

Driving Innovation in State & Local Government





Leaders across the country are looking for breakthrough ways to fuel local economic growth, expand access to education, improve healthcare, and keep their people safe and secure.

Digital transformation using cloud technology enables state and local government agencies to rapidly modernize, driving innovation while increasing the efficiency of existing systems.

Utilizing the cloud gives state and local governments the opportunity to do more with limited budgets, freeing up resources to focus on new initiatives that can improve citizen services, increase the agility of government employees, optimize operations, and ensure agencies are prepared for the unexpected.

What is Azure Government?

Azure Government is an exclusive instance of Microsoft Azure with world-class security and controls designed for highly sensitive data, enabling government customers to safely transfer mission-critical workloads to the cloud.

Azure Government comes with a 99.95% service-level agreement (SLA) on infrastructure services, and includes architectures, applications, and telemetry to maintain 100% application availability. Microsoft offers the broadest geographic availability and diversity, with eight regions announced (including two dedicated regions for DoD Impact Level 5). Azure Government regions are located over 500-miles apart with data replication between regions for business continuity.



“ We can build collaboration sites and allow the advocates and counties we work with to provide more material online to process requests a lot faster.”

Susan Slaven

CHIEF OF OPERATIONS
CALIFORNIA DEPARTMENT OF SOCIAL SERVICES

Example of secure + modern citizen services:

The California Department of Social Services (CDSS) went digital to deliver faster, better and more efficient services to citizens, making a positive impact on the everyday lives of citizens and employees.

CDSS exists to serve, aid, and protect the most vulnerable citizens of the Golden State. Offering adult programs, welfare, community care, and children and family services that impact nearly 3 million residents, the 4,200 employees of CDSS work every day to strengthen and preserve families while promoting personal independence and responsibility.

The department's move from paper to digital has given mobile employees instant access to vital case files and shortened processing time for service requests, along with a host of other benefits that create a streamlined experience for citizens. With Azure-powered citizen portals, case workers can now monitor user activity and make necessary adjustments on the fly.

In addition, family members can easily access and address state-operated facilities, review their staff and amenities, and provide direct feedback related to the care of their loved ones. These new accessibility options use Azure-driven web interactions, ratings, and performance management to generate greater organizational transparency.

Deliver secure + modern citizen services

Citizens today expect more from government services in terms of user experience and speed of access. Governments are building improved citizen service experiences that enable citizens to engage government on their own terms, at a time that works for them, and on their choice of devices. With Azure Government, you can provide your citizens with secure, accessible ways to interact with government while increasing the efficiency of your service offerings. With security-enhanced identity technologies, citizens gain a current view of their agency interactions and secure access to their personal records and transaction history.

Key Azure solutions for secure + modern citizen services

As you plan and build secure + modern citizen services such as websites and apps to help citizens engage on their terms, consider some of the following services to accelerate development cycles,

ensure security, and optimize the performance of your services. For example, you can:

Quickly build, deploy, and scale enterprise-grade web, mobile, and API apps running on any platform using [Azure App Service](#). This is a fully managed platform, which means that we handle the infrastructure maintenance while you think up new ways to connect with your citizens.

Enable single sign-on to simplify user access to your cloud applications from any device using [Azure Active Directory](#), which enables a unified identity for both citizens and staff. You can also add [Multi-Factor Authentication](#) for an additional level of verification. These services protect your organization and mitigate potential threats with security monitoring, alerts, and machine learning reports that identify inconsistent access patterns.

Engage citizens more effectively using the [Azure Bot Service](#) to quickly build a chatbot that can answer citizen questions and engage in a conversation, reducing the need for call center staffing. With this service you can use existing content such as FAQs as your training and knowledge base, helping you get up and running faster.

Give your bot intelligence with [Cognitive Services](#). Not just great conversationalists, these bots can recognize a user in photos, make smart recommendations, translate languages, increase accessibility, and more.



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Microsoft cloud services, including Power BI, have helped us break down a lot of walls. It's driving business intelligence. It's enabling better collaboration. It's available whenever and wherever people need it. It's changing how we do business.”

Chris McMasters

CHIEF INFORMATION OFFICER, CITY OF CORONA

Example of empowering employees with data-driven intelligence:

The City of Corona decided to transform the city's digital environment by moving mission-critical IT infrastructure to the cloud, a transition that helps the City realign its business processes, enable rapid innovation, and improve insight and collaboration.

As with many cities, each agency operates with independent business processes, whether it's the police department, the fire department, utilities, or economic development. Chris McMasters, Chief Information Officer for City of Corona, reports: "When I started working here, I was asked to break down all the silos as quickly as possible so that the city could tap that data."

He tasked his team with creating a single pane of glass, and a single point of truth, for the city, along with mobile access to data so that end users could make decisions faster. And they needed to ensure that their technology platform was as resilient as possible, as the city is located near the San Andreas Fault.

"We did look at different platforms," says McMasters. "What started to narrow down the decision was CJIS compliance, because we're a full-service city with police and fire departments. If we wanted to put the whole city in the cloud, we needed Azure."

Increase the agility of public sector employees with data-driven intelligence

With the proliferation of data in the public sector, employees need the ability to harness this data to drive agility and effective collaboration while adhering to the strictest privacy and compliance standards. With Azure Government, you can more easily empower employees with the tools to derive insights from data, make better decisions more rapidly, and collaborate with other organizations. With modern business intelligence (BI) solutions and tools, your entire organization can understand and quickly act on the data you already have.

In addition, you can count on Microsoft's commitment to data privacy with the broadest set of compliance certifications and attestations in the industry, as well as end-to-end datacenter security practices protecting the chain of custody of your data.

Key solutions for data-driven intelligence

State and local government agencies can leverage the strengths of the cloud to establish a data management strategy that works across existing data stores and provides a cost-effective foundation for future requirements. Azure Government provides numerous capabilities for empowering your employees to do more:

Bring together historical and real-time data in [Azure SQL Database](#), which uses [built-in intelligence](#) to learn your unique database patterns and automatically tune the database for improved performance and protection.

Develop sophisticated, transformational apps - bring in data through Azure App Service into [Azure Database for MySQL*](#), a new fully managed native MySQL that frees developers from the complexity of infrastructure management, and let them focus on what they can create using the [Microsoft AI platform*](#).

Bring data to life with [Power BI](#), a suite of business analytics tools that deliver insights throughout your organization. Connect to hundreds of data sources, simplify data prep, and drive ad hoc analysis.

Deliver modern services for employees with [Virtual Desktop Infrastructure*](#) on Azure. Simplify day-to-day operations and reduce the upfront capital expense of migrating to Windows 10 Enterprise, enabling your agency to take advantage of the security, productivity, and mobility of Windows 10 faster and at a lower cost.

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When you look at the data, it paints a better picture and tells a richer story about what to do. That's how I see IoT being able to help the county analyze the data it has and likely make better decisions about planning and operations.”

Andrew

IT MANAGER, MIAMI-DADE WATER AND SEWER

Example of modernizing legacy infrastructure to operate more efficiently:

There's not much like Miami-Dade's water. With almost three million residents, Miami-Dade is the seventh most populated county in the United States. With the Internet of Things (IoT), a cloud database, and thousands of sensors gathering data such as water pressure, flow rates, and rainfall, Miami-Dade's Water and Sewer Department (WASD) is developing a smarter way to manage and supply this precious resource and manage the wastewater serving over 400,000 households across the County.

In 2013, Miami-Dade's aging infrastructure was failing, and the results were spilling into residents' homes and out into the local ecosystem. They made the decision to rebuild their infrastructure as an IoT solution built on Microsoft Azure SQL Data Warehouse and Power BI.

This platform now equips the WASD Information Technology team with the scalability, insight, and power to process data in seconds rather than days. It also saves them money and enables them to easily pull data from their entire network to create not only a holistic view of their infrastructure but a more accurate profile of each pump station, its maintenance history, and projected future performance.

Modernize legacy infrastructure to operate more efficiently

According to the U.S. Government Accountability Office, the cost of maintaining legacy infrastructure can be more than 75% of an agency's IT budget¹. With only a fraction left for modernization and innovation, IT leaders are left with a challenging remit.

With Azure Government, your organization gains the ability to advance your priorities while reducing IT overhead. To span infrastructure, platform, and service capabilities (IaaS, PaaS, and SaaS), Azure Government offers the broadest coverage for compliance and regulatory standards, including 33 states with Criminal Justice Information Services Division (CJIS) agreements.

You benefit from massive computing power at your fingertips, on a pay-as-you-go basis, with the highest levels of security and compliance. Empower your IT organization to deliver innovation instead of managing hardware.

Key Azure solutions for modernizing legacy infrastructure

When planning your app modernization strategy, you'll want to consider what capabilities you want provided for you, and what capabilities you want to build and manage in-house. With Azure

[Infrastructure as a service \(IaaS\)](#) you can install, configure, and manage your own operating systems, middleware, and apps, only paying for what you use, when you use it. With Azure [Platform as a service \(PaaS\)](#) solutions, you get a complete environment for delivering anything from simple cloud-based apps to sophisticated, mission-critical applications. Services to consider include:

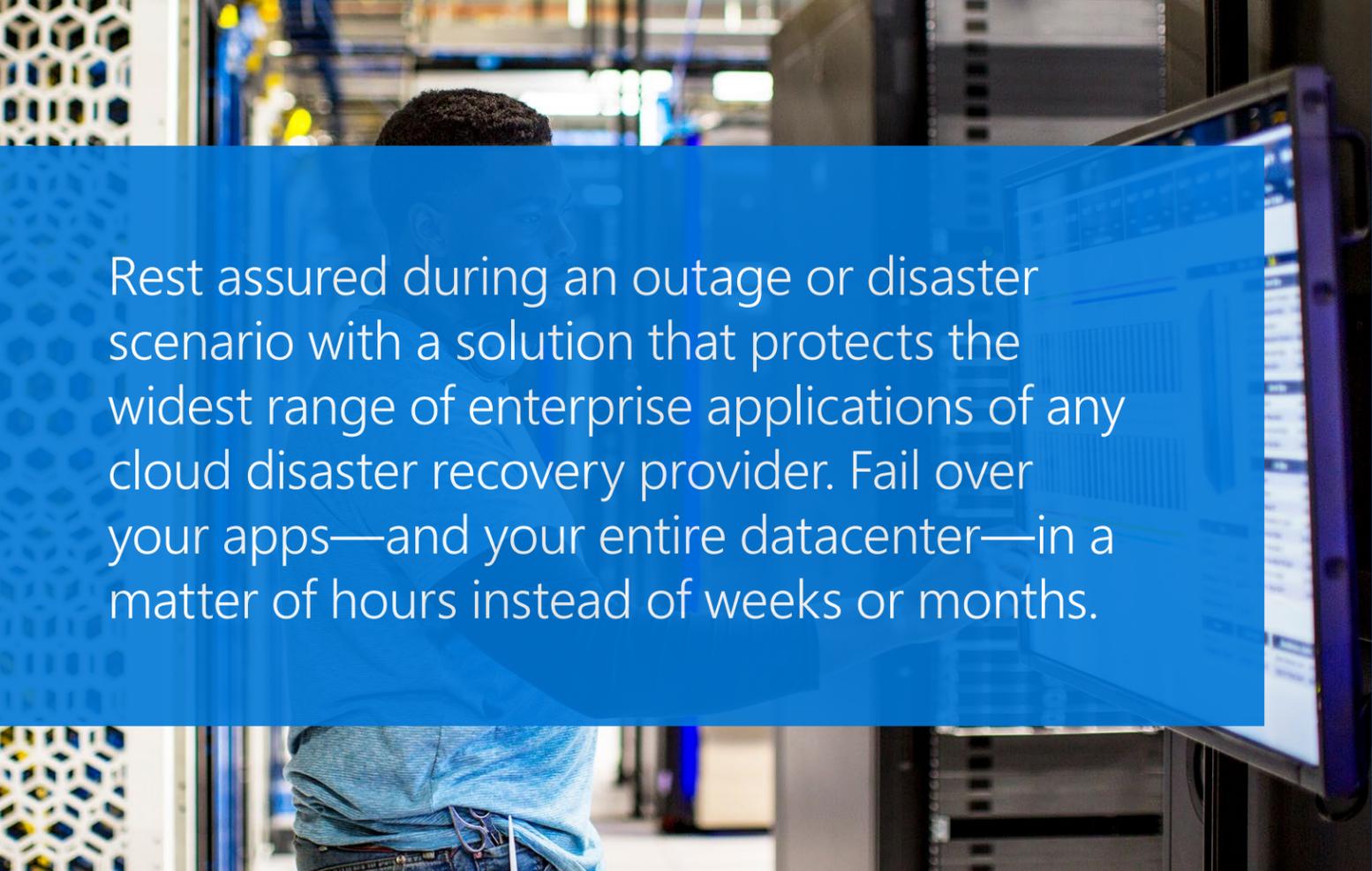
Create smarter, safer cities by [connecting infrastructures](#) to better regulate traffic, make emergency systems more efficient, and reduce police and EMT response times. [Microsoft IoT solutions*](#) can help you improve performance and reduce costs with remote monitoring and forecast equipment failures before they happen with predictive maintenance.

Quickly implement a high-performance data warehouse with [Azure SQL Data Warehouse](#), a fast, flexible, and secure analytics platform for large volumes of data. Seamlessly create your hub for analytics along with native connectivity to data integration and visualization services.

Instantly analyze data from all your IoT devices and gateways using [Azure Stream Analytics](#) and [Azure IoT Hub](#), establishing bi-directional communication with billions of IoT devices and run running massively parallel real-time analytics to help your team make better decisions.

Focus your IT resources on innovation instead of managing hardware with Azure [Infrastructure as a Service \(IaaS\)](#) solutions. Avoid the expense and complexity of buying and managing your own physical servers.

¹Source: US Government Accountability Office, May 2016, GAI-16-696T



Rest assured during an outage or disaster scenario with a solution that protects the widest range of enterprise applications of any cloud disaster recovery provider. Fail over your apps—and your entire datacenter—in a matter of hours instead of weeks or months.

Scenario: Using Azure Site Recovery for 1-click disaster recovery

Cloud migration or disaster recovery is not only about replicating your virtual machines but also about end-to-end application recovery that is tested multiple times, error free, and stress free when you decide to migrate or when disaster strikes. This is the promise of Azure Site Recovery.

[Recovery plans](#) in Azure Site Recovery help you plan for a systematic recovery process by creating small independent units, such as an application, that you can manage. Your recovery plan allows you to not only define the sequence in which the virtual machines start, but also to automate common tasks during recovery.

One way to check your level of preparedness for cloud migration or disaster recovery is to ensure that every application is part of a recovery plan and each recovery plan is tested for recovery to Microsoft Azure. With this complete, you can confidently migrate or failover your entire datacenter to Microsoft Azure.

Learn more about how you can use recovery plans to failover or migrate applications to Microsoft Azure in the most tested and deterministic way in this [blog](#), or learn more about some of the key Azure services for backup and recovery below.

Ready your agencies and departments for unexpected events and disasters

Federal civilian agencies have a mandate to ensure business continuity in the face of regional or national emergencies and need to respond swiftly when help is needed across the country. To respond quickly, these agencies need to ensure their backup and recovery strategies are intact, with capabilities for fast failover and automated recovery.

Azure Government offers cloud-based backup and site recovery services to provide reliable protection for your data and services, ensuring business continuity when you need it. It's a cost-effective way to ensure you're prepared for unexpected events.

Built for the strictest security and compliance requirements of U.S. Government agencies and their partners, Azure Government provides true geographic redundancy by replicating data in multiple datacenters located more than 500 miles apart. All data, applications, and hardware reside in the continental United States, and are managed exclusively by U.S. screened personnel.

Key Azure solutions for backup and recovery

Whether you're looking for a backup solution that meets your specific compliance requirements or a recovery solution for mission-critical applications, Azure Government offers numerous benefits:

Cost-effective backup: For backup, many agencies are replacing secondary sites and on-site tape backup using simple pay-as-you-go (PAYG) services such as [Azure Backup](#). Azure Backup provides a compelling alternative to tape with significant cost savings, shorter recovery times, and up to 99 years of retention.

Secure and always available: Azure Backup stores three copies of your data in three different locations in the primary datacenter and another three copies in a remote location. Data is encrypted before it leaves your datacenter, sent over a secure connection to Azure, and stored encrypted in Azure.

Simpler compliance and reporting: With Backup, you gain centralized monitoring and reporting across on-premises and Azure. And with just a few clicks, you'll be able to export [Power BI](#) reports about your backups—making compliance easy.

Fast, automated recovery: If changes occur, you can use [Traffic Manager](#) to easily route traffic from one site to another to optimize performance and availability. With [Azure Site Recovery](#) you can create a fully automated restore plan, including recovery scripts that enable failover in minutes.

** These services currently available in Azure commercial, some have been announced as coming soon to Azure Government. Please see the [Products available by region](#) page for service availability and subscribe to the [Azure Government blog](#) to hear the latest on Azure Government.*

WHY AZURE GOVERNMENT

Unlock **innovation** with powerful data and analysis services to rapidly build **intelligent** solutions at scale.

Enable **productivity** with a growing marketplace and managed services to help you focus on your mission.

Rest assured with the **trusted** cloud exclusive to government, with world-class security and advanced threat protection services.

Meet critical **compliance** standards and exceed U.S. Government regulatory requirements.

Accelerate development with an open platform and unified tools and services in a **flexible** and truly **hybrid** environment.





CJIS

Microsoft government cloud services adhere to the US Criminal Justice Information Services Security Policy.

DFARS

Microsoft Azure Government supports Defense Federal Acquisition Regulation (DFARS) requirements.

DoD

Microsoft received Department of Defense (DoD) Provisional Authorizations at Impact Levels 5, 4, and 2.

FedRAMP

Microsoft was granted US Federal Risk and Authorization Management Program P-ATOs and ATOs.

FIPS 140-2

Microsoft certifies that its cryptographic modules comply with the US Federal Info Processing Standard.

IRS 1075

Microsoft has controls that meet the requirements of US Internal Revenue Service Publication 1075.

ITAR

Azure Government supports customers building US International Traffic in Arms Regs-capable systems.

NIST 800-171

Microsoft DoD certifications address and exceed US NIST 800-171 security requirements.

NIST CSF

Azure Government supports customers building US International Traffic in Arms Regs-capable systems.

Section 508

Microsoft cloud services offer Voluntary Product Accessibility Templates.

