Constructing a next-generation **data architecture**

An alliance between Snowflake and Deloitte eases agencies' migration to cloud-based data and analytics

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AGENCIES CONTINUE TO collect ever-larger volumes of data, and the complexity of correlating data from different sources and different parts of the mission can present enormous challenges: For example, the sources can vary widely in terms of quality, they often don't adhere to the same data standards, and it can be hard to derive insights from unstructured content.

Agencies must find a way to overcome those obstacles because valuable insights are generated at the point where different datasets intersect.

The speed at which agencies need to derive insights, the flexibility they need to ingest new data, and the volume and variety of data are vastly different from what current architectures were designed to handle. Therefore, agencies need next-generation data and analytics architectures that can blend data from a wide variety of sources.

An AI-powered, collaborative platform

The conversation about data should start and stop with the mission impact and how quality data can improve decision-making and customer services. Once they have a clear understanding of their internal and external data assets — what data they have and how it can be used, along with the owners and sources of that data — agencies can progress toward intuitive AI-driven data catalogs. In addition, agencies should encourage a data-savvy culture across all layers of the organization and continually improve their data so that they can take advantage of modern applications.

The volumes of government data would overwhelm any on-premises system, so moving to the cloud is essential for building a modern data architecture. However, simply lifting existing datasets into the cloud doesn't solve the problem. People will work the way their data is organized, so rather than build data silos and create siloed workforces, agencies must combine data to empower their employees.

Deloitte and Snowflake have teamed up to help agencies modernize their approach to data management in the cloud. Snowflake's Data Cloud and platform and Deloitte's recently announced AI platform, CortexAI for Government — along with their recognized leadership in strategy, analytics and technology services — support agencies' ability to move to the cloud and develop compelling AI solutions quickly and cost-effectively.

Snowflake's collaborative platform enables employees from different parts of the agency to reuse and share data while building on one another's efforts. The platform can meet the concurrency and scale requirements of a large multi-agency cloud architecture that has petabytes or
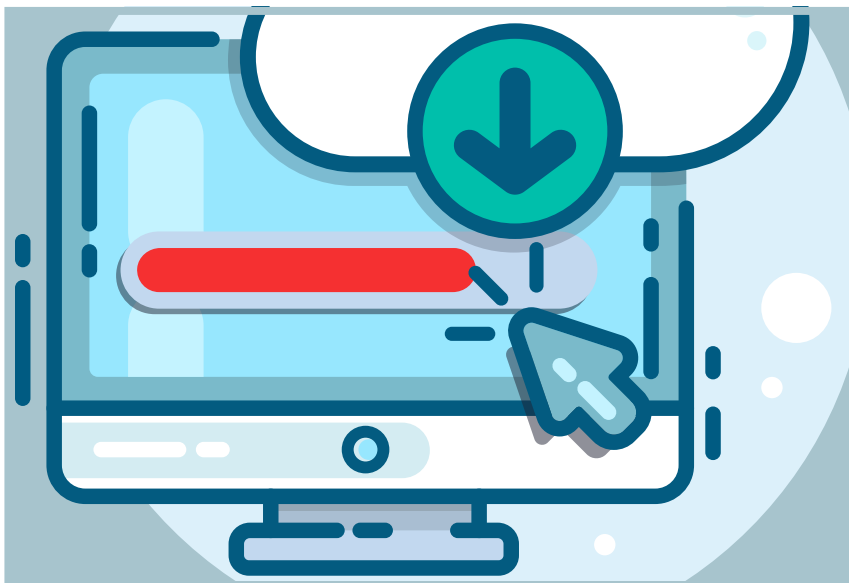
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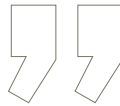
even zettabytes of data and hundreds of thousands of users.

Snowflake's public marketplace features more than 100 datasets, and that number is rising every day. Users can gain access to shared datasets related to weather, housing values, population counts or COVID-19 data, for example. Agencies can also create small private exchanges within a closed community, which enables the sharing of data in a protected manner.

Building momentum for a data-driven government

The pandemic has underscored the importance of data for the government's ability to make critical decisions and reinforced the notion that data is a strategic asset. Moving the conversation from theoretical to practical can be challenging, but doing so will help the government transform from reactive to proactive.

A data-driven, anticipatory government is better able to tackle complex challenges such as the climate crisis, the pandemic, the ongoing economic recovery and social inequities. Adopting a modern data architecture is an important step in a collaborative movement toward a more proactive government. ■

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