DXC Robotic Drive Cloud Services on AWS
Data-driven solution for autonomous vehicle development

Data-driven development technology is revolutionizing the way automotive OEMs and tier 1 automotive companies develop, verify and maintain next-gen, AI-driven autonomous and mobility products.

Differentiation: Next-gen automotive technologies

The automotive industry is facing massive disruption, with changing market demands affecting the future of mobility. Next-gen automotive technologies such as autonomous driving (AD) and connected mobility will differentiate the mobility service providers.

But developing these innovative capabilities requires new skills and new technologies, particularly scalable solutions capable of handling vast amounts of data. For example, a single test vehicle with modern AD sensors can generate up to 100 TB of data per day. During vehicle development, all this potentially relevant data is collected from test vehicle fleets to support the development, validation and verification of algorithms.

DXC and AWS: Scalable services

DXC Technology is one of the very few firms to have succeeded in building productive, scalable data-driven development services that support the ambitious development plans of market-leading OEMs worldwide.

Through our partnership with Amazon Web Services (AWS), the leader in hyperscaler cloud services, we offer DXC Robotic Drive Cloud Services on AWS — the first modular Robotic Drive cloud service, supporting the end-to-end AD development process.

Why DXC and AWS?

DXC ensures safe integration and transformation of your current process and toolchain into scalable, data-driven development services and platforms by providing consulting, feature and DevOps teams, and proven, ready-to use services on the AWS platform.

AWS provides a full suite of services to support Advanced Driver Assistance Systems (ADAS) and AD development and deployment. AWS' nearly unlimited storage and compute capacity, AWS SageMaker — as well as support for deep-learning frameworks such as Apache MXNet, TensorFlow and PyTorch — will accelerate your algorithm training and testing and natively integrate with DXC Robotic Drive Cloud Services on AWS.

Key benefits

- Save on implementation time (3 – 6 months)

- Reduce design and development effort, resulting in savings of up to $5 million

- Reduce risk to fail by >70%, and maintain SOP timelines

- Reduce costs with SLA-driven AD services: >30% to 40% (operations), >20% to 30% (development)

- Participate in AWS and DXC future investments

Contact us for more information.

Learn more at dxc.com/data-analytics

DXC Robotic Drive Cloud Services on AWS
Modular Quick Start options for your AD program, powered by the combined experience of two market leaders

Data collection/ingest service
- Data collection managed service
- Customer-specific in-car loggers, storage devices and data formats
- KPI-based ingest to cloud services, including customer-specific logistic requirements
- Integration in customer's AD data acquisition process

AD data lake on cloud
- Kickstart cloud formation templates for AD data lake and AD compute platform
- Initial AD domain model and AD data zones
- Scalable data management tools for workflow automation and data life-cycle management, based on cloud-native services

Data-driven development
- AD-optimized tooling to support the data-driven development process
- Analyzer to run all analytic and automotive workloads at petabyte scale
- Metadata extraction and store to allow data value-based operations
- Managed machine learning to develop AI algorithms for AD

Satellite/co-location service
- Self-contained, ready-to-use mobile, preconfigured Robotic Drive environment for data-driven development use cases (e.g., for decentralized workloads or experiments); flexible enough to integrate custom applications and use cases
- Hosted on-premises at our customer's site or in cloud co-location

Leveraged AWS services

AWS S3 intelligent tiering
Helps customers optimize storage costs automatically when data access patterns change, without performance impact or operational overhead

Amazon EC2 Spot Instances
Enable you to leverage unused EC2 capacity in the AWS cloud. Spot Instances are available at up to a 90% discount compared to on-demand services

Amazon SageMaker
Built on Amazon's two decades of experience developing real-world machine learning applications, including product recommendations, personalization, robotics and voice-assisted devices

Capabilities
- **Modular, data-driven development components and services on AWS.** Start programs at low cost, consume services as needed, and minimize budget and time risks.

- **Architecture, technology and tooling for AD development chain.** Ready-to-use services cover data collection phase and data management for algorithm development and AI training/simulation/functional testing.

Next-step services
Looking ahead on the roadmap of AD services

Functional test
- AD-optimized tooling to support functional testing process
- Interfacing to third and XIL testing — management of data processing and recordings
- DXC Robotic Drive control center as front end to manage and monitor the progress

Virtual ECU
- Containerized virtual ECU environment
- Customization and integration into our customer's target environment

ADDF/CI/CD automation
- End-to-end CI/CD-based process to automate AD target software build
- Customization and integration into our customer's target environment

Analytics consulting, engineering and global operations

DXC support services
- Full set of consulting, feature, DevOps and run services
- Capacity and skill pool for staffing based on your requirements

AWS support services
- Full set of support services built into the DXC service

Get the insights that matter.
dxc.com/optin

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About DXC Technology
DXC Technology (NYSE: DXC) helps global companies run their mission critical systems and operations while modernizing IT, optimizing data architectures, and ensuring security and scalability across public, private and hybrid clouds. The world's largest companies and public sector organizations trust DXC to deploy services across the Enterprise Technology Stack to drive new levels of performance, competitiveness, and customer experience. Learn more about how we deliver excellence for our customers and colleagues at **DXC.com**.