

# Government Resource Management in the Cloud

Forget SaaS Vendor Hype: Governments Seek Performance Improvements

# **Executive Overview**

Vendor hype would have us believe that governments adopt Software-as-a-Service (SaaS) enterprise software to reap the benefits of cloud computing and drive digital transformation. Does this positioning reflect government resource management needs?

In reality, cloud computing is just one tool in the government digital transformation toolbox. Make **no mistake:** digital transformation is not an end in itself. Government digital transformation is part of a broader strategy, and is essential for driving improvements in service delivery, enhancing transparency, and optimizing resource allocation. Digital transformation ultimately leads to better outcomes for citizens.

**Government performance is uniquely complex**, driven by the need to achieve policy objectives and deliver public outcomes. This is unlike the private sector, where success is measured by a bottom line: profit or loss. Do not be fooled into thinking that governments should be run like businesses. Governments also provide Digital Public Goods (DPG) like infrastructure and services. And, governments operate with higher standards of transparency, data sovereignty, privacy, and security than private businesses.

This white paper argues that governments require cloud computing solutions tailored to their **specific needs**, not generic SaaS systems. The technology anchor for government performance improvement is not cloud nor Enterprise Resource Planning (ERP): it's **GovTech**.

Governments should not need to compromise any GovTech DPG potential when adopting SaaS. The following checklist summarizes government needs. Purpose-driven companies, with a passion for achieving government impact, operate with different standards than traditional Enterprise Resource ERP and SaaS vendors.

# Government Resource Management Cloud Computing Checklist

#### Governments need:

- **Comprehensive government performance management across the entire** budget cycle, from strategic planning to fiscal transparency, ensuring alignment with policy objectives.
- □ Multi-year budgeting and scenario planning capabilities, leading to more accurate financial forecasting. This results in the ability to adapt quickly to changing economic conditions, ensuring financial sustainability and resilience.
- Built-in auditing tools that transparently track outcomes, align with public policy, and improve public trust through greater transparency.
- **□** Equity and public value tracking to measure impacts across gender, public good.
- **D** Compliance with legal and regulatory frameworks, including data sovereignty, privacy, and security requirements specific to the public sector.
- **□** Rich and adaptable public finance functionality built-in as the foundation of government operations, supporting the unique needs of public sector financial management.
- **—** Full interoperability and integration with other government platforms, ensuring efficient coordination across procurement, payroll, grants, and other key functions.
- □ Identical functionality across deployment models—whether on-premises, private cloud, or public cloud—without compromising on features or performance.
- **G** Seamless deployment and data portability between public and private Open digital core with an open technology stack to enable smooth integration with existing systems and support ongoing digital transformation initiatives.

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climate, well-being, and other public sector priorities, ensuring the focus on

cloud environments, ensuring flexibility and choice without vendor lock-in.



# Introduction

## Situation

#### **SaaS Benefits**

Governments are adopting SaaS for enterprise software functions because it offers compelling added value, including:

- Improved cyber security, agility, innovation, user experience and resource optimization, leading to faster, more reliable service delivery to citizens while reducing the risk of security breaches
- Enhanced cost predictability, environmental sustainability, and data management
- Reduced technical debt, maintenance and capital costs, resulting in more efficient use of taxpayer funds.

The Gartner Group predicts that "by 2025, over 80% of government ERP application providers will offer solutions exclusively in a SaaS delivery model."<sup>1</sup>

#### **Government Digital Core**

Government leaders recognize that **Public Financial Management** (PFM) acts as the backbone for government operations, and the core for enterprise software functionality. Integrated Financial Management Information Systems (IFMIS) provide the technological digital PFM core. The capabilities of this core enhances or inhibits government digital ambitions, whether deployed on-premises or in the public cloud.

#### **COTS** Choices

Governments acquire a mix of Commercial-Off-The-Shelf (COTS) technologies, deployed in numerous methods, to achieve PFM outcomes that support the full budget cycle:

- Enterprise Resource Planning (ERP): enterprise-class software originally designed for private sector organizations, and deployed across multiple industries, including the public sector
- Best of Breed (BoB): financial software for supply chain management, human capital management, or asset and inventory management, originally designed for businesses, and deployed across multiple industries, including the public sector
- **Government Resource Planning (GRP)**: enterprise-class software specifically designed for government and deployed only in the public sector vertical market, such as the FreeBalance Accountability Suite<sup>™</sup>.



1 Gartner Group, Market Guide for Government ERP Solutions

# Complications

#### **Government Performance Management**

While SaaS adoption brings many clear benefits, other key drivers compel governments toward modern digital adoption. Cloud computing is but one tool in the government digital transformation toolbox. Other drivers include achieving **digital transformation effectiveness**, ensuring **public financial sustainability**, improving expenditure **value for money**, and managing **government performance**.

#### **Government Resource Management**

Governments often turn to ERP SaaS solutions with private sector designs. This creates a mismatch between **public finance**, the core of government resource management, and the out-of-the-box functionality offered by ERP vendors.

Furthermore, significant disparities often exist between the features provided in on-premises versus public cloud offerings. This leads to **cloud lock-in**, where it is too difficult for customers to move to other deployment methods. Cloud lock-in can be a more pressing issue than traditional ERP lock-in because of the use of proprietary technology stacks. Compounding this, ERP vendors frequently leverage lock-in to **raise prices**<sup>2</sup> beyond reasonable affordability levels, leaving governments with limited options and escalating costs.

#### Government-as-a-Platform (GaaP)

To truly drive economic and social policy, **SaaS must be more than a tool**; it must empower governments to achieve transformative goals efficiently and transparently. Governments provide public investments to achieve economic and social goals. Government digital transformation is about much more than achieving technology efficiencies. **Government-as-a-Platform** (GaaP)<sup>3</sup> is the use of technology—especially the collaborative technologies at the heart of Web 2.0—to better solve collective problems at a city, state, national, and international level.

Among the transformational GaaP elements are:

- Open standards spark innovation and growth
- Build simple systems and let them evolve
- Design for participation
- Data is the "Intel Inside"
- Lower barriers to experimentation.

# Questions

How can governments leverage **spending power** to compel ERP and GRP providers to support full cloud portability and more flexible pricing models?

How do GRP providers, like FreeBalance, provide **greater flexibility**, **enhanced interoperability**, and pricing structures that reflect the **public interest**—avoiding cloud lock-in and ensuring value for taxpayers?



<sup>2</sup> Gartner Group, Market Guide for Government ERP Solutions

<sup>3</sup> Tim O'Reilly, Government as a Platform

#### Approach

This paper explores critical enterprise software capabilities needed for governments, structured in three chapters:

- 1. How can enterprise software cloud computing improve the planning, management, and assessment of **government performance**?
- 2. How can enterprise software cloud computing meet standard **public financial management** needs?
- 3. How can enterprise software cloud computing enable GaaP for economic value?

This paper compares and contrasts private and public sector needs by articulating:

- **Private sector** needs and drivers
- **Public sector** contrasting needs and drivers
- Enterprise software implications describing needed software capabilities for governments.

# Future of Government ERP

This paper extends a recent FreeBalance white paper, *What is the Future of Government ERP? A GovTech Perspective*, that addressed public sector enterprise software COTS options from a GovTech and digital transformation perspective. Key takeaways included:

- **ERP's inherent limitations for government:** ERP systems were not designed with the unique demands of government financial management in mind, leading to inefficiencies and high failure rates in government implementations.
- **GRP as a purpose-built solution:** GRP offers the flexibility and configurability governments need to meet evolving legal, operational, and budgetary requirements, unlike the rigid structure of ERP.
- **PFM at the core:** GRP places public financial management, the backbone of government, at the heart of system design. ERP treats PFM as a secondary component.
- **Agility for future reforms:** GRP enables governments to continuously evolve with progressive activation, adapting to future policy changes and reforms without costly re-customization.
- Lower total cost of ownership: GRP systems significantly reduce the total cost of ownership compared to ERP, offering governments a more cost-effective and sustainable solution over time.
- **Digital transformation-ready:** GRP supports governments' digital transformation agendas, enabling smoother transitions to fully digital and citizen-centric service delivery.
- Avoiding legacy ERP pitfalls: GRP offers an alternative to legacy ERP systems, which are often costly to maintain, slow to update, and unable to support the agility and transparency needed in modern governance.



# 1. Government Performance Management

Cloud enterprise software providers must meet government performance management requirements. Any public cloud contribution to government digital transformation must be evaluated by these unique public sector needs.

The input-process-output-outcome model is frequently used to measure organizational performance<sup>4</sup>.



- **Inputs:** resources and budgets, such as health budgets, personnel, equipment, facilities and materials
- **Processes:** methods and processes used, such as how inoculations are administered
- **Outputs:** count of services delivered, such as the number of inoculations provided
- **Outcomes:** results of outputs, such as the incidence of disease after inoculations
- **Impact:** results of outcomes, such as the number of productive days worked attributed to inoculations.

# Outcomes-Based Performance Management

**Private sector context:** Businesses are driven by the need to achieve profitability, and guided by well-established industry Key Performance Indicators (KPIs). Performance measures and targets are evaluated based on the contribution to profit. Companies fine-tune these metrics by analyzing profit and loss results, allowing managers to adjust measures and targets when profitability isn't achieved, even if intermediate goals are met.

#### **Business Performance Management Benefits from a Bottom Line**



**Public sector context:** Governments aim to achieve policy-driven results that often take years to materialize. Unlike businesses, multiple programs work together to produce broader outcomes, which can be influenced by external factors beyond government control, such as the Covid-19 pandemic or the 2008 financial crisis. This interdependence and external unpredictability make government performance management more complex than in the private sector.

## **Government Performance Management Complexity**



**Enterprise software implications:** Public sector performance management requires software that ties performance metrics directly to financial classifications, reflecting the role of budgets as the legal representation of government policy. SaaS corporate performance systems typically emphasize short-term, individual objectives that are separate from financial structures. Additionally, few industry-standard KPIs apply to the public sector, further complicating the use of off-the-shelf corporate solutions.



# **Objectives and Priorities**

**Private sector context:** Private sector objectives are driven by profit, efficiency, competitive advantage, and market share. The main focus is to maximize shareholder value and improve financial performance through strategies that boost profitability and business growth.

#### **Governments Leverage Program Budgeting to Integrate Financials to Goals**



**Public sector context:** Governments prioritize public service delivery, ensuring transparency, accountability, and regulatory compliance. Their core mission is to serve citizens and achieve social outcomes, such as improved well-being, economic stability, and environmental sustainability.

**Enterprise software implications:** Government enterprise software must integrate fiscal data with policy goals, aligning plans, budgets, expenditures, and results to meet transparency and performance requirements. Standard SaaS solutions, with limited Charts of Accounts and simple tagging capabilities, fall short in tracking objectives like reporting by Sustainable Development Goals (SDGs) or gender, climate, and well-being budgets<sup>5</sup>.

# Value For Money (V4M)

**Private sector context:** In the private sector, value for money (V4M) is centered on managing spending to reduce costs, improve quality, and increase profits, primarily through procurement. The focus is on achieving high product and service quality as the main criterion for value.

Public sector context: Governments prioritize the "5Es"—economy, efficiency, effectiveness, costeffectiveness, and equity<sup>6</sup>—across procurement, human capital, outsourcing, and Public-Private Partnerships (PPPs). These principles are critical in evaluating public investments, ensuring that resources are used not just for cost savings but to deliver maximum social value, and achieve broader social impacts like fairness and sustainability.

Enterprise software complications: Public sector software needs to align with government objectives by measuring complex factors beyond simple cost control, including the equity of outcomes such as gender and climate impacts. Generic SaaS procurement and ERP systems, which focus on basic spend management, often fail to support the broader value considerations like the economy or input costs that are vital in public sector investments.

5 The complexity of government objectives and planning is captured in five performance indicators of the "Policy-based Fiscal Strategy & Budgeting" pillar of Public Expenditure and Financial Accountability (PEFA) assessments

6 Such as Oxford Policy Council Assessing Value for Money and UK National Audit Office, Assessing value for money



# Enterprise Software Performance Management

**Private sector context:** In the private sector, enterprise software performance management focuses on improving processes and efficiency through systems like ERP, Supply Chain Management (SCM), and Customer Relationship Management (CRM). Financial management plays a supporting role, rather than being the primary application. Business disruption during migration to advanced enterprise software often requires significant organizational change management, relying on built-in industry "best practices." Despite this, many ERP and enterprise software projects fail to meet objectives, with frequent cost overruns and delays<sup>8</sup>.

Public sector context: In government, financial management, through IFMIS, is the cornerstone of operations. No activity can begin without an approved budget. Migration to new financial management software is especially complex due to the need to comply with legislative mandates. Organizational change management is further complicated by the political dynamics of government, particularly in areas like automation, integration, transparency, and accountability.

**Enterprise software implications:** Government enterprise systems must include robust public finance functionality and support phased implementations to gradually improve process performance. SaaS financial software often lacks the adaptability and legislative compliance features necessary for public finance, limiting its effectiveness in the government context.

## **IFMIS Implementations are Inherently Transformational**



7 Adapted from: UK National Audit Office, Assessing value for money

8 McKinsey, Delivering large-scale IT projects on time, on budget, and on value



# **Risk Management**

**Private sector context:** In the private sector, risk management is primarily concerned with financial, operational, and market risks. Companies often have a higher tolerance for calculated risks in pursuit of competitive advantage and profit maximization.

Public sector context: Governments sit at the center of managing global risks<sup>9</sup>, requiring comprehensive, multi-year planning and broad-based risk analysis. Public finance resilience and maintaining fiscal space are essential for governments to navigate crises. Early crisis detection is critical for enabling timely, proactive actions that mitigate risks and protect public interests.

Enterprise software implications: Public sector software must support global risk analysis, risk budgeting, contingency planning, and PFM resilience. SaaS financial software typically lacks the necessary

multi-year scenario planning capabilities and collaborative risk analysis functions, limiting the ability to meet government risk management needs.

## Service Delivery

**Private sector context:** In the private sector, service delivery is tailored to target market segments, with a focus on customer satisfaction, personalization, and creating market differentiation. Businesses aim to enhance service quality to gain a competitive edge and build customer loyalty.

Public sector context: Government service delivery emphasizes equitable access for all citizens, including underserved and marginalized communities. The focus is on inclusivity and universal service provision, directly tied to PFM goals of fiscal discipline, allocative efficiency, and operational efficiency. Service delivery in government is a tool to achieve broader social and economic policy outcomes.

Enterprise software implications: Governments serve citizens, and service delivery requires effective funding, monitoring, and evaluation. SaaS applications often fail to link service delivery outputs and outcomes to financial budgets, limiting governments' ability to measure the cost of improving service quality. Governments need enterprise software that enables them to track and understand the cost of delivering a unit of output or achieving a specific policy outcome.

# Chapter 1 Conclusions

This first chapter covered government performance management needs, contrasting the differing needs of the public and private sectors. Current gaps in SaaS options to meet government performance management needs were described. The economic benefits of SaaS deployments are compromised by these performance management gaps, SaaS applications often fail to meet necessary government enterprise functionality. These limitations are described in the next chapter.









#### **Complex Government Budget Preparation**

# 2. Government Resource Management

Government is the most unique enterprise software market. Government organizations have historically faced difficulties in achieving long-term success with ERP solutions designed originally for the private sector<sup>10</sup>. These problems are exacerbated in less functional SaaS systems. Governments need so-called "industry clouds" with "vertically-targeted "whole product' solutions."<sup>11</sup>

With PFM as the core for government resource management, governments acquire portfolios of enterprise class on-premises and public cloud across the Public Financial Management Component Map.

#### FreeBalance Public Financial Management Component Map Framework



# Budgeting and Funding

**Private sector context:** In the private sector, budgeting is more flexible, allowing companies to allocate funds based on shifting business priorities and market conditions. Investments are typically driven by return on investment (ROI) and aligned with strategic business goals, enabling quick adjustments as needed.

**Public sector context:** Government budgeting is more complex and rigid, characterized by longer budget cycles and a reliance on political processes and legislative approval. Fiscal policies such as Medium-Term Budget Frameworks (MTBFs), fiscal rules, and spending reviews add layers of complexity, making budget preparation and funding more structured and scrutinized<sup>12</sup>.

- 10 "Only 13% of large government IT projects succeed" The Standish Group Haze Report
- 11 Gartner Group, Quick Answer: What Makes Industry Clouds Different From Today's Cloud Offerings
- 12 Budget complexity is also captured in five performance indicators of the "Policy-based Fiscal Strategy & Budgeting" pillar of Public Expenditure and Financial Accountability (PEFA) assessments



**Enterprise software implications:** Public sector budgeting requires sophisticated, rules-based preparation tools that support multiple versions, scenario planning, and detailed reviews for public investments. Most SaaS budget planning systems are too simplistic, handling only annual budget requests from Ministries, Departments, and Agencies (MDAs), and do not provide the necessary structure for multi-year budget planning or ensuring long-term budget credibility.

# Accounting and Controls

**Private sector context:** In the private sector, accounting and controls focus on accrual accounting and financial safeguards designed to optimize profitability, efficiency, and shareholder value. Financial reporting follows standards like Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS), aiming to accurately depict a company's financial health. Internal controls ensure asset protection, prevent fraud, and maintain regulatory compliance.

**Public sector context:** Governments use commitment accounting and strict budgetary controls to ensure that public funds are spent according to legislative appropriations and in alignment with public mandates. Compliance with statutory requirements, financial transparency, and accountability to taxpayers and oversight bodies is paramount. Public sector accounting standards, such as the International Public Sector Accounting Standards (IPSAS), are designed to address the unique complexities of government finance.

**Enterprise software implications:** Government financial systems must support complex aggregate commitment controls, such as annual and quarterly limits, while respecting segregation of duties across all financial functions. The software should facilitate budget transfers, virements, and supplemental budgets in line with stringent public sector standards. Simple SaaS controls often fall short, requiring manual approvals and lacking integration with major spending programs like procurement, grants, social security, and payroll, limiting effectiveness in government operations<sup>13</sup>.

13 As captured by some of the performance indicators for PEFA assessment pillar of "Predictability & Control in Budget Execution"



#### **Complex Government Commitment Controls**



Governments can use multiple commitments to line-item budget controls, spanning different periods of time, with tolerance levels, and segregation of duties. Controls also extend to budget planning and transfers. Multiple-year commitments are required. Rules for year-to-year budget carry over are needed.

## Procurement Processes

**Private sector context:** In the private sector, procurement processes are generally more streamlined and flexible, allowing for direct negotiations with vendors and faster decision-making. Vendor selection focuses on achieving the best value and forming strategic partnerships that enhance business goals.

**Public sector context:** Government procurement is governed by strict regulations, often involving lengthy tender processes and heightened public accountability. Vendor selection emphasizes compliance, fairness, and transparency, with less focus on speed or cost-effectiveness compared to the private sector.

#### Important Government Acquisitions Require Complex Procurement Cycles



**Enterprise software implications:** Government procurement systems must support a wide range of acquisition methods, including local purchase orders, purchase cards, simple tenders, framework agreements, spend management, and complex contracts with detailed management requirements. While SaaS e-procurement solutions and procurement exchanges provide some utility to governments, robust back-office procurement functionality is far more critical for handling the complexities of public sector procurement processes<sup>15</sup>.

# Audit and Oversight

**Private sector context:** In the private sector, audits are typically carried out by internal audit teams and external auditors to ensure compliance with accounting standards, regulatory requirements, and internal controls. The focus is on financial accuracy, risk management, and fraud prevention. Oversight is usually provided by boards of directors and audit committees, with public disclosure levels generally lower than in the public sector. Audits and oversight mainly aim to satisfy investors, regulatory bodies, and stakeholders.

**Public sector context:** Governments are subject to rigorous and multifaceted audit and oversight mechanisms, including internal audits, external audits by national audit offices, and oversight from legislative committees. These audits emphasize compliance, performance, and financial integrity, ensuring that public funds are used efficiently, effectively, and in accordance with laws and regulations. Public sector audits are also more transparent, with findings often made publicly available to maintain accountability.

**Enterprise software implications:** Government software must support the publication of audit findings to maintain transparency, build public trust, and ensure governments remain accountable to citizens. With the rise of performance auditing linked to policy objectives and specific spending programs, compliance and control processes should be automated, including tools for legislative oversight. While SaaS applications provide basic audit trails, few offer comprehensive audit management workflows or the flexible analysis required for complex public sector audits<sup>14</sup>.



**Government Oversight** 

14 As captured by performance indicators for the PEFA pillar "External Scrutiny & Audit"



# Stakeholder Management

**Private sector context:** In the private sector,

stakeholders primarily consist of customers, employees, shareholders, and business partners. Decision-making tends to be more centralized, with a focus on achieving business outcomes that align with profitability and competitive advantage.

**Public sector context:** Governments manage a much broader range of stakeholders, including citizens, elected officials, political parties, regulatory bodies, public agencies, business groups, non-profits, think tanks, and academic institutions. The diversity of interests and priorities makes decision-making more complex and requires balancing multiple objectives.



enterprise software must ensure fiscal transparency<sup>16</sup> throughout budget cycles and support participatory policymaking and budgeting processes. While some SaaS providers offer transparency portals with participatory features, these systems often lack the necessary back-office interoperability to automate and fully integrate fiscal management with participatory governance, limiting the effectiveness.

# Regulatory and Compliance Requirements

**Private sector context:** The private sector is subject to regulatory requirements that are typically focused on industry-specific standards, consumer protection, and corporate governance. While compliance is important, it tends to be less comprehensive and less varied compared to public sector regulations.

**Public sector context:** Governments operate in a heavily regulated environment with stringent public finance compliance requirements, including those related to data privacy, security, and accessibility. Regulatory frameworks vary significantly across jurisdictions, and governments often undergo reforms to modernize public finance processes. This includes the shift to accrual accounting, improvements in procurement, enhanced program and performance management, fiscal decentralization, and increased fiscal transparency.



**Government Stakeholder** 

Ecosystem

Political

Citizens

1

Employees

Oversight Agencies

\$

Civil Society

# **Enterprise software implications:** Public sector software must be adaptable to continuous reform and modernization

efforts. Highly customized ERP systems can hinder this flexibility by complicating progressive activation, making it harder to evolve with legal and regulatory changes. SaaS providers, which often limit customization and configuration, can result in a mismatch between vendor offerings and specific legal requirements of governments, reducing the system's effectiveness in meeting public sector needs<sup>17</sup>.

- 16 As measured by the Open Budget Survey provided by the International Budget Partnership, and captured in the PEFA pillar "Transparency of Public Finances".
- 17 "specific regulations may drive customization that is too specific to be available across packaged solutions" Gartner Group, Gartner Hype Cycle for ERP, 2023

# Chapter 2 Conclusions

This second chapter described necessary underlying government resource management needs. Current gaps in SaaS functionality limits applicability for most governments. The economic benefits of SaaS deployments are compromised by these government resource management gaps. The next chapter explores the digital technologies needed to support full government digital transformation and Government-as-a-Platform.



# 3. Government-as-a-Platform

True government digital transformation requires a stakeholder-centric approach: citizen centric, business-centric. This is not digitization<sup>18</sup> or digitalization<sup>19</sup> - it's transformative. And, it's built on a true digital core: the underlying system of record platform that facilitates integration with systems of engagement, intelligence, and innovation enabling digital transformation regardless of deployment methods. Experts recommend that governments adopt multi-cloud<sup>20</sup> strategies that combine private cloud computing with multiple vendor public clouds.

## Government-as-a-Platform

Private sector context: In the private sector, technology platforms are primarily focused on profitability, with an emphasis on social media and e-commerce solutions that generate network effects to enhance customer engagement and drive revenue growth.

#### **Digital Transformation: Government as a Platform for Economic Value**



Public sector context: Government platforms focus on enabling GaaP initiatives that support collaboration and problem-solving at local, state, national, and international levels. Key principles include promoting open standards to drive innovation, building simple systems that can evolve, fostering participation, treating data as a core asset, and lowering barriers to experimentation.

**Enterprise software implications:** Government enterprise software must be open by default, supporting open data, open standards, and full transparency. Systems need to facilitate freedom of information and provide government data that can be leveraged for both public accountability and business decision-making. By embracing openness, governments can foster innovation, enable more effective collaboration, and provide better services to citizens and businesses alike.

18 Digitizing manual processes

- 19 Digitizing an end-to-end process
- 20 Gartner Group, Gartner Top Technology Trends in Government for 2023

# Government Digital Core

Private sector context: In the private sector, the digital core consists of front and back office technologies that drive digitization. These systems often include a mix of open and proprietary platforms that are designed to integrate and support various business functions seamlessly.

## **Digital PFM Core for Government Digital Transformation**



**Public sector context:** In government, the digital core relies on open, non-proprietary technologies built around public finance classifications. This foundation is essential for driving digital transformation, ensuring transparency, and enabling more effective governance, as it aligns with the unique requirements of public sector financial management and policy implementation.

**Enterprise software implications:** Public sector software must be based on open systems, allowing integration with systems of record as well as systems of engagement, intelligence, and innovation. It should support the entire government budget cycle, from planning and execution to monitoring and reporting, and facilitate evidence-based decision-making to enhance public service delivery and accountability. An effective digital core provides the platform of digital transformation<sup>21</sup>.

A fully digital core is:

- **Open:** open standards, open workflow, open source technologies, technology agnostic, cloud portable, with limited or no use of proprietary technology
- (innovation) engines
- **Unified:** built-in interoperability with a single point of metadata and controls with management on a single platform supporting on-premises, private cloud, community cloud, public cloud, and hybrid cloud for SaaS and Platform-as-a-Service (PaaS) deployments, that simplifies standardization
- friendly approach with limited additional costs for future adaptation and integration.



Decoupled: decoupled presentation, business logic engines, and data layers such as supporting load balancing scalability, collaboration (engagement), visualization (intelligence), and blockchain

**Agile:** built-in Low-Code/No-Code (LCNC) enabling progressive activation, with the leveraging reusable components for extensibility, use of open source programming language, and a license-

# Data-Driven Decision-Making

**Private sector context:** The private sector leverages analytics and established industry KPIs to drive decision-making, focusing primarily on profitability. Proprietary company data from various sources, often augmented by government open data, is used to identify patterns and trends that contribute to profit and operational efficiency.

**Public sector context:** Governments require integration across goals, budgets, spending, and outcomes, using analytics to assess public value rather than profit. However, industry KPIs offer limited relevance. Data governance is a significant challenge due to the vast amounts of personally identifiable information stored in government databases. Data from external sources is also incorporated. Unlike the private sector, political factors, incentives, and dogma can influence whether analytical insights are trusted and acted upon.

**Enterprise software implications:** Government big data analytics must rely on timely, trustworthy data that integrates

seamlessly with national policy objectives and development strategies. Analytical tools should provide trend information to support evidence-based decision-making, ensuring alignment with public goals and accountability. The complexity of public sector data governance, combined with the need for transparency, requires robust solutions that go beyond the scope of private-sector analytics.

# Data Governance

**Private sector context:** In the private sector, data governance standards are often imposed by governments, particularly in areas like privacy and security. These standards support the acquisition, organization, analysis, and delivery of data to meet business objectives. Data governance is primarily internally focused, with the goal of optimizing business processes and decision-making.

**Public sector context:** Governments not only create data governance standards but also serve as key regulators. They act as information providers through open data initiatives, access to information, and fiscal transparency, which adds layers of complexity to data governance. Data portability across on-premises, private, and public clouds is essential, as failure to ensure this portability diminishes the utility and accessibility of public data.



**Enterprise software implications:** Government systems require tight integration among diverse data sources, all adhering to strict governance standards. There is also a need to make open data both accessible and easily understood, with clear articulation of data provenance to ensure transparency and accountability. Enterprise software must support strategic, tactical, and operational levels of data governance to manage the complexity and scale of government data effectively<sup>22</sup>.

22 OECD, The Path to Becoming a Data-Driven Public Sector



## Interoperability

#### Full Government Interoperability is Beyond Data Integration



**Private sector context:** In the private sector, integration among data sources is essential for automation and evidence-based decision-making. The focus is primarily on data integration through metadata management, with relatively standardized business domains that simplify defining integration points. Full interoperability among enterprise applications is beneficial but often limited to specific integration points.

**Public sector context:** In government, data integration and governance are shaped by legal definitions that dictate what information can be shared both within government and with external entities. Commitment controls must be respected across all financial functions, making full interoperability even more critical. The Chart of Accounts serves as the core metadata for government, ensuring that financial data is consistent and aligned across various systems.

**Enterprise software implications**: Government software requires a unified design with a single point of metadata management, avoiding the complexity of monolithic systems that rely on add-on metadata management tools. It must also support full interoperability by exposing internal software functionality, workflows, and validations to third-party systems via APIs that comply with web services standards, enabling seamless integration across government platforms.

# Open Systems

**Private sector context:** In the private sector, businesses often value proprietary technologies that provide industry-specific advantages. Integration points and adherence to industry standards can mitigate the risks of proprietary systems, but vendor lock-in remains a concern, particularly with the imposition of indirect licenses. Open-source technologies are commonly used for middleware, though many COTS vendors continue to push proprietary technology stacks.

**Public sector context:** Governments frequently adopt open-source-first standards to reduce costs, enhance interoperability, and comply with open data and interoperability mandates. Open source inherently supports open technology standards, which are crucial for ensuring transparency and flexibility in government operations. Vendor lock-in poses a greater risk in the public sector, as it can lead to unnecessarily inflated public costs and reduce long-term flexibility.



#### **Enterprise Software Openness Ranges from Lock-in to Fully Open**



**Enterprise software implications:** Enterprise applications, including those delivered via SaaS, should prioritize open-source technologies and adhere to open standards. This approach ensures that governments can maintain interoperability across systems while retaining the flexibility to incorporate closed-source technologies when they provide distinct value, without compromising on cost-efficiency or transparency.

# Deployment Portability

**Private sector context:** Businesses prioritize improving quarterly and annual financial results, and SaaS solutions offer short-term benefits by reducing capital expenditures and tying computing costs to actual usage. SaaS can scale with business cycles, providing flexibility that often outweighs the risks of vendor lock-in. Some argue that highly customized on-premises systems create technical debt, and businesses are better off adapting to SaaS with minimal customization. While certain areas of competitive advantage may require custom systems, these are typically separate from other business functions that can be supported by off-the-shelf SaaS solutions.

**Public sector context:** For governments, legal requirements frequently make vanilla SaaS offerings insufficient. Concerns around data governance, sovereignty, privacy, and cybersecurity often restrict the use of public cloud environments for many enterprise applications. However, as standards evolve, deployments that were previously illegal on public clouds may become permissible in the future, adding complexity to long-term planning for governments.



Fully Portable FreeBalance Technology

**Enterprise software implications:** Government enterprise software must ensure no functionality differences between on-premises and public cloud deployments. Governments need this portability to support multi-cloud strategies<sup>23</sup> that optimize IT benefits and spending<sup>24</sup>.

24 Government Accountability Office (United States government), Information Technology Reform: Progress Made but Future Cloud Computing Efforts Should be Better Planned

Data portability must be fully supported to allow seamless movement across deployment models. Governments require hybrid cloud support, where identical applications with different configurations can operate in both public and private clouds. National government<sup>25</sup> and international<sup>26</sup> interoperability and cloud computing portability standards have been developed. Additionally, governments need to leverage public cloud services for testing, training, and migration, ensuring smooth transitions for private cloud enterprise software environments.

# Conclusions

## The Purpose-Driven Approach

Effective government resource management ensures that public money delivers real public value. Companies driven by a social purpose, like FreeBalance, are focused on enhancing this value—not just selling software. Governments need partners who are as committed to public outcomes as they are.

There's no technical reason why cloud computing should differ from on-premises solutions. The real issue lies in vendors' business models that prioritize locking in customers, pushing upgrades, and limiting functionality across industries. This approach benefits vendors, not governments.

It's time for government leaders to challenge these models. Governments have the power—and responsibility—to demand solutions that prioritize public value over profit. By leveraging their buying power, governments can push vendors to meet their needs without compromise.

25 Such as from the United States National Institute of Standards and Technology.

26 Such as IEEE 2301-2020 Guide for Cloud Portability and Interoperability Profiles and IEEE 2302-2021 Standard for Intercloud Interoperability and Federation: and EU SWIPO standards



underlying technology for the FreeBalance Accountability Suite™

<sup>23</sup> Gartner Group, Gartner Top Technology Trends in Government for 2023

# Government Resource Management Cloud Computing Checklist

The future of public service delivery relies on systems that are agile, transparent, and capable of adapting to shifting priorities. By leveraging GRP platforms such as the FreeBalance Accountability Suite™, governments can unlock unprecedented levels of efficiency, accountability, and public trust.

	Government Need	FreeBalance Accountability Suite™ Feature		
Go	Government Performance Management			
	<b>Comprehensive government performance</b> <b>management</b> across the entire budget cycle, from strategic planning to fiscal transparency, ensuring alignment with policy objectives.	<ul> <li>Chart of Goals integrated with Chart of Accounts</li> <li>Multiple-year results-based budget planning, monitoring and evaluation</li> <li>Automated fiscal transparency</li> <li>Value-for-money procurement and grants aligned to government goals</li> </ul>		
	<b>Built-in performance auditing and</b> <b>accountability tools</b> , enabling transparent tracking of outcomes and alignment with public policy goals.	<ul> <li>Performance dashboards and scorecards</li> <li>Audit process management to support compliance and performance audits</li> </ul>		
	<b>Equity and public value tracking</b> to measure impacts across gender, climate, wellbeing, and other public sector priorities, ensuring the focus on public good.	<ul> <li>✓ Budget planning support for gender, climate, and wellbeing budgets</li> <li>✓ Use of Chart of Accounts side concepts to support different reporting structures such as SDGs</li> </ul>		
Public Financial Management Design				
	<b>Rich, adaptable public finance</b> <b>functionality built-in</b> as the foundation of government operations, supporting the unique needs of public sector financial management.	Government-specific design covering the entire Public Financial Management Component Map in the FreeBalance Accountability Suite™: ✓ Government Performance Management ✓ Public Financials Management ✓ Government Treasury Management ✓ Public Expenditure Management ✓ Government Receipts Management ✓ Civil Service Management		
	Multi-year budgeting and scenario planning capabilities, allowing for more accurate forecasting and responsive financial management.	<ul> <li>Multiple-year budgeting to support medium- term frameworks</li> <li>Cost drivers, scenario planning and version management to improve budget credibility</li> <li>Scenarios operate on actual data during fiscal years</li> </ul>		
	<b>Compliance with changing public finance</b> <b>requirements</b> , including legal reform, and process modernization.	<ul> <li>Built-in Low-Code/No-Code configuration to accelerate implementations and enable future progressive activation</li> </ul>		

	Government Need		
Government Digital Core			
	<b>Open digital core with an open technology</b> <b>stack</b> to enable smooth integration with existing systems and support ongoing digital transformation initiatives.		
	<b>Full interoperability and controls</b> with other government platforms, ensuring efficient coordination across procurement, payroll, grants, and other key functions.		
	Identical functionality across deployment models—whether on-premises, private cloud, or public cloud—without compromising on features or performance.		
	Seamless deployment and data portability between public and private cloud environments, ensuring flexibility and choice without vendor lock-in.		
	<b>Compliance with legal and regulatory</b> <b>frameworks</b> , including data sovereignty, privacy, and security requirements specific to the public sector.		



## FreeBalance Accountability Suite™ Feature

✓ ✓ ✓	Single technology platform: the FreeBalance Accountability Platform™ Open system built on robust open source components Plug-in architecture to support additional systems of engagement, intelligence, and innovation
✓ ✓ ✓	Unified design consisting of small "government entity" objects reused across all applications Budget and commitment controls shared to ensure compliance Single point of metadata management, parameterization, workflow and controls
$\checkmark$	Technology agnostic open system operates on the widest range of computing technologies Tested on commercial public cloud infrastructure
$\checkmark$	Portable across cloud and non-cloud deployment options
<ul> <li>✓</li> <li>✓</li> </ul>	Open system operates on government- approved secure cloud providers and cybersecurity products Robust data security and encryption

# About FreeBalance

With a 40-year track record of success and operations in 25+ countries, FreeBalance has unparalleled experience in public financial management (PFM) reform and is a specialized business-to-government (B2G) firm. We believe strongly in fiscal transparency and accountability. Our products help bring the power of open government to citizens and decision makers around the world.

The FreeBalance team is composed of passionate and inspired people who build solutions that make a difference. With more than 45 different nationalities in the team, we pride ourselves on our diversity, and are deeply committed to building local talent in the countries in which we operate. This diversity of thinking helps us to create meaningful solutions relevant to the country context.



#### Our products and services:

- Help customer governments to **combat corruption** and elevate standards of **governance** through improved planning, transparency, accountability, and fiscal discipline using databased evidence to improve government effectiveness.
- Enable customer governments to deliver sustainable growth and citizen wellbeing by aligning policy, planning, budget execution and performance to environmentally, sustainable citizen social goals, and physical infrastructure priorities.
- Facilitate **government digital transformation** through innovative use of smart-governance digital technologies.

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