



# BIG DATA

## DATA LAKE DRIVES SPEEDIER BUSINESS RESULTS

**CAPGEMINI AIMS TO HELP AUTO MANUFACTURERS NAVIGATE BIG DATA ANALYTICS AT A MORE RAPID PACE WITH THE EMC FEDERATION BUSINESS DATA LAKE PLATFORM.**

While the auto industry has changed dramatically over the past century, manufacturer business models are still primarily production-driven rather than focused on customer interactions. But imagine driving to work one morning and getting an alert that a tire needs repair. That's followed immediately by an email from your car dealership indicating it has the tire you need; meanwhile, your onboard GPS is delivering directions to the service address.

That's the sort of data-driven value and improved customer experience that Capgemini aims to foster with the launch this past January of its new [AutomotiveConnect](#) service. Capgemini's intent is to digitally bridge the gap between vehicle manufacturers and changing consumer lifestyles to help manufacturers gain value from data and improve their customers' car purchasing and aftermarket service experience. That should lead to better vehicles, better services and stronger brand loyalty.

AutomotiveConnect combines a range of digital services that address the entire customer lifecycle, focusing on three specific areas:

- *Connected Insights* that transform data into competitive advantage
- *Connected Customer* – effectively connecting with customers at each touch point throughout the lifecycle
- *Connected Vehicle* - making the vehicle another “node on the network” to function as an extension of the consumer's home and office

“The auto industry is in the midst of a fundamental change,” says Ingo Finck, a Capgemini vice president of its Big Data & Analytics consulting practice. “In the past, vehicle manufacturers had little interaction with customers. Now, customers want a direct connection with the manufacturer through multiple channels, including the dealer, online, mobile and social media.”

The technology and consulting services firm believes manufacturers and dealers currently underutilize customer and vehicle data that could help generate proactive responses to disruptive changes in consumer behavior and expectations.

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Manufacturers and dealers are being flooded with data, including data communications from vehicle to driver, vehicle to dealer and even vehicle to vehicle, but have been slow to capitalize on it.

"All this data is available to these auto companies, but it generally is trapped in different silos," says Bernd Mendl, the EMC Alliances Principal Strategic Solutions Lead supporting Capgemini. "Manufacturers can gain competitive advantage if they use a smart and better way of extracting analysis from those data lakes."

## RACING BEYOND DATA WAREHOUSING

Traditional data warehouses manage huge amounts of structured data such as part numbers, bay numbers, chassis numbers and the like. Data lakes, however, can combine and manage this structured data with unstructured data such as social and mobile interactions with the consumer and user manuals for each system and component. Continuously analyzing and deriving actionable information from these massive amounts of data could fundamentally change the way manufacturers interact with customers and drive their businesses.

Capgemini began developing the AutomotiveConnect service two years ago and decided in parallel to offer an Automotive Insights Laboratory. The digital virtual lab helps vehicle manufacturers gain value from their internal as well as public data to enable improved customer experience in car purchasing and aftermarket service.

"In order to build the lab we needed technology that allows us to build a globally virtualized, highly scalable data analytics service that serves multiple clients simultaneously," Finck says. "The EMC Federation had the right technology to cover these requirements, and we believe they share our enthusiasm to drive business innovation through technology."

## FEDERATED APPROACH

The EMC Federation comprises a unique grouping of strategically aligned businesses, including EMC, Pivotal, RSA, VCE and VMware, all of which are free to execute individually or together. The Federation's Business Data Lake solution is based on VCE converged infrastructure with EMC storage platforms, VMware's vCloud Suite Enterprise, Pivotal's Big Data suite and Pivotal Cloud Foundry.

"The EMC Federation Business Data Lake is a platform that allows you to bring all types of data together—structured data such as Excel files or relational databases, unstructured data such as images, and semi-structured data such as tweets and blogs—regardless of whether the source is internal or external," according to Aidan O'Brien, an EMC senior director and head of its strategic Big Data initiative.

O'Brien adds that the key differentiator of the EMC offering is the ability to bring together data, analytics and applications to generate

resulting insights. "There is no point in 'doing Big Data' unless you ultimately achieve a meaningful business outcome such as increasing revenue, making better products, reducing costs or reducing risks," he says.

In the Federation's Business Data Lake platform, analytical capabilities are delivered where they are needed, from the applications and end users all the way down to the point of data inception or ingest. Raw data is never lost, but rather stored in its original format for later analysis and evaluation. Moreover, says EMC, the data lake is self-referencing, continually improving and self-tuning.

## NEW DATA-DRIVEN MODELS

Capgemini says the Business Data Lake solution will enable manufacturers to gain competitive advantage by intelligently combining data about the vehicle, the customer and the environment. This advantage will speed up the ability to move from the limited customer contact model of the past to a behavior-oriented approach focusing on customer experience, and from transaction-based processing to continuous real-time processing.

Philipp Wagner, Capgemini Consulting head of Capgemini's Automotive Insights Lab, says the AutomotiveConnect service aims to accelerate the transformation of its automotive clients to becoming data-driven companies. "We see a lot of clients who don't have the capability to speed up the process," he says.

Vehicle manufacturers don't have to go through the process of purchasing or building a separate Big Data infrastructure, but can quickly build pilots in Capgemini's lab to accelerate time to value for new insights: "They can take advantage of our infrastructure, our best practices and our proven experience in their industry to really start building this new data-driven model very quickly," says Wagner. "Manufacturers just bring in their own data to combine with Automotive Insights Lab data to expand the value."

Faced with growing competitive threats, either from traditional competitors or new market entrants, companies more and more rely on new data sources and analytic techniques that offer opportunities for significant competitive advantage; they realize they need to be more proactive and less reactive to changes in customer and market behavior.

Capgemini and the EMC Federation together believe they can provide manufacturers the ability to combine information about vehicles and consumers to produce better actionable insights. Companies will successively better predict when a consumer will start looking for a new car, the kind of car that consumer will want to buy, or even in real time notify the driver of the need to replace a problem tire. More of these actionable insights will deliver speedier business results and improve customer loyalty and company value.

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