

CASE STUDY

# EvergreenHealth enhances network performance using Infoblox's subscription-based Grid™ technology



## THE CUSTOMER

EvergreenHealth is an integrated healthcare system offering a breadth of services and programs that is among the most comprehensive in the Pacific Northwest region.

With its main campus located in Kirkland, Washington, EvergreenHealth maintains two hospitals: a 318-bed headquarters medical center and a second 72-bed hospital in Monroe, Washington, with additional facilities in communities across King and Snohomish counties.

EvergreenHealth's reputation for quality of care is set apart by the personal touch provided by its more than 4,500 employees, including nearly 1,100 physician partners and more than 500 volunteers. EvergreenHealth has been repeatedly recognized for excellence, having been rated by Healthgrades as one of America's 100 Best Hospitals for four years, 2017 to 2020, and by The Leapfrog Group as a 2019 Top General Hospital. In recent years, Shawn Shiroma, network architect at EvergreenHealth, has managed its network infrastructure and operations.

## THE CHALLENGE

### Enhancing network performance

EvergreenHealth had relied for many years on Microsoft servers as a key element in its network architecture supporting DNS, DHCP and IPAM services (collectively known as DDI). With e-health initiatives proliferating in recent years, the growth of IoT devices across its many facilities and surging demand for bandwidth driven by emerging technologies like digital imaging, the organization's network came under increasing strain that threatened to negatively affect systems performance. Compounding this strain was a lack

**“** A main advantage of the Infoblox subscription model is that it allows us, if our environment changes, to quickly change or upgrade appliances or other elements in the Grid. Because we're not locked into a static installation of purchased assets, we don't need to guess or estimate our growth or needs five years down the road—we can completely avoid the usual upgrade cycle.”

**Shawn Shiroma,**  
Network Architect, EvergreenHealth

of visibility into exactly what kind of assets, devices, endpoints and systems were running on EvergreenHealth's network. For instance, the networking team knew it had an instance of the Cisco Identity Services Engine (ISE) identity and access control policy platform running on its network but had little visibility into the resources this system was consuming.

The organization's IT team is charged with implementing and maintaining technologies and systems to support a culture and environment that enables all employees and healthcare providers to perform at their best every day. As described by Shawn Shiroma, network architect at EvergreenHealth, "Our charter is to provide reliable, secure, high-bandwidth connectivity that just works—like electricity or a utility, it needs to be available on demand."

Shiroma and the EvergreenHealth IT team began investigating new DDI solutions that could handle their current challenges and ensure better performance well into the future. The outbreak of the COVID-19 virus in Kirkland and the wider Seattle metro area in early 2020 considerably increased the team's urgency to resolve the networking issues as soon as possible.

In planning their approach, Shiroma and team set a number of priorities. "Upgrading to enterprise-grade IPAM and DHCP, with more robust external DNS capabilities were top of list," said Shiroma. Because improved visibility and control were also important, having a "single pane of glass" management console with role-based access control was also deemed essential. "We needed to be able to perform a comprehensive network asset inventory," explained Shiroma. "With all the medical systems, network switches, IoT devices and operations systems we have on the network, clear visibility was a must-have."

Beyond improved visibility and manageability, EvergreenHealth also required the DDI system to ensure continuous uptime and include more advanced reporting capabilities to meet the health industry's strict and complex compliance requirements. "It was important also that we be able to host and manage external DNS onsite," added Shiroma.

## Optimized networking to power more effective Health Care

The EvergreenHealth team implemented an Infoblox NIOS solution that dramatically improved the performance and capabilities of its core digital network. Infoblox NIOS makes it simple to deploy and easily manage versatile, secure and cost-effective DDI services. It also automates the error-prone and time-consuming manual tasks associated with managing DDI, so EvergreenHealth can now deploy applications faster and ensure continuous network availability and business uptime. Infoblox Grid, which establishes a distributed relationship between individual or paired appliances to remove single points of failure and other operational risks, is a key enabling technology in ensuring this manageability and reliability.

"A real plus for the team is that Infoblox NIOS provides a unified management experience for DDI services," explained Shiroma. "Now, through a single interface, we can manage all aspects of our network infrastructure and guarantee a consistent experience and level of service for all our users across our two major hospitals and multiple community locations across the region."

**Customer:** Evergreen Health  
**Industry:** Healthcare  
**Location:** Kirkland, Washington

### INITIATIVES:

- Upgrading to enterprise-grade IPAM and DHCP, with more robust external DNS
- Asset inventory capability, with visibility into network infrastructure and endpoints
- High availability

### OUTCOMES:

- Boosted network performance
- Increased visibility into network operations, endpoints
- Upgraded reporting capabilities that underpin predictive analytics to aid in planning for future resource needs
- Improved flexibility in enhancing core network capabilities through the Infoblox subscription model

### SOLUTIONS:

- Infoblox Subscription-Based Grid Technology

## Clear visibility and detailed reporting deliver actionable insight

Shiroma and the EvergreenHealth team considered solutions from several vendors before choosing ultimately to proceed with Infoblox, and advanced reporting capabilities was a key factor in the decision. “The Infoblox solution gives us clear visibility into our entire network—endpoints, performance statistics, potential issues—everything. For example, shortly after the Infoblox DHCP component was up and running, we saw that one of our monitoring devices had been taken offline. That level of visibility enabled us to rectify the situation right away.”

Infoblox’s advanced reporting capabilities make it possible to manage IPAM inventory and inactive IP addresses without manual spreadsheets or tools. It’s also easy to highlight discovered devices and interfaces and to automate tracking of DHCP lease histories and IPAMv4 usage statistics. As Shiroma noted, “The team can now easily monitor critical network DDI services data and use predictive analytics to plan for future resource needs. That’s something that really helps us add value to the organization’s planning process.”

## Increased flexibility with Infoblox’s subscription model

Shiroma emphasized that Infoblox’s subscription licensing model conveys many advantages to EvergreenHealth as well, pointing to its more linear cost structure and included support services. “A main advantage of the Infoblox subscription model is that it allows us, if our environment changes, to quickly change or upgrade appliances or other elements in the Grid. Because we’re not locked into a static installation of purchased assets, we don’t need to guess or estimate our growth or needs five years down the road—we can completely avoid the usual upgrade cycle.”

This increased flexibility in incorporating new technologies into its infrastructure will pay dividends for EvergreenHealth’s business operations as well. The process for new technology purchases or bringing new elements into the organization’s IT environment goes through an internal review board. Cost benefit analyses and security concerns are the key considerations in this process. Shiroma pointed out that because the Infoblox Grid and subscription model makes it easier to implement incremental upgrades, and precludes major “rip & replace” cycles, internal reviews are now happening much more quickly. “With Infoblox, it’s easier to identify any vulnerabilities or security issues that might arise with an upgrade, so decisions get made faster. The subscription model ensures that we always have the latest and greatest in place, which goes to the heart of delivering on our mission of reliable, secure connectivity for the entire organization.”

## For more information

To learn more about how you can improve your organization’s network reliability, simplify network management with a unified platform for your core network services and more, visit the [Infoblox website](#) or try [Infoblox for free](#) today.



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.

**Corporate Headquarters**  
2390 Mission College Blvd, Ste. 501  
Santa Clara, CA 95054

+1.408.986.4000  
[www.infoblox.com](http://www.infoblox.com)