Peregrine.ai and Lyve Mobile make real-time data logging smarter

Live annotation makes large data sets from test drives more meaningful

Solution Summary

Peregrine.ai uses their smart data campaigning solution to store real-time data logging onto Lyve Mobile solutions

Benefits Summary

- Lyve Mobile Array has been designed to store real time data directly from inside the vehicle in order to Accelerate ADAS Data Workflows.
- The smart data campaigning from Peregrine.ai make those data sets more meaningful by annotating scenes live while driving and accelerating access to data by developpers.

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Introduction

A self-driving vehicle can generate anywhere between 4TB and 50TB of fresh data every single day of test driving. Storing and securely transporting such data set from the vehicle to any cloud is both a crucial and complex operation for developers.

The time-to-data has a direct impact on the ADAS workflow and the pace the algorithm can progress on a daily basis.

Collecting and storing these large data sets from the different endpoints (sensors, cameras, lasers, radars, LiDARs, etc….), in real-time, for every vehicles of fleet and then transported to a private or public cloud in order to grant access developers, on a daily basis is already an extremely complicated logistical problem that needs to solved.

But granting data access to developers as soon as possible is not the end game because these data sets need to be analyze and processed.

So if it was possible to annotate that data in real-time, so the data is delivered already organized that would allow developers to spend less time sorting out data and more time processing, giving them a real hedge to accelerate their workflow, and therefore accelerate the ADAS algorithm development.

The Solution

The proposed solution is to combine a large and fast storage solution such as Lyve Mobile that can be installed directly in the trunk of the self-driving vehicle to directly record data from sensors and Peregrine Smart Data Campaigning solution.

The Seagate Approach

Manage and orchestrate the flow of live, intelligent, automotive data with the agility of Lyve Mobile solutions—from in-vehicle storage capacity and modular edge solutions that offload data with blazing-fast speed to affordable, secure cloud architecture for both private and hybrid environments.

With high-capacity, modular storage solutions from Lyve Mobile, it easily capture massive amounts of data created by autonomous cars.

Lyve Mobile edge storage and data transfer as a service combined with Peregrine.ai data logging bring together an end-to-end architecture for handling and sorting data at the edge

After the acquisition, quickly, simply and safely move your data to any Regional Ingest Station before importing to the Cloud.

Lyve Mobile side is AES 256-bit hardware encryption and key management in a rugged, lockable transport case for superior data protection.

The peregrine.ai Solution

Early identification and extraction of rare traffic events, conditions as well as scenarios from unstructured, visual sensor data is enabled through Smart Data Campaigning by Peregrine.ai.

Peregrine.ai helps industry leaders to create new value from data and enables new business models in

mobility. Smart Data Campaigning unlocks the potential of automotive sensor data and supports data-driven development of the software defined vehicles of the future. Peregrine provides visual intelligence services to understand context of traffic scenes from imagery including behavior of actors such as vehicle maneuvers or attention of vulnerable road users. Peregrine's solution satisfies the highest standards of data privacy. Its intelligent system differentiates general and personal information compliant with the GDPR.

The Total Solution

Autonomous vehicles generate massive amounts of data, making it crucial for developers to have a solution in place to quickly and safely handle large volumes of data from the cars into the cloud. Seagate's Lyve Mobile storage system is used to store the massive data volumes directly into the car and securely transport such data set from the vehicle to any cloud. This allows developers to store and access the data in real-time, enabling them to make data-driven decisions and improve the performance of autonomous vehicles.

Working with Peregrine.ai Smart Data Campaigning solution, industry leaders can create value from data faster and save hours of post-processing. This is achieved by finding the needle in the data haystack already while driving. By combining the power of Lyve Mobile storage system and Peregrine.ai Smart Data Campaigning solution, developers can handle large volumes of data and make data-driven decisions in real-time, enabling them to improve the performance of autonomous vehicles and make them safer for the public.

Features & Benefits Summary

- Addressing challenge of finding the right data early in the data curation process
- Minimizing the time-to-data (hours vs. weeks) and faster data utilization to improve AV performance
- Automatic data anonymization for privacy protection
- Comprehensive solution for handling AV data safely and quickly

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To summarize, Seagate's Lyve Mobile storage system enables developers to store and securely transport large volumes of data from the vehicle to any cloud, while Peregrine.ai Smart Data Campaigning solution helps industry leaders to create value from data faster and save hours of post-processing by finding the needle in the data haystack already while driving. Together, these solutions provide a comprehensive solution for handling and utilizing the massive amounts of data generated by autonomous vehicles.

Conclusion

Combined together, Lyve Mobile with Peregrine.ai not only accelerate data access by developers but also data processing.

Lyve Mobile facilitates the records of data in real-time directly from within the vehicle and quickly and securely transport data to a data centre, public or private cloud.

So developers have quicker access to data.

But Peregrine.ai's unique added value resides in their live annotation so the data becomes easier to research and then process

Ready to Learn More?

For more information on Lyve Mobile, visit **seagate.com/products/data-transport**

For more information on peregrine.ai, visit **peregrine.ai**

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