

CONTENTS

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|---|----|
| CONTENTS | 2 |
| GLOSSARY OF TERMS AND DEFINITIONS | 3 |
| 1. PREAMBLE | 5 |
| 2. PURPOSE OF THE GOVERNANCE OF ICT FRAMEWORK | 5 |
| 3. SCOPE OF THIS FRAMEWORK AND RESPONSIBILITY | 6 |
| 4. CORPORATE GOVERNANCE AND THE MUNICIPALITY | 6 |
| 5. OBJECTIVES OF THE GOVERNANCE OF ICT | 6 |
| 6. THE PRINCIPLES FOR THE GOVERNANCE OF ICT | 7 |
| 7. IMPLEMENTATION | 8 |
| 8. HOW CAN ICT GOVERNANCE HELP THE MUNICIPALITY? | 9 |
| 9. GOVERNANCE DECISIONS AND MECHANISMS | 10 |
| 10. SYSTEM ACQUISITION, DEVELOPMENT AND MAINTENANCE | 11 |
| 11. COMPOSITION OF THE STEERING COMMITTEE | 11 |
| 12. LOGICAL ACCESS | 12 |
| 13. MANAGEMENT OF THE THIRD PARTY RELATIONSHIP | 12 |
| 14. GOVERNANCE COMMUNICATION AND AWARENESS | 13 |
| 15. GOVERNANCE PERFORMANCE | 13 |
| APPROVAL OF THE POLICY | 14 |

GLOSSARY OF TERMS AND DEFINITIONS

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| Council | The municipal council consists of politicians who are democratically elected by local residents. The council is responsible for governing the local area. |
| Accounting Officer | The Municipal Manager |
| AGSA | Auditor-General |
| COBIT™ | Control Objectives for Information Technology |
| Corporate Governance | <i>"...the set of responsibilities and practices exercised by the board and executive management with the goals of providing strategic direction, ensuring that objectives are achieved, ascertaining that risks are managed appropriately and verifying that the enterprise's resources are used responsibly." (IT Governance Institute: CGEIT® Glossary:5)</i> |
| Governance of ICT | <i>"The system by which the current and future use of IT is directed and controlled. It involves evaluating and directing the plans for the use of IT to support the organization and monitoring this use to achieve plans. It includes the strategy and policies for using IT within an organization." (ISO 38500: 2008:9)</i> |
| Institution | Molemole Local Municipality |
| ICT | Information and Communications Technology |
| GICT | Governance of ICT |
| GICTF | Governance of ICT Framework |
| Governance Principles | The vehicle to translate the desired behaviour into practical guidance for day-to-day management (COBIT 5 Framework Exposure Draft: 29) |
| ISACA | Information Systems Audit and Control Association |
| IDP | A five year Integrated Development Plan which is the strategic objective of the municipality and is reviewed annually |
| IT | Information Technology |
| ITGI™ | IT Governance Institute |
| King III | The King Code of Corporate Governance for South Africa 2009 |

| | |
|------------------------|--|
| M&E | Monitoring and Evaluation |
| MTEF | Medium Term Expenditure Framework |
| PSICTM | Public Service ICT Management |
| Risk Appetite | The amount of residual risk that the Institution is willing to accept. (PSRMF 2010:15) |
| Risk Management | A systematic and formalized process to identify assesses, manage and monitor risks. (PSRMF 2010:16) |
| SITA | State Information Technology Agency |
| ICT Governance | <p>ICT Governance is defined as 'specifying the decision rights and accountability framework to encourage desirable behaviour in the use of IT. Effective ICT governance for the Municipality will answer three questions:</p> <ul style="list-style-type: none"> • What decisions must be made • Who should make these decisions • How are they made and monitored |

1. PREAMBLE

- 1.1. Investment in ICT is an important strategic decision that can lead the municipality to commit huge resources and also have a noticeable impact on how the municipality provides services to its residents.
- 1.2. The view that ICT should be governed and managed from a political and managerial leadership is supported by the international accepted best practices and standards in the form of the King III code and ISO 38500¹ standard. Both the Code and Standard fully places the accountability for governance of ICT in the hands of political leadership and executive management. This framework will elevate ICT matters to be a standing item in all Management and Council meetings.
- 1.3. The municipal council and management of Molemole Local municipality need to extend corporate governance as a good management practice to ICT. To further strengthen the governance of ICT the municipality will structure itself in such a way that ICT would be seen to be taken seriously by the Council and Management committee of the municipality. This may include having a divisional head: ICT post in the organizational structure. Molemole local municipality has budgeted for the position of Divisional Head: ICT in the 20013/14 financial year.
- 1.4. Molemole local municipality will follow the DPSA implementation Framework and COBIT™. This will ensure the municipality's ICT is in line with nationally accepted guidelines as well as ensuring that we are well on track to comply with Auditor General Requirements on ICT governance issues.

2. PURPOSE OF THE GOVERNANCE OF ICT FRAMEWORK

- 2.1. The purpose of this ICTGF is to institutionalize the governance of ICT as an integral part of corporate governance within Molemole local municipality.
- 2.2. To provide guidelines for the establishment of the IT Steering Committee and the roles and responsibilities thereof.
- 2.3. This Framework provides a set of principles and an implementation approach for the governance of ICT within Molemole local municipality.
- 2.4. As a major investment ICT should deliver value and it is important for the municipality to have a framework that will guide procurement and subsequent use of those resources in a way that guarantee value for money for the municipality.

¹ Adopted as a SANS standard for the South African environment

3. SCOPE OF THIS FRAMEWORK AND RESPONSIBILITY

- 3.1. This Framework for the governance of ICT applies to all officials (permanent and temporary) working for Molemole municipality as well as all the contractors.
- 3.2. The municipality will constitute the ICT Steering committee to play a coordinating and oversight role in the implementation of this framework.

4. CORPORATE GOVERNANCE AND THE MUNICIPALITY

- 4.1. The purpose of corporate governance is to create value for the stakeholders of the municipality. It consists of a governance system that affects the way the Public Institutions are managed and controlled. It also defines the relationships between stakeholders and the strategic goals of the municipality.
- 4.2. The municipal council has a range of policies to address the issue of ICT governance, namely:
 - a) IT and Electronic Mail policy,
 - b) Password policy,
 - c) Disaster recovery and backup policy,
 - d) IT and Information security policy.
 - e) Password Policy
 - f) User Management policy
 - g) Change management policy
- 4.3. The IT steering committee of Molemole local municipality is accountable and responsible to implement a governance system and to ensure that governance of ICT is implemented in line with this framework.
- 4.4. The steering committee is expected to ensure that every ICT project commissioned by the municipality
- 4.5. The municipality will also adopt the following standards which are integral to the ICT governance framework:
 - a) Enterprise Architecture (e.g. GWEA/TOGAF)
 - b) ICT Security (e.g. ISO 27000 set)
 - c) Service Management (e.g. ITIL)
 - d) Interoperability Standards (e.g. MIOS)
 - e) Portfolio, Program and Project Management (e.g. PRINCE 2/PMBOK)

5. OBJECTIVES OF THE GOVERNANCE OF ICT

- 5.1. Molemole municipality would like to align itself with the following objectives for the governance of ICT as adopted by GITOC:
 - a) Establish a common or uniform Governance of ICT Framework (GICTF) and implementation guideline of ICT governance.
 - b) Embed governance of ICT as a subset of corporate governance;
 - c) Create business value through ICT enablement;

- d) Achieve ICT service delivery performance by conforming to relevant internal and external frameworks, standards and practices; and
- e) Implement the governance of ICT in the Institution based on COBIT™.
- f) Position the ICT function as an integral part of the Council, its Committees and management committee of the municipality

6. THE PRINCIPLES FOR THE GOVERNANCE OF ICT

6.1. The principles of ICT governance framework for the municipality are follows:

| Stakeholder | Description |
|--|--|
| Council | <p>To ensure that:</p> <ul style="list-style-type: none"> • A Governance of ICT Framework is implemented in the municipality; and • The business and ICT strategic goals of the Institution are aligned with the political mandate of the municipality |
| IT Steering Committee of the Municipality | <ul style="list-style-type: none"> • Is <u>responsible</u> in all major business related strategic ICT decision-making and its related expenditure. • Must ensure that: <ul style="list-style-type: none"> - ICT is aligned with the strategic and business objectives of the municipality; - Business related ICT goals are cascaded throughout the municipality for implementation; and - ICT capacity and capability is created to meet current and future business requirements • Governance of ICT is on the strategic agenda of the Institution; • Support and advise is provided to the Accounting Officer in defining and formulating ICT strategic goals; • The responsibility for the implementation of the governance of ICT is delegated and communicated to the relevant management (business and ICT management); • Everyone in the Institution understands and accepts their responsibilities and the link between business and ICT objectives with respect of the supply and demand for ICT; • ICT assets, privacy and security are effectively managed; • Significant ICT investments and expenditure are informed by the enterprise architecture, motivated (Business Cases), monitored and evaluated; and • The use of ICT demonstrates understanding and respect for human behaviour. |

| Stakeholder | Description |
|--|--|
| The Municipal Manager | Responsibilities of the Accounting Officer: <ul style="list-style-type: none"> a) To implement the governance of ICT in the municipality; b) Ensuring that the management practices embrace the concepts of delegation of authority, personal responsibility, accountability and performance management; c) The development of an ICT management policies and monitor the effectiveness of the governance of ICT. d) Ensuring that ICT is aligned with the strategic and business objectives of the Institution; and e) Ensure that ICT form an integral part of the Institution's risk management. f) To ensure the necessary culture, structures, policies, procedures, processes, mechanisms and controls regarding all aspects of ICT use (business and ICT) are clearly defined, implemented and enforced. |
| A risk management & Audit Committee | Assist the Accounting Officer in carrying out his/her ICT accountability and responsibilities. |

7. IMPLEMENTATION

- 7.1. Governance of ICT will be embedded in the corporate governance of the Institution. This will ensure the municipality's ICT projects and policies are aligned with the overall strategy, i.e. the integrated development Plan as it is reviewed annually.
- 7.2. COBIT™ will be used to implement the governance of ICT within the context of this Framework.
- 7.3. As the implementation of the governance of ICT is a mammoth task, requiring extensive resources, skills and change management, a phased approach is recommended. This would necessitates the creation of an enabling environment such as:
 - a) Develop and approve a Governance of ICT Policies;
 - b) Create the necessary structures and assign roles and responsibilities;
 - c) Define the necessary processes and procedures;
 - d) Provide relevant skills and competencies; and
 - e) Apply change management.
- 7.4. The IT Steering Committee should achieve continuous improvement in the governance of ICT through the following iterative process:
 - a) Conducting assessments to determine the "as-is" situation;
 - b) Develop and implement roadmaps to achieve the desired state;
 - c) Monitoring and evaluation of all ICT projects from start to completion by developing the project plan for each ICT project;

- d) Ensuring that each ICT project is implemented according to the specifications;
- e) To accept handover of the ICT project by the Service Provider and ensure all the service and maintenance schedules are provided.
- f) To monitor routine maintenance of the ICT devices installed in every municipal service points and compile reports for consideration by Management Committee and Council.
- g) Address IT Audit Queries as presented by the Auditor-General
- h) The Committee should hold one ordinary meeting per quarter in a financial year. Special Steering committee meetings will be called as and when there is an urgent matter that needs the committee's consideration;

8. HOW CAN ICT GOVERNANCE HELP THE MUNICIPALITY?

Good ICT governance is the foundation for delivering strategic ICT for the municipality as it:

8.1. Aligns ICT with Institutional strategy:

- i. It provides clear and visible decision making at the appropriate level of senior management, and with ICT embedded across the institution, encourages more responsible and accountable business management, creating focus, understanding and improved delivery against goals. Alignment can deliver cost reductions, improved quality of service delivery, strategies for growth and strategies for diversification

8.2. Integrates structural requirements:

- i. Institutional structures and ICT services are harmonized to allow improved delivery of institutional goals.
- ii. A less fragmented and more integrated approach to the use of ICT will deliver improved quality of information from the rationalization and sharing of services

8.3. Integrates business and technology for ICT value:

- i. Involves professionals, research, administration and ICT, resulting in improved decision making and buy-in for ICT transformation initiatives.

8.4. Provides a mechanism for understanding the use and opportunities for ICT:

- i. Improved visibility and accountability for ICT will allow the municipality to learn from their current ICT experience and encourage improvements for the future.
- ii. Mechanisms for allowing exceptions to strategy will ensure a clear argument; value and justification are visible and understood.

8.5. Improves budgetary control and return on investment:

- i. Improved harmonization between institutional goals and ICT accountability and performance measures to improve budgetary control and value.
 - iii. Again, Measures of success are defined as service levels and as evaluation criteria for projects
- 8.6. Improves selection and use of new technologies:
- i. This will support ICT in balancing technological advancement against business priorities and return on investment (ROI)

9. GOVERNANCE DECISIONS AND MECHANISMS

- 9.1. In order to ensure that the correct decisions are made regarding the deployment of services and systems, the following control mechanism and guidelines shall be put in place:
- a. The ICT steering committee must be established and the post of Divisional Head: ICT must be approved and filled at all times.
 - b. The Master Systems Plan (MSP) must be approved by the ICT Steering Committee and its implementation must be governed by the ICT steering Committee.
 - c. All ICT related policies must be approved in accordance with the Municipal policy approval processes and an ICT Officer must be appointed to ensure its implementation under the guidance of the Divisional Head: IT.
 - d. An ICT decision making matrix must be established and used as a guideline for decision making at all level of the Municipality.
 - e. All ICT investment must be deliberated and approved by the ICT steering committee and must be in the MSP.
 - f. ICT principles, policies and standards must be defined and adhered to. These assist in better decision making and management. It is expected that these will facilitate better investment proposals, progress reporting and measurements for value and ROI and therefore support improved accuracy and availability of information to assist decision making and management

9.2. Some of the dangers of poor control mechanisms are outlined below:

a. BANDWIDTH PARASITE

Where the intruders use the victim's broadband connection to get online without paying. This will not cause any direct harm to the compromised network, but it can slow down internet or network access for the victim

b. MASKING CRIMINAL ACTIVITY

Where an unauthorized user could abuse the victim's connection for malicious purposes like hacking, launching a DOS attack, or distributing illegal material.

c. FREE ACCESS TO PRIVATE DATA

A wireless network is also a direct backdoor into the victim's private network - literally. Instead of intruding from the public side of the gateway device, the intruder connects directly to the network on the private side of the gateway device, completely bypassing any hardware firewall between the private network and the broadband modem. The intruder can completely take advantage of this by snooping around undisturbed and getting access to confidential data.

10. SYSTEM ACQUISITION, DEVELOPMENT AND MAINTENANCE

- 10.1. The municipality should consider developing change control procedures that will ensure only authorized system and/or infrastructure changes are introduced to the production environment. The procedures should cover:
- a. identification and recording of significant changes (formal change request form)
 - b. formal approval procedure for proposed changes (change control committee)
 - c. restricting access to program source to authorized personnel (segregating developers/database administrator/user responsibilities)
 - d. planning and testing of changes prior implementation (unit testing, interface, user testing, full functionality testing, etc.)
 - e. assessment of potential security impacts
 - f. communication of change details to all relevant persons
 - g. procedures for emergency changes
 - h. formulation of a back-out plan(s) prior to effecting a change(s)
 - i. importantly that all system software and hardware development and maintenance be subjected to quality assurance review

11. COMPOSITION OF THE STEERING COMMITTEE

The ICT steering committee of the municipality will be constituted as follows:

11.1. PERMANENT MEMBERS

- a) **Divisional Heads for: Internal Audit/Risk, Supply Chain Management, Expenditure** – To provide operational guidance to the committee during project initiation, implementation and Evaluation
- b) **Chairpersons for Evaluation and Adjudication Committees** – To serve as an important resource for procurement processes
- c) **Asset management Office** – to provide guidelines on the management of ICT Assets and related infrastructure
- d) **Two Members from Management Committee** - to provide a strategic guidance to the committee to ensure all ICT decisions on investment and other upgrades are aligned to the overall service delivery imperatives of the municipality. (one must be Corporate Services Senior Manager)

- e) **Divisional Head: Information Technology**– To provide technical guidance on all ICT related projects, policies and standards

11.2. NON-PERMANENT MEMBERS

- a. **An Information Technology Official from COGHSTA** – To provide broad technical expertise on ICT investment decisions and plans
- b. **A representative from State Information Technology Agency (SITA)** - To provide broad technical expertise on ICT investment decisions and plans
- c. **A representative of the Service Provider appointed for a particular ICT project as per the Integrated Development Plan of the municipality** – for instance if the municipality is to appoint Company X to upgrade the Operating system from 2003 to 2008 then a representative from Company X will automatically be a member of the IT Steering Committee until the project is completed and handed over to the municipality. In other words, representatives from Service Providers will only serve if they are appointed for a particular ICT project and for the duration of the project only.

12. LOGICAL ACCESS

- 12.1. The municipality need to document user account management procedures that cover user access at both network and application system level. The procedures need to include the following:
 - a. Process for requesting new user access and allocating access rights
 - b. Segregation of access control role
 - c. Process for modifying user privileges
 - d. Process for terminating existing access
 - e. Regular checks of administrator activities
- 12.2. The municipality must enforce good practices and research new ways of improving security within the institution. The municipality should make sure that sign-on mechanism is tightened by making sure the system administrators are forced to use different logging credentials when performing their administrator functions and normal user responsibilities. The activities of administrators should be closely monitored to ensure that the rights are not used for unauthorized acts.

13. MANAGEMENT OF THE THIRD PARTY RELATIONSHIP

- 13.1. The municipality may outsource some of its IT functions and the outsource relationships must be managed by a contract agreement. Contracts should at the most contain appropriate clauses with respect to:

- a. Adherence to corporate security
 - b. Adherence to internal control policies and standards for information technology and, penalties in cases of non-compliance
- 13.2. The municipality will also develop a process for managing third party service delivery that entails:
- a. Regular service reports by the service provider
 - b. Service level meetings with the service provider and,
 - c. Assigning the responsibility for service monitoring to a specific individual
- 13.3. The municipality should enforce good practices in the management of their third party relationships.

14. GOVERNANCE COMMUNICATION AND AWARENESS

- 14.1. Communications have always been accepted as key to the successful delivery of ICT projects. However, the ability to address and balance the priorities within strategic planning intensifies the need for communications between institutional management. In addition to consultation on strategic requirements there are other techniques that have been found to enhance institutional awareness and buy-in to strategy:
- a. Obtain Management committee buy-in and promotion of ICT governance within the municipality.
 - b. Use Committees across the municipality to add awareness among all municipal stakeholders.
 - c. Use IT Official to own and promote ICT governance.
 - d. Identify and win Managers who do not buy into the idea
 - e. Provide a portal (intranet) to use for promoting ICT governance information to ease its use and assist in visibility.

15. GOVERNANCE PERFORMANCE

Governance allows for the measurement of performance in two areas:

15.1. SERVICES PERFORMANCE

- a. Definitions for ICT service levels, and project progress reporting provide both project and operational management and reporting to the ICT steering Committee. Service levels defined and agreed as part of the ICT governance must be actively used for service communications and monitoring. A tool must be developed in order to improve reporting in relation to project progress and final delivery against objectives.

15.2. PERFORMANCE AGAINST INSTITUTIONAL STRATEGY

- a. Each Head of Department must gauge how well ICT governance is delivering ICT services that meet the core institutional strategic objectives.
- b. The assessment requires:
 - i. The definition of a set of strategic objectives or outcomes. For example cost effectiveness, transformation, business improvement or agility
 - ii. Each member of the management team to assess for their domain
 - iii. The importance of each of the outcomes
 - iv. The influence of governance on the success of each of the outcomes
 - v. Where and why is governance effective
 - vi. Where and why is governance less effective?

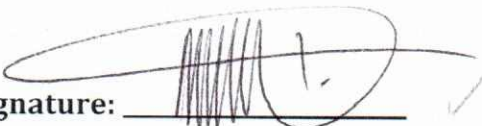
APPROVAL OF THE FRAMEWORK

This framework shall be approved on the date it is signed by the Mayor of the Molemole Local Municipality as authorized by Council. This document shall be reviewed after every 3 years from the date of approval.

Approved by: Council

Date Approved: 29-05-2019

Signed By: M.E. Poya

Signature: 

Position: Mayor

Date Signed: 29-05-2019