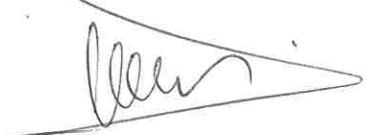


WEST RAND DISTRICT MUNICIPALITY



INFORMATION & COMMUNICATION TECHNOLOGY: STRATEGIC PLAN

<u>NAME AND POSITION</u>	<u>DATE</u>	<u>SIGNATURE</u>
Ms. Kolozi MUNICIPAL MANAGER	10/12/2024	

1. PREAMBLE

This Strategic Plan represents an important step forward in the goal to transform the municipality ICT and the public services it supports. The implementation of the ICT Strategic Plan requires a management decision to proceed (approve) and allocating resources to its deployment. The plan gives guidance or instruction on the deployment of Information Infrastructure within the organization to confirm ICT's contribution to delivering the business strategy. Strategic planning requires the systematic process of assessing the current position, envisioning a desired future, and translating (this vision into broadly defined goals or objectives as well as establishing a sequence of steps to achieve them)

The new strategy was created in response to a changing environment in which the municipality is increasingly depending on efficient ICT services to expand its efficiency in service delivery. It defines the Information and Communication Technology (ICT) strategic plan that must be followed within the "ICT Unit" from the date of approval until the end of the current IDP term.

The strategic plan is sensitive to the current financial status of the municipality and thus, the implementation approach is as and when funds are available.

2. OBJECTIVES OF THE STRATEGY

The purpose of this strategy is to:

Enable and ensure alignment between Municipality's ICT and the business strategy. This strategy serves as the communication tool between ICT, senior management and key stakeholders in establishing the necessary processes to achieve the desired state as outlined in this document.

To outline a plan to improve the ICT infrastructure that is capable of holding any technology systems that could benefit the municipality (i.e. implementation of core-switches to enhance the network security) and without end, indicates the technologies that will serve and benefit the municipality's daily operations (i.e. wireless technology and flexible virtual private technology).

To Provide strategic guidance for the deployment and management of the Municipality's Information technology Infrastructure over the next ten years.

Provide a general idea of the goals and strategies without going into too much detail about the actual plans and timetables of individual projects. As such, it is essential that this document follows the necessary approval processes in order to provide the required mandates for implementation of the strategic actions.

3. LEGISLATIVE FRAMEWORK

Constitution of the Republic of South Africa Act No. 108 of 1996, Section 195 (1) (a) (b) & (g) states that:

"Public Administration must be governed by the democratic values and principles enshrined in the Constitution, including the following principles:

A high standard of professional ethics must be promoted and maintained,

Efficient, economic and effective use of resources must be promoted,

(g) Transparency must be fostered by providing the public with timely, accessible and accurate information.”

3.2. The Local Government: Municipal Finance Management Act No. 56 of 2003, Section 78 (1) (a) & (b)

states that:

“Each senior manager of a municipality and each official of a municipality exercising financial management responsibilities must take all reasonable steps within their respective areas of responsibility to ensure:

(a) That the system of financial management and internal control established for the municipality is carried out diligently;

(b) That the financial and other resources of the municipality are utilized effectively, efficiently, economically and transparently.”

4. ICT VISION AND MISSION

VISION

The Municipality's Information Technology stakeholders will be recognized as a high-performance team providing technology excellence and easy access to the information technology resources through an infrastructure that supports the municipality's strategy.

MISSION

ICT committed to supporting and enhancing the missions of the municipality, by providing quality service through the effective management and use of information technology resources. In support of this mission, ICT will:

Provide technological leadership and planning for the effective and strategic use of emerging technologies.

Demonstrate technical and operational excellence through a commitment to professionalism and continuous improvement.

5. ALIGNMENT

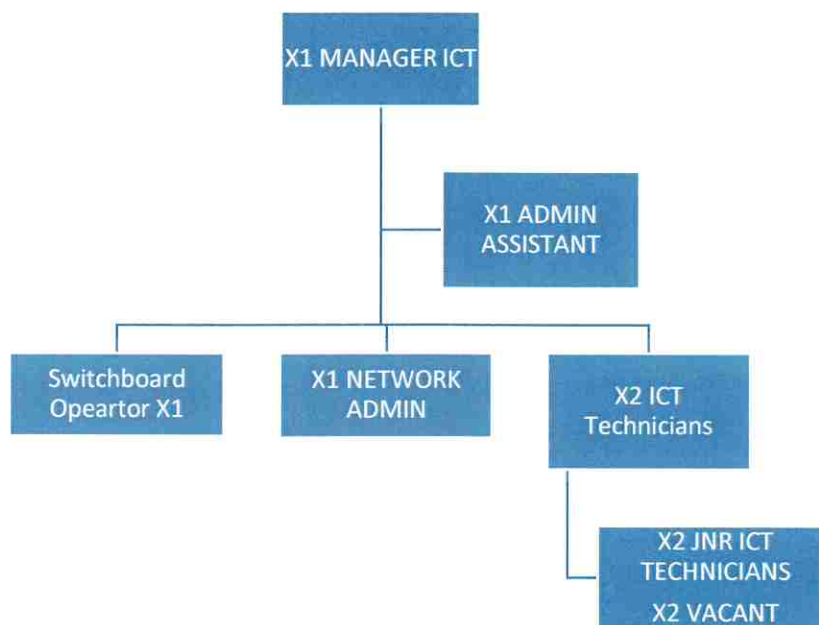
The ICT strategy is aligned to the municipalities vision and mission through the commitment to support integrated district governance excellence and provide a developmental district governance system for a better life for all in the west rand district through adoption of the municipalities core values of service excellence, pride, integrity, responsibility, innovation and teamwork for effective institutional planning, transformation, good governance of the municipality's strategy as outline in regional outcome 14 on the IDP.

6. COMPOSITION OF THE ICT UNIT

ICT SUPPORT

The ICT division provides first and second level support to users in each of the directorates. The fault logging procedure and incident management is centralized at the ICT Helpdesk, ICT provides both Level 1 support (i.e. call logging and limited telephone support) and Level 2 support (onsite / desktop support), between 07:30 and 16:00.

ICT structure



7. ICT SERVICES

END USER SUPPORT

Provision and management of PCs, user access and Password management.

Communications: Telephony, email services, video conferencing services.

Mobile Connectivity: Remote access, mobile phones and data connectivity.

Managed Printing Services: Central Printing services.

Productivity suit: Word, Excel, PowerPoint, outlook and Internet access.

APPLICATION SYSTEMS:

Financial Management System: Munsoft

Payroll and HR system: Payday

COMMUNICATION NETWORKS:

NETWORKS:

Local Area Network and Wide area networks between head office and fire stations, emergency operations centre and municipal health services.

SERVER ADMINISTRATION

Administration of the WRDM server environment including all physical and virtual servers, AD, File servers, windows update services server, web servers, dhcp, dns, mail, GIS etc.

ICT SECURITY AND DISASTER RECOVERY

Antivirus administration

Disaster recovery

Backup/Restore

CYBER SECURITY AWARENESS AND TRAINING

With human error playing a key part in 95% of cyber security breaches, managing employee cyber risk is essential to the municipality in order to steer clear of user related cyber breaches.

One vital component of a robust human risk management program is ongoing security awareness training that educates end-users on how to identify and combat modern threats as well as best practices for staying security-savvy.

One of the ways that the WRDM will achieve this is through ongoing awareness through email communication and any other relevant means which will cover topics like:

Phishing attacks
Password and authentication
Mobile device security
Home wifi security

8. CURRENT STATUS QUO OF ICT

ICT currently provides services to over 300 users that consume services provided by the unit.

Majority of users have personal computers and desktops, some of are using the obsolete operating system (Windows 7 & 8) which is no longer supported by Microsoft and that mean that they do not receive updates, but still working condition.

Standard desktop tools (Word, excel, PowerPoint, outlook, email and Internet access) and access to Printers is limited to what the budget permits.

ICT servers, networking and security infrastructure is not upgraded due to budget constraints.

Application Systems, Networks and Printing services are centrally managed within ICT with some services co-managed with service providers.

End-Point support including Desktop/Laptop Environment

Standard desktops running Windows 7, 8, 8.1, 10 and 11 professionals is deployed across the Municipality, fire stations and MHS.

End-point hardware is predominantly Acer, HP, HP desktops computers.

2 new servers, 24 wireless access point, 2 network switches, 15 computers and 7 laptops were procured in financial year 2023-24 and 2024-25 first quarter.

Software

The municipality uses licensed Microsoft Office products and anti-virus software on desktops and Laptops. New versions are adopted after the initial release, as and when it is safe to do so.

Server Environment

The Municipality operates in excess of 12 physical servers and 4 virtual servers in the WRDM server / self-hosted environment on premises.

2 x HP servers running Hyper V connected to a physical HP storage solution, no virtual machines reside on this cluster.

3x NEC standalone servers running Hyper V, not clustered, Virtual machines that reside on these servers are domain controllers, windows update services server, GIS server.

x3 Generic servers running central anti-virus, backup software and folder redirection respectively.

x2 IBM servers running FMS and payroll/HR systems.

x1 HP server running a linux based email system.

X1 HP server hosting the municipalities website.

LAN/WAN

The municipality, through GBN, provides network connectivity to fire stations, emergency operations centre and some remote municipal health services offices in the region.

Email

The Municipality's email system is cloud based through office 365 E1.

The WRDM domain is registered by GBN, therefore providing public addresses, DNS and MX records etc.

Telecommunication

The VoiP service is hosted-inhouse and provided to each office in the form of telephone extensions and handsets with a controller residing in the WRDM server room.

Information Security

The Municipality has a variety of security technologies deployed to insure effective information security.

Firewall

Through GBN

Antivirus Software

Kaspersky for all servers and endpoint devices.

Physical Environment

The Municipality has servers located in dedicated server room located in the Municipal Main Building with an exception of x1 server located at 107EOC used as their file server.

The current server room condition:

Steel re-enforced wooden door.

Double Air Conditioning systems.

Fire suppression system with smoke detectors.

Raised floor.

Racking and cable management.

Manual lock and key mechanism.

9. FUTURE STATE OF ICT

WRDM ICT, through the provision of an enabling environment, is committed to support the municipalities vision on integrated district governance excellence, and mission to provide a developmental district governance system for a better life for all in the west rand district through adoption of the municipalities core values of service excellence, pride, integrity, responsibility, innovation and teamwork.

The future state of ICT is envisaged in terms objectives derived from IDP for alignment in order to position the ICT department to support the municipal strategy, ICT strives to provide an enabling environment through provision of efficient, effective, secure ICT services for sustainable and cost effective computing in the district.

Short term objectives (1 – 5 years)

Hardware

Provision of LAN/ WAN services and upgrades.

Provision of endpoint devices and upgrades: laptops and desktops

Provision and Replacement of old and broken keyboards, mice, screens.

Service and repair of the GIS printing facilities.

Provision of collaborative platforms for onsite and off-site productivity.

Provision of office productivity suites for optimal computing.

Provision of office automation through printing facilities.

Provision of telecommunication through enterprise voice and data solution for mobility and internet access.

Maintenance of environmental control equipment in the server room: aircons, UPS, fire suppression system, smoke detectors and Generator.

Implementation of a document server as a collaboration tool and document redirect for central backup of user documents.

Software

Renew or refresh enterprise antivirus software for the WRDM.

Acquisition of a Microsoft enterprise agreement and operating system licenses for online services.

Medium – Long term (6 – 10 years)

Hardware

Upgrade all server, network and security infrastructure

Reduce number of physical servers by attaining 100% virtualization of production servers excluding physical hosts.

Upgrade of the storage solution.

Implementation of a full UTM firewall cluster.

Central print management through HID access card authentication with Active Directory integration.

Upgrade WIFI infrastructure for fire stations and emergency operations centre.

Projection equipment and motorized screens for all boardrooms.

Implementation of surveillance cameras

Software

Migration of exchange server to online.

Implementation of an endpoint backup solution to cloud.

Migration of Disaster recovery and business continuity to cloud.

Implementation of WRDM intranet.

Implementation of anti-spam filter eg: mimecast

Implementation of office 365, Microsoft teams etc as business collaboration tools.

Biometric system for server room access.

Implementation of AD Manager

Implementation of Helpdesk Manager

10. ICT STRATEGY AND IDP LINKAGE

The IDP of the municipality may have a direct or indirect impact on ICT planning, these considerations in some cases call directly for system support. The table below outlines IDP objectives that require ICT intervention.

IDP OBJECTIVE	ICT INTERVENTION
Basic service delivery	ICT to ensure continuous reliable services (email telephone, desktop support) to all fire stations and EOC, through stable network and internet connectivity.
Accountable municipal administration	ICT to ensure accountability in the utilization of ICT provisioned resources both internally and externally.
Skilled, capacitated, competent and motivated workforce	Through the recruitment of competent staff, training of interns, and relevant training of existing staff.
Ethical administration and good governance	Through adequate governance of ICT.
Safe communities	Through providing an enabling environment and support to public safety to safer communicates.
Educated communities	Through provision broadband network and internet access to support awareness through MHS and Public safety.
Healthy communities	Through provision of an enabling environment and support of municipal health services.
Sustainable environment	Through green computing initiatives like virtualization of ICT infrastructure and paperless and cloud computing.
Build spatially integrated communities	Through provision of integrated computing systems and resources like email, incident management systems.
Socially cohesive communities	Through the provision of an enabling environment and support of relevant stakeholders and directorates in the development of such programmes.
Reduced unemployment	Through internship and learnership programs.
Economic development	Through the provision of an enabling environment and support of local economic development initiatives.
Robust financial administration	Through the support and insuring information security of the finance management system and related systems.
Institutional planning and transformation	Through business process transformation initiatives like virtual private networks and online enabled collaboration platforms.

11. SERVICE DELIVERY

ICT's approach to service delivery is through:

Strategizing and the breakdown of development goals into smaller manageable projects.

Monitoring of the quality of ICT services rendered by both internal ICT and ICT service providers. Ensure equal opportunities to local and provincial SMMEs through competitive bidding processes for rendering of ICT services through supply chain managements regulated processes.

12. SWOT MATRIX

A SWOT matrix was utilized as a strategic planning technique to assist the municipality to identify its strengths, weaknesses, opportunities and threats in development of the ICT strategy.

Strengths

This means an analysis of what IS GOOD NOW and that which you need to maintain, build upon and leverage. This is what the municipality has strengths on in terms of ICT.

Weaknesses

This means what IS BAD NOW and those which the municipality needs to remedy and stop.

Opportunities

This means an analysis of what IS GOOD FOR THE FUTURE and that which the municipality needs to prioritise and optimise.

Threats

This means what IS BAD FOR THE FUTURE and those which the municipality needs to counter or minimise.

The table below shows the analysis of these factors above for the purposes of coming up with strategies to deal with them.

Strengths	Weaknesses
ICT steering committee is established and can ensure that importance is place on critical ICT issues. There is a basic ICT infrastructure in place to ensure day to day running of the municipality including internet, email, telephones finance, HR and payroll systems. There are policies and procedure in place to regulate the use of ICT in the municipality. Libraries, fire station, emergency operations center are connected	Increased email service interruptions due to Lack of email security. No incident management system for ICT to log, prioritize, assign, and analyse incidents experienced by staff. Aged infrastructure poses a challenge and a risk as no improvements can be done of the current systems. Limited funding due to the financial state of the municipality.

to the WRDM through point to point WAN links managed by the service provider and therefore have access to VoiP, internet and email. Majority of users have access basic tools like laptops and desktop, cellphones and data cards for qualifying staff, therefore mobility is achieved.	
Opportunities	Threats
Supporting state organs eg: Cogta, Gauteng provincial government etc may be approached for assistance with skills development and grants. Private sector may be approached for assistance with donations of ICT equipment and funding. Consumption of some ICT services is becoming affordable due to new entries in the market eg: Cloud backup and hosted services.	The server room not in a good condition. Rapid changes in technology and cyber threats make it difficult for municipalities to catch up due to funding.

13. SERVICE LEVEL AGREEMENTS / CONTRACTS

Service Provider	Service
Apex	Office automation Photocopiers
Vodacom	Enterprise Voice and Data
Munsoft	Financial Management System, payroll and HR.
Microsoft	Office 365 E1
Cnetworks consulting	Website
ST Solutions	Telephones

14. ICT PROJECTS

Current Projects

Current projects	Cost Estimate	Implementation date
Supply and Delivery of Laptops	R 350 000	2024/2025
Supply, Delivery and installation of 2 air conditioners and regas of fire suppression for the server room	R 200 000	2024 / 2025
Supply and delivery of Microsoft 365 E3 with security and compliance	R 2 000 000	2024 / 2025

Future Projects

Future projects	Cost Estimate	Implementation date
Upgrade of Network Switches	R 400 000	2025/2026
Upgrade of server infrastructure	R 1000 000	2025/2026
Re-cabling	R 1 200 000	2026 / 2027

15. REVIEW

The strategy will be reviewed every second year to ensure it remains aligned and relevant.