









## State of the States Forecast: What Lies Ahead?

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Doug Robinson, Executive Director

#### STATE CIO TOP 10 PRIORITIES

Priority Strategies, Management Processes and Solutions for 2023

01

**Cybersecurity and Risk Management** 

02



Digital Government / Digital Services

03



Workforce

04



**Legacy Modernization** 

05



Identity and Access Management 06



**Cloud Services** 

07



Consolidation/ Optimization

08



Data and Information Management

09



**Broadband/ Wireless Connectivity** 

10



**Customer Relationship Management** 













Focus on digital services and transformation: improved **citizen experience**, citizen-centric design, streamlining services, automation, citizen **identity management** 

Elevated cyber threats, nation state and criminal attacks, focus on **whole-of-state** cybersecurity resilience, benefits fraud

5R challenges of state IT workforce: **r**ecruitment, **r**etention, **r**eskilling, **r**etirements, **r**esignations - a crisis with cybersecurity positions

Year 1 of State and Local Cybersecurity Improvement Grant (\$180M): NOFO, state applications, organizing, initial planning, local grants

Huge investments in broadband; more granular **mapping data** for better decisions; addressing affordability issues; digital equity

36 gubernatorial elections in 2022 - **9 new governors**; 1,500 new legislators. What can we expect in 2023? CIO transitions and impact on continuity of leadership?













#### **State CIO Transitions**

2022 NH WA VT ND MT MN OR WI NY ID SD WY PA NJ CT ΙA NE ОН NV DE IN UT CO CA MD KS MO KY NC DC TN OK ΑZ SC AR NM AL GΑ MS LA TX 2022 Transitions (13) No Change





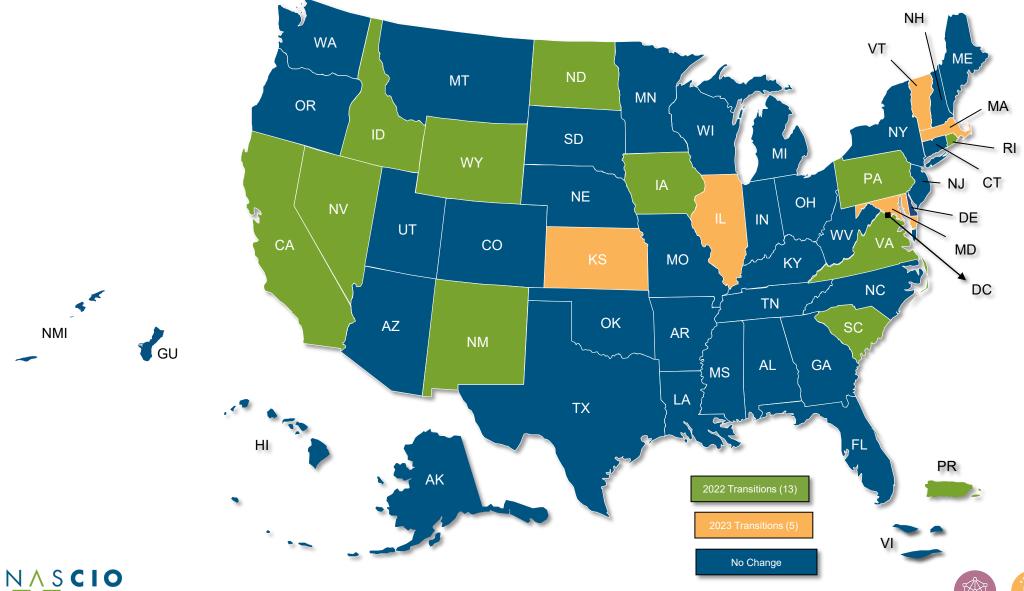




NMI

#### **State CIO Transitions**

January 2023













# Rank the top five business processes, practices or investment changes that you believe will continue post COVID-19 pandemic?



#1

Increased attention on digital government services / citizen experience

> #1 in 2021 #3 in 2020



#2 ed priority

Increased priority and investment in legacy modernization

> #5 in 2021 #5 in 2020



Investments in broadband expansion / adoption

#3

#3 in 2021 #4 in 2020



Expanded work from home / remote work options

#4

#2 in 2021 #1 in 2020



#5

Expanded use of collaboration platforms / remote meetings

> #4 in 2021 #2 in 2020













## How is the CIO organization moving to deliver services to agencies within the next two years?



Consolidation of infrastructure



Centralization of IT project management and oversight under the CIO organization



Consolidation of services (e.g., help desk, training etc.)



Consolidation of applications



Responsibility for technology procurement within the CIO organization











"Workforce is the single largest challenge any leader faces and getting the workforce component right is the make / break success of the CIO."

-State CIO















# Besides increased compensation, what <u>single action</u> should be implemented that would be the most impactful in recruiting and retaining the future IT workforce in your state?

	2022	2019
Reskilling current employees to meet modern IT demands	35%	25%
Aligning IT job titles, classifications and descriptions more closely to the private sector	31%	33%
Increasing remote work options	18%	N/A
Expanding flexible work schedules	8%	N/A
Streamlining the hiring process and reducing time to hire	6%	14%
Other	2%	N/A





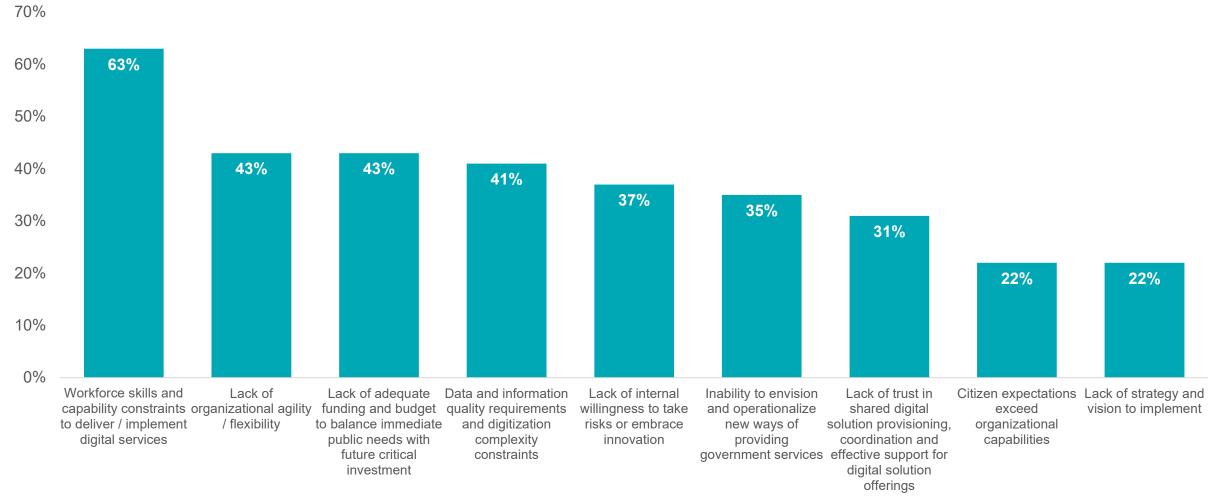








## What major challenges do you face in meeting demand for digital services?



Source: 2022 State CIO Survey









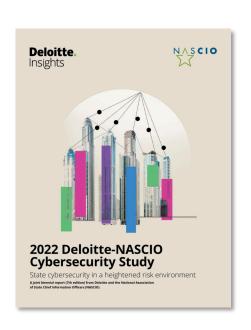




#### **Cyber talent a top barrier for state CISOs**

2020

### Inadequate availability of cybersecurity professionals is among the top five barriers that CISOs cite



2020	2022
<b>01</b> Lack of sufficient cybersecurity budget (46%)	<b>01</b> Legacy infrastructure and solutions to support emerging threats (52%)
<b>02</b> Inadequate cybersecurity staffing (42%)	<b>02</b> Inadequate availability of cybersecurity professionals (50%)
<b>03</b> Legacy infrastructure and solutions to support emerging threats (34%)	<b>03</b> Inadequate cybersecurity staffing (46%)
<b>04</b> Inadequate availability of cybersecurity professionals (28%)	<b>04</b> Decentralized IT and security infrastructure and operations (38%)
<b>05</b> Lack of dedicated cybersecurity budget (28%)	<b>05</b> Increasing sophistication of threats (29%)





2022









# How much of a threat do each of the following cyberthreats pose to your state? (Very high and somewhat higher threat combined)

12020 2022 Malware/ransomware Phishing, pharming, and other related variants 85% Foreign state-sponsored espionage Increasing sophistication and proliferation of threats Social engineering Security breaches involving third parties 60% 44% Exploits of vulnerabilities from unsecured code External financial fraud involving information systems Exploits of vulnerabilities in endpoint devices Exploits of vulnerabilities in emerging technologies





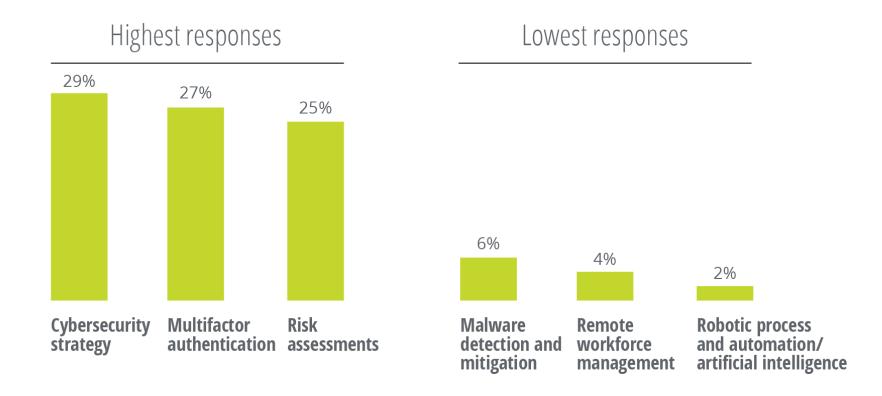






#### States focused on foundational cyber initiatives

Majority of states focused on cyber strategy, multifactor authentication, and risk assessments as upcoming initiatives















#### **State Cyber Trends**

Talent crisis: recruitment, retention, compensation

More centralized operating model; zero trust framework

Adopting whole-of-state cybersecurity resilience

Expanding attack surface – services, remote work

Software supply chain risks

Support and partnerships with **local governments** 















#### What services does the state CIO organization offer to local governments compared to 2020?









#1

#2

#3 (tied)

#3 (tied)

Network services (WAN / LAN) Data center hosting Security services / infrastructure Geospatial information systems (GIS)

59% in 2020

55% in 2020

48% in 2020

50% In 2020

	2022	2020
Telephony / VoIP	37%	48%
Digital government / portal	35%	39%
Co-location	33%	43%
IT training	33%	23%
Business continuity / disaster recovery	25%	41%
Email / office productivity / collaboration	25%	39%
Identity and access management	25%	23%
Mainframe services	22%	23%
Storage services	22%	34%
Backup services	22%	39%
Cloud services / hosting	20%	43%
Video / web conferencing	20%	36%





Lack of dedicated funding



Lack of desire to collaborate by local governments



Lack of clear state authority



Lack of technical capacity / knowledge from local governments



Unclear governance model











#### What to Watch in 2023

Execution of the State and Local Cybersecurity Improvement Grant: CISA plan approval, application process, state shared cyber services to locals

Future of the IT workforce: sustaining the remote work environment? Recruitment/retention/resignation, skills transformation, adaptation

Reducing diversity and complexity - seeking to "rationalize" the technology environment: hardware, software and services

Pressure to improve program integrity: identity verification, anti-fraud solutions, data sharing

State privacy legislation; State chief privacy officer role growing and evolving













#### Resource Center at NASCIO.org



