Intelligent Automation Brings Efficiency to Agencies

IA delivers agility to help agencies meet new digital initiatives, maximize resources, and reduce operational costs.

The list of demands on a government CIO's desk grows longer every day. Digital transformation promises to make government leaner, more efficient, and nimble, but many agencies struggle to take advantage of new technologies. They have to rely on legacy systems and outdated business processes to fulfill their mission as increasing regulations drag down productivity. Departments often lack the personnel and funding needed to retool and keep up with user demands.

Help is available in the form of Intelligent Automation (IA), which offers harried government officials a way to streamline tedious, inefficient business processes. "By adding IA to their toolbox, it empowers departments to dramatically improve productivity," says Kirke Everson, managing director and government Intelligent Automation lead at KPMG. Employees can spend less time on routine, manually-intensive processes, such as completing forms, and have more time for strategic initiatives, such as servicing customers.

Industry researcher Gartner expects one IA segment, Robotic Process Automation (RPA), to grow at a CAGR (Compound Annual Growth Rate) of 41 percent and reach $1 billion in revenue in 2020. Clearly, many are seeing the benefits of implementing IA technology to automate repetitive tasks.

SURVEY THE LANDSCAPE

Today's government executives are seeing their workloads expand in both size and complexity. Data volumes are increasing dramatically. By 2025, the world will have accumulated 180 zettabytes (ZB) of data, up from 44 ZBs in 2020 and 10 ZBs in 2015, according to market research firm International Data Corp. The number of devices users work with is constantly growing. Compliance regulations increase and place more demands on IT systems, and security threats change daily. As the to-do list grows, IT budgets have grown by only a few percentage points at best. In most cases, they've remained stagnant or even been reduced. Many see the need to work differently.

CIOs find themselves trying to meet growing demands with limited resources. IA can boost agency productivity without increasing expenses. Government agencies can use IA to streamline business processes, improve efficiency, respond to new demands more quickly and reduce costs.

So how does it work? Intelligent Automation is a suite of solutions that deliver a range of functionality. RPA focuses on automating mundane, routine tasks that employees prefer not to do. It then redirects their efforts to more satisfying work requiring human judgment and experience. Cognitive tools ingest massive amounts of data, then look for patterns, make decisions more quickly than humans, and dramatically boost productivity.

Intelligent Automation's low cost, non-invasive capabilities help government agencies tackle projects previously thought to be too complex or costly. The solutions are flexible and can be deployed on a small or enterprise scale. On the basic automation side of the IA spectrum, the tools automate routine items, like repetitive data entry. On the more cognitive side of the spectrum, they highlight anomalies and provide recommendations for corrective actions. The technology also scales to meet fluctuating workloads.

What Type of Intelligent Automation Meets Your Needs?

Intelligent Automation (IA) describes a variety of technologies that streamline business process. KPMG divides the market into three types of tools: Class 1, Class 2, and Class 3.

- **Class 1:** Class 1 centers on Robotic Process Automation (RPA) where routine, clerical processes such as cutting and pasting data from one form to another are automated. The software runs either attended or unattended by virtual machines in the background. These solutions are often available as stand-alone solutions. Class 1 tools often serve as a good starting point for an agency's IA journey.
- **Class 2:** For agencies ready to move up the IA food chain, Class 2 solutions feature cognitive automation. This class includes technologies like Natural Language Processing (NLP), that address complex transactions, require a deep level of analytics, and work with both structured and unstructured data. One example is using a bot on an agency website to help citizens find information through text or voice chat.
- **Class 3:** The highest level of sophistication is Class 3, which features reasoning cognitive automation. These solve problems using artificial intelligence, machine learning, and NLP. This is suitable for agencies working with large volumes of unstructured and structured data. If Class 1 mimics a human's arms and legs, then Class 3 mimics the brain, making decisions and generating recommendations. These solutions solve highly complex problems, such as assimilating multiple data sources and feeds into a common environment and trying to determine where threats may be occurring or could potentially occur.

Agencies have to understand the different categories when making their deployment decisions. They don't want to over-engineer or under-engineer the solution. With the former, they could incur unnecessary expenses. With the latter, they may have difficulty scaling to meet application demands. They need to find the technology that fits just right.

WHERE TO APPLY IA?

Over the years, agencies have developed complex business processes. These processes are often document intensive and involve completing and routing various forms. With IA, agencies can orchestrate and automate that workflow.

IA can work throughout the agency and automate front, middle, and back-office functions. In the back office, finance and human resources departments provide administrative support and payment services.

Consequently, finance represents a great place for agencies to start dabbling with IA. Finance data is structured and workflows are rules-based. For instance, accounts receivable departments produce monthly aging reports. Employees spend considerable time entering data, copying records from one format to another, and examining numbers to find potential inconsistencies. With IA, bots input data, reconcile records, perform calculations, compare numbers, highlight inconsistencies, and make recommendations.

Federal agencies employ more than 2 million workers throughout the United States. During the year, human resource departments constantly hire new employees. Using IA, HR professionals can offload many of the repetitive tasks associated with onboarding and spend more of their time trying to ensure the department attracts and retains the best talent.

In front offices, employees interact with the public, provide them with information or deliver agency services. Over the years, the available communication channels have grown considerably. Face-to-face and telephone communications have been augmented with web interactions, mobile communications, and now social media. IA relies on recent technical advances to improve and streamline such communications. Natural Language Processing (NLP) and chat bots provide intelligent interaction. They deliver friendly, intuitive, and multi-channel interaction and content from many different information sources and systems.

Middle offices draw on the resources of the front and back offices. "Middle office solutions require a lot of collaboration from multiple stakeholders," says Michael Caporusso, Intelligent Automation solution director at KPMG. Internal groups act as monitors and perform certain functions, such as ensuring compliance and managing IT resources. Many agencies now use RPA

and chat bots to automate password resets, so help desk personnel can spend their time on more challenging problems.

IA chat bots and back-office integration are also changing the customer experience. Government agencies are increasingly deploying multi-channel solutions. Individuals start off with information on the web and work their way to contacting an agency representative if needed.

IA IN ACTION

Government agencies are now realizing the benefits of adopting IA technology. Here are a few examples of the time and cost savings they are experiencing:

• KPMG is working with a federal agency that has reduced its travel request process to a single step. As a result, work that took six- to eight hours is now done in less than one hour.

• KPMG is working with a federal agency to automate the generation of daily aging reports and e-mailing them on a timely basis to affected recipients.

• KPMG is working with a state agency to automate additional end-to-end regression testing scenarios of their applications prior to production deployment.

• KPMG is working with a federal agency to automate time sensitive, repetitive and mundane processes that would not just free up time but relieve staff from working with sensitive data that would have conflicted them from other duties.

• Another agency ingests 50,000 five- to 100+-page PDF files. Previously, employees had to identify and extract all relevant reporting information and put it in the correct format. Now, with KPMG's help, bots do most of that work. Consequently, the time required to process an average file was reduced from 45 minutes to less than three minutes.

• A state contract management agency has a limited team of skilled lawyers who review contracts from stakeholders and ensure they comply with agency rules. With KPMG's help, an IA application relying on NLP and machine learning capabilities can review the contracts and present only possible exceptions to the legal team so that they can audit more contracts and focus on the exceptions.

• Another agency working with KPMG receives royalties based on how other organizations use its services. The users self-report their usage levels, however, the agency lacked sufficient personnel to complete audits for all

users. Now an IA solution triages data sources and identifies customers who may be underreporting their use of the department's resources, so they come closer to 100 percent compliance.

A growing number of agencies are seeing significant reductions in contact center expenses because of IA. The average cost of an agent servicing a call is several dollars. That number drops to less than a dollar with IA. For specific scenarios, it has shown a reduction of over 95 percent in both time and cost.

So, how should an agency begin its IA journey? Start small. Automobile manufacturers are not waiting for every driverless car technology challenge to be solved before launching their services. They now deliver functions, like automated parallel parking and lane departure alerts. So agencies don't have to have all their desired IA features perfected in their first roll out. Instead, begin with something simple, repetitive, and that will easily benefit from automation, like monthly financial reports.

Collaboration is also a critical factor. IT managers need to realize IA can bring jarring changes for their agencies. Because IA touches on more than technology issues, leaders from across an agency need to participate in the planning. Government often starts by establishing advisory committees on automation, build proofs-of-concept to determine their return on investment, and then develop IA roadmaps.

"As progress is made, agencies form centers of excellence", says Payam Mousavi, Intelligent Automation director at KPMG. This group helps ensure consistent implementation across department boundaries, develop best practices, and piggyback on lessons learned from various groups on their IA journeys.

IA technology has only recently matured, and is now well positioned to help government agencies maximize their resources. By deploying IA technology, government can streamline business processes, improve productivity, reduce errors, and cut expenses.

For more information, visit kpmg.com/us/govautomation

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