Harnessing the Possibilities of Generative AI
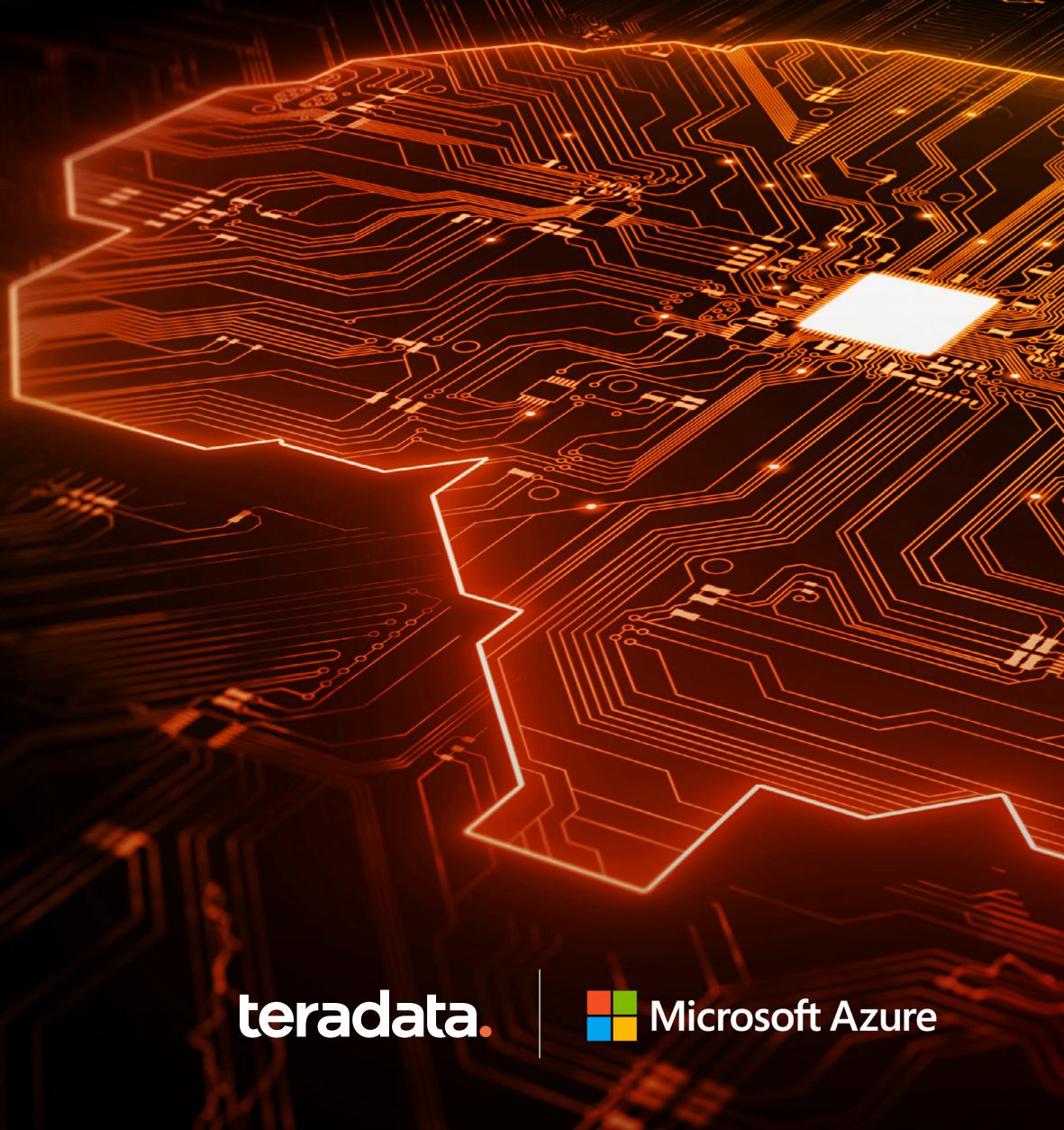
How enterprises can drive breakthrough innovation with the latest AI technologies

teradata. | ▦ Microsoft Azure

Generative AI tools like ChatGPT have made AI mainstream. Now organizations everywhere want to understand the potential of gen AI and what it means for their business.

Enterprises expect big things from gen AI, hoping it will help drive faster innovation, improve business performance, and enrich customer experiences.

But those big expectations come with even bigger challenges.

Tech and business leaders see big potential in gen AI

Teradata recently partnered with IDC to survey 900 CIOs, CDOs, and CFOs.[1] We found that:

80%

believe they'll use gen AI in future products and offerings

ALMOST
2 IN 3

expect significant pressure to take advantage of gen AI in the next 6 to 12 months

Generative AI requires exponential volumes of data from a wide variety of sources. And all of it needs to be harmonized, integrated, governed, managed, and included in analyses for the best results.

How can enterprises overcome these data challenges and unlock the massive potential of generative AI?

In this eBook, we discuss:

- Concrete examples of how gen AI can drive real-world results for enterprises

- The technology required to get the most value, performance, and growth from gen AI projects

- How Teradata and Microsoft enable gen AI innovation across the organization

Driving real–world results with generative AI

Generative AI refers to a class of artificial intelligence algorithms designed to generate new context, such as images, text, music and even videos. One of the most popular applications of generative AI is the use of large language models (LLMs) for text generation.

Most businesses are just starting to explore how they can use gen AI to create value, but some early examples include:

Deploying a new generation of Customer 360 analytics

Generative AI can help businesses process, interpret, and understand text data better than ever before. That includes converting unstructured data like customer reviews and support tickets into relational metadata to help understand customer intent. And by combining that relational metadata with transaction and interaction data, businesses can develop true customer–centric applications.

All of this enables a new generation of "voice of the customer" and Customer 360 analytics and applications, delivering an even more comprehensive view of the customer that incorporates data from multiple touchpoints and interactions.

Driving greater productivity and insights with natural language interfaces

Generative AI has the potential to drastically improve employee productivity. For example, gen AI could automate the manual processes of creating queries and scripts, which would enable a data scientist to produce even richer, more in-depth schemas for customer transactions and sales.

When paired with a natural language tool, gen AI also gives non-technical employees more access to the insights and data they need to make better decisions. For example, a call center employee for an insurance company could ask a gen AI tool, in natural language, to search old transcripts for information on past customer interactions, claims, and more.

Enriching customer experiences and improving sales with LLMs

Teradata recently partnered with a retailer to deploy smart carts that could scan items inside the cart and then provide relevant recommendations for additional items.

Most recommendations engines make static suggestions based on product affinity. However, this retailer's smart carts used a large language model to understand the shopper's intent and make highly relevant suggestions based on that intent.

What's the result of this context-based recommendation engine? A richer customer experience, deeper engagement, and more profitable growth.

Building a technological foundation to make gen AI innovation a reality

Generative AI use cases can create massive value for your business. To unlock this value, however, businesses must first be able to move AI initiatives, including generative AI, from proof-of-concept into production. We've identified four capabilities that are required to activate AI at scale and accelerate value across your enterprise.

1 Comprehensive data management

Generative AI requires good quality data, and lots of it. That's a problem for most companies, where 80% of all project time is spent preparing data, not creating value.[2] Many enterprises are also spending millions of dollars on multiple systems that move and replicate data while managing multiple pipelines and silos on legacy systems. The result: a data and compute sprawl that's unsustainable and expensive. For enterprises that want to drive AI innovation, it's crucial to look at solutions that have powerful data management built into the platform.

2.   "Breaking the 80/20 rule: How data catalogs transform data scientists' productivity," IBM.

2 Flexible tools and integrations

True innovation takes an ecosystem of supportive, synergistic technology. Empower your data scientists and business users alike with a platform that provides the flexibility they need to use the tools they want, in the way they want, to help support more AI use cases. Look for a platform that allows you to seamlessly integrate fast-evolving apps and easily operationalize externally trained LLMs at all levels of the enterprise.

3 End-to-end AI optimization

Deploying AI projects at scale is a common challenge for most enterprises. On average, it takes 5 months to deploy models, with 65% of predictive models never making it to production.[3] The best way to incorporate AI into all your processes is by simplifying your AI operations.

Look for a data and analytics platform that can accelerate data preparation, scale without fear of cost-overrun, and seamlessly operationalize AI models. This enables you to drive faster and more cost-effective AI/ML innovation, solve your most complex challenges more effectively, and accelerate time-to-value throughout your organization.

3.   "Predicts 2020: Analytics and Business Intelligence Strategy," Gartner.

4 Optimal price performance

As enterprises deploy AI, they need to manage exponentially more models and queries, which can massively increase costs. To avoid a sky-high surprise bill, it's not enough to just optimize for storage costs. You need an analytics and data platform that can cost-effectively manage complex and high-volume workloads and queries.

The hidden costs of AI development

80%
Project time spent preparing data, not creating value

65%
Predictive models that never make it to production

5 months
Average amount of time it takes to deploy models

Power your next AI breakthrough with Teradata and Microsoft

Enterprises today face major hurdles to use AI, especially gen AI, to drive innovation while delivering meaningful outcomes and measurable results. With Teradata VantageCloud Lake, **now available on Microsoft Azure**, organizations can harness the full potential of generative AI by delivering harmonized data and trusted AI across every part of the business.

Teradata and Microsoft offer market-leading expertise, scale, and technology to empower companies to:

Deliver harmonized data at every organizational level with a modern and cost-effective cloud-native architecture that reigns in inefficiencies, such as data and compute sprawl

Enrich customer experiences with powerful analytic capabilities and integrations that enable innovative AI/ML use cases, such as generative AI

Improve business performance with the fastest, most efficient cloud migrations to reduce risk and accelerate time-to-value for any part of the enterprise

Together, Teradata ClearScape Analytics™ and Microsoft Azure Machine Learning (ML) simplifies and accelerates the ML lifecycle through the most robust analytic capabilities for end-to-end analytic pipelines, including data prep, model training, and operationalizing at scale. Our platforms ensure teams across your organization can execute complex analytics and AI/ML on massive data sets while incorporating their preferred data science tools, including Azure ML. This helps you unlock the full potential of your AI/ML investments as you deploy powerful, sophisticated models into production faster and with confidence.

Find out how to activate AI innovation in your enterprise today

To connect with one of our AI/ML experts or get a demo, **visit our website.**

About Teradata

Teradata offers the complete cloud analytics and data platform for all enterprise use cases. By delivering harmonized data and trusted AI/ML, Teradata empowers people with better information to make the right business decisions — inspiring the confidence to take action and making the world more connected. Teradata's industry-leading innovation and proven hybrid, multi-cloud platform improves business performance, ensures better customer experiences, and drives profitable growth with the speed, flexibility, and scale that businesses need — all at the lowest TCO. Learn more at **Teradata.com.**

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