Three Ways to Expedite the Modernization of Your Data
Assembling a DIY or best-of-breed analytics solution in-house might hold some initial promise. However, approaches like these can be risky and often lead to rising technical debt and on-going infrastructure costs—leaving you with fewer resources for strategic analytics and AI projects.

To avoid these issues, you'll need to stop wasting resources and cycles stitching together all the technologies in your roadmap and instead focus on ways to modernize your data and accelerate business impact.

But to make this happen, you’ll need to:

1. Safely migrate data and securely manage it in the cloud/hybrid cloud/multi-cloud
2. Build data-driven insights eliminating business silos
3. Sustain momentum and operationalize analytics projects

Your objective is to turn data into value

This means establishing the right environment, access methods, and breadth of information to support your organization's mandate to drive quantifiable change.
Getting your data to the cloud, hybrid cloud or multi-cloud integration is critical—you need to get rid of silos and allow for more effective storage, interpretation, and processing of both structured and unstructured data. But how to get this done is another story.

There are a couple common approaches here:

**Software Engineering**
Developers migrate the data and processes step by step, troubleshooting incompatibilities between legacy and cloud systems.

**Secure Migration of Data**
You rely on a variety of tools to accomplish some or all of these steps, but often with a similar amount of time, manual effort, and cost involved.

As a data leader, you know the importance of protecting business-sensitive information from unintentional leaks or mistakes. And you need to guard against bad actors and intentional breaches. This is why implementing a data governance model while ensuring optimal cybersecurity is paramount. The mining and sharing of data also brings a host of new compliance problems, particularly when it comes to protecting personally identifiable information (PII). This could mean rewriting contracts with your data providers so you account for appropriate user-based roles and permissions, and even manually masking sensitive data fields once the data has moved. What is the cost if you get this wrong? Your company doesn’t want to be in the headlines for a data leak or breach.

These are extremely technical challenges that can take months and multiple, expensive tools to solve, creating a load of technical debt. The unfortunate result?

The more time, effort, planning, and budget you invest into the migration itself, the less you have to realize the original goal of your project: delivering analytics capabilities that will help move the business forward by unlocking value and increasing your competitiveness.

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**Your first challenge**

**Migrate and manage, faster.**

“Many big data projects fail because they outlay massive, upfront resources and deploy rigid architectures that don’t promote flexibility once a project is in flight.”

- Sameet Agarwal, Network World, February, 2017

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Data Modernization Platform
The Cognizant Solution
Expediting time to insights in a privacy preserving and secure manner.

Cognizant AI Data Modernization Platform

With the Cognizant AI Data Modernization Platform based on BigDecisions, you’ll quickly transform your data into useful insights at half the cost of manual methods, on average.

Enterprise Data Migrator

Enterprise Data Migrator migrates data and processes from any legacy system into the cloud, including integration with Microsoft Azure and AWS, up to 50% faster than manual methods.

- Includes 70% automated Teradata Process Migration which allows for a lightning fast offload rate to Azure SQLDW, AWS Redshift, AWS Snowflake, Azure HDInsight, On-Premises Hadoop, and Google Cloud allowing for data to be migrated and validated in a matter of days, not months.

Enterprise Data Lakes

Enterprise Data Lakes enable the immediate creation of a modern analytical landscape, including tools for ensuring data quality. You’ll have a fully-operational environment in 3–6 months as opposed to a typical 18–24 month cycle if you go it alone.

- With Data Ingestion Workbench, you’ll rapidly onboard data from enterprise applications or external data sources using a zero-coding, configuration driven approach. This means you’re empowered with tools for self-service ingestion of structured, semi-structured, or unstructured data using self-defined mapping definitions.
- The Data Quality Workbench allows for the profiling of incoming data to identify, define, update and maintain multiple data quality rules. Once a rule is set, it automatically applies it to any file, which adheres to the same pattern thereby enhancing the quality of data across the entire lifecycle ensuring confidence in outcome of your projects.
- With Metadata Workbench, you’ll automatically create a robust data dictionary with full lineage as part of your migration process. This means you’ll avoid wasting resources and proactively addresses risk and compliance in the short-term with an audit trail and full visibility into data usage and access the Enterprise Data Lakes Orchestrator.

THE PROOF

Healthcare Company Data Consolidation Ills Cured in Eight Weeks

Post-acquisition, a leading multi-line healthcare enterprise was struggling to consolidate all of its data. Using the Cognizant Data Modernization Platform, the company was able to build a holistic data-lake with a complete view of data across the enterprise in eight weeks, while reducing data-integration efforts by 70% for improved ROI.

Data Modernization Platform

Data Modernization Platform is a scalable end-to-end solution for data management, analytics, and the resulting insights that enable and effective and efficient use of AI across the organization.

Learn more
Consider all of the different data types required for effective analytics:

- Structured and unstructured data spread across a variety of legacy and modern systems
- Data sets acquired from third parties
- Streaming data from sources like social media that you’re collecting through APIs

All of it—and from every source—needs to be curated and cleaned to get it into a usable format for analytics.

This ties your data scientists up in a lot of cost, effort, and time that could be better spent on analytics.

There’s another risk here that you might not have considered: loss of analytics talent.

Data science experts are tough to find. If your data experts are spending most of their time on uninteresting curation and cleaning work, they’ll be more inclined to leave and join a company that will put their skills to better use.

When your team is forced to operate in silos due to how your data lake is structured, it’s not just that they’ll be frustrated—there’s a good chance they’ll be duplicating efforts, which increases TCO for you and extends the timeline to getting useful analytics for the business.

- More than 400 pre-built Smart Connectors are available for to incorporate third-party data to ingest and integrate a wide variety of data from external sources—faster and at lower cost.
- With Data Discovery & Visualization Workbench you’ll read and search all data—legacy, structured and unstructured, third-party streaming—in one place. Using the module’s simple and unified interface, you can quickly and easily combine data sets to create visualizations or tables, reveal patterns, and more—irrespective of how the data is stored.
- Interactive Analytics Workbench enables data scientists to clean and prepare available data, build models, and run predictions on the models to derive insights from the data. Using a library of pre-built industry standard algorithms, your team can build prediction models or stack algorithms within an experiment and execute the same as a single unit for applying sequential calculations during model generation.

AI Data Modernization Platform will work with your existing data and analytics stack, so you don’t have to worry about vendor lock-in.
The Cognizant Solution
Activate a culture of collaborative analytics.

Cognizant AI Data Modernization Platform
Your people are the key to turning data into insights, so you can’t burden them with navigating silos, managing multiple tools, and duplicating data acquisition efforts. With the Cognizant AI Data Modernization Platform powered by BigDecisions, you’ll remove these unproductive barriers to activate a culture of collaborative analytics without compromising data privacy or security.

You’ll be able to simplify your insights ecosystem by bringing everything to a single management console, so you can activate your insights process quickly. Quickly empower your team members by assigning them security and privacy permissions by their roles as Data Stewards, Data Scientists, Administrators, Developers and Business Users to ensure ethical governance. And you’ll eliminate the need for multiple data lifecycle tools and the manual effort and costs associated with finding, learning, maintaining, upgrading, and integrating them.

With Data Bazaar, you’ll share data models based on digital assets in your data lake across all user groups, making them available via simple search functionality, which drives the value of data across your organization.

THE PROOF
Global Pharmaceutical Company Optimizes Sales Platform, Reduces Costs

We implemented a data modernization platform at a global pharmaceutical provider to cut costs and eliminate delays in gathering physician data. The solution rapidly aggregates, analyzes and shares key information from twenty internal and external systems, then gives sales representatives a customized plan of accounts to target and to meet sales goals. The company realized $450,000 in annual cost-savings and reduced employee time to create customized reports by 35%. Our proprietary pharmaceutical industry connectors also accelerated forecast time by one-third.
For a technology that is frequently hailed as “cutting edge” and “next generation,” AI can require a remarkable amount of old-fashioned manpower and grunt work before it shows value to the business. To get started, you’ll have to:

**Identify a use case and build a model**
This often involves numerous data scientists working with the lines of business subject matter experts. And even if this is a standardized process (though it’s often not), you still have to test and validate all of these components to ensure the model works as expected.

**Train the model**
You’ll need to use large volumes of accurately labelled data sets and monitor its evolution over time—an expensive and tedious process for data scientists.

**Stand up a sandbox environment**
Finally, you’ll need an environment with the appropriate storage, processes, and database connections.

When you think of all the time, tools, manual effort, expertise, and hand-offs tied up in this process, it’s no wonder most companies can’t get AI projects off the ground.

77% of executives report that business adoption of Big Data / AI initiatives remains a challenge for their organization.

“Big Data and AI Executive Survey 2019”, New Vantage Partners, 2019
The Cognizant Solution
Make AI mainstream within your organization.

Cognizant AI Data Modernization Platform
When your process is overly complex and littered with convoluted steps and tools, it’s unlikely you’ll be able to complete a single pilot project—let alone show tangible business value. When you partner with Cognizant, you’ll help make AI mainstream within your organization. In fact, you’ll have confidence in the data you using upon which you can apply new machine learning and deep-learning algorithms that when shared across the business will unlock value and increase competitiveness.

Your CDO will have visibility into all sandbox environments from one location.

Now there is direct sight into which projects have promise and which environments are actually being used to better balance resources and costs.

With the simple UI of BigDecisions AI Essentials, novices and experts alike can find success with a more accessible and consistent drag-and-drop method for rapidly developing new AI models, along with a pre-built gallery of more than 100 models for immediate use or customization. With the platform’s automated data set labelling, you’ll quickly amass a large volume of accurate data to feed your chosen models. And you can maintain consistency, visibility, and governance over the entire process with comprehensive model management capabilities.

Your data and IT workers will use a simple UI for automated requesting and tracking of sandbox environments within a few mouse clicks—transforming a lengthy, manual process into a speedy, self-service one.

AI Analytics and Drones Cut Utility Costs to Boost Reliability
Finding and fixing faulty equipment in distant distribution networks is a complex, expensive process. We implemented an AI-based solution for an electric utility that automatically scans drone-cam images of its power distribution network shot. Not only has the company realized a 60% reduction of effort for image scanning, but also automated problem identification dramatically lowered maintenance costs. The solution also preemptively alerts repair teams about problems that cause power outages, in turn improving service, reducing outages, improving customer experience and protecting profit margins.
Why Cognizant?

With the Cognizant AI Data Modernization Platform, you’ll turn all of your data—structured, semi-structured, and unstructured—into useful analytics faster, as part of a simplified ecosystem with unified accessibility and governance.

Accelerate your journey to AI by:

**Transforming your data into business insights faster:**

By turning your data into useful insights quickly, you can accelerate your entire analytics project, speed time to value, and increase compliance by protecting sensitive data “in flight.”

**Activating a culture of collaborative analytics:**

When you can remove barriers and activate a culture of collaborative analytics, you can eliminate the need for extensive software engineering and multiple tools, which makes user engagement easier and boosts adoption, encourages experimentation, and accelerates value on business use cases.

**Making AI mainstream within your organization:**

By bringing AI into the mainstream, data novices and experts alike can rapidly build, train, and experiment with AI models, giving you better visibility into all activities and making it easier to allocate resources for the most impact as you continue to expand your AI practice.

With this kind of scalable analytics process, you’ll be able to generate insights much faster, while freeing up budget and manpower that had been locked into managing a dozen or more tools. This means you’ll have more resources available to capitalize on opportunities, instead of leaving the window open for your competition. Welcome to your data-driven organization.

To learn more, visit us at cognizant.com/ai/data-modernization
# The Data Modernization Platform

**A Scalable Path to Enterprise Intelligence.**

A scalable, modular, end-to-end solution from ingesting data to operationalizing AI enterprise-wide.

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<th>Platform Module</th>
<th>Enterprise Data Migrator</th>
<th>Enterprise Data Lake</th>
<th>Enterprise Analytics</th>
<th>AI Essentials</th>
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| **Key Features & Tools** | - Metadata Workbench  
- Data Discovery & Visualization Workbench | - Offers complete coverage from data to analytics to AI  
- Smart Connectors  
- Data Bazaar | - Enables sophisticated business intelligence  
- Comprehensive  
- Analytics & Insights | - Simple UI for deep learning models  
- Automated data-set labelling  
- Complete analytics model management |

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| - Automates migration of data from legacy and mainframe systems  
- Simplifies modernization of data appliances and data warehouses  
- Maximizes performance while reducing migration/optimization costs | - Creates a common cloud-based data platform  
- Allows secure and optimized access to operational and business-unit teams  
- Strengthens data privacy management to protect users and customers  
- Promotes an ethical data framework | - Provides full life cycle support from sandbox to deployment  
- Allows for publishing of data sets for online collaboration  
- Expedites model management, calibration and deployment | - Simple UI for deep learning models  
- Automated data-set labelling  
- Complete analytics model management |

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<td>Automate the migration of data from legacy systems as much as 4X faster while cutting costs by 60%</td>
<td>Operationalize increasingly large and complex data volumes—for up to 75% savings over doing it yourself</td>
<td>Dynamically deliver and adapt insights in real-time, with 50% time-to-market advantage compared to doing it yourself</td>
<td>Experience AI-as-a-Service to develop, formalize and operationalize AI in50% less time than doing it yourself</td>
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About Cognizant

Cognizant (Nasdaq-100: CTSH) is one of the world’s leading professional services companies, transforming clients’ business, operating and technology models for the digital era. Our unique industry-based, consultative approach helps clients envision, build and run more innovative and efficient businesses. Headquartered in the U.S., Cognizant is ranked 193 on the Fortune 500 and is consistently listed among the most admired companies in the world. Learn how Cognizant helps clients lead with digital at www.cognizant.com or follow us @Cognizant.