The Great Unwiring

Mobility moves from convenience to necessity.

The COVID-19 pandemic, user preferences and the need for digital equity are making mobility indispensable for state and local governments. It's no longer a matter of fitting mobility into the government enterprise. It's a matter of fitting workforce operations and constituent services into mobility.

In the last few years, visionary leaders — and in-the-trenches IT teams looking for ways to support remote work and contactless services — have pioneered programs that proved the utility of mobile applications while also providing valuable lessons for mobility's maturation.

Many organizations have already invested significantly in projects that support mobility. The Center for Digital Government (CDG)'s 2021 Digital Cities and Digital Counties Surveys found that on average 85% of city respondents and 75% of county respondents are using location services, native mobile apps and text message/SMS channels.

Ready for prime time

A convergence of trends makes mobility and mobile-friendly applications more compelling than ever.

Digital equity and consumer preference. Mobility democratizes constituent access and lets organizations meet constituents and workers where they are and on the channels they prefer. For families who cannot afford a laptop and internet connection, smartphones provide access to information, enable the submission of documents online and support digital interaction with government services anywhere, anytime. Government employees can use mobile devices to collaborate with team members or clients, submit time cards or work orders from the field, and work remotely. During the pandemic, these conveniences became necessities across most income levels, ages, education levels and other demographics.

Lower cost of cellular/wireless connectivity. Running fiber and plain old telephone service (POTS) lines underground is extremely costly. As cellular coverage and 5G implementations become more widespread, many organizations will opt to use wireless or cellular connections as they replace or build out technology.

"[At the Naperville Park District in Illinois] we had irrigation systems that were completely cellular because it didn't make sense anymore to deal with traditional phone lines, power over ethernet or traditional CAT 5 lines," says Omar Sandoval, former director of information for the park district and now CDG's director of g overnment programs. "Cellular — and the infrastructure to build it out — is much cheaper."

Increasing maturity of mobile connectivity. Mobile technologies are maturing to the point where they are reliable, resilient, secure and ubiquitous enough to replace wired connections in many scenarios. Organizations are developing mobile-first solutions as well as integrating mobile applications with enterprise resource planning and other critical enterprise applications. The expansion of 5G will push mobility further into uncharted territory by allowing high-speed intelligent processing at the edge of wireless networks.

"As 5G moves from hype to reality and localities start installing sensors, you'll see traditional and new carriers provide higher-speed connections either from some sort of a mesh network or a large-scale cellular network," says Nelson Moe, former CIO of

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the commonwealth of Virginia and now a CDG senior fellow.

Mobile is here; now what?

As organizations move forward with mobility, here are some issues to consider.

Compute and storage capacity. Think about how an application will render on a mobile device. Smartphones and tablets often cannot store as much data or process it as quickly as a desktop or laptop computer. While email will run fine, an application for paying bills or processing Medicare benefits on a mainframe may stall.

End-to-end security. Always assess risks and ensure that mobile devices and applications are protected at the same level as other enterprise resources. Zero-Trust approaches with continuous authentication are particularly critical in environments where users are accessing resources from outside the traditional network perimeter. The good news is that 5G has security controls at the network layer that make it harder for cybercriminals to execute attacks.

Service design and delivery. To accommodate smaller screens and thumb-defying

data entry keys, organizations may need to redesign applications and processes for collecting, verifying and exchanging data. This is especially true for complex forms that residents must submit to apply for social services or unemployment benefits, and for documents used internally by agencies to onboard new employees.

Application rollout. To address urgent mobile needs for government workforces or the public, it's often best to start small and expand features incrementally.

"COVID highlighted the need to roll out applications for mobile devices very quickly and nimbly," Moe says. "The application doesn't have to be full-featured at first; it just has to be secure. You can add more features in later releases."

Strategizing for the future

It's hard to anticipate exactly how a mobile future will unfold. Inflation, technological advances, consumer demand, world events and more will continue to influence mobility programs; however, certain trends indicate a path forward.

"I think we'll see more scrutiny of business outcomes, cybersecurity risk and resiliency at the cabinet level or city manager level of government," Moe says. "Agencies will have to understand where they want to be from a resiliency posture,

factor in the associated risks and costs, and then strategize around business cases."

With regard to federal funding from the Infrastructure Investment and Jobs Act (IIJA) and other sources, Moe sees an important opportunity to modernize legacy systems using mobile-friendly cloud technologies. He cautions, however, that organizations must have a long-term strategy for operational expenditures and service sustainability.

"Certainly, for mobile programs, you want a sustainable architecture where you roll out new applications to support them. My suggestion is to look at this federal funding as a one-time capital expenditure and then figure out a long-term strategy for operational expenditures to sustain and support these services," Moe says.

Another important strategy is to have multiple options, so the organization can adjust to cost changes and inflationary pressures that could impact targeted business outcomes.

"I'd make sure I wasn't locked in to a specific direction — that I had contractual options to go with wired or wireless and different providers," advises Moe.

Finally, working closely with connectivity partners and other mobile technology vendors is essential — both for learning more and to lay the groundwork for continued mobile expansion.

Maturing Mobile Government

Local jurisdictions have expanded their use of mobile channels to improve constituent experience.

	Not in use; no plans to use	Not in use; plan to implement in 12-18 months	In use/mature; no plans to upgrade in 12-18 months	In use; plan to upgrade in 12-18 months
Cities				
Location services	11%	5%	55%	30%
Native mobile apps	14%	5%	47%	35%
Text message/SMS	2%	9%	53%	36%
Counties				
Location services	15%	7%	37%	42%
Native mobile apps	25%	13%	38%	25%
Text message/SMS	10%	3%	54%	33%

Source: 2021 Digital Cities and Counties Surveys; Note: Figures are rounded