



## INDUSTRY

Logistics

## LOCATION

Lincolnshire, Illinois

## KEY CHALLENGES

- Quickly migrate 700 applications to support a major acquisition.
- Swiftly reduce and retire massive daily hosting charges.
- Cost-effectively expand the IT infrastructure to support a business quadrupled in size.

## SOLUTION

To quickly onboard 700 applications acquired with Motorola Solutions' Enterprise business, Zebra Technologies launched a hybrid private-public cloud based on the VMware vCloud Air service, the VMware vSphere® platform, and VMware vRealize Suite cloud management.

## BUSINESS BENEFITS

- Gained on-demand flexibility to quickly migrate acquired applications out of legacy hosting environments
- Swiftly reduced legacy hosting expense by more than 98 percent
- Built a seamless hybrid cloud environment with a single management platform

## Zebra Technologies Handles Massive Motorola Merger with VMware vCloud Air Solution

When Zebra Technologies bought Motorola Solutions' Enterprise business in 2014, it acquired 700 new applications and a massive hosting bill. By transforming its internal data center facilities to create a VMware private cloud, and by extending that environment with the VMware vCloud® Air™ service, Zebra created a hybrid private-public cloud with the scalability and flexibility to quickly migrate the Motorola workloads, retire the legacy hosting expense, and prepare for future growth.

Zebra Technologies builds logistical solutions that identify, track, and manage critical assets, people, and transactions. The company's end-to-end solutions combine mobile computers, scanners, specialty printers, radio-frequency identification (RFID) labeling, software, and services to give physical things a digital voice and provide companies with visibility into their business. Headquartered in Lincolnshire, Illinois, Zebra operates in 81 countries and employs a workforce of more than 7,000.

### The Challenge

When Zebra acquired Motorola Solutions' Enterprise business, the \$3.45 Billion transaction nearly quadrupled the size of the company overnight. Along with the more than 700 business applications, the merger included Motorola's mobile computing and advanced data-capture products. Under the transition services agreement, Zebra agreed to pay a punishing daily hosting charge until it vacated Motorola data centers.

This posed a tremendous challenge for the Zebra IT group, a lean organization in both personnel and facilities. The team was already seeking a larger location for the production workloads in its North American data center; the acquisition instantly multiplied Zebra's IT requirements by a factor that was obviously large but not immediately quantifiable.

"From day one, everyone wanted to know about the Motorola applications," says Kelly Jones, a Cloud

Consultant to Zebra's CIO. "What do they look like? How big are they? What are the workloads? And we had no idea. All we knew was that we had a 'do or die' directive to get out of the Motorola environments fast, and that bringing all these things onboard was going to require maximum flexibility."

The Zebra IT team had to begin moving Motorola workloads before it had the internal capacity to host them, or even knew what the overall hosting requirements would be.

***“The ability to flex into vCloud Air gave us unparalleled ability to meet needs. We were able to bring all of these applications onboard without skipping a beat. We couldn’t have done it with anything else.”***

- Scott Myers,  
Cloud Architect,  
Zebra Technologies

## VMWARE FOOTPRINT

- VMware vCloud Air
- VMware vSphere Enterprise Plus Edition™
- VMware NSX®
- VMware vCloud Suite Enterprise Edition
- VMware vRealize Suite Enterprise Edition
- VMware Horizon Enterprise Edition
- VMware Site Recovery Manager™
- VMware Professional Services

## APPLICATIONS VIRTUALIZED

Hundreds of custom engineering applications and development environments

## PLATFORM

- HP servers
- EMC storage

## The Solution

The Zebra team quickly decided to build on what had already proven successful: the virtualization of their server environment on the VMware vSphere® platform. They expanded existing data center facilities, refreshed existing hardware platforms, and virtualized the remaining physical infrastructure to create a private cloud. They also recognized that public cloud services could extend this environment, providing a scalable and immediately available staging environment so that Motorola app migration could proceed while internal upgrades progressed. The VMware vRealize® Suite cloud management platform provides integrated administration for the entire hybrid private-public cloud.

Because workload placement couldn't be finalized until the private cloud upgrades were complete, the team decided that workloads must be able to move without friction between private and public clouds. "The off-premises cloud had to have the ability to receive a workload without disk image translation," Jones says. "It had to be able to take native VMDK [Virtual Machine Disk] because that's what we're running internally."

The requirement for the public cloud to interoperate seamlessly with the VMware private cloud naturally focused the team's attention on the vCloud Air service. Initial testing with Linux virtual machines showed a sevenfold performance advantage over competing cloud services, and a small-scale proof-of-concept deployment quickly morphed into a preproduction facility. Full-scale workload migration was soon underway.

In less than a year, Zebra has moved or decommissioned most of the Motorola applications and reduced daily hosting fees by more than 98 percent. Nearly 500 virtual machines now run on the vCloud Air service, hosting a mix of production, development, and backup workloads that support Zebra operations in Texas, Nevada, Australia, and Japan. The company also hosts 300 VMware Horizon® virtual desktops on the vCloud Air platform, with another 450 planned.

## Business Benefits

By launching its hybrid private-public cloud with the vCloud Air service, the Zebra team gained several critical benefits. Most important was the flexibility to begin migrating a large volume of acquired workloads well before Zebra had the internal resources to support them. "The ability to flex into vCloud Air gave us an unparalleled ability to meet our business needs," says Scott Myers, Zebra's cloud architect. "We were able to bring all of these applications onboard without skipping a beat because we had similar technologies. vCloud Air gave us the ability to move quickly when the business required it."

vCloud Air on-demand elasticity bought time for the Zebra IT team to rationalize and efficiently integrate the Motorola applications. "When you're going through a merger and trying to look at things holistically, you always feel like the sand in the hourglass is running out," Myers says. "vCloud Air let us flip the hourglass. It gave the teams inside Zebra time to analyze these new workloads and look for synergies, to see where our tools overlapped. It gave us time to think through what to keep, what to combine, and what to walk away from. There was a huge value in that."

Choosing the vCloud Air solution also gave Zebra a single technology base and management platform to unify its entire hybrid private-public cloud, enable seamless workload movement, and simplify troubleshooting should technical issues arise. "We have a cloud service provider who wrote the code that runs the cloud," Jones says. "If there's a problem with vCloud Air, VMware doesn't have to call anyone else. That made this a very simple decision."

## Looking Ahead

With the Motorola app integration essentially complete, Zebra is developing self-serve infrastructure-as-a-service capabilities based on VMware vRealize Suite automation and operations management features. "Soon our users will go to the Zebra store, click on a server, and select a cloud platform," Myers says. "An automated approval and provisioning process will spin up the server into a public or a private cloud—we don't care which—and start metering and billing. That's where we're headed, and we're actually getting there."

