02S2U14V1
Configure Computer Systems and Networks	SOC02S2U15V1
Diagnose and Troubleshoot Computer Systems	SOC02S2U16V1
Maintain Computer Systems and Networks	SOC02S2U17V1
<b>6. Accreditation requirements</b>	The training provider should have a class room and computer lab or similar training facility to provide the trainees the hands-on experience related to this qualification
<b>7. Recommended sequencing of units</b>	As appearing under the section 05

## Unit Details

NO	Unit Title	Code	Level	No of credits
1	Work effectively in an information technology environment	SOC02S2U01V1	2	1
2	Apply occupational health and safety procedures	SOC02S2U02V1	2	2
3	Operate a word processing and Database applications (Word Processing)	SOC02S2U03V1	2	2
4	Operate a word processing and Database applications (spreadsheets)	SOC02S2U04V1	2	2
5	Operate a word processing and Database applications (Database)	SOC02S2U05V1	2	2
6	Operate a word processing and Database applications (Presentation)	SOC02S2U06V1	2	2
7	Operate computer hardware	SOC02S2U07V1	2	2
8	Determine client computing problems and actions	SOC02S2U08V1	2	2
9	Maintain equipment/Software inventory	SOC02S2U09V1	2	3
10	Work hardware peripherals	SOC02S2U10V1	2	3
11	Install software applications	SOC02S2U11V1	2	3
12	Integrate commercial computing packaging	SOC02S2U12V1	2	3
13	Maintain System integrity	SOC02S2U13V1	2	3
14	Install Computer Systems and Networks	SOC02S2U14V1	2	4
15	Configure Computer Systems and Networks	SOC02S2U15V1	2	4
16	Diagnose and Troubleshoot Computer Systems	SOC02S2U16V1	2	4
17	Maintain Computer Systems and Networks	SOC02S2U17V1	2	4

### Packaging of National Qualifications:

National Certificate III in IT Technician will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12+13+14+15+16+17

Qualification Code: SOC02SQ1L209

## Competency Standard for

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### IT TECHNICIAN

Unit No	Unit Title
1.	Work effectively in an information technology environment
2.	Apply occupational health and safety procedures
3.	Operate a word processing and Database applications (Word Processing)
4.	Operate a word processing and Database applications (spreadsheets)
5.	Operate a word processing and Database applications (Database)
6.	Operate a word processing and Database applications (Presentation)
7.	Operate computer hardware
8.	Determine client computing problems and actions
9.	Maintain equipment/Software inventory
10.	Work hardware peripherals
11.	Install software applications
12.	Integrate commercial computing packaging
13.	Maintain System integrity
14.	Install Computer Systems and Networks
15.	Configure Computer Systems and Networks
16.	Diagnose and Troubleshoot Computer Systems
17.	Maintain Computer Systems and Networks



## DESCRIPTION OF AN IT TECHNICIAN

Information Technology (IT) Technician provides front line technical support to individuals in various departments of an organization. They provide general IT support or specialist technical help in particular areas. They are expected to work under the supervision of an IT manager or a system administrator who would provide guidance and supervision.

### Skills & Interests

IT technicians need to be:

- competent and confident users of IT, with a good knowledge of computers,
- familiar with a range of computer software packages,
- good at solving problems,
- able to explain technical issues clearly,
- familiar with different operating systems and computer languages

## COMPETENCY STANDARD DEVELOPMENT PROCESS

The competencies were determined based on the analysis of the tasks expected to be performed by the IT technician in the Maldives. The task analysis was based on the existing job descriptions used in both private and public sector. Competency standards used for similar type of training in other countries were also examined.

<b>Unit Title</b>	Work effectively in an information technology environment				
<b>Descriptor</b>	This unit defines the competency required to assimilate into the Information Technology department. This is fundamental for working in an organization.				
<b>Code</b>	SOC02S2U01V1	<b>Level</b>	2	<b>Credit</b>	1

<b>ELEMENTS OF COMPETENCIES</b>	<b>PERFORMANCE CRITERIA</b>
1. Comply with general IT policies and procedures	1.1 Roles of key players of the Information Technology organisation are determined and briefly explained 1.2 Career choices and options are determined 1.3 Policies and procedures are complied with, as directed by supervisor
2. Promote the organisation and the IT department in a Manner consistent with the organization mission	2.1 Role of the Information Technology functions within the organisation is briefly explained 2.2 Organisation is promoted in a positive way
3. Identify Information Technology equipment/software and operating system supported by the organization	3.1 Information Technology equipment/software and operating system supported by the organisation are identified 3.2 Equipment, location and service requirements are identified according to organisational requirements

## Range Statement

### Key player

May include but are not limited to: Information Technology organisations, vendors of IT products and services, IT professional bodies, industry publications and Government Departments involved in IT industry promotion, employer organisations, relevant unions.

## Clients

Variables may include but are not limited to: internal and external customers, employers and employees.

## Organisational

Variables may include but are not limited to: EEO, Anti-discrimination, Occupational Health and

Safety policies, Occupational Health and Safety procedures, ethical work practices

## Information Technology Department

The structure of the Information Technology department may be a separate branch, department, division or an integrated function of an organisation.

## Organisational

Size and type of organisation and organisational values and culture may vary.

## Information Technology Components

Can include hardware, software and communications packages.

## Client user

May be a department within an organisation or a third party and so the relationship and ease of access will vary.

## Documentation and Reporting

Audit trails, naming standards, version control.

## OH and S standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.

## Organisational Standards

May be based upon formal, well-documented methodologies, or non-existent. For training delivery purposes, best practice examples from industry will be used.

## Assessment Guide

### Forms of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects for Assessment

Assessment must confirm the ability to assimilate into the Information Technology department by demonstrating organisational values through the organisational code of conduct in work place interactions.

## UNDERPINNING KNOWLEDGE AND SKILLS

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• Basic principles of ethical practice when promoting the organisation in a manner consistent with the organisational mission</li><li>• Broad knowledge of organisational code of conduct and values that are consistent with the organizational mission</li><li>• Basic understanding of organisational systems Current industry accepted hardware and software products with broad knowledge of general features and capabilities</li><li>• Broad knowledge base of vendor product directions</li></ul>	<ul style="list-style-type: none"><li>• Reading and writing at a level where general workplace documents can be written and understood.</li><li>• Verbal communication is clear and precise, for example when explaining the role of key players in the Information Technology organisation.</li><li>• Problem-solving is limited to basic known problems within normal routines, for example, when complying with policies and procedures as directed by supervisor</li><li>• Basic analysis skills in relation to normal routine work processes, for example, when complying with policies and procedures as directed by supervisor</li></ul>

	<ul style="list-style-type: none"><li>• Using the features of applications, for example, when complying with policies and procedures as directed by supervisor</li><li>• Basic skills in interpreting technical information, for example, when complying with policies and procedures as directed by supervisor</li></ul>
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<b>Unit Title</b>	Apply occupational health and safety procedures				
<b>Descriptor</b>	This unit defines the competency required to support the organisation's Occupational Health and Safety principles and practices.				
<b>Code</b>	SOC02S2U02V1	<b>Level</b>	2	<b>Credit</b>	2

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Determine Occupational Health and Safety (OH&S) issues relating to immediate work environment	1.1. Occupational Health and Safety issues in the immediate workplace are assessed and action to rectify the problem is taken or reported to supervisor 1.2. Workplace and OH&S procedures are followed to ensure safe working environment
2. Document and Disseminate Occupational Health & Safety requirements	2.1. Information relating to Occupational Health and Safety regulations and requirements are obtained 2.2. OH&S regulations impacting upon the Information Technology client area are determined and documented 2.3. Documents are submitted to supervisor for verification 2.4. Occupational Health and Safety documents are provided to all work stations 2.5. Occupational Health and Safety documents relating to IT are updated and re-issued 2.6. as required
3. Provide basic ergonomic advice	3.1. Ergonomic requirements of clients are assessed 3.2. Advice is provided to clients based on vendor requirements, workplace policies and the latest OH&S information 3.3. Advice is documented and passed on to client and supervisor

## Range Statement

### Organisational

Variables may include, but are not limited to: Occupational Health and Safety legislation; organisation safety procedures; work stations and work environment procedures; presence and impact of OH&S manager.

### Advice on ergonomics

Includes: Occupational Health and Safety procedures; using and cleaning Visual Display Units (VDUs); advice on footrests, exercises, times for breaks, armrests, chairs.

### Operating Systems

Command line and Graphical User Interface

### Literacy skills

In relation to work place documentation may vary

### OH and S standard

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency as well as Occupational Health and Safety guidelines related to use of screen-based equipment, computing equipment and peripherals, and ergonomic work stations, security procedures and customisation requirements.

### Organisational Standards

May be based upon formal, well-documented methodologies, or non-existent. For training delivery purposes, best practice examples from industry will be used.

### Quality process

Some organisations may be quality certified and have well-documented standards for addressing quality while others will not.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to comply with Occupational Health and Safety requirements relating to the use of computing equipment through the practical demonstration of the identification of unsafe practices and taking action to correct them.

## UNDERPINNING KNOWLEDGE AND SKILLS

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• General ergonomic principles to avoid back, wrist and eye strain</li><li>• Procedures and exercises for avoiding strain and injury</li><li>• Current business practices in relation to preparing reports</li><li>• Broad knowledge of Organizational Health and Safety requirements in relation to work safety, environmental factors and ergonomic considerations</li></ul>	<ul style="list-style-type: none"><li>• Reading and writing are at a level where basic workplace documents are understood and presented</li><li>• Questioning and active listening is employed to confirm information</li><li>• Plain English literacy and communication skills in relation to dealing with clients and team members</li><li>• Problem solving skills for a defined range of predictable problems</li></ul>



<b>Unit Title</b>	Operate a word processing and Database applications (Word-processing)				
<b>Descriptor</b>	This unit defines the competency required to correctly operate word processing applications and perform basic operations				
<b>Code</b>	SOC02S2U03V1	<b>Level</b>	2	<b>Credit</b>	2

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Create Documents	1.1 Open documents and add text and symbols according to information requirements 1.2 Use document templates as required 1.3 Use various tools including help, search and replace, spell check, undo and simple formatting tools throughout the drafting of a document 1.4 Add, select, copy, delete or move paragraphs within a document 1.5 Create a mailing list with acceptable layout for mail merge purposes without the loss of relevant information 1.6 Merge mailing list with other document 1.7 Save document to correct directory / folder
2. Customise basic settings to meet page layout conventions 3.	3.1 Adjust page display modes and size to meet user requirements and / or special needs 3.2 Modify toolbar to meet user and document uses 3.3 Change font type, size and colour for the purpose of the document 3.4 Apply alignment and justification options and line spacing according to document formatting requirements 3.5 Modify margin sizes to suit the purpose of the documents 3.6 View multiple documents at once

4. Format Document	4.1 Use italics, bold, underline and hyphenation as required and within organisational guidelines 4.2 Use existing styles within a document according to organizational requirements (style guides, document template layout) 4.3 Copy selected format from another area in the document or from another active 4.4 Document 4.5 Use formatting tools (such as page breaks, tabs, indent, borders, bookmarks, hyperlinks, lists) as required within the document 4.6 Insert headers and footers and incorporate all necessary information and formatting styles 4.7 Save document in another format and/ or in a format for posting to a web site 4.8 Save and close document to hard disk and disk
5. Create Tables	5.1 Insert a standard table in to a word processing document 5.2 Customise cell attributes to meet formatting and data requirements 5.3 Insert and delete columns and rows as necessary 5.4 Use borders and other formatting tools as necessary according to organisational style requirements
6. Add objects and images	6.1 Insert images and /or graphics in a word processing document and customise as necessary 6.2 Import and format objects such as, spreadsheets and charts to fit word processing document requirements 6.3 Position and resize objects and images to meet the word processing document formatting needs
7. Print word processing documents	7.1 Preview document in print preview mode 7.2 Select basic print options 7.3 Print document or part of the document from installed

	printer
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### Range Statement

The Range of Variables statement contextualizes the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

### Hardware

variables may include but are not limited to personal computers and networked systems.

### Document

variables may include but are not limited to: established files and new documents.

### Software

variables may include but are not limited to: commercial software applications; organisational specific software; word processing.

### Keyboarding

Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards.

### Organisational

variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines.

### Operating Systems

Command line and Graphical User Interface.

### Disks

may include but are not limited to: diskettes, CDs, zip disks.

### Workplace environment

May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organization.

### Documentation and Reporting

Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates.

### Standards and Procedures

Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost.

### Assessment Guide

#### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

#### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of Assessment

Assessment must confirm the ability to complete basic operations associated with creating, formatting, saving and printing a document

## UNDERPINNING KNOWLEDGE AND SKILLS

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• General OH&amp;S principles and responsibilities</li><li>• Basic technical terminology in relation to reading help files and prompts</li><li>• Logging procedures relating to accessing a PC</li><li>• Organisational benchmarks for keyboarding</li><li>• Security, viruses, privacy legislation, copyright</li><li>• Types of software</li></ul>	<ul style="list-style-type: none"><li>• Basic analysis in relation to a limited range of routine areas</li><li>• Low level decision making in relation to a limited range of routine areas</li><li>• Problem solving skills in known areas during normal routine</li><li>• Reading and writing at a level where basic workplace documents are understood</li><li>• Communication is clear and precise</li><li>• Interpretation of user manuals and help functions</li></ul>

<b>Unit Title</b>	Operate a word processing and Database applications (Spreadsheets)				
<b>Descriptor</b>	This unit defines the competency required to correctly operate spreadsheet applications and perform basic operations				
<b>Code</b>	SOC02S2U04V1	<b>Level</b>	2	<b>Credit</b>	2

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Create Spreadsheet	1.1 Enter numbers, text and symbols in cells according to information requirements 1.2 Enter simple formulas and formulas using relative and absolute referencing where Required 1.3 Correct formulas when standard error messages occur 1.4 Employ basic built in functions, such as sum and average 1.5 Use various tools including help, search and replace, spell check, undo and simple 1.6 formatting tools during spreadsheet development 1.7 Add, select, copy, delete or move columns and rows within the spreadsheet 1.8 Copy or increment data entries for logical and clear presentation of information 1.9 Save spreadsheet to correct directory / folder
2. Customise basic settings	2.1 Adjust page display modes, orientation and size to meet user requirements and / or special needs 2.2 Modify toolbar to meet user and document uses 2.3 Ensure font type, size and colour is appropriate for the purpose of the document 2.4 Apply alignment and justification options and line spacing according to spreadsheet formatting requirements 2.5 Modify column width and height to suit spreadsheet requirements

	<p>2.6 Format cells to display different styles, values and information as required</p> <p>2.7 Modify margin sizes to suit the purpose of the spreadsheet</p> <p>View multiple workbooks/ spreadsheets at once</p>
3. Format spreadsheet	<p>3.1 Use italics, bold, underline and hyphenation as required</p> <p>3.2 Copy selected format from another cell or group of cells in the spreadsheet or from another active spreadsheet</p> <p>3.3 Use formatting tools (such as page breaks, tabs, indent, borders, lists) as required</p> <p>3.4 within the spreadsheet and / or individual cells</p> <p>3.5 Align information in selected cells as required</p> <p>3.6 Insert headers and footers and incorporate all necessary information and formatting styles</p> <p>3.7 Save document in another format and in a format for posting to a web site</p> <p>3.8 Save and close document to hard disk and disk</p>
4. Incorporate objects and charts in spreadsheets	<p>4.1 Import and manipulate objects within a spreadsheet</p> <p>4.2 Display spreadsheet data in different charts</p> <p>4.3 Modify charts for formatting reasons</p>
5. Print spreadsheets	<p>5.1 Preview spreadsheet in print preview mode</p> <p>5.2 Select basic print options</p> <p>5.3 Print spreadsheet or part of spreadsheet from installed printer</p>

### Range Statement

The Range of Variables statement contextualizes the unit of competence and provides a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

## Hardware

variables may include but are not limited to personal computers and networked systems

## Document

variables may include but are not limited to: established files and new documents

## Software

variables may include but are not limited to: commercial software applications; organisational specific software; word processing

## Keyboarding

Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards

## Organisational

variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines

## Operating Systems

Command line and Graphical User Interface

## Disks

may include but are not limited to: diskettes, CDs, zip disks

## Workplace environment

May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation

## Documentation and Reporting

Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates



## Standards and Procedures

Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to complete basic operations associated with creating, formatting, saving and printing a spreadsheet, including creating basic formulas and working with objects and charts

## UNDERPINNING KNOWLEDGE AND SKILLS

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• General OH&amp;S principles and responsibilities</li><li>• Logging procedures relating to accessing a PC</li><li>• Organisational benchmarks for keyboarding</li><li>• Basic mathematics</li><li>• Basic technical terminology in relation to reading help files and prompts</li></ul>	<ul style="list-style-type: none"><li>• Basic analysis in relation to a limited range of routine areas</li><li>• Low level decision making in relation to a limited range of routine areas</li><li>• Problem solving skills in known areas during normal routine</li><li>• Reading and writing at a level where basic workplace documents are understood</li><li>• Communication is clear and precise</li><li>• Mouse usage techniques</li></ul>

<ul style="list-style-type: none"><li>• Security, viruses, privacy legislation, copyright</li><li>• Types of software</li></ul>	
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<b>Unit Title</b>	Operate a word processing and Database applications (Database)		
<b>Descriptor</b>	This unit defines the competency required to correctly operate database applications and perform basic operations		
<b>Code</b>	SOC02S2U05V1	<b>Level</b>	2
		<b>Credit</b>	2

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Create a database	1.1 Formulate a simple design for a two table database incorporating basic design principles 1.2 Develop tables with fields and attributes according to database usage requirements 1.3 Enter data and link and navigate tables 1.4 Create a primary key and establish an index 1.5 Modify table layout and field attributes as required 1.6 Modify data in tables for information requirements 1.7 Add and delete records as required 1.8 Follow correct close down procedures to ensure data is not lost
2. Customise basic settings	2.1 Adjust page display modes, orientation and size to meet user requirements and / or 2.2 special needs 2.3 Modify toolbar to meet user and database uses 2.4 Ensure font type, size and colour is appropriate for the purpose of the database
3. Create reports	3.1 Design report to present data in a logical sequence 3.2 Modify reports to include / exclude additional information requirements 3.3 Modify existing reports to accommodate current information requirements 3.4 Distribute reports are in a suitable format (softcopy/ hardcopy)

4. Create forms	4.1 Create simple forms which include imported files (images/graphics) and customised 4.2 colours using a wizard 4.3 Open existing database and modify records through a simple form 4.4 Rearrange objects within the form to accommodate information requirements 4.5 Save and close database to hard disk and disk
5. Retrieve information	5.1 Access existing database and locate required record 5.2 Create simple query and retrieve required information 5.3 Develop query with multiple criteria and retrieve required information 5.4 Apply filters and access information 5.5 Refine queries to more precisely retrieve information 5.6 Select data and sort according to information retrieval requirements

### Range Statement

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

### Hardware

variables may include but are not limited to personal computers and networked systems.

### Document

variables may include but are not limited to: established files and new documents.

### Software

variables may include but are not limited to: commercial software applications; organisational specific software; word processing.

### Keyboarding

Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards.

### Organisational

variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines.

### Operating Systems

Command line and Graphical User Interface.

### Disks

may include but are not limited to: diskettes, CDs, zip disks.

### OH and S Standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements.

### Workplace environment

May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organization.

### Documentation and Reporting

Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach; information gathering processes may have associated templates.

### Standards and Procedures

Will vary from formal procedures that must be adhered to with implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to design and develop a simple database using a standard database package the candidate must add data, use queries, create forms and reports

## UNDERPINNING KNOWLEDGE AND SKILLS

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• General OH&amp;S principles and responsibilities</li><li>• Basic technical terminology in relation to reading help files and prompts</li><li>• Logging procedures relating to accessing a PC</li><li>• Organisational benchmarks for keyboarding</li><li>• Basic technical terminology in relation to reading help files and prompts</li><li>• Security, viruses, privacy legislation, copyright</li><li>• Basic database design</li><li>• Types of software</li></ul>	<ul style="list-style-type: none"><li>• Basic analysis in relation to a limited range of routine areas</li><li>• Low level decision making in relation to a limited range of routine areas</li><li>• Reading and writing at a level where basic workplace documents are understood</li><li>• Communication is clear and precise</li><li>• Interpretation of user manuals</li></ul>

<b>Unit Title</b>	Operate a word processing and Database applications (Presentations)				
<b>Descriptor</b>	This unit defines the competency required to correctly operate presentation applications and perform basic operations				
<b>Code</b>	SOC02S2U06V1	<b>Level</b>	2	<b>Credit</b>	2

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Create presentations	1.1 Create a simple design for a presentation according to organisational requirements 1.2 Open presentations and add text and symbols 1.3 Use existing styles within a presentation 1.4 Use presentation templates / master slide to create a presentation 1.5 Use various tools including help, search and replace, spell check, undo and simple 1.6 formatting tools 1.7 Add, select, copy, delete or move text, images and graphics within the presentations 1.8 Save presentation to correct directory / folder
2. Customise basic settings	2.1 Adjust page display modes and size to meet user requirements and / or special needs 2.2 Modify toolbar to meet user and document uses 2.3 Ensure font type, size and colour is appropriate for the purpose of the presentation View multiple slides at once
3. Format presentation	3.1 Use organisational charts, charts, bulleted lists and modify as required 3.2 Add objects (images and graphics) and manipulate to meet presentation purpose 3.3 Import objects such as tables and modify for presentation purposes 3.4 Modify slide layout including text and colours to meet

	<p>presentation requirements</p> <p>3.5 Use formatting tools (such as tabs, cut, paste, indents, bookmarks, hyperlinks, borders, 3.6 lists) as required within the presentation</p> <p>3.7 Duplicate slides within and/ or across presentations</p> <p>3.8 Reorder the sequence of slides and/ or delete for presentation purposes</p> <p>3.9 Save presentation in another format and in a format for posting to a web site</p> <p>3.10 Save and close presentation to hard disk and/or disk</p>
<p>4. Add slide show effects</p>	<p>4.1 Incorporate preset animation and multimedia effects in to presentation as required to enhance the presentation</p> <p>4.2 Change preset animation effects according to presentation purposes to create a cohesive presentation</p> <p>4.3 Add slide transition effects to presentation to ensure smooth progression though the presentation</p> <p>4.4 Test slide show effects for overall effect</p> <p>4.5 Use onscreen navigation tools to start and stop slide show or move between different slides as required</p>
<p>5. Print presentation and notes</p>	<p>5.1 Select appropriate print format (overheads, handouts etc) for slide presentation</p> <p>5.2 Select preferred slide orientation (portrait, landscape)</p> <p>5.3 Add notes, slides numbers and spell check</p> <p>5.4 Preview slides in the required formats (overheads, notes, etc)</p> <p>5.5 Print slides in the required formats</p>



## Range Statement

The Range of Variables statement contextualise the unit of competence and provide a focus for assessment. The information provided is intended to define the scope of assessment and to assist assessors define the performance to be achieved by an individual in the workplace.

## Hardware

variables may include but are not limited to personal computers and networked systems

## Document

variables may include but are not limited to: established files and new documents

## Presentation Packages

May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works or other similar applications

## Cultural Understanding

Cultural understanding requires the capacity to apply an understanding of cultures when carrying out workplace tasks, including commitment to organisational goals such as quality, safety, efficiency, teamwork, security, environmental protection, customer service and personal development, and interacting with people from widely different backgrounds and cultures in the achievement of common work goals.

- Carries out established processes
- Operates in accordance with existing company and statutory requirements
- Makes judgements of quality using given criteria

## Keyboarding

Speed will vary according to different organisational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards

## Organisational

variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines

## Operating Systems

Command line and Graphical User Interface

## Disks

may include but are not limited to: diskettes, CDs, zip disks

## OH and S Standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures; customisation requirements

## Workplace environment

May involve a business involved in a total organisational change, a systems only change, a business improvement process, an e-commerce solution involving the total organisation or part of the organisation

## Documentation and Reporting

Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach, information gathering processes may have associated templates

## Standards and Procedures

Will vary from formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to create, format and prepare presentations for distribution and display

## Underpinning Knowledge and Skills

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• General OH&amp;S principles and responsibilities</li><li>• Basic understanding of using systems, technical</li><li>• Basic technical terminology in relation to reading help files and prompts</li><li>• Logging procedures relating to accessing a PC</li><li>• Organisational benchmarks for keyboarding</li><li>• Basic technical terminology in relation to reading help files and</li></ul>	<ul style="list-style-type: none"><li>• Basic analysis in relation to a limited range of routine areas</li><li>• Low level decision making in relation to a limited range of routine areas</li><li>• Problem solving skills in known areas during normal routine</li><li>• Reading and writing at a level where basic workplace documents are understood</li><li>• Communication is clear and precise</li><li>• Interpretation of user manuals</li></ul>

<p>prompts</p> <ul style="list-style-type: none"><li>• Security, viruses, privacy legislation, copyright</li><li>• Different types of presentations, formal, informal, audience types</li></ul>	
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<b>Unit Title</b>	Operate computer Hardware				
<b>Descriptor</b>	This unit defines the competency required to determine, select and correctly operate basic computer hardware.				
<b>Code</b>	SOC02S2U07V1	<b>Level</b>	2	<b>credit</b>	2

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Use appropriate Office peripherals	1.1 Functions of office peripherals are identified 1.2 Requirements of task are determined 1.3 Appropriate hardware is selected to perform task 1.4 Hardware is used to produce required outcome
2. Operate and maintain a range of hardware	2.1 A range of hardware equipment is operated to complete routine tasks 2.2 Hardware consumables are determined and replaced
3. Use keyboard and equipment	3.1 Occupational Health and Safety regulations are followed 3.2 Keyboarding is carried out according to organization guidelines on speed and accuracy

## Range Statement

### Storage Media/Disks

May include but are not limited to: diskettes, CDs, zip drives, local HDDs, remote HDDs

## Technical instructions

Technical instructions for use of specific computer hardware.

## Keyboarding

Speed will vary according to different organisational requirements and different job roles within an organization. The keyboard technique will be in line with OHS requirements for safe use of keyboards.

## Occupational Health and Safety

Guidelines relate to the use of screen based equipment, computing **equipment** and peripherals, and ergonomic workstations.

## Organisational

Variables may include, but are not limited to: security procedures; Occupational Health and Safety procedures; maintenance procedures.

## OH and S standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.

## Quality process

Some organisations may be quality certified and have well document standards for addressing quality while others will not.

## Hardware

Variables may include, but are not limited to: personal computers, networked systems, personal organisers, and communications equipment.

Peripherals may include: printers, scanners, cartridges, speakers, multi media kits. Keyboard equipment may include: mouse, touch pad, keyboard, and pens.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to determine, select and use hardware components and functions correctly and efficiently according to the task requirement. Hardware consumables are correctly identified and utilized according to the task requirement.

### Underpinning Knowledge and Skills

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• OH&amp;S principles and responsibilities</li><li>• Ergonomic principles to avoid back, wrist and eye strain</li><li>• Procedures and exercises for avoiding strain and injury</li><li>• Basic knowledge of current industry accepted hardware and software products with broad knowledge of general features and capabilities</li></ul>	<ul style="list-style-type: none"><li>• Reading and writing at a level where basic workplace documents are understood</li><li>• Decision making skills in a narrow range of areas</li><li>• Problem solving skills for a defined range of predictable problems</li></ul>

<b>Unit Title</b>	Determine client computing problems and actions				
<b>Descriptor</b>	This unit defines the competency required to record and prioritise client support activities, determine the required resources, solve the client problem or escalating as necessary.				
<b>Code</b>	SOC02S2U08V1	<b>Level</b>	2	<b>Credit</b>	2

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Determine client problem	1.1 Appropriate questions are asked to determine the client problem 1.2 Client problem is documented for follow up 1.3 Specific client requirements from logged requests are determined, and further appropriate investigation such as on site visit is carried out, to gain further information
2. Prioritise client problems	2.1 Scale of problem is determined and monitored 2.2 Problem constraints are determined 2.3 Impact analysis of problem to organise is undertaken Priorities are determined 2.4 Advice and support are provided to the client from database of known problems, if possible
3. Refer maintenance to supervisor where required	3.1 Options of referral or action are investigated and appropriate process is followed 3.2 Client help documentation is provided as required 3.3 Support and advice are documented according to organisation guidelines 3.4 Maintenance and technical support agreements are determined 3.5 Problem is referred to supervisor, management or technical area as required 3.6 Referrals are documented and tracked according to



	organisation guidelines
4. Carry out maintenance	<p>4.1 New components are obtained in line with organisation guidelines</p> <p>4.2 Maintenance is completed in line with organization guidelines</p> <p>4.3 Used components are stored and disposed of in accordance with organisation guidelines</p>
5. Prepare Maintenance report	<p>5.1 Maintenance is prepared in line with organization guidelines</p> <p>5.2 Maintenance requirements to appropriate area are escalated as required</p>
6. Confirm problem resolution	<p>6.1 Client evaluation and feedback are obtained to ensure requirements of client are met</p> <p>6.2 Problem is resolved to client satisfaction or client is referred to supervisor/appropriate person for follow-up</p> <p>6.3 Problem is resolved to client satisfaction</p>

### Range Statement

#### Advice and support Can include:

provision of client documentation, manuals; documentation from vendor. Advice on software supported by the organisation can include but is not limited to: formatting spreadsheets, creation of graphs, setting up of work processing documents for printing, setting up an electronic mail system.

Advice on hardware supported by the organisation can include but is not limited to: operation of printers, setting of screen resolution, formatting of disks, reconfiguration of printers and scanners.

#### Further investigation can include:

on site examination; question and answers; active listening to client and other employees; contacting vendor or maintenance contract organisations; referring to technical area.

### Database of known Problems

Can include information available in the workplace, from Internet or from software vendors.

### Organisation information

Includes security procedures, logged call procedures, contracting arrangements relating to Information Technology purchasing and hardware and software options within organisational environment.

### Client user

May be a department within the organisation or a third party and so the relation and ease of access will vary.

### Documentation and reporting

Audit trails, naming standards, version control.

### OH and S Standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.

### Organisational Standards

May be based upon formal, well-documented methodologies, or non-existent. For training delivery purposes, best practice examples from industry will be used.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

## Assessment context

Assessment may be done in workplace or a simulated work environment.

## Critical aspects of evidence

Assessment must confirm the ability to record and prioritise client support activities, determining the required resources, solving the client problem or escalating according to organizational guidelines or practices.

## Underpinning Knowledge and Skills

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• Principles of EEO and anti-discrimination</li><li>• Principles of OH&amp;S</li><li>• Understanding systems, technical and organisational</li><li>• Broad general knowledge of operating systems functions and basic features</li><li>• Current industry accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas</li><li>• Broad knowledge of escalation procedures</li><li>• Hardware and software supported by the organisation</li><li>• Information Technology terminology</li><li>• Telephone, fax and on-line functions and procedures</li><li>• Work group procedures</li></ul>	<ul style="list-style-type: none"><li>• Strong customer service</li><li>• Decision-making involving discretion and judgement</li><li>• Time management for self and Others Solving known problems in a variety of contexts</li><li>• Questioning and active listening for conveying and clarifying information</li><li>• Literacy skills in regard to interpretation of technical manuals</li></ul>

<ul style="list-style-type: none"><li>• Broad general knowledge of Equal Opportunity legislation</li><li>• Broad general knowledge of Anti-discrimination legislation</li><li>• In-house or vendor support available</li></ul> Security and network guidelines/procedures <ul style="list-style-type: none"><li>• Broad general knowledge of Occupational Health and Safety regulations</li></ul>	
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<b>Unit Title</b>	Maintain Equipment/Software inventory				
<b>Descriptor</b>	This unit defines the competency required to record and store the organisation's software, equipment and technical documentation.				
<b>Code</b>	SOC02S2U09V1	<b>Level</b>	2	<b>Credit</b>	3

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Document and update inventory	1.1 Inventory is maintained to include Information Technology equipment movements, new purchases or redundant equipment 1.2 Software inventory and licenses are maintained and updated in line with upgrades 1.3 Manuals and associated technical documentation are recorded and stored 1.4 Unused equipment is stored according to technical manuals
2. Store technical documentation	2.1 Technical documentation is stored as required by organisational guidelines 2.2 Technical documentation is accessed and disseminated as required to meet client requirements

## Range Statement

### Equipment

Variables may include but are not limited to: personal computers, networked systems, personal organisers, communications equipment. Peripherals may include printers, scanners, tape cartridges, speakers, multi-media kits. Keyboard equipment may include mouse, touch pad keyboard, pens.

### Software

Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, mail, Internet browsers and presentation functionalities.

## Organisation

Variables may include but are not limited to: security procedures; storage and retrieval of product licenses; storage of Information Technology equipment and documentation; disposal policy; technical manuals, in-house, product and vendors.

## Literacy

Literacy in regard to technical documentation.

## Client user

May be a department within the organisation or a third party and so the relation and ease of access will vary.

## Documentation and Reporting

Audit trails, naming standards, version control.

## OH and S Standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.

## Organisational Standards

May be based upon formal, well-documented methodologies, or non-existent. For training delivery purposes, best practice examples from industry will be used.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to accurately and regularly update and maintain the software, equipment and technical documentation inventory according to identified storage and retrieval policy and procedures. Software licensing requirements are adhered to according to vendor specifications; Inventories are regularly accessed and kept up to date; Literacy skills in regard to workplace documentation and technical manuals are demonstrated.

### Underpinning Knowledge and Skills

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• Basic understanding of systems, organisational</li><li>• Basic software licensing requirements understanding</li><li>• General copyright regulations</li><li>• Broad knowledge of inventory principles and procedures</li><li>• Current business practices in relation to preparing reports</li></ul>	<ul style="list-style-type: none"><li>• Basic reading, writing and interpretation skills in regard to workplace documentation</li><li>• Plain English literacy and communication skills in relation to the presentation of information</li><li>• Problem-solving skills for a defined range of predictable problems</li><li>• Low level decision-making skills</li></ul>

<b>Unit Title</b>	Connect hardware peripherals				
<b>Descriptor</b>	This unit defines the competency required to connect hardware peripherals according to instructions.				
<b>Code</b>	SOC02S2U10V1	<b>Level</b>	2	<b>Credit</b>	3

<b>Element of competency</b>	<b>Performance Criteria</b>
1. Confirm requirements of client	1.1 Clients' peripheral requirements are identified and are confirmed in accordance with organisation standards 1.2 Client requirements and peripherals needed in line with organizational guidelines are documented and reported to the supervisor 1.3 Client requirements are cleared with supervisor in line with organization guidelines 1.4 Client support expectations are covered by vendor's warranty and support services
2. Obtain required peripherals	2.1 Peripherals are obtained under instruction from management/supervisor 2.2 Peripherals are entered into equipment inventory according to organisation's procedures 2.3 Contents are validated and method of ensuring the physical contents match the packing list is demonstrated 2.4 Peripherals are stored according to vendor/manual guidelines
3. Connect hardware peripherals	3.1 Timeframe for installation schedule is verified with higher authority 3.2 Existing peripherals are disconnected and replaced, with minimal disruption to clients 3.3 New peripherals are connected with minimal disruption 3.4 Computer is configured to accept new peripherals 3.5 Hardware peripherals are tested and client satisfaction is confirmed. Amendments are made as required for client



## Range Statement

### Peripherals

Peripherals will normally connect to an existing interface port or wireless and do not include peripherals accessed internally. Peripherals may include, but are not limited to: printers, scanners, tape cartridges; speakers, multimedia kits, PC fax, modems. Keyboard equipment may include mouse, touch pad, keyboard, pens; mobile phones, palmtops and desktop computers; Bluetooth devices, Universal Serial Bus (USB). Peripherals can be sourced from existing inventory or vendors.

### Operating systems

Win 95/98/NT/2000, Sun Solaris/SunOS, DOS, Mac OSX, Linux.

### Hardware

Can include IT equipment of all types: workstations: PCs, IBM, Compaq, Hewlett Packard, Sun, Dell, Gateway 2000, SGI, Sun Microsystems, Bridges, 3Com, Compaq, CISCO, IBM modems: analog, cable, ISDN, DSL servers: Acer, Apple, Compaq, Dell, Gateway 2000, Hewlett-Packard, IBM, Macintosh, NEC, SGI, Sun Microsystems, Unisys network cards: Adaptec, ARTIC, Compex, SMC switches: 3Com, Accton, Cabletron, CISCO, D-Link, Farallon, Hewlett-Packard, Intel, Network Technologies hubs & repeaters: 3Com, Compaq, CISCO, Accton, Asante, D-Link, Farallon, Hewlett-Packard, Intel, Omnitron routers & gateways: 3Com, CISCO, D-Link, Intel file & print servers: AcerAltos, Aerocomm, AlphaServer, Dell, D-Link, Hewlett-Packard, IBM, NEC, Sun Microsystems.

### Software and Applications

Can include packaged software, in-house development or out-sourced development. The amount of maintenance, change and tailoring that can be undertaken will vary.

### Configuration

Configuration includes automatic, plug and play, and manual.

### Reporting procedures

Help desk and maintenance structures will vary. Some may be a call centre or a general contact point which then calls a supplier or other technician. Others may be staffed by technicians capable of solving the problem. Thus documentation and other procedures will vary. Systems to monitor change request may be manual or computerised.

## Documentation and Reporting

Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates.

## Standards and Procedures

May include: formal procedures that must be adhered to with check points and sign offs with documented procedures and templates, implementation of financial control mechanisms, communication with stakeholders, dispute resolution and modification procedures, processes for determining size and cost.

## OH & S Standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to connect hardware peripherals according to vendor instructions with a minimum of down time to the system. Competency is required in the connection of five different peripherals. Ability to interpret vendor manuals in relation to the storage and connection of hardware peripherals is demonstrated. Occupational Health and Safety regulations relating to working with electrical equipment is adhered to.

## Underpinning Knowledge and Skills

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"> <li>• Broad general knowledge of OH&amp;S procedures for electrical equipment</li> <li>• Detailed knowledge of inventory procedures</li> <li>• Organisational guidelines relating to external suppliers and vendors</li> <li>• General understanding of systems, technical terms</li> <li>• Broad knowledge base incorporating theoretical concepts of three or more current industry accepted hardware peripherals; knowledge of general features and capabilities and detailed knowledge in some</li> <li>• Broad knowledge base incorporating theoretical concepts of three or more current industry-accepted system components; knowledge of general features and capabilities and detailed knowledge in some</li> <li>• Broad knowledge base incorporating theoretical concepts of operating systems</li> <li>• Broad knowledge of help desk and maintenance practices</li> <li>• Current industry-accepted hardware and software products with broad knowledge of general features and capabilities and detailed knowledge in some areas</li> <li>• Broad knowledge base incorporating theoretical concepts of Input/output skills in relation to maintenance procedures and devices</li> </ul>	<ul style="list-style-type: none"> <li>• Customer service skills in relation to maintenance procedures</li> <li>• Handling difficult clients</li> <li>• Conflict resolution skills in relation to maintenance procedures</li> <li>• Decision-making in a limited range of options</li> <li>• Literacy in regard to general workplace documentation</li> <li>• Problem-solving skills for a defined range of predictable problems</li> <li>• Plain English literacy and communication skills in relation to analysis, evaluation and presentation of information</li> <li>• Facilitation and presentation skills in relation to transferring and collecting information</li> <li>• Negotiation skills in relation to other team members and applied to a defined range of predictable problems</li> <li>• Report writing skills for business requiring depth in some areas, analysis and evaluation of information in a defined range of areas.</li> </ul>

<b>Unit Title</b>	Install software applications				
<b>Descriptor</b>	This unit defines the competency required to install software applications under instruction.				
<b>Code</b>	SOC02S2U11V1	<b>Level</b>	2	<b>Credit</b>	3

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Determine software or software upgrade requirements of clients	1.1 Client requirements are documented and reported to supervisor 1.2 Supervisor's instructions to meet client requirements are acted on in line with organisation guidelines, corporate purchasing, licensing arrangements, and budget
2. Obtain software or software upgrade	2.1 Software is obtained under instruction from management or supervisor 2.2 Licensing requirements are determined and recorded in line with organization 2.3 guidelines
3. install software or upgrade	3.1 Upgrades are installed to meet supervisor instructions 3.2 Process is undertaken so clients experience minimal disruption 3.3 Computer is installed to accept software 3.4 Testing and acceptance in line with corporate guidelines are carried out 3.5 Client requirements are satisfied. Amendments are made as required for client, or client is referred to appropriate person/ supervisor, if necessary

## Range Statement

### Software

Variables may include, but are not limited to: commercial software applications; organisational specific software; operating systems – stand alone PC systems and network operating systems; word processing, spreadsheet, database, graphics, communications packages or any applications as used by the organisation; software installation instructions and manuals; range of suppliers.

### Hardware

Includes personal computers but not networks.

### Organisation

Variables may include, but are not limited to: contacting arrangements relating to Information Technology purchasing; licensing requirements and supplier options; storage and retrieval of product licenses; storage of Information Technology equipment and documentation; testing standards. Client requirements may vary.

### Client user

May be a department within the organisation or a third party and so the relation and ease of access will vary.

### Development methods/tools

Will vary from the traditional Systems Development life cycle with little or no formalisation to a very well structured CASE tool.

### OH & S Standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.

### Organisational Standards

May be based upon formal, well-documented methodologies, or non-existent. For training delivery purposes, best-practice examples from industry will be used.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to install software applications through operating system instructions and to configure computer to accept new software or upgrade.

### Interdependent assessment of units:

The interdependence of units of competency for assessment will vary with the particular project or scenario.

## Underpinning Knowledge and Skills

<b>Underpinning Knowledge</b>	<b>Underpinning Skills</b>
<ul style="list-style-type: none"><li>• Organisational guidelines for purchasing</li><li>• Broad general knowledge of licensing arrangements and responsibilities</li><li>• Broad general knowledge of software copyright responsibilities</li><li>• Broad general knowledge of operating systems supported by the organisation</li><li>• Broad general knowledge of the</li></ul>	<ul style="list-style-type: none"><li>• General customer service</li><li>• Decision making in a limited range of options</li><li>• Problem solving of known problems in routine procedures</li><li>• Plain English literacy and communication skills in relation to the presentation of information</li><li>• Report writing skills for business requiring some analysis and evaluation of information in a defined range of areas</li></ul>

<p>hardware storage devices</p> <ul style="list-style-type: none"><li>• Broad general knowledge of Input/Output devices</li><li>• Broad general knowledge of the client business domain</li></ul>	
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<b>Unit Title</b>	Integrate commercial computing packaging				
<b>Descriptor</b>	This unit expressed the competency required to apply appropriate conversion formats and manipulation of data between commercial application software.				
<b>Code</b>	SOC02S2U12V1	<b>Level</b>	2	<b>Credit</b>	3

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Produce required organisational documents	1.1 Appropriate packages and conversion techniques are used to achieve an integrated outcome 1.2 Data is imported/exported to produce required outcome 1.3 Data is saved and re-accessed without loss of data
2. Determine and use help	2.1 Help is accessed through on line help and manuals 2.2 Internal organisation client documentation is obtained and used

## Range Statement Software

Variables may include but are not limited to: commercial software applications; organisational specific software; word processing, spreadsheet, database, graphic, communication packages and presentation functionalities. May include presentation applications contained in: Microsoft Office, Lotus Suite, Claris Works, Star Office or other similar applications.

## Storage Media/Disks

May include but are not limited to: diskettes, CDs, zip disks, local HDDs, remote HDDs.

## Documentation and Reporting

Documentation for version control may follow ISO standards. Audit trails, naming standards, version control, project management templates and report writing styles will vary according to organisational approach. Information gathering processes may have associated templates.



## Organisational

Variables may include but are not limited to: keyboarding and accuracy as per organisation guidelines; Occupational Health and Safety guidelines related to use of screen based equipment, computing equipment and peripherals, and ergonomic work stations; security procedures.

## Hardware

Variables may include but are not limited to: personal computers, networked systems, personal organisers, communications equipment. Peripherals may include: printers scanners, tape cartridges, speakers, multi media kits. Keyboard equipment may include: mouse, touch pad, keyboard pens.

## Keyboarding

Speed will vary according to different organizational requirements and different job roles within an organisation. The keyboard technique will be in line with OHS requirements for safe use of keyboards.

## Sources and Output data

Variables may include, but are not limited to: hard disk, floppy disks; paper; format of data source or data output, ie ASCII and application specific format.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects of evidence

Assessment must confirm the ability to apply appropriate conversion formats and manipulate data between commercial application software.

### Underpinning Knowledge and Skills

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• General understanding of features and functions of particular categories of commercial computing packages</li><li>• Software packages supported by the organisation</li><li>• General Occupational Health and Safety regulations</li><li>• Use of input/output devices</li><li>• Current business practices in relation to preparing reports</li><li>• Importing/exporting functions</li></ul>	<ul style="list-style-type: none"><li>• Reading and general comprehension of technical manuals</li><li>• Decision making in a limited range of options</li><li>• Basic analytical skills for known problems in routine procedures</li><li>• Problem solving skills in regard to known problems in routine processes</li><li>• Use of commercial computing packages</li></ul>

<b>Unit Title</b>	Maintain System integrity				
<b>Descriptor</b>	This unit expresses the competency required to protect and secure stand-alone or client server environments.				
<b>Code</b>	SOC02S2U13V1	<b>Level</b>	2	<b>Credit</b>	3

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Carry out file maintenance	1.1 File back-ups are carried out 1.2 Back-ups are determined and stored according to organisational guidelines 1.3 Records or back-up are maintained
2. Carry out virus scanning	2.1 Virus protection is maintained 2.2 Detected viruses are reported to supervisor and are removed
3. Follow software copyright procedures	3.1 Software licenses are monitored 3.2 Illegal software is determined 3.3 Illegal software is reported to supervisor
4. Record software licenses	4.1 Licensed software is determined 4.2 Records of license number and location are maintained 4.3 Personal computers and networks are checked for illegal software 4.4 Illegal software is reported to supervisor
5. Restore system back-up	5.1 Back-ups are restored 5.2 Restore procedures are determined according to the organizational guidelines 5.3 Restore is carried out under supervisor instruction 5.4 Restore carried out is recorded according to the organizational guidelines

## Range Statement

### Hardware

Variables may include, but are not limited to: personal computers, networked systems, tools to perform back-ups such as tapes, streamers, floppy disks

### Software

Software application/operating system with system security functions.

### Organisation

Variables may include, but are not limited to: security procedures; backing-up procedures; virus removal procedures; software license documentation; reporting of illegal software; restore procedures.

### Literacy skills

In regard to reporting and recording organisational documentation.

### Client user

May be a department within the organisation or a third party. Consequently, the relationship and ease of access will vary.

### Documentation and Reporting

Audit trails, naming standards, version control.

### OH & S standards

As per company, statutory and vendor requirements. Ergonomic and environmental factors must be considered during the demonstration of this competency.

### Organisational Standards

May be based upon formal, well documented methodologies or non-existent. For training delivery purposes, best practice examples from industry will be used.

## Assessment Guide

### Form of assessment

Continuous assessments together with collected evidence of performance will be suitable for this unit.

## Assessment context

Assessment may be done in workplace or a simulated work environment.

## Critical aspects for Assessment

Assessment must confirm the ability to protect and secure stand alone or networked client server environments and operating systems according to system maintenance procedures. Undertaking file back-up, restore, delete and archive are carried out according to back-up and restore procedures.

## Underpinning Knowledge and Skills

Underpinning Knowledge includes	Underpinning Skills include
<ul style="list-style-type: none"> <li>• Software copyright responsibilities</li> <li>• A broad knowledge base incorporating some theoretical concepts of system performance</li> <li>• Broad knowledge of maintenance procedures</li> <li>• A broad knowledge base of inventory procedures</li> <li>• A broad knowledge base incorporating some theoretical concepts of restore procedures</li> <li>• A broad knowledge base of storage and retrieval guidelines</li> <li>• A broad knowledge base incorporating some theoretical concepts of operating systems</li> <li>• Current industry accepted hardware and software products with broad knowledge of general feature and</li> </ul>	<p>Plain English literacy and communication skills in relation to the presentation of information</p> <p>Basic diagnostic skills in relation to system integrity</p> <p>Questioning and active listening in regard to clarifying instructions</p> <p>Basic analytical skills in relation to system integrity</p> <p>Problem-solving skills for a defined range of predictable problems</p> <p>Problem solving in regard to known problems in routine procedures</p> <p>Research skills for identifying broad features of current viruses and best practice in virus protection</p>

<p>capabilities and detailed knowledge in some areas</p> <ul style="list-style-type: none"><li>• A broad knowledge base incorporating some theoretical concepts of diagnostic tools</li><li>• A broad knowledge base of current viruses and protection methods</li></ul>	
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<b>Unit Title</b>	Install Computer Systems and Networks				
<b>Descriptor</b>	This unit covers the outcomes required in installing, assembling and testing computers and common peripherals.				
<b>Code</b>	SOC02S2U14V1	<b>Level</b>	2	<b>Credit</b>	4

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Plan and prepare for installation	<p>1.1 Installation is planned and prepared to ensure OH&amp;S policies and procedures are followed, the work is appropriately sequenced in accordance with requirements</p> <p>1.2 Appropriate personnel are consulted to ensure the work is coordinated effectively with others involved on the work site</p> <p>1.3 Devices / systems are obtained in accordance with established procedures and to comply with requirements</p> <p>1.4 Location in which devices / systems are to be installed is determined from job requirements</p> <p>1.5 Materials necessary to complete the work are obtained in accordance with established procedures and checked against job requirements</p> <p>1.6 Tools, equipment and testing devices needed to carry out the installation work are obtained in accordance with established procedures and checked for correct operation and safety</p> <p>1.7 Preparatory work is checked to ensure no unnecessary damage has occurred and complies with requirements</p>
2. Install equipment / device /	2.1 OH&S policies and procedures for installing

<p>system</p>	<p>devices/systems are followed</p> <p>2.2 Devices / systems are installed in accordance with requirements, without damage or distortion to the surrounding environment or services</p> <p>2.3 Variation to devices / systems installation is carried out in accordance to customer/client requirements</p> <p>2.4 Devices / systems are terminated and connected in accordance with requirements</p> <p>2.5 Unplanned events or conditions are responded to in accordance with established procedures</p> <p>2.6 Approval is obtained in accordance with established procedures from appropriate personnel before any contingencies are implemented</p> <p>2.7 On-going checks of the quality of the work are undertaken in accordance with established procedures</p>
<p>3. Conduct test</p>	<p>3.1 OH&amp;S policies and procedures are followed</p> <p>3.2 Circuits and systems are checked as being isolated where necessary using specified testing procedures</p> <p>3.3 Parts or connections of the installation or service that are removed in order to conduct the test are stored to protect against loss or damage and in accordance with established procedures</p> <p>3.4 Unplanned events or conditions are responded to in accordance with established procedures</p> <p>3.5 Approval is obtained in accordance with established procedures from appropriate personnel before any contingencies are implemented</p> <p>3.6 Devices / systems and/or installation is tested to determine whether it conforms to requirements</p> <p>3.7 Parts, and/or connections removed for the purpose of testing are returned to pre-test conditions in</p>



	<p>accordance with established procedures</p> <p>3.8 Final inspections are undertaken to ensure the installed devices / systems conforms to requirements</p> <p>3.9 Documentation in relation to the test is forwarded to appropriate personnel and/or authority in accordance with requirements</p>
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## Range Statement

### OH&S Standards

Occupational Health and Safety Laws Personal Safety, Workplace Hazards and Environment Laws

### Hardware

Personal computer systems and devices, Monitor, System unit and its components e.g., motherboard, power supply, Peripherals such as printers, scanners, Network devices and cabling such as hubs, switches, LAN cards

### Literacy skills

In regard to reporting and recording organizational documentation.

### Client user

May be a department within the organization or a third party. Consequently, the relationship and ease of access will vary.

## Assessment Guide

### Form of assessment

Assessment may be conducted in the workplace or in a simulated environment

### Assessment context

Assessment may be done in workplace or a simulated work environment.

## Critical aspects for Assessment

Assessment must show that the candidate

- Installed the computer systems and networks in accordance with requirements, without damage or distortion to the surrounding environment or services
- Tested the installed computer systems and network to determine whether it conforms to clients requirements
- Conducted final inspections to ensure the installed devices / systems conforms to clients requirements

## Underpinning skills and Knowledge:

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• Types of computers</li><li>• Computer operating systems</li><li>• Peripheral devices</li><li>• Application packages &amp; use of application programs</li><li>• Multimedia systems</li><li>• Motherboards</li><li>• Multimedia storage devices:</li><li>• Video cards</li><li>• Sound cards</li><li>• Computer PC hardware</li><li>• Local area networks (LANs)</li><li>• Graphical user interface</li><li>• Use of utilities/software</li><li>• Operating systems</li><li>• Diagnostic software</li></ul>	<ul style="list-style-type: none"><li>• Problem solving skills</li><li>• Decision making skills</li><li>• Reading and writing skills</li></ul>

<ul style="list-style-type: none"><li>• Device drivers</li><li>• Cable troubleshooting</li></ul>	
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<b>Unit Title</b>	Configure Computer Systems and Networks				
<b>Descriptor</b>	This unit covers the knowledge, skills and attitudes needed to configure computer systems and networks.				
<b>Code</b>	SOC02S2U15V1	<b>Level</b>	2	<b>Credit</b>	4

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Plan and prepare for configuration	<p>1.1 Computer systems and networks to be configured are identified from the Job/Service Order or instructions</p> <p>1.2 Configuration is planned and prepared in line with job requirements.</p> <p>1.3 OHS policies and procedures are followed in line with job requirements.</p> <p>1.4 Computer systems and networks for configuration are checked against specifications and requirements.</p> <p>1.5 Materials necessary to complete the work are obtained in accordance with established procedures and checked against job requirements.</p> <p>1.6 Tools, equipment and testing devices needed for configuration of computer systems and networks are obtained and checked for correct operation and safety</p>
2. Configure Computer Systems and Networks	<p>2.1 Appropriate personal protective equipment is used and OHS policies and procedures are followed</p> <p>2.2 Normal function of systems and networks is checked in accordance with manufacturer's instructions</p> <p>2.3 Fault or problem in the computer systems and</p>

	<p>networks is diagnosed in line with the standard operating procedures.</p> <p>2.4 Computer systems and networks are configured in line with the standard operating procedures.</p> <p>2.5 Unplanned events or conditions are responded to in accordance with established procedures</p>
<p>3. Inspect and Test Configured Computer Systems and Networks</p>	<p>3.1 Final inspections are undertaken to ensure that the configuration done on the systems and networks conforms with the manufacturer’s instruction/manual</p> <p>3.2 Computer systems and networks are checked to ensure safe operation.</p> <p>3.3 Report is prepared according to company requirements.</p>

### Range Statement

#### OH&S Standards

Occupational Health and Safety Laws Personal Safety, Workplace Hazards and Environment Laws

#### Hardware

Includes but not limited to: Servers, peripherals, and desktop computers, Connectors, Adaptors, Wires and cables, appropriate software, Computer storage media

#### Tools

Tools for: cutting, shaping, drilling, threading, tapping, finishing, dismantling, and assembling.

#### Testing Devices

Testing devices includes but not limited to:

Multimeter, Calibrators, Signal generator, Oscilloscope

## Literacy skills

In regard to reporting and recording organizational documentation.

## Assessment Guide

### Form of assessment

The assessor may select two of the following assessment methods to objectively assess the candidate:

- Observation
- Questioning
- Third Party
- Portfolio

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects for Assessment

Assessment must show that the candidate

- Interpreted work instructions according to job requirements.
- Diagnosed faults or problems on the systems and networks
- Configured the identified systems and networks
- Checked configured systems and networks to ensure safety
- Documented the tasks undertaken

### Underpinning Knowledge and Skills

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills include</b>
<ul style="list-style-type: none"><li>• Occupational health and safety</li><li>• IT hardwares</li></ul>	<ul style="list-style-type: none"><li>• Reading skills required to interpret work instructions</li></ul>

<ul style="list-style-type: none"><li>• Use of tools</li><li>• Mathematical calculations</li><li>• Electrical theory</li><li>• Electronics theory</li><li>• Use of test equipment and calibrators</li><li>• Wiring techniques</li><li>• Drawing interpretation</li><li>• Soldering techniques</li><li>• Computer operations</li></ul>	<ul style="list-style-type: none"><li>• Communication skills needed to interpret and define work procedures</li><li>• Problem solving in emergency situation</li><li>• Configuration procedures</li></ul>
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<b>Unit Title</b>	Diagnose and Troubleshoot Computer Systems				
<b>Descriptor</b>	This unit covers the knowledge, skills and attitudes needed to diagnose computer systems and networks.				
<b>Code</b>	SOC02S2U16V1	<b>Level</b>	2	<b>Credit</b>	4

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Plan and prepare for diagnosis of faults of computer systems	<p>1.1 Diagnosis of faults is planned and prepared in line with job requirements</p> <p>1.2 OH &amp; S policies and procedures are followed in line with job requirements</p> <p>1.3 Appropriate personnel are consulted to ensure that the work is effectively coordinated</p> <p>1.4 Materials necessary to complete the work are obtained in accordance with established procedures and checked against job requirements</p> <p>1.5 Tools, equipment and testing devices needed to carry out the work are obtained in accordance with established procedures and checked for proper operation and safety.</p> <p>1.6 Computer systems and networks defects are checked against job requirements.</p>
2. Diagnose faults of computer systems	<p>2.1 Appropriate personal protective equipment is used in line with standard procedures.</p> <p>2.2 Faults or problems in the computer systems and networks are diagnosed according to requirements and in line with the standard procedures.</p> <p>2.3 Contingency measures are managed and implemented in accordance with established procedures</p>



	2.4 Unplanned events or conditions are responded to in accordance with established procedures
3. Rectify/correct defects in computer systems and networks	<p>3.1 Appropriate personal protective equipment is used in line with standard procedures.</p> <p>3.2 Defective components or parts are replaced or corrected without damage to the surrounding environment or services</p> <p>3.3 Adjustments, if necessary are made in accordance with established procedures</p> <p>3.4 Unplanned events or conditions are responded to in accordance with established procedures.</p>
4. Test systems and networks	<p>4.1 Computer systems and networks are tested to ensure safe operation.</p> <p>4.2 Unplanned events or conditions are responded to in accordance with established procedures.</p> <p>4.3 Report/s are prepared and completed according to company policy</p>

## Range Statement

### OH&S Standards

Occupational Health and Safety Laws Personal Safety, Workplace Hazards and Environment Laws

### Hardware

Includes but not limited to: Servers, peripherals, and desktop computers, Connectors, Adaptors, Wires and cables, appropriate software, Computer storage media

### Tools

Tools for: cutting, shaping, drilling, threading, tapping, finishing, dismantling, and assembling.

### Testing Devices

Testing devices includes but not limited to:

Multimeter, Calibrators, Signal generator, Oscilloscope

## Literacy skills

In regard to reporting and recording organizational documentation.

## Assessment Guide

### Form of assessment

The assessor may select two of the following assessment methods to objectively assess the candidate:

- Observation
- Questioning
- Third Party
- Portfolio

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects for Assessment

Assessment must show that the candidate:

- Checked the computer systems and networks against job requirements
- Correctly diagnosed the faults and problems in the computer systems and networks according to requirements and in line with the standard procedures
- Corrected the defective components or parts of the computer systems and networks without damage to the surrounding environment or services
- Tested the computer systems and networks to ensure safe operation

## UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge includes	Underpinning Skills include
<ul style="list-style-type: none"> <li>• Occupational Health and Safety</li> <li>• Use of tools</li> <li>• Knowledge on Electrical theory</li> <li>• Knowledge on Wiring techniques</li> <li>• Knowledge on Digital electronics</li> <li>• Knowledge on Microprocessor</li> <li>• Knowledge on Power supplies</li> <li>• Knowledge on Electronic fault findings</li> <li>• Knowledge on Graphical user interface</li> <li>• Knowledge on Data communications</li> <li>• Knowledge on Local Area Networks</li> <li>• Knowledge on Network Operating Systems</li> <li>• Knowledge on Application software</li> <li>• Knowledge on Computer monitors</li> <li>• Knowledge on Basic telephony</li> <li>• Knowledge on Control programming style</li> <li>• Knowledge on Microprocessor programming</li> <li>• Knowledge on Multimedia computer systems</li> </ul>	<ul style="list-style-type: none"> <li>• Occupational Health and Safety</li> <li>• Use of tools</li> <li>• Wiring techniques</li> <li>• Digital electronics</li> <li>• Microprocessor</li> <li>• Power supplies</li> <li>• Electronic fault findings</li> <li>• Graphical user interface</li> <li>• Data communications</li> <li>• Local Area Networks</li> <li>• Network Operating Systems</li> <li>• Application software</li> <li>• Computer monitors</li> <li>• Basic telephony</li> <li>• Control programming style</li> <li>• Microprocessor programming</li> <li>• Multimedia computer systems</li> </ul>

<b>Unit Title</b>	Maintain Computer Systems and Networks				
<b>Descriptor</b>	This unit covers the knowledge, skills and attitudes needed to maintain computer systems and networks.				
<b>Code</b>	SOC02S2U17V1	<b>Level</b>	2	<b>Credit</b>	4

<b>Element of competencies</b>	<b>Performance Criteria</b>
1. Plan and prepare for maintenance	<p>1.1 Maintenance is planned and prepared in line with job requirements.</p> <p>1.2 OHS policies and procedures are followed in line with job requirements.</p> <p>1.3 Computer systems and networks for maintenance are checked against specifications and requirements.</p> <p>1.4 Materials necessary to complete the work are obtained in accordance with established procedures and checked against job requirements.</p> <p>1.5 Tools, equipment and testing devices needed for the maintenance are obtained and checked for correct operation and safety</p> <p>1.6 Computer systems and networks maintained are identified from the job/service order or instructions</p>
2. Maintain computer systems and networks	<p>2.1 Appropriate personal protective equipment is used in line with standard procedures.</p> <p>2.2 Normal function of computer systems and networks are checked in accordance with manufacturer's instructions.</p>

	<p>2.3 Scheduled/periodic maintenance is performed in accordance with manufacturer’s requirements.</p> <p>2.4 Where necessary, needed repairs/replacements are made in accordance with established procedures.</p> <p>2.5 Unplanned events or conditions are responded to in accordance with established procedures</p>
<p>3. Inspect and test the computer systems and networks</p>	<p>3.1 Final inspections are undertaken to ensure that the testing conducted on the device conforms with the manufacturer’s instruction/manual</p> <p>3.2 Computer systems and networks are checked to ensure safe operation.</p> <p>3.3 Work site is cleaned and cleared of all debris and left in safe condition in accordance with company procedures</p> <p>3.4 Report is prepared and completed according to company requirements</p>

## Range Statement

### OH&S Standards

Occupational Health and Safety Laws Personal Safety, Workplace Hazards and Environment Laws

### Hardware

Includes but not limited to: Servers, peripherals, and desktop computers, disks & cds

### Tools

Tools for: cutting, shaping, drilling, threading, tapping, finishing, dismantling, and assembling.

### Testing Devices

Testing devices includes but not limited to:

Multimeter, software, Maintenance bench and Power supply equipment

## Literacy skills

In regard to reporting and recording organizational documentation.

## Assessment Guide

### Form of assessment

The assessor may select two of the following assessment methods to objectively assess the candidate:

- Observation with oral questioning
- Interview
- Third Party
- Portfolio

### Assessment context

Assessment may be done in workplace or a simulated work environment.

### Critical aspects for Assessment

Assessment must show that the candidate:

- Interpreted work instructions according to job requirements.
- Conducted maintenance properly on the systems using standard procedures
- Diagnosed faults in the systems
- Checked the maintained/serviced systems to ensure safety
- Documented the tasks undertaken

## UNDERPINNING KNOWLEDGE AND SKILLS

<b>Underpinning Knowledge includes</b>	<b>Underpinning Skills includes</b>
<ul style="list-style-type: none"><li>• Occupational health and safety</li><li>• PC systems</li><li>• Computer Operating Systems</li></ul>	<ul style="list-style-type: none"><li>• Use of applications software</li><li>• Reading skills required to interpret work instructions</li></ul>

<ul style="list-style-type: none"><li>• Use of tools</li><li>• Mathematical calculations</li><li>• Electrical theory</li><li>• Electronics theory</li><li>• Wiring techniques</li><li>• Drawing interpretation</li><li>• Computer operations</li><li>• Advanced networking</li><li>• Network cabling</li><li>• Viruses</li></ul>	<ul style="list-style-type: none"><li>• Communication skills needed to interpret and define work procedures</li><li>• Problem solving in emergency situation</li><li>• Network Cabling</li><li>• Connecting computers to wired and wireless LAN</li><li>• Removing viruses from infected machines</li></ul>
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