

USE CASE

Agile software development for automotive companies



Software-driven product and service innovations set the stage for market differentiation today and tomorrow in the automotive industry.

Those who can bring their products and services to market fastest, with efficient development processes and innovative performance, will surge ahead of the competition.

Automotive companies must be able to transform to mobility platform providers as they create new customer experiences by delivering innovative digital and connected services, infotainment, and autonomous vehicles.

However, without reliable and resource-efficient IaaS or modern infrastructure foundation to enable agile software development and DevOps, you could put your business at risk. Costs can spiral out of control due to production delays, long development cycles, and budget overruns.

Key NetApp benefits

- **DevOps:** Optimize and automate infrastructure for CI/CD pipelines by integrating and simplifying infrastructure operations.
- **FinOps:** Improve resource efficiency by enabling the most efficient and automated allocation of compute and storage resources.
- **SecOps:** Keep data, systems, and processes secure by reducing risks and improving business continuity.
- **Cloud Connectivity:** Increase data mobility and overall flexibility across your on-premises and public cloud infrastructure dedicated to DevOps workloads.

Easier said than done

Building an agile software development platform comes with technical challenges that automotive companies must overcome to reduce effort to develop, operate, and maintain software. These challenges include:

- Moving towards a microservice architecture that decouples dependencies and enables transition from a monolithic to a modular service architecture, leading to more agility and increased scalability.
- Changing to robust decentralized data platforms with enterprise data protection (including backup, disaster recovery, and encryption) and secure, highly available distributed access to a DevOps methodology.

NetApp solutions for agile software development

NetApp® solutions enable enterprise-grade software delivery solutions for continuous integration (CI), continuous delivery (CD), and agile software development. Our solutions help you:

- Reduce costs by optimizing operations and resources for agile software development.
- Speed time to market by significantly accelerating the software build process.
- Provide secure, distributed data access for more efficient teamwork.

NetApp solution components

NetApp's application-driven infrastructure offers a one-stop-shop for intelligent storage and compute services anywhere across the hybrid multicloud. Our solutions optimize the CI/CD pipeline for the automobile industry's largest organizations.



Cloud storage operations by NetApp

NetApp cloud storage comes pre-built and ready to integrate into any cloud architecture. Storage resources are provisioned on demand using APIs, without any upfront costs. High reliability, high availability, and rock-solid security standards make sure your data is protected throughout all development lifecycles.



Cloud compute operations by NetApp

Spot by NetApp automates cloud infrastructure to ensure consistent performance, reduce complexity, and optimize costs. Give your cloud workloads and container environments the most scalable and available infrastructure at the lowest possible cost—resulting in reduction of overall compute resource spend by up to 70%.



Astra by NetApp

Astra Control offers stateful Kubernetes workloads a rich set of storage and application-aware data management services powered by NetApp's trusted data protection technology. In addition, Astra increases application portability and flexibility by moving entire applications along with its data from one Kubernetes cluster to another.

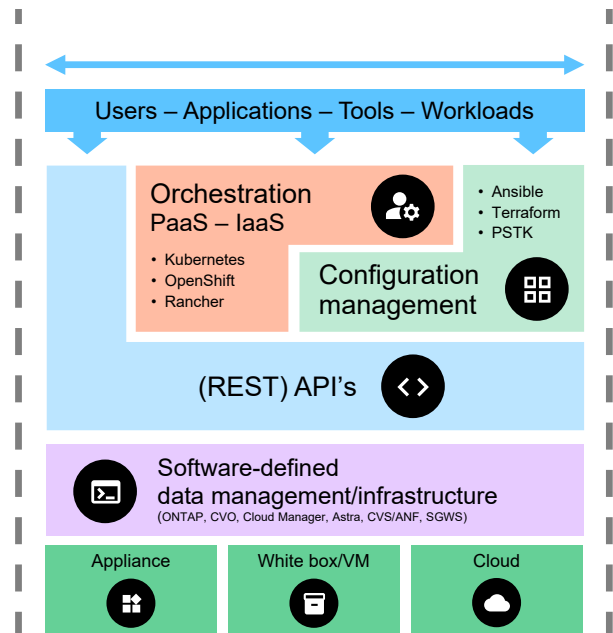


Figure 1: Simplification and automation of infrastructure consumption with NetApp.

The future is here

Modern compute and storage solutions are the foundation for developing mobility platforms of the future. Agility, resource efficiency, and fast, integrated processes are keys to success. With NetApp solutions for agile software development, you get the intelligent storage and compute services you need to reduce costs, speed time to market, and provide secure, distributed data access to your teams. The future is here and with NetApp by your side, the opportunities to bring new innovations and customer experiences to market are endless.

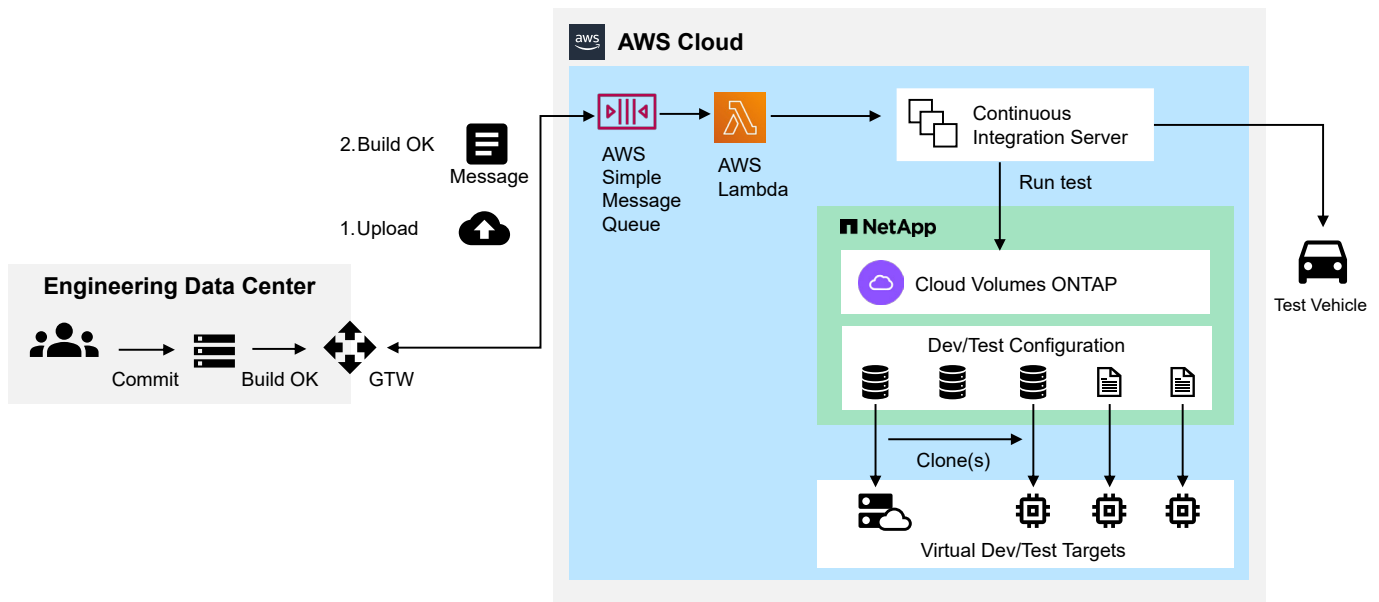



Figure 2: Example of a Dev/Test automation workflow for CarOS in a hybrid environment.



Learn more about **NetApp** solutions for automotive. Get in touch with us at automotive@netapp.com.

About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. www.netapp.com