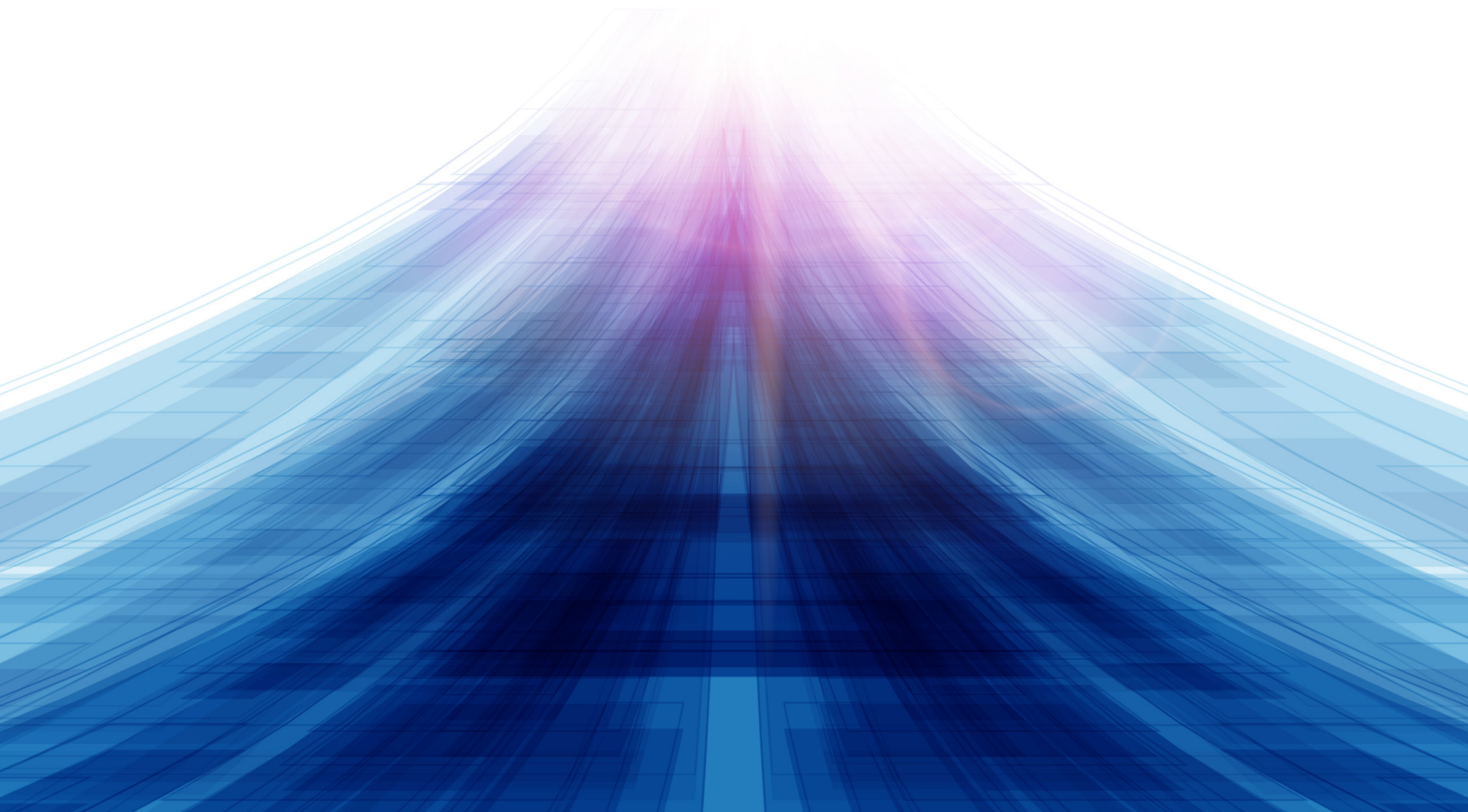


# THE FUTURE STATE CIO

**How the role will  
drive innovation**





# INTRODUCTION

If asked to create a metaphor for their legacy systems, many state CIOs might describe them as a sprawling 1970s sedan. They would laud the car for its solid steel frame but note that its engine isn't as fuel efficient and its handling isn't as nimble as newer models. And despite making many updates over the decades, they would have to admit that the old sedan simply can't match the security and other features of newer models. They might even say that it sometimes seems as though the road itself has transformed, and as the old sedan chugs along, sleeker, more modern vehicles zip past on the way to new destinations.

On a real-life highway, junking a gas-guzzler might seem the only viable choice. Fortunately, state governments are using a variety of vehicles—including cloud computing, ecosystem partnerships and greater cross-agency collaboration—to adapt and evolve their infrastructures. And while state CIOs historically have served as mechanics responsible for keeping IT engines running, today's leaders have opportunities to put themselves at the wheel as drivers and conductors of innovation beyond technology systems.

As part of its 50th anniversary, NASCIO joined Accenture to study these opportunities for state CIOs. For this study we defined “innovation” using the following criteria: novelty (applying a radical new idea or applying an existing idea in a different way), implementation (putting the idea into action) and success (generating a successful outcome while recognizing that failure is part of the learning process).

Through our survey and series of one-to-one interviews, the research explored three key questions:

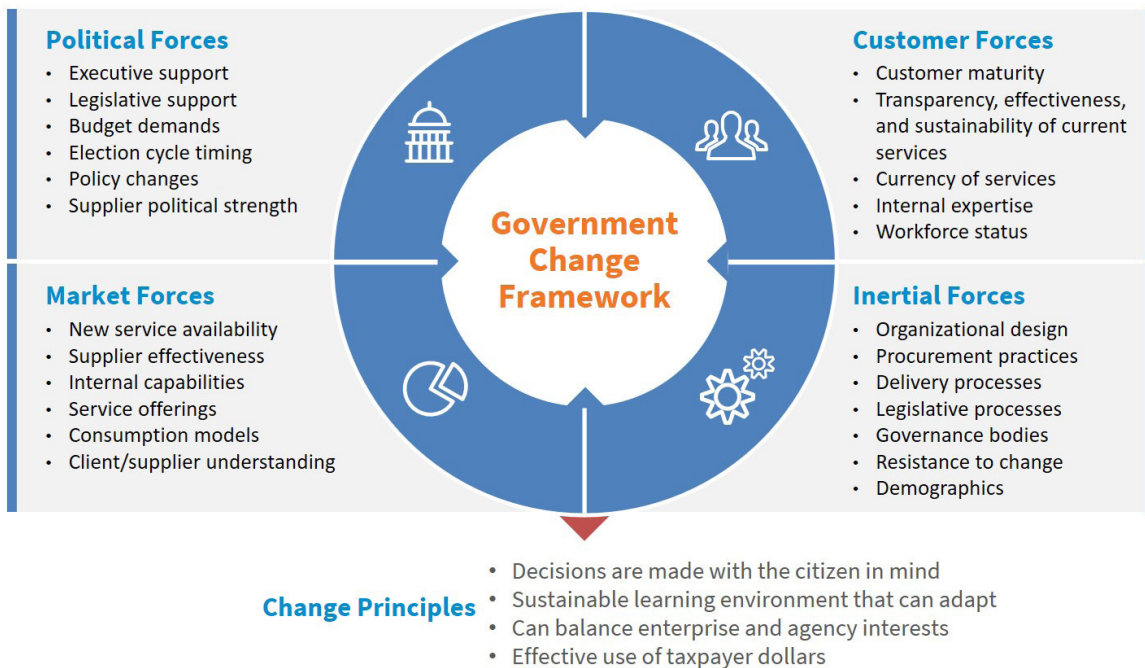
- What **role** does the state CIO play as catalyst and convener to drive innovation?
- How do state IT organizations build the **capacity** to innovate, and where are the **best practices** that drive this?
- How does the state CIO of the future embrace new and emerging technologies to create the **best government outcomes**?

**This report shares our findings and analysis—illuminating compelling opportunities, persistent obstacles, strategies for accelerating innovation and inspiring case studies of leaders who are already making great progress.**

# UNPRECEDENTED FORCES OF CHANGE

To revisit the highway metaphor, state CIOs are correct to sense change both in the rules of the road and the road itself. Indeed, they are working in an unprecedented environment characterized by four forces of government change (see Figure 1). Across the country, states are operating amid constrained resources and increasing demand. All the while, the pace of change keeps accelerating—requiring governments to respond in new and different ways.

Figure 1. The four forces of government change<sup>1</sup>





The population is aging, with most American counties seeing a decline in the number of “prime working age adults.”<sup>2</sup> An aging population brings higher demand for government services even as the fiscal burden keeps growing and talent pool keeps shrinking. In the U.S., state government revenue has been slow to rebound from the last recession, with only 34 states recovering from those losses and nine of those reaching the pre-recession level only in the fourth quarter of 2017.

At the same time, technological changes are impossible to ignore. Governments face constant cyber risks, including the threat of cyber ransom and being held “hostage.” A major example is the coordinated 2019 cyberattack that impacted 22 Texas towns, whose computer systems were “hacked, seized and held for ransom.”<sup>3</sup> Meanwhile, citizens expect government to operate like the Amazons and Ubers of the world—offering a personalized experience with quality digital interactions. Indeed, 91 percent of customers prefer personalization, and 74 percent are willing to passively share data to get it.<sup>4</sup> Speaking of data, governments face unprecedented—and growing—volumes of data, with 175 zettabytes of data projected worldwide by 2025.<sup>5</sup> The wealth of data can be valuable for advanced analytics, but it also poses significant challenges in terms of managing and protecting it.

Beyond fueling cyber and customer experience challenges, new technologies are also catalyzing opportunities to question the status quo. Even if a state does not adopt them, evaluating new solutions helps validate current practices and processes and may identify ways, subtle or radical, to improve them. It can also help in nurturing a culture that is open to innovation—one that recognizes the value of questioning longstanding strategies, workflows and platforms and finding ways to make them better. Ultimately, every state must develop or strengthen the ability to identify, test and implement innovations—and do it at speed and at scale.

## **The state CIO will be central to success.**



# BROKERING INNOVATION AT MULTIPLE SPEEDS

NASCIO has made the case that working in a “broker” model will allow state CIOs to accommodate shifting demands and changing technologies. Many states are still in the early stages of this transformation. In a 2018 NASCIO survey of 25 state CIOs, 64 percent were still looking ahead to eventually adopting this model. Interestingly, 20 percent were anticipating the predominant model will be a broker of services model, and 16 percent were already acting as a broker.<sup>6</sup> More recently, NASCIO’s 2019 Annual State CIO Survey revealed a number of obstacles to the broker model. Most state CIOs cited change management and the evolving role of the traditional workforce as challenges. In addition, NASCIO found a large jump in the number who pointed to culture as a challenge—45 percent, up from 14 percent in 2018. Effective governance and current funding models also remain challenging for these leaders.<sup>7</sup>

To realize the full innovation opportunity, state CIOs must fundamentally change how they operate. It will no longer be enough to serve as the “mechanics” of technical systems. Instead, these CIOs need to continue evolving as brokers—skilled “conductors” of collaboration and change throughout state government. In becoming brokers, they have greater latitude to innovate. With fewer constraints related to internal skills, technologies, resources and costs, they can select the best solution for their customers based on leading capabilities and elastic supply available in the marketplace. That, in turn, puts the focus squarely where it belongs: serving citizens in the best way possible at scale and at speed—not just the best way that internal capabilities permit.

As they continue evolving into brokers of innovation, state CIOs can use two-speed or multi-speed IT. This approach combines business as usual for legacy systems while creating an accelerated track for innovation. Two-speed IT can put the state in the “fast lane” by implementing an operating model that creates space for innovation, quickly addressing ever-changing digital opportunities and ensuring that governance, people, policies and processes are highly responsive to digital demands. At the same time, they can retain a traditional model for maintaining and running their “1970s sedans”—the very large, complex and mission-critical transactional and processing systems that power state business.

# SURVEYING THE STATE OF INNOVATION

We surveyed 35 state CIOs and conducted in-depth interviews with 10 state CIOs, who all agreed that innovation is much more than a new technology. They are aligned in thinking that innovation is achieved by driving a change that adds value to stakeholders while using the latest technology to support those changes. What's more, "Innovation and Transformation through Technology" arrives on the NASCIO State CIO Top Ten Strategies, Policy Issues and Management Processes for 2020.<sup>8</sup> In one-to-one interviews, CIOs shared the following:

*"Innovation to me is not about going out there and getting the latest and greatest technology and slapping it in... It's about driving change from a business processing perspective and then technology can help make that change occur."*

*"[Innovation is asking,] 'Can we do things differently to reach a positive outcome?'"*

*"Innovation is a value-add change of state... Innovation not only has to have an idea; it also has to have implementation and execution. We didn't continuously improve the candle to get to lightbulbs. The lightbulb was an innovative event."*

*"[Innovation is] a constant and continuous improvement of process."*

Finally, as Washington State CIO Jim Weaver noted at the NASCIO Annual Conference in 2019, "[Innovation] is rarely, if ever, a huge jump into some transformational change. Rather, it's a continual and gradual change process with many small steps."

In the survey, state CIOs indicated that innovation investments span a range of objectives—from transforming legacy systems to shoring up the workforce (see Figure 2). More than half (60 percent) reported multiple focal points for innovation, including improving outcomes for citizens (see Figure 3).



Figure 2. Investing in innovation

To the best of your ability, please estimate what percentage (adding up to 100%) of your innovation investments and efforts are dedicated to each of these activities:

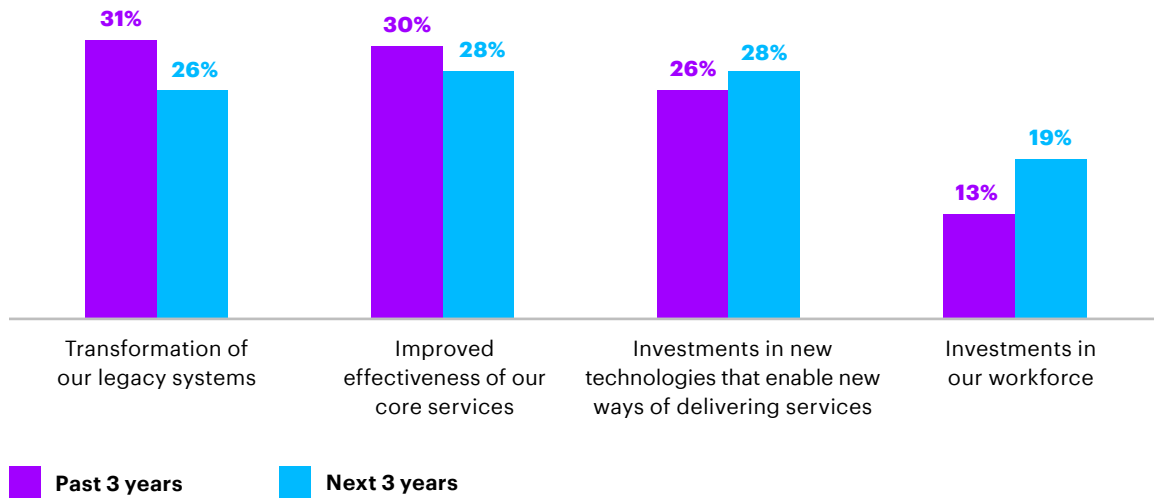
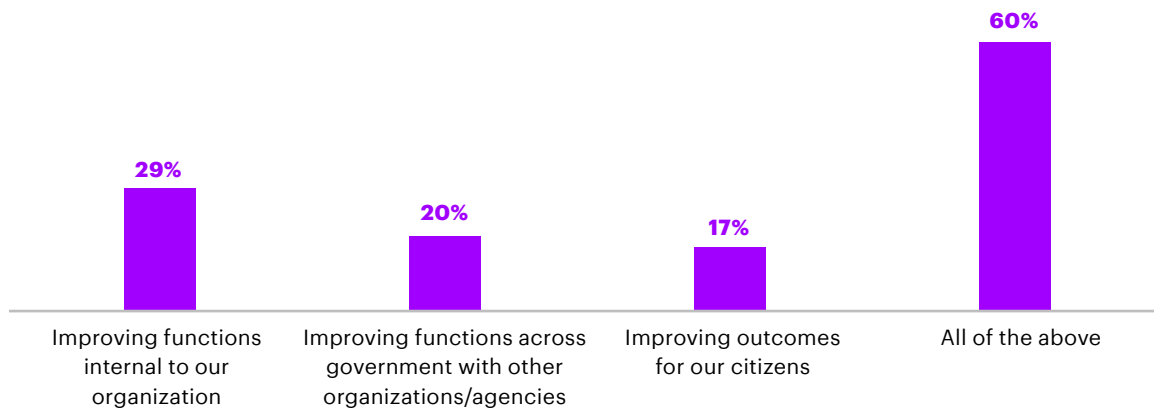


Figure 3. Focusing on innovation

Thinking of innovative initiatives your organization has implemented, what has been your primary focus?

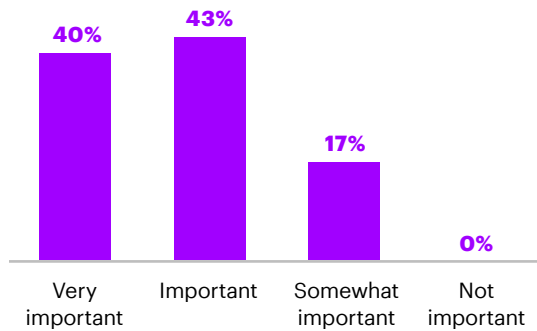


Whatever the form or focus of innovation, the payoff should be better outcomes. Despite that potential—and state CIOs’ alignment on defining innovation—there seems to be a disconnect between its importance and its prevalence in the day-to-day activities of their organizations. Eighty-three percent of state CIOs consider innovation an important or very important part of their job, but only 14 percent reported extensive innovation activities within their organization (see Figure 4). We see this finding as evidence that these leaders have rich opportunities to grow, stepping up and taking the lead for innovation across state government.

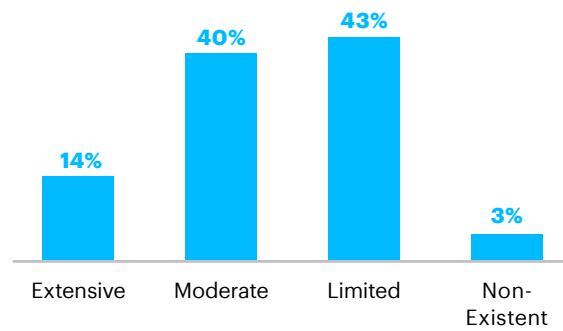
Figure 4. Innovation gap

**State CIOs see innovation as a major part of their job, yet only 14% report extensive innovation**

How important do you see innovation as part of your day-to-day job and leadership responsibilities?



How would you rate the innovation activities of your organization?





# BARRIERS TO INNOVATION

State CIOs cited barriers they encounter while working to both keep the lights on and drive innovation. While there are always state-specific nuances, several common themes emerged in our one-to-one interviews.

## CULTURE

*"Leadership of the agencies remains in place; there's no change out. So the benefit of that is there's a lot of continuity [and] stability. There's a lot of great programmatic things that are going on within the agencies. But the bad thing about it is there's less likelihood of doing change. What I've learned here [so far] is there is a culture that is somewhat resistant to change."*

## TECHNOLOGY DEBT

Seventy-one percent of state CIOs indicated that technology debt in legacy systems makes their organizations less responsive to changes in the market; 54 percent see technology debt directly impacting innovation (see Figure 5).

*"You can't innovate if you're running on Windows NT or Windows 2003 and the current operating system is Windows 2016. There's nothing you can do on 2003 that's innovative because nobody is doing anything. It's not even supported anymore."*

## RISK AVERSION

*"We believe in unlimited first-time mistakes. Don't make the same mistake twice. In some other cultures, they may describe that as 'fail fast.' I don't like the idea of 'fail fast.' I think it's better described as 'learn fast.'"*

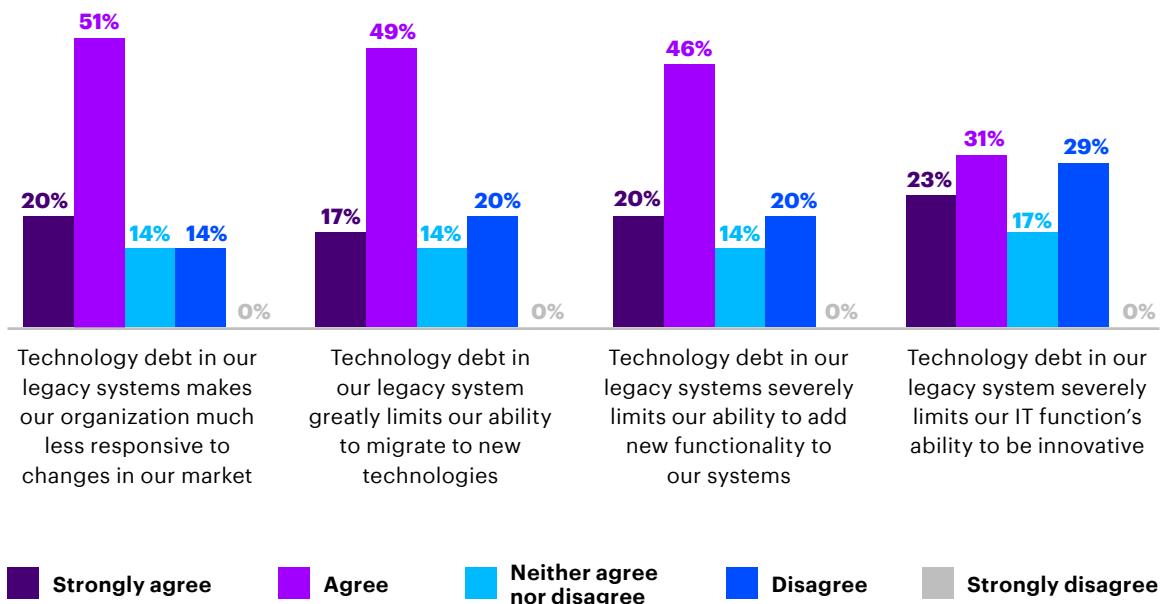
*"A \$100 million lesson I learned gets you in the paper. A \$10,000 lesson learned helps you avoid the paper."*

## BUY-IN

*"It actually seemed very promising as we were going through the sessions, and then when it got time to do the proof of concept, it feels like people aren't leaning in as much. We're working through that right now, to say, 'We actually need a couple partners to execute with us,' and folks aren't jumping up and down to do that. It could be an indication that they don't see the value in it, or maybe it's threatening."*

Figure 5. The high cost of technology debt

Please indicate your level of agreement with the following statements:



**How can state CIOs overcome these common barriers and become brokers of innovation and supporters of outcomes? The NASCIO-Accenture research points to the critical role of culture along with five other success factors.**



# KEY FACTORS FOR SUCCESSFUL INNOVATION

Innovation is about applying a radical new idea or applying an existing idea in a new way—a goal often at odds with government’s risk-averse organizational design and culture. Thus, tackling culture obstacles and nurturing culture change underpins all successful innovation. We will share a number of “Culture Considerations” throughout the balance of the report, along with five other factors essential to successful innovation:

- 1 **EXECUTIVE SUPPORT**
- 2 **GOVERNANCE**
- 3 **FUNDING**
- 4 **ECOSYSTEM**
- 5 **NEW SKILLS**



## 1 EXECUTIVE SUPPORT

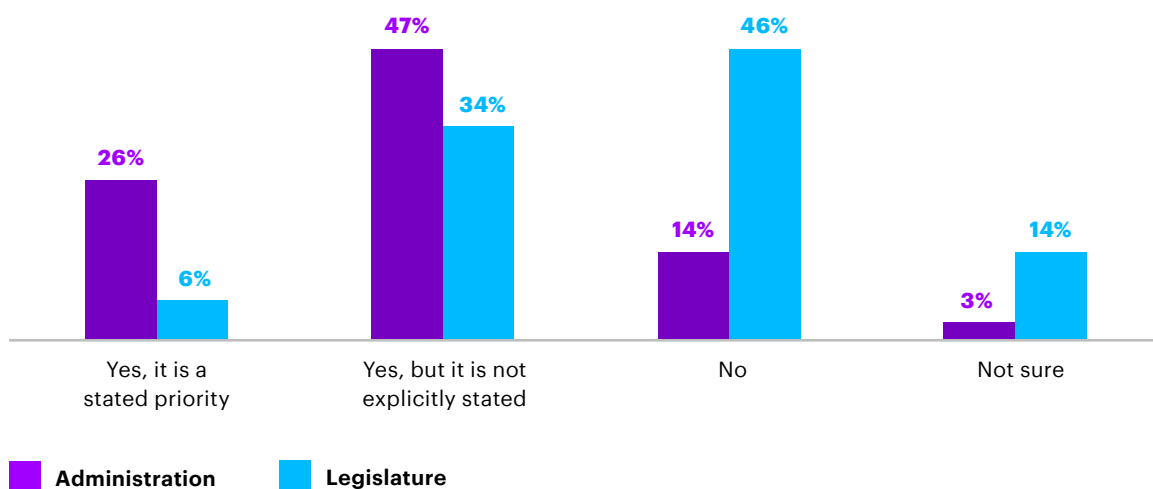
Twenty-six percent of state CIOs said innovation was a stated priority for their administration, while 47 percent said it was a priority but not explicitly stated as such (see Figure 6). Executive support helps give these CIOs the ability to drive innovation. Some administrations stand out for their public commitment to innovation.

- Georgia Governor Brian Kemp created the Georgia First Commission and tasked it with removing inefficiencies and streamlining government for businesses in Georgia. This will not only help these businesses to grow but will also make it easier to spur innovation.<sup>9</sup>
- Ohio Governor Mike DeWine has created InnovateOhio, an office that acknowledges technology is changing everything and focuses on how the state can adapt to that change and drive innovation. Led by Lt. Governor Jon Husted, InnovateOhio has prioritized improving the customer experience across all state agencies, using technology to lift all Ohioans in both urban and rural areas and streamlining shared services across all agencies, including improvements in data sharing.<sup>10</sup>

Innovation appears to be less of a priority for legislatures, with just 6 percent of state CIOs noting that it is a stated priority and 34 percent reporting that it is a priority but not explicitly stated. How executive support affects a CIO will vary based on state-specific nuances, particularly the differences between centralized and federated models.

Figure 6. Innovation: An executive and legislative priority?

**Has the current administration/legislature of your state made innovation a priority?**





# CULTURE CONSIDERATION

Inside and outside state government, human beings are wired to welcome predictability and stability. Compounding that are government incentives, which aren't usually designed to promote innovation. Understandably, workers may focus on following the status quo to avoid punishment versus taking risks for what may seem like non-existent rewards.

The state CIO can play an important role in making innovation safe and desirable within government. First, these leaders can continually identify and work to remove unnecessary bureaucratic barriers to innovative ideas, including creating new rewards for innovative employees. Second, through frequent communication, state CIOs can encourage new thinking, persuade workers to take small risks and allow experimentation that helps the workforce learn by doing.



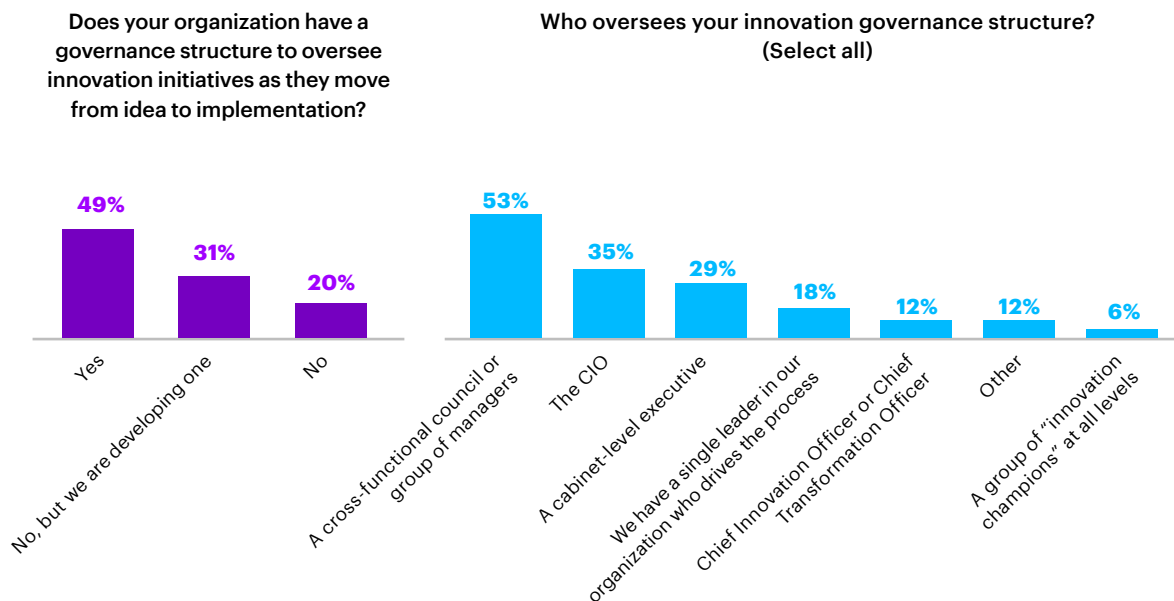
## 2 GOVERNANCE

Almost half of state CIOs (49 percent) reported having a governance structure in place to oversee innovative initiatives. Another 31 percent indicated that they are currently developing such a structure. Among those with governance in place, oversight is most commonly held by a cross-functional council or group of managers (53 percent; see Figure 7). Following that is CIO-led governance (35 percent), with the Commonwealth of Pennsylvania providing a real-world example (see sidebar on page 15).

Of course, the format of governance varies considerably from state to state, and one size does not fit all. While Pennsylvania uses a CIO-led structure, other states have created an organization that rolls all government agencies into cabinets that help capture innovative ideas. As one CIO interviewee explained, “We have what is called [a governance entity], and it resides in the state CIO’s office. In this case, the state CIO is the chair of that entity, with the members from the 10 cabinet agencies, including agency CIOs. We have 130+ state entities, all rolling up to 10 cabinet agencies.”

Some states have created specific entities within an agency to help capture innovation opportunities. As another interviewee noted, “We [created] a governance section within our agency. We coupled it with our customer engagement team. Our goal there was to have our folks that are working directly with our partner agencies connected with innovation. For example, if we notice that everybody’s still shuffling a bunch of paper around government to get signatures and driving up and down the state, maybe our innovation team should explore digital signatures and how we can roll that out from an enterprise perspective.”

Figure 7. Governing innovation





# PENNSYLVANIA

## JOHN MACMILLAN

Deputy Secretary for Information Technology and CIO

The Commonwealth of Pennsylvania has implemented a CIO-led governance structure, with a four-step process for advancing innovation:

**1. Collecting demand.** At present, Pennsylvania is using a project and portfolio tool. But as MacMillan explains, he sees an opportunity to begin the process even sooner: “By the time you’re there, you’re a little late in the ideation process. We know that idea tracking starts far earlier than ‘I think I’m ready to launch a project.’”

**2. Evaluating ideas.** Once an idea or demand is captured, MacMillan and his team evaluate it in terms of potential outcomes for the citizens and businesses it serves, the program administrators it supports and enables, and then whether the Commonwealth can execute. As MacMillan explains, “We’re considering the capabilities—not the technology, but the capabilities to take an incremental step and deliver.”

**3. Conducting formal assessments.** Once MacMillan and his team have determined that an idea or a demand is novel, valuable and meaningful—and that it fits with Pennsylvania’s context and capabilities (“that it’s not a leap over a canyon on a bicycle,” as he puts it)—they conduct a formal business assessment and technical assessment.

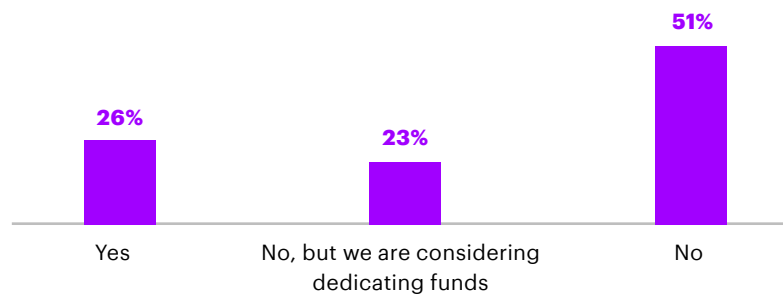
**4. Preparing and sharing a business case.** With the upfront work complete, the team builds a business case (essentially a proposal), which goes to the governance group for review. “They see the result of all of this evaluation and assessment work. They see the scope and clear statements. They have a sense for the cost and any issues and risks. They also have a sense for the timeline, and they say, ‘Okay this doesn’t seem to be as scary as we thought it might be,’” MacMillan says. Only then does IT, together with multiple agencies, decide to move forward with an innovation.

### 3 FUNDING

Not surprisingly, a majority of state CIOs (63 percent) identified funding as the top barrier to innovation. Just 26 percent said they had funds dedicated to innovation, while 23 percent said they were considering dedicated funding. Just over half (51 percent) said they did not have funding at all (see Figure 8). Findings of the 2019 State CIO Survey, *The Responsive State CIO: Connecting to the Customer*, affirmed this challenge, with the current IT cost management model offering insufficient flexibility for the evolving CIO business models and the desire for innovation.<sup>11</sup>

Figure 8. Funding innovation

**Does your CIO organization have funds dedicated to innovation?**



Finding ways to pay the tab for innovation will, not surprisingly, require some innovative thinking. In their role as brokers, state CIOs may need to engage with other leaders, inside and outside state government—giving a mix of players a seat at the table and the opportunity to contribute. The State of Delaware provides a great example of this approach (see sidebar on page 17). Another option may be public-private partnerships where private companies put “skin in the game” through value-based arrangements.

*“It’s easier to predict budgets year over year when the cost is operationalized. It makes it a more steady, sustainable funding source—especially when you must go to the legislature for funding every year. You can show the value, you can show the cost, and you can predict the trend of future cost. It’s far more sustainable than, ‘Give me money today and I’m not sure how I’m going to get it tomorrow.’”*

More than ever, state CIOs must collaborate to fund innovation, but it’s a worthwhile effort. Private-sector research has shown that commercial leaders who dedicate a higher proportion of their IT budgets to innovation also see better growth. In fact, 93 percent of leading businesses had previously increased their spending on innovation.<sup>12</sup>





## DELAWARE

**JAMES COLLINS**  
Chief Information Officer

With a mostly centralized delivery model and chargeback system, the State of Delaware Office of the CIO carves out some of its budget to fund innovation. It also works with agency partners to explore new approaches. CIO James Collins cites a recent blockchain initiative as an example: “Blockchain is a Department of State initiative. We’re partnering with them, but they’re funding the innovation on that. If it’s agency-centric, then that agency funds it. But if it’s enterprise-centric—something that we’re exploring—then we typically will fund the initial portions of it.”

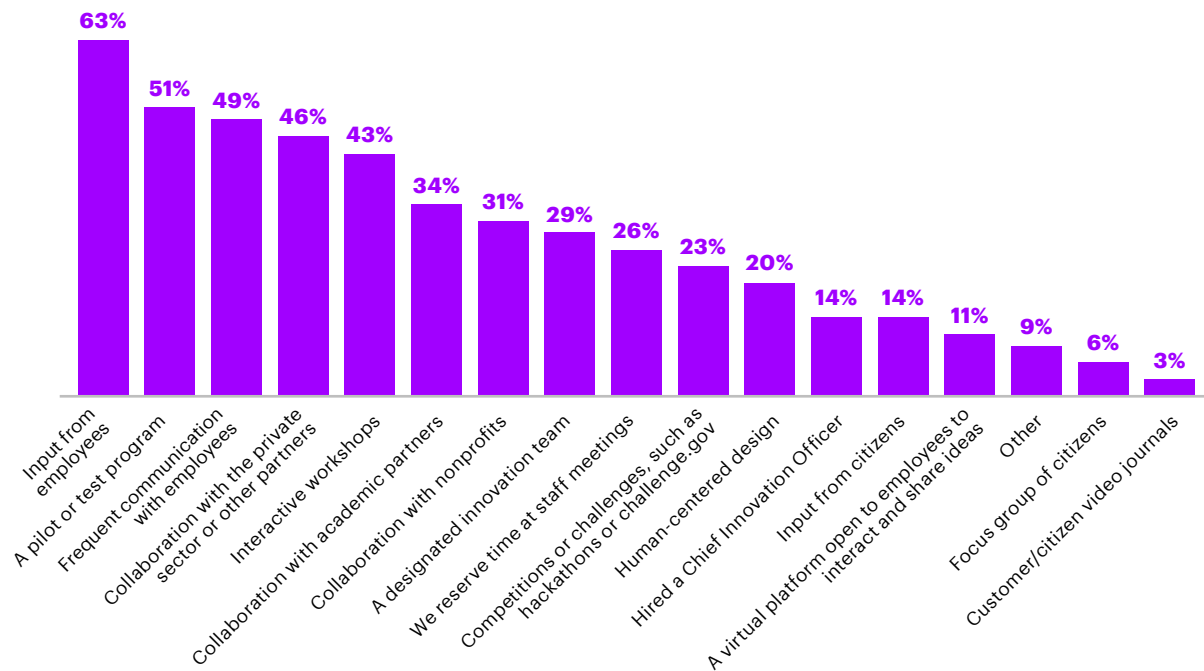
## 4 ECOSYSTEM

In nature, ecosystems are made up of diverse organisms that interact with each other and their environment. In public sector, ecosystems are made up of state government agencies, nonprofit organizations, community-based organizations, third-party partners and the citizens being served. States increasingly recognize the value of engaging other members of their ecosystem to spur ideas and co-create innovations and should look to a broad array of partners to spur innovative ideas. Expanding their ecosystem and creating new partnerships could generate a completely novel approach to solving a government problem.

In the NASCIO-Accenture survey, state CIOs indicated that they most often ideate through input from employees (63 percent) or frequent communications with employees (49 percent). Others collaborate with the private sector or other partners (46 percent) or academic partners (34 percent). Far fewer (14 percent) ideate with citizens (see Figure 9). And co-creation with citizens is even less common, with only 3 percent reporting that they often co-create with citizens. Again, state CIOs most often co-created with employees in their organization (49 percent) or senior leaders (69 percent; see Figure 10).

Figure 9. Sources of innovative ideas

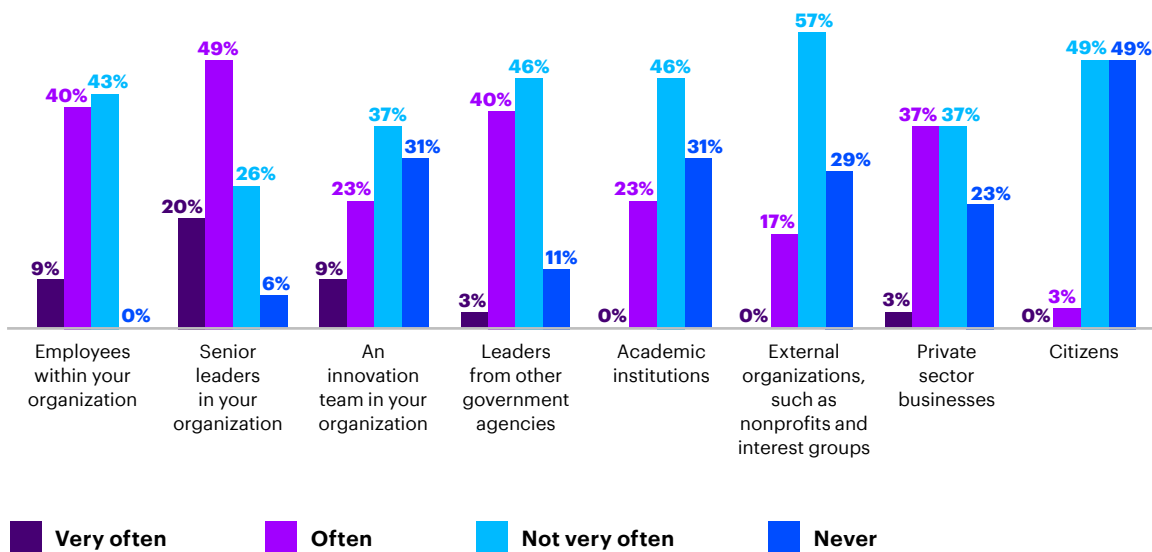
**What methods do you use to spur innovative ideas? (Select all)**



Even though 57 percent of state CIOs reported that citizen satisfaction was a top way to measure innovation outcomes, few seem to have their customers’ customers—the end user or the citizen—actively engaged in the process (see Figure 10). A better understanding of how citizens use government will not only lead to better outcomes, but could identify a whole new approach to delivering services.

Figure 10. Most frequent collaborators

**How frequently do you co-create innovation initiatives with each of the following:**



In addition to engaging citizens as part of the innovation ecosystem, state CIOs have an opportunity to build strong business cases and mature cultures that can withstand administration changes. A diverse ecosystem can be a valuable support in making sure that the best ideas endure even after an election. Some state CIOs said they frequently leverage public-private partnerships to gain insight on innovative ideas and technologies.

# CULTURE CONSIDERATION

**The NASCIO-Accenture study pointed to the need for a delicate balance when making “space”—literally and figuratively—for innovation.**

On one hand, having a dedicated innovation committee, studio or lab can provide a focal point for an innovation ecosystem. On the other, too much emphasis on a single space or team may inadvertently create an impression that innovation is “someone else’s job” when, in fact, it is the responsibility of everyone in state government. As one state CIO noted: “I think one of the things that we struggle with is people tend to narrow when you talk about ‘innovation center.’ We have innovation centers, but we don’t want people to think you only need to go there to be innovative. That is where we showcase some innovation, so if we’ve got agencies that are working on innovative items, other agencies come in and try it out... It’s almost like a ‘try before you buy.’”

State CIOs have an opportunity to help cultivate a culture of innovation where everyone in state government is thinking about how things are done and feels open to sharing their own observations and questions. Everyone should be asking, “What if?” That requires a safe environment where people feel comfortable to put forth ideas even when they are not fully developed. Empowering groups to brainstorm and iterate together will result in ideas that are more doable, more defensible and easier to fund.



To achieve the balance, states may consider creating a virtual “government innovation lab” that combines government agencies, corporate partners, academia and nonprofits. In effect, the extended ecosystem becomes the “lab,” with interconnected relationships and efforts informing one another. This approach can help prevent redundant evaluation and investment in research and development. But for this approach to work, the state CIO must serve as the convener of the necessary forums to ensure everyone is informed and benefiting from all the research in the portfolio. One state CIO is already serving in the convener role: “The innovation center is between the state CIO’s office and our Secretary of Digital Transformation. He and I work hand in hand to really go out and identify opportunities for innovation across the state. He also has a separate budget for innovation projects, so he and I can work on defining what those innovative projects would be.”

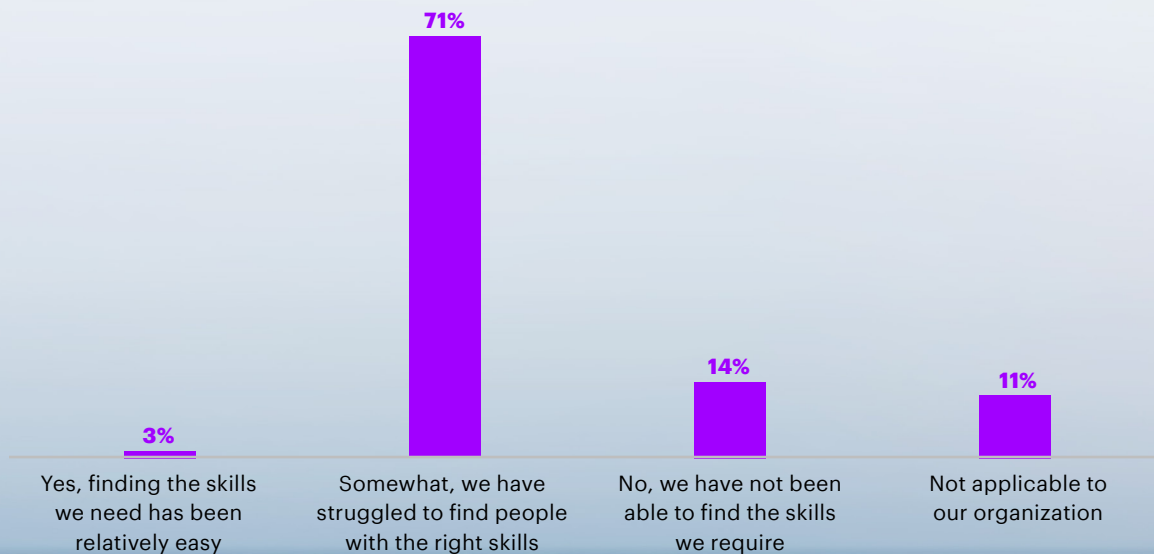
The culture within state government must be tuned more to incremental innovation than to major transformational shifts. While the latter does occur, most innovation will come one step at a time, especially as states increasingly move toward digital services. In NASCIO’s 2019 State CIO Survey, 41 percent of respondents highlighted “encouraging experimentation and innovation to create a continuous improvement culture” as one of the most purposeful concepts in support of a digital strategy.<sup>13</sup>

## 5 NEW SKILLS

When we asked state CIOs about obstacles to innovation, 46 percent identified skills as a top barrier for innovation, with time constraints for the workforce following closely at 43 percent. Fully 75 percent indicated that they struggle to find the right skills to introduce or execute innovation at least some of the time (see Figure 11). And when asked which skills their workforces are lacking, state CIOs identified some technical skills, such as data systems management or cyber security, but an equal proportion pointed to non-technical skills. Those include design thinking, organizational change management, critical thinking and relationship management.

Figure 11. Workforce: Missing skills

**Has your organization been able to find people with the skills needed to introduce or execute on innovations over the last 12 months, either from internal or external resources?**



Another piece of Accenture research has confirmed that skills gaps are not limited to the public sector. Even in the private sector, without some retraining, 52 percent of an IT workforce's skills and almost half (47 percent) of the non-IT workforce's skills will be obsolete in three years. Leading businesses are setting a rapid pace and are more likely to use experiential learning or launch apprenticeship programs. In addition, leading businesses are taking a different approach to training, with 87 percent reporting the use of AI and advanced analytics to personalize learning, predict skills needs and match workers' skill requirements with appropriate training modules. Just 35 percent of lagging businesses are doing so.<sup>14</sup>

Clearly, addressing skill gaps in the state workforce will be critical to driving innovation. But it's not just the general workforce that needs new competencies. The state CIO does, too. Increasingly state government IT leaders need to build relationships and embrace marketing and communication techniques to share their work. Indeed, in the survey state CIOs identified needing "improved communications, collaboration and fostering relationships," "setting and communicating a compelling vision that outlines the way, the why and the how," "inspiring our team to convince decision makers," "design thinking, business case development and sales," or "trust as a broker" as top skills to develop.

In other words, the skills a state CIO needs most are no longer technology skills. The state CIO must lead and convene forums for exploring and researching, evaluating and testing, informing, monitoring what is coming over the horizon, understanding the effects of an actual implementation through retrospective evaluation, and adjusting the process based on learnings from retrospective studies. And the state CIO needs to establish and follow a closed loop to ensure that the innovative process itself continually transforms based on learnings from the ecosystem.



# RECOMMENDATIONS FOR DRIVING INNOVATION

**As state CIOs journey along the highway, they must drive at two speeds—keeping legacy systems running while putting innovation in the fast lane. Here are six recommendations to help navigate the journey:**



## **EVEN WHEN NAVIGATING TWISTS AND TURNS, STAY FOCUSED ON THE TRUE DESTINATION**

For every state CIO, the North Star means better outcomes for citizens. An outcome is more than a better-designed web portal or more efficient transaction processing (though both are worthwhile goals). An outcome supports better lives: healthier children and families, stronger economies, more vibrant communities.



## **STRADDLE THE LINE OF “DISCIPLINED EXPERIMENTATION”**

Get clear about the rules of the innovation road—including how decisions will be made and how the state CIO’s office will interact with other state agencies. Consider establishing guidelines for creating innovation business cases. Build in enough detail to make it meaningful along with enough flexibility to empower people to take risks and course correct as they experiment—whether it’s for a potential process redesign or an emerging technology.





## **SHIFT THE CULTURE THROUGH FORMAL INITIATIVES AND INFORMAL INTERACTIONS**

Culture can be the greatest barrier or the biggest accelerator of innovation. At present, most state agencies are hard-wired to avoid risk. By modeling how to take calculated risks—and sharing the benefits of doing so—state CIOs can begin to change that. One possible route is to engage with agencies around domain-specific innovations they have enacted (for example, innovation in public health or in the justice system). Show that innovation is relevant to everyone and that the CIO’s office is a resource to help.



## **GIVE YOURSELF LICENSE TO GROW**

As the state CIO role shifts, leaders will need new skills in marketing, communication and collaboration, among others. Conduct an honest assessment of strengths and weaknesses and then identify opportunities to partner with others inside or outside government to build or bolster key skills.



## **INVITE MORE PARTIES ON THE INNOVATION RIDE**

State employees will remain a rich source of ideas for new tools and approaches (and novel ways to use longstanding resources). But there are many other sources of fresh perspectives—from private-sector partners to citizens themselves. In the role as orchestrator of innovation, the state CIO can bring these parties together in an ecosystem for greater collaboration and more entrepreneurial approaches.



## **GET CREATIVE TO PAY THE TOLLS**

When funding is unavailable or inadequate—or a state CIO is bound by a chargeback system—the innovation journey may seem to end before it gains any momentum. Within the constraints of each state’s laws and governance, seek out opportunities to use money from the general fund, to establish a special innovation fund or to partner with agencies to fund innovations from their budgets.

# CONCLUSION

As NASCIO celebrates the half-century mark, it is worth considering: What will the next 50 years bring? How will state government look in 2069? And in the next five to 10 years, how can today's state CIOs start shaping a future that reflects the vast changes and opportunities of a digital world?

Over the course of the next half century, we anticipate innovation will become everyday business. Clearly, cultures in state government will continue to evolve toward an attitude of creativity and innovation. We foresee universities and technical schools fostering an environment where innovative thinking becomes second nature, and this mindset will become the norm for all industries, including the public sector.

As part of this evolution, state government will adopt new business models and supporting operating models that not only allow but also emphasize innovation. State government will enable these activities through necessary authorities related to organization, finance, legal and public policy. Government will also create new roles that encompass the necessary skills in business, economics, human capital, customer relationship management, supply chain management, strategic partnering, project management and enterprise portfolio management. We foresee all dimensions of state government moving together, creating the "innovative enterprise" as part of a larger ecosystem built on trust.

Ultimately, we see a future where everyone will be unwilling to accept the status quo and will work together to strive for excellence both in how public services are designed and delivered and in the outcomes they support for families and communities.

## NOTES

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## ABOUT THE RESEARCH

Accenture partnered with NASCIO to conduct a survey and interviews with NASCIO members and state CIOs. In July 2019, short-form interviews were conducted with 12 CIOs. An online survey of state CIOs was fielded August through September 2019, with 35 responses. In-depth, long-form interviews were conducted with 10 CIOs in September and October 2019.

## ABOUT NASCIO

Founded in 1969, the National Association of State Chief Information Officers (NASCIO) represents state chief information officers (CIOs) and information technology (IT) executives and managers from the states, territories and District of Columbia. NASCIO's mission is to foster government excellence through quality business practices, information management and technology policy. NASCIO provides state CIOs and state members with products and services designed to support the challenging role of the state CIO, stimulate the exchange of information and promote the adoption of IT best practices and innovations. From national conferences to peer networking, research and publications, briefings and government affairs, NASCIO is the premier network and resource for state CIOs. For more information, visit [www.NASCIO.org](http://www.NASCIO.org).

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