Technology Utilization & Modernization

February 2, 2026

Efficiency and Business Transformation Study

Contents

1.0 Executive Summary

The City of St. Helena (City), a small municipality with an estimated population of approximately 5,200–5,400 residents, faces the classic challenges of limited resources, outsourced Information Technology (IT) support, and the need for resilient digital infrastructure amid growing cyber threats. Following a significant ransomware attack in May 2024 (attributed to a known group, which disrupted systems, forced closures including the public library, and compromised data for nearly 1,000 individuals), the City transitioned to managed services with Apex Technology Management, LLC in July 2025. This shift has stabilized operations, but persistent issues remain: reliance of on-premise servers (notably the Police Department's RIMS system), integration gaps across SaaS platforms (e.g., manual transfers between Springbrook and OpenGov), underutilized tools like ArcGIS, and low cybersecurity training compliance.

The City's total annual IT subscription spend is approximately **$293,637**, supporting a diverse ecosystem heavy on Microsoft products for productivity, alongside specialized tools for finance, permitting (eTRAKiT launched September 2025), and other functions. While embedded Artificial Intelligence (AI) features in Microsoft 365 (e.g., Copilot), OpenGov, and Springbrook offer untapped potential, no dedicated AI procurement has occurred as of November 11, 2025. Hardware includes aging on-premise servers across seven sites and a costly $2,700 monthly rented data center.

This report assesses current utilization and recommends a phased modernization strategy to enhance efficiency, effectiveness, and resident experience. Key **IT Management Enhancements** include adopting a simplified, tailored hybrid framework and management systems: **TOGAF** for strategic enterprise architecture alignment (focusing on lightweight Architecture Development Method (ADM) subsets for cloud migration and interoperability); **ITIL 4** for agile, value-driven service management (e.g., incident handling and continual improvement); **CMMI V3.0** for process maturity progression (targeting Level 3 from current Levels 1-2 to reduce risks and enable insurance savings); plus **ISO standards** (e.g., 27001 for security), **RASCI** for clear roles, and **Knowledge Management** for capturing expertise.

IT Solution Enhancements prioritize 100% cloud migration (e.g., to Azure) for superior security, scalability, and 20–30% overhead reduction; replacing non-migratable RIMS with Criminal Justice Information Services (CJIS)-compliant cloud alternatives (e.g., NicheRMS or eFORCE RMS) to eliminate data center costs; integrating SaaS tools into a cohesive Enterprise Resource Planning (ERP)-like system; and piloting embedded/ethical AI for automation (e.g., permit processing in eTRAKiT, predictive maintenance in Public Works, chatbots for inquiries) while avoiding unproven standalone vendors.

A structured **IT Governance Committee** (5–7 members: City Manager chair, department reps, Apex liaison, council member) will oversee alignment, prioritize projects via RASCI, monitor KPIs (e.g., >99% uptime, >90% training compliance), and require monthly Apex reports plus annual audits/tabletop exercises.

The **phased roadmap** starts short-term (0–6 months) with training enforcement, IRP completion, RIMS RFP, and AI pilots; advances medium-term (6–18 months) to full migration, integration, and framework pilots; and targets long-term (18+ months) CMMI Level 3, expanded AI, and ROI tracking. Initial investments (~$50,000–$100,000) are offset by efficiencies (10-20% labor savings, eliminated rentals) and risk reductions in California's high-threat cyber landscape.

Implementing these recommendations positions St. Helena to evolve from reactive recovery to proactive, citizen-centric governance—delivering reliable services, cost savings, enhanced security, and public trust while serving as a model for small California municipalities.

2.0 Introduction

The City of St. Helena (City) has been actively working to integrate information technology (IT) solutions and automation into its operations. For the Community Development Department, the City launched eTRAKiT in September 2025, streamlining permitting and tracking processes. Additionally, the City has been examining artificial intelligence (AI) solutions for the past two years. As of November 11, 2025, no specific AI solution has been purchased; however, several existing IT platforms already incorporate AI capabilities. Notable examples include Microsoft 365 (with AI-driven features like Copilot for productivity), OpenGov (for data analytics and transparency), and Springbrook (for financial management automation).

Blackberg's primary focus in this review is to assess the City's current IT utilization and provide actionable recommendations for modernization. These recommendations aim to directly or indirectly support improvements in efficiency, effectiveness, and customer experience. This analysis is informed by the City's IT subscription inventory, discussions with Apex, departmental insights, and broader municipal cybersecurity trends.

The City's IT landscape reflects a small municipality's typical constraints: limited in-house expertise, reliance on outsourced providers, and a mix of legacy and modern systems. Recent events, such as the 2024 ransomware attack, underscore the need for robust modernization to mitigate risks and enhance service delivery.

3.0 Current IT Inventory

The City provided Blackberg an Excel list of IT Subscriptions by Department. We will reference items on the IT Subscriptions list throughout this document. We provide information from that list in Figure 1. The total annual cost of all IT Subscriptions is approximately $293,637.

Department	IT Subscriptions	FY24 Annual Cost ($)	Expected Retention Period	Notes
City-wide	Microsoft 365	23,715	5+ years	
City-wide	Microsoft Project	2,892	5+ years	
City-wide	Adobe	9,585	5+ years	
City Clerk	ECS Imaging - Laserfiche	13,850	5+ years	Recently Implemented
City Clerk	I-compass	6,880	5+ years	
City Clerk	Granicus	1,504	5+ years	
Finance	Springbrook	55,362	5+ years	No Plans
Finance	Stampli	14,400	2+ years	Implemented in FY 2024
Finance	Breeze Smartware	1,980	5+ years	
Finance	GovInvest	12,381	Cancel in FY25	We might keep it now
Finance	OpenGov	2,800	5+ years	
Human Resources	NeoGov	23,596	2 Years	
Human Resources	Target Solutions	9,116	5+ years	
Library	Userful	3,383	5+ years	Based on Work Stations
Library	SPLASH	50,138	2+ years	Solano County has Full Title & Ownership/ Payment Varies
Library	OCLC	2,829	2+ years	
Planning	TrakIT	24,625	Cancel in FY25	Can cut, Migrating to New Software
Public Works	ArcGIS	1,043	5+ years	
Police	RIMS	17,248	5+ years	
Police	LEFTA	1,639	5+ years	
Police	Critical Reach	250	5+ years	
Fire	Zoll	2,453	Cancel in FY24	It is gone, Migrating to New Software

Department	IT Subscriptions	FY24 Annual Cost ($)	Expected Retention Period	Notes
Fire	Image Trend	10,381	5+ years	
Fire	Active 911	300	5+ years	
Recreation	ActiveNet	1,288	Cancel in FY25	Now use CivicRec, Migrating to New Software
Community Development	eTRAKiT	N/A		Just launched - September 2025

*Most subscriptions auto-renew annually, providing flexibility but requiring vigilant cost management.

This inventory reveals a diverse ecosystem of Software-as-a-Service (SaaS) tools, with heavy reliance on Microsoft products for city-wide productivity. Department-specific tools like RIMS (Police) and Springbrook (Finance) address specialized needs, but integration gaps—confirmed with Finance—hinder seamless data flow. For instance, manual data transfers between Springbrook and OpenGov reduce efficiency.

Hardware inventory includes on-premise servers at various facilities (e.g., City Hall, Water Treatment Plant), approaching end-of-life, and a rented data center costing $2,700 monthly. The City supports operations across seven sites: City Hall/Police, Corporation Yard, Fire Department, Library, Parks & Recreation, Water Treatment, and Wastewater Treatment.

4.0 Current IT Management

IT management resides within the Administrative Services Department. The City outsources support to Apex Technology Management, LLC, which began in July 2025. Apex delivers comprehensive managed services, including:

- Network and system administration
- Security monitoring
- On-site and remote help desk (2 full on-site days weekly, remainder remote)
- Procurement
- Backup and recovery
- Database administration
- Hardware lifecycle management
- Project management

This outsourced model is common for small municipalities like St. Helena, addressing limited in-house expertise and scale. However, it introduces risks of information asymmetry without internal oversight.

A major cybersecurity incident in May 2024—a ransomware attack on on-premise servers—prompted the shift to Apex. This event aligns with broader trends: California municipalities face frequent cyberattacks, with ransomware surging 126% globally in 2025. Common vulnerabilities include outdated infrastructure and human error.

Post-incident, Apex has focused on “plugging security holes” and infrastructure improvements, including cloud backups and threat monitoring. The City maintains cyber liability insurance, providing financial protection.

Challenges include the Police Department’s reliance on RIMS, which requires on-premise servers and lacks vendor support for cloud migration. The City rents a data center from a prior provider, adding unnecessary costs.

Overall, current management ensures basic operations but lacks strategic integration and full cloud adoption, limiting resilience and efficiency.

5.0 IT Management Enhancements

Long-term Stretch Goals
ISO 9001 (Quality Management): Boosts operational efficiency, cuts waste, and can lower liability insurance by showing solid processes. Cities report 5–15% savings on premiums; it also often qualifies for state grants or lower vendor costs.
ISO 27001 (Info Security): Protects against cyber threats–insurers prefer it for data breach coverage, often reducing cyber policy rates by 10–20%.

To improve efficiency, effectiveness, and customer experience, Blackberg recommends enhancements in two broad categories: IT management and IT solutions.

For IT management, the City should adopt a simplified combination of established frameworks: TOGAF, ITIL 4, CMMI V3.0, and ISO standards (long-term). Start small to avoid overload.

TOGAF (The Open Group Architecture Framework): Provides blueprints for IT architecture, ensuring alignment with business goals. Use Archi (ArchiMate tool) for enterprise architecture modeling. Will help the City avoid investing in incompatible systems.

ITIL 4 (IT Infrastructure Library): Focuses on agile service management, value co-creation, and integration with practices like Agile and DevOps. It addresses "what" to deliver in value-driven services. Will help staff respond faster to outages and citizen tickets.

CMMI V3.0 (Capability Maturity Model Integration): Assesses and improves process maturity across domains (e.g., Development, Services, Security). It strengthens "how" to achieve reliable results. Potential benefits include insurance cost reductions at Level 3 certification. As the City matures operations, it must integrate the IT infrastructure into the process models—documenting where processes move from manual to automated processes and vice versa.

ISO Standards: Incorporate relevant standards (e.g., ISO 27001) for long-term compliance and quality.

The City should complement these with **Knowledge Management (KM)** (systematically capturing and sharing expertise, per APQC's framework (See **Figure 1**) at https://www.apqc.org/expertise/knowledge-management/interactive-km-framework) and the **RASCI Model** (Responsible, Accountable, Support, Consulted, Informed) to clarify roles.

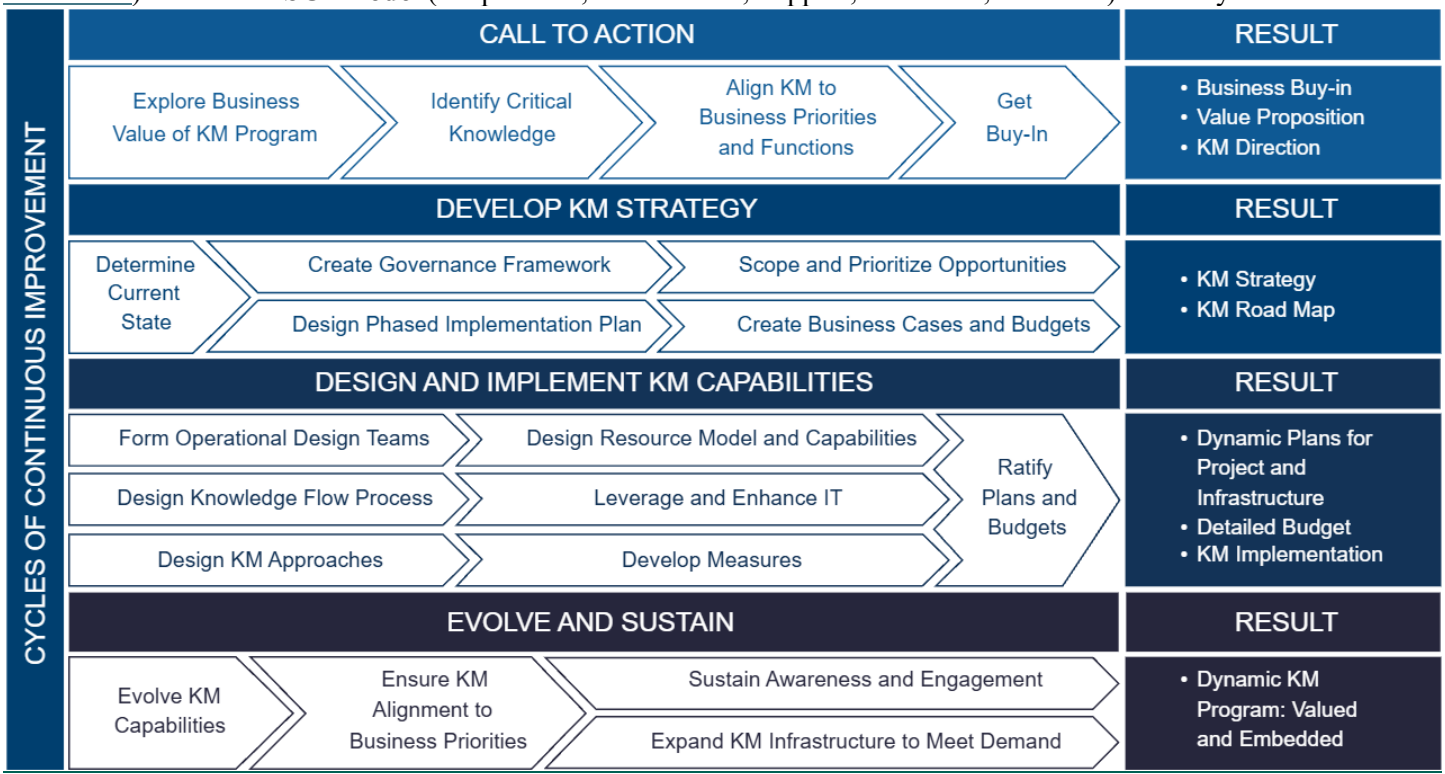

Figure 1 – Knowledge Management Strategic Framework: *This strategic framework comes from the American Productivity & Quality Center which has many free resources that would be useful for the City.*

Implementation: Begin with pilot projects in high-impact areas like Finance or Public Works. Train staff on basics, aiming for gradual maturity. This approach could yield predictable processes, reduced waste, and better customer service. Plan these pilots with reference to TOGAF and begin building TOGAF compliant enterprise architecture (See **Figure 2**).

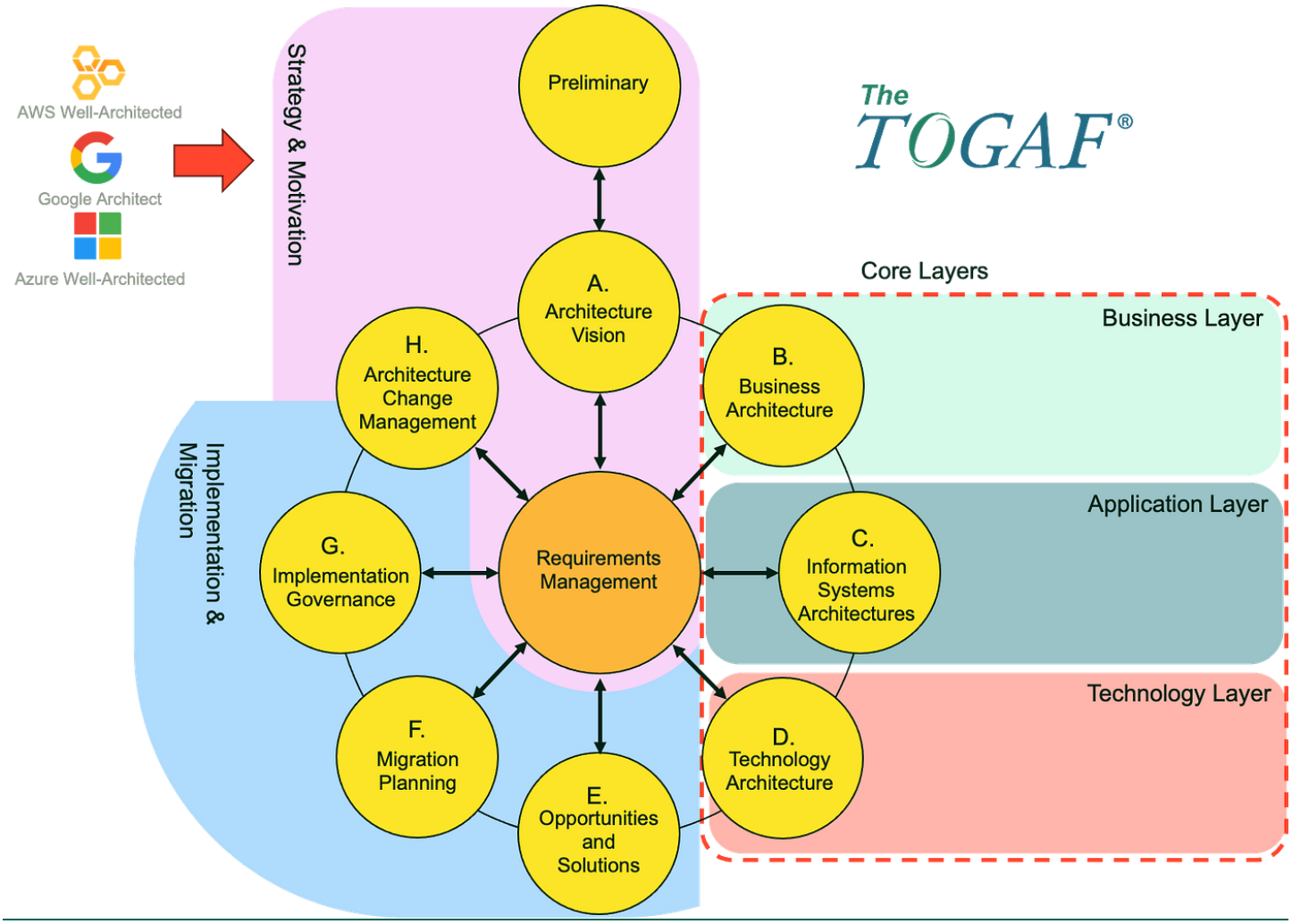

Figure 2 – TOGAF: *TOGAF is a widely recognized, vendor-neutral enterprise architecture methodology that's used globally, including by many government entities.*

5.1. TOGAF (The Open Group Architecture Framework)

TOGAF is a widely recognized, vendor-neutral enterprise architecture methodology that is used globally, including by many government entities. It is used by organizations of all sizes, and it is a good choice for the City. However, the City should be careful to apply it in a tailored, lightweight way. For larger organizations, TOGAF can become large and complex. The City should not seek to replicate how large organizations develop their TOGAF.

Blackberg recommend TOGAF because of the following beneficial aspects:

- **Scalability and adaptability** — TOGAF is explicitly designed to be tailored. The official standard states it's used by small, medium, and large organizations, including government departments and public sector bodies. You do not have to implement the full, heavyweight version; small cities can use a subset of the Architecture Development Method (ADM), focus on high-priority phases (e.g., business architecture and migration planning), and skip or

simplify others. This makes it suitable for smaller-scale transformations like digital service improvement, smart city initiatives, or consolidating legacy systems.

- **Proven in public sector and municipal contexts** — Many local governments and cities (including smart city projects) have adapted TOGAF successfully. Examples include its use in various U.S. municipal and local government initiatives for digital transformation, e-government services, and smart city planning. Many American cities and counties adapt TOGAF (often alongside or in comparison to the U.S. Federal Enterprise Architecture Framework, or FEAF) to align IT strategies with public priorities. It supports efforts to improve citizen-facing services (such as online permitting, 311 systems, or open data portals), enhance interoperability across departments (e.g., public works, police, utilities), and optimize limited budgets through better resource planning and reduced system duplication.

- **Vendor neutrality and common language** — As an open standard, it avoids lock-in to specific vendors (important for cities reliant on grants, multiple suppliers, or shared state/federal systems). It provides a standardized vocabulary and structured approach, which is valuable in government settings with multiple stakeholders (e.g., city council, departments like public works/IT, citizens, and regional partners).

- **Supports strategic alignment and efficiency gains** — Small cities often face challenges like aging infrastructure, limited IT staff, siloed departments, and pressure to modernize services (online permitting, 311 systems, data sharing). TOGAF helps:
  - Align technology with City strategy and citizen needs.
  - Reduce duplication and waste through better planning.
  - Improve ROI on limited funds (e.g., prioritizing cloud migration or cybersecurity).
  - Manage risk during digital transformation or smart city projects.

- **Flexibility for agile or incremental use** — Modern TOGAF editions (10th and beyond) include more guidance for agile enterprises and digital transformation, allowing integration with lighter approaches rather than rigid waterfall-style execution.

5.2. ITIL 4 (IT Infrastructure Library)

ITIL 4 is an excellent fit for small towns and municipalities, offering a flexible, value-driven framework for IT service management (ITSM) without requiring large teams or budgets. Its Service Value System emphasizes guiding principles like "focus on value," "start where you are," and "progress iteratively with feedback." This is a good fit for resource-constrained environments with limited IT staff.

Small towns, like St. Helena, use tailored ITIL 4 practices (e.g., incident management, service desk, change enablement) to deliver reliable citizen services—such as online permitting, 311 systems, or utility support—while improving efficiency, reducing downtime, and responding quickly to community needs. Examples include U.S. cities like Goodyear, Arizona, adopting ITIL-aligned tools to boost ITSM maturity amid growing demands. Scalable and adaptable, ITIL 4 helps small governments maximize limited resources, align IT with public priorities, and achieve measurable improvements in service delivery.

Combining ITIL 4 and TOGAF creates a powerful, scalable framework for IT governance and service delivery. TOGAF focuses on enterprise architecture—designing the "what" of IT systems, while ITIL 4 emphasizes IT service management (ITSM), handling the "how" of operations and continuous improvement. Together, they align strategy with execution in resource-constrained municipal environments.

Complementary Strengths – TOGAF's Architecture Development Method (ADM) provides a structured blueprint for aligning IT with city goals, such as modernizing citizen services (e.g., online permitting or 311 apps). It ensures interoperability across departments like public works, utilities, and emergency services, reducing silos and optimizing limited budgets.

ITIL 4 builds on this by operationalizing the architecture through its Service Value System (SVS). Key elements include:

- **Guiding Principles**: Focus on value, collaboration, and simplicity—ideal for small teams avoiding complexity.
- **Service Value Chain**: Manages end-to-end service lifecycle, from planning (integrating TOGAF's designs) to delivery and improvement.
- **Practices**: 34 customizable practices (e.g., incident management, change enablement) ensure reliable operations post-architecture implementation.

In tandem:

- Use TOGAF to architect solutions (e.g., cloud-based data sharing for smart city initiatives).
- Apply ITIL 4 to manage those services (e.g., monitoring performance, handling incidents, and iterating based on citizen feedback).

Overall, this combination fosters resilient, citizen-centric IT, enabling small cities to punch above their weight in digital governance while staying agile and cost-effective.

5.3. CMMI V3.0 (Capability Maturity Model Integration)

Capability Maturity Model Integration (CMMI) is a proven, globally recognized process improvement framework that helps organizations—particularly in IT—assess, benchmark, and elevate their capabilities across development, services, data management, security, and more. In IT contexts, CMMI applies maturity levels (from 0: Incomplete to 5: Optimizing) and capability levels within practice areas, guiding organizations to move from ad-hoc processes to predictable, measured, and continuously improving ones. This maturity progression reduces risks, enhances quality, boosts predictability, and aligns IT efforts with business objectives.

CMMI excels at integrating **IT** and **automation** into broader business processes by:
Promoting standardized, repeatable workflows that incorporate tools like DevOps, AI-driven automation, and robotic process automation (RPA).
Embedding practices for data governance, security, and virtual work, enabling seamless embedding of automated solutions (e.g., automated testing, CI/CD pipelines, or AI-enhanced decision-making).
Focusing on measurable outcomes, such as reduced defects or faster delivery, while supporting integration with agile, DevSecOps, and other methodologies.

A small town, such as St. Helena, can integrate TOGAF (for enterprise architecture), ITIL 4 (for IT service management), and CMMI V3.0 (for process maturity and performance improvement) to create a holistic, scalable IT governance system. This combination addresses strategic planning, operational efficiency, and continuous improvement in public services like citizen portals, utility management, and emergency response systems. The frameworks are complementary: TOGAF provides structure for "what" to build, ITIL 4 handles "how" to operate it, and CMMI V3.0 ensures processes mature over time with measurable performance. [Note: Please see deliverables 1 & 2 for additional background and scoring of St. Helena's process maturity and CMMI V3.0.]

Overview of Integration Approach – The City should follow these general steps to integrate CMMI, TOGAF, and ITIL 4 to maximize success in improving effectiveness and efficiency:

- **Assess Maturity with CMMI V3.0**: Begin by using CMMI's appraisal method to evaluate current IT capabilities across domains like Development (for custom apps), Services (for citizen-facing IT), and Supplier Management (for vendors). In a small town, focus on Maturity Level 3 (Defined) to establish repeatable processes. Identify gaps in areas like project management or risk handling, which inform priorities. CMMI's performance focus helps quantify ROI, e.g., reducing service downtime by 20% through data-driven improvements. Blackberg has already completed a process maturity assessment. Most of the City's processes are at a maturity level of 1 with some processes reaching level 2. However, the City will need to routinely reassess its maturity level in the future.

- **Design Architecture with TOGAF**: Leverage TOGAF's ADM (Architecture Development Method) to create a tailored blueprint aligning IT with town goals, such as smart infrastructure or e-government. Integrate CMMI insights to ensure architecture supports mature processes (e.g., Phase B: Business Architecture incorporates CMMI's governance practices). For small-scale, skip complex phases and emphasize agility, e.g., migrating to cloud services for interoperability between departments like Public Works and Administrative Services (i.e. accounting).

- **Operate and Manage with ITIL 4**: Apply ITIL 4's Service Value System (SVS) to operationalize the TOGAF architecture. Use guiding principles like "optimize and automate" for efficient service delivery. Map CMMI practices to ITIL's 34 practices (e.g., incident management aligns with CMMI's service delivery maturity). In practice, a small town could use ITIL for a service desk handling 311 requests, while CMMI tracks maturity progression.

6.0 IT Solution Enhancements

Building on the current inventory, enhancements should prioritize integration, cloud migration, AI adoption, and talent retention. Key issues include disparate SaaS tools causing inefficiencies (e.g., in Finance) and non-cloud-compatible systems like RIMS.

6.1. Cloud Migration and Integration

The City plans a 100% cloud-based environment (e.g., Azure), which is recommended for enhanced security, scalability, and cost savings (20–30% potential reduction in IT overhead). Benefits include automatic updates, robust backups, and AI-driven threat detection.
However, RIMS (Records Information Management System by Sun Ridge) poses a barrier, as it only supports on-premise servers. We recommend the City explore replacing RIMS with cloud-native alternatives:

Solution	Provider	Deployment	Key Features	Why a Good Alternative
NicheRMS	Niche Technology	Fully cloud, mobile-first	Investigation management, incident reporting, evidence tracking, AI analytics, NIBRS compliance	Matches RIMS' case and warrant tracking; adds real-time mobile access
eFORCE RMS	eFORCE Software	Cloud and web-based	Records management, CAD integration, e-citations, evidence logging, customizable reporting	Mirrors RIMS' citations and inmate management; user-friendly for small departments

The City should evaluate for CJIS compliance and migration support. This shift eliminates the $2,700 monthly data center rental. Further, the City should seek to integrate existing SaaS tools into an enterprise resource planning (ERP) system (e.g., expanding Springbrook or adopting Oracle Cloud ERP) to reduce manual data transfers and labor hours. This will generate a higher annual IT cost, but it is key for achieving the staffing and finance efficiencies explored in deliverables 3A and 3C.

6.2. AI/Automation Enhancements

The City should leverage embedded AI in current tools (e.g., Microsoft Copilot for document automation) and explore dedicated solutions by well-known industry service providers. We caution against purchasing siloed, standalone AI solutions from new companies (particularly startups). Although some of the solutions may be appealing, there is often minimal customer support, integration issues, and questionable long-term viability. However, AI is clearly a valuable tool. AI can automate routine tasks like permit processing in eTRAKiT or predictive maintenance in ArcGIS for Public Works assets.

Recommendations:

- Pilot AI for customer service (e.g., chatbots for resident inquiries).
- Ensure ethical use: focus on augmentation, not replacement, with data privacy safeguards.
- Budget for training to maximize ROI. This may require the addition of a part-time IT Manager to the City's roster of personnel.

6.3. Cybersecurity Enhancements

The City should continue to collaborate with Apex (or whatever IT service provider the City chooses to provide support) on strengthening cybersecurity. We highly recommend the City focus on compliance with City personnel completing Apex training. We observed many situations in which Apex is providing extensive flexibility and opportunities to complete cybersecurity training, but City personnel are choosing not to complete it. Our understanding is that training compliance may have been as low as only 7–12 personnel in the early Fall of 2025.

We provide further recommendations of topics to explore with Apex in the following table. We updated the "City Status" in October 2025. However, these and other cybersecurity topics should be reviewed by the City on a routine basis that is codified in City policy.

Cybersecurity Mitigation Strategies		
Strategy	**Description**	**City Status**
Robust Backup Practices	Immutable off-site backups (3-2-1 rule)	Supported by Apex (cloud backups)
Multi-Factor Authentication (MFA)	Require for all accounts	Implemented via Microsoft Authenticator
Employee Training	Phishing simulations and awareness programs	In progress; low completion rates
Zero Trust Architecture	Continuous verification and network segmentation	Implemented with ThreatLocker
Patch Management	Automate updates	Handled by Apex
Incident Response Plan (IRP)	Detailed plan with drills	To-do item for Apex
Endpoint Protection	EDR tools and firewalls	Handled by Apex
Cyber Insurance	Financial protection	In place
Resource Collaboration	Use NIST/CISA resources	Not in use

6.4. Recommendations and Implementation Roadmap

Prioritize high-impact, low-cost actions:

Short-Term (0–6 Months): Complete IRP development, enforce training completion, initiate RIMS replacement RFP, and pilot AI in one department (e.g., Finance).

Medium-Term (6–18 Months): Achieve full cloud migration, integrate SaaS tools, and implement TOGAF/ITIL pilots.

Long-Term (18+ Months): Pursue CMMI Level 3 certification, expand AI use, and monitor ROI through KPIs (e.g., reduced ticket resolution time, cost savings).

Budget implications: Initial investments (~$50,000 for software transitions) offset by efficiencies (e.g., labor savings of 10–20%). Partner with Apex for execution.

7.0 Integrating CMMI Process Maturity, IT Automation, and AI

The City of St. Helena is at an early stage of process maturity (CMMI Levels 1-2 across assessed departments like Public Works, Administrative Services, and Community Development). This means processes are often ad hoc, reactive, and lacking standardization. Integrating efforts to boost CMMI maturity with IT automation and AI can create a synergistic approach: CMMI provides the structured framework for process improvement, while IT automation streamlines repetitive tasks, and AI enhances decision-making and predictive capabilities. This integration aligns with the study's recommendations for adopting frameworks like CMMI V3.0 alongside ITIL 4 and TOGAF, emphasizing starting small and building incrementally.

To integrate these efforts, we recommend the following phases and steps, followed by documentation strategies:

Phase 1: Establish a Unified Framework for Integration

Step 1 - Adopt a Hybrid Maturity Model: Use CMMI V3.0 as the core for assessing and advancing process maturity across domains (e.g., Services, Development, Security). Integrate IT automation and AI as key enablers within CMMI's maturity levels. For example:

> At **Level 2 (Managed):** Define basic processes for IT automation (e.g., scripting routine tasks in tools like Microsoft 365 or Springbrook) and pilot AI for simple applications (e.g., chatbots for resident inquiries via Granicus).
>
> At **Level 3 (Defined):** Standardize automation workflows (e.g., using OpenGov for automated reporting) and incorporate AI analytics (e.g., predictive maintenance in ArcGIS for Public Works assets).
>
> Aim for **Level 4-5 (Quantitatively Managed/Optimizing):** Use AI-driven metrics to optimize processes, such as forecasting budget shortfalls or detecting fraud in financial systems.

Step 2 - Align with Complementary Frameworks: Combine CMMI with ITIL 4 for service management (focusing on value co-creation through automation) and TOGAF for enterprise architecture (mapping how AI and automation support business goals). This ensures IT automation reduces manual errors, while AI provides insights for continuous improvement.

Step 3 - Form a Cross-Functional Team: Create an Integration Task Force including representatives from Administrative Services, IT (via Apex), Finance, Public Works, and Community Development. Apply the RASCI model (Responsible, Accountable, Support, Consulted, Informed) to assign roles—e.g., Apex as Responsible for IT automation implementation, Department heads as Accountable for AI adoption.

Phase 2: Prioritize Pilot Projects for Phased Implementation

Step 1 - Start Small in High-Impact Areas: Begin with pilots in departments with low maturity (e.g., Public Works, rated at CMMI Level 1-2 for process ownership and measurement). For example:

- **IT Automation:** Automate asset tracking in ArcGIS (currently underutilized) to log maintenance like pothole repairs or water system checks, reducing manual spreadsheets.
- **AI Integration:** Use embedded AI in Microsoft 365 (e.g., Copilot for generating reports) or explore tools like conversational agents for customer service, benchmarking against peers where the City lags (bottom 10% in AI adoption per the study).
- **CMMI Tie-In:** Assess pilot processes using the study's CMMI-based checklist (six dimensions: Process Ownership, Documentation, Measurement, etc.), targeting a jump to Level 3 within 6–12 months.

Step 2 - Scale City-Wide: After pilots, expand to Finance (e.g., AI for fraud detection in Springbrook) and Community Development (e.g., automating permit tracking in eTRAKiT with AI predictions for approval timelines). Leverage cloud

migration (e.g., to Azure) to enable scalable automation and AI, replacing non-cloud systems like RIMS with alternatives (e.g., NicheRMS or eFORCE RMS) that support AI analytics.

Step 3 - Address Risks and Training: Conduct cybersecurity training (noting low completion rates in the study) and use AI ethically (e.g., for augmentation, not replacement). Budget for this: Initial costs ~$20,000–50,000 for tools/training, offset by 10–30% efficiency gains (e.g., reduced labor hours, per APWA studies referenced in the analysis).

Phase 3: Measure and Iterate for Continuous Improvement

Step 1 - Set KPIs Aligned with CMMI: Track maturity progress with metrics like process repeatability (e.g., 80% automated tasks), AI ROI (e.g., 20% faster decision-making), and efficiency gains (e.g., reduced ticket resolution time). Use tools like GovInvest for dashboards.

Step 2 - Foster a Culture of Improvement: Incorporate Knowledge Management (per APQC framework) to capture lessons from automation/AI pilots. Address cultural issues (e.g., job insecurity in Library/Parks) by communicating how these efforts enhance roles.

Step 3 - Timeline: Short-term (0–6 months): Pilots and baseline assessments. Medium-term (6–18 months): Full integration and Level 3 certification (potential insurance reductions). Long-term: Optimize with AI for predictive governance.

Phase 4: How to Document These Items

Documentation is crucial for CMMI maturity (emphasized in the study's framework, where Level 3 requires standardized processes and Level 5 embeds continuous improvement). The City lacks centralized systems, so focus on building reusable assets to "cut waste, speed decisions, and build lasting performance edge" (as per the draft).

Step 1 - Use Structured Templates and Tools:

- **Process Maps and SOPs:** Document each integrated process with flowcharts (using Archi/ArchiMate from TOGAF) and Standard Operating Procedures (SOPs). For example, create an SOP for "AI-Enhanced Permit Processing" detailing steps, automation scripts, and AI inputs/outputs.
- **RASCI Matrices:** For every initiative, map roles (e.g., who is Responsible for AI tool training).
- **Knowledge Repositories:** Build a central hub (e.g., in Microsoft 365 SharePoint) for capturing expertise—include pilot reports, AI benchmarks.

Step 2 - Documentation Process:

- **Capture at Each Stage:** During pilots, log decisions, challenges, and outcomes in real-time (e.g., via weekly RASCI reviews).
- **Version Control and Accessibility:** Use Laserfiche for archiving, ensuring documents are searchable and compliant (e.g., with ISO standards for long-term).
- **Audit and Update:** Schedule quarterly reviews to update docs based on CMMI assessments, incorporating feedback loops for automation/AI refinements.
- **Tools for Efficiency:** Leverage AI for auto-generating docs (e.g., Copilot summaries) and automate versioning in cloud tools.

This integrated approach positions St. Helena to move from reactive (Level 1-2) to proactive governance, potentially cutting costs by 10-20% while improving services. If needed, consult Apex for technical support or benchmark with peers via resources like CISA or APQC.

A small town can apply TOGAF (enterprise architecture for strategic design), ITIL 4 (IT service management for operations), and CMMI V3.0 (process maturity for improvement) to common municipal processes. Below is a table with 15 practical examples:

Small Town Process	TOGAF Alignment (Strategic Architecture)	ITIL 4 Alignment (Service Operations & Delivery)	CMMI V3.0 Alignment (Process Maturity & Improvement)
Online Building/Development Permitting	Designs integrated permitting architecture, aligning apps, data, and portals with town goals (ADM Phases B/C).	Manages request fulfillment, incident/change for submissions via self-service portal.	Builds repeatable, measured review processes (Levels 2-3), reducing defects.
Utility Billing & Service Requests	Blueprints interoperable utility systems, integrating legacy billing with cloud tools.	Handles service desk for outages/requests, problem management, feedback loops.	Establishes defined billing accuracy and delivery processes, tracking metrics.
Public Works Road Maintenance & Asset Management	Defines target architecture for GIS-based asset tracking and smart infrastructure.	Applies asset management, change enablement for scheduling and notifications.	Improves maturity in service/project delivery, optimizing resource use.
311 Citizen Service Requests (non-emergency)	Aligns multi-department architecture for unified citizen engagement platform.	Operates service value chain for intake, routing, resolution, knowledge mgmt.	Advances from ad-hoc to optimizing, measuring satisfaction/efficiency.
Online Payment of Taxes & Fees	Architects secure payment gateway integration across finance systems.	Manages financial service requests, incident resolution for payment issues.	Standardizes payment processing for consistency and error reduction.
Parks & Recreation Program Registration	Designs citizen portal architecture linking registration to scheduling/data.	Delivers service catalog, request fulfillment, and continual improvement.	Develops managed registration workflows with performance metrics.
Code Enforcement & Violations Reporting	Builds architecture for mobile-enabled reporting and case management systems.	Supports incident/problem management for violation tracking and follow-up.	Establishes repeatable inspection/enforcement processes for quality gains.
Emergency Management & Alert Systems	Defines resilient architecture for alert distribution and inter-agency data sharing.	Handles major incident management and communication services.	Improves crisis response maturity through defined, measured procedures.
Employee HR Onboarding & Payroll	Aligns HR systems architecture with town-wide identity and access management.	Manages HR service desk, request fulfillment for onboarding/payroll queries.	Builds defined HR processes, reducing variability and improving compliance.
Public Records Requests & FOIA Processing	Architects document management and secure access portal for transparency.	Operates service requests, knowledge management for records fulfillment.	Standardizes request handling for timeliness and auditability (Levels 2-3).
Zoning & Land Use Applications	Designs zoning data models and workflow architecture for planning integration.	Manages application fulfillment, change enablement for approvals.	Creates repeatable zoning review processes with metrics for optimization.
Library Services & Digital Catalog Access	Blueprints integrated library system with citizen authentication.	Delivers service desk for loans/reservations, continual service improvement.	Advances library operations maturity for efficient resource allocation.
Water Quality Monitoring & Reporting	Defines IoT/sensor architecture for real-time data collection and reporting.	Manages monitoring services, incident response for quality alerts.	Establishes measured, data-driven processes for compliance and improvement.
Voter Registration & Election Support	Architects secure, compliant systems for registration and voter data mgmt.	Handles service requests, problem management during election periods.	Builds managed, auditable processes to ensure accuracy and reliability.

Cybersecurity Incident Response	Designs overarching security architecture and governance framework.	Applies information security management, major incident practices.	Improves security maturity (Levels 3+), with proactive risk measurement.

These frameworks work together: TOGAF provides the long-term blueprint, ITIL 4 ensures smooth daily execution, and CMMI drives progressive maturity—all scalable for small IT teams to enhance efficiency, cut costs, and deliver better public services.

8.0 IT Governance

Effective IT governance is essential for a small municipality like St. Helena, where limited resources, outsourced IT support, and evolving threats (such as the 2024 ransomware attack) demand structured oversight. Governance ensures that IT investments align with the City's strategic objectives—enhancing operational efficiency, resident services, and fiscal responsibility—while mitigating risks and promoting accountability. This section outlines a tailored governance model that integrates the recommended frameworks (TOGAF, ITIL 4, CMMI V3.0, ISO standards), Knowledge Management, and the RASCI model, enabling the City to manage its IT ecosystem proactively rather than reactively.

At its core, IT governance involves defining policies, processes, and structures to guide decision-making. For St. Helena, this means establishing clear authority over IT initiatives, from cloud migration and AI adoption to cybersecurity enhancements. The governance framework should be lightweight to avoid overburdening the small administrative team, yet robust enough to support scalability as the City grows its digital capabilities (e.g., expanding eTRAKiT or integrating OpenGov with Springbrook).

Governance Structure: Form an IT Governance Committee as the central body for oversight. Comprising 5–7 members—including the City Manager (as chair), representatives from key departments (Administrative Services, Finance, Public Works, Community Development, Police), an Apex liaison, and a City Council member—this committee would meet quarterly or as needed. Its role includes reviewing IT proposals, prioritizing projects based on ROI and resident impact, and approving major changes (e.g., RIMS replacement). This cross-functional setup reduces silos, fosters collaboration, and addresses the information asymmetry noted in the outsourced IT model. For external input, invite occasional guests like regional IT experts or Municipal Information Systems Association of California (MISAC) representatives to benchmark against peers.

Roles and Responsibilities: Utilize the RASCI model to delineate duties clearly. For instance, in a cloud migration project:

- **Responsible**: Apex handles technical execution (e.g., Azure setup).
- **Accountable**: The City Manager ensures overall success and budget adherence.
- **Support**: Department heads provide input on user needs.
- **Consulted**: External vendors (e.g., RIMS alternatives) offer expertise.
- **Informed**: City Council receives progress updates.

This matrix should be documented for each major initiative and reviewed annually, preventing overlaps and ensuring accountability. It complements Knowledge Management by capturing lessons learned in a centralized repository (e.g., Microsoft 365 SharePoint), promoting institutional knowledge retention amid staff turnover risks.

Integration with Recommended Frameworks: Governance ties directly into TOGAF, ITIL 4, and CMMI V3.0 for a cohesive approach. TOGAF's Architecture Governance (within the ADM) ensures architectural decisions support city goals, such as interoperable systems for better data sharing across departments. For example, the committee would approve architecture blueprints during Phase E (Opportunities & Solutions), aligning with strategic priorities like full cloud adoption. ITIL 4's Service Value System (SVS) embeds governance in operational practices, emphasizing value co-creation. The committee could oversee the application of guiding principles like "focus on value" during service desk operations (e.g., handling 311 requests) and continual improvement reviews. This operationalizes governance, ensuring services remain citizen-centric and agile.

CMMI V3.0 provides the maturity backbone, with governance focused on progressing from Level 1-2 (ad-hoc) to Level 3 (defined processes). The committee would conduct periodic appraisals using CMMI's domains (e.g., Services, Security), tracking metrics like service downtime reduction or training completion rates. Achieving Level 3 could yield tangible benefits, such as lower cyber insurance premiums, as insurers often reward certified maturity.

Incorporate ISO standards (e.g., ISO 27001 for information security) for long-term compliance, with the committee auditing adherence during reviews. This hybrid model—starting small with pilots in high-impact areas like Finance—avoids complexity while building resilience.

Monitoring, Reporting, and Risk Management: Establish key performance indicators (KPIs) for transparency, such as system uptime (>99%), ticket resolution time (<24 hours), and cybersecurity training compliance (>90%). The committee should require monthly reports from Apex, including threat dashboards and ROI analyses (e.g., cost savings from eliminating the $2,700/month data center rental). Annual third-party audits (e.g., penetration testing) and tabletop exercises for ransomware scenarios would strengthen risk management, aligning with California trends where small municipalities face heightened cyber threats.

Implementation and Challenges: Roll out governance in phases: Short-term (0–3 months)—form the committee and develop RASCI templates; Medium-term (3–12 months)—integrate with framework pilots; Long-term—achieve CMMI Level 3. Budget modestly (~$5,000–10,000 annually for tools/training). Address challenges like staff resistance by communicating benefits (e.g., reduced workload via automation) and involving employees in governance design.

Ultimately, this governance framework empowers the City to leverage IT as a strategic asset, ensuring sustainable modernization that enhances efficiency, resident satisfaction, and security. By embedding accountability and continuous improvement, the City can navigate its constraints while positioning itself as a model for small California municipalities.

9.0 Conclusion

The City of St. Helena stands at a pivotal moment in its digital evolution. With a population over 5,000 residents and the typical constraints of a small California municipality—limited staff, outsourced IT through Apex, and lessons learned from the 2024 ransomware attack—this report charts a clear, achievable path to modern, resilient, and citizen-focused IT operations.

By adopting a tailored hybrid framework combining **TOGAF** for strategic architecture, **ITIL 4** for value-driven service management, **CMMI V3.0** for progressive process maturity, and supporting elements like **RASCI** for accountability and **Knowledge Management** for institutional memory, the City can transform its IT from reactive and fragmented to proactive, integrated, and efficient. This approach directly tackles current challenges: legacy on-premise systems (e.g., RIMS), integration gaps across SaaS tools, underutilized assets like ArcGIS, and low cybersecurity training compliance.

Prioritizing **cloud migration** to a 100% cloud-based environment (e.g., Azure) will eliminate the $2,700 monthly data center rental, enhance security with automatic updates and AI-driven threat detection, and enable scalable automation. Replacing RIMS with CJIS-compliant cloud-native alternatives (such as NicheRMS or eFORCE RMS) removes a critical vulnerability while unlocking data interoperability. Leveraging embedded AI in existing platforms—Microsoft Copilot for productivity, OpenGov for analytics, and Springbrook for finance—along with cautious pilots (e.g., chatbots for resident inquiries or predictive maintenance in Public Works) will automate routine tasks, reduce manual effort, and improve response times without risky standalone vendor commitments.

The phased **implementation roadmap**—short-term actions like enforcing training and initiating RIMS RFPs, medium-term full migration and framework pilots, and long-term CMMI Level 3 pursuit—minimizes disruption while delivering measurable gains: 20–30% potential IT overhead reduction, 10–20% labor efficiencies, faster citizen services (e.g., permitting via eTRAKiT), and potential insurance premium savings from demonstrated maturity.

Governance through the proposed **IT Governance Committee** ensures alignment with City priorities, cross-departmental collaboration, and ongoing oversight via KPIs, monthly Apex reports, and annual audits. This structure empowers the City to navigate resource limitations, mitigate cyber risks in California's high-threat environment, and foster a culture of continuous improvement.

These recommendations position St. Helena not just to recover from past incidents but to lead as a forward-thinking small municipality. By starting small, building incrementally, and focusing on resident value, the City can achieve sustainable cost savings, elevated service delivery, and greater public trust, turning technology into a true strategic asset for the community's future.

Appendix A - Glossary

AI (Artificial Intelligence): Computer systems designed to perform tasks that normally require human intelligence, such as pattern recognition, decision-making, and automation of repetitive work.

Automation: The use of technology to perform tasks with minimal human intervention, often to increase efficiency and reduce manual workload.

Business Process: A series of structured activities or steps designed to accomplish a specific organizational goal or service outcome.

Change Management: A structured approach for transitioning individuals, teams, and organizations from a current state to a desired future state when implementing new technologies or processes.

Cloud Computing: Delivery of computing services—including servers, storage, databases, networking, software, and analytics—over the internet rather than on local hardware.

CMMI (Capability Maturity Model Integration): A process improvement framework that helps organizations improve performance by defining maturity levels for operational and development processes.

CJIS (Criminal Justice Information Services): A division of the FBI that provides law enforcement agencies with information systems and standards related to criminal justice data security and sharing.

Cybersecurity: The practice of protecting computer systems, networks, and data from digital attacks, unauthorized access, or damage.

Data Integration: The process of combining data from different sources to provide a unified and consistent view of information.

Digital Modernization: The ongoing effort to update legacy technology systems, processes, and tools to improve efficiency, security, and service delivery.

ERP (Enterprise Resource Planning): A type of software used by organizations to manage core business functions such as finance, human resources, procurement, and operations in a centralized system.

Framework: A structured set of guidelines or best practices used to organize decision-making, planning, or system design.

Governance (IT Governance): The policies, procedures, and decision-making structures that ensure technology investments align with organizational goals and risk tolerance.

ITIL (Information Technology Infrastructure Library): A widely used set of best practices for managing IT services, focusing on service quality, efficiency, and continuous improvement.

Legacy System: An older technology system or software platform that is still in use but may be outdated or unsupported.

Modernization: The process of upgrading or replacing outdated systems, infrastructure, or processes to meet current needs and standards.

Process Maturity: A measure of how well-defined, managed, and optimized an organization's processes are over time.

SaaS (Software as a Service): A software delivery model in which applications are hosted by a vendor and accessed over the internet rather than installed locally.

Scalability: The ability of a system or process to handle increased workload or growth without significant performance loss.

TOGAF (The Open Group Architecture Framework): A framework used to design, plan, implement, and govern enterprise information technology architecture.