



Modernize to thrive

A holistic approach to
delivering digital equity

Introduction

Technology modernization is fundamental to digital equity. Outdated approaches and technologies can't ensure vital digital services meet the needs of all residents, wherever they are and however they interact with government programs.

State and local government CIOs must create a broad equity strategy centered on rethinking digital services and their underlying systems to give all residents a chance to fully participate in today's digital world. This will require adoption of new technology models, increased diversity in government workforces, and expanded collaboration with public and private sector partners.

Modernization to meet resident needs

Leveraging cloud technologies will be critical to increasing digital equity. Cloud services let governments move faster on modernizing and scaling services that meet all constituents where they are.

CIOs can build on progress made during the pandemic.

"We saw a lot of infrastructure-as-a-service, platform-as-a-service, and particularly software-as-a-service-solutions" adopted very quickly, says Center for Digital Government (CDG) Senior Fellow Dugan Petty. The shift has set new expectations around both technological change and the pace of constituent service. "That trend is only going to continue," Petty adds.

The agility and speed-to-deployment of cloud solutions will be crucial for CIOs to respond to what is increasingly an executive-level mandate. Expanding, simplifying, and improving access to services for constituents and businesses ranked as the top leadership priority across state, city, and county governments, according to the latest benchmark surveys conducted by CDG.¹

Separate research from CDG and [Amazon Web Services \(AWS\)](#) confirms technology's vital role in enabling people to participate in many aspects of modern society. Conducted in late 2022, a survey of 52 leaders and stakeholders from 40 state and local jurisdictions found near unanimous agreement that technology is essential for providing access to jobs, economic development, education, government services and civic participation, health services, and accessibility through digital tools and translations.

What is digital equity?



Ensuring public services are intentionally designed and delivered for all constituents with diversity, equity, and inclusion in mind.



Enabling opportunity to build the digital skills required to participate in democracy, society, the economy, and lifelong learning.



Driving ubiquitous access to and affordability of broadband connectivity, technology equipment, and training.

The agility and speed-to-deployment of cloud solutions will be crucial for CIOs.

Several innovative initiatives provide a blueprint for action. The city of San Diego's "SD Access 4 All" uses enterprise cloud systems to drive decision-making and deliver digital equity assets, including open public Wi-Fi, hotspots, and free technology support and training to the areas that would benefit the most. And the city of Bellevue, Washington, offers interactive community dashboards for police and environmental performance data, as well as a chatbot service that answers questions in eight languages.²

Challenges and a critical disconnect

State and local governments face considerable challenges delivering on the promise of more equitable digital services.

CDG/AWS survey respondents said a lack of resources presents the greatest barrier. While most state and local governments have navigated the fiscal transition from capital to operational expenditures as they adopt new cloud and as-a-service models, many are now confronting the end of federal pandemic relief funding.

Cloud technologies also require new skillsets to deliver evolving, well-designed experiences at scale. That's a challenge when many jurisdictions are already having difficulty attracting and retaining IT talent. At the same time, states and localities are struggling to make sure their technology workforce fully represents the communities they serve—essential for designing equitable, human-centered digital services that address all constituents' needs. For example, despite efforts to attract a diverse IT workforce within state CIO offices, only 16% of respondents to a 2022 NASCIO survey said 40% or more of their job applicants would be considered diverse.³

Driving digital equity thought leadership

The CDG Digital Equity Advisory Council helps state and local government organizations execute on digital equity programs and practices. The initiative aims to elevate digital equity education, take policies and practices to the next level, and engage executive leaders—including CIOs, CTOs, and chief diversity officers—in the digital equity imperative.

Comprising state and local government leaders and industry experts, the council is underwritten by AWS. Initial meetings held in 2022 focused on creating actionable steps to address diversity in the government workforce and increasing the number of women and underrepresented minorities in STEM careers to support equity in service delivery.

Large majorities of state and local governments have widened the lens of their digital equity initiatives to address these challenges. According to the CDG survey, all participating cities and K-12 systems (100%), 66% of counties, 64% of states, and 75% of higher education institutions have staff dedicated to digital equity programs. “The greatest success I see so far is that we’ve been able to bring everybody to the table,” said one CDG survey respondent. “This county is completely united and chasing this thing together, which is great.”

But many jurisdictions still face a familiar problem: organizational silos that have long plagued government. Only one in three jurisdictions include existing diversity, equity, and inclusion (DEI) initiatives in their digital equity efforts, according to the CDG survey.

Across all governments and institutions, IT and broadband offices are most likely to lead digital equity efforts. Their leaders can bridge these silos by implementing modern technology that can scale to meet the full range of community needs, and by forging partnerships with internal and external stakeholders—as well as technology providers—to help deliver on the more expansive promise of digital equity for all.

Reframing digital equity

To move forward, governments and education institutions must recognize that digital equity begins with a modern technology platform that provides access to government services for all constituents. To achieve true digital equity, they must make sure all constituents can use these services in ways that improve their lives. Doing so requires IT leaders to develop plans to guide their communities and stakeholders through the continuum of digital equity.

“Legacy technologies often cannot support the increasing demand and evolving needs for government e-services,” says Laura Avent, an AWS executive government advisor. “Governments will need to increase current workforce skills on modern technologies while simultaneously supporting greater constituent digital engagement.”

This will require governments to rethink their IT talent strategies to strengthen their ability to deliver services from the cloud. Delivering more equitable services also requires collaborating with a broader range of stakeholders and exploring new public-private partnerships.



Only
1 in 3
surveyed
jurisdictions
include existing
**diversity, equity,
and inclusion**
initiatives in their
digital equity
efforts.



More than access: A continuum of digital equity

Digital equity begins with access to the internet but ultimately includes the ability to use technology in ways that improve lives. With federal broadband funding increasingly emphasizing access beyond mere connectivity, it's essential to understand the full spectrum of digital equity.

Digital void

is a complete lack of internet access. Addressing the digital divide has been a long-standing focus of policymakers, but it represents only the first step.

Digital enablement

means providing access to the internet and devices. Once considered synonymous with digital equity, it's now recognized as the bare essential for building a more inclusive approach.

Digital proficiency

is the knowledge and ability to use the internet to seek resources and programs and successfully take advantage of them, and use digital platforms to participate more broadly in society.

Work-ready skills

refers to the development of technology skills that allow constituents to contribute to the modern digital economy and enter jobs that can support them and their families, helping build sustainable communities.

Digital equity

is achieved only when all constituents, including women and minorities, have developed the digital proficiency and work-ready skills to enter high-value careers that lead to full participation in the economy, society, democracy, and lifelong learning.

To drive digital equity in all aspects of government and civic life, policymakers and government IT leaders can take six key steps:

1 Redefine the concept. Governments must reframe digital equity as not only giving constituents access to the internet, but also the digital literacy needed to participate fully in democracy, society, the economy, and lifelong learning. Federal funding requirements are driving states to create expansive five-year digital equity plans, and cities are most likely to have already established goals, according to the CDG survey.

2 Align services to meet the needs of communities, with an emphasis on human-centered design. Digital equity initiatives need to evaluate current and planned digital services to make sure they meet the needs of all residents and are accessible across all devices. They also need to assess the extent to which existing technology infrastructure can provide those services. One focus should be ease of use to increase digital adoption among less savvy users.

3 Use modern technology to scale and expand digital services. Meeting the needs of all residents requires moving to modern cloud technologies and service models to make sure programs can scale and adapt as expectations evolve. This step will require greater partnerships with technology providers to help supplement and build internal skills.

4 Build a government IT workforce that mirrors the community.

A diverse workforce that represents a community's residents will increase the odds of success for new digital services by ensuring they are more focused on digital equity. Diversity is itself a necessity to build a skilled workforce, as 76% of job seekers consider a diverse workforce an important factor when considering job offers.⁴

"It is imperative that governments attract, retain, upskill, and reskill the workers who are responsible for developing and delivering these services," says Kimberley Williams, state and local government leader for AWS. "If you change the workforce, you can change your results."

Government leaders can employ a range of strategies to attract and retain diverse technology talent, from evaluating job descriptions and recruiting non-STEM skillsets to building support structures for diverse hires. They must also look



Diversity is itself a necessity to build a skilled workforce, as

76% of job seekers consider a diverse workforce an important factor when considering job offers.

Many federal funding opportunities can help governments approach digital equity in more comprehensive ways.

beyond developing their own staff and collaborate with other stakeholders to build broader talent pipelines that benefit local businesses and create opportunities for constituents.⁵

5 Leverage federal funding, community partners, education institutions, and technology providers to achieve digital equity objectives at scale. Many federal funding opportunities can help governments approach digital equity in more comprehensive ways. Some include funding for digital literacy training or the development of digital equity plans.

Partnerships will also be critical to long-term success. IT leaders must develop new relationships with internal partners (DEI offices, libraries, education institutions, economic and workforce development, health and human services, and housing departments) and external stakeholders (community organizations, foundations and nonprofits, private industry, other jurisdictions, and state broadband offices). They must also work with technology industry leaders and enter new kinds of public-private partnerships to scale digital equity efforts.

6 Connect DEI and digital equity efforts in a holistic strategy with measurable goals. Digital equity must be an overarching priority, not just an IT or broadband office initiative. It's also essential to track progress toward goals. CDG survey participants cited a variety of approaches for doing so, ranging from digital equity surveys and accessibility and user experience (UX) assessments of digital services to needs assessments and the use of third-party data, including information from federal broadband surveys and providers. Although many cities and counties are using such metrics to track progress, just over half of states (58%) currently do so, according to the CDG survey. Implementing such systems is imperative, as NTIA Digital Equity Act funding requires states to include measurement plans.

Governments have an unprecedented opportunity to improve the lives of their residents. Following these recommendations will help states, cities, counties, and education institutions advance true digital equity for all.

This piece was written and produced by the Center for Digital Education Content Studio, with information and input from AWS.

Endnotes

1. 2022 Digital States, Digital Cities and Digital Counties Surveys
2. <https://www.govtech.com/dc/digital-cities-2022-building-resilience-equity-and-inclusion>
3. https://www.nascio.org/wp-content/uploads/2022/05/NASCIO_DiversityInclusion_2022_AD.pdf
4. <https://www.glassdoor.com/employers/blog/diversity/>
5. Learn more at <https://papers.governing.com/Digital-Equity-Building-an-Inclusive-Government-that-Works-for-All-141831.html>.

Produced by:



Government Technology is about solving problems in state and local government through the smart use of technology. Government Technology is a division of e.Republic, the nation's only media and research company focused exclusively on state and local government and education.

www.govtech.com

Sponsored by:



Amazon Web Services (AWS) Worldwide Public Sector helps government, education, and nonprofit customers deploy cloud services to reduce costs, drive efficiencies, and increase innovation across the globe. With AWS, you only pay for what you use, with no up-front physical infrastructure expenses or long-term commitments. Public Sector organizations of all sizes use AWS to build applications, host websites, harness big data, store information, conduct research, improve online access for citizens, and more. AWS has dedicated teams focused on helping our customers pave the way for innovation and, ultimately, make the world a better place through technology. Contact us to learn how AWS can help you with your biggest IT challenges.

Learn more at aws.amazon.com/government-education/