If the COVID-19 pandemic is teaching agency leaders one thing, it’s the importance of how artificial intelligence can help government agencies scale quickly to meet sudden changes in service demands.

The pandemic also revealed two underlying weaknesses agencies have faced in trying to adapt and scale quickly. First is the age and complexity of their legacy technologies, and how difficult it can be to make changes to these systems to meet new service demands. And second is the sheer volume of mundane tasks that government employees must complete in order to respond to citizens’ needs—in part because those legacy systems can’t yet automate many of those tasks so employees can focus on more essential and strategic work.

“What we are seeing with agencies’ response to the current pandemic is that legacy infrastructure is keeping government from producing the kind of agility it needs to respond to critical demands in real-time,” says Todd Schroeder, Director, Public Sector Digital Strategy at Google Cloud.

He says that perhaps as troubling are the burdensome costs and limited return of maintaining those legacy systems at many agencies, when those resources would be better invested in vastly more agile and cost-effective IT platforms.

The incremental adoption of cloud technology over the last several years has been beneficial and the rise in digitization across government is driving an unparalleled urgency to modernize and scale government services to meet citizen demands.

Additionally, cloud adoption is helping agencies harness their data and take greater advantage of artificial intelligence (AI) and machine learning (ML) technology in ways that will lead to an increase in employee productivity and more strategic decisions that support the mission.

According to an Accenture report, by 2028 AI could be applied to tasks that currently consume up to 30% of federal workers’ time and the technology could benefit the U.S. government in a productivity windfall estimated at up to $532 billion annually.

AI and ML capabilities will go a long way to help leaders resolve demands on employees’ time and IT resources, according to Schroeder. Though the practical application of AI, from pilot to full-blown implementation, can be a daunting experience for government leaders—with the execution and derived benefits harder to achieve.

In order to overcome these initial challenges, Schroeder and other AI experts at Google Cloud say that government leaders need to identify a subset of business processes and use cases that are ripe for AI augmentation. Agencies can use these initial projects to prove value quickly, gain additional buy-in across the organization, and then, with the right technology partner, build a roadmap toward larger-scale AI transformation to drive key mission outcomes.

With an unprecedented demand on government services, agency leaders are seeing the power of cloud and AI to help their workforces scale service delivery and boost productivity.

“Artificial intelligence and machine learning capabilities will go a long way to help leaders resolve demands on employees’ time and IT resources.”

- Todd Schroeder, Director, Public Sector Digital Strategy, Google Cloud
“Technology that can deliver scale and enhance performance is now a core competency of mission delivery, and agencies need to rationalize their portfolios now so that they stop accumulating technical debt,” Schroeder says. Leaders who can integrate forward-looking investments will also benefit from better financial management, especially as they stop spending on things that are not relevant for the future, he adds.

How COVID-19 has accelerated the use of AI

Using a combination of automation, APIs and cloud services, agencies have already seen the art of the possible in getting websites and information gathering portals up quickly to meet citizens’ most pressing questions across the country, says Denise Winkler, Strategic Business Executive, Global Public Sector at Google Cloud.

One of the most pressing examples of that, Winkler says, occurred in the early months of the pandemic as state agencies struggled to respond to the massive surge in unemployment insurance requests. Online traffic overwhelmed many state agencies’ infrastructures — much of which relied on software designed decades ago — and there simply weren’t enough employees available to process all the applications.

State leaders were able to harness Google’s Contact Center AI to quickly deploy and scale in the cloud to predict and answer citizen’s most frequent questions.

“If you think about 26.4 million people applying for unemployment, many of them probably have never applied for those benefits in their life. They don’t know how to do this, so the need to answer questions frequently asked is huge,” Winkler says.

And because the virtual agent is a cloud-based tool, it can lay easily across the existing infrastructure without requiring a lot of modification.

“We have been able to take, for example, a 30-year old mainframe and adjust it for 120 new questions to satisfy constituents’ most urgent questions for a fraction of the cost that agencies are spending on building and maintaining the legacy system,” Schroeder says. Illinois is one of several states that have partnered with Google to keep pace with unemployment applications.

“Our state unemployment systems, which were built a decade ago for a much lower number of claims simply haven’t kept pace,” said Illinois Gov. JB Pritzker in an April 2020 press conference. To keep up with demand, the state joined with several industry partners to overhaul the Illinois Department of Employment Security website, including the addition of a virtual assistant, to provide immediate assistance to filers’ questions.

How AI can assist federal agencies

The overwhelming demand for state services has been both a shock to agency systems and a stark reminder to federal leaders that AI and ML capabilities are integral to public services to boost employee performance and ultimately fulfill mission objectives at scale. Leading agencies are already embracing AI in a few key ways that others should take note of:

- Improving the customer experience. Similar to state implementations, federal agencies with citizen-facing services, such as the U.S. Postal Service, are embracing AI to help reduce drastic wait times across their call center and allow their employees to focus on more critical tasks.

- Streamlining administrative functions. Agencies getting started can gain initial value easily through document AI, or rapidly processing and automating paper documents in back-office environments with heavy paper loads.

- Improving worker productivity. The U.S. Patent and Trademark Office, for example, is one agency that is embracing AI for much needed scale of business processes and mission delivery. The upgrade will help the agency’s more than 9,000 patent examiners rapidly perform more thorough searches by augmenting their on-premise search tools.

COVID-19 has introduced a new opportunity for agencies to modernize...using a combination of automated machine learning, APIs and cloud services, agencies have already seen the art of the possible in getting websites and information gathering portals up quickly to meet citizens’ most pressing questions.

- Denise Winkler, Strategic Business Executive, Global Public Sector, Google Cloud

Having the right partners at the table, with experience in developing AI-assisted business strategies as well as pre-built AI solutions and technology partners, is a critical factor for government leaders who are looking to deliver more meaningful business outcomes and long-term benefits to the public, at scale, according to Schroeder.

One place he encourages agencies to start is to take advantage of Google Cloud’s rich array of “functional AI” tools and platforms including AI building blocks, machine learning production platform, AI Hub and TensorFlow Enterprise. In addition to Contact Center AI and Document AI, these tools, along with Google Cloud’s deep expertise in machine learning, can help agencies streamline how they develop and manage AI components and workflows into their projects. And they have the added advantage, says Schroeder, of being hosted within Google’s globally secure, FedRAMP-authorized computing environment.

Find out more about opportunities to rethink integrating AI and ML tools to power mission objectives and assist a mobile workforce.