The Era of Al-Empowered Cities

Generative AI creates massive opportunities for local and regional governments to rapidly deliver secure, modern, and sustainable experiences.



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GenAl Has an Increasing Role in Government Transformation

GenAl is a form of artificial intelligence to **create text, audio, video, images, and code** in response to short prompts and based on the data used to train it.



Governments globally have embraced GenAl and are already investing significantly in GenAl tools.



of governments worldwide are **in initial exploration of use cases or proofs-of-concept.**



are investing significantly now.



of local and regional governments report **using GenAl tools** in some capacity.



Al and automation projects such as GenAl initiatives are **some of the least likely projects to be subject to budget reductions.** Governments see GenAl as a net-positive investment and a force multiplier for improved employee experiences and productivity.

GenAI-Empowered City

Sources: IDC's Future Enterprise Resiliency & Spending Survey, Wave 2, February 2024, and Wave 5, May 2024; IDC's Industry Tech Path Survey 2024. August 2024

Workforce and Operations

GenAl enables regional and local governments to automate processes to reduce risk and improve productivity and the employee and user experience.

Top drivers for using GenAI in order of priority are:





Improve the public user experience Increase the

quality of services and products



Improve business agility

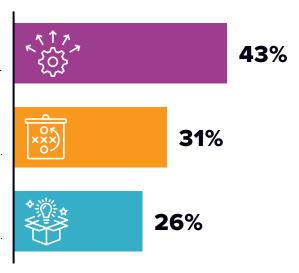
Governments anticipate the greatest impact of GenAl on workforce

and operations transformation:

Productivity use cases for task productivity and operational efficiency......

Functional use cases for contextualized experiences and improved decision-making

Specific government use cases for new business models, products, and services ...



Sources: IDC's Industry Tech Path Survey 2024, August 2024; IDC's Future Enterprise Resiliency & Spending Survey, Wave 2, February 2024

Near-Term GenAl Use Cases

Use cases demonstrate the possibilities and impact from GenAI for smart cities and communities.

IDC predicts that GenAl-augmented services will grow



by 2026, as **GenAl enables state and local governments** to offer net-new services and smaller municipalities to rival big-city offerings.

> Governments are picking use cases that demonstrate value quickly and have less complexity to implement, such as:

Citizen experience:

Focus on enhancing citizen experience and trust through AI and automation by quickly communicating community alerts and incident updates.

- **Knowledge discovery:** Leverage AI for knowledge discovery to uncover insights and patterns across multiple departments and agencies and data silos.
- Process optimization:
 Optimize using GenAl to support workflow automation and the compression of discrete tasks.

Government respondents believe GenAI will be critical for:



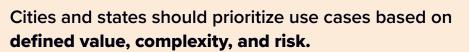
Procurement and grants management



Public health, social services, and emergency services



Hyper-personalized government service delivery



EXAMPLE: Using GenAI for customer support to answer benefits eligibility questions is less risky than using GenAI to determine eligibility for benefits.

Sources: IDC's Industry Tech Path Survey 2024, August 2024; IDC's FutureScape: Worldwide Smart Cities and Communities 2025 Predictions, November 2024

Inhibitors, Fears, and Challenges in Adoption

There are **known and unknown risks** in the responsible use of GenAI. Address the known risks now as part of a strategic AI road map, and create responsible AI policies and governance.

1	Data fairness Concerns over data and/or algorithmic bias
2	Data explainability Understanding lineage and provenance of data sets
3	Data accuracy Ensuring results avoid "hallucinations" (misinterpretations and irrational results)
4	Data security Combining results from many data sets could breach privacy and security compliance of governments list risks to privacy and personal information as one of their biggest concerns.
5	GenAl skills Lack of talent and staff training create risks in using GenAl improperly

Source: IDC's Future Enterprise Resiliency & Spending Survey, Wave 2, February 2024

Technology Considerations

Technical decisions around compute infrastructure, Al platforms, and data-readiness highlight the importance of trusted external partners.

INFRASTRUCTURE

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Compute power: GenAl requires compute power for its large language models and training data, as well as data processing.

- Cities report that cloud infrastructure to support GenAI has the most impact on budgets.
- Many governments worry about technical debt given the current rapid rate of change in GenAl infrastructure related to processor and network technologies.
- 47% will use a mix of public cloud and dedicated infrastructure-as-a-service solutions to offer options and flexibility to respond to the rapid developments in GenAI technologies.

Cloud requirements

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- 60% of regional and local governments have hybrid and multicloud environments.
- 38% of regional and local governments have 3–5 cloud service providers in their multicloud environment.
- 38% of governments agree that ease of data repository integration across hybrid/multicloud architectures is most important for GenAl compute and storage infrastructure.

3 Cybersecurity

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- GenAl can also enable bad actors to create malware, poison open source code, and bolster hacker abilities.
- Al itself will be necessary to sort through massive amounts of cybersecurity information to help protect against these threats.
- **38%** of governments worry that security policies do not yet account for GenAI.

Source: IDC's Future Enterprise Resiliency & Spending Survey, Wave 2, February 2024

Guidance and Recommendations

Smart cities and communities are adopting GenAl quickly. It is important to proactively manage this adoption to benefit from the opportunities of GenAl while managing the risks and challenges.

Focus on Trust

- Understand the value of GenAI applied to government data.
 - Develop a responsible GenAI policy for guardrails and compliance.
 - Banning GenAl use is not an effective, sustainable, long-term policy. GenAl use must be transparent and not "shadow IT."
 - Only 21% of governments have responsible AI governance policies that they have shared organizationwide, and even fewer have a responsible AI code of conduct.
- Ensure sensitive data is not training the model.
- Deploy the "gold standard" of AI safety (i.e., humans in the loop).

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Train and Hire for GenAl Skills

• Educate staff on GenAI as acceptable use policies are developed.

- Train both IT and non-IT employees on how to integrate GenAl into their day-to-day workflows.
- Create new job descriptions.
- Acquire new skills (e.g., prompt engineering, grounding, model construction, and code interpretation).
- Use a variety of skills and cross-functional expertise for decision-making.
 64% of government organizations have a cross-functional team of IT and non-IT leaders making GenAI investment decisions.

Scale GenAl

- Assess build-versus-buy strategies for AI workloads and infrastructure.
- Partner with trusted suppliers.
- Conduct sandboxed experimentation for prioritized use cases.
- Develop an intelligence architecture.

Source: IDC's Future Enterprise Resiliency & Spending Survey, Wave 2, February 2024

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