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The secret to maximizing Generative AI

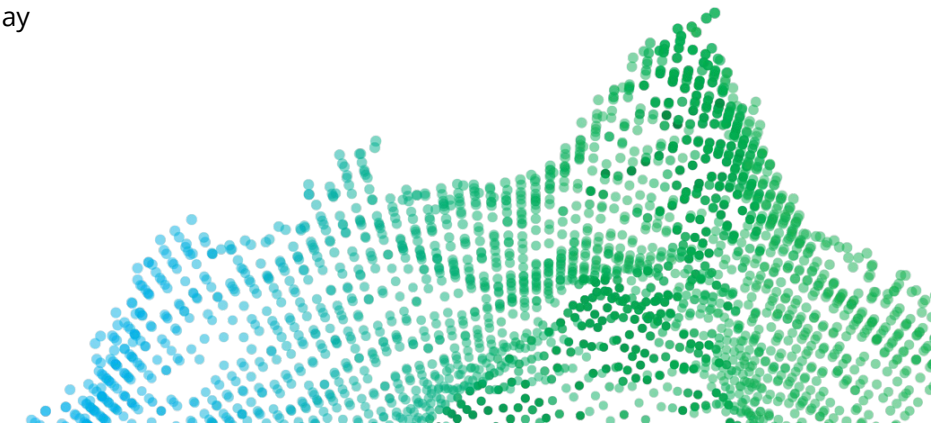
A solid data strategy

This is a pivotal time for artificial intelligence (AI), Generative AI (GenAI), machine learning (ML), and large language models (LLMs).

> Their potential impact on modern enterprise seems limitless, but to successfully wield such powerful new tools, organizations should recognize the critical role that data plays in ensuring efficacy. For many organizations, that may require a new data strategy.

A data strategy outlines an organization's long-term vision for the collection, storage, processing, sharing, and usage of data. It should make working with data easier at every step of the data journey, for everyone. It should also create a roadmap for how an organization adapts to changing needs, including implementing advanced technologies and analytical tools—like GenAI—into everyday operations.

But implementing an effective data strategy is not easy**.** Recent studies found that about half of strategy execution efforts fail[1]. This whitepaper explores how, why, and what partners, tools, and technologies you can leverage to overcome today's hurdles to future-proof your business.



The current state of data

Many organizations struggle to create a successful data strategy due to one, some, or all of the following challenges:

1. Technology:

Over time, many organizations have implemented various disparate and disconnected systems. That means the data they capture is stuck in detached silos. Over time, even more disparate parts get added to the technology stack, further complicating integration.

2. Data:

Can an organization ever have too much data? Have datasets become so large that teams cannot make sense of the deluge? That makes it very difficult to decide what data the team needs, what data it can actually use, and what the team should even do with that data next.

3. Access:

It's frustrating to have the data you need to glean insights, but no way to access, share, or use it. Whether it's a shortcoming of the technology stack or incorrect formatting —meaning it can't be properly mined—having all the data in the world is useless if you can't access it meaningfully.

4. People:

Technology, data, and access are powerful tools, but they can do nothing alone—actionable insights are formed by people who know how to analyze data to meet organizational needs. If your organization doesn't employ people with reporting and analysis skills, you'll likely need to invest in adequate training and determine a preferred method to share insights with peers, colleagues, or leaders.

5. Governance:

Can I trust the data that I have access to? Which is the right dataset if I have multiple redundant and similar copies? Who owns the data? How was the data sourced and curated? This is not a one-time exercise but an ongoing collaborative process dependent on the data community in the organization.

A better data foundation empowers GenAI

> Before organizations can leverage data as an asset and put GenAI to work, they must format data for mining by multiple systems, connect those systems, and set up data sharing among the right parties. An effective data strategy makes this possible by using a single, unifying platform that's powerful enough to handle multiple complex systems.

Think of this platform as an ant farm, the small hole where the ants enter and exit represents where an individual on a computer works with data to run analysis and build reports. This seemingly simple task relies on a vast ecosystem below the surface—an interconnected structure with the capacity and logic to bring together many different sources and avenues, which all work together harmoniously.

With this platform, organizations can build a better data strategy and answer key questions, such as what does the organization want to find out most from its data?

Technology selection and recommendation

When selecting a technology that will help execute your data strategy, consider something cloud-based and scalable. The Software-as-a-Service (SaaS) cloud data warehouse from Snowflake enables data storage and computing to scale independently. It works on top of the infrastructure from some of the world's largest cloud provider. And because Snowflake provides a multi-purpose cloud data warehouse, its most common use cases include data lakes, operational data stores, and data solutions—all of which can provide fast, user-friendly and adaptable data ingestion, storage, processing, and analytical solutions.

But Snowflake is more than a data warehouse or a data strategy platform. Its fully managed, cloud-based data warehousing and collaboration capabilities also support many analytics use cases, data collaboration, and AI/ML solutions. The power of Snowflake for GenAI and LLMs resides in its time-bound ability to help organizations:

- Use AI **in seconds** through Snowflake tools like Document AI, universal search, and Copilot
- Launch apps **in minutes** using the open-source Python library, Streamlit
- Fully customize **in hours** using custom UI and orchestration

These time-saving benefits can translate to repeatable, everyday value for organizations and their data in numerous ways:

Centralized, secured, governed, and shared data

Snowflake handles all data types—structured and unstructured—to deliver a single source of trusted data with dynamic security controls. This makes it easy to integrate third-party data in real-time to enrich analytics, and effectively and securely share and monetize data products.

Automatic scaling as data needs change

Snowflake handles spikes automatically, separates storage and compute data, and gives all workloads proper, isolated resources. This helps organizations meet or exceed SLAs and empowers data science exploration to find new use cases for data science.

Simplified infrastructure and reduced costs

Because Snowflake is cloud-based, it doesn't require any infrastructure or support from users or organizations, which can lead to quick value realization. Autonomous operation frees IT resources to focus on solution development and with costs aligned to usage, instead of fixed infrastructure, organizations only pay for what they need.

Better decisions, made faster

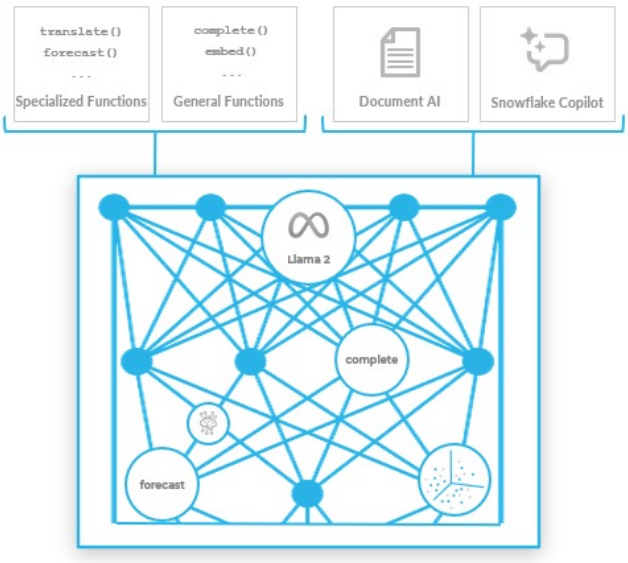
Snowflake data refreshes in real-time and there's no limit to the number of queries or users who can access a complete data set. Sensitive data is deidentified and organizations have complete control over what they share. This can help ensure trustworthy data and maximum insights.

Together, these features help organizations on the Snowflake platform build a data foundation that's ready to support AI. They also allow an organization to format data properly so that AI tools can easily ingest large volumes of high-quality, accurate data. This approach helps ensure organizations can walk along the road to solid data storage, organization, and mining before they attempt to run with AI and other advanced tools.

Snowflake Cortex

To help organizations maximize GenAI through a better data strategy, Snowflake Cortex provides an intelligent, fully managed service that hosts industry-leading AI models, LLMs, and vector functions. This allows organizations to quickly and securely analyze data and build AI applications that are fully contextualized and customized with unique enterprise data.

Users can access Cortex via serverless SQL/Python functions, or as part of an LLM-powered experience such as Document AI or Copilot, as seen in the figure here.



Avoid “analysis paralysis” by working with the right team

> While the underlying technologies that make all of this possible can seem complex, the end result is a better data strategy that simplifies and streamlines insights. Effective tools, partners, and technologies will help you build and execute your data strategy and maximize investment in AI tools.

Deloitte has helped hundreds of organizations build better data strategies while amassing over 5 million hours of experience working with Snowflake. Deloitte’s unique Snowflake accelerators, reference architectures, agile delivery methods, and testing automation capabilities can help clients implement and use Snowflake quickly. Our experienced team also helps organizations maximize investment in the solution by working together to troubleshoot, triage challenges, leverage managed services, improve automation, implement sustainment methods, and select and stand up hosting platforms.

Creating and implementing a data strategy is a journey, not a destination. An organization needs the flexibility to ebb and flow as needs change; an experienced guide helps teams make better sense of their data, understand enhancements, and work together to solve problems.

Your data is there. More is coming. And GenAI is knocking.

Unlock the door by connecting with our practice leaders below, or learning more about the unique value of the Deloitte and Snowflake alliance.

Ready to get started?

Please get in touch! Deloitte is eager to learn about your priorities and help you chart your path to a modern data environment with Snowflake.

Matt Wallbrown
Snowflake Lead Alliance Partner
Deloitte Consulting LLP
mwallbrown@deloitte.com

Rupesh Dandekar
Snowflake Alliance Chief Technology Officer
Deloitte Consulting LLP
rudandekar@deloitte.com

Anthony Ciarlo
Alliance Relationship Executive
Deloitte Consulting LLP
aciarlo@deloitte.com

1. Jeroen Kraaijenbrink, “*20 reasons why strategy execution fails*,” *Forbes*, September 10, 2019.