

CASE STUDY

# CARFAX Selects Data Center for Connectivity & Redundancy

Enterprise Deploys New IT Footprint in Data Centers Interconnected from Across the U.S.



## Abstract

CARFAX is America's leading provider of vehicle history reports and searchable listings for used cars and light trucks. At this time, CARFAX is deploying pod-based IT footprints in four CyrusOne data centers, two in Texas, one in Arizona, and one in Northern Virginia. When completed, three of these IT footprints will provide coast-to-coast web hosting and redundancy for CARFAX.com, and for CARFAX's customer-facing products. A fourth IT deployment in CyrusOne's Carrollton data center will handle CARFAX's internal systems and applications. Throughout the deployment, CARFAX has found CyrusOne to be a reliable and cooperative partner, able to quickly process CARFAX's requests and to accommodate quick changes to CARFAX's IT footprints. CARFAX is also utilizing CyrusOne's National Internet Exchange, which allows CARFAX to easily move data between its IT footprints in different CyrusOne data centers.



## The Company

Headquartered in Centreville, Virginia, CARFAX is America's leading provider of vehicle history reports for used cars and light trucks. Through its web site, CARFAX.com, the company offers its main product, the CARFAX Vehicle History Report, an in-depth history of an individual vehicle that includes all its recorded purchases, ownership transfers, and servicing, and any accidents or police incidents.

"Our Vehicle History Reports are used in every aspect of the automotive marketplace," says Joedy Lenz, Chief Technology Officer of CARFAX. "Our list of customers includes consumers purchasing a vehicle, dealers buying a trade-in or auction vehicle, car insurers, finance companies, and service shops who service a vehicle. Each has a need to know what a particular car or truck has been through in its lifetime."

"What makes CARFAX's products stand out from the rest is the depth and accuracy of our data," Lenz explains. "We collect vehicle data from over 80,000 sources – everyone from police agencies to service garages and oil change shops. No one can match the sheer volume of data that CARFAX provides about the history of a particular vehicle."

The CARFAX.com web site offers several free vehicle research services – including Lemon Check, Recall Check, and Car Safety and Reliability Ratings – plus MyCARFAX, a free mobile application that lets owners track their vehicle’s history while they own it. In addition, CARFAX.com offers Used Car Listings, the only vehicle listings site that lets consumers search for specific models by history (i.e. “2007 Ford Escape, 1 previous owner, no accidents”), and connect with dealers who have those models for sale.

## The Challenge

Until recently, CARFAX housed its legacy IT infrastructure in two private data centers at the company’s original facilities in Columbia, Missouri. The legacy infrastructure hosted CARFAX’s online products and services. Over time, however, this IT footprint became too large for CARFAX to support in its current state.

“Our web site generates around 2 billion CARFAX reports and search results per year, with an average delivery of 40 or 50 per second,” says Lenz. “Our online business has increased to the point where our legacy infrastructure has limited ability to support our continued growth. And our private data center can’t support the IT infrastructure we need to deliver our products and services. Also, we’ve decided it’s better to utilize our resources in managing our systems and technologies, rather than the physical footprint used to house those systems.”



To handle its future IT needs, CARFAX is completely redesigning and rebuilding its IT infrastructure as a pod-based environment (self-contained IT architecture that can be replicated multiple times), utilizing smaller HP DL360 and DL320 servers (known as “lightbulb servers”), which can be strung together to create individual server pods for each of CARFAX’s products. Along with this IT re-architecting, CARFAX is redesigning its colocation distribution to split its pod-based server configurations across three data centers in three different locations.

“As a business, CARFAX is very entrepreneurial, very fast-paced,” says Lenz. “We make and implement decisions quickly, and our technology has to keep pace with those fast decisions, to support our business growth. In looking for a colocation provider, we knew CARFAX needed more than just a company offering data centers with abundant space, power, and cooling. We needed a provider who would be a partner in our success, with the flexibility and service capabilities to make quick changes to our IT footprint.”

“We had previously housed part of our infrastructure in a data center owned by a colocation provider. But they couldn’t handle the quick-pace IT changes we needed. They were very rigid, very contract-oriented. If we requested changes – such as asking them to reconfigure our IT footprint with increased floor space and additional power – it would take them several days to respond. When they did get back to us, we’d have to negotiate to determine when they could provide what we needed, and how much it would cost. This was followed by multiple rounds of paperwork before they could start any work for us. It was far more trouble than it was worth, especially for a business as dynamic as ours.”

## The Solution

CARFAX chose CyrusOne as its new data center partner. At this time, CARFAX is deploying its dedicated, pod-based IT environments in three CyrusOne facilities – one each in Lewisville and Carrollton, Texas (outside Dallas), and one in Phoenix, Arizona. Once the Phoenix location is online, CARFAX plans to move the Carrollton pod environment to their Northern Virginia facility. The three pod-based environments will handle all of CARFAX’s customer-facing products, including Vehicle History Reports, free applications like MyCARFAX, and the Used Car Listings search engine.



CARFAX is also building out an internally-focused IT environment in CyrusOne’s Carrollton data center. This environment will handle CARFAX’s systems and applications focused on data processing, business intelligence, test environments, etc. Additionally, CARFAX will keep a small part of its IT footprint housed at its own facilities in Columbia, MO, and Centerville, VA, to handle proprietary applications such as email, virtual desktop, and development environments.

## **Benefits**

### *A Reliable Partner for Success*

“In the past 18 months, as we’ve built out our new IT configurations in the Lewisville and Carrollton data centers, CyrusOne has been incredibly responsive to our needs,” says Lenz.

“When we call CyrusOne to request a reconfiguration of our IT footprint, they start working to approve it immediately, and then send us the work order to document it. They never make it a burden on us, or make us feel like it’s a burden on them. They’re obviously focused on ensuring their customers’ success, rather than their own.”

CARFAX utilizes Pinebreeze Technologies, one of CyrusOne’s preferred onsite vendors, to provide Data Center Infrastructure Management (DCIM), server relocation, and “remote hands” services in CARFAX’s dedicated cage environments in the Texas data centers.

“Unlike many data center companies, CyrusOne isn’t trying to do everything for its clients,” says Lenz. “They focus on providing a reliable data center. If you need additional services, they’ll refer you to one of their vendors or partner companies. Pinebreeze’s technicians are probably in our cages at Lewisville and Carrollton every day, doing maintenance and making changes to our IT and power configuration so that our footprint can keep pace with our business decisions.”

### *Geographic Diversity*

“CARFAX’s plan to deploy IT footprints in three CyrusOne data centers across the U.S.A. has two advantages,” Lenz explains. “First, it gives us full redundancy. Each IT footprint will have all our products and services on it, plus the supporting infrastructure to be a stand-alone data center. If one IT footprint goes down, we can still run 100% of our traffic through the other two data centers, without losing customers.”

“This setup also gives us better control over our web traffic. Each of our three IT footprints will handle approximately 33% of all traffic on CARFAX.com. When a consumer submits a request or a search query, we can direct that traffic to the data center that is geographically closest to them. This helps to reduce network latency, so our customers get their Vehicle History Reports and Used Car Listings search results back faster.”

### ***Robust and Reliable Connectivity***

“CARFAX subscribes to CyrusOne’s National Internet Exchange (IX), which interconnects CyrusOne’s facilities throughout the U.S.,” says Lenz. “The National IX allows us to easily move data between our IT footprints in Carrollton and Lewisville, and to keep our systems in sync. Once we deploy our IT systems in Phoenix and Virginia, we’ll use the IX to move data between those facilities and our IT footprints in Texas as well.”

“Also, thanks to CyrusOne’s negotiated rates with network providers, CARFAX pays a single rate for an Internet connection for each of our data center footprints. We pay only for the bandwidth we’re contracted for, and we’re not locked in to any one provider. The connections are fully redundant, so if one carrier’s network has an issue, CyrusOne’s facilities will automatically switch our IT systems over to another carrier line.”

“Our dealings with CyrusOne boil down to a single word, and that’s ‘relationship,’” Lenz adds. “From Day One, they have repeatedly bent over backwards to help CARFAX be successful in its new IT deployment. They’ve always been quick to act on our requests, because they know it’s important for us to get things done quickly and without hassle. Working with CyrusOne has been a refreshing customer service experience for us.”

**To learn how CyrusOne can help you achieve your goals, visit [www.CyrusOne.com](http://www.CyrusOne.com) or call 1-866-297-8766 today.**

## About CyrusOne

With over two dozen data centers across the globe, CyrusOne helps many of the world's largest global businesses – including 9 of the global Fortune 20 companies and over 135 of the Fortune 1000 – and companies of all sizes take advantage of the latest data center technology and realize top operational efficiencies through:

- **Flexible, Scalable Solutions** – Receive flexible data center solutions that readily scale to match the needs of your growing business.
- **Proven, Innovative Technology** – Benefit from the latest data center innovations CyrusOne expert technicians can put to work for your IT environment.
- **Exceptional Service** – Enjoy personalized, consultative service through all stages of the relationship - design, build, installation, management, and reporting.
- **CyrusOne National IX** – Offers low-cost metro connectivity and city-to-city transport in an ever growing number of cities across the US.

## About the Author



Scott Brueggeman oversees the management of CyrusOne's global marketing, product development, inside sales, and corporate communications including branding, demand creation, and public relations. His 20 years of marketing and sales experience includes Fortune 50 firms, as well as smaller high-growth companies. Prior to CyrusOne, he spent several years with running marketing at a data center hosting and managed services company, as well as Chief

Marketing Officer at an international financial services firm. Prior to that he was VP Marketing for CareerBuilder, and also held leadership positions at AT&T and PepsiCo. Brueggeman serves on several advisory boards.