



NetBrain Saves Hundreds of Work Hours for Major US Nonprofit Healthcare System

Quick Facts

US Nonprofit
Healthcare Provider

Locations Served:

29 Hospitals and over
350 Outpatient
Facilities

Network Devices:

1300

Employees Served:

50,000

NetBrain Use Cases:

Network Mapping,
Visualization, Change
Management, Path
Analysis



We needed a solution that would keep our (network) maps up to date - our environment changes pretty often. At the time, NetBrain was the best solution. ”

Network Engineer II
at a US Nonprofit
Healthcare Provider

About the Customer

This NetBrain customer is a US-based nonprofit healthcare system that's been using NetBrain since 2018. Their hybrid network is highly complex and uses multiple private clouds as well as Interactive Connectivity Establishment (a peer-to-peer application connectivity approach) throughout the network. Like all healthcare providers, they must maintain strict compliance with HIPAA and protect electronic protected health information.

The Challenge

This customer's first challenge was network mapping. They didn't have accurate Visio diagrams as many of their diagrams were dated, with few changes reflected in their docs. As they grew, they realized that they were missing this essential remedial asset which slowed down troubleshooting and network updates. Their environment changed often enough that the need for manually updated diagrams and device operating detail was constant. Each map took four to ten hours to build by hand (depending on the site in question), which quickly added up to a significant drain on their limited NetOps staff resources. Interpreting the maps and its ability to deliver IT services was also much more difficult than they needed. They wanted a way to highlight individual network layers on maps as needed, which was nearly impossible when conducted manually. This issue drove them to engage with NetBrain and its dynamic mapping technology.

Network change management was also a time-consuming, manual project for this customer due to the scope of their network. Updating system parameters and operating software for all of their 1300+ devices took close to 100 hours as engineers logged into each device individually, entered a few lines of commands, and logged back out. And with their peer-to-peer applications so prevalent across the entire infrastructure, each time an operating detail needed to be updated, it took a full week of work for a team of 4-5 engineers. They knew that all the time spent on this highly repetitive work could have been spent on other more strategic projects that would improve network operations effectiveness and the quality of patient care.

The Solution

After researching potential solutions, it became clear to this customer that the NetBrain platform stood out from the rest. It could be deployed quickly and then continuously auto-discover their entire multi-vendor hybrid infrastructure in real time to produce the documentation they needed to efficiently support their network.

The rollout went smoothly, and the built-in auto-discovery immediately created value due to the scale and complexity of their multi-vendor network. One engineer described their environment as a "sprawl situation" and joked that they had "as many servers as employees."

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Instead of four or five engineers spending a week working on this, we were able to have one engineer update 1300 devices in one day, correctly. ”

Network Engineer II at a US Nonprofit Healthcare Provider

Network discovery was a decent amount of work due to errant configuration problems, SNMP setup errors, duplicate wireless controllers and more, but NetBrain's guidance and support was "incredible" through it all. One engineer praised NetBrain's hands-on support and educational resources as "the best he has ever seen."

Use of NetBrain has grown steadily each year, as more network engineers begin to rely on NetBrain's digital twin technology to address more of their specific use cases. Today, more than 40 network engineers use it as part of their daily problem solving portfolio, with two power users responsible for keeping the NetBrain environment up to date. These power users act as advocates and as a center of excellence for other network engineers that wish to begin using it for their own daily task load.

The number of use cases have grown as well; the entire network team now uses the real-time bi-directional path function to troubleshoot connections throughout the network, assess Access Control Lists and allow PERMIT commands, verify traffic flow paths are performing as required, and many other tasks to help with service desk ticket troubleshooting. They also use NetBrain to conduct quarterly inventories of network devices, check that switches are updated with the latest firmware and security policies, and verify they have the correct licenses and devices under warranty. One of the most common features used by network engineers is NetBrain's comprehensive Search feature which enables them to physically locate devices throughout their sites based upon name, type, MAC or IP addresses.

The end result is this customer now uses NetBrain to scale their network operations workflows. NetBrain has been adopted for visualization, mapping, diagnostics troubleshooting, change management, path analysis/performance, configuration support, locating devices, inventory and much more.

More Than NetOps

Since NetBrain understands every nuance of the digital infrastructure and its applications, users outside of the traditional network operations team have begun utilizing it as well. This customer has a Security Operations Center made up of security and operations professionals who are not network engineers (so they are technical but have limited networking knowledge) but have a responsibility to defend and protect sensitive data which traverses the network. They've given this team collaborative and self-service level access to NetBrain, so they have the ability to look into the network, run diagnostics and even see the configurations on switches and routers without the risk of them accidentally causing problems. This speeds up their work and prevents them from having to pause to ask questions or escalate things to the networking team constantly while protecting the network from user errors. These users regularly use NetBrain to look up traffic paths, identify device locations, interface descriptions and connection points (often for security investigations).

The Summary

The initial problem that drove this customer to NetBrain has been solved decisively. Network maps can now be generated in minutes, rather than hours. One engineer and NetBrain power user estimated the NetOps team had saved at least 100 work hours on a recent mapping project of 25 sites by using NetBrain versus their old manual method.

Users also praised NetBrain's Change Management feature, which they use regularly. In one project, a single engineer updated their operating systems on all of their devices (over 1300) in a single day, something that previously would have required a mind-numbing process of logging into each device manually.

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We use the Search feature quite a bit, we're able to search and find MAC addresses, IPs, and find where that device is in the network. That's a pretty handy feature we use quite a bit. ”

Network Engineer II at a US Nonprofit Healthcare Provider

Other projects like sending missing ICE updates out to all devices and regularly updating SNMP community strings were also incredibly expedited thanks to NetBrain. Doing them manually would take a team of 4-5 engineers a week of work, but with NetBrain a single engineer did it in less than a day.

In its first year, this customer carried out four major network updates with NetBrain saving at least 100 work hours for each of them in addition to time saved on daily routine tasks like path troubleshooting, inventory and looking up MAC addresses.

What the Future Holds

This customer is extremely pleased with how NetBrain has streamlined many of their regular pain points and how many other use cases for it emerged over time. They are planning for the expanded use of NetBrain to more deeply leverage its no-code network automation capabilities, based upon its Network Intent technology. They've also already identified many other IT tasks that NetBrain could automate or streamline that require more internal education and operational strategy discussions among IT teams and executive leadership. In short, there is a great deal of potential for NetBrain to continue adding value to their IT organizations in the years to come.

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The resources and support from NetBrain are incredible. Their education is best in breed. ”

Network Engineer II at a US Nonprofit Healthcare Provider

About NetBrain Technologies

Founded in 2004, NetBrain is the market leader for NetOps automation, providing network operators and engineers with dynamic visibility across their hybrid networks and low-code/no-code automation for key tasks across IT workflows. Today, more than 2,500 of the world's largest enterprises and managed service providers use NetBrain to automate network problem diagnosis, generate real-time documentation, accelerate troubleshooting, and enforce enterprise architectural rules.