INFORMATION & COMMUNICATIONS TECHNOLOGY PLAN

Delivering an Efficient Government for San Francisco:

A Blueprint for Technology Modernization

CITY AND COUNTY OF SAN FRANCISCO

FISCAL YEAR 2026-2027 UPDATE

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MESSAGE FROM CITY ADMINISTRATOR CARMEN CHU

As a global center of technology and innovation, San Francisco must leverage technology to deliver excellent public service. Yet the City's technology environment suffers from fragmentation and inefficiencies, often missing opportunities to operate reliably and at scale. The strategy outlined in this ICT Plan update establishes a clear path to modernize the systems that power city services and strengthen the foundations that departments and residents rely on every day.

To modernize its technology infrastructure, the City must prioritize investments that improve reliability, reduce duplication, and meet the needs of departments and the public. That means treating data as core infrastructure, modernizing the most critical digital services, and approaching emerging technologies, including artificial intelligence, with focus and care.

Aligned with Mayor Daniel Lurie's priorities of safe and clean streets, economic revitalization, and effective, common-sense government, this plan directs investment and resources toward high-impact systems that strengthen reliability, expand shared data, and modernize digital services. These fundamentals will enable departments to coordinate more effectively, respond faster, and operate at scale.

This document serves as a mid-cycle update to the City's biannual ICT Plan and represents a broader citywide technology strategy effort being advanced by the City Administrator's Office. Publishing this mid-cycle update ensures that departments and the public have timely visibility into the City's new strategic direction.

EXECUTIVE SUMMARY

San Francisco residents and employees deserve city services that work — reliably, consistently, and without unnecessary friction. Currently, the City's technology environment is fragmented, with critical systems operating in silos, aging infrastructure that is costly to maintain, and services that too often require residents to navigate outdated or paper-based processes. Rather than wait for the next technology planning cycle, the City is releasing this plan now to reflect work already underway.

This Information and Communications Technology (ICT) Plan update outline's the City's commitment to providing the modern technology and tools that departments need to work efficiently and deliver better services to. To support implementation of that vision, the updated plan offers a strategy organized around three interconnected priorities.

- First, the City will modernize its core technology infrastructure by establishing an integrated data network, moving systems to secure cloud environments, and establishing shared standards for how technology is adopted and governed.
- Second, it will strengthen the practices and people behind technology investment — streamlining procurement, modernizing job classifications, and reducing the duplication that drives up costs without improving outcomes.
- Third, it will transform how residents experience city services by improving the most widely used and highest-friction digital interactions, while building a digital experience that is accessible, easy to navigate, and designed around San Franciscans' needs. Technology should make it easier for departments to coordinate and for residents to access services quickly and confidently.

Working together, staff will:

- Establish a Unified Data Platform to integrate data into a secure, reliable foundation.
- Make cloud infrastructure the default to improve resilience and reduce risk.
- Enable responsible use of AI and emerging technologies through shared tools and safeguards.
- Streamline technology procurement to speed delivery and improve value.
- Modernize technology job classes to strengthen in-house capacity.
- Define a citywide technology stack to reduce duplication and guide investment.
- Improve high-impact digital services, prioritizing experiences that are widely used or high friction.

Sharing this direction now — rather than in 2027 at the close of the next two-year technology planning cycle — reflects the City's commitment to transparency. Developed in close partnership with the City Administrator's Office and key technology stakeholders and aligned with the Mayor's goal of a more effective and efficient government, this ICT Plan seeks to measure progress through real outcomes that support a more coordinated, resilient, and accountable government for the people it serves.

STRATEGIC PRIORITIES

Modernize the City's Technology Backbone

Initiatives include Unified Data Platform, Cloud 2030, Emerging Technologies

The systems that power San Francisco — its databases, networks, and platforms — are as essential as its roads and utilities, but are aging, fragmented, and operating in isolation. When these foundations are unreliable or disconnected, the result is slower response times, duplication of work, and decisions made without a strategic vision. The City's solutions to these challenges are guided by two core principles. First, data should be standardized and integrated to generate actionable insights that improve how services are designed and delivered. Second, technology operations must be dependable and high-performing so city services remain connected and available.

To modernize its technology backbone, the City will build a shared technology foundation, consolidate data into a single trusted source (Unified Data Platform), move systems to secure cloud environments (Cloud 2030), and establish clear standards for adoption of new tools (Emerging Technologies). For city employees, these changes mean more time focused on serving the public; for residents, they mean faster and more reliable services. Strong technology infrastructure is not a back-office concern — it is what makes every public-facing service possible.

Unified Data Platform

Today, the City does not have a single, unified approach to data management. Critical information about the same resident, case, or service may exist across multiple department systems, stored in different formats, governed by different standards, and not easily shared. This fragmentation limits operational visibility, slows cross-department coordination, and makes it difficult to measure performance or make fully informed decisions.

The Unified Data Platform (UDP) establishes a modern, cloud-based data foundation that integrates the City's most critical data from existing systems of record into a single, reliable location available to staff for operational visibility and decision-making. By eliminating silos, enforcing data quality standards, and standardizing data governance and measurement, the UDP enables cross-departmental collaboration, real-time insight, and more proactive decision-making for both internal & resident-facing services.

Priority Data Domains: Initial domains focus on areas with the greatest operational and policy impact:

- Public Safety: Incidents, response times, outcomes, cross-agency coordination
- Finance and Budget: Expenditures, revenue, grants, financial performance, contracts, procurement

- Permitting and Inspections: Application volume, processing time, bottlenecks
- 311 and Service Requests: Resident demand, response quality, resolution trends
- Workforce and Human Resources: Staffing levels, vacancies, hiring timelines, overtime

Near-Term Focus and Milestones: Before the end of 2026, the City will establish the UDP as the standard data platform and map the priority data domains above to business outcomes. The City will also formalize a citywide Data Strategy, develop a roadmap for consolidating data policies, and clarify ownership, quality, and access expectations. Looking ahead to 2027, the City aims to operate the UDP as the default *source of truth,* run citywide performance metrics on the platform and establish centralized analytics and data science capabilities with responsible AI guardrails.

Cloud 2030

Today, many city systems rely on aging, on-premises infrastructure that is costly to maintain, difficult to scale, and vulnerable to outages and security risks. While many departments rely on DT's managed data centers, a significant number of departments manage server infrastructure independently which leads to inconsistent standards, duplicative investments, and uneven disaster recovery capabilities. This increases risk and limits the City's ability to deliver reliable digital services at scale.

Cloud 2030 seeks to make cloud infrastructure the default foundation for city technology. Moving department systems to secure and resilient cloud environments will reduce risk, improve scalability, and stabilize long-term costs. Cloud 2030 will advance this work through two linked tracks: first, by migrating systems and then, by optimizing, improving resilience and efficiency and tailoring design for core business systems, data platforms, and AI workloads.

Systems in Scope: Cloud 2030 covers all systems currently running on Department of Technology (DT)-managed on-premise infrastructure (~1,400 virtual machines across 30+ departments). To date, city departments have migrated 32% of their server infrastructure to the cloud, leaving critical business processes like tax collection and fire department operations dependent on legacy hardware.

Several departments manage significant infrastructure independently outside of DT. With the support of COIT, DT will work with these departments to evaluate their server infrastructure and identify the level of effort necessary for them to implement cloud migrations. These departments will also be expected to adopt cloud technology, leveraging their own staffing and resources to execute migrations.

DT proposes two models for Cloud 2030.

Standard model: Departments would adopt cloud services under DT-managed contracts to leverage citywide purchasing power and deploy standard security tools for consistent visibility across the City's cloud footprint. Departments operating within a centrally-managed cloud organization, would benefit from citywide security guardrails — such as approved regions, encryption standards, and access policies — while preserving departmental autonomy over their operations.

Exception-based model: This would be evaluated on a case-by-case basis and allows both use of a shared contract and visibility into department cloud technology. Departments would adopt cloud services under DT-managed contracts and deploy DT security tools for consistent visibility across the City's cloud footprint. Departments would be responsible for implementing appropriate governance controls. This model would apply to exceptional departmental cases requiring unique business requirements. DT would certify that departments seeking to participate under the exception-based model have the capability to maintain a complex enterprise system independently.

Near-Term Focus and Milestones: Before the end of 2026, the City will assess critical systems, require CIO approval or exemption for new server purchases, and achieve a 10% reduction in DT-managed on-premises workloads. Concurrently, the Department of Technology will work with departments to develop roadmaps for migrating all eligible workloads to the cloud by 2030. By 2027, the City will achieve a 25% reduction in DT-managed on-premises workloads, with the Office of the Treasurer and Tax Collector (TTX) and the San Francisco Fire Department (SFFD) Fire Portal among the first department systems to complete migration — representing the City's financial backbone and life safety operations respectively. Looking beyond 2027, the longer-term direction is to operate critical public safety and resident-facing systems in resilient cloud environments, refactor systems for high availability and disaster recovery, and retire high-risk on-premises infrastructure.

Emerging Technology Innovation

Departments have begun to explore and apply AI and emerging technologies, supported by early pilots, shared tools, and foundational governance efforts. The Department of Technology's Emerging Technologies (ET) division has played a central role in this progress by launching a small engineering practice and partnering with departments on early projects, working to put AI tools into the hands of City staff, delivering responsible AI training, and fostering continuous learning. The team has also advanced transparency and accountability by implementing the 22J AI Transparency Ordinance, and establishing initial guardrails through citywide guidelines, an AI playbook, and practical resources like Green Tips.

Building on this strong foundation, ET now seeks to enable the safe and effective use of AI and emerging technologies across San Francisco government at scale. The next phase of this work will focus on moving from fragmented experimentation to coordinated adoption, strengthening standards, expanding shared capabilities, and supporting departments by

advancing effective solutions. In doing so, San Francisco will avoid two common failure modes: moving too slowly and missing real value or moving too quickly without appropriate safeguards. Instead, the City will scale what works in real services responsibly, efficiently, and with public trust at the center of everything we do.

Focus Areas: This work advances through two connected tracks:

- Shared Delivery and Partnerships: Provide shared tools, AI infrastructure, vendor pathways, and delivery support so departments can experiment, learn, and scale without duplicating effort.
- Policy and Accountability: Establish clear citywide rules for responsible AI use, including expectations for privacy, equity, transparency, and risk management.

Near-Term Focus and Milestones: Before the end of 2026, the City will publish the citywide AI Strategy to outline key goals for improving service delivery through AI and align on an AI Policy that identifies actionable safeguards and clear requirements for departments. The City will also launch a beta citywide AI Workspace, a secure, centralized workspace with pre-approved models. The Emerging Technologies Experimentation Framework, in partnership with GovOps, will allow departments to test AI tools in a structured experimentation environment under consistent rules before moving to full procurement. Successful AI prototypes across the City will be able to mature into pilots and deployed in production. Looking towards 2027, the City will focus on scaling validated AI solutions, maintaining reusable infrastructure and vendor pools, and strengthening maturity against nationally recognized responsible AI standards such as the NIST AI Risk Management Framework. Additionally, the Emerging Technologies team intends to broaden the existing Communities of Practice, add new responsible AI trainings and webinars for staff and establish guidance for working with AI agents.

Strengthen Technology Stewardship & Accountability

Initiatives include Procurement Reform, Job Class Modernization, Tech Stack

San Francisco's service delivery capacity relies on having the right tools, streamlined processes, and strategic purchasing practices. Slow and complex procurement can delay the adoption of modern solutions, outdated job classifications make it harder to hire and retain skilled staff, and departments independently acquiring similar tools drives up costs without improving outcomes.

To address these challenges at their core, city staff must be equipped with the digital, data, and technology skills needed to lead modernization; streamlined processes for buying, testing and renewing technology must be enabled to support faster and smarter innovation; and technology budgets and cost-sharing must be aligned with lifecycle needs, transparency, and measurable outcomes.

This work will be driven by focusing on the systems of accountability that surround technology investment — streamlining how the city buys technology (Tech Procurement Reform), modernizing the roles that support it (Modernizing Job Class), and establishing shared standards to reduce duplication and waste. (Technology Stack). For city employees, this means faster access to tools that actually work, more efficient day-to-day processes built on shared and standardized platforms, and career paths that reflect the skills the job requires; for the public, it means a government that spends smarter and delivers more.

Technology Procurement Reform

Technology procurement processes are often slow, inconsistent, and overly complex, making it difficult for departments to adopt modern solutions at the pace service delivery requires. At the same time, unclear standards and duplicative reviews can increase workload without proportionate risk reduction. Technology procurement must enable, rather than delay, delivery of modern services. This initiative improves speed, clarity, and value in purchasing while maintaining strong safeguards and accountability.

In 2026, the City will launch a Experimentation Procurement Framework, which will serve as a "*Try Before You Buy*" model offering departments a safe, structured pathway to test emerging technologies, including AI, through limited-scope pilots before entering long-term contracts.

Near-Term Focus and Milestones: Over the next year, the City will advance broader reforms to simplify and modernize technology purchasing through clearer guidance, streamlined reviews, improved templates, and strengthened vendor competition. The City will right-size precontract cybersecurity reviews to better focus on risk, followed by the release of bulk purchasing and piggybacking guidance, the launch of a citywide experimentation procurement framework, and the digitization of Technology Marketplace

processes. Looking to 2027, the City aims to standardize procurement pathways for nonintegrated SaaS and common technologies to achieve weekslong rather than monthslong timelines while improving vendor competition.

Modernize Job Classes

Every city department depends on technology to serve the public, yet many technology job classifications do not reflect the modern skillsets required to design, build, operate, and improve today's digital services. Outdated minimum qualifications and exams that fail to reflect real-world technology work can exclude qualified candidates, slow hiring, and make it harder for the City to compete for talent. As a result, departments may face staffing gaps, rely more heavily on contractors, and struggle to sustain complex modernization efforts over time.

Modernizing technology job classes will help ensure the City can hire, retain, and develop the staff needed to deliver modern digital services. Updated roles, qualifications, and career paths align staffing with modern technology practices, including product management, UX design, cloud engineering, data engineering and science, and security. This initiative will strengthen in-house delivery capacity, improve continuity across major technology programs, and reduce long-term reliance on external vendors.

Near-Term Focus and Milestones: Over the next 18 months, the City will update multiple technology job classes including 104X (engineers), 105X (business analysts), 107X (project directors), add a new 1080 classification for Data Science, while updating hiring pathways for technology roles. These efforts will modernize how the City recruits and advances technology talent, ensuring clearer pathways and more effective evaluation tools. The City will also establish regular cycles to update these classifications and track hiring speed, quality, and retention to support continuous improvement.

Technology Stack

Often, departments make technology decisions independently. This has led to duplicative tools, a bloated vendor footprint, higher long-term costs, integration challenges, and avoidable security risk. A citywide technology stack would establish a standard set of tools and principles for organizing and guiding the City's technology use. Just as the City standardizes building codes to ensure safety and consistency across construction projects, a technology stack will set a common foundation for the systems and digital services the City relies on. Without shared standards, each department builds on a different foundation. That makes systems harder to connect, more expensive to maintain, and more difficult to secure.

A citywide technology stack will define the core platforms, tools, and technical standards the City will use by default. It will offer a framework for department leaders, technology staff, and procurement teams to align system acquisition and development with citywide priorities.

Focus Areas: The citywide technology stack will consist of three distinct yet integrated layers that will accelerate service delivery and ensure high-quality, reliable operations across all departments.

- The stack for buying: Approved platforms, tools, vendors, and services that departments acquire through procurement, with clear requirements for security, usability, and other city standards.
- The stack for building: Standardized engineering platforms, development tools, and delivery patterns that teams use to design, build, and operate city systems and digital services.
- The stack for integrating: Defined standards and shared tools for connecting business systems with core enterprise platforms, reducing data silos, minimizing manual workarounds, and ensuring that information flows reliably across departments where it is needed most.

Near-Term Focus and Milestones: By the end of 2026, the City will establish a cross-department technology stack workgroup, complete a citywide inventory of tools including purchased technologies and core engineering platforms, publish a technology stack for each department and establish governance for adoption and exceptions. In 2027, the City will start to standardize priority components, consolidate duplicative technologies, and reinvest any savings into shared platforms and high impact services.

Transform Digital & Departmental Service Delivery

Initiative includes Digital Services

For most residents, the quality of city government is measured not by what happens in a data center, but by whether they can find the right form, receive service online, or get a timely response to a question. Today, too many city services are difficult to navigate, inconsistently available, or still dependent on paper and in-person visits. This results in frustration for the public and unnecessary workload for staff. For city employees, utilizing modernized digital services reduces repetitive manual tasks and frees up capacity for more complex work; for residents, easier access to services means a government that is genuinely within reach.

Transforming service delivery is ultimately how San Francisco makes its technology investments visible and meaningful to the people it serves. In order to do so, the City is focusing on improving the most widely used and highest-friction services first, bringing them onto a unified web platform and redesigning experiences around what residents actually need. Three core principles guide this work: that we must measure service value and satisfaction consistently across city programs to drive continuous improvement; that we must clarify roles, responsibilities, and governance to coordinate technology delivery effectively across departments; and that the technology foundation supporting city agencies and the people they serve must be reliable, consolidated, and secure.

Digital City Services

Despite progress migrating departments to SF.gov, the City's web presence remains fragmented and inconsistent, making it difficult for residents to find accurate information or complete tasks. Many high-traffic services remain outdated or difficult to use, increasing call volume, staff workload, and resident frustration. The City's web presence must be accessible, easy to use, and designed to help people find answers quickly. This initiative will improve the City's highest-impact resident-facing digital services by continuing to unify the web platform on SF.gov and fixing the most painful digital experiences first, with measurable service quality and user satisfaction improvements.

Digital Services is working to modernize services in deliberate cohorts rather than attempting to fix everything at once. Staff are prioritizing services using a consistent citywide framework that balances resident impact, operational value, and delivery feasibility, with particular attention to equity impacts and accessibility gaps.

Services will be prioritized for modernization based on the following criteria:

- City operated: The service is run by the City, not primarily delivered by external partners

- High impact: The service is either widely used or critical for residents who rely on it, including vulnerable populations or small businesses
- High-friction: The current experience is outdated, difficult to use, or unnecessarily in-person or paper-based

This approach ensures the City delivers visible improvements early, focuses effort where residents feel it most, and builds reusable capabilities and modules that accelerate future service modernization.

Near-Term Focus and Milestones: Throughout 2026, the City will identify the highest traffic and highest friction resident interactions and develop transition plans, followed by publishing a Digital Services Modernization Roadmap resulting in shared service performance metrics. By the end of 2027, the City will modernize the first cohort of ten high-impact service experiences, digitize at least 250 forms, migrate at least 80 percent of departments to SF.gov, reduce paper only services by 75 percent, and achieve consistently high resident satisfaction.

Measuring What Matters

This strategy establishes a citywide approach to technology modernization focused on reliability, stewardship, and resident impact. It sets priorities for where the City invests, which capabilities are built and governed centrally, which systems and fundamentals remain under the purview of departments and how modernization may be sequenced over time. The City seeks to measure success using real outcomes: fewer outages, reduced duplication and long-term cost, faster and more consistent service delivery, improved resident satisfaction, and responsible use of emerging technologies. Progress against this strategy will guide budgeting, procurement, and delivery decisions, with implementation and department participation directed through a subsequent Executive Directive.

Technology transformation succeeds or fails based on people, not platforms. The City has strong and experienced technology leaders who are committed to leveraging all available tools to deliver service to San Franciscans every day. Successful implementation of this strategy will rely on that experience and commitment. Together, we can shift the City's technology environment from fragmented and reactive to one that delivers more coordinated, resilient and outcome-driven City operations and services.