Adobe Systems Takes Its Networking to the Next Level

The Customer
Adobe Systems Incorporated is the global leader in digital marketing and digital media solutions. Adobe tools and services give its customers everything they need to design and deliver exceptional digital experiences.

The Challenge
Deploy a system for managing DNS, DHCP, and IP addresses that would keep Adobe’s hundreds of business-critical Internet domains available to its customers, while simultaneously ensuring a highly available and secure DDI infrastructure.

The Results
- Reliability
- Productivity gains
- Highly available, reliable, and resilient core network services
- A trusted partner to help Adobe keep its mission-critical network services running

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Founded in 1982 and headquartered in San Jose, California, Adobe Systems Incorporated is changing the world through digital experiences. Adobe is the original developer of the PostScript page description language and the Portable Document Format (PDF). The company develops multimedia and creativity software and rich Internet software products and delivers cloud services such as Adobe Creative Cloud, Adobe Document Cloud, and Adobe Experience Cloud.
Adobe has more than 1,100 external domains, and many of them are key to the business—so efficient management of DNS, DHCP, and IP addresses is crucial to both the company’s reputation and its success. However, when Brent Hetherwick joined Adobe as technical lead for DNS, DHCP, and IP address management (DDI), the company was running a legacy system that caused a patching-related outage that took 24 hours to resolve. That outage was not isolated. According to Hetherwick, the product was incredibly inconsistent. “I was called in the middle of the night almost every week,” he says. It was clear that the legacy system had to be replaced with a more reliable solution.

“A Very, Very Solid Platform”

Adobe chose Infoblox and its next-level networking capabilities. The solution not only brings next level reliability to the company’s DDI services, it also elevates security, automation and overall network efficiency.

Hetherwick had used Infoblox at another employer, and over his first year at Adobe, he designed a new and far superior infrastructure based on the market-leading Infoblox DDI solution. Infoblox DDI features a patented Infoblox Grid™ architecture, central management, a shared data repository, and integrated software for the three core network services that make up DDI—all features that directly address the problems the legacy solution was causing. “Infoblox has given us a very, very solid platform,” says Simran Sandhu, Adobe manager of global infrastructure. “It works very reliably with little maintenance. And when there have been issues, the response from Infoblox support teams has been very positive.”

Adobe is also able to apply its legendary innovation in its use of other Infoblox solutions. For example, with Infoblox Network Insight, Adobe can aggregate network infrastructure data with core network service configurations into one comprehensive, authoritative database. Through Infoblox Reporting and Analytics the company is supporting an internal marketing campaign educating stakeholders on services the group offers. Adobe is also able to improve compliance using the Infoblox Grid. “DNS is part of the overall compliance scope,” says Sandhu, “and we use the Infoblox Grid as the authoritative clocking source for all of our devices.”

Elevating Adobe’s Network Security

Adobe is also enlisting a variety of Infoblox solutions to bring network security to the next level. The company is currently running Infoblox DNS Firewall, which detects and blocks malware communications to bad domains. The product has already cast light on some nasty bugs that have slipped by Adobe’s other monitoring products. Sandhu says, “It is clear that the Infoblox security solution could make DNS a contributor to Adobe’s overall security network.” In addition, by deploying Infoblox hardened appliances running Advanced DNS Protection, Adobe is able to defend against the broadest range of DNS-based attacks, including floods, reflection/amplification, NXDOMAIN, DNS hijacking, and others.

The company has been able to improve its security posture further still through Infoblox Network Insight and the enhanced visibility it provides. “Network Insight has been very useful to us in discovering multiple networks,” adds Hetherwick. “It also gives us a certain amount of perspective when it comes to security. When I get questions from security about what is known about an IP address, I can go and look it up and see what DHCP host identification information is registered and what network infrastructure information is revealed by the discovery agent.”

Adobe also has an Amazon Web Services workload, and plans to evaluate the new Infoblox DDI for AWS integration, which increases agility and reduces expense in AWS deployments.
Enterprise-grade Networking and Security Solutions

Infoblox offers an extensive portfolio of Technical Training to help its customers get the optimal advantage from their Infoblox solutions, and Adobe has taken full advantage of it. In all, ten people from Adobe have taken the Technical Training courses with Infoblox, ranging from the NIOS Configuration Class to the Advanced Administration Class. “The Infoblox training classes give my team the necessary skills and fundamentals needed to effectively manage our DDI infrastructure,” says Sandhu. “But more than that, because the courses are taught by former field engineers, they learn real techniques and strategies from experienced Infoblox experts—this has proven to be invaluable.”

A Trusted Partner, Better Customer Experience and Measurable Results

When asked about measurable results, the first thing Sandhu mentions is how much Infoblox has relieved the burden on his staff. The entire Adobe global footprint is supported by 1.5 FTE, Brent. “He is devoted 100 percent of the time to this service,” says Sandhu. “And then I have another engineer in Bucharest who spends close to 50 percent of his time supporting the DDI environment, and the other time is spent on other network tasks. It has also given our service desk the ability to assign static IP addresses, and various teams have rights that are assigned by Brent, so they can go ahead and take certain appropriate actions such as updating their host records. We definitely have seen productivity gains from that.”

After over four years on the Infoblox gear, both Hetherwick and Sandhu see the company more as a strategic partner than as a vendor. Performance, security, and visibility are key initiatives with Adobe’s executive leadership, so the network team is continuing to extend its use of reporting, discovery, and security capabilities available with the latest Infoblox products. “We have a very high degree of confidence in our Infoblox DNS services,” Sandhu concludes.