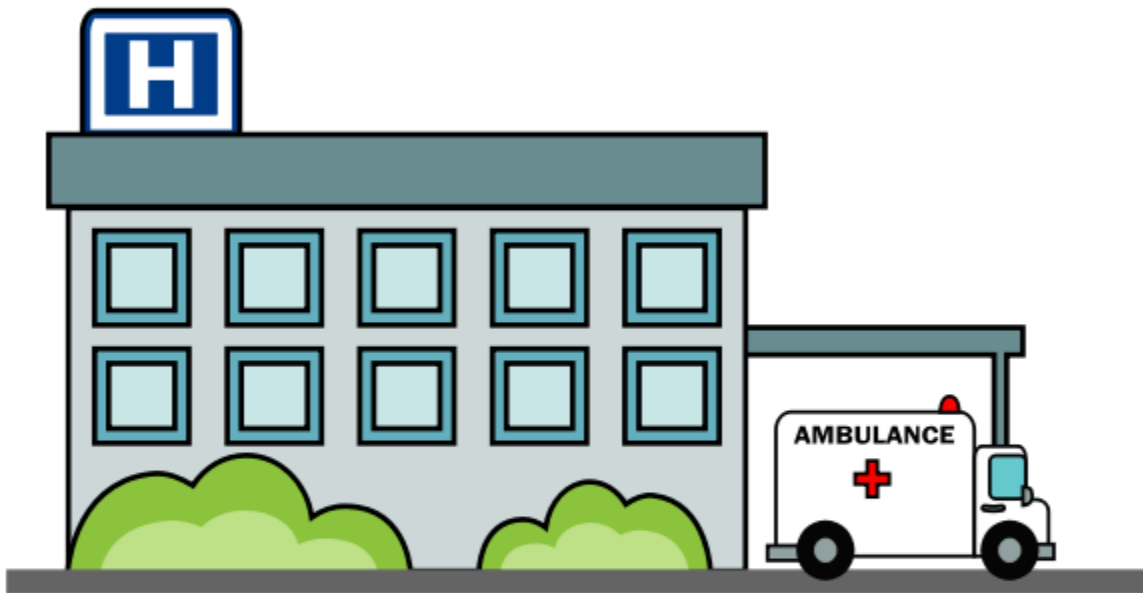


NGOMA DZA VHATEI SUPPORTING DOCUMENTS

UTHUKELA DISTRICT MUNICIPALITY HOSPITAL



GROUP MEMBERS

Mukhola Thuso

Muguvhana Mbambala

Surprise Mohlala

Maphaha Livhuwani

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Introduction

This introduction is aimed at management, presenting a clear justification for the IT infrastructure upgrade project at *uThukela District Hospital*.

- **Customer Needs:** The project is designed to meet the hospital's requirements for enhanced network reliability, improved data management, and increased security. The hospital requires a robust system to streamline patient management, secure sensitive information, and improve operational efficiency.
- **Project Goals:** The primary goals are to establish a secure, high-speed network, integrate essential software (EHR and ERP), and provide training for hospital and ICT staff to ensure smooth adoption of the new system.
- **Cost Constraints:** The project must remain within a budget of R4,290,000, covering hardware, software, training, and contingency funds as outlined.
- **Risks:** Potential risks include project delays, budget overruns, and technical failures. If the project is unsuccessful or delayed, it may disrupt hospital services and lead to additional costs.
- **Benefits:** A successful implementation will enhance patient care, improve data accessibility, increase staff efficiency, and secure sensitive information, ultimately providing long-term benefits to hospital operations and patient outcomes.

2. Milestones and Deliverables

- **Project Scope & Risk Analysis (Milestone):** Project charter document and risk analysis report.
- **Design Phase Completion:** Detailed design document for hardware, software, and system integration.
- **Hardware Procurement Completion:** Purchase orders and inventory of procured hardware.
- **Installation & Configuration:** Completed installation of hardware and software with testing reports.
- **Training Completion:** Training completion certificates and training session reports.
- **Testing & Deployment Completion:** System testing and user acceptance test (UAT) results, along with a go-live report.
- **Project Handover:** Final project report, system documentation, and user manuals.

3. Work Breakdown Structure (WBS)

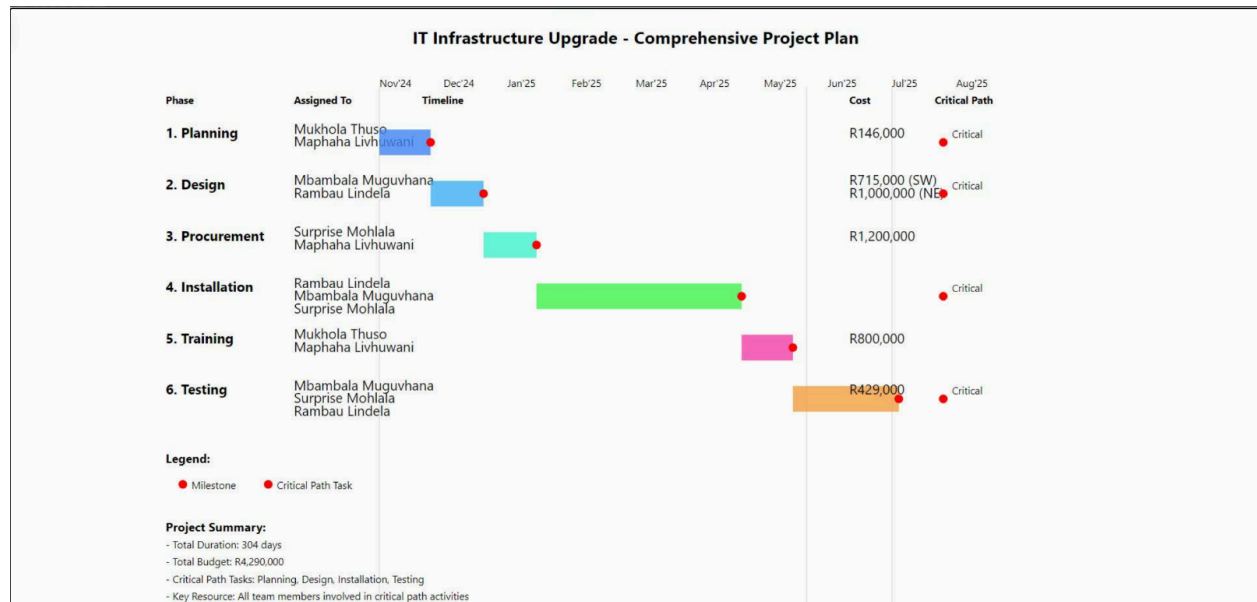
Task Name	Description	Duration (Sessions)	Predecessors	Team Member(s)	Resources Needed
Define Project Scope	Outline project objectives and scope	1	-	Thuso, Livhuwani	Project charter template

Risk Analysis	Identify and assess potential project risks	1	-	Thuso	Risk analysis templates
Design Hardware Layout	Plan hardware setup and network layout	2	Scope Definition	Muguvhana, Lindela	Network design software, Visio
Software Solutions Design	Design software requirements and specifications	2	Scope Definition	Muguvhana	Software requirements specification
Procurement	Purchase hardware and software	2	Design Phase	Mohlala, Livhuwani	Procurement templates
Installation & Configuration	Set up hardware, install software	6	Procurement	Lindela, Muguvhana, Mohlala	Network equipment, workstations
Staff Training	Conduct training sessions for hospital staff	1	Installation	Thuso, Livhuwani	Training materials
System Testing	Conduct network and system testing	2	Training	Mohlala, Lindela	Testing tools, QA checklist
Go-Live & Handover	Final handover of the project to stakeholders	1	Testing	Entire Team	Project documentation

4. Technical Feasibility Issues

- **Hardware:** Availability of compatible network and computer hardware.
- **Software:** Licensing and compatibility with existing systems.
- **Network Requirements:** Sufficient bandwidth and security protocols.
- **Human Resources:** Availability of skilled team members for technical setup and ongoing maintenance.

Project Schedule



RISK MANAGEMENT

Identified Risks

- **Team Member Leaves:** A key team member may leave due to unforeseen circumstances, affecting project continuity.
- **Lack of Sponsor Cooperation:** Limited support or delayed feedback from the project sponsor, impacting project timelines.
- **Lack of Technical Expertise:** Insufficient skills in the team for certain tasks, leading to delays and compromised quality.
- **Non-contributing Team Member:** One or more team members may not contribute effectively, increasing workload on others.
- **Running Behind Schedule:** Delays in project phases due to task complexity or resource unavailability.
- **Budget Overrun:** Exceeding the budget due to unforeseen expenses.
- **Technical Failures:** Issues with equipment, software, or network infrastructure causing delays.

Risk Probability and Impact

Assign each risk a probability and impact rating:

Risk	Probability	Impact
Team Member Leaves	Medium	High

Lack of Sponsor Cooperation	Low	High
Lack of Technical Expertise	Medium	Medium
Non-contributing Team Member	Medium	Medium
Running Behind Schedule	High	High
Budget Overrun	Low	High
Technical Failures	Medium	High

Risk Table and Proactive Steps

Risk	Probability	Impact	Detective Measure	Responsive Countermeasure	Reactive Countermeasure
Team Member Leaves	Medium	High	Regular check-ins with team for satisfaction	Cross-training team members for task redundancy	Reassign tasks quickly, adjust project timeline if necessary
Lack of Sponsor Cooperation	Low	High	Regular meetings scheduled with sponsor	Clarify roles and expectations; document all communications	Escalate to higher management if necessary, adjust timelines for feedback delays
Lack of Technical Expertise	Medium	Medium	Skill assessment at project start	Provide additional training or consulting services	Reallocate tasks to skilled team members or bring in external consultants
Non-contributing Team Member	Medium	Medium	Weekly progress tracking for individual contributions	Assign team leads to motivate and monitor tasks closely	Redistribute workload among active team members
Running Behind Schedule	High	High	Regular project progress review meetings	Prioritise critical tasks; increase resources if necessary	Adjust milestones, extend project timeline with stakeholder approval

Budget Overrun	Low	High	Monthly budget reviews against projected costs	Keep contingency funds; reduce expenses where possible	Request additional funding if justified, reduce non-critical spending
Technical Failures	Medium	High	Periodic equipment and software checks	Implement backup systems and maintenance schedules	Substitute with temporary solutions; schedule downtime for repairs if necessary

Explanation of Proactive Steps

- **Detective Measure:** Steps taken to detect potential risk early on (e.g., progress tracking, budget reviews, regular meetings).
- **Responsive Countermeasure:** Actions implemented in anticipation of risks to reduce their impact (e.g., cross-training, setting aside contingency funds).
- **Reactive Countermeasure:** Actions taken after the risk materialises to mitigate its consequences (e.g., task reassignment, requesting additional budget).

Technical Feasibility Issues

- **Hardware:** Availability of compatible network and computer hardware.
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Cost Code	Item	Cost Type	Estimated Cost (R)	Description
C1	Hardware	Direct Cost	1 200 000	Covers the purchase of computers, printers, servers, routers, switches, and other necessary

				hardware for the hospital's network infrastructure setup and upgrade.
C2	Software Licences	Direct Cost	715 000	Includes licences for essential software, such as Electronic Health Record (EHR) and Enterprise Resource Planning (ERP) systems, for hospital management and data security.
C3	Network Equipment	Direct Cost	1 000 000	Allocated for network infrastructure, including Wi-Fi access points, firewalls, and additional network equipment for secure, high-speed connectivity within the hospital.
C4	Staff Training	Direct Cost	800 000	Funds set aside for training ICT and hospital staff on the new system, ensuring they have the skills to effectively manage and troubleshoot the upgraded infrastructure.

C5	Project Management	Direct Cost	146 000	Covers project planning, oversight, and coordination to ensure all phases are completed on schedule and within scope.
C6	Contingency	Indirect Cost	429 000	Provides a safety margin for unforeseen expenses, such as unexpected repairs or additional resources needed during implementation.