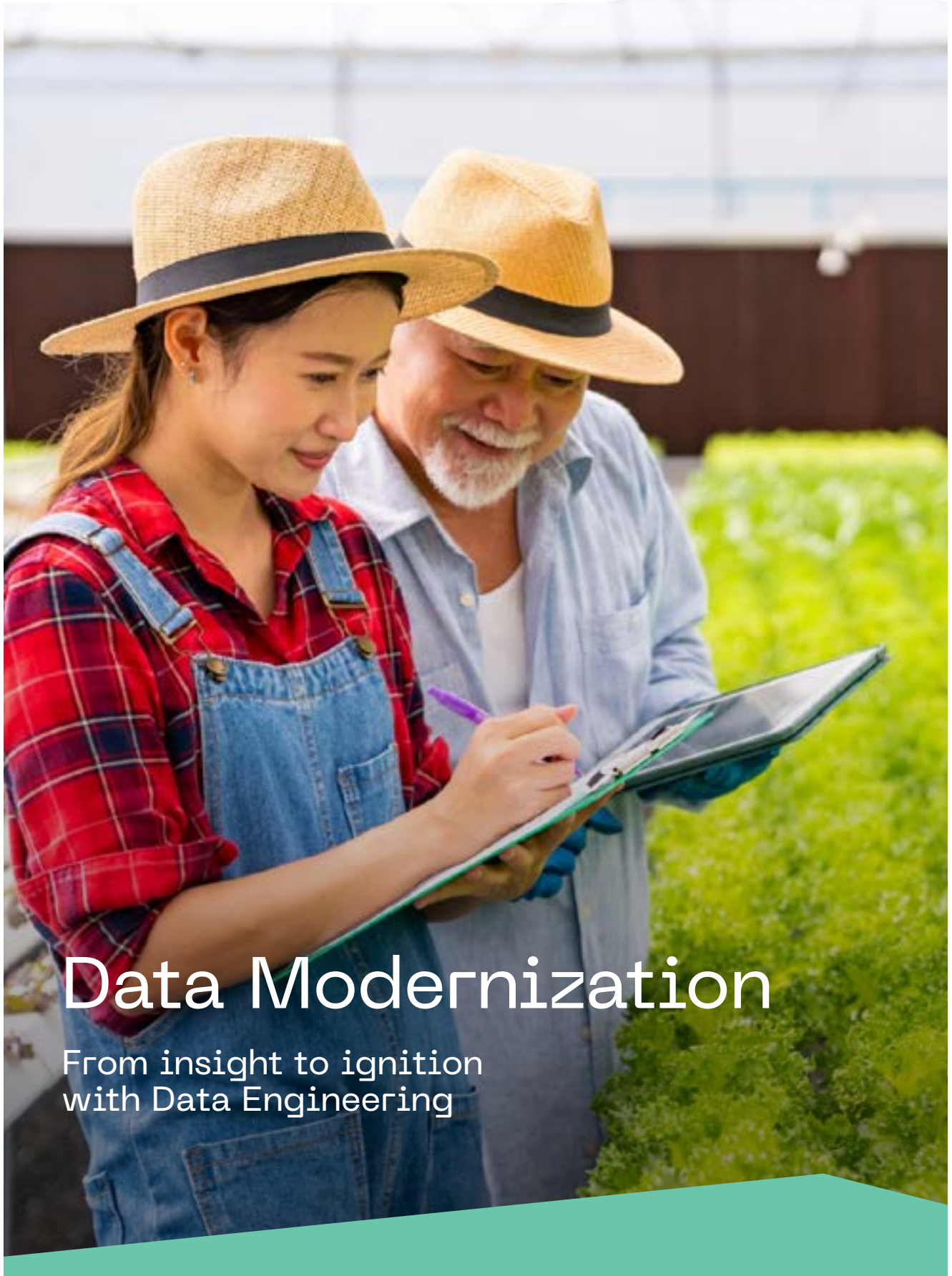# Data Modernization

From insight to ignition
with Data Engineering

Data Can Be an Anchor or Rocket Fuel

It's been said that, "Before it's an asset, data is a liability." Many Global 2000 companies have data that has been collecting for years—perhaps decades—in systems that may have been developed before the creation of the Internet.

Even companies founded more recently are seemingly boiling in huge data sets that sit (expensively, and often uselessly) in databases of every type without delivering insight (or value). These literal heaps of raw data do have seams of gold, but they have to be found, mined, refined, and then used for value.

Data Modernization helps technology leaders make their existing data accessible, secure, and—spoiler alert—useful to the business.

Utilizing Data Migration and Modernization—including data architecture redesign, migration to the cloud, and data quality improvement—unlocks value such as advanced analytics, improved data visualization, and applied artificial intelligence.

Saying this is easy. Doing the actual engineering is not. Executing the work is where the virtual rubber hits the digital road to deliver real business impact.

And that's where we come in.

Ascendion's Data Migration and Modernization delivers impact

Accessible data accelerates time to market by 50%

Data management allows automated and self-serve data capabilities to drop cost by up to 60%

Valid, secure, accessible data enables value from MLOps (70% more efficiency in data wrangling) and advanced analytics (5x accelerated insights, 3x faster decisions)

Data Engineering Transforms Business

There are loads of reasons for migrating data—new storage equipment, new database systems, moving to a new application environment, cloud migration, new data centers, new business processes, and more. Likewise, myriad tools and systems come into play. The context, business drivers, and technology environments vary, but our skills, enabling systems, and core processes are consistent.

Set the MIGRATION STRATEGY

The journey begins with creating a clear strategy for migrating data. At the data level, every company is different. Every environment has a different starting point. Every data set has nuances. Every journey is different. Snowflake? Hadoop? Cross-platform migration issues and best practices? This is where our engineers roll-up-their-sleeves and really begin to shine. We use tools to analyze data platforms, detect data anomalies, and more. to understand the current environment and help us get this right.

Develop the "To–Be" DATA ARCHITECTURE

Based on the business needs and the technical architecture, our experts engineer the future-state architecture appropriate for the new "home" for the data. We use no-code and low-code platforms to design the most appropriate data schemas, and we deploy automated systems to document all code elements for quality control. We start planning how we'll migrate the data without putting the as-is business at risk. Nobody wants that.

Plan and Script the DATA MIGRATION

With data, lift-and-shift is not a safe option. Our data engineering team fully plans the Extraction, Transformation, and Loading (ETL) process (including security, data backup, and validation protocols). This allows us to safely pull the data from the existing systems, map to the future-state data architecture, set the process for porting the data to the new system, and then validate the transferred data to ensure migration quality.

Data Migration and VALIDATION

This is when the plans come to life as we execute the migration ETL plan. We keep existing systems stable while the process of transfer and validation is conducted. We use automating tools for data validation in the new environment to ensure that the business is not impacted. For users and workers, this migration should be invisible.

Accessing Data for Business Impact

Getting data more accessible, secure, and accessible (and at a lower cost) delivers significant value, but there is more to come. Once a modern data strategy and architecture is in place, applied AI, business intelligence, analytics, and more are now tools every business can use to win in the digital economy.

Ongoing data operations (DataOps) can be used to set up automatic data pipelines for more productive real-time insight and analytics. Decision platforms can be deployed to improve business insights and intelligent decisions. Most common analytics activities provide "rear view mirror" insights. They inform about where you've been, and maybe where you are. The right data architecture can also help you get ahead with predictive insights ("Here's what's coming next") and even prescriptive insights ("You might also like…") that can improve business process work and consumer experiences.

The Ascendion Advantage

Essential business outcomes for clients

Data Modernization is… not new. What is new—and critical for technology leaders—is that consumer and worker expectations of software experiences have been revolutionized. The heart of meeting—and beating—those expectations, is data in action. This requires a new kind of company to help with the data journey.

We create masters of the data craft.
Other companies have "experts," but we have Circles—our communities of practice for peer-based learning—along with training, working partnerships with data platform companies, and applied project mentorship. Each of these elements help ensure our engineers become data masters who show up with applied skills in Data Modernization, DataOps Implementation, MLOps, and more. With this knowledge, our engineers start on Day One with reference architectures and experience with Azure, AWS, GCP, multi/hybrid cloud environments (which is most of them), and points of view on how to make data the heart of the business.

Our engineering practices are built with radical transparency in mind.
Seasoned technology leaders have all had program experiences with "black boxes," and that's where trouble happens. Our governance processes, enabling engineering platforms, and even our mindset is to minimize surprises by maximizing transparency. Imagine the radical transparency of an Uber Eats or DoorDash experience for your data program. The impact? Trust and confidence because small issues are spotted early (so they don't get bigger).

We use software to help us engineer… software.
Our core engineering platform is Ascendion AVA (A.AVA for short). This system enables each step of the Data Modernization journey, resulting in 50% to 60% higher program efficiency and dramatically improved transparency along the journey.

Ascendion AVA DataSwitch

Our no–code platform helps secure and accelerate Data Migration and Modernization

A.AVA DataSwitch

- Re-design future-state data schemes
- Convert legacy ETL processes
- Migrate data

Data Modernization Advisory

- Data architecture consulting
- Data Modernization assessment and migration strategy
- Specialized modernization services

Faster Delivery

50% faster time to market

with extreme automation, courtesy of A.AVA

Cost Advantage Improves Return–on–Data

up to 60% savings

from the A.AVA platform automation, reducing manual effort

Improved Engineering Productivity

The A.AVA no-code platform improves

tech engineer productivity

with built-in best practices and guidelines to help optimize performance

Data Modernization Delivers Business Impact

Global Food Producer AND DISTRIBUTOR

Cooking up the future with a better recipe for data

Our client had a data system that was massive, cost prohibitive, complex, and inefficient.

Ascendion delivered simplicity at massive scale with data strategy, migration, and validation.

95%
automation efficiency for Data Modernization

85%
cloud computing cost reduction

90%
faster processing time after Data Migration

U.S. Specialty RETAILER [1]

Data in the cloud is a homerun for a sporting goods retailer

Ascendion helped bring the "store of the future" to life with a transparent supply chain and new customer data hub.

70%
in-store product availability improvement

40%
cost savings from the cloud

$5 million
lost sales recovered

Dream Destination U.S. AIR CARRIER [2]

Flying higher and faster with modern data management

Ascendion architected microservices that connected to existing airport software. We integrated data from different systems—including the reservation system—and ensured data quality and flow.

99.9%
on-time flight take-offs

$3 million
cost savings

99%
higher data accuracy for more efficient load planning

[1] https://ascendion.com/case_study/cloud-integration-hits-a-homerun-for-specialty-retailer/

[2] https://ascendion.com/case_study/u-s-airline-flies-again-wi h-integrated-platform-and-modern-applications/

How Can We Help?

Most Global 2000 enterprises have yet to unlock perhaps their greatest technical asset—their data! Activating this data, often trapped (and lonely) in warehouses or lakes, can mean the difference between thriving or irrelevance in the digital economy.

Ascendion's Data Migration and Modernization solution is a trusted and successful collection of methods, enabling technology, and—importantly—engineers with impressive experience, to help our clients maximize their "return on data."

We're doing this for some of the top companies in the world, and we'd love to help you also.

This introductory overview is—we hope—the beginning of the conversation, and we look forward to sharing more soon!

ASCENDION

Ascendion is an ally for clients seeking enterprise digital innovation. We make and manage software platforms and products that power growth and deliver captivating experiences. By embracing the future of work, we bring creativity and execution excellence together to make digital innovation valuable (and even fun). Our engineering, cloud, data, experience design, and talent orchestration capabilities accelerate transformation for Global 2000 clients. Ascendion is headquartered in New Jersey. In addition to our remote/hybrid workforce, we have 20 offices across the U.S., India, and Mexico. We are committed to building technology that elevates life with an inclusive workforce, service to our communities, and a vibrant culture. For more information, please go to www.ascendion.com.