



# CarMax Maintains Its Lead in the High-Speed Automotive Marketplace

Industry Disruptor Turbo-Charges the Customer Experience with Nutanix

## COMPANY

CarMax is the largest retailer of used cars in the U.S. and operates more than 190 stores in 41 states nationwide.

## INDUSTRY

Automotive retail

## BUSINESS NEED

Accelerate business agility and improve process performance to serve customers more effectively via multiple channels.

## SOLUTION

- Nutanix Enterprise Cloud with AHV and Flow

## BENEFITS

- Faster, simpler operations through consolidating all workflows and applications onto one hyper converged infrastructure.
- Improved customer experience via any channel enabled by ability to develop and deploy new applications and services faster.
- Reduced risk and improved reliability through integrated security and enhanced backup and recovery.

## CHALLENGE

Over the past 25 years, CarMax has made car buying more ethical, fair and stress-free by offering customers a no-haggle, no-hassle experience. Technology is the cornerstone of its business operations, enabling consumers to shop approximately 50,000 cars from any location, on any device.

“CarMax is the original disruptor of the used car industry, and technology has always played a key part in our success,” says Ken Shaffer, Assistant Vice President for Enterprise Systems at CarMax.

“We’re operating in a much more agile environment, and Nutanix is helping us do that. We can quickly try out new experiments and innovative ideas we think our customers will love. It’s also a very flexible platform. No matter what type of workload we want to use, we can quickly deploy it to Nutanix and then get it out in front of our customers and see what they think.”

– Ken Shaffer, Assistant Vice President for Enterprise Systems at CarMax.

As technology has rapidly evolved, customer expectations have changed as well. CarMax understands that today's customers are more sophisticated, more mobile, and require faster, better tools to shop and evaluate vehicles.

"Customers are no longer just comparing the customer experience they have with us to other competitors in the automotive industry," says David Harold, Senior Manager, CarMax Enterprise Systems. "They're comparing it to the experience they're having with Amazon or Starbucks. We have to change the way we work in order to deliver that experience."

To maintain its competitive lead, CarMax requires a technology environment that delivers both agility and dependability to support its customers online and in retail environments—and enable fast development of new features and capabilities.

## **SOLUTION**

To gain the agility, manageability, and reliability it needed, CarMax migrated its applications and workloads onto the Nutanix Enterprise Cloud. Capable of running any application at any scale, this software-defined enterprise cloud enables CarMax to simplify and consolidate its key business processes.

"CarMax runs many of its core systems on Nutanix, with many different workloads," says Harold. "That includes databases, in-house developed applications, off the shelf applications, and even VDI and virtual applications. As we've rolled out Nutanix, we've seen quite a bit of improvement, not just in performance, but in scalability as well. We can get a lot more power in a smaller footprint by using Nutanix."

The Nutanix solution also helps CarMax make its technology operations more dependable and efficient providing the reliability needed for its most critical business operations.

"With Nutanix AHV, we have been able to enhance our backup and recovery options allowing us to quickly recover and replicate across our WAN links," says Shaffer.

CarMax deployed AHV to help control costs, simplify management, and support new capabilities.

"Moving to AHV gave us a one-stop-shop to manage the entire environment using a single management console, Nutanix Prism Central. AHV also enables network virtualization through Nutanix Flow. Flow provides network segmentation capabilities that greatly enhance security," says Harold.

Moving to the new solution was smooth and easy, enabling CarMax to build on the value of its legacy infrastructure while taking advantage of new capabilities.

"I was impressed with our ability to implement the Nutanix environment with our existing networking backbone switch, without having to throw it out or buy something new," says Shaffer. "Unified communications offered within the Nutanix solution allowed us to utilize our legacy equipment, and still gain the speed and resiliency within the environment."

Data security and integrity is essential for a leading online retailer like CarMax, and Nutanix Flow helps the organization simplify its network and policy management with an application-centric approach.

"Nutanix Flow is really focused on security, which is at the top of our mind," says Shaffer. "We have a very secure environment, but we're always looking at ways to utilize technology to enhance that security. Flow enables us to follow an application all the way through and provide security wherever needed. The new Nutanix platform also includes data protection and data recovery capabilities enabling us to maintain data integrity better than we have in the past."

The Nutanix Support Group helps CarMax ensure that its solution will consistently deliver maximum value, via a single point of contact and a seamless experience.

"We've had a good experience working with the Nutanix Support Group," says Shaffer. "They're very customer-focused, and we appreciate that because our own culture is based on offering a customer-centric experience."

## BENEFITS

### Improved Performance for More Satisfied Customers

With Nutanix Enterprise Cloud in place, CarMax is realizing faster performance and improved reliability in its core retail applications, driving an improved end-customer experience.

“We’ve seen quite a bit of performance improvement on our applications running on Nutanix, which has been great,” says Harold. “Our customers are seeing it, too. Our systems are much more responsive when our Associates are taking care of customers at our stores.”

“One of the great things about Nutanix is that if a major component goes down we don’t lose the whole system,” adds Shaffer. “It stays up and running, which is a capability we didn’t have before.”

### Bringing Ideas to Market Faster

The faster, cloud-based technology environment has also enabled CarMax to develop and implement new concepts faster, to deliver the business agility that’s essential in its competitive retail space.

“Our innovation center gives us the ability to test, fail fast, and identify what works,” says Shaffer. “We’re able to take different ideas that our developers come up with and quickly incorporate them into production. We are now able to deliver a better customer experience in hours rather than in days or weeks through a continuous delivery method.”

With Nutanix Enterprise Cloud, the firm can deliver rapid access to technology resources that its DevOps staff needs to take ideas like these into production. “DevOps is all about speed and consistency through automation,” says Harold. “The Nutanix built-in REST API lets us automate virtual environment builds and configuration changes without manual intervention, for faster deployment and reducing potential for human error.”

The Nutanix Management console, Prism Central, provides monitoring and dashboarding capabilities. Its centralized view lets CarMax assess the complete state of its environment with real-time feedback on what is working and what is not.

Unlike other solutions, Nutanix has a “Nutanix Driver for Docker” capability allowing automated builds of Docker-enabled virtual machines and networks. “With this Driver we can quickly spin up resources to support our application needs,” says Harold. “This allows us to seamlessly include infrastructure provisioning in our CI/CD (continuous integration/continuous delivery) pipeline.”

## FLEXIBILITY FOR FUTURE NEEDS

With its scalable, versatile cloud platform, CarMax has established a powerful springboard for innovation to deliver enjoyable customer experiences well into the future.



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