

Equipping drivers around the world with a second set of AI-powered eyes

Subaru Corporation accelerates AI innovation for the next-gen AI-powered advanced driver assist system (ADAS) by expanding its data storage and analytics capabilities with a Dell PowerScale storage solution.



Business needs

To improve the accuracy and capabilities of the next-gen AI-powered EyeSight Driver Assist Technology, Subaru had to ingest and analyze more data and simplify data access and sharing. To do this, Subaru needed to streamline storage management and scalability – and ensure data and workloads always reside on rightsized, high-performance storage.

Business results



Accelerates AI innovation by storing and managing 1,000x more files than before.



Improves drivers' experiences by increasing ADAS accuracy and accelerating AI model training and inferencing.



Enhances efficiency by simplifying data access, data sharing and collaboration.



Increases scalability and cost savings by ensuring workloads run on rightsized resources.



Boosts operational efficiency so teams can focus on critical projects.

Solutions at a glance

- [Dell PowerScale](#)



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Subaru Corporation consistently leads the way with forward-thinking innovations. In 2008, Subaru revolutionized the automotive industry by offering an advanced driver assist system (ADAS) named EyeSight that used stereo cameras. This design innovation equipped cars' onboard EyeSight Driver Assist Technology, enabling depth perception and more accurate distance calculations to nearby cars, pedestrians, road lines and other objects. Subaru Corporation has continued to advance its AI development to improve camera footage analysis and inferencing. However, the company realized that its storage silos were slowing its ADAS development efforts.

To advance the AI models and inferencing capabilities of its next-generation EyeSight Driver Assist Technology and meet other emerging demands, Subaru Corporation needed a new storage platform that could easily and reliably ingest and manage camera data from test vehicles. The company's existing siloed storage solutions couldn't scale to meet performance and capacity requirements, and they complicated collaboration and data management across sites including the SUBARU Lab and data center. Not only did this slow the efficiency of developers, data scientists and operational teams but it was also difficult to ensure workloads ran on appropriately sized storage to optimize costs.

Improving experience with PowerScale

After investigating storage platform options, Subaru Corporation chose Dell PowerScale because it delivers flexible, secure and efficient storage that's easy to scale. PowerScale software also provides built-in capabilities for minimizing silos and simplifying management. "Systems and storage are ever-changing," says Mr. Takashi Kanai, deputy chief of SUBARU Lab at Subaru Corporation. "Dell PowerScale is up to the task of being the underlying infrastructure for AI development in our EyeSight Driver Assist Technology, allowing us to continue advancing our AI initiatives to improve drivers' experiences."

Increasing AI accuracy with an AI-ready data platform

With its Dell PowerScale solution, Subaru Corporation is fueling its next-generation EyeSight Driver Assist Technology with more data and insights. "We're using Dell PowerScale storage to store and manage 1,000 times more files than before to execute AI training and improve the accuracy of AI," says Mr. Kanai. "PowerScale can ingest and process massive amounts of files efficiently, so our AI and software developers can access data without worrying about bottlenecks."

Developers will be able to combine EyeSight's traditional image recognition logic with image inferencing. As a result, the ADAS can use footage to automatically adjust cars' cruise control speeds to maintain a safe distance from other cars; center cars in lanes; and slow, stop or steer cars to avoid collisions. "Dell PowerScale enables us to unlock the full potential of AI by providing the scalability, performance, and reliability needed for our teams to innovate efficiently and optimize the total cost of ownership," Mr. Kanai says.

Simplifying collaboration by removing silos

Developers and data scientists can now easily work with the same data regardless of where they are, increasing efficiency. That's because Subaru Corporation uses Dell PowerScale cluster-tiering storage capabilities including SmartPools and CloudPools to abstract away data locations and file types. "Dell Technologies provided us with best practices on data infrastructure design for seamless sharing of massive numbers of files to help with collaboration across separate locations," says Mr. Kanai.

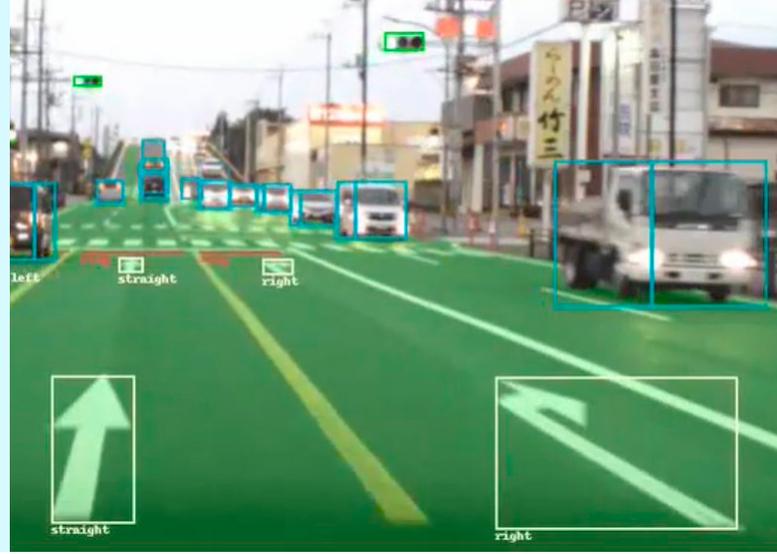


Dell Technologies is helping us harness the power of AI right now to improve the automotive experience of the future."

Mr. Takashi Kanai,
Deputy Chief of SUBARU Lab,
Subaru Corporation

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Responding faster and going farther

By leveraging PowerScale software, IT operations teams meet diverse storage requirements faster — freeing up time to focus on critical work. Not only does the data tiering capabilities automatically move data to the right tier of storage based on its usage, but IT teams can also quickly and easily scale the capacity and performance of nodes independently to rightsize them for workloads. Additionally, they can add or remove storage nodes without disrupting ongoing operations. “We are committed to providing enjoyment and peace of mind to our customers,” says Mr. Kanai. “Dell Technologies is helping us harness the power of AI right now to improve the automotive experience of the future.”

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Mr. Takashi Kanai,
Deputy Chief of SUBARU Lab,
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