



CASE STUDY

Major US Retailer Redesigns Global Network for “Dramatic Benefits” with Infoblox

THE CUSTOMER - MAJOR U.S. RETAILER

The customer is a global retail company with locations across North America in the United States, Canada, and Mexico and in some overseas locations as well.

The network delivers connectivity to customers who try out the company’s technology products while shopping in its stores and to employees within the organization.

THE CHALLENGE

Loads of Manual Work Across Complex, Multi-Vendor Environment

Before engaging with Infoblox, the company had a complex mixed environment. There were Windows servers with Active Directory for Domain Name System (DNS). IT used a network-registration solution from a major vendor combined with BIND running on 20+ Sun Solaris servers distributed around the world for DNS administration and for name creation and deletion.

Dynamic Host Configuration Protocol (DHCP) services were running on routers in some offices and Windows or Solaris servers in others. This system was managed using an internally written web interface. There was no dynamic DNS. For IP address management (IPAM), IT was using spreadsheets built on IP address ranges for 2,000 sites and 100,000 employees.

Needless to say, there were problems. When devices were decommissioned, IP addresses weren’t being freed up, and the network would run out of available addresses and have to spend money on additional registered IPv4 lists, or expand out into more of the private IP space, which impeded management and put a burden on routers and firewalls. The management tool took a full day to push records out, and the Windows part of the environment didn’t play well with the Solaris part.

“ Without IP addressing from the DHCP service of Infoblox, not only can my employees not access the Internet or the network to do their jobs but my customers would be unable to test drive products they’re purchasing. The great infrastructure Infoblox has given us makes that possible.”

Director of Global Network Services

"We needed to clean all of that up and put it in a more centralized, smaller environment that was easier to maintain and manage," says the company's Director of Global Network Services.

THE SOLUTION

A Centralized Solution with Stronger Failover Plan

The IT organization had a bake off and looked at everything from commodity servers, like the ones that were already running in its data centers, to a solution from one of Infoblox's main competitors. In the end, the decision came down to what the product could deliver and what the total cost of ownership would be.

Infoblox was the clear choice. "Infoblox isn't just focused on DNS and DHCP," the Director says. "They're always looking for the next thing to plug into the tool and centralize more and more into their boxes."

The company deployed Infoblox appliances in high-availability pairs in five data centers—two in the United States, two in Europe, and one in Asia—and then concentrated its DNS and DHCP services on them. Since all these appliances are members of the same Infoblox Grid, the IT team was able to implement geo-load balancing using Anycast technology. They also have failover capabilities, so that if all of Europe were to go down, the load would be automatically transferred to the United States or Asia.

THE RESULTS

Speed, Convenience, Less Maintenance, and Lower Cost

Global load balancing and disaster recovery are dramatic benefits, but they aren't the only ones the company has realized. With a single Grid Master as the brains of the entire network, changes and upgrades can be pushed out from a single source to the entire grid, ensuring consistency and eliminating the effort required to make the changes site by site. Furthermore, distribution can be scheduled to occur automatically during maintenance windows at the individual sites.

DNS is now dynamic, so DNS updates are replicated globally within a matter of seconds. Whereas on the old system, it took 30 to 40 different machines to manage DNS and DHCP, it now requires only 10 devices and one interface. That means speed, convenience, less maintenance effort, and lower cost.

As for those problematic IP addresses, the NIOS DDI has brought them under control as well. "NetMRI has enabled us to automate the population of IP address management (IPAM) tables within our Infoblox systems, so we can manage, maintain, and update IP address information reliably," says the Network Services Director.

"Without IP addressing from the DHCP service of Infoblox," he says, "not only can my employees not access the Internet or network to do their jobs but my customers would be unable to test drive products they're purchasing. We're really looking to give them an at-home feel when they're testing the product in our store, so when they take it home, it works exactly like they expect it to. The great infrastructure Infoblox has given us makes that possible."

Customer: Major U.S. Retailer
Industry: Retail
Location: North America

OBJECTIVES:

- Replace confusing, multi-vendor mix of DHCP services
- Implement better support for managing IP addresses
- Centralize network operations for a global organization

RESULTS:

- Global load balancing
- Disaster recovery capabilities
- Grid upgrades from a single source
- Dynamic DNS updates in seconds
- Hardware reduction from 30 - 40 servers to 10 Infoblox appliances

PRODUCTS:

- NIOS DDI



Infoblox unites networking and security to deliver unmatched performance and protection. Trusted by Fortune 100 companies and emerging innovators, we provide real-time visibility and control over who and what connects to your network, so your organization runs faster and stops threats earlier.

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