NTT DATA

Government's Innovation Report Card — High Marks and Demerits

The results are in. The federal government has a passing grade in cybersecurity but still has room for improvement in technology adoption and modernization. Each year NTT DATA surveys federal government and commercial industry leaders to measure innovation, via the Innovation Index. Let's take a deeper dive into the findings and what they mean for federal agencies.

Inflexible business processes, a lack of interoperability and organization-wide strategy hampers the government's ability to drive modernization efforts. The Innovation Index found that, 40% of federal employees cited that a lack of flexible business processes interrupted their ability to deliver modern applications.

"Unfortunately, public sector teams are working in a siloed manner," says Noel Hara, vice president & chief technology officer for NTT DATA.

"They might be trying to move to the cloud, but they're doing it in a vacuum, and they're not doing it along with the rest of the enterprise," he explains. "So, then you end up with systems that exacerbate the interoperability problem because you have more systems that can't talk to one another." Federal employees echo Hara's assertion; 37% pointed toward a lack of interoperability and 36% pointed toward a lack of organization-wide strategy as inhibiting modernization and technology initiatives.

These challenges add up to a poor user experience that contributes to the erosion of trust in the federal government. Across the government, agencies, departments and teams are all working toward improving citizen experience, service delivery and rebuilding trust in government, a cornerstone of Executive Order 14058, Transforming Federal Customer Experience[s] and Service Delivery to Rebuild Trust in

Government. To rebuild trust, federal agencies must work with their partners in the private sector to improve interoperability and implement processes designed to alleviate the burden citizens face when interacting with the government.

The Three R's of Modernization

In the context of modernization and the government report card, the three R's are not reading, 'riting and 'rithmatic but rehosting, rearchitecting and rewriting. Modernization and improving citizen experiences start with rehosting, rearchitecting or rewriting existing applications. Rehosting is a simple action of taking legacy applications that live on-premise and moving them to a cloud environment. Not only does rehosting create secure, stable and scalable environments, but Hara also explains that rehosting on platforms like UniKix can help agencies save on costs.

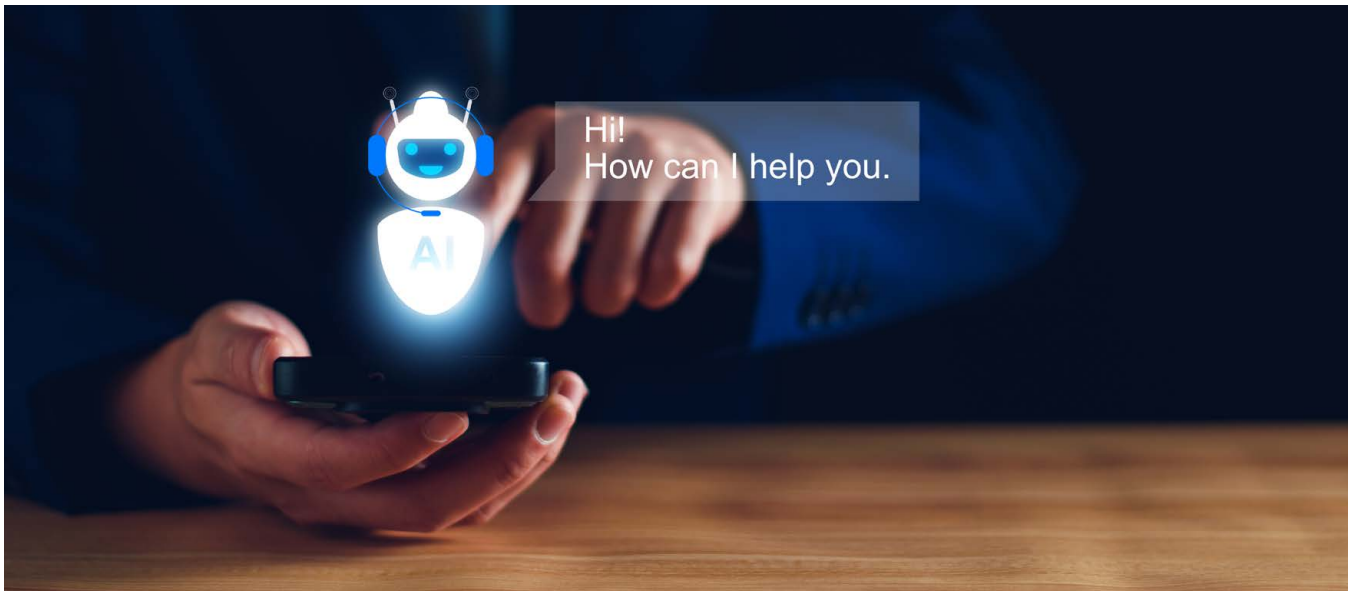
"The UniKix platform does two things: it takes you out of your mainframe system, puts you into the cloud, and recompiles the legacy COBOL code," Hara says. "By taking those [steps], UniKix typically saves our customers between 30 and 70% of the operating cost in a legacy mainframe environment."

In addition to rehosting, agency leadership can pursue actions that involve rearchitecting or rewriting legacy applications. Rearchitecting extracts the business logic from legacy applications and uses that knowledge to build contemporary solutions that rely on microservices architectures. Contrary to rearchitecting, rewriting involves software-as-a-service platforms. Rewriting is designed with simplicity in mind, allowing for teams of engineers working in tandem with skilled human-centered design professionals to build applications with low-code or no-code programming interfaces.

At this point, federal leaders should take pause. Modernization is not one-size-fits-all. Before embarking on this journey, assess which mechanism would best fit your program application. This requires understanding the pros and cons of each vehicle, and experienced private sector partners can be especially helpful in objectively weighing the benefits of each. After a solution is selected comes the challenging part, driving change. Survey respondents cite inflexible business processes as a barrier to modernization, (40% vs. 34% survey average). Still, starting with rehosting, rearchitecting and rewriting will help to increase technology adoption.

"Reskilling agency employees on managing the tools is the easy part," he says. "The biggest challenge that we have is [getting] these individuals who have spent their entire life working in a legacy environment to trust the benefits of these modern, cloud native tools."

Hara's assertion echoes the findings of the Innovation Index: while government has invested in new reskilling/upskilling initiatives to better meet customer needs (53% vs. 50% survey average), they are less likely to have created new products, services, and/or business models that constituents crave (31% vs. 45% survey average).



Modernization for Humans, Citizens First

As technology leaders move from legacy platforms, human-centered design outlined in EO 14508 must be at the forefront of all decisions.

"One of the challenges that we're finding is that because of the executive order, the procurement teams are coming out saying, we want human-centered design. We want to focus on CX. But the mechanism of the RFP doesn't necessarily allow for that to happen in a way that we see in the private sector," says Hara.

Private sector processes focus on bringing together small test groups composed of researchers, designers, vendors, and customers who actively use the app. At collaborative planning and design sessions, these teams of individuals meet and co-design the requirements of the application together. With this approach, private sector leaders can quickly pivot and build solutions that customers want and need.

For example, NTT DATA built a cognitive chatbot called the digital human using human-centered design. The technology pairs voice, images and video with traditional cognitive chatbot capabilities to help employees at NTT DATA find the answers to common questions like, "How many vacation days do I have left?" or "How can I connect to the WiFi?"

At the government level, this technology could be paired with robotic process automation (RPA) to improve citizen experiences. For example, an applicant for FEMA disaster funding could ask the bot about their eligibility for a specific grant. If eligible, the bot could walk the individual through the process of applying while pulling application data from external systems and then provide them with a decision within seconds.

While on the employee side, RPA removes those mundane workflows that traditionally happen behind the scenes where employees are manually keying information into the database, thereby freeing your employees up to handle more complex cases.

"It's all about the customer experience," Hara explains. "By working with partners who also deliver innovative experiences for commercial clients, government leaders can capitalize on the partners' knowledge of industry best practices to efficiently modernize."

Final Grade

The future for federal agencies holds significant promise but the disconnect between innovation, transformation and customer experiences impedes progress. For 40% of federal government respondents, improving the constituent experience is the number 2 priority, with the number 1 being cybersecurity.

Cybersecurity incidents have increased in frequency and potency. Federal IT leaders are heeding the call and taking action to protect critical infrastructure and assets. Overwhelmingly survey respondents (82%) say they have invested in cybersecurity in the past year, which is a very strong step in the right direction.

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