Intelligent automation in the government and public sector

The future of work and the new normal
Simply put, what is it?

In today’s disruptive environment, work in the government and public sector has a new normal: intelligent automation (IA). This sector’s workers, who range from pockets of millennials to the clear majority — those nearing retirement — perform many responsibilities and tasks that could easily be automated, and, as of the early 2000s, should be automated.

Processes that are required to keep the lights on and fundamentally support daily operations are often mundane, repetitive and predictable in nature. In these day-to-day processes, completed by both entry-level and experienced professionals, there is frequently an absence of technology — but plenty of paper consumption. People and process are at the center of business operations. But where is the technology?

Whether you are a small agency or at the enterprise level, how effectively and efficiently you operate is fundamental to your success. In the commercial space, transformation means consolidation into regional shared services centers or offshoring many operations to lower-cost regions with high availability. In the government and public sector, agency transformation has a newer, less-impervious lever. Agencies that embrace IA can keep their people where they are, whether they’re new or experienced team members. Organizations achieve greater efficiency by using automation to do things differently. But they will achieve breakthrough performance by using intelligent automation to do different things. The bar has been raised for IA; let’s look at how high.
Solutions and the market

Now that you are looking up, let us introduce you to a constellation of technologies resetting this sector’s expectations. Intelligent automation is no more than automating intelligently. By integrating solutions, you will now be introduced to the types and capabilities of intelligent automation:

- **The virtual worker**
  - Entering data into systems
  - Processing data in Excel
  - Sending emails
  - Comparing data sets

- **Robotic process automation (RPA):**
  Software solutions that are customized to perform repetitive, computer-based tasks by interacting with the user interface of existing technology within an organization. RPA operates like a virtual employee, reliably performing high-volume tasks and processes while unattended. This results in a broad range of efficiency and quality improvements over more human-centric solutions.

- **The virtual reader**
  - Keyword-based recognition
  - Text summarization
  - Unstructured-to-structured translation

- **Document intelligence (DI):**
  Software extracts data elements into a structured format using algorithmic techniques.

- **Natural language processing (NLP):**
  Software helps computers understand, interpret and manipulate human (natural) language.

- **The virtual talker**
  - Communication focused
  - Predictive behavior
  - Text and voice

- **Chatbots:** Conversational software (a computer-generated character) that simulates a conversation to deliver voice- or text-based information or to perform a task for a user via a web, kiosk or mobile interface.

- **The virtual thinker**
  - Algorithm-driven insights
  - Machine learning
  - Predictive analytics
  - Big data focused

- **Machine learning (ML):** Enabling computers to learn skills and facts from experience. ML algorithms build prediction models from labeled examples by analyzing similarity in data, and through trial and error.

- **Computer vision (CV):** Allows computers to see, identify and process images.
Intelligent automation knows no boundaries of disruption and considers every functional area of every agency at stake.

Most organizations start with RPA, mainly because it impacts the greatest number of business processes (on average 60% to 70%). It is considered inexpensive and is regarded as nonintrusive technology. RPA is often referred to as modern-day “surface integration” or “screen scraping.”

Forrester recently analyzed the top 15 RPA providers and identified UiPath, Automation Anywhere, Blue Prism and EdgeVerve as leaders (as of Q4 2019).

These RPA vendors not only dominate the market share but continue to explore new functionality and to push the intelligent automation envelope. RPA, no longer an experimental proof of concept, is a multibillion-dollar industry.

Gartner recently shared that 60% of organizations over $1 billion in annual revenues “have begun their automation journey.”

By 2022, IA adoption, in some form, will have reached 85%.

Adopting and embracing IA isn’t a matter of “if” – it’s a matter of “when.” For organizations to be productive and competitive, IA must be incorporated into multiple front- and back-office functions as well as citizen self-service outlets.
Why is it important to me?

Many states are adopting a movement to reduce manual activities and make more sense of data by rolling out digital strategy initiatives. In a recent US survey conducted by Ernst & Young LLP, more than half of the respondents confirmed that paper is used for 41% to 60% of business processes to capture ink signatures, complete workflow or store general information. Paper means manual, and manual means slow, inefficient (technically speaking) and open to errors, and it significantly limits the range of data analytics that can be performed.

Intelligent automation supports and further enables this active movement, as many organizations are finding ways to transfer paper-based processes or steps to IA and are realizing significant returns through speed of processing, tighter controls, improved audit records, increased visibility, and enhanced data analytics and insights.

Undoubtedly, agencies are under constant pressure to be good stewards of taxpayers. Accordingly, they must figure out how to address new mandates or fix existing ones without additional funds or resources. IA creates capacity and flexibility to do more with the same, thanks to greater efficiency, cost avoidance, productivity, trust, experience and revenue. The accompanying chart illustrates some of the benefits.

<table>
<thead>
<tr>
<th>Low risk</th>
<th>Accuracy</th>
<th>Audit trail</th>
<th>Consistency</th>
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<tr>
<td>RPA is a noninvasive technology. It can be overlaid on existing systems, allowing creation of a platform.</td>
<td>The right result, decision or calculation the first time</td>
<td>Fully maintained logs essential for compliance</td>
<td>Identical processes and tasks, eliminating output variations</td>
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<tr>
<td>Reliability</td>
<td>Scalable</td>
<td>Retention</td>
<td>Productivity</td>
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<td>No sick days; services are provided 365 days a year.</td>
<td>Significant scale with minimum business-case impact</td>
<td>Shifts employee focus toward tasks that are more strategic and stimulating</td>
<td>Freed-up human resources for higher value-added tasks</td>
</tr>
<tr>
<td>Cross-dependent</td>
<td>Duration</td>
<td>Scalable</td>
<td>30%-40%</td>
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<td>RPA can be leveraged across functional areas to standardize procedures and drive synergies across departments.</td>
<td>RPA projects run weeks vs. months or years for traditional IT projects.</td>
<td>Instant ramp-up and down to match demand peaks and troughs</td>
<td>Average hour savings potential</td>
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Most, if not all, projects, strategic initiatives and transformation strategies have a business case wrapped around the program. Intelligent automation is a rapid, results-oriented, outcome-focused solution set. As a business case, few can rival its potential for impact, lucrative results and breadth of application.

The new normal

Several factors indicate an increasingly important role for IA. First, research indicates that on average, about 20% of dedicated employees across many states are eligible to retire today. That number is projected to reach 30% in many states in the next five years. Second, we see many organizations making strategic moves or evaluating their budget and staffing pool to plan for the next recession. Third, there is a need to attract and retain young talent and make working in the government and public sector more stimulating for millennials.
Altogether, the retirement cliff, an unknown future and the workforce gap are creating the perfect storm to change today's work and define a new normal.
Budget-constrained agencies are seeking outlets to do more with the same or do more with less. In today’s environment, tremendous energy is expended on essential administrative work. Another recent survey indicates that, by far, manually intensive work consumes most of the exposed manual effort in this sector:

Intelligent automation continues to be a hot topic at national conventions, as many states consider building out their IA capabilities. With its hundreds of processes, the government and public sector lends itself particularly well to intelligent automation. IA enables transformational change that can help an organization deliver timely, leading-edge services. The major driver is the iterative, outcome-oriented approach that leverages the existing infrastructure, processes and underlying data.

Just as important, an organization can shift hard-working team members to higher-value, more stimulating work. Meanwhile, IA does the routine, mundane work, and does it faster. Multiple EY clients recall the excitement of seeing their exact business process automated. However, we hear rather different sentiments from team members who have adopted a new enterprise resource planning (ERP) or BI reporting tool, or when additional steps and standards are added to their current process.
An intelligent automation strategy

The rollout and adoption of an intelligent automation strategy should address current business issues and fit within the cultural pace of your people’s agenda. If you are on your first IA frontier, you may start with a pilot, wrap a governance model around those capabilities, build out a pipeline of opportunities ripe for IA, educate yourself on the technologies, and use new solutions to realize scale and eventually stable consumption. Organizations experiencing the greatest success have a balanced approach in their first six months across strategy, governance and technology.

1. IA strategy is the arms and legs of the program. It feeds the overall model, creating awareness and delivering a pipeline of data-driven practical automation candidates. The active pipeline and backlog are critical to ramping up a program, allowing for team members of all skill levels to get involved and contribute ideas to feel part of a broader purpose and program.

2. Establishing an operating model has considerable importance in this sector. Governance that ties purpose, outcomes, roles and responsibilities, organizational readiness, process, technology, and production support is the most important workstream required to grow a program. Decisions made early on should have the longer-term program in mind. In a complex environment, it is particularly important that ownership and decision-making be transparent and simple.

3. Automation delivery and IT enablement are focused on building the solutions. This process often follows systems development life cycle (SDLC) methodology, but some organizations find a hybrid between agile and traditional waterfall standards. Although many standards, templates and policies already exist, some new policies are required for the digital workforce.
How to get started

IA programs frequently start with a business champion who has a vision of doing work differently and believes in doing different things in the near future. These champions, along with the support of their team members, select a few targeted areas in which to build the IA pipeline. At the same time, a few pilots over the course of weeks (not months) are commonly built because seeing your process automated and performing the work unattended or attended (think watching the work being performed on your own computer) has a tremendous impact. A governance framework is also adopted in the first six months to position this capability to achieve scale.

At month 12, many organizations have deployed over 10 automated processes, implemented significant process improvement, achieved outcomes across multiple dimensions, created a pipeline and defined a framework for day-to-day operations.

Closing thoughts

There is a well-known adage that advises, “Stop spending so much time and effort getting to the what and instead worry about the why.” The use of IA is well ingrained within the walls of many commercial companies. To them it is business as usual and necessary for survival. However, citizens are waking up and wondering, why not in the government and public sector? Your time is now.

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