

# 6 Ways to Tame Complexity With AI

Government processes can be unnecessarily complex. Constituents may struggle to access the information they need across disconnected systems; procurement processes can be downright Byzantine; policies may require coordination across multiple agencies or levels of government. Artificial intelligence is primed to bring all that complexity to heel.

At a recent [GovLoop virtual event](#), experts from government and industry offered practical guidance for using AI as a means to tackle complexity. Here are highlights of their discussion.

## Speakers

- **Chris Dilley**, Chief Technology Officer, State and Local Government, ServiceNow
- **Matthew McCarville**, Chief Information Officer, Nebraska
- **Craig Orgeron**, CIO and Executive Director, Department of Information Technology Services, Mississippi

## 1 Identify the Use Cases

Complexity is everywhere in government. For AI to help tame it, said Craig Orgeron of Mississippi, leaders first need to identify the most likely use cases.

One area ripe for simplification is constituent services: “Chatbots, virtual assistants, any way that you can improve the citizen experience,” he said. Another area of focus is fraud detection and compliance. Data processing, too, looks promising. “We are seeing lots of potential use cases in and across government where there’s a very heavy lift in this regard — with procurement, legal reviews.”

Rather than aim AI at every and any process, it makes sense to target areas where complexity causes the most problems, the places where automation could best streamline access to information and services.

## 2 Focus on the Data

In complex government systems, it can be hard to pin down definitive information. For AI to effectively reduce complexity, agency leaders need to “think about the underlying data and the sources of truth,” said Chris Dilley of ServiceNow.

That starts by reducing the number of places where data lives, and maximizing the number of applications that work off that core data set. “As we think about data integration and management, they’re going to be absolutely key to successful AI deployment and rollouts,” he said.

How can agencies work toward a more unified approach to the data underlying AI-driven applications? “It all starts with really knowing your business. It starts with how you structure those processes,” he said.

### 3 Look to AI in Support of Access

One place where complexity shows up clearly in government systems is in the arena of user access. “People in the state of Nebraska have a hundred different ID numbers and passwords to log into all of our systems,” said Matthew McCarville of Nebraska.

Streamlining that fragmented landscape promises to be “a very difficult task,” he said. But AI will help.

To move toward a unified access strategy, the IT team should bring together “the data, the analytics, the identity and access management — and then apply AI on that,” he said. “It all comes together in a big, modern approach.”

### 4 Test Data Governance on a Finite Use Case

When looking to streamline or simplify complex government processes, data governance will be key to successful (and ethical) outcomes. It makes sense, therefore, to test-drive governance in a limited environment, Dilley said.

When leveraging AI to bring complexity to heel, “it’s better to start out finite and slowly expand,” he said.

Start by asking the big questions: “Where’s the data that you want to utilize for these things? How are we going to fence this data in?” he said. Then, “as we think about taking on AI initiatives, we need to think about a very finite, targeted use case to make sure that it’s executing and being delivered the way the organization wants it to.”

### 5 Focus on Building Trust

When government streamlines complexity with AI, people may worry about unintended outcomes. With the technology still evolving, it’s important to focus on building trust, Orgeron said.

For example, his team is piloting an AI-driven bill summary application with the state legislature. A use case like this shows how AI can take the complex (endless reams of legal documents) and boil it down to what’s really important. But it comes with risk. “You have to really be thoughtful about outcomes and [about] negating the potential for bias,” he said.

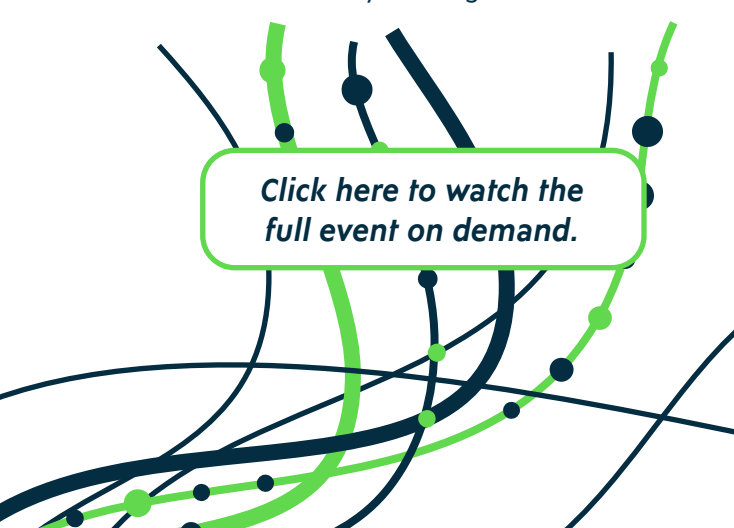
“You’ve got to keep that top of mind,” he said, in order to build the trust needed to deliver on the full potential of AI. “You need to have built-in fact-checking mechanisms.”

### 6 Consider the Infrastructure

To move the needle on complexity, AI will need to be cost-effective. It’s important, therefore, to look at both the infrastructure and the organizational supports for those AI-driven applications.

McCarville said his organization is migrating from mainframe to multi-cloud, while also standing up a center of excellence (COE) for data analytics and AI. Through the COE, the state can share resources between public entities and nonprofits, “because not all of us need an AI engineer for 40 hours a week, year-round,” he said.

Government can use AI to cut through complexity, but it needs to be done in a cost-effective way. With cloud infrastructure and the COE, “we’re trying to maximize the utilization of the resources, maximize the cost efficiencies,” he said.



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