

# Accelerating AI and ML at Scale with VantageCloud and Amazon SageMaker

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Accelerating AI and ML at Enterprise Scale with Teradata VantageCloud and Amazon SageMaker, you can give stakeholders across the enterprise access to more insights and move your advanced analytics projects into production faster, unlocking the full power of your data.

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# The cost of the AI/ML scalability dilemma

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## The top reasons enterprise analytics projects fail include:

- Inefficient data preparation
- Lack of flexibility to use preferred tools/models
- Difficulty scoring data live at scale

Recent estimates suggested between \$9.5 and \$15.4 trillion in value could be unlocked with advanced analytics.<sup>1</sup> Artificial intelligence (AI) and machine learning (ML) were highlighted as crucial drivers of that value. But despite increased investments in analytics solutions, AI and ML, companies today are still struggling to capture real value from their analytics projects. Gartner predicts only 20% of analytic insights will deliver business outcomes.<sup>2</sup>

<sup>1</sup> McKinsey Global Institute, Notes from the AI Frontier: Applications and value of deep learning

<sup>2</sup> Gartner, Our Top Data and Analytics Predicts for 2019, Andrew White, January 3, 2019



\$15.4

trillion value that can  
be unlocked with  
advanced analytics

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74%

organizations that  
haven't moved their  
Big Data/AI initiatives  
into widespread  
production<sup>1</sup>

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20%

of analytic insights  
will deliver business  
outcomes

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<sup>1</sup> 2022 New Vantage Partners Data and AI Leadership Executive Survey



# Move AI/ML projects to production at scale in weeks

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Together, **Teradata VantageCloud** and Amazon SageMaker empower enterprises to overcome scalability challenges and quickly drive measurable business value from their analytics investments.

# Unleash AI Innovation

## Unlock value at scale

**Teradata VantageCloud** is the complete cloud analytics and data platform to democratize data access, operationalize analytics, and reduce waste through improved cost visibility and management. The cloud-native architecture scales elastically and cost effectively to meet organizational needs and executes complex analytics with data science tools and languages such as Amazon Sagemaker.

**Teradata ClearScape Analytics** are the powerful and connected analytic capabilities embedded in VantageCloud that accelerate data preparation. Solve complex problems fast and get clearer insights with in-database functionality. ClearScape Analytics lets you deploy and monitor models at scale.

**Amazon SageMaker** is a fully managed service that enables developers to create, train, and deploy AI and ML models in the cloud, on embedded systems, and on edge devices. Amazon Sagemaker is one of the fastest growing services in AWS history. It's used by hundreds of thousands of data scientists and tens of thousands of customers globally at scale - all at a lower total cost of ownership.

# Faster time-to-value; greater ROI

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**Deploying AI/ML** projects at scale is what drives value and ROI. The seamless integration between Amazon Sagemaker and VantageCloud bring people, data, and AI to work together, with transparency, to create value, fast. Teradata's Trusted AI approach enables and ensures the collaboration necessary for effective, trusted, deployment at scale.

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# Trusted AI Principles



## People

A human-centered approach to AI improves compliance with safety and privacy rules, ethical and responsible standards as well as enhancing environmental sustainability. VantageCloud and Amazon Sagemaker provide reliable and effective data security, protect personally identifiable information (PII), prevent inadvertent bias from model drift and limit potentially harmful impacts on our environment and society.



## Transparency

Transparency is being able to understand how and why an AI-driven decision was made. VantageCloud and Amazon Sagemaker deliver visibility into the data behind decisions, including how models use data and comply with regulations. We enable validation that data is trustworthy before any AI is implemented and provide explainable and accountable reasoning behind model outputs when it is. Transparency powers flexible and fast innovation through open AI ecosystems.



## Value Creation

Performance is vital to generate value from AI. Improved reliability, speed and accuracy will ensure that the ROI of AI models far outweighs the cost of experimentation. API integration with Amazon Sagemaker offers direct, transparent, real-time access to models that can be quickly operationalized at scale in VantageCloud. Deploying models for live data scoring in VantageCloud delivers the crucial insights needed to drive business value at scale - all at a lower total cost of ownership.






# Unlocking possibilities across industries

**Enterprises across all industries** are investing in AI/ML for a variety of use cases from fraud prevention to reducing customer churn. From telemetry analytics and supply chain optimization to prevention of catastrophic infrastructure failure - the potential applications of AI are virtually limitless.

With VantageCloud and Amazon Sagemaker, organizations can accelerate AI/ML projects to deliver data-driven insights that power real world business outcomes. It starts with identifying breakthrough AI solutions and then scaling for the greatest possible impact on people and enterprises alike.

# Unlocking insights makes more possible in Manufacturing

-  **Enable predictive maintenance and more uptime**  
Manufacturers can preempt the failure of vital machinery or components using advanced analytic algorithms on telemetry data, reducing downtime and maintenance, lengthening service life, and improving inventory planning.
-  **Improve predictive quality and yield**  
Manufacturers can leverage VantageCloud and Amazon Sagemaker to quickly build and deploy AI models to identify the root cause of process based losses related to factors like quality, yield, and energy efficiency, thereby protecting their bottom lines.
-  **Improve productivity**  
Use VantageCloud and Amazon Sagemaker to create advanced manufacturing analytics models that deliver insights from diverse data sources to map ideal customer and product experiences.



# Unlocking insights makes more possible in Healthcare



## Create a seamless patient experience

Streamline patient data across sources and systems to improve decision-making and outcomes. Use Amazon Sagemaker and VantageCloud to build and deploy AI to automatically extract, process, and analyze data from handwritten notes to electronic records quickly and accurately.



## Leverage AI for diagnoses

Advance analytics and AI can assist in better diagnoses and disease progression whilst also tailoring wellness and healthcare interventions to individual patients.



## Strengthen fraud detection

Deploy AI with Amazon SageMaker and VantageCloud to create and scale models that detect suspicious transactions before they occur.



# Unlocking insights makes more possible in Telecommunications



## **Increase network profitability**

A smart network roll-out and customer experience-based operations are powerful levers for profitability. VantageCloud and Amazon Sagemaker equip operators with the ability to create, scale and deploy models that account for multiple factors, such as granular cost details, service quality, and legacy equipment.



## **Guide customer journeys**

VantageCloud and Amazon Sagemaker integration enables the development of AI/ML analytics that provide insight into individual customer journeys. This empowers companies to proactively steer each customer to faster service resolution and improved always on experiences across touchpoints, leading to increased sales.





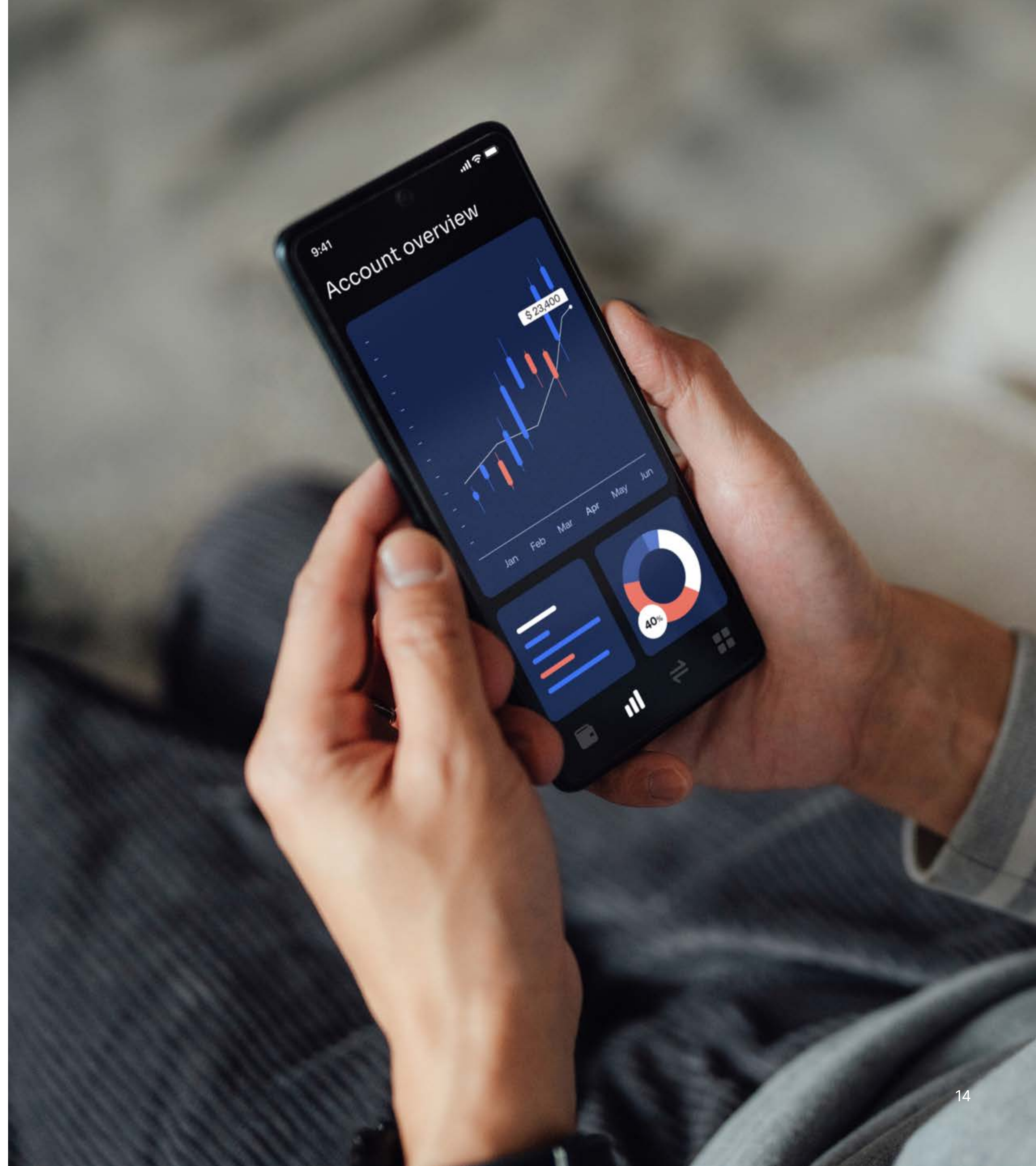
## **Accelerate innovation**

Meet surging customer demand by breaking down silos, unifying efforts, and unleashing AI at scale to be ready for what's next.



# Unlocking insights makes more possible in Financial Services

-  **Automate risk and fraud prevention**  
Borrowers that miss payments are a big risk for lending institutions. Preventing fraud saves cost and improves customer experience. Amazon Sagemaker and VantageCloud help financial institutions build and deploy AI to predict the likelihood of loan defaults and spot fraudulent activity in real time.
-  **Deliver harmonized data across the enterprise**  
Use data-led listening and generative AI to make hyperpersonalized recommendations that reduce churn and increase revenue. Together, VantageCloud and Amazon Sagemaker help leading financial services enterprises build and deploy the models that accelerate predictive analytics and automation to help grow revenue, reduce attrition and maximize satisfaction.



A man with dark hair and a beard, wearing a blue button-down shirt, stands with his arms crossed in a factory setting. In the background, a large industrial robotic arm with red and white components is visible. The scene is brightly lit, suggesting an industrial or manufacturing environment.

# Maximize AI and accelerate cloud modernization

At Teradata we recognize that one size does not fit all. We partner with the world's leading providers to deliver the technology, resources, and knowledge that you need. The combination of VantageCloud Lake on AWS, including ClearScape Analytics, applies harmonized data, trusted AI and secure cloud-native technology to help you maximize the value of AI opportunities and accelerate your cloud modernization journey. Integrations with Amazon S3, Amazon SageMaker, Amazon EMR, AWS Glue, and Amazon QuickSight allow you to deploy decisive analytics through nimble experimentation with your tools of choice.

## Modernize your data and analytics estate with VantageCloud on AWS

Contact Teradata today to learn how you can modernize your data and analytics estate with VantageCloud Lake on AWS.

### About Teradata

At Teradata, we believe that people thrive when empowered with trusted information. That's why we built the most complete cloud analytics and data platform for AI. By delivering harmonized data, Trusted AI, and faster innovation, we uplift and empower our customers—and our customers' customers—to make better, more confident decisions. The world's top companies across every major industry trust Teradata to improve business performance, enrich customer experiences, and fully integrate data across the enterprise.

[Learn more at teradata.com](https://www.teradata.com)

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