PROJECT Objective: To improve the IT infrastructure of the University of Technology and enhance network services to meet the needs of all four campuses (Bellville, Cape Town, Wellington, and Mowbray)

Project 3: Term 1 Deliverable

Cape peninsula university of technology | Term 1 Deliverable

2023

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## Group members And Roles:

A list of group members participating in this project and a defined list of roles and responsibilities for each member for the duration of the project (First deliverable to be submitted for term 1).

**Sive Bobi [ ]**: The Elected leader of the group who decide which team member does what, guides the group, is the final decision maker and serves as a guide to the group to decide what will be productive and what not. Is also responsible for the project deliverables.

**Norman Nel [219359660]:** The group secretary who has to keep a record of group meetings (who contributed, group discussions regarding the project and the progress which must be kept in a logbook) and is responsible for the project objective.

**Joshua Veroni [ ]:** The third member of the group and is responsible for the project scope

**Tshishivhiri Nduvho [ ]:** The last group member and is responsible for the budget and timeframe

## Improving IT Infrastructure

## Objectives:

Our goal is to improve and enhance the IT infrastructure networking services which would satisfy the needs of all four campuses. To do this, our group have to accomplish the following tasks:

* Understand our given roles, duties and responsibilities

1. Discussing and sharing relevant information about the project
2. Having regular meetings
3. Share ideas and solutions
4. Writing reports
5. Working together as a team

* Select and design a suited network topology

1. Implement the network design using packet tracer
2. Ensure fault tolerance
3. Make sure its scalable
4. Ensure Quality of Service
5. Configure network security

* Configure network and monitor changes
* Implement an IP addressing scheme
* Document progress and reporting our work to our supervisor

## Project Deliverables

* An updated IT Infrastructure plan that outlines the technology requirements needed to meet the needs of all four campuses.
* ﻿﻿﻿A budget and timeline for the project.
* ﻿﻿﻿An inventory of the current IT infrastructure at each campus.
* ﻿﻿﻿A feasibility study that examines the current IT infrastructure and provides recommendations for improvement.
* ﻿﻿﻿An implementation plan that outlines the steps to be taken to implement the proposed improvements.
* ﻿﻿﻿A project status report that outlines progress and any issues encountered.
* ﻿﻿﻿Training materials for IT staff and users.
* ﻿﻿﻿Documentation of the new processes and procedures.
* ﻿﻿﻿A post-implementation review to assess the effectiveness of the changes.
* A proposed detailed description of the hardware and software used

## Scope

* Upgrade and replace outdated IT hardware, software, and infrastructure, including:

Network Servers - Computer and Storage Devices - Network Switches - Network Routers - Wireless Access Points - Firewalls - Network Cables - Network Management Software.

* + Installing new security cameras and replacing old workstations with new ones
  + Installing new printers and upgrading Ip phone hardware
  + To
* To improve speed and reliability, implement a high-performance network design using the most recent technologies.
* Install firewalls and other security measures to create a safe and dependable environment for the University of Technology's IT systems.
* Offer IT staff training and assistance with the new technologies.

## Budget

* The total budget for this project is estimated to be R2.5 million. This amount will be used to purchase new equipment, upgrade existing infrastructure, and provide support services.

## Timeframe

* This project is expected to take approximately six to eight months to complete.

**Pre-Implementation (1 Month):**

- Assemble project team

- Identify goals and objectives

- Develop project plan

- Evaluate current systems

- Perform risk assessment

2. **Implementation (4 Months):**

- Design network architecture

- Install network hardware and software

- Configure network devices

- Implement security protocols

- Test network

3. **Post-Implementation (1 Month):**

- Perform user acceptance testing

- Document network setup

- Train users on new network setup

- Monitor network performance

- Resolve any technical issues