Government CIO

Expert Exchange

Executive summary
September 3, 2025

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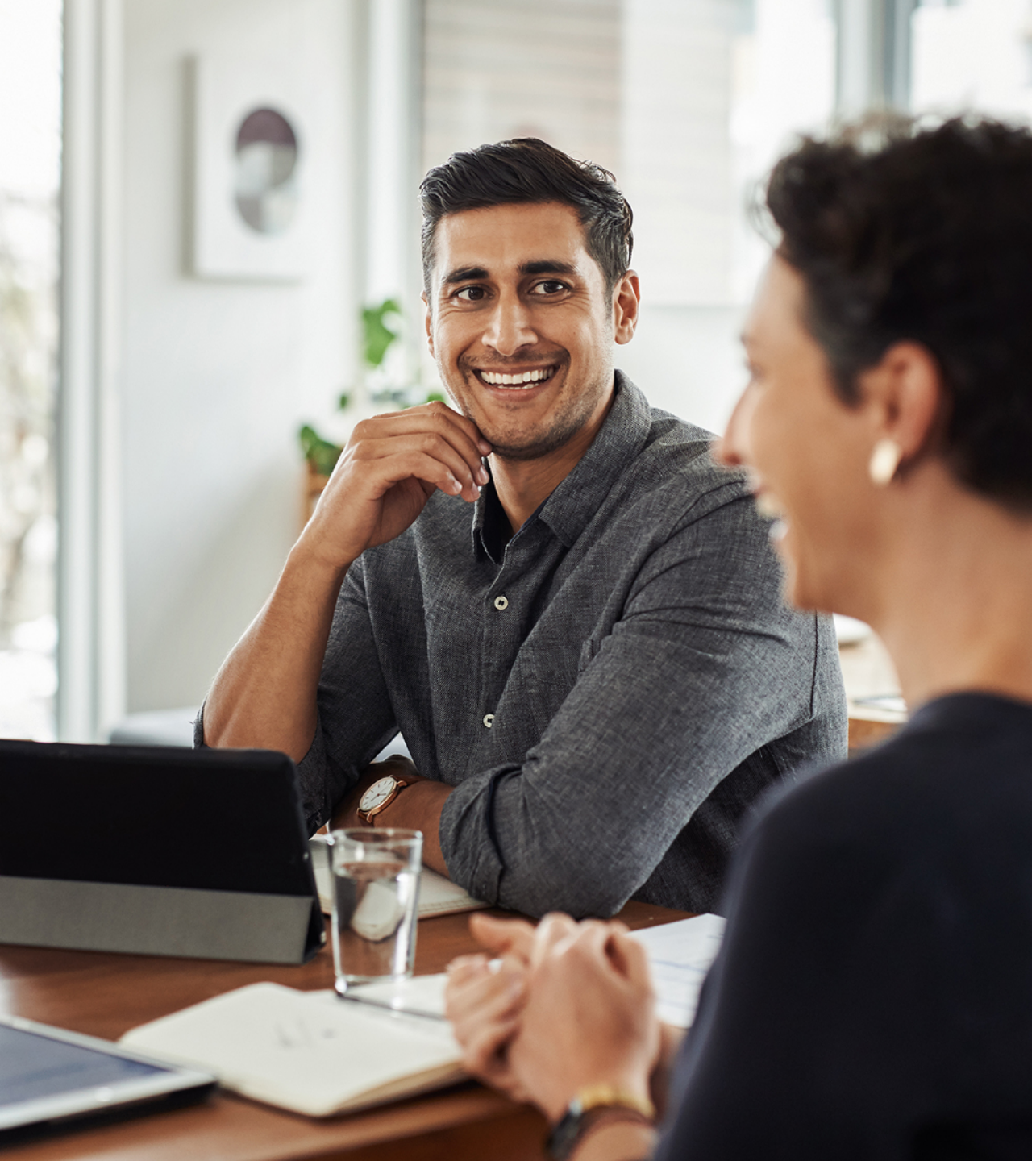

Overview

Government technology leaders convened to discuss AI's transformative role in legacy modernization and the evolving future of IT departments. The agenda was developed based on pre-event participant interviews to address their most pressing challenges and opportunities.

Host(s)

Anita Mikus, Managing Director, US State and Local Government, Kyndryl

Jeff Pany, Enterprise Architect, Kyndryl

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Key topics

Human Risk and Employee Engagement

- Government agencies are making strategic decisions about how to use AI to update decades-old technology infrastructure, with clear patterns emerging around successful approaches.

- Organizations face a key strategic choice: refactor or redesign. One agency chose to “refactor” — updating the technology platform and code language (for example, from COBOL) without altering business processes — primarily to mitigate the risk of skill shortages for legacy languages. In contrast, another agency is pursuing a complete “redesign” of its 60-year-old systems to align with modern, product-based business practices.

- AI is a powerful tool for understanding and documenting complex legacy code. Multiple leaders shared successes in using AI tools like ChatGPT to analyze, interpret, and document millions of lines of poorly commented COBOL or assembly code. This capability proved critical for one agency in creating documentation for a new vendor, avoiding major problems during a difficult contract transition.

- A gradual, human-validated approach is critical for large-scale projects. One organization is modernizing its systems in phases to avoid the risks of “hallucinated” or incorrect AI-generated code. The AI tool generates “guidance,” such as pseudocode and data definitions, which subject matter experts review and validate before implementation. This approach improves speed while maintaining accuracy and control.

- Data synchronization remains a significant challenge in modernization. Moving from a mainframe to a server-based environment can create considerable data pipeline and formatting issues, especially at high volumes. Several participants noted that using an operational data store (ODS) is a key strategy for managing data effectively across both legacy and new systems as they run in parallel during the transition.

“Our goal is to rebuild and redesign... We ended up using the generative nature of AI to generate guidance for us. We were not sure if the tool was going to have all the answers or whether they are real. With the generative nature of AI comes the risk of hallucinated code.”

— Government CIO Expert Exchange Participant

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Driving AI Adoption and Workforce Transformation

- The discussion revealed both successful strategies and significant challenges in managing the human elements of AI transformation within government organizations.

- Leadership adoption is a powerful catalyst for change. One leader described how the chancellor began using AI to analyze state budgets, which prompted his cabinet and other managers to adopt the tools to keep pace rapidly. This top-down engagement creates a sense of urgency and positive momentum throughout the organization.

- Provide tools and encourage experimentation. Leaders are finding success by providing broad access to various AI tools (for example, ChatGPT, Claude, Gemini) rather than mandating a single platform. This empowers IT professionals to choose the tool that best fits their needs, much like a carpenter selects a tool for a specific job. Encouraging experimentation and accepting failure are seen as essential for learning and innovation.

- The focus of IT work is shifting from coding to prompt engineering. The new critical skill is the ability to write complex, effective prompts to guide AI. Organizations are focusing on retraining staff to think differently and adopt a "can-do attitude" toward retooling. Leaders are transparent that employees who adapt to this new way of working are more likely to have successful careers.

- Adoption among technical staff is inconsistent. Across organizations, there is a clear divide in adoption rates. One leader estimated that only 20% of their developers are early adopters, while 20% are resistant and nearing retirement, leaving the majority (60%) uncertain about how to proceed. This highlights the significant change management challenge leaders face.

"The new age is about how I retrain my folks to think less as programmers and more about how they can write a complex prompt. We are focusing on getting people to have this can-do attitude. If you don't agree to retraining and retooling yourself, then you will become extinct."

— Government CIO Expert Exchange Participant

Is your workforce ready for AI?

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Strategic Implications and Risk Management

- Participants examined AI's long-term education and future workforce development.

- AI is a fundamental shift, not a fad like blockchain. While some questioned if AI is overhyped, the consensus was that its impact will be far more widespread and lasting than technologies like blockchain. AI's accessibility — available on every phone — and its broad utility for everyday tasks give it a transformative power that niche technologies lack.

- Balancing productivity gains with the risk of "code hallucination" is essential. AI can accelerate development dramatically; one team built a new system in 12 minutes that previously took 18 months to develop. However, leaders cautioned developers using AI-generated code without fully understanding it. This creates a risk of introducing flawed or insecure code and leaves an accountability gap when things break.

- AI is reshaping education and future career paths. The rapid advancement of AI is forcing a fundamental rethink of higher education. Students are reportedly now choosing universities based on the strength of their AI curriculum, recognizing that adaptability — not a specific degree — is the key to future employment.

- Widespread adoption faces a usability barrier. A key challenge is that, unlike a phone, using advanced AI tools is not intuitive. A participant warned this could create a new digital divide between "the haves and have-nots," as proficiency requires a dedicated effort to learn complex new skills, which may exclude non-technologists from its benefits.

"This is different [from blockchain]. The problem with this is that this is not intuitive. This is not like my Apple phone that my mother can learn to use. There will be winners, and there will be many losers because of the lack of intuition this capability has. People are going to have to make an effort to learn it."

— Government CIO Expert Exchange Participant

Kyndryl launches Agentic AI Framework

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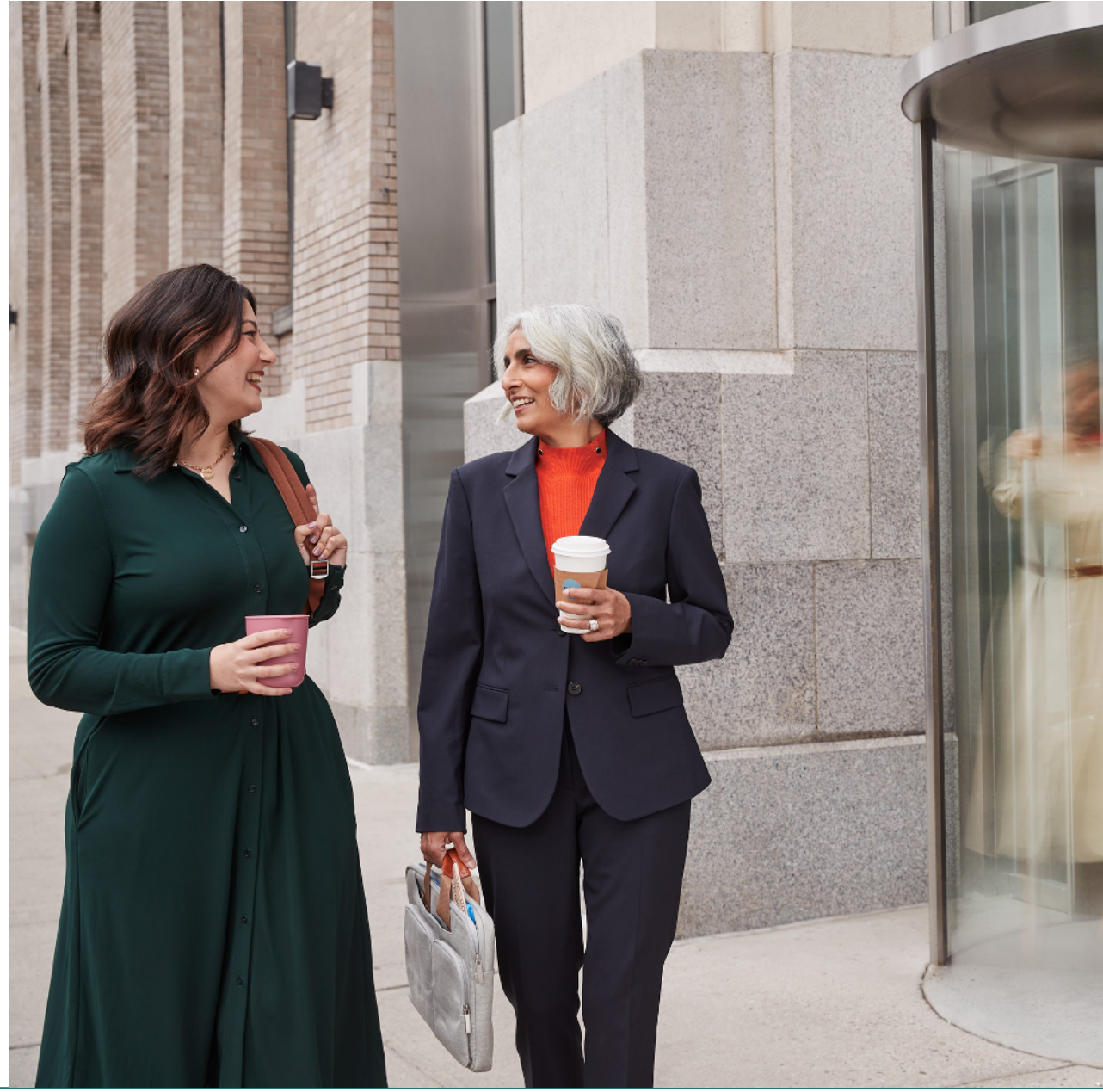
Recommendations for Leaders

Based on the expert exchange insights, government technology leaders should consider the following:

1. Develop Clear Modernization Strategy: Choose between refactoring and redesign approaches based on organizational priorities and risk tolerance
2. Implement Human-Validated AI Processes: Use AI for guidance and analysis while maintaining subject matter expert validation
3. Invest in Leadership AI Literacy: Ensure executives model AI adoption to drive organizational change
4. Provide Diverse Tool Access: Offer multiple AI platforms rather than mandating single solutions
5. Prioritize Prompt Engineering Training: Retrain technical staff in the new critical competency of effective AI interaction
6. Address the 60% Uncertain Middle: Develop targeted change management strategies for staff who are neither early adopters nor resistant



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The Expert Exchange is hosted by Kyndryl, Inc. For questions about Kyndryl services or future Expert Exchange sessions, please contact Anita Mikus or Jeff Pany.