![KPMG]

In tough times, state and local government CIOs can be digital leaders

By Charles Collier, Principal, CIO Advisory

The role of the state and local government chief information officer (SLG CIO) in the United States is at an inflection point. While there is continued emphasis on delivering a stable and secure IT environment, there is an increasing push to reduce operational and maintenance costs through IT transformation to fund the modernization of aging systems and introduce new digital capabilities that improve engagement with citizens.

In short, SLG CIOs are evolving. The best are working as service integrators and brokers who bring together capabilities from industry and internal assets to address business priorities.

I work with and talk to SLG CIOs regularly. Based on trends I see developing and the detailed results from the Harvey Nash/KPMG CIO Survey 2017, the largest IT leadership study in the world, which includes responses from 118 local government organizations, it is clear that SLG CIOs are becoming digital leaders and influencers involved in solving business challenges and leading innovation.

CIOs who are not able to make the leap to becoming a digital leader and innovator risk having their roles diminished. As spending shifts from traditional IT departments to programs and cloud services, some organizations are creating new roles such as chief data officer and chief innovation officer to take over the strategic and visionary aspects of the CIO role.

But the best SLG CIOs are extending their influence to new areas. Technology is becoming embedded across their organizations, requiring them to engage in new ways with business strategy and operations. In fact, the CIO Survey suggests that SLG CIOs are more likely than others to be leading innovation across their business, with 35% doing so compared with 26% in all sectors. A few U.S. states, such as Colorado,[1] are looking at the CIO role as a source of innovation and an enabler of economic development, with influence on the whole organization. Utah's Department of Technology Services has developed a reputation for innovation, recently winning a prize from Amazon for a driver's license practice app that works through the online retailer's Alexa voice service.[2]

IT transformation and intelligent automation

Many SLG CIOs are trapped by expensive legacy software applications and IT infrastructures that are difficult and expensive to maintain. As these systems consume more of the IT budget, less money is available for new projects and innovation, with nearly two-thirds of SLG CIOs dealing with flat or decreasing budgets. Only 38% of SLG CIOs expect increases in their IT budgets over the next 12 months, compared with 46% across all sectors.

In response, some CIOs are working to transform their IT service delivery model with aims including a lower cost structure and more agility and responsiveness. They are doing so with techniques like agile and modular development, moving future applications to the cloud, and using digital labor, which may be better described as intelligent automation, as it often involves helping staff to do their jobs better rather than replacing them with robots.

Intelligent automation, which can include robotic process automation, machine learning, cognitive computing, and artificial intelligence, is moving from discussion topic to something being implemented by several U.S. states. KPMG's CIO Survey found that just 11% of SLG CIOs are making significant or moderate investment in digital labor compared with 23% across all industries. However, this looks set to increase; KPMG in the United States has met with several CIOs regarding the topic, and I am aware of at least four pilot programs being launched.

There are several reasons for this shift. Many states have hiring freezes, and those with tax revenues linked to the prices of oil and natural gas are seeing budgets slashed, but demands on IT increase regardless.

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[1] Colorado Names a New CIO. Retrieved August 1, 2017, from http://www.govtech.com/state/Colorado-Names-a-New-CIO.html

[2] Nyczepir, D. (2017, April 03). Utah's Cloud Flexibility Welcomes Innovative IoT and AI Solutions. Retrieved August 1, 2017, from http://www.routefifty.com/tech-data/2017/04/utah-state-cio-mike-hussey/136690/

At the same time, both software and staff are aging. Many states use applications that are in dire need of modernization, while many others have 30% to 40% of their workforce eligible to retire in the next three to five years.[3] States are also having a hard time attracting younger workers; several capitols are located in low unemployment cities where they compete with high-tech firms for talent, including Austin, Texas.

There are several areas with strong potential for applying intelligent automation:

Application testing automation allows IT organizations to provide program areas with more enhancements by shifting resources from integration testing to development

Security operations, where automation can help detect anomalies and algorithms can dynamically analyze attacks of the past in order to prevent similar events in the future

Call centers where intelligent automation can improve efficiency by automating repetitive lower-level functions; this can mean agents are less likely to quit their jobs, helping the states that either do not have the budget or cannot hire enough staff

Internal functions, including IT service management where it can improve efficiency; finance, where it can transform what at present are often manual and inefficient processes such as payment, billing, and reconciliation; and program integrity work to tackle fraud and waste, where it can help select which cases to pursue

Data and security
Government organizations are drowning in data but many do not have effective data governance or know how to use data effectively, with just 12% of SLG CIOs in the survey seeing their organizations as very effective in facilitating the use of data and analytics.

Data sharing across government agencies, such as public safety sharing with education and health and human services, is still very challenging—the process of making agreements on who can have access to what data and how to share it remains an obstacle. However, the use of data analytics and business intelligence continues to increase at the agency level.

Cybersecurity is still an area of significant focus, with many states increasing funding, legislative mandates, or both. The CIO Survey found that 48% of local and state governments see improving cybersecurity as a key business issue, compared with 40% of all organizations surveyed. Many states and larger state agencies have a chief information security officer who is independent from the CIO.

There is a large shift in focus from protecting an organization's IT perimeter defenses to developing effective cybersecurity policies, increasing internal controls on who has access to particular data, controls at the application level, and identity access management (IAM). With my colleague Prasad Jayaraman, Principal, KPMG LLP (U.S.), I examined the particular importance of IAM to higher education providers.[4]

Hard times let the best shine
SLG CIOs have to work at least as hard as their counterparts in other industries. They are more likely than other CIOs to have flat or declining budgets and are having to cope with aging software and retiring staff. They currently see their organizations as less effective at using data and analytics, while cybersecurity is more likely to be a key business issue than in other industries.

Those who are unable to become digital innovation leaders who fully enable the business may find their roles diminish. But the best SLG CIOs are working to change their organizations through redesigned processes, IT transformation, and intelligent automation to support staff and even working to boost economic development. They are working in tough conditions. But for some, this is allowing their leadership qualities to emerge.

About the author

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[3] Beating the Brain Drain: States Focus on Retaining Older Workers. Retrieved August 2, 2017, from http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2016/05/11/beating-the-brain-drain-states-focus-on-retaining-older-workers

[4] Getting schooled: Identity and access management, Charles Collier and Prasad Jayaraman, April 2017: http://www.kpmg-institutes.com/institutes/government-institute/articles/2017/04/getting-schooled--identity-and-access-management1.html

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