

AI/ML should deliver ongoing value.

So, why aren't they?

Find out why most AI/ML solutions create inefficiencies, increase costs, and limit deployment at scale—and discover a better way to accelerate, scale, and optimize your advanced analytics projects.

Scaling and optimizing AI/ML is a multifaceted problem.

Costs and time to deployment create barriers.

Despite increased investments in AI/ML, companies are still struggling to capture real value from their analytics projects. Gartner predicts only 20% of analytic insights will deliver business outcomes.¹

The AI/ML dilemma is multifaceted.



It's a data problem

80% of all project time is spent moving and preparing data, not creating value.²



It's a scale problem

AI/ML adoption at the enterprise level is complex requires a 100x increase in the number of models and related queries. It can also be 7x more costly than you initially planned.³



It's a deployment problem

On average, it takes 5 months from model development to deployment—and 65% of predictive models never make it into production.⁴

80%

of all project time is spent preparing data—not creating value

7x

more expensive to scale projects than initially planned

5 months

from model development to deployment

What's at stake? 2x higher profits.¹

Up to \$15.4 trillion in value.

Despite the hurdles, when done right, AI/ML can deliver outside returns on investment.

Recent estimates suggest up to \$15.4 trillion in value could be unlocked with advanced analytics. AI/ML are crucial drivers of this value.

The companies seeing the biggest success scaling their analytics programs are spending over 25% of their IT budgets on analytics.²

2x

higher revenue and profit from AI/ML-driven initiatives

7x

of IT budget goes to analytics at companies successfully scaling AI/ML initiatives

teradata.

Existing solutions fall short.

They don't offer an end-to-end approach.

Organizations are attempting to solve the AI/ML challenges with a mash-up of different approaches. But without a single, cohesive solution, most AI/ML projects get bogged down by three big problems.



Problem #1 Partial solutions create new problems

Isolated and partial feature store solutions add to the data problem. Data movement creates duplication, delays, and security problems at additional costs.



Problem #2 Lack of cost-effective scaling and interoperability causes inefficiencies and increases costs

Many approaches provision multiple instances that are not integrated in order to train millions of models, which is not cost-effective. Unable to support interoperability of models trained with external tools.



Problem #3 Most analytic platforms are not robust for large-scale deployment

Most analytic platforms are unable to manage very high number of predictive queries or models required for large scale deployment. Missing integration with operational data as well as lack of model-ops makes model results un-usable.

Companies must execute AI/ML projects at scale.

And do it in a way that delivers sustainable value and predictive outcomes.

A successful AI/ML solution needs to enable these three critical capabilities.



Critical Capability #1 Spend less time in data preparation time

80% of AI project time is spent on data preparation.¹ Many organizations also take a one-pipeline-per-predictive-model approach to machine learning. The result? Data silos and fast-growing technical debt. Reducing data movement and reusing data are two crucial keys to improve efficiencies.



Critical Capability #2 Scale models and queries across the organization, without cost overruns

With ubiquitous machine learning on the rise, AI/ML adoption will increase, too. This will require a $100x^2$ increase in the number of models and queries. To solve the scale problem and accelerate model development, companies need an AI/ML solution with horizontal and vertical scaling abilities.



Critical Capability #3 Deploy at scale

Input data for models can change over time, which affects the accuracy of models in production and requires constant monitoring, increasing overhead. Companies need the ability to productionalize millions of models in a system that requires little to no manual intervention from data science or governance teams.

Break through barriers with ClearScape Analytics.

Better answers. Faster results.

ClearScape Analytics™ delivers the most powerful, open, and connected AI/ML capabilities on the market. Available on all Teradata Vantage™ deployments, ClearScape Analytics' comprehensive, end-to-end pipeline of AI/ML functions can help you answer complex questions fast and deliver actionable results.

Teradata's open environment offers the flexibility to integrate your existing analytics technologies into a single platform and use tools of your choice.

With ClearScape Analytics, you can:

- ✓ Create reusable enterprise feature stores
- ✓ Scale model and queries without cost over-run
- ✓ Build or bring your own models developed with tools of choice
- ✓ Operationalize at scale
- ✓ Monitor your analytic pipelines

Delivering on the promise of AI/ML is easy as 1-2-3.

ClearScape Analytics helps overcome production challenges with Analytics 1-2-3: Our strategic framework for helping businesses execute an end-to-end analytic lifecycle.

ANALYTICS 1-2-3 How to Accelerate AI and ML



Step 1: Prepare data

ClearScape Analytics offers highly optimized in-database functions for data preparation, minimizing data movement and enabling the Enterprise Feature Store.



Step 2: Train models

ClearScape Analytics provides vertical and horizontal scaling capabilities that make it possible to efficiently train any number of models—from a few to a few million.



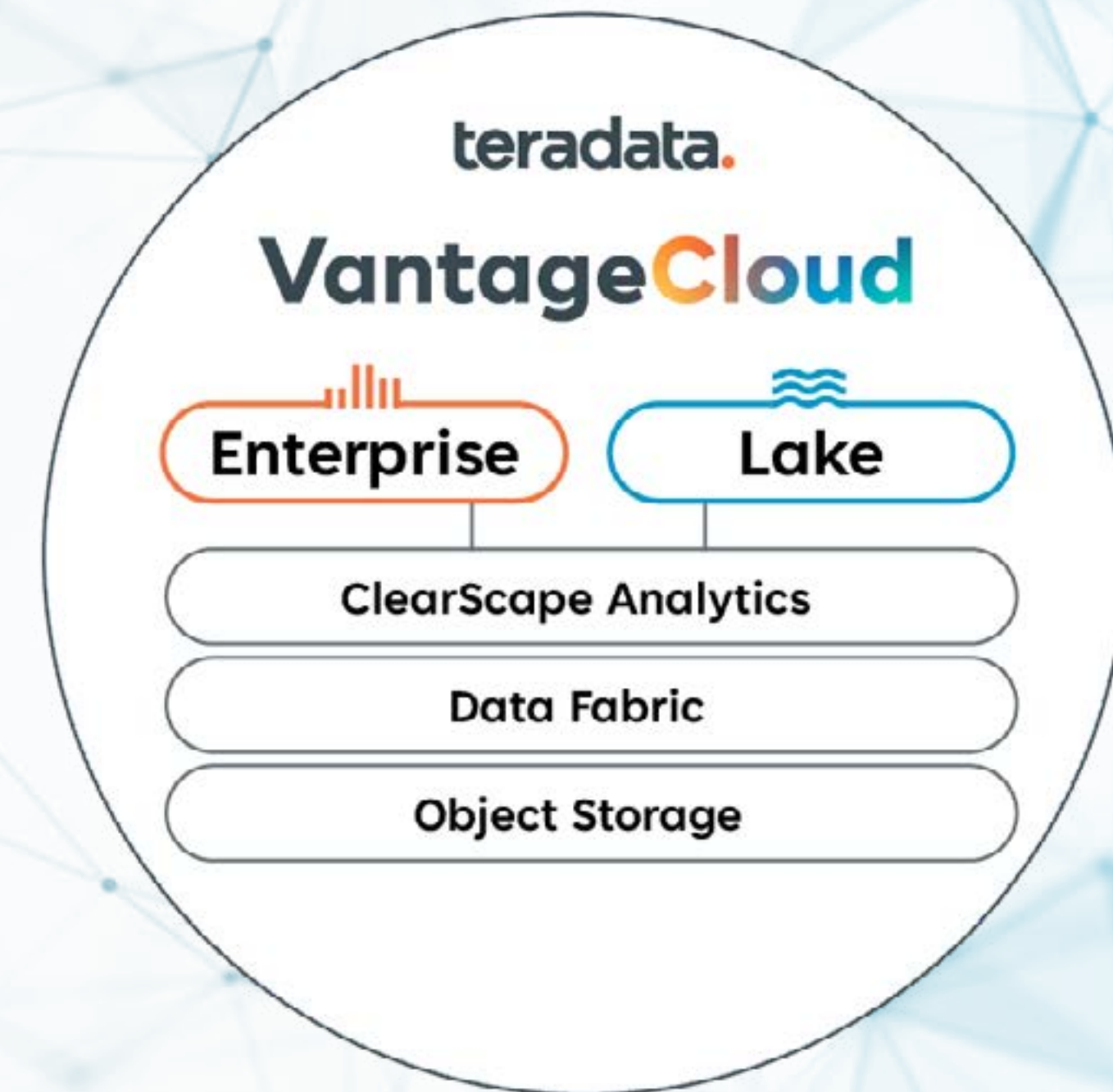
Step 3: Deploy models

ClearScape Analytics integrates model scoring with business data, both in real time and batch scoring, for effective operationalization and automated monitoring of AI models.

Solve complex problems fast with the most extensive in-database analytic capabilities on the market.

ClearScape Analytics' high-performance analytics library offers more than 150 in-database functions, including over 50 new time-series functions.

- Support full end-to-end ML pipelines with a broad array of machine learning capabilities
- Process machine learning across the organization with native functions
- Get the support you need to leverage massive amounts of data and enable larger model complexity for deeper insights
- Deploy predictive analytics, models, and insights into production at scale with a seamless end-to-end process



ClearScape Analytics delivers high-impact outcomes across industries.

Financial Services

Slashing data prep time from 37 hours to 12 minutes

A European bank struggled to put an innovative fraud prediction model into production. ClearScape Analytics operationalized the model in real time at massive scale.

- 200x improvement in data processing optimization
- 90% responses below 450ms in real-time scoring application
- 65% data reuse in deeper use cases due to Feature Store

Detecting \$100M in preventable fraud

A global top 5 bank fought Remote Access Takeover (RAT) fraud by implementing a hyper-personalized behavioral fraud solution to prevent fraud, improve customer experiences, reduce losses, and improve business efficiency.

- \$100M preventable fraud detected
- 70% of fraud cases now detectable and preventable
- 250K unique customer journeys analyzed per hour at peak times

ClearScape Analytics delivers high-impact outcomes across industries.

Retail

Improving product demand forecast without data movement

A \$6.6 billion national retailer needed to manage hundreds of thousands of products across multiple channels, including ecommerce and over 280 stores.

- 2.64M demand forecasting models trained in 3 hours
- 360K seasonality profiling models trained in 15 minutes
- 0 data movement

Manufacturing

Making smart factories more intelligent

A smart factory solution, developed by Teradata and a major automobile manufacturer, uses spot welding analytics for greater transparency and efficiency in car body construction.

- Reduces manual effort
- Performs quality assurance for 9M models in production
- Gains transparency to quickly detect any weak points
- Enables end-to-end process monitoring

ClearScape Analytics delivers high-impact outcomes across industries.

Healthcare

Performing diagnoses faster than doctors

A healthcare payer organization used a medical AI solution at scale to improve health outcomes for members in real time.

The AI processed 35 million members in 40 minutes to:

- Classify and predict five different diseases in patients
- Predict patient transitions between disease states
- Provide next best action to prevent future high-risk movement, transition, or hospitalization

Telco

Improving data processing times by 88x

A European telco's data scientists needed to spend more time creating value, and less time on low-level scripting and coding.

- 20x faster data processing (40 mins to 2 mins)
- 12.5x faster PMML scoring optimization (25 mins to 2 mins)
- 88x faster native Dataiku scoring optimization (25 mins to 17 secs)

Reaching your AI/ML goals faster is easy with Teradata.

Teradata enables AI/ML-led digital transformations and increases time to business value with the lowest TCO.

- Accelerate your AI/ML transformation
- Enable operationalization at scale
- Drive predictive and prescriptive analytics
- Solve data, scale, and deployment problems
- Leverage your tools, your way
- Ensure AI/ML projects deliver business value

teradata.

Unleash the full potential of your AI/ML investments.

Get the power, scalability, and enterprise analytics you need to accelerate your business-critical initiatives—while ensuring AI/ML projects live up to their promise and deliver business value.

Learn more at www.teradata.com/Vantage/AI-ML

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