

# AMPLIFYING GLOBAL SALES PERFORMANCE WITH CLOUD COMPUTING

*Technology Case Study*

## CLIENT SITUATION

Our OEM client's customer experience for both sales and service processes lagged competitors, as evidenced by poor performance in J.D. Power Sales Satisfaction Index (SSI) and Customer Satisfaction Index (CSI) scores for its premium brand. Also, dealer sales staff struggled to serve customers as a result of knowledge gaps stemming from a broadened product portfolio and increasing volume of vehicle content. We were engaged to help the OEM and its dealerships develop and deploy a tablet application for the U.S. market. The digital application intended to enable insight into available inventory, deliver new customer education, and streamline purchase processes.

The success of the application made it attractive to other markets across the globe. To scale the impact of the tool, the organization later engaged North Highland to design a robust architecture that would enable a unified, global deployment of the application's backend. The client needed an easy-to-maintain solution that could be used in all countries where it sold its automobiles. Further, it required the capability to be integrated with country-specific OEM systems, among other third-party systems.

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North Highland helped a major automotive original equipment manufacturer (OEM) streamline the purchasing experience for dealers and customers through a personalized, localized, and scalable digital application for the U.S. market. As a result of the success of the application in the U.S., we then worked with teams in markets around the world to define, develop, and deploy cloud-based architecture on Amazon Web Services (AWS), expanding the benefits and value of this application across the globe.

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## OUR APPROACH

North Highland spearheaded the effort to develop a mobile reference architecture that could be deployed on a global scale. First, we worked with the OEM's North America Information Systems (IS), Global IS, and select countries' IS teams to identify a viable and mature global hosting platform. We applied a comprehensive process to evaluate prospective traditional hosting platforms and cloud platforms, including AWS, Google Cloud, and Azure. After brainstorming and merging inputs across teams and stakeholders, we selected the AWS platform to bring the global application to fruition.

Then, we studied the client's other product, service, and infrastructure-related initiatives that had a global reach. As an output of our study, we identified elements that were repurposable in establishing a mobile reference architecture. Further, the study also helped us to pinpoint the specific AWS products and services needed for global application deployment.

From there, we designed a detailed architecture to support the global deployment of the dealership tablet application. This architecture included the existing cloud products that the OEM had been using, including Apagiee, MongoDB, CloudFront/CDN, and Cedexis. In the updated architecture, we incorporated some of the latest serverless products and offerings from AWS, such as Lambda, SNS, RDS, ElastiCache, S3, Cognito, and API Gateway.

To further refine the target architecture, we then conducted a workshop to align the framework to the best-in-class Open Group Architecture Framework (TOGAF). This approach helped us zero in on critical components, including application architecture, integration architecture, infrastructure architecture, and security architecture. Our comprehensive approach enabled us to design an asset that drove significant, global improvements to customer service, dealer success, and sales productivity.

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## VALUE DELIVERED

Our work culminated in a detailed mobile reference architecture along with a roadmap to execute it—highlighting where the client could leverage existing technologies along with the application work that had already been completed.

The new application drove an immediate surge in customer experience quality with an increase in J.D. Power raw scores, customer comments, and net promoter scores. The OEM's premium brand rose to number two in J.D. Power scores overall, and the mass consumer brand entered the top 20 for the first time.

Operationally, the digital application also contributed to financial performance by accelerating speed-to-revenue. The elapsed time for sales processes decreased significantly, and sales staff demonstrated greater confidence and expertise in discussing features and options, conducting competitive comparisons, and answering customer questions.

As a result of our partnership with the OEM, the solution is now the company's global standard for the premium brand and volume brand. The tool has been deployed in all dealerships in the U.S. and Canada, with development for additional markets now underway.

[THE NORTH HIGHLAND TEAM] HAS DONE  
A TERRIFIC JOB DEVELOPING A NEW  
TECHNOLOGY STRATEGY AND SYSTEM  
ARCHITECTURE AND HAS HELPED GUIDE  
DEVELOPMENT FOR A REVOLUTIONARY NEW  
AUTOMOTIVE RETAIL CONCEPT

DIRECTOR, GLOBAL CLIENT EXPERIENCE

## ABOUT NORTH HIGHLAND

North Highland is a leading change and transformation consulting firm, recognized for its deep expertise and collaborative, action-oriented approach. Invested in our **client's success** and powered by the belief that **everything begins and ends with people**, we bring together the brightest minds to create **positive change** and **transform businesses** through **customer, workforce and operational lenses**.

Headquartered in Atlanta, Ga., and regularly named a best place to work, North Highland is an employee-owned firm with more than 5,000 consultants worldwide and 65+ offices around the globe. The firm is a member of Cordence Worldwide ([www.cordence.com](http://www.cordence.com)), a global management consulting alliance. For more information, visit [northhighland.com](http://northhighland.com) and connect with us on [LinkedIn](#), [Twitter](#) and [Facebook](#).