



## Self-driving cars race ahead

CMORE Automotive powers the testing and validation of AI-based autonomous-driving technology with high-quality training data and advanced analytics running on high-performing storage in its private cloud



Automotive

Germany

### Business needs

Digital engineering performed by CMORE Automotive depends on the company's ability to reliably store and share extremely large volumes of automotive raw and test data, as well as process and analyze it with intelligent algorithms.

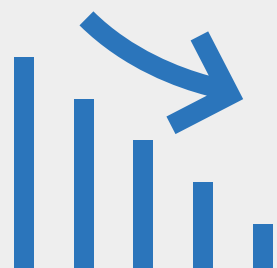
### Solutions at a glance

- [Dell EMC Isilon](#)
- [Dell Technologies Cloud](#)

### Business results

- Achieves data transmission bandwidths of up to 100 Gbps
- Supports demanding use cases for AI-based models and data analytics
- Enables worldwide teams' collaboration on technology innovation

Reduces storage space requirements by **30%**



Scales to support data growth by up to **2PB** per week



CMORE Automotive applies specialized expertise and advanced digital resources to provide testing and validation of autonomous-driving systems for automotive manufacturers and suppliers. CMORE Automotive addresses the challenges of autonomous-driving development and validation by offering a comprehensive portfolio of services. These range from sensor integration, testing and benchmarking to building prototype vehicles used for tests in various traffic situations.

Autonomous-driving projects require the collection of large data volumes from the sensors installed in the test vehicles such as cameras, radar, lidar, ultrasonic, GPS and control area networks. CMORE Automotive processes, analyzes and performs simulations based on that data, using its proprietary smart software and deep-learning algorithms. The company may generate as much as 2 PB of data per week, which needs to be processed and transmitted to customer locations and collaborating team members worldwide.

CMORE Automotive found it challenging to meet customers' expectations until it connected with Dell EMC. Simon Tristan Papel, the group leader for system development at CMORE Automotive, says, "From the beginning of our journey, Dell EMC always helped us with ease and simplicity."

## High-performing technology enables innovation

CMORE Automotive implemented Dell EMC Isilon scale-out, network-attached storage and built its data-management solution, called C.DATA, on the Isilon foundation. "We can rely on the quality and stability of Dell EMC Isilon to perform all our data processing, file conversions and other tasks," says Papel. "We never have to worry about throughput or storage space limitations."

Integrated through VMware software, CMORE Automotive's Isilon systems support development, testing and pre-production. A virtualization solution from Dell EMC partner it-RSC, vCAX,

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Group Leader, System Development,  
CMORE Automotive

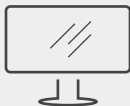
facilitates digital engineering. "Developers love that they can make a request, and with just a few clicks we can allocate them Isilon space to apply deep-learning and machine learning models to simulations and performance assessments, or to train algorithms for ADAS sensors," Papel adds.

For CMORE Automotive, Isilon performs reliably and efficiently. Papel says, "We see data transmission bandwidths of up to 100 Gbps with Isilon, whereas competing products reach only about 3 Gbps. We also use 30 percent less storage space because of data compression and file conversion."

## Processing and delivering data for AI over the cloud

When CMORE Automotive was founded in 2011, most of its customers were in Germany, but eventually it also entered the Asian and North American markets. That required expanding the company's cloud infrastructure by connecting the organization's private cloud and on-premises resources with public-cloud technology to make large-scale data transfers and collaborations easier.

"Dell EMC is always a big leap ahead of our own ideas," Papel comments. "Customers outside of Europe see the value in our transition to the Dell Technologies Cloud to run intelligent algorithms, provide analytics and performance management."



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