Roadmap for Technology in Government

As government agencies try to keep up with new technologies in an effort to better serve their constituents, the rate and volume of change can be daunting. Decision makers need a roadmap for assessing the potential value of technological innovations and choosing between the available options.

Delivering services to citizens and businesses is at the very core of government's purpose. When government achieves this goal effectively, constituents not only have greater trust in the agencies they work with, but also hold them in higher esteem.

As business owners have witnessed greater transparency and accessibility in the private sector – often driven by social media and customized technologies designed to meet consumer desires – their expectations of the public sector have risen accordingly.

"One-stop" business services, which allow companies to submit registration forms, secure certain licenses, file taxes and complete other government-related paperwork through a single portal, are part of the answer. But this is just the beginning, as businesses expect even more in terms of convenience and innovation.

THE PROMISE AND DILEMMA OF TECHNOLOGY IN GOVERNMENT

Gartner's 2016 CIO Agenda reported that it's no longer just "nice to have" a portfolio of citizen- and business-facing digital government solutions. If government is truly of, for and by the people, as Abraham Lincoln famously stated, then government leaders need to approach service delivery differently than they have in the past. They need to pivot from the historical perspective of improving internal government processes and focus instead on enhancing the experience from the user's stand-point. The imperative is delivering citizen-centric services that are available around the clock and accessible wherever constituents happen to be and on whatever devices they are using.

Most government agencies are committed to transforming their service models with digital technology. But, even as technology facilitates a citizen- and business-focused approach, new technologies keep coming at light speed making it hard for government to: 1.) track which technologies have been developed; 2.) to evaluate what value each can deliver; 3.) to decide which innovations will be around for the long haul; and 4.) to choose between competing options. In addition, government also has the responsibility of appraising new technologies' security levels.

CITIZENS FIRST

The first consideration for any new technology implementation or process change should be how easy it will be for constituents to access and use. Because getting to that understanding isn't necessarily intuitive, government agencies should purposefully identify where constituent pain points may exist and evaluate how they can streamline customers' digital interactions.

For example, if registering a new business requires the company's owner to put in hours of work completing multiple agencies' forms, often providing the same information repeatedly, government has a golden opportunity to change a frustrating situation. This might involve merging multiple agencies' processes into one, working together to develop a centralized online business registration portal and creating a streamlined, graphics-driven user interface that makes it easy for business owners to find exactly what they need at each point in the registration process.

Citizen-first thinking also includes understanding when and how users are most likely to interact with government. In the case of business owners, this might be during the evening hours when they aren't tending to the myriad day-to-day details of running a company.

Further, there's an increasing likelihood those business owners will access government websites via a smartphone, tablet or other mobile device, according to Using Mobile Apps in Government, a report released in early 2016 by IBM Center for the Business of Government. The data attest to pervasive use of mobile devices. If an agency is committed to citizen-centric thinking, it must consider how to deliver services on mobile screens. Digital government services should be responsive, recognizing and adapting to the mobile device a constituent is using. Content considerations should also be made, such as shortening forms so information can be completed on small screens.

CHOOSING THE RIGHT TECHNOLOGIES

Not all new technology offers potential for government application; nor does government have the time or personnel and financial resources to deeply assess every new technology that is generating buzz. At the same time, this must be balanced with advancing innovation.

The four questions below will help agencies evaluate new technologies' potential:

1. **WILL THE TECHNOLOGY BE RELEVANT TO A LARGE ENOUGH CONSTITUENT BASE TO MAKE IT WORTH OUR INVESTMENT OF TIME AND MONEY?** Technology implementations come with both hard and soft costs. The investment needs to be worthwhile in terms of improved constituent service, cost reduction or other benefits.

2. **DOES THE TECHNOLOGY HAVE STAYING POWER?** Some new technologies' functionalities, while they sound good in theory, are too broad - or too narrow - to be effective. Or, they may not work as hoped. A government agency should make sure every potential technology offers long-term value.

3. **IS THE TECHNOLOGY ALREADY IN USE ELSEWHERE AND, IF SO, HOW IS IT PERFORMING?** Agencies should look at how the private sector or other agencies already may be using the technology and verify how it is performing in those deployments.

4. **IS TECHNOLOGY THE BEST WAY TO ACHIEVE OUR GOAL?** Before investing in new technology, agencies should explore whether a simpler or less-expensive solution might meet the need just as well.

THE FUTURE OF TECHNOLOGY IN GOVERNMENT

One thing is certain: Technology continues to advance. Government has no choice but to invest in

ever-more-sophisticated technological innovations to reduce costs, create efficiencies and, most importantly, meet constituent expectations.

In particular, the future may lead to digital services not involving a screen or paid for using U.S. dollars as currency. New areas government should be evaluating now include:

- **ARTIFICIAL INTELLIGENCE.** Using programmed algorithms, artificial intelligence uses big data to find new patterns, learn from them and predict what will happen and when it will happen. In a government application, AI might learn about a constituent – for example, where the citizen lives, what property he owns and what some of his interests are – and, based on that knowledge, suggest government services that might interest the constituent. AI has potential not only to improve government's service to customers, but also to make government more efficient. As computers automate a greater number of basic tasks, government workers will be freed up to take on more productive work.

- **CONVERSATIONAL USER INTERFACE**. Citizens increasingly will interact with their devices through dialogue. Chatbots, with which people interact through voice commands, will serve as "personal digital assistants." Digital assistants will be able to respond to constituents' questions, as well as remind users of report filing, license renewal or other deadlines and take care of those tasks according to constituents' instructions.

- **BLOCKCHAIN.** While adoption remains rare within the public sector, this digital ledger uses cryptocurrency to complete transactions in a way that is chronologically and publicly recorded. Using decentralized networks, one benefit of Blockchain is the elimination of a central point of failure. For government, Blockchain's distributed registry records could be appealing as all modifications to a process are public. This creates transparency to a process that is also unable to be altered or deleted.

The pace of innovation and government's unique security needs can present challenges as agencies work to determine which technologies will deliver the greatest value. Yet, keeping pace with technology is essential if government wants to reduce costs, ramp up productivity and meet constituent expectations. By developing far-sighted thinking that strategically engages new technologies and puts citizens' needs first, government can choose appropriate technologies that streamline delivery of a high-impact citizen experience.

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