LOSSES ARE CLOSER THAN THEY APPEAR

Why Auto Suppliers are Embracing Data Estates

MCA CONNECT

YOUR LOSSES MAY BE CLOSER THAN THEY APPEAR

Climb into the driver's seat of any vehicle in dozens of countries, and glance into your side mirror. You'll see that familiar warning: "Objects in mirror are closer than they appear."

That warning is mandatory in many countries because automotive side mirrors distort reality. They give drivers the false sense that they have enough space between them and other cars to change lanes and make turns safely. Side-view mirrors don't present an accurate view of reality.

Many automotive suppliers face a similar challenge when it comes to viewing the success of their manufacturing operations. They house their customer data in a Customer Relationship Management system, their financial data in an Enterprise Resource Planning system, their data on raw materials in a Manufacturing Execution System, and their other mission-critical data in yet other applications on multiple platforms in disparate systems.

Some of these applications and systems are custom-built, others are off-the-shelf. Some are housed on premises, others are hosted in the cloud. Some are stand-alone systems. Others are connected to IoT devices and controllers throughout the plant.

PROBLEMS FROM THE C-SUITE TO THE PLANT FLOOR

When auto suppliers lack easy, accurate, complete and real-time access to all of their mission-critical data, the pain is felt throughout the organization.

EXECUTIVES

Cannot make accurate forecasts or form strategic plans using the latest data

MANAGERS

Cannot make effective near-term decisions based on accurate information

ADMINISTRATORS

Waste countless hours calculating and refreshing their numbers

PRODUCTION

Cannot make accurate short-term production schedule decisions

To analyze plant performance, make sales forecasts and perform any number of other strategic decisions, these manufacturers must extract data from multiple systems spread across multiple locations and import it into multiple spreadsheets for analysis and decision making.

This process is a bad idea because it is cumbersome, inefficient and error prone. It's also bad because it gives automotive suppliers a distorted view of their operations. And this distorted view comes at a price in lost orders, lost customers, lost margin and lost market share.

DISTORTED VIEWS OF DATA ARE COSTLY

INACCURACY: Your demand forecasts are unreliable.

DELAYS: You don't respond to OEM RFQs on time.

ERRORS: Re-keying data introduces costly mistakes.

UNAWARENESS: You cannot answer vital, strategic questions.

INEFFICIENCY: You can't create accurate production schedules.

LOSSES: Your margins shrink.

DATA ESTATES GIVE AUTO SUPPLIERS A BETTER VIEW

Drive growth by looking out your windshield instead of your side-view mirror

The solution to data chaos is data consolidation. The remedy to distorted views caused by data housed in multiple places is a 360° view of all data in one place. This is the promise of data estates.

A data estate is a centralized analytics solution that builds on your existing data systems and incorporates new data feeds to coalesce around your business process areas. It integrates data from enterprise systems, operational sources, and external providers so that you gain actionable insights and make strategic decisions from a unified platform.

A data estate handles both structured and unstructured data, and knocks down physical and geographical barriers by moving the data you need into the cloud. This was not possible five years ago, but it is today thanks to platforms like Azure, which offer unlimited compute and storage.

Data estates are helping automotive suppliers achieve operational excellence by accomplishing critical goals, such as:

increasing worker productivity

minimizing the risk of line shutdowns

optimizing inventories

realizing significant cost savings

DATA ESTATES, LAKES, MARTS & WAREHOUSES: A REFRESHER

DATA ESTATE: The infrastructure that companies use to store, manage and analyze all of their corporate data, including customer data, production data, financial data and data from s and other devices on the plant floor.

DATA FACTORY: Microsoft's cloud-based Azure service that lets companies create data-driven workflows that move data and transform data at scale.

DATA LAKE: A centralized repository that companies use store all structured and unstructured data at any scale.

DATA MART: A database containing data on a particular subject, typically partition of a larger enterprise data warehouse.

DATA WAREHOUSE: A repository that stores current and historical data from disparate sources.

What's the primary difference between a data estate and other ways of storing, sorting and analyzing data?

A data estate gives you a single, consolidated view of your manufacturing operation that you use to analyze trends, gain insights, synchronize your operations, manage inventory, adapt rapidly, and more.

It efficiently integrates data from your enterprise systems, operational sources, and external providers and uses robust AI and data analytics to generate actionable insights on a single platform.

LOOKING IN YOUR SIDE MIRROR

VS

LOOKING OUT YOUR WINDSHIELD

Typical auto supplier

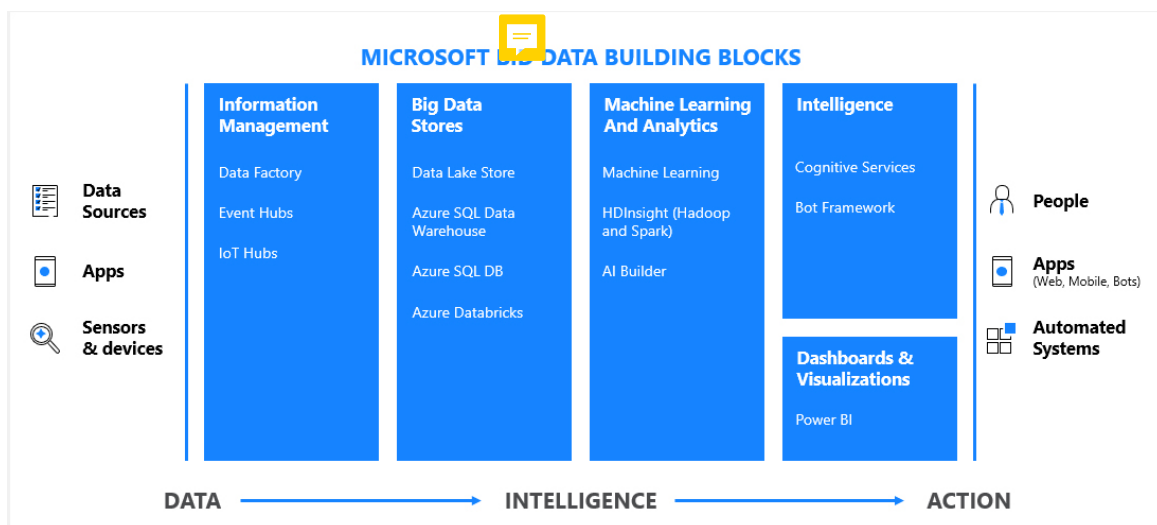## Auto supplier using a data estate

✗ Data is housed in multiple silos	✓ Data from all sources is consolidated
✗ Multiple versions of the truth	✓ One version of the truth
✗ Departments don't share data	✓ Gain insights into OEM buying behavior with machine learning
✗ Too much time-consuming manual work using spreadsheets	✓ Manage data in real time
✗ Double entry of data introduces errors	✓ Synchronize business processes and assets
✗ Little ability to gain insights	✓ 360° view of data delivers insights
✗ Accurate cross-system reporting is impossible	✓ Cross-system reporting improves performance
✗ Challenges with data governance	✓ Manage just-in-time inventory through supply chain scenarios and anticipate changing customer schedules & EDI release requirements

A LOOK UNDER THE HOOD OF THE DATA ESTATE

A data estate requires a combination of process and technology that allows you to access all of the data that your business owns, to gain important insights into your operations. One of the most effective architectures is built on Microsoft Azure.

MICROSOFT BIG DATA BUILDING BLOCKS

	Information Management	Big Data Stores	Machine Learning And Analytics	Intelligence
Data Sources	Data Factory	Data Lake Store	Machine Learning	Cognitive Services
	Event Hubs	Azure SQL Data Warehouse	HDInsight (Hadoop and Spark)	Bot Framework
Apps	IoT Hubs	Azure SQL DB	AI Builder	
		Azure Databricks		
Sensors & devices				

Dashboards & Visualizations

Power BI

People

Apps (Web, Mobile, Bots)

Automated Systems

DATA → INTELLIGENCE → ACTION

DATA IN THE DRIVER'S SEAT: A data estate gathers data from all sources, including on-premises, cloud, devices and SaaS, and houses it all in an Azure Data Factory.

Data In, Insights Out

As you can see from this diagram, a data estate gathers data from all sources, including on-premises, cloud, devices and SaaS, and houses it all in an Azure Data Lake. From there, Azure Databricks, the data analytics platform optimized for the Microsoft Azure cloud services platform, lets you run queries on data in the Azure Data Lake and feed the results to management dashboards for sharing across your enterprise.

Azure Synapse Analytics brings together data integration, enterprise data warehousing and big data analytics using either serverless or dedicated resources at scale.

Flexible compute and AI/ML tools and Microsoft Power BI tools enable you to process data at previously unattainable rates.

A data estate built upon a platform like Microsoft Azure delivers a number of benefits to auto suppliers by:

eliminating the barriers surrounding highly structured data marts and data warehouses

making data quickly available from any system in any form

presenting all data for comprehensive analytics and truly informed decision making

TIME FOR SOME AUTO SUPPLIER DIAGNOSTICS?

If you are an automotive supplier that is unable to gain the required actionable insights from your data, you may gain value from a quick check-up. Answer these questions to diagnose your readiness for a data estate.

- How many systems are you currently analyzing your production, EDI, and ERP data from?

- How quickly can you adapt to OEM and customer requirement changes?

- How many processes do you have that you'd like to automate?

- Can you currently track and analyze EDI data in real-time?

- How much time do you spend collecting your data from your systems versus analyzing the data?

- How often are you sacrificing service orders to maintain production?

GET A BETTER VIEW OF
YOUR DATA WITH MCA CONNECT

MCA Connect is a manufacturing consultancy that helps auto suppliers capitalize on their data. As an award-winning Microsoft Dynamics 365 Partner, we help manufacturers align their people, processes, and technology to solve challenges, drive business transformation and achieve competitive advantage.

Data Estate for Auto is our centralized, tailored business analytics solution. We focus on your business drivers to define your data needs. We help you break down the data silos you have across your various systems, and focus on using data for process improvement and decision support.

Learn more about
Data Estate for Auto.
Explore our service.

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