



Session date

Session subject



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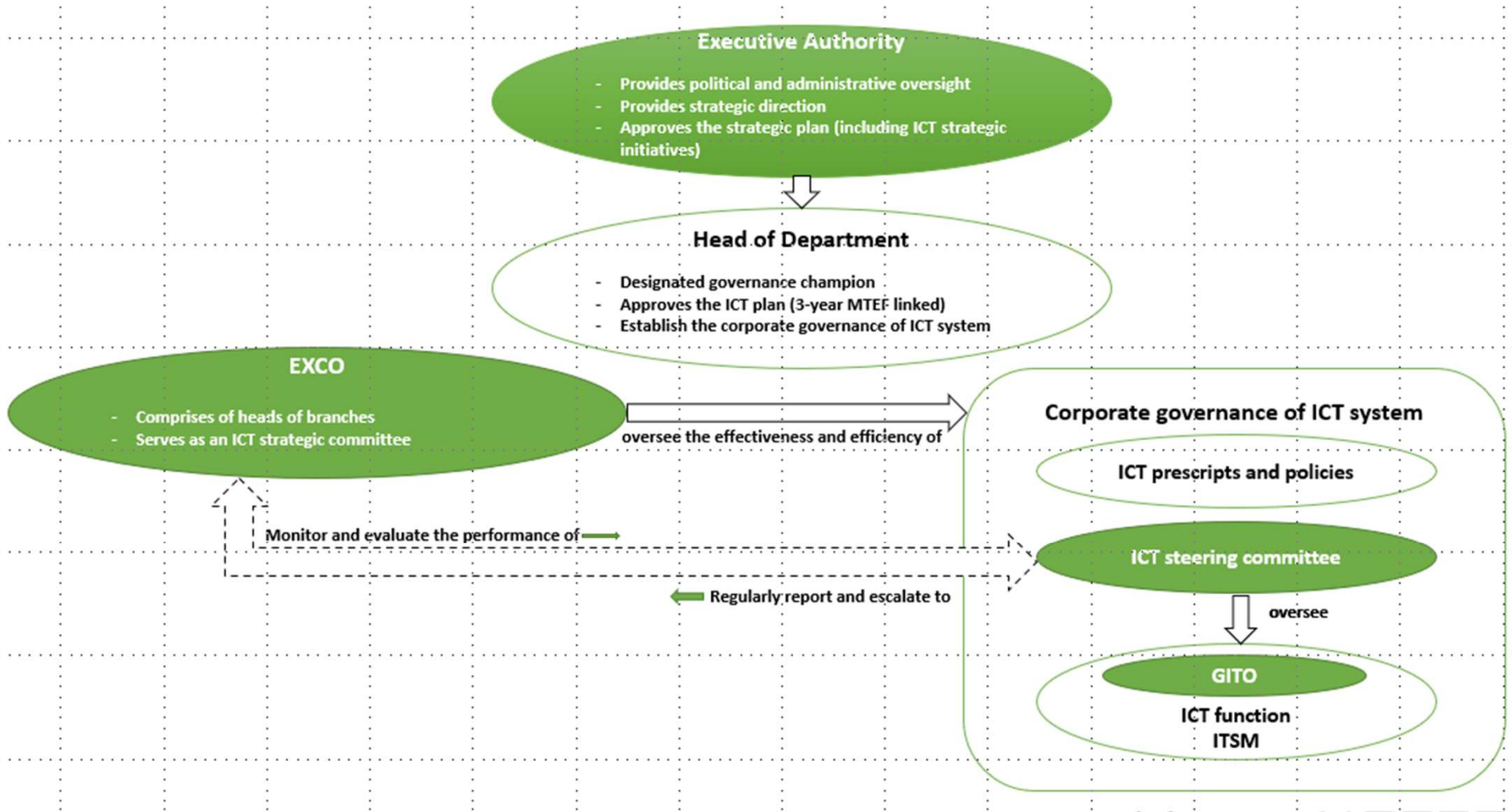
Aubrey Mochela
City of Johannesburg

SAQA Recognised Professional Body

Corporate Governance of ICT Critical Instrument for Data Protection and Compliance



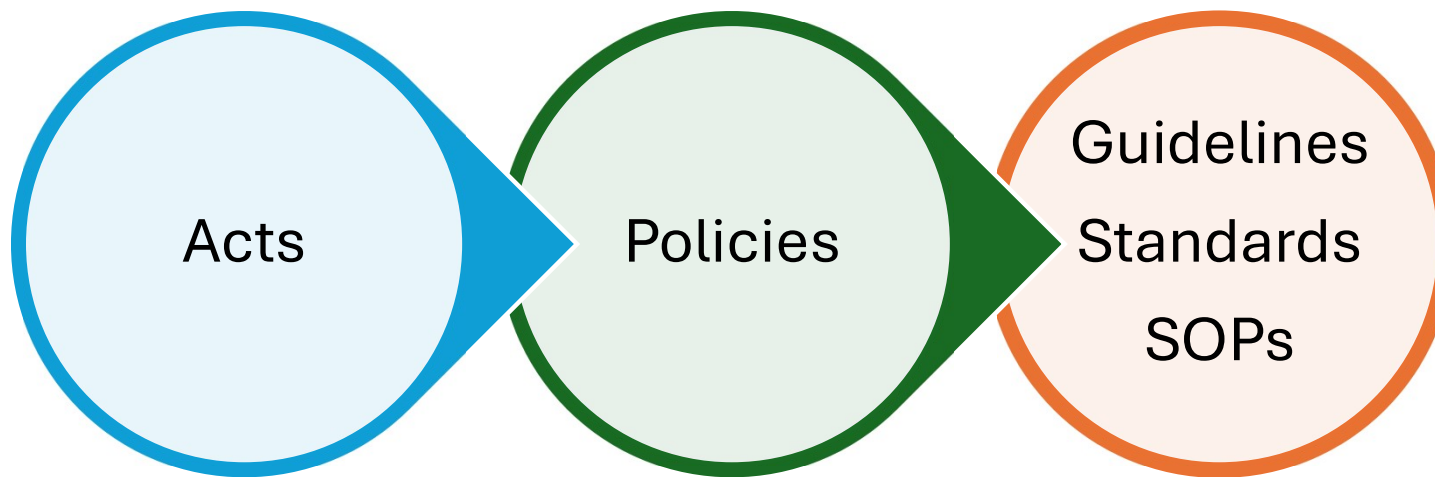
Corporate Governance of ICT



Policy Universe

Business Area	Governing Act / Regulation	Government Framework	Strategy & Business Plan	Policy Level1	Policy Level2	Policy Level3
Office of City Manager	<u>MFMA</u> <u>MSCOA</u> <u>BCE</u> <u>CompanyAct</u> <u>ICASA</u> <u>POPI</u> <u>PAIA</u> <u>ICASA</u> <u>ECT</u> <u>CyberSec</u>	MFMA	<u>CoJ IDP</u> <u>SDBIP BP</u> <u>SDBIP BP</u>	<u>StakeholderPolicy</u>		
COO (Core Business Ops, Projects)		CGICTPF SPMO	<u>CGICTPF</u> <u>COJ</u> <u>ICTGF</u> <u>ICTStrat</u> <u>InfoSecPlan</u> <u>ICTCMPlan</u>	Policies for DM PMO AU InfoSec ITSM IM CM ICTCM Cloud	ITIL COBIT PMI TOGAF	
Management Support (HR, Internal IT, Facilities, Security)		<u>ManSupStrat</u> <u>FacilitiesPlan</u> <u>PhysicalSecPlan</u>	<u>HRPolicies</u> <u>ICT Policies</u>	ICTSLA	<u>CoC</u> <u>HRForms</u> <u>BSSQP</u>	
Legal (Contracts)			<u>LegalPolicy</u>	Contract Templates	Contracts	
Finance (Fin, Asset, SCM)		MFMA PPP Framework	<u>FinStrat</u> <u>AssetPlan</u>	<u>SCMPolicy</u> <u>AssetPolicy</u>	<u>SCMValueChain</u>	<u>SCMForms</u> <u>SCMSOPs</u> <u>SCMTemplates</u>
Governance Risk & Compliance		ERM Framework PolicyFramework PolicyUniverse ReportingFW	<u>RiskStrat</u> <u>RiskPlan</u>	<u>RiskPolicy</u>		
Audit		MFMA	<u>AuditStrat</u> <u>AuditPlan</u>	<u>AuditPolicy</u>		

CoJ Cyber-Security Strategy



Strategy

Plans

CoJ Smart City Ecosystem

Safe, Sustainable, Convenient, Prosperous and Resilient

where all citizens have access to services and information, which enhances socioeconomic development and service delivery



Management Panel



Economic situation



Event Management



Service Management



Decision Making Support ...

City
Brain



One
Application

Smart Power
infrastructure

Smart Water
infrastructure

Safe City-
Infrastructure
protection

Smart Planning
(Digital Twin)

Consolidated IT
Systems

One
Enable
Platform

AI Enable

Big Data

Internet of Things

Integrated Communication Platform

One
Cloud

Cloud

One
Network

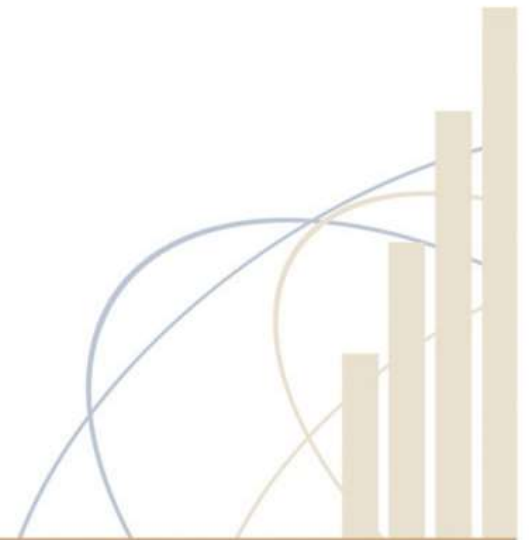
Connectivity-Done

Data Protection at City of Johannesburg



Data Protection Approach using DLP

- DLP Tool that has been operating successfully in the City of Johannesburg environment for over a year, safeguarding thousands of endpoint devices without any end-user intervention.
- The solution delivers comprehensive visibility and control to ICT data environment—allowing the City to define what data is backed up, where it's stored, and when protection occurs.
- Tried, tested, and fully operational and was rapidly deployed and has consistently demonstrated its functionality, ease of use, and significant impact on data protection for COJ endpoints.



Data Protection Approach using DLP

85% of breaches result from social engineering tactics, such as phishing and pretexting scams.

①
Devices aren't safe

- Data Loss
- Ransomware
- Unauthorized Access

More than **70%** of data loss incidents originate from employee endpoints.

④
Compromised Communication

- Impersonation
- Interception

The Security Landscape

②
Cloud isn't immune

- Data Loss
- Shared Responsibility

There is a **fundamental security flaw** in the way email was designed.

91% of cybercrimes start through accessing email.

③
Email isn't smart

- Malware / Ransomware
- Phishing

Microsoft Service Agreement

6. Service Availability

b. ... We recommend that you regularly backup the Content and Data that you store on the Services or store using Third-Party Apps and Services.

<https://www.microsoft.com/engb/servicesagreement/>

Simple Steps to follow for DLP

STEP 1



Ensure Endpoint
Data Recoverability

STEP 2



Protect Cloud Data

STEP 3

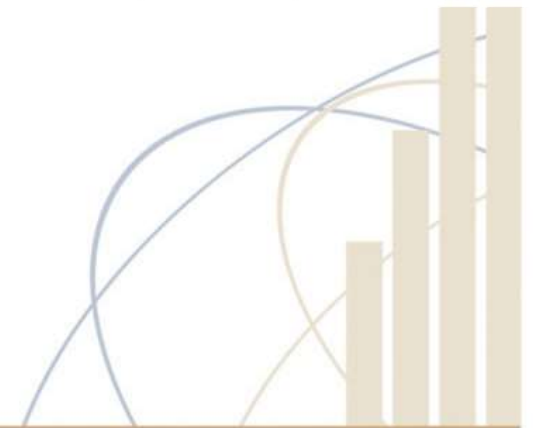


Secure Email from
Incoming Threats
and Fraud

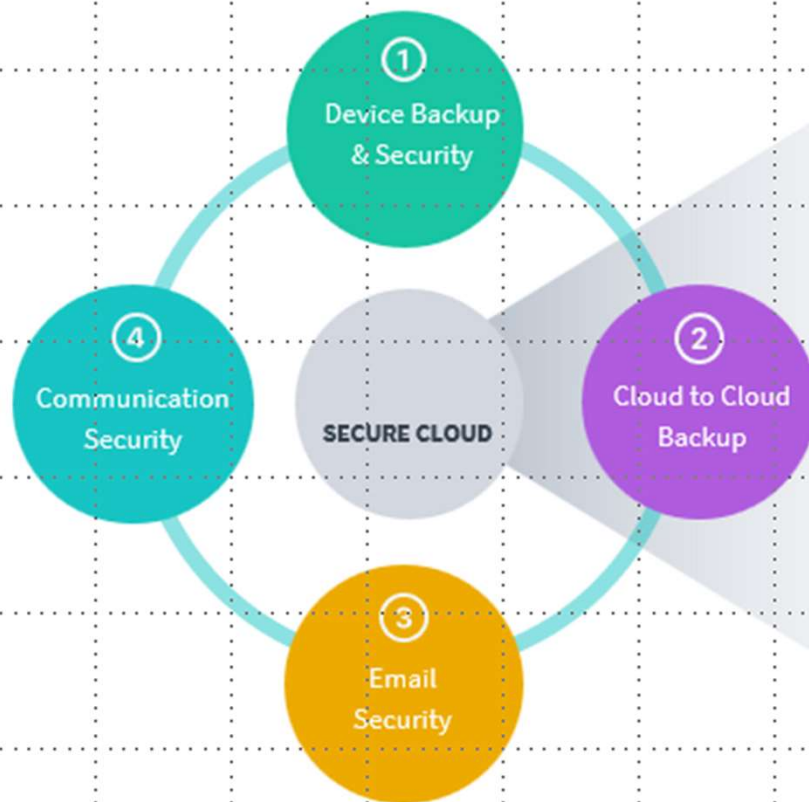
STEP 4



Prevent
Impersonation &
Interception



Secure Your Data Using Cloud



- 1 Device Backup & Security**
 - Backup
 - DLP
 - Migration
- 2 Cloud to Cloud Backup**
 - O365
 - SaaS Backup
- 3 Email Security**
 - Advanced Threat Protection
- 4 Communication Security**
 - DMARC

Critical Tool Box to use for Data Protection



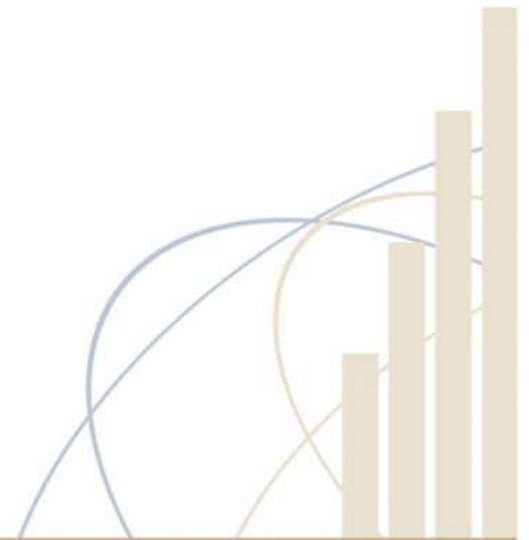
Tool Box

[1] Cybersecurity Strategy which has a section on overall guideline on how to handle data governance

[2] The City did a POPIA compliance assessment with the CSIR. This helps understand where the gaps are in terms of compliance and the team then implemented technical controls to address the gaps.

[3] Data Governance Policy

[4] Information and Cybersecurity Policy



Tool Box

[5] Cloud Computing Policy

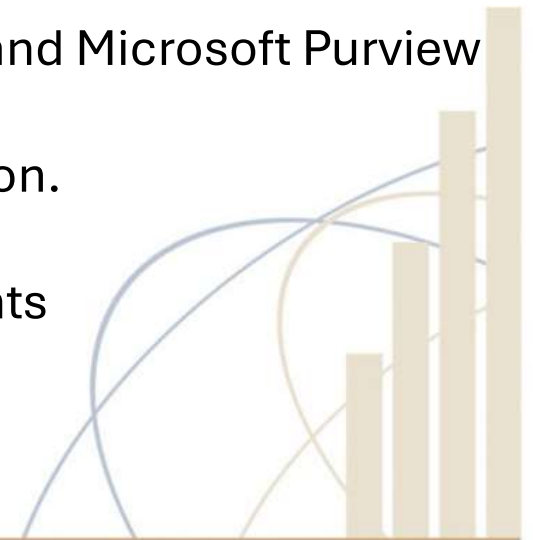
[6] GICT Priority Regulatory Register (risk register)

[7] Full disk encryption for hard drives, USBs and laptops with Microsoft BitLocker

[8] Data Loss prevention with Netskope (physical devices) and Microsoft Purview (cloud workloads)

[9] Access control to data through multifactor authentication.

[10] 24/7 monitoring and response to cybersecurity incidents





Thank You!



CIGFARO
Chartered Institute of
Government Finance, Audit & Risk Officers

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