

# The GenAI Big 4

Keys to success  
for generative AI in  
the public sector



**Generative AI (GenAI) projects need a strong foundation to stay on track. Careful choices on strategy, modeling accuracy, governance, and data platform architecture give your agency the best chance of success with GenAI and large language models (LLMs).**

## 1. Strategy

A sound strategy starts with recognizing what GenAI does well. “Not every problem is a GenAI problem,” says Bojan Soldan, application consulting director with Kyndryl, which helps governments accelerate digital transformation and create constituent-centric digital platforms.

Popular GenAI applications let users ask questions in plain language and use LLMs to create detailed replies. While the appeal of this technology is straightforward, GenAI can have confounding implications for governments.

- ❑ **Build trust.** GenAI apps can strengthen trust in public institutions by making user experiences more convenient and transparent. However, these tools occasionally generate ambiguous responses or content that’s factually wrong, typically called hallucinations. The data fueling LLMs and GenAI must be accurate and secure. It’s also important to publicly announce any use of GenAI, says Manish Virwani, associate director for data architecture with Kyndryl. Make announcements in the channels where constituents will most likely see them, like social media and local news reports.
- ❑ **Establish data governance from the start.** Policies for storing, transmitting, and processing data need guidelines that encourage transparency and operational excellence. “Effective data management fundamentals like classification, storage, movement, protection, and governance can prepare organizations to act effectively as the technical and regulatory landscape evolves,” says Kishore Kumar Balasundaram, senior solutions architect with Amazon Web Services (AWS).
- ❑ **Simplify the user experience.** GenAI apps need an intuitive, easy-to-use interface that clearly spells out when and how automated content is being generated. Give yourself room to experiment, gather user feedback, work out bugs, and refine the user interface.
- ❑ **Look for strong ROI.** Choose use cases that drive measurable results for your agency and constituents. Talking to agency leaders and subject matter experts will help you refine requirements and clarify the value proposition for constituents and staff.
- ❑ **Mitigate risks.** A strong risk-management approach addresses institutional vulnerabilities and the threats of cyberattacks, fraud, and other disruptions.
- ❑ **Log everything and iterate.** GenAI may produce mysterious results. Logs help you detect the causes of anomalies, making them explainable and auditable.

## 2. Modeling Accuracy

LLMs need clean, current data to avoid hallucinations and other flaws that damage public trust. “The data has to be properly diverse to avoid problems with fairness or bias,” says Virwani. You don’t want automated results insulting people, harming marginalized populations, or generating negative news stories.

❑ **Aim wide.** You'll need disparate data sources to unlock the full potential of LLMs and GenAI. Data must remain accurate across its life cycle, from creation to curation to archiving. GenAI can drive value across multiple government domains, so you'll have to collaborate with leaders across disciplines such as public health, finance, taxation, law enforcement, and social services.

❑ **Sanitize.** Cleaning and curating your data can help ensure fairness and reduce anomalies. You can't sanitize all data at once, but you can establish a respectable base of reliability and then tweak for better accuracy over time.

❑ **Iterate.** Develop LLMs incrementally so you can continually adjust parameters and improve performance. Be patient: It takes time and many iterations for GenAI models to produce solid results.

### 3. Governance

"An ongoing governance layer has to be put on top of the technology," Soldan says. This layer gives leaders a framework for handling the nuances of GenAI.

❑ **Assign leaders.** Establish a governance board to create policies and procedures. Appointees should have the experience and knowledge to effectively evaluate proposed AI solutions and create guardrails against bias and inaccuracies. Your governance board should ensure compliance with security and privacy rules. Appointees should also supervise testing to assess the impact of GenAI solutions.

❑ **Secure and protect.** Governance helps address cyberattacks, misinformation, fraud, and privacy threats. Policies should prevent users from accidentally entering private data into a GenAI interface.

❑ **Bring in allies.** States and other jurisdictions face similar governance challenges. Agencies should work together with other states to help formulate policies and implement technologies.

### 4. Data Platform Architecture

Data platform architecture helps agencies integrate disparate data sources, optimizing structured and unstructured data in ways that support GenAI apps. "Choose a platform that can collect, store, process, analyze, and manage the vast datasets required for developing and training generative AI models," says Balasundaram.

❑ **Take your time.** Use the platform's tools to clean and organize your data first. "Don't jump ahead too quickly to writing the applications," Virwani cautions. A proof-of-concept experiment is not a foundation for deployment, he adds.

❑ **Keep iterating.** Because data keeps changing, you must continually update and upgrade applications after implementation.

❑ **Choose partners carefully.** Data platform architecture providers like AWS have suites of AI tools for managing data and hardening security. They can help you answer the "buy vs. build" question, potentially providing an out-of-the-box LLM that you can customize for your agency's individual needs.

## Promising use cases

### Translation

Communicate with your agency's diverse audiences.

### Automation

Eliminate repetitive work and provide guidance to users.

### Safety

Detect threats and anomalies.

### Intelligent document processing

Facilitate natural language understanding, summarization, and text generation.

### Enhanced digital customization

Create customized health recommendations, education plans, and social assistance programs.

### Better contact centers

Provide more efficient, personalized constituent services.

### Procurement assistance

Streamline RFP preparation.

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