ENTERPRISE ARCHITECTURE

Central Informatics Bureau Ministry of Information Technology, Communication and Innovation Republic of Mauritius

Government Enterprise Architecture

Introduction

Enterprise Architecture (EA) is a strategic approach that enables Government to function as a unified, agile, and efficient enterprise. By viewing government as a single, interconnected enterprise, EA provides a blueprint for aligning policies, processes, technology, and information across Ministries and agencies. This ensures that resources are used efficiently, services are delivered seamlessly, and digital transformation efforts are coordinated and sustainable. Globally, top digital nations such as Singapore, Estonia, Denmark, and South Korea have adopted EA frameworks to break down silos, drive interoperability, and deliver citizen-centric digital services at scale. For example, Singapore's Whole-of-Government EA underpins its Smart Nation vision. By adopting EA, governments can modernize operations, respond more rapidly to change, and deliver better outcomes for citizens and businesses - making government as agile and effective as the best-run enterprises in the world.

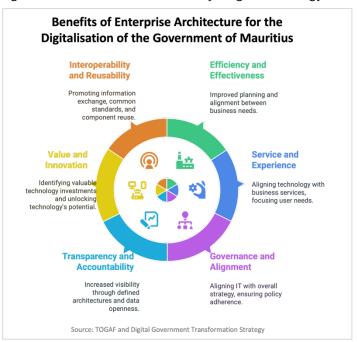
Purpose of an EA

This document provides a description of the baseline Enterprise Architecture (EA) for the Government of Mauritius (GoM) in line with the structure and taxonomy of the reputed The Open Group Architecture Framework (TOGAF). It provides a holistic view of how strategy, business operations, information systems, and technology are integrated to deliver public value, based on existing assets and capabilities.

Benefits of an EA

In Mauritius, Enterprise Architecture (EA) directly supports the goals of the Digital Government Transformation Strategy (DGTS). EA helps government work more efficiently, align technology with

business needs, and streamline operations. It improves service delivery by making information and services accessible anywhere, anytime, on any device. EA strengthens governance by aligning IT with national strategies and ensuring compliance with standards. It increases transparency accountability through clear structures and open data. EA also drives innovation and value by identifying the best technology investments. Finally, promotes interoperability and reusability, enabling systems to share data and use common standards across government.



Government Enterprise Architecture

Architecture Principles, Vision and Requirements

High-income, sustainable, innovative, inclusive economy. Future-ready government

© Business Strategy/Objectives

Gov. Programme, DM 2030, Citizen-centric, efficient, transparent, data-driven

Stakeholders

Citizens, Businesses, Govt. Agencies & Employees, Civil Society, Academia, Intl. Orgs

Marchitecture Pillars

Based on 12 OECD Digital Government Pillars (Openness, Engagement, Data-Driven, Privacy, etc.)

Architecture Requirements

From 48 DGTS recommendations. Needs-centric, evidence-based

Guiding Principles

Digital-by-Default, Once-Only, Openness, Mobile-Friendly, Data-Driven, E-Participation, Agile, Digital Skills, E-Governance, Digital Inclusion, Awareness

Business Architecture

III Strategic Context & Motivation

Gov Programme, DM 2030. National Budget. Sectoral strategies

Business Capabilities & **Services**

Gov-to-Citizens (G2C), Gov-to-Business (G2B), Gov-to-Gov (G2G) & Life Event Services

Organizational Structure & **Stakeholders**

MITCI, CIB, CISD, ITSU, DPO, etc. Ministries & Depts. Citizen engagement

Sovernance & Processes

PMMI framework. Committees (Ministerial, PSC, PMC). Legal/regulatory

Information Systems Architecture

Data Architecture

- Governance, Privacy & Security (DPA 2017, DPO)
- Core Data Assets & Registries (State Registries)
- **Data Sharing & Interoperability** (InfoHighway, e-GIF)
- Open Data (Portal, Geoportal)

Application Architecture

- **Operational Systems Portfolio** (>145 systems)
- **Digital Service Delivery** Channels (Portals, Mobile Apps, PIAPs, Chatbots)
- **Shared Application Services** (MauPass, MoKloud, MAIA+)
- Application Integration & Interoperability (InfoHighway)
- Application Dev & Lifecycle (PMMI, Agile, UX)

Technology Architecture

Core Infrastructure Platforms

- Hosting (G-Cloud, GOC)
- Network (GINS, Internet, WIFI)
- Communication (GES Email, SMS, Video Conf.)
- Payment (MauCas)

End-User Devices

Standard PCs, laptops, mobile devices

Security & Privacy

- Regulatory (Cybercrime, DPA)
- ID Mgmt (MauPass, MWA)
- Secure Infra (GOC, GINS)
- **DPIA** and Security Audits

Technology Standards & **Policies**

- **Procurement standards**
- Technical specs (e-GIF)
- IT Security considerations
- **Data Protection guidelines**

Architecture Realisation and Governance

🕎 Capabilities & Human Resources

Specialised Training, dedicate full time resources (Service Owners, Support, Helpdesk)

Awareness & Marketing

Campaigns at Ministry/Department level, "fasil" channels

W Oversight Bodies

Ministerial Committees, PSCs, PMCs (PMMI). Head ICTs at Min/Depts

Standards & Guidelines

DGTS Principles. PMMI process/templates. **Technical Specs**

Legal & Policy Alignment

Ensure services/systems operate within legal framework

Stakeholder **Engagement**

Consultations, participatory budgeting, feedback

Monitoring/Evaluation

Service managers, **Business Owners. Assess** impact, measure usage, report KPIs. Data-driven

Continuous Improvement

Ongoing agile process, iterative, feedback

EA COMPONENT 1: Architecture Principles, Vision, and Requirements

1.1 Architecture Vision

The Government of Mauritius aspires to transform the nation into a high-income, sustainable, innovative, and inclusive economy. This vision is underpinned by the development of modern infrastructure, robust global connectivity, and the cultivation of advanced skills and technologies. The Enterprise Architecture (EA) serves as a foundational blueprint to realize this ambition, ensuring that Government operations and services are future-ready and resilient.

1.2 Business Strategy

The primary driver for this architecture is the national vision articulated in the Government Programme 2025–2029 and Digital Mauritius 2030 (DM 2030) and fundamentally shaped by the DGTS. The EA is closely aligned with global commitments such as the UN Sustainable Development Goals (SDGs), the UN Global Digital Compact, and regional directives including the African Union Digital Transformation Strategy for Africa and the SADC Digital Transformation Strategy. This alignment ensures a strong emphasis on citizen-centricity, efficiency, transparency, data-driven decision-making, and digital inclusion across all government initiatives.

1.3 Business Objectives and Drivers

The DGTS identifies several priority areas and sets out to achieve the following objectives:

- 1. Ensure access to high-quality government information and services anywhere, anytime, and on any device.
- 2. Foster innovative approaches that contribute to national development and long-term sustainable growth.
- 3. Increase the efficiency and effectiveness of government agencies.
- 4. Improve productivity and transparency in government operations.
- 5. Enhance interaction between government agencies and all stakeholders, including citizens and businesses.
- 6. Deliver superior digital services using the latest tools and technologies.

Through these objectives, the strategy establishes a framework to equip citizens, businesses, and government entities for the future, supporting the creation of a sustainable and secure digital Mauritius.

1.4 Technology Strategy

The DGTS provides strategic direction for accelerating public sector digitalization. It recommends policies and initiatives designed to deliver services that are simple, smart, and seamless. The strategy aims to enhance operational effectiveness and efficiency, ensuring improved service delivery for citizens, businesses, and Government stakeholders. By implementing these strategic elements, Mauritius is positioned to join the ranks of digitally advanced and inclusive nations worldwide.

1.5 Stakeholders

The development and implementation of the EA is shaped by a broad and inclusive stakeholder community. This includes citizens, business communities, ministries and departments, government employees, consumer associations, academic institutions, and international organizations. These partners were widely consulted during the formulation of the DGTS, ensuring that the architecture reflects the collective aspirations and needs of the entire Mauritian society.

1.6 Architecture Pillars

Core architectural pillars derived from the DGTS guide all digital government initiatives. The DGTS framework itself is structured around the **twelve pillars of the OECD Recommendation on Digital Government Strategies**, which represent the key areas of focus for government digitalization. Actions based on these twelve pillars ensure that the DGTS achieves maximum impact, bringing government closer to citizens and businesses, and fostering a more open, transparent, innovative, participatory, and trustworthy public sector.

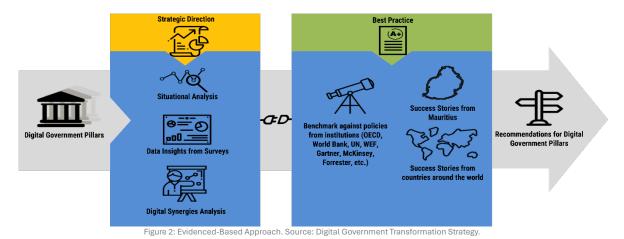


Figure 1: Twelve Digital Government Pillars (based on OECD Framework). Source: Digital Government Transformation Strategy

1.7 Architecture Requirements

Needs-Centric and Evidence-Based Approach

The architecture requirements for Mauritius's Enterprise Architecture are directly informed by the 48 recommendations of the Digital Government Transformation Strategy (DGTS), which are structured around the 12 Digital Government Pillars. These recommendations are the outcome of the DGTS's needs-centric and evidence-based methodological approach as depicted below:



The digital synergies analysis-a process that examines the government's digital capabilities, gaps,

opportunities, and threats to ensure that technology investments are both strategic and impactful. This analysis is visually presented in the accompanying diagram. In addition, strategic direction was aligned with national priorities, situational analysis assessed the maturity of digital transformation, and data insights from stakeholder consultations further shaped the recommendations. This EA work is thus intrinsically linked to the DGTS, ensuring that the architecture is grounded in the real needs and digital ambitions of Mauritius.

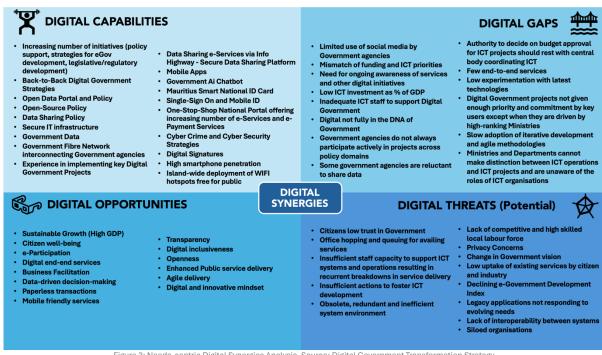


Figure 3: Needs-centric Digital Synergies Analysis. Source: Digital Government Transformation Strategy

1.8 Guiding Principles

The Enterprise Architecture is underpinned by a set of **guiding principles** distilled from the **48 recommendations** of the Digital Government Transformation Strategy (DGTS), which collectively span the **12 digital government pillars** introduced earlier. These principles serve as foundational tenets or guidelines not only for the design and delivery of digital services, but also for the overall structuring, integration, and evolution of government processes, information flows, technology platforms, and organizational capabilities.

Needs-Centric and Evidence-Based Guiding Principles for Mauritius Enterprise Architecture



Figure 4: Guiding Principles for Enterprise Architecture. Adapted from Digital Government Transformation Strategy

EA COMPONENT 2: Business Architecture

The **Business Architecture** defines the strategic direction, organizational structure, governance framework, and core business processes that characterize the current operations of the Government of Mauritius and guide its digital transformation journey.

Strategic Context and Motivation: The GoM's strategic direction for digital government is principally defined by the DGTS, which is further contextualized by the Government Programme 2025-2029 and the Digital Mauritius 2030 plan. These strategies emphasize citizen-centricity, efficiency, data-driven decision-making, and digital inclusion. Financial alignment is achieved through the yearly National Budget, incorporating performance-based budgeting principles. Sectoral strategies (Health, Education, etc.) further refine objectives within specific domains.

• Business Capabilities and Services: Core government functions across sectors (health, education, social security, justice, finance, etc.) are supported by over 145 operational systems. Service delivery is increasingly channelled through digital means, including the National Portal (govmu.org), dedicated sectoral portals (e.g., MRA Taxpayer Portal, CBRIS), numerous e-Services, a growing portfolio of mobile applications and most recently Al-driven chatbots through MAIA+ or dedicated chatbots on ChatGPT (Data Protection, CERT-MU, Autism). While many processes are digitized, the DGTS principles of "digital-by-default" and "end-to-end" transformation guide ongoing reengineering efforts to streamline service delivery further.

Business Capabilities and Services



Source: Central Informatics Bureau List of Operational Systems

Organizational Structure and Stakeholders: The digital ecosystem involves key players such as the Ministry of Technology, Communication and Innovation (MITCI) (policy maker), the Central Informatics Bureau (CIB) (project management and technical advisory), the Central Information Systems Division (CISD) (providing operational support), the Data Protection Office (DPO), CERT-MU, and the IT Security Unit (ITSU). The Mauritius Emerging Technologies Council (METC) provides assistance on emerging technologies (Artificial Intelligence, Blockchain, etc). Ministries and Departments are the primary service owners and implementers, often designate internal officers to liaise on and coordinate ICT projects within their domain. Stakeholder engagement, particularly with citizens and businesses, is facilitated through platforms like the National Government Portal, Citizen Support Portal and targeted public consultations (e.g., for the National Budget).

- Governance and Processes: Operational processes are increasingly digitized, as evidenced
 by the extensive list of e-Services and operational systems. The Project Management Manual
 for ICT Projects (PMMI) provides a standardized framework for ICT project delivery, outlining
 governance structures like Ministerial Committees, Project Steering Committees (PSC), and
 Project Monitoring Committees (PMC). Legal and regulatory frameworks (DPA, ICT Act, etc.)
 and operational policies (Email, Internet, Open Data, Open Source) govern the use of digital
 assets and processes.
- Digital Skills and Capacity: While the DGTS recognizes the critical need for enhanced digital
 skills across government, the current architecture relies on existing ICT personnel within CIB,
 CISD, ITSU, GOC, and dedicated officers within Ministries/Departments. Capacity building
 initiatives exist (e.g., Civil Service College digital courses), but the skills required to fully
 leverage advanced capabilities like AI, extensive data analytics, and complex system
 integration represent an area for development.

EA COMPONENT 3: Information Systems Architecture

This layer details the Application and Data assets that automate processes, manage information, and enable the capabilities described in the Business Architecture.

3.1. Data Architecture

The Data Architecture describes the structure, management, governance, and utilization of the GoM's data assets, emphasizing secure sharing and accessibility.

- Data Governance, Privacy and Security: The Data Protection Act (DPA) 2017 and the Data Protection Office (DPO) provide the legal and regulatory framework. Data security measures are implemented at system and infrastructure levels, guided by CERT-MU and ITSU.
- Core Data Assets and Registries: Key data resides in State Registries which constitute the 'master data' for public administration:

Existing State Registers of Mauritius Population Cadastre / **Vehicle Procurement Education Land Register** Register Register Register Maintains a accredited qualifications, register of all and managing Mauritius. procurements online Social Register Official **Criminal** Registry **Publications** Register Centralized Publishes laws. beneficiaries for social programs. offences in the Criminal Attribute and management

Source: Websites of respective Ministries/Departments, www.govmu.org

- Data Sharing and Interoperability: The InfoHighway platform, governed by the
 e-Government Interoperability Framework (e-GIF), is the primary mechanism enabling
 secure and standardized data exchange between government agencies. This infrastructure is
 fundamental to implementing the Once-Only Principle, reducing data redundancy and
 streamlining processes by allowing agencies to reuse data already held within government.
 Legal amendments support data sharing across relevant acts.
- Open Data: Mauritius promotes transparency through its Open Data Policy and makes nonsensitive datasets available via the National Open Data Portal (data.govmu.org) and the Geoportal for geospatial data supporting reuse by the public and businesses for innovation.

3.2. Application Architecture

The Application Architecture provides the blueprint for the GoM's software application portfolio, defining the systems, their interactions, and the shared application-level services that support business functions.

- Operational Systems Portfolio: The GoM utilizes over 145 distinct operational systems
 identified across various sectors. These applications automate specific business functions,
 ranging from core administrative tasks (Payroll, Registry) to citizen-facing services (e-Licensing,
 Tax Filing) and specialized operations (COTS, LAVIMS, ePrison).
- Digital Service Delivery Channels:

Digital Service Touchpoints

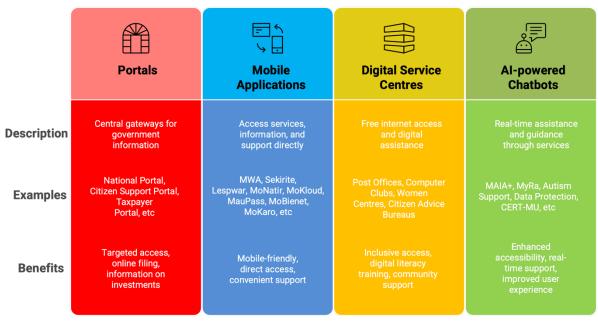


Figure 5: Digital Service Delivery Channels of the Government. Source: Central Informatics Bureau

Portals: The National Portal (govmu.org) is the central gateway for government information and e-services, with specialized portals such as CBRIS, MRA Taxpayer Portal, Citizen Support Portal, e-Procurement, and the Open Data Portal providing targeted access to business, tax, complaints, procurement, and public data services.

- Mobile Applications: A growing suite of government mobile apps-including MWA (Mobile ID), Sekirite (elderly care), Lespwar (GBV prevention), MoNatir (environment), and others-enables citizens to access services, information, and support directly from their smartphones, reflecting Mauritius's commitment to mobile-friendly service delivery.
- Digital Service Centres / Public Internet Access Points (PIAPs) located in post offices and community spaces, provide free internet access and digital assistance to citizens, ensuring inclusive access to online government services regardless of digital skills or connectivity at home.
- o Computer Clubs / Women Centres across Mauritius offer digital literacy training, Internet access, and support for using e-government services, fostering digital inclusion and skills development at the community level.
- Citizen Advice Bureau (Citizen Support Unit): The Citizen Support Unit operates both online (via the Citizen Support Portal) and through physical Citizen Advice Bureaus, enabling citizens to submit complaints, seek guidance, and participate in e-Participation initiatives, thereby promoting transparency and responsiveness in government.
- Al-powered chatbots, such as MAIA, MyRa, and sector-specific bots for tax, labour law, autism, data protection, and digital safety, provide real-time assistance, answer queries, and guide users through government services, enhancing accessibility and user experience across digital channels.
- Shared Application Services: A suite of reusable application-level services and platforms facilitates common functions across different government services:

Shared Application Services and Platforms



Figure 6: Shared Application Services and Platforms. Source: Digital Government Enablers, Central Informatics Bureau.

- MauPass Single, convenient, trusted and secure entry for Citizens to access
 Government services
- MauSign Allow Citizens to digitally sign documents online without the use of physical tokens

- Mobile ID A Digital ID Wallet (Digital Wallet App 'MWA') allows citizens to use their mobile ID as proof of identity
- MoKloud Secure, flexible and easy-to-use platform for sharing, issuance and verification for documents and certificates in digital mode, thereby eliminating the use of physical documents
- o *MoRendezVous* An extensible electronic queue management system using interactive digital kiosks to eliminate traditional queueing systems in participating Ministries/Departments
- o MAIA Al-based Intelligent Virtual Assistant (Chatbot) integrated with Whatsapp to offer a one stop platform for all customer needs related to information
- o InfoHighway Award winning Data sharing Platform connecting Government agencies
- National Open Data Portal Enabling Government agencies to release data of value to the Public for data-driven initiatives (Mobile Apps, research, etc)
 - (These are application-layer platforms providing specific functionalities, distinct from the underlying technology infrastructure.)
- Application Integration and Interoperability: The InfoHighway platform is the key integration
 broker, enabling secure data exchange between disparate applications based on the e-GIF
 standards. This supports seamless user journeys and end-to-end service delivery. This reduces
 the need for point-to-point integrations for many common data exchange scenarios. MauPass,
 as the government's single-window authentication service, further enhances interoperability
 by providing a unified, secure login and identity verification mechanism across all e-services.
- Application Development and Lifecycle Management: The PMMI guides the development lifecycle. The DGTS promotes the adoption of Agile methodologies, although current practice varies. User experience (UX) design, accessibility, and mobile-friendliness are stated priorities for application development.

EA COMPONENT 4: Technology Architecture

The Technology Architecture describes the underlying infrastructure – hardware, system software, networks, and foundational platforms – that enables the reliable and secure operation of government applications and data management.

• Core Infrastructure Platforms:

- Hosting: The Government Cloud (G-Cloud), managed by the Government Online Centre (GOC), provides scalable and secure hosting infrastructure (laaS/PaaS/XaaS) for a significant portion of government websites, applications, and databases.
- Network: The Government Intranet System (GINS) offers a high-speed, secure fibre network connecting government sites. Secure internet connectivity and public WIFI Hotspots are also part of the landscape.
- Communication: The Centralised Government Email Service (GES) provides official communication channels. The SMS Gateway facilitates mobile notifications. Video Conferencing and IP-based telephone systems are available in several agencies.

Payment: The MauCAS national payment switch enables electronic transactions for government services.

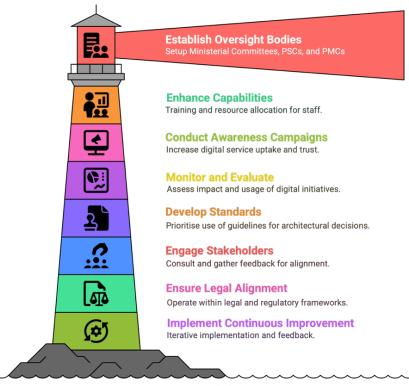
(Note: This layer focuses on the foundational infrastructure, differentiating it from the application platforms like MauPass which run on this infrastructure).

- Security and Privacy: Security is a critical, cross-cutting aspect of the GoM EA, ensuring the confidentiality, integrity, and availability of government systems and data. Cybersecurity is ensured through regulatory framework (e.g., Cybercrime Act, and Data Protection Act), digital and mobile ID management (MauPass, MWA Mobile ID, National ID checks through InfoHighway), secure infrastructure (GOC security policies, GINS network security, device endpoint protection), IT security audits, and application security best practices among others.
- End-User Devices: Standardized desktop PCs, laptops, and peripherals are used within government, alongside increasing support for mobile devices connecting to public services.
- Technology Standards and Policies: Technology choices are guided by standard procurement processes. Standards and policies are enforced through technical specifications such as e-GIF, standard hardware and software maintenance agreements, IT Security considerations and Data Protection guidelines as well as specific operational policies (e.g., GOC security policies, among others).

EA COMPONENT 5: Architecture Realisation and Governance

Mauritius's approach to architecture realisation and governance is grounded in the Digital Government Transformation Strategy (DGTS) and operationalised through a set of interlinked mechanisms that ensure alignment with national priorities, continuous improvement, and stakeholder value.

Governance Structures for Sustainable Enterprise Architecture-Led Digitalisation



Source: Central Informatics Bureau

- Oversight Bodies: Governance is currently executed primarily at the project level through Ministerial Committees, PSCs, and PMCs as defined in the PMMI. MITCI provides central strategic ICT direction for the overall e-Government programme. User coordinators and Heads of ICT in Ministries/departments further ensure coordination and integration across government, in line with DGTS recommendations on whole-of-government governance and cross-agency collaboration.
- Change Management and Stakeholder Engagement: Effective change management is essential for digital transformation success. International studies (e.g. UK National Audit Office) show most public-sector digital projects fail when leaders do not actively engage or support change. Senior executives must champion digital initiatives, communicate clearly, and support staff throughout the transition to ensure adoption and sustained results. Regular consultations and feedback mechanisms by owner Ministries/Departments ensure that the EA remains aligned with stakeholder needs and national priorities.

Capabilities and Human Resources

- o System Specific Training for end-users (e.g. functional, pre-UAT, process, reporting) and administrators (e.g. System/Database Administration) are already in place.
- o Advanced capacity building (Industry Certifications, advanced workshops and seminars) is required for technical staff to remain relevant to keep pace with latest technologies.
- Ministries/Departments (owners of services and systems) are strongly encouraged to dedicate resources for the following:
 - Adequately staffed human resources for Project Management
 - Appointment of full time Service managers and Business Owners (operational/administrative staff from Ministries/Departments) to own and be responsible for services and systems
 - Appointment of full time personnel for Operational Support/Managed
 Services to provide day to day support to end user
 - Operation of Helpdesk/Self-Service/Digital Assistance via Kioks as first contact points for end users
- Awareness and Marketing campaigns should be conducted at the level of user Ministries and
 Departments drawing inspiration from the ongoing efforts of the Citizen Support Unit. The
 MITCI has also put at the disposal the fasil digital marketing channels (fasil.govmu.org). These
 efforts address the DGTS-identified need to increase uptake and trust in digital services,
 especially among digitally excluded groups.
- Monitoring and Evaluation: Ministries and Departments are responsible for ongoing
 monitoring and evaluation of digital initiatives they own. They should assess impact, measure
 service usage, and report on key performance indicators requesting analytics from their
 webmasters/system administrators who may liaise with Government Online Centre,
 InfoHighway, and the Citizen Support Portal if required. This data-driven approach, as
 advocated in the DGTS, supports evidence-based improvement and transparent reporting.

• Standards, Guidelines, Specifications

- o *Guiding Principles:* The principles derived from the **DGTS** (Digital-by-Default, Once-Only, Openness, etc.) serve as the primary guidance for architectural decisions and project implementations in the current state.
- o *Processes*: The **PMMI** defines the core process for managing ICT initiatives. The DGTS provides the strategic digitalisation roadmap. The **PMMI** provides standard templates for main project-related documentation.
- o Technical Specifications for ICT systems are drafted by CIB in line with PMMI based on user requirements from line Ministries/Departments. The Ministries/Departments also request assistance and relevant inputs from CISD, GOC, ITSU and DPO for finalisation of technical specifications. Maintenance agreements (HMA/SMA) and standard specifications for IT peripherals (small purchases) are also published.
- Legal and Policy Alignment: User Ministries/Departments should ensure that their digital services or systems put in place operate within a robust legal and regulatory framework prior to their services/systems go live.
- Continuous Improvement: Architecture realisation is an ongoing process. The DGTS's emphasis on agile, iterative implementation and continuous feedback ensures that the EA remains responsive to emerging needs and opportunities.

Last Updated: April 2025. Central Informatics Bureau.