

ORACLE

# 6 Rethink State and Local Government: Six Priorities to Deliver on Now



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US state and local government organizations generally agree on their biggest priorities in this post-pandemic era. Three rise to the top: hire and retain skilled workers, guard against ransomware and other security breaches (the top concern of county-level CIOs for a decade), and make it easier for citizens to use public services.

Not far behind are three other priorities: account for their spending of taxpayer dollars in a more transparent way, update critical services such as policing and firefighting, and use cloud computing to reduce costs and bolster security.

## Why government executives are losing sleep

**88%** have seen population growth in their jurisdiction in the past five years.

**75%** have seen resident engagement increase in the last year.

**66%** of teams have not grown in the past two to three years.

*Source: OpenGov State of Local Government Survey 2023*

While there's broad agreement on priorities, less discussed are the subtle ways they interconnect. State and local governments can't apply security, data analytics, and other key technologies without skilled staff to make them work. Yet without advanced applications to support their recruiting, workforce management, and other HR strategies, they struggle to lure and keep top-flight talent.

These kinds of interconnections often complicate efforts to solve tough problems, but they also present career-defining moments for public managers, especially those who



grasp technology and are willing to do things differently. “State and local leaders are mostly limited by vision, not budgets or regulations,” says Sarjoo Shah, former CIO of Oklahoma’s Department of Health and Human Services and now industry executive director of public health services at Oracle. “To overcome their challenges, governments need to operate more like private companies, within public constraints, of course.”

During the pandemic, governments across the US improvised out of necessity. For example, to address workforce shortages, the State of Maryland eased requirements for thousands of state jobs. Half of all positions no longer require a four-year degree.

“COVID was both transformative and disruptive,” says Joe Morris, deputy chief innovation officer with advisory firm e.Republic. “But while state and local agencies began to move faster and more flexibly, taxpayers still want better service. If we learned anything from COVID, it’s the high price of doing nothing.”

What follows is a more detailed discussion of the six most pressing state and local government priorities—all of which require fresh thinking.

## 1 Build a skilled workforce

“If you were to chat with a group of state and local government executives, the discussion would soon get around to workforce concerns,” e.Republic’s Morris says. “You might start out discussing cyberattacks or system modernization, but you’ll inevitably wind up talking about the need for more skilled people.”

Government worker shortages abound, triggered by the pandemic, low pay relative to the private sector, and a surge in retirements as the workforce ages. Between February 2020 and January 2023, 450,000 people left US state and local government jobs, according to data compiled by the Federal Reserve of St. Louis.

While private sector employment is now 3% higher than it was before the pandemic, state and local employment is roughly 1% lower, according to the US Bureau of Labor Statistics. As baby boomers retire in waves over the next few years, it will be difficult for governments to find enough replacements, according to a 2023 study by Mission Square Research, the Public Sector HR Association, and the National Association of State Personnel Executives.

How are governments responding? Besides bumping up pay where they can, agencies are making it easier for people to apply for jobs, investing in employee recognition programs, clarifying career paths, and expanding training opportunities, in many cases taking advantage of digital technologies.

For example, to accelerate police hiring, the City of Memphis moved its application process entirely online. “Before, an applicant would need to go in person to the police academy, which is about 20 miles from the city center, and fill out lengthy paper forms,” says Alexandria Smith, the city’s former chief HR officer and now a public sector HR strategy advisor with Oracle. “That was a hiring barrier, especially for candidates from the inner city.”

The Massachusetts Department of Labor Standards (DLS) was having trouble filling the job of industrial safety and health inspector, so it got creative. DLS dropped its four-year degree

requirement and started an apprenticeship program to upskill new hires, getting 280 applicants initially compared with an average of 6 to 10 applicants for previous job postings.

Digital technologies are helping states, including Minnesota and West Virginia, roll out Credit for Prior Learning programs to expand their candidate pools. Under such programs, employers accept life and nontypical work experience, such as military service, as qualifying credentials.

AI-powered search engine spiders, which crawl websites and store information, allow governments to analyze local job markets in real time and refine their recruitment strategies. Similar technologies offer candidates and employees a “career GPS,” a way to chart career paths and learn about training and education requirements. Such technologies help government organizations find people—especially internal candidates—who, with the right training, could fill available jobs.

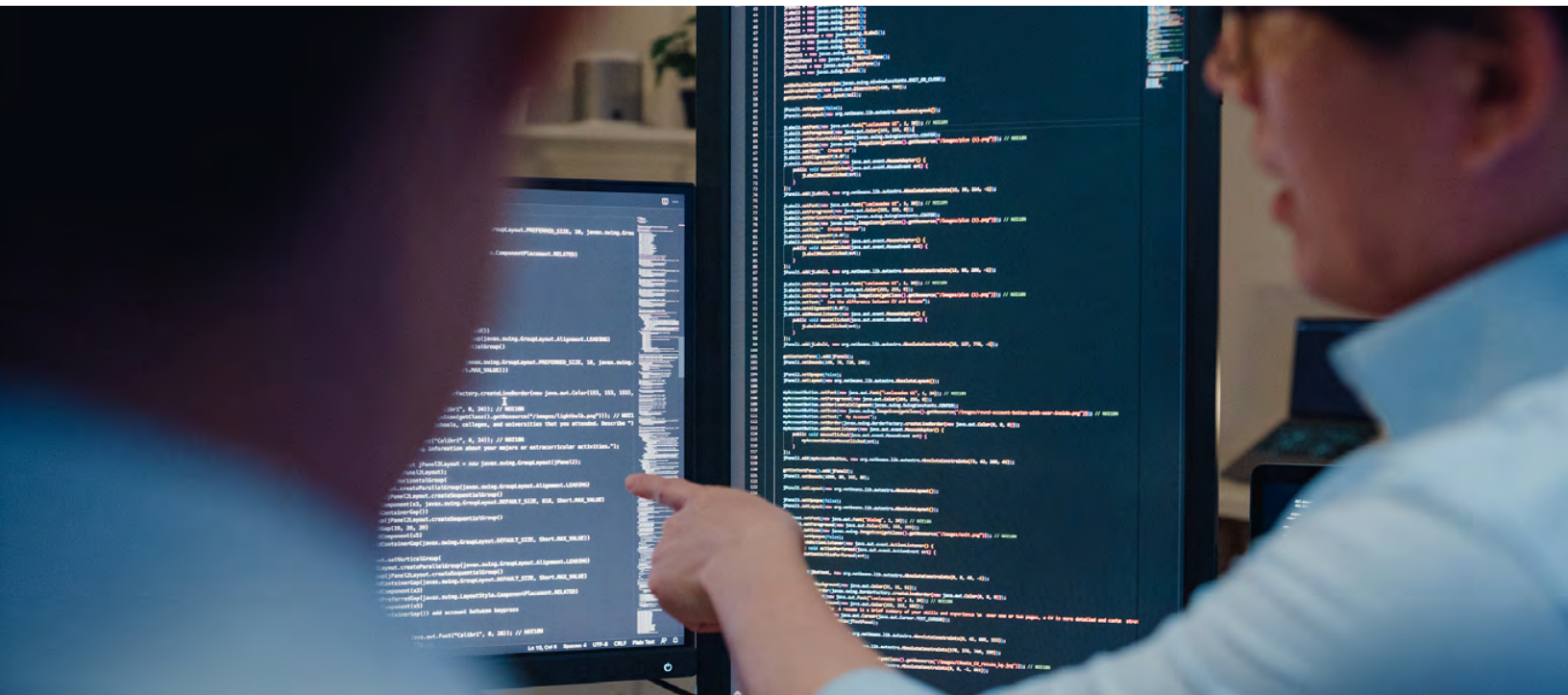
Like many states, Oklahoma is letting employees work from home, depending on job requirements. To make the shift smoother, the state introduced a chatbot that helps employees reset passwords, set up a VPN, or download applications they need to do their jobs.

“To compete with private companies for the best talent, governments should focus on outcomes, not hours in office,” says Shah, the former CIO of Oklahoma’s Department of Health and Human Services. “Too often, agencies become training grounds where, after a few years, people leave for greater challenges and a more flexible work culture.”



## 2 Strengthen cybersecurity

No less than 69% of state and local governments faced a ransomware attack in 2023, according to research by cybersecurity firm Sophos. Each ransom demand—“Pay up or we keep your data”—averages \$2.07 million, a separate 2023 study revealed. Government agencies are top targets given their rudimentary security technologies, relative lack of expertise, and high-profile data stores.



While large federal government agencies and departments (think the Defense Department and FBI) have the resources for top-notch information security, smaller governments face Goliath-size threats on a David-size budget. Most of their IT still runs in on-premises data centers, where leaky defenses and overworked staff present a tempting target.

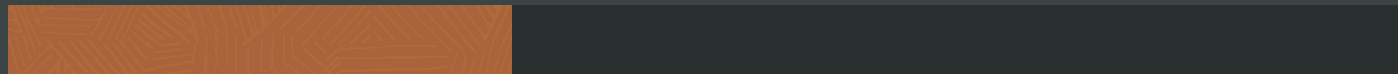
The feds are chipping in to help. In August 2023, the US Department of Homeland Security announced an additional \$374.9 million in grant funding for state and local cyberdefenses,

augmenting the initial four-year, \$1 billion investment via the 2021 Infrastructure Investment and Jobs Act. State and local governments can't afford to leave "free money" on the table.

## Ransomware is ransacking state and local governments



**76%** of state and local governments have had attackers encrypt their data.



**48%** reported stolen data resulting from an attack.



**28%** have paid ransoms of \$1 million or more.



**19%** have stopped attacks before data encryption occurred.

Source: Sophos, "The State of Ransomware in State and Local Government 2023"

If an agency wins a federal grant or otherwise frees up resources to improve information security, what are the best ways to spend that money? "You have to address the talent pipeline and keep a well-trained security team," Morris says. "And you need to strike a balance between what you manage in-house and what you outsource to specialized vendors."

Agency security teams, especially in small governments, can't keep pace as cyberattackers constantly innovate. "Even the pros at top security firms are stretched to their limits," notes Bob Nevins, former CIO of the Massachusetts Health and Human Services agency and now





a state and local government specialist with Oracle. “If you’re not 100% focused on threats, from phishing and denial-of-service attacks to insider sabotage, you’re probably going to miss something. You might be good against threats today, but tomorrow’s another story.”

Nevens recommends a mix of strategies: mandatory training to help workers identify social engineering techniques (for example, phishing emails and texts and bogus phone calls) and other common threats, contracting with third parties to run network security assessments, and moving applications and infrastructure to the cloud, where vendors stake their reputations on providing cutting-edge security.

### 3 Make citizen services easier to use

To deliver the fast, quality services citizens now expect—the Amazon Prime experience, as government executives are calling it—more public sector organizations are following the private sector’s lead in modernizing business processes and switching to digital models.

About 85% of governments across the United States will fail to fundamentally improve their citizen services without a plan that accounts for both the citizen and employee experience, according to a 2023 Gartner study. Gartner emphasizes the importance of hyperautomation—automating numerous processes at the same time, as fast as possible, to improve efficiency and service quality. State and local agencies can use generative AI to prefill forms, issue updates on service requests, and accelerate casework that constituents depend on.

Early successes with digital government portals and apps abound. In Monroe County, Florida, residents use an online portal to apply for building permits, schedule inspections, and make payments. They no longer need to drive to Key West, the county seat, to handle such matters in person, a big advantage when rebuilding after a hurricane. Moreover, the State of Florida is letting localities do virtual inspections of buildings to ensure they comply with code, further reducing travel and inspection wait times.

Constituents across the US can apply for land use entitlements, building permits, and business and professional/occupational licenses and report compliance issues with local regulations—all with a single cloud application that manages the complete lifecycle of these processes. Business owners can apply for fire inspection permits, restaurant and food truck licenses, contractor permits, liquor licenses, and just about every other license and permit imaginable. Businesses can submit applications, pay fees, report revenue, and renew licenses



on virtually any device. Individuals can apply for food assistance and unemployment benefits, renew their car registrations and state park passes, seek counseling, and access a host of other government services.

In Texas, remote court proceedings make it easier for people to attend and participate, allowing them to spend less time away from their jobs and save on childcare and transportation. When the City of Fairfax, Virginia, wanted to gauge citizen opinion on

“People expect government to have the same great customer service as their favorite brands. To provide that, state and local agencies need to get creative.”

**Bob Nevins**

Industry Executive Director, State and Local Government, Oracle

renaming streets commemorating Confederate Civil War generals, it let people give their input via the Engage Fairfax platform rather than at public forums. The feedback led to the renaming of more than a dozen streets. In Seattle, citizens used the city’s Find It, Fix It app to help repair more than 23,000 potholes in 2022.

How far can governments go in digitalizing services? The government of Estonia reports that 99% of its public services—voting, tax filing, managing healthcare records, obtaining a birth certificate, receiving childcare benefits, you name it—are available online. Digitalizing these services saves the country an estimated 2% of its GDP, freeing up money to invest in national defense and other priorities, according to Estonia’s former national digital advisor.

“That’s exactly what people want,” Nevins says. “People today don’t see a line between public and private customer service. You have to meet them where they live, on their phones and laptops.”



## 4 Increase financial transparency

It's hard for government agencies to build citizen trust through transparent financial practices when they need a team of bloodhounds to find and then report routine data. Unfortunately, too much of that data remains locked up in scattered legacy applications, meaning reports that should take hours or even minutes to run sometimes take weeks or months—if they're run at all.

For example, over the past decade there's been a 13% increase in the time it takes local governments to complete municipal bond–related audits, according to a May 2023 study by the University of Illinois Chicago and Merritt Research Services. And some state and local agencies are missing deadlines for their annual comprehensive financial report (ACFR), which can hurt their credit standing.

Meantime, the scale of pandemic-related federal aid to states and localities, totaling \$1.2 trillion per year in 2021 and 2022, is putting financial transparency to the test. “It's a lot of money to account for, all of it coming with lengthy terms and conditions,” e.Republic's Morris says.

To help citizens follow the money, the feds are requiring state, city, and county recipients of pandemic-related funds to accurately report how they're spending those dollars and the results they're achieving.

New Hampshire built a website, TransparentNH, to account for its spending on services. The site's navigation tabs, where taxpayers can find answers to their questions with just a few

clicks, include “Where the Money Comes From,” “Where the Money Goes,” “How Government Finances Work,” and “Annual Reports.” West Virginia’s [wvcheckbook.gov](http://wvcheckbook.gov) not only opens the books on state-level spending but also shows county and city spending down to cell phone and travel costs.

Self-service portals for routine services also improve transparency. If individuals can hop online to check on a tax refund—as they can in Michigan, for example, with the eServices

“Federal and state auditors,  
not to mention citizens,  
are asking lots of questions.”

**Joe Morris**

Deputy Chief Innovation Officer, e.Republic

Individual Income Tax self-service portal—it’s a win for both open government and customer satisfaction.

Financial application vendors help when they preload their products with sector-specific features. If an ERP application comes with Governmental Accounting Standards Board reporting, for example, agencies gain a faster, compliant way to account for funds. Enterprise performance management applications that consolidate financial reporting data make it easier for agencies to develop and publish the ACFR and other complex reports.

US Congress did its part when it passed the Financial Data Transparency Act in 2022, requiring governments issuing debt to create financial disclosures in a machine-readable format. The requirement makes it easier for citizens to view such reports and put numbers into better context.

## 5 Bolster public safety

First responder organizations in the United States receive an estimated 240 million 911 emergency calls a year, each one a puzzle of what, where, who, how, when, and why. Who called and from where? What are the precise details of the emergency? Who should and can be dispatched and over what route? Lives hang in the balance. It's partly a data challenge, and an extraordinarily complex one.

Protecting and saving lives depends on timely access to information. Archaic systems are an obstacle. For example, legacy computer-aided dispatch systems process data much more slowly than simple Uber apps connecting people to rides.

Many localities are working with private sector tech specialists. The New York City Fire Department worked with several providers to build its Risk-Based Inspection System, which collects troves of information from city building inspections, an information gold mine for the department's firefighters. Insights into a building's risks—its structural integrity and record of safety violations—give firefighters a clearer picture of the dangers they face.

Some cloud platforms are designed to handle the full cycle of a public safety response by unifying software and hardware systems for first responders. When computer-aided dispatch (CAD) systems, wearable devices, and record management systems (RMSs) are integrated into one cloud platform, they provide first responders with comprehensive situational awareness to help them make objective decisions quickly. An efficient CAD system, for example, accelerates dispatch by automatically populating 911 emergency call information, identifying and merging duplicate calls, and verifying incident location in a blended map view. The system can notify dispatchers of a subject's mental health issues (identified through previous incidents at a location) so they can dispatch personnel trained to handle the incident.

Wearable devices such as body-worn cameras (BWCs) can activate under preset conditions and stream video in real time to the command center. The data mining potential of these

devices is further realized through real-time audio transcription that prepopulates RMS reports.

San Diego, California, is using existing infrastructure to improve public safety. The city's smart streetlights were already reducing energy costs and collecting traffic data. Cameras and automatic license plate readers installed on those streetlights are now producing videos and images that police are using to investigate and prevent crimes and presenting as evidence in court.

Police are also using real-time crime mapping systems, built on statistical analysis of crime data, to implement tactics to improve safety in targeted areas.

“Given the sheer volume of data public safety involves, newer technologies like AI can make a big difference,” says Shah, the former CIO of Oklahoma’s Department of Health and Human Services. “For instance, if someone driving a yellow Mustang abducts a child, an AI-powered solution could quickly identify all yellow Mustangs registered in the area.” Faster computing can propel faster crisis resolution.

Tight budgets are a big reason police, firefighters, and EMTs lack the latest technologies. The good news is that federal assistance is available under the 2005 Byrne Justice Assistance Grant Program and the 2021 American Rescue Plan Act (ARPA), even though public safety is mostly a local responsibility. As of mid-2022, \$10 billion in ARPA funds had been committed to public safety.



## 6 Move applications to the cloud

As state and local governments look to hire and retain skilled workers, harden their cyberdefenses, improve their service delivery, and operate more transparently, they'll need to rely on a variety of cloud infrastructure and application services. Indeed, most government process improvements and overhauls today are powered by cloud technologies, usually replacing on-premises systems.

Among the advantages particularly suited to government, cloud services are easy to deploy, requiring minimal staff for implementation, management, and security. They can be scaled up and down quickly, letting organizations pay only for the capacity and seats they need. Public cloud services deliver the latest application and infrastructure innovations quarterly without requiring costly upgrades. Cloud services can also be accessed from anywhere, accommodating employees and contractors who work from home or other remote locations.


In the past, government IT managers and their overseers had strong concerns about the cloud. They worried about violating data privacy and protection laws, and they feared losing control of data and creating security risks. Hidden costs were a common complaint, as was vendor lock-in, the perception that cloud providers made it expensive to replace them.

"A number of things eased those earlier fears," e.Republic's Morris says. "The technology now performs more consistently, service level agreements are more clear on expectations,



and various certifications give added peace of mind. Cloud security and speed are now an expectation. You no longer hear people say things like ‘cloud-based ERP.’ They just say ‘ERP.’ The cloud part is a given.”

## Outdated systems are holding back progress



**96%** of state and local government IT decision makers say critical infrastructures are at risk due to legacy applications or systems.



**87%** say legacy applications prevent agencies from delivering modern services.



**47%** say they've had a project fail in the past 12 months because legacy applications couldn't support it.

Source: MeriTalk, “Modernizing State & Local Government with Cloud,” 2022

After a slow start, 69% of US counties and cities have started moving their infrastructure, including storage and virtual machines, to a private cloud, according to a 2023 study by the Computing Technology Industry Association. The research also revealed that 71% have replaced on-premises applications with cloud-based ones.

State and local government departments are warming to cloud-based financial, HR, and other enterprise applications. Meantime, low-code/no-code development platforms let nondevelopers use intuitive drag-and-drop tools to build basic cloud applications that accelerate government hiring, easily craft citizen surveys, and offer simpler ways for people to pay for services.

On a more sophisticated, customized level, Rhode Island upgraded its unemployment insurance contact center, using the cloud to scale up and handle a surge in claims. Utah’s



Office of Recovery Services, which manages services related to child support, reduced operational costs by 63% when it migrated its legacy system to a cloud-based application. St. Paul, Minnesota, now has a 90% resolution rate for citizen requests since centralizing email, phone, and web requests on a cloud platform. When Maryland moved more than 40 applications to the cloud, it removed information silos, making it easier for departments to share data. Previously, the state's child welfare workers used three separate applications to find case information. Now they use just one.

# How can Oracle help?

## State and local governments trust Oracle Cloud Applications

States, counties, cities, and towns rely on the integrated suite of Oracle Cloud Applications to build a more responsive, highly skilled, transparent, and secure government operation.

The application suite includes the following:

- [\*\*Oracle Fusion Cloud ERP\*\*](#) gives organizations fast, secure access to financial data, including data from procurement and core accounting systems, and advanced capabilities such as AI-supported automation and reporting.
- [\*\*Oracle Permitting and Licensing\*\*](#) gives state and local government organizations a cloud platform that allows citizens to apply for construction permits, submit project plans, report code violations, and apply for business licenses through one convenient portal. Enhance the citizen experience while improving the permitting and licensing process and lowering costs.
- [\*\*Oracle Netsuite for Government\*\*](#) is an ERP solution that helps small to midsize government entities with financial management, procurement, and other aspects of resource planning.
- [\*\*Oracle Fusion Cloud EPM\*\*](#) helps state and local governments model, plan, and report on activities across finance, HR, supply chain, and other processes.
- [\*\*Oracle Customer Experience\*\*](#) lets state and local governments offer citizens a range of digital services, such as case management assistance and the ability to report public infrastructure problems, when and how they need them.
- [\*\*Oracle Fusion Cloud HCM\*\*](#) helps HR teams recruit, onboard, develop, engage, and retain a highly skilled workforce to deliver the level of services citizens expect.

Learn more about how [\*\*Oracle Cloud Applications\*\*](#) are helping state and local governments connect with citizens and empowering agency innovation.



## How can Oracle help?

### State and local governments trust Oracle Cloud Infrastructure

**Oracle Cloud Infrastructure** (OCI) services give state and local government agencies the power to build more-responsive, secure operations. Run any application, faster and more securely, for less.

- Vastly improve the performance of applications to boost efficiency, save money, reduce risk, and enhance quality.
- Move or extend VMware-based workloads to the cloud within your tenancy. Run high performance workloads and easily scale as needed.
- Quickly deploy Oracle and third-party solutions using a growing library of click-to-deploy images and end-to-end solution stacks.
- Optimize performance for Oracle E-Business Suite, PeopleSoft, JD Edwards, and other applications.
- Get all the benefits of OCI in your own data centers using Oracle Cloud@Customer.

Learn more about how **Oracle Cloud Infrastructure** is helping state and local governments secure sensitive data and empowering agency innovation.

## State and local governments trust Oracle Public Safety

[The Oracle Public Safety](#) product portfolio gives first responders, including law enforcement, firefighters, and emergency medical technicians, the hardware and software tools they need to boost efficiency and enhance real-time situational awareness, improving outcomes. The portfolio's integrated systems include a cloud-based dispatch command center, wearable computer system, vehicle communication system, and records management system.

Learn more about how the [Oracle Public Safety](#) suite is helping state and local governments protect citizens and empowering agency innovation.





## Helping governments work smarter

Oracle Cloud solutions help state and local governments better serve their constituents, with an emphasis on security, transparency, efficiency, and ease of use.

[Learn more](#)

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