Tredence Data Migration Primer

Migrate to
Modernize

Optimize Costs and Build Unstoppable Advantage with Analytics

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Data Has Power.

Why Hasn't It Been Unlocked?

As enterprises continue to generate and accumulate vast amounts of data, the need to modernize their data infrastructures has become more pressing. According to an analyst report, the global datasphere is expected to reach 175 zettabytes by 2025,[1] with the majority of that data being generated by enterprises.

While enterprises have access to unprecedented amounts of data, unlocking their true value remains a challenge for many. That's a message that's taken on even more urgency this year as enterprises trade transformational programs for cost-out initiatives. Being able to exploit the data they already possess to optimize processes and reduce costs is a top priority for many CIOs.

9 in 10

Nearly all (92 percent) of IT decision makers say cost optimization is a high priority for their business this year.[2]

Despite the availability of modern technologies such as artificial intelligence (AI) and machine learning (ML), legacy silos and outdated systems often hamper the ability of teams to fully comprehend and leverage their data. As a result, critical insights that could drive business growth and innovation are often buried deep within layers of irrelevant information, while the cost of inaction continues to rise at an alarming rate.

So, what are your options for moving forward? You want to uncover insights you can use to evolve the customer experience, supercharge decision making, and streamline operations. You also know that migrating and modernizing data is critical to your organization's future business success.

Transitioning your data environment to a more advanced architecture will enable increase the accessibility, efficiency, and performance of organizational data. In short, you'll be able to dominate with data.

Why Data Migration Projects Stall

100%+

Of companies are modernizing technology infrastructures, but 99% report problems with this process. [3]

>50%

Of data migration initiatives will exceed their budget and timeline, because of flawed strategy and execution. [4]

<5%

of companies Truly use data and data science to gain a competitive edge.[5]

1   Tom Coughlin, "175 Zettabytes by 2025," article, Forbes, November 27, 2018, https://www.forbes.com/sites/tomcoughlin/2018/11/27/175-zettabytes-by-2025/?sh=343bba215459

2   Global Research Report: IT Cost Optimization in 2023, report synopsis, Crayon, https://www.crayon.com/campaign/it-cost-optimization/global-research/

3   2019 IT Architecture Modernization Trends: A Survey of IT Executives at Large Enterprises, Dimensional Research, report, page 2, https://cdn2.hubspot.net/hubfs/1935575/Southeast%20Assets%202020/Dimensional-Research-2019-IT-Architecture-Modernization-Trends%20(C-Level)%20DataStax%5B2%5D.pdf

4   Ted Friedman, Make Data Migration Boring: 10 Steps to Ensure On-Time, High-Quality Delivery, report, Gartner, December 13, 2019, https://www.gartner.com/doc/3976289?ref=solrAll&refval=263784160

5   Thomas C. Redman and Thomas H. Davenport, "Getting Serious About Data and Data Science," article MITSloan Management Review, September 28, 2020https://sloanreview.mit.edu/article/getting-serious-about-data-and-data-science/

Migrating data from a legacy on-premises system to a modern cloud environment can be a challenging task. "Lift and shift" strategies enable you to move data to cloud platforms quickly, but don't allow you to take advantage of all cloud-native capabilities. That's why your organization will likely also choose to modernize data.

Modernizing data is complex because it involves aggregating and harmonizing data systems, different structures, and intricate mappings. The migration process can be disruptive, complex, and time-consuming for your business. At their worst, large data migration projects consume budgets and timelines. They create business, technical, and operational obstacles that need to be overcome and strain stakeholder goodwill for these projects.

The good news is that you don't have to let roadblocks impede your progress.

Encountering Roadblocks? Here's How to Overcome Them

BARRIERS	ENABLERS
An insufficient roadmap: Without a clear roadmap, data modernization visions get derailed quickly.	**Platform strategy and architecture:** Ensure that both are aligned with core business objectives.
Deployment strategy limitations: Big-bang approaches may fail to meet business expectations due to latency.	**People and processes:** Provide the right expertise and services, packaged with security and governance, to streamline migration and modernization.
Lagging user adoption: Without ongoing awareness and education programs, adoption may lag below targets.	**Agile execution:** Use Agile frameworks, minimum viable product (MVP) approaches, accelerators, and XOps to speed the path to business value.
Cost overruns: Without proper governance, platform and migration costs may overrun budgets.	**Value realization:** Realize near-term and ongoing value from data platform investments, keeping stakeholder commitment high.

With proper planning and the right partners, you can ensure a seamless, cost-efficient, and secure data migration process. Vendors like Databricks and Snowflake bring methodologies, tools, and accelerators to bear on transferring your vital business workloads to a modern hybrid cloud environment.

We want you to dominate with data. This eBook provides a business case for migrating and modernizing data and shares why Tredence is the ideal partner to help your teams navigate this journey.

Why Dominate with Data

Migrating and modernizing data enables you to create insights and outpace competitors multiple ways:

Analyzing large data sets
Gain insights and seize new business opportunities in near-real-time.

Driving product innovation
Develop data-rich digital or digital-physical products and services that customers want.

Automating processes
Run digital processes, corporate networks, and production facilities with ever-greater precision.

Enhancing customer service
Use automated processes and personalization to deliver a great customer experience.

Increasing operational efficiency
Proactively identify and prevent sources of waste, such as human error, broken processes, and equipment downtime. Identify and execute cost-out initiatives that deliver value back to the business.

Cloud-native solutions have evolved significantly in recent years, becoming more mature and capable. The scalability and agility of cloud-native solutions enable you to easily expand or reduce resources as needed, responding quickly to customer demand changes. Additionally, you can lower the total cost of ownership (TCO) of hardware, maintenance, and other costs by adopting cloud-native solutions and managing them with discipline.

You know that cloud-native technologies such as containers and Kubernetes have become the de-facto standard for building and deploying cloud-based applications. These technologies provide the flexibility and portability required to run applications across multi-cloud infrastructures, including public and private clouds and on-premises environments. This allows your company to take advantage of the benefits of different cloud providers that provide the right functionality, cost savings, security, and compliance for key use cases, helping you create a more efficient and cost-effective IT infrastructure.
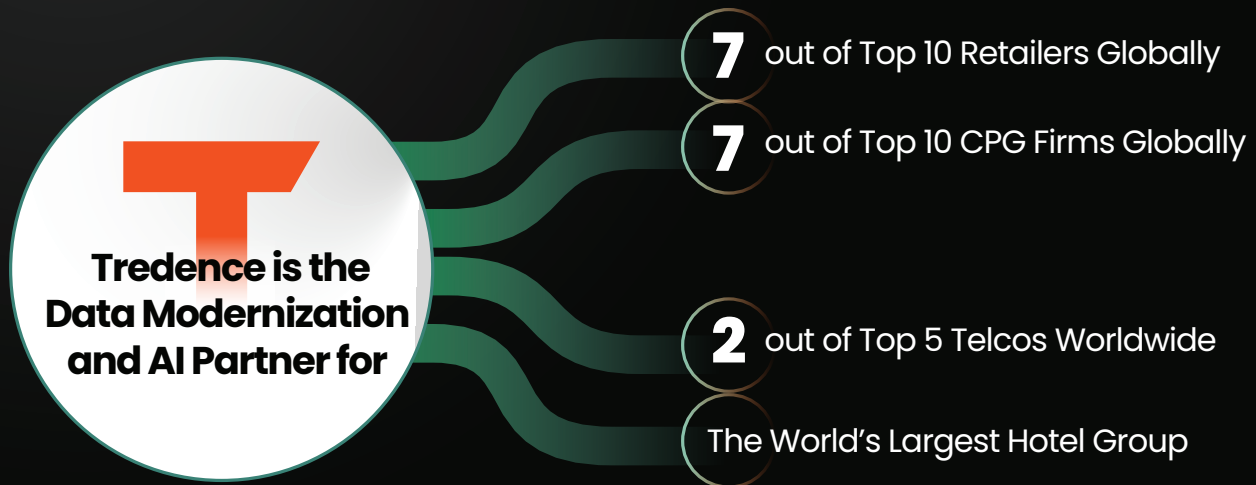
Conquer Your
Data with Tredence

Tredence is an artificial intelligence (AI) and data science solutions company that offers expertise, services, and accelerators to streamline data migration and modernization, while reducing project timeframes, costs, and risks. Our services and accelerators help you deliver big-data modernization initiatives, rapidly migrating data and transforming it in the cloud.

We also provide an automation tool and platform operations that enable you to reap higher ROI and faster value on the last mile of migration, while also lowering your cost of implementation.

Tredence has led large-scale data migration initiatives for global companies across a wide range of verticals, including retail, consumer goods, telecommunications, travel and hospitality, and heavy industry. We help clients migrate their legacy analytics and big data to a modern cloud-native architecture.

The Data Analytics and Modernization Provider Global Enterprise Teams Trust:

T

Tredence is the Data Modernization and AI Partner for

7 out of Top 10 Retailers Globally

7 out of Top 10 CPG Firms Globally

2 out of Top 5 Telcos Worldwide

The World's Largest Hotel Group

Typical gains include:

Up to 50%
Faster discovery in data warehouses or a data lake.

Up to 30%
Speedier data migration cycles.

30%
Productivity improvements over the data lifecycle.

Up to 50%
Increase in data and reporting self-service capabilities.

Up to 80%
Projected platform cost savings in year 1.

90% reduction
In data discovery and automated profiling timeframes.

Accelerate Results with
Our Cloud, Data, and AI Partners

We speed up modernization projects for clients like you by partnering with leading hyperscalers and data and AI companies. We help you understand their different capabilities, develop a migration strategy and plan, and leverage our partner ecosystem to modernize at pace and scale.

databricks	snowflake	Microsoft Azure
aws	Google Cloud	blade bridge

Recognized for
Our Leadership

When you work with Tredence, you partner with a firm that has been recognized by many industry organizations for its capabilities and client successes. Awards include:
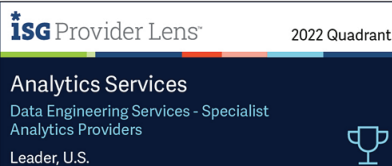
databricks
Retail and CPG
Partner of the Year

2022 Databricks Retail & CPG
Partner of the Year Award

Microsoft
Analytics Partner
of the Year

2022 Microsoft Analytics
Partner of the Year Finalist

ISG Provider Lens™   2022 Quadrant
Analytics Services
Data Engineering Services - Specialist
Analytics Providers
Leader, U.S.

'Leader' in ISG Provider Lens for
Data Analytics - Data Engineering
and Data Science

FORRESTER®
WAVE
LEADER 2021
Customer Analytics
Service Providers

Forrester Wave Leader 2021 –
Customer Analytics Service Providers

Navigating Modernization:

Accelerator-Led. Outcome-Driven.

Tredence has a proven track record of leading large-scale data migration initiatives for global companies across a wide range of industries, including retail, consumer goods, telecom, travel and hospitality, and industrials. We help customers migrate their legacy analytics and big data to a modern cloud-native architecture. This process typically involves:

Evaluating the migration opportunity

We evaluate your unique opportunity to drive business value by migrating data and modernizing high-quality data in the cloud. This process involves analyzing migration risks and impacts, as well as identifying multiple pathways for migration. We'll help you select the path that best meets your business, technical, and cost optimization goals.

Discovering and assessing the environment

Successfully migrating data workloads to the cloud begins with developing a comprehensive understanding of the existing environment. At this stage, Tredence experts group your technology stack and develop insight into the workload specifications of respective stacks. You can use this data to develop business cases and win sponsorship and investment to proceed.

Migrating and modernizing data

Next, we will develop an optimized, secured, and automated cloud infrastructure and data platforms to establish a scalable cloud environment for your company. We use an enterprise data warehouse (EDW) migration framework to systematically migrate data with minimal downtime, while maintaining security and compliance. Using in-house accelerators, we accelerate the migration of data warehouses and data lakes by more than 30 percent. We specialize in migrating data warehouses (Teradata, Netezza, Exadata, and others) and data lakes (Hadoop, Cloudera, Hortonworks) to data lake houses (Databricks, Snowflake, and more).

Modernizing analytics

Tredence experts use next-generation cloud platforms and big-data architectures to converge your data from multiple sources, create a single source of truth, and enhance analytics. During this process, we will simplify end user data management, speed up access to business insights, and provide your business users with reliable reporting capabilities with tools such as Tableau, PowerBI, Looker, QlikView, and others. Our accelerators provide metrics on which data assets have been modernized, as well as data on active users, hits, utilization rates, engagement rates, and more.

Ensuring effective data governance

Next, we'll ensure that the migrated enterprise data and environment meet your business and technology objectives, including data governance and compliance requirements. Our data management practices include metadata management, data lineage and catalog management, and processes to ensure exceptional data quality and data integrity. Our approach increases data discoverability, classification rates, and security.

Benefitting from cloud optimization services

We help you optimize enterprise architecture in the cloud to meet your service-level agreements (SLAs), improve query performance, and achieve cost reductions. You can use our Cloud FinOps processes to identify cost leaks across different services and explore ways to reduce resource waste across network, storage, compute, cost, and operational services.

Leveraging managed services

We provide extended (L2 and L3) support, such as offering guided recommendations, decommissioning platforms, and training your team on migration techniques so you can move more workloads to the cloud on their own.

Accelerate Your
Way to Modernization

Use these Tredence accelerators to realize your modernization goals and unlock the power of your data.

T-Discoverer

A Databricks-powered database and extract, transform, and lift (ETL) code reverse engineering accelerator across multiple platforms.

T-Ingestor

A Databricks-enabled codeless automated data migration accelerator with built-in quality, catalog, and metadata management features.

Sancus

A Tredence AI-powered data quality management system that creates master data from diverse sources, while maintaining and tracking data quality and data governance over time. This tool enables you to create actionable insights and make the right decisions at the right time.

ML Works

A Tredence enterprise-grade machine learning monitoring platform with automated workflows and pre-built solutions to track model degradation, manage code workflow, and fast-track model management.

Customer First is in our DNA
Learn how other enterprises have approached data migration and modernization challenges.

See how other companies are overcoming challenges by migrating and modernizing data, creating competitive advantage in different ways.

U.S. Retailer
Scaling ML Reduces Shrink by 12%

A U.S. retailer was struggling to migrate data to the cloud, consistently failing to meet SLAs. As a result, the company was unable to scale ML workloads across key use cases. Tredence leveraged its accelerators to help the company modernize its data infrastructure and capitalize on its data wealth, resulting in:

- 12% shrink reduction through ML-driven production planning
- 100% SLA adherence to business and IT requirements
- 40% reduction in query costs through optimization

U.S. Consumer Goods Company
Improves Dashboard Performance by 20%

A leading consumer goods company's Teradata environment was susceptible to frequent outages due to heavy loads and scalability constraints. Moreover, spaghetti ETL code, developed over a decade ago, resulted in extensive data duplication. Tredence helped the company modernize its data, resulting in:

- 30% overall reduction in TCO over three years
- A highly available environment for data and analytics
- 99% adherence to pipeline-run SLAs
- 20% improvement in dashboard performance

U.S. Telecommunications Company
Reduces Data Provisioning Times by 80%

A major telecommunications company sought to migrate its large-scale Teradata enterprise data warehouse platform to Azure Cloud to reduce technical costs, simplify the overall architecture, reduce duplication, and support new workload patterns for faster analytics. With our support, the company achieved:

- $1M USD expected annual savings in platform costs
- 50% reduction in support personnel after 18 months
- 80% faster data provisioning using a robust DataOps framework

Data Analytics Modernization

Let's take a deep dive into an engagement with the third largest convenience store chain in the US with over 2,400 stores across the country. The company's leaders wanted to establish a data and analytics center of excellence to drive innovation and efficiency across supply chain, store operations, marketing, merchandising, and more.

Institutionalizing data-driven decisions leveraging AI and ML for a $13 B+ retailer

Collaborating on a flywheel operational model – A cross-functional approach to data and analytics

To unlock the power of their data leveraging AI and ML, Tredence and the client teamed up to implement a flywheel partnership model with a cross-functional team of data engineers, data architects, data scientists, business analysts, BI engineers, and retail subject matter experts.

Our team, consisting of four specialized groups, each focused on key areas of the project: laying a modern data foundation, establishing a data governance model, assisting in strategic business decision-making, and providing real-time in-stock predictions led by machine learning.

The Squads

Tredence created dedicated squads to deliver true value differentiation for the convenience store chain by developing next-generation data analytics and technology transformations.

- ◆ The data foundation
- ◆ Data governance
- ◆ Community of analysts
- ◆ AI/ML solutions

The data foundation squad

A robust, dependable foundation of high-quality and reliable data was crucial for democratizing analytics.

Using Databricks' Lakehouse architecture, Tredence helped the client build a modern data foundation. This combined data from across their business to give data scientists and business users one platform to access, analyze and create insights from any data source. The results were impressive, to say the least.

In just months, we migrated and redesigned over 100 legacy workloads from siloed and expensive on-premise systems into a cloud-based architecture built for the speed and scale of Casey's business. This not only enabled Big Data processing and streaming for real-time insights, but it also supported operationalization of AI/ML use cases.

The data governance squad

To help reinvent the guest experience, the retailer needed to enable self-serve analytics leveraging the new data foundation. We created a hub-and-spoke governance model across domains as well as cataloging and lineage solutions to enable self-serve and democratize data across the organization. As a result, the new certified data assets are now considered the "single source of truth," used daily by hundreds of users.

The community of analysts

We aligned a team of business analysts and BI developers with business areas across asset protection, guest insights, loyalty analytics, and fraud and risk analytics to help answer key strategic business questions and provide decision-making support.

AI/ML Solutions

The real value unlock comes from leveraging AI/ML against the certified data assets to solve business challenges. The client leveraged advanced ML models to forecast prepared foods production requirements at the store, SKU and hour level and created real-time in-stock predictions for managing online assortments, directly contributing to both the top and bottom line.

Client Impact

$1M+ cost savings through migration that involved cost optimization, performance tuning and replacement of legacy hardware.

$15M worth of **grocery and general merchandise** shrinkage identified through inventory and asset-based transaction monitoring.

10% improvement in **forecast accuracy** resulting in +$5MM savings and a 5% reduction in spoilage

Improvement in online assortment from **400 to 1.5K+ SKUs** per store creating a better guest experience and increasing share of wallet.

This is just the beginning. With the data foundation and certified data assets in place Tredence and the retail major are continuing to leverage AI/ML to solve complex business challenges and unlock incremental new value daily.

Take the Next Step.
Talk to Tredence

Tredence experts, services, and accelerators enable you to achieve your goals with data migration and modernization programs faster. Leverage our services to solve complex problems, gain fresh insights into your business, and drive new cost savings and revenues within months.

Harness these Tredence capabilities to migrate and modernize your data and create new analytics capabilities.

Demand More from Your Data

Talk to our data migration teams who are expert in full-stack AI tools and processes and can help you:

> **Identify cost-out opportunities with migrating data**

> **Analyze, streamline, and migrate key workloads**

> **Modernize your technology stack with cloud, data, and AI**

> **Keep analytics workloads running smoothly without disrupting business operations**

> **Incorporate AI and advanced analytics to optimize migration and future-proof your environment**

> **Reduce technical costs with managed services**

Seize This
No-Risk Offer

Ready to get started?
Contact us for a free, no-strings-attached, 60-minute discovery call. We'll help you quantify the value you can achieve by migrating and modernizing your data to a new architecture.

Create a new future by dominating with data.

www.tredence.com/services/data-migration

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