The digital future is here, and government must meet the moment

Government leaders the world over understand the power and potential of digital technology and have taken important steps toward transformation. However, it was the arrival of the global pandemic that put digital transformation front and center. Suddenly, local and national governments could experience in real time how technology and data enabled resiliency in the face of dramatic changes to service delivery. It became abundantly clear that a true embrace of digital transformation could fundamentally alter the way the public sector operates and delivers services to constituents.

Public sector agencies discovered they were able to tap pre-built, secure, cloud-based services to stand up critical systems in record time. Enterprise contact tracing, CRM technology to disburse emergency loans and grants, and employee wellness checks for back-to-work plans are all examples of the rapid adoption of digital technology that put public institutions on the fast track for greater transformation. Public sector leaders now have a tremendous opportunity to capitalize on this momentum and identify what they can achieve by committing to deeper transformation.

Digital public services have enormous potential. Reducing cost and budget pressures are just the beginning. Meeting citizen demands for a “click once,” hassle-free experience is a primary driver. Also compelling is the prospect of using data as a strategic asset to make intelligent planning and operational decisions, deliver smart services to citizens and businesses, and enable the civil service to work collaboratively and efficiently.

The journey will not be free of obstacles, however. Challenges include ensuring regulatory compliance for data protection and sovereignty, identifying data that must be shared for the public good, ensuring a standardized approach to security, and continually monitoring cloud products and services. Governments must meet the moment with powerful foundational technology approaches that include modern hybrid IT capabilities, secure IoT platforms, and AI/ML innovation, process automation and decision-making. In this solution brief, we explain how a modern digital infrastructure allows public sector organizations to achieve their digital transformation vision for public service.

Legacy systems and operating models impede progress

Government IT systems are famously (or infamously, as the case may be) outdated. Across the world, public sector agencies are burdened by increasingly obsolete infrastructures. According to a recent Forbes article, the U.S. Department of Education’s IT is an almost unimaginable 46 years old. In Britain, half of all government spending on computers is dedicated to keeping old systems going.¹ And in Hong Kong as recently as 2018, only 28 percent of local Hong Kong companies surveyed had meaningful plans to adopt digital technologies.²

Digital maturity is low to modest in 80% of government organizations

A risk-averse industry, the public sector has historically been reluctant to address the problem. The global pandemic changed all that. In addition to the obvious healthcare crisis, labor markets, financial markets and international relations were immediately and severely impacted. Local governments suddenly found themselves on the front line, responsible for organizing local testing, contact tracing, treatment and isolation programs, buying protective gear, and establishing systems to deliver vaccines. Government agencies of all kinds needed to get agile—and fast.

Governments immediately discovered they had the following challenges:

- A wealth of data but no actionable insights on healthcare trends
- A desperate need for powerful remote and digitally augmented collaboration tools such as SharePoint and Yammer
- Growing citizen demand for digital experiences on par with the private sector’s
- A requirement to meet increasingly complex compliance regulations in the transportation, education, public safety, health and human services, and utilities sectors
- A need to accelerate services delivery on cloud-native digital platforms
- A desire to free public service employees from mundane tasks so they could focus on the bigger picture

The public sector understands it must innovate to meet these challenges. This will require a profound transformation of government IT systems. Legacy IT systems must be replaced or augmented with agile, long-term, back- as well as front-end solutions that enable automation, remote work, digital self-service and business models that can be extended to include diverse ecosystems.

Seizing the opportunity: Smart government

The public sector can now re-imagine how it operates at a fundamental level. In addition to reaping the many benefits the private sector already enjoys, such as increased savings, greater efficiency, a smaller carbon footprint and greater agility, government can now deliver services to ultimately create a more resilient and sustainable economy in the face of volatility.

Some on the world stage are already making great strides in this direction. Estonia, for example, recently launched a proactive family benefit service where parents need not apply at all to receive family benefits. A new, frictionless experience uses a citizen’s digital ID to populate benefits data on all relevant documentation. New parents need only tap the confirmation button to trigger an automatic transfer to their bank accounts. A process that used to take two hours now takes just 30 seconds.

Likewise, Malaysia’s government recently announced a national digitalization effort to improve public service delivery through digital technologies. Cloud technologies will play a critical role in supporting remote work, predictive service delivery, and greater transparency, accuracy and accountability, ultimately contributing to “an improved democratic process.”

In 2019, 80% of US federal agencies scored “poor” or “very poor” on Forrester’s US Federal Customer Experience Index, compared with only 14% of brands in the private sector.

---


GARTNER is a registered trademark and service mark of Gartner, Inc. and/or its affiliates in the U.S. and internationally and is used herein with permission. All rights reserved.
Digital public services have enormous potential

24/7 accessibility
-50% less time spent
>50% lower costs
-60% less case-handling effort

Source: German National Regulatory Control Council

Top digital government initiatives include:

Data-driven policy making and service delivery
The public sector is data-rich, but insights-poor. The ability to scale data ingestion and data exchange, and then to apply advanced analytics to high-quality data sets from internet of things (IoT) and edge devices, will make intelligent policy making and operational decisions a reality.

Agile, intelligent collaboration platforms
Digital acceleration requires open, data-centric innovation. Cloud native, digital platforms will enable public sector IT executives to deliver agile development and orchestrate smart services across government silos.

Future of work
The future of work in government will be founded on digitally augmented collaboration. It will empower remote branch and field civil servants to access applications and insights that enable them to focus on more complex and value-added cases, rather than repetitive tasks.

Hybrid IT modernization
Data-driven digital service capabilities for users require a scalable, hybrid IT infrastructure. The transformation from disparate, detached silos of infrastructure to a common platform of modernized cloud services will reduce TCO and permit scaling to an ever-demanding service delivery and operating model.

Convenient citizen experience
Citizen centricity lies at the core of the next normal of public services. Digital services must integrate lower cost, the ability to accommodate peaks and troughs of citizen demand, and, most importantly, the convenience and personalization that make bureaucracy seamless for citizens.

Trust and security
Government missions must be housed on trusted systems. Secure data and systems that underpin critical government missions enable a trusted exchange of data across government and ecosystem partners, enabling all parties to deliver resiliency at scale.

By embedding digital technologies and processes deeper into their organizations, governments will be able to use AI/ML, cyber and cloud to radically transform service delivery and back-office operations. The result will be an elevated constituent experience that has the potential to build greater overall trust in government.

In addition, as sustainability initiatives gain steam, these technologies also enable government to address a wide range of environmental, social and human capital, and governance topics.

“The top companies in the private sector are innovating and modernizing endlessly. Governments, likewise, must become citizen-focused, rapid-response tech companies.”

Steve LaFleche, General Manager for the U.S. Public and Federal Market, IBM
The need for a digital infrastructure platform

To succeed with these initiatives, public policy organizations need a digital infrastructure based on an edge-to-cloud, automated and flexible consumption model, and public sector agencies are racing to deploy it. This becomes clear when we look at the public sector’s use of interconnection bandwidth and distributed infrastructure. Interconnection bandwidth is a measure of the capacity provisioned to privately and directly exchange traffic between two parties inside carrier-neutral colocation data centers, and it’s required to scale the global digital economy.

By migrating their IT systems to a foundational, converged infrastructure that includes core assets, the ecosystem plane and edge devices, government agencies can leverage an entirely edge-to-cloud automated, flexible and software-defined compute model. This software-defined infrastructure means businesses can rewire and reconfigure infrastructure when demand changes (as seen with the pandemic).

Core assets, the ecosystem plane and edge devices essentially represent three locations, or edges, in the parlance of edge computing. By decentralizing processing power, edge computing makes mobile computing and the IoT possible, allowing data to be processed by the devices themselves, or by a local computer or server, with no need to transmit to a data center. A distributed, global IT architecture platform that comprises all three of these edges allows public sector agencies to realize the benefits of powerful emerging technologies.

Hybrid multicloud IT infrastructure integrates core legacy systems, moving public sector agencies from monolithic legacy systems to nimble Government as a Service models. Access to robust and diverse digital ecosystems allows government to partner with providers of new technologies, including AI, cloud computing, machine learning, automation and the IoT. Finally, access to local edges wherever they are needed allows government agencies to derive value from immense amounts of data in real time.

A digital infrastructure platform comprised of three technology layers—a digital core, a digital ecosystem and a digital edge—allows the public sector to integrate legacy applications with data analytics, artificial intelligence (AI) and machine learning (ML) capabilities, while leveraging next-generation enterprise applications for optimal performance.

Traditionally risk-averse, the public sector industry has tended to wait for other industries to embrace leading edge technologies, and then imitate their success. Constituent and regulatory demands during the pandemic have vastly accelerated the rate of digital adoption and subsequent interconnection growth.

Digital core
Public sector agencies can modernize core capabilities by adopting flexible, scalable platforms that are integrated in the cloud. This digital core approach allows organizations to transform into digital entities, able to meet the new needs of the digital economy. It is from an interconnected digital core that public sector organizations can scale cloud applications, modernize IT systems, enable agility and leverage powerful analytics for evidence-based policy. A digital core that interconnects clouds and networks reduces the distance between IT services and users, crucial for reduced latency, which is in turn imperative for intelligent core systems that leverage data for greater resilience, efficiency, automation and service delivery.

Digital ecosystem
A digital ecosystem allows agencies to exchange data across government and partners. By collaborating with providers of SaaS and IaaS integration, digital citizen identification solutions, and adaptive and cybersecurity, government can create new service models that create a culture of open, digitally enabled policy making. In addition, digital ecosystems reduce risks and increase resilience across the blurring boundaries of government services and operations. Most of all, digital ecosystems create value. Metcalfe’s Law states that the value of a network is proportional to the square of the number of connected users of the system. Digitization allows government to create value with constituents and partners. This co-creation—and the new and agile infrastructure it requires—is a key aspect of digital transformation.
Digital edge
Public sector leaders understand that deriving intelligence from massive amounts of data and multiple sources requires the lowest possible latency. An edge-first architecture comprised of local edge locations is essential for ultra-low latency connection. It is at this digital edge that real-time transacting and decision-making occur. A digital edge enables government to implement remote workforce services, apply immediate computational analysis, and secure IoT platforms and data collection points for smart cities and hospitals, for example. It is by ingesting and analyzing data from IoT and other edge devices that government can attain valuable insights that result in a range of services, from filing tax returns to renewing a driver’s license to applying for a pet license.

The Platform Equinix® advantage
In a volatile and dynamic world, public sector agencies need a foundational infrastructure from which to deliver citizen-centric public services. Proactive services and efficient operations rely on the effective use of data. A hybrid IT platform can detect through interconnected data systems what may be needed for a citizen facing a life event, for example, and then meet that need in a proactive manner.

With Equinix as their digital infrastructure platform, government agencies can drive long-term, sustainable transformation and business growth. They can deliver a consistent experience to citizens across varying modalities, whether online, via a mobile device, in-person or by phone. By integrating data, public sector agencies can offer constituents a universal digital identity, enabling them to use a single password to simplify access to a variety of government services, for example.

Platform Equinix is a hybrid IT platform that allows public sector agencies to modernize their IT infrastructure and scale data-driven service delivery at reduced costs. Direct, secure, low-latency connections to ecosystem partners via Equinix Fabric™ allows...
government players to exchange data with partners anywhere in the world through software-defined virtual connections. Agencies can interconnect their own applications and data on multiple clouds including Microsoft Azure, Oracle Cloud and Amazon Web Services (AWS) for the greatest flexibility.

By interconnecting digital infrastructure on Platform Equinix, agencies can achieve optimal performance, speed and flexibility for the greatest possible agility in the face of citizen needs and market fluctuations. With Equinix as its digital infrastructure platform, the public sector can use secure, software-defined interconnection to scale applications, modernize IT systems, achieve hybrid multicloud agility, aggregate data insights, and respond to citizens’ needs rapidly, intelligently and wisely.

Seize the moment

Expensive to maintain, vulnerable to cybersecurity risks and relatively ineffective in accomplishing their intended purpose, legacy systems are truly governments’ ball and chain. A silver lining of the pandemic is that it forced the public sector to double down on technology solutions to meet the situation head-on. Now, as the world emerges into a new reality, global citizens are depending on better systems for the health, stability and economic recovery of their societies. Robust digital infrastructure is crucial for that transformation.

Services are critical in shaping trust in and perceptions of the public sector. Citizens today expect more transparent, accessible and responsive services from the public sector.\(^7\)

The pandemic propelled many governments into the next stage of digital transformation. Today, governments around the world are replacing legacy systems and operating models with digital transformation strategies that improve constituents’ satisfaction with public agencies via accessible and effective services.

Ready to get started?

Learn how neutral, secure data marketplaces enable data sharing in a scalable and secure environment.

Download Info Paper

---

Equinix global presence

---