

The Evolution of Enterprise Automation

Highlights from a Roundtable, hosted by the Advanced Technology Academic Research Center (ATARC) in partnership with Red Hat, November 2023

In a span of a few short years, government agencies have shifted from using home-grown scripts and complicated proprietary systems to streamlined technology solutions that are propelling the government into the future. With easy-to-implement solutions capable of meeting the needs of the entire enterprise, agencies are primed to harness the power of automation to fundamentally transform operations.

In this roundtable discussion, federal experts discuss the challenges and opportunities with enterprise automation and the processes involved with implementing such solutions successfully.

Current Status of Enterprise Automation

Despite significant strides to digitize and modernize operations, many agencies are still anchored to manual, cumbersome processes that drain staff of valuable time and resources. Roundtable participants are looking for solutions to automate tedious business functions that impact the front office, such as generating reports, creating presentations, and data entry.

For large customer-facing agencies, their focus is on external automations to improve the customer experience. The pandemic spurred these automation efforts and allowed agencies to build momentum and plow ahead with their digital transformation strategies.

Other agencies are newly created for the explicit purpose of accelerating the adoption of advanced technologies in government and piloting projects. These efforts are helping to set standards and pave the way for easier adoption of AI automation for other agencies.

Automation tools, like Red Hat, are providing agencies the opportunity to centralize and empower teams from engineering to operations. Automation is allowing agencies to break down pre-existing silos and connect disparate ecosystems in order to create efficiencies and move missions forward.

Funding Strategies

In order to obtain the funding necessary to implement enterprise automation solutions, agencies first need to get the buy-in from executive management. Doing so requires justifying the need for automation. For some agencies, justification is directly correlated with a business use case. Others find it easier to point to cloud services that already exist to justify additional investments.

However, compared with past automation solutions, the barrier to entry for new technology is much lower. Some agencies are finding success by asking vendors to agree to smaller projects lasting four to six weeks, which come at a lower cost. This allows agencies to reduce the initial buy-in risk, which has proven to be a successful model for some roundtable participants.

Automation is becoming more normalized as more agencies adopt solutions, which is helping to justify costs and enable faster implementation. The number of low risk, high-impact use cases are increasing in number, which helps justify the business cases for not only the front office, but also senior leaders as well as technicians.

Buy-In Strategies

Panelists discussed effective ways to present the ROI on automation tools in order to gain buy-in from senior leadership. Overwhelmingly, roundtable participants point to the time saved by automating processes and the positive effects this has on the mission.

Just as important as gaining buy-in from leadership is gaining it from the workforce. Without their support, implementing automation tools will not be successful. Here are a few ways panelists have successfully gained buy-in from employees:

- Paint a picture of their day-to-day work before and after automation. Highlight the ways staff can harness the power of automation to enhance their work and drive innovation.
- Connect with employees on a human level and ask them what aspects of their jobs they dislike the most. Work on automating these tedious, challenging tasks.
- Provide helpful and compelling use cases that solve large problems for the agency, such as hiring, improving customer service, and removing backlogs. Doing so will help the agency operate at a greater capacity and have a positive effect on morale.

Workforce Training

Similarly, agencies are working to train the workforce on automation technology. Some agencies are already seeing a lack of synchronization between employees who are trained and those who are not, which is leading to parts of the organization feeling overwhelmed as they work to catch up to the outputs of automated processes.

Agencies are finding success by introducing ten day challenges, where employees are asked to learn a new technology concept for ten minutes a day for ten days. If their interest is peaked by a certain topic, they are encouraged to continue learning. One panelist recommended YouTube as a good resource to find free training on these new topics, as well as ATARC events, which are free to the government.

Generative AI

The discussion naturally turned to the use of generative AI automation. Several agencies on the panel are leaning into generative AI by creating an exhaustive security review process, establishing user guardrails, and thinking through the implications for each new use case.

“Generative AI is a technology that is going to transform everything we do, and it's happening now. Getting ourselves, our workforce, and our customers ready to receive it is central to our job.”

Automation and Security

Panelists contend that automation has allowed for consistent security measures across all teams and systems. Automation has also replaced written documentation and increased visibility across the environment.

Technical Support

The support for automation solutions varies across agencies and is usually dependent on the size of the organization. However, the office of the CIO or CTO are most likely to be responsible for automation efforts, including defining user guardrails, enforcing data governance, and offering support.

“You have to spend time analyzing and cleansing your data. If you don't do that, then your automation is not going to be accurate. You'll be in a worse position than when you started.”

Challenges with Automation

As with all technology adoptions, agencies face challenges with automation. Here are some of those challenges:

- **Finding the time to adopt solutions amidst day-to-day tasks and mission requirements.** Automating processes correctly takes time and resources that many agencies do not have.
- **Prioritizing what will be automated.** With limited staff and capacity to deploy solutions, agencies must be careful with this selection.
- **Managing automation modernization without skilled talent.** Government agencies require a unique set of skills that are not readily available in today's market.
- **Getting senior leaders involved and engaged in the process.** It's important for leadership to understand the level of risk involved with new technology, so they can make an educated risk assessment for the organization.

“It's a pretty tough market to go out there, especially if I want somebody with a graduate degree in artificial intelligence with security clearance. We're all looking for unicorns that probably don't exist.”

Looking Ahead Five Years

Panelists were asked where they see their agencies in five years when it comes to automation. Here are their responses:

- A seamless customer experience from any device, which translates to the technician experience so they can process everything from one dashboard.
- Being able to take customer feedback and implement changes to systems or data structures within hours instead of weeks or months.
- Everyone in the organization will be augmented with AI. AI will serve as a co-pilot for every day work, like a “McKinsey in a box” capable of doing everything from rewriting paragraphs, creating powerpoints, analyzing spreadsheets, and more.

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