

Utilizing NetBrain in a Heavily Governed Industry

In mid–July we caught up with a NOC analyst for one of our clients, a large American

Aerospace and National Security Contractor to hear his, and the companies NetBrain story.

To know the foundations of their NetBrain story is to know their network. The enterprise today consists of 45 sites which are the result of a lot of growth, acquisition, and change. This has led to a broad, 1,500+ device network spanning multiple vendors and multiple, inconsistent processes that create big challenges in a heavily audited industry.

The need for compliance documentation was a big driver for the initial adoption of NetBrain. The team needs to provide accurate documentation of the network while reducing the huge amounts of labour and human error that come with performing the job manually. NetBrain provided a much faster and more accurate way to document the network and helped with both the auditing and in getting the certifications valued so highly within the industry.

The Natural Progression to Troubleshooting

After benefiting from discovery and documentation of the network, the team decided to use NetBrain's troubleshooting and data gathering capabilities. The NOC analyst, like many of his colleagues, has a background outside of the network engineering. One of the big challenges



Often, we'll see a device that's vulnerable and we want to quickly figure out how many other devices we have in that environment, or, that are running on the same version of IOS. We have to quickly understand the scope of a problem [or threat]. That's when we depend on NetBrain."

in troubleshooting the network is gathering information via CLI, a skill that many outside of network engineering don't possess.

Fortunately, NetBrain overcomes this lack of knowledge with automation, allowing a much broader team to run basic troubleshooting on the network. For our NOC analysts and the wider engineering team, NetBrain has turned data gathering within the network into a strength rather than a weakness, making it faster and more accurate. Our guest shares several examples of NetBrain in use.

"Often, we'll see a device that's vulnerable and we want to quickly figure out how many other devices we have in that environment, or, that are running on the same version of IOS. We have to quickly understand the scope of a problem [or threat]. That's when we depend on NetBrain."

The requests come from other members of the team too;

"I'll get requests from the team – do we have any ports configured on VLAN? Without NetBrain, in order to accurately determine this, you would potentially need to log into 350+ switches, maybe more. With NetBrain, we can provide a report that shows them what ports are in the environment and how they're configured."

With NetBrain this became a simple data pull on all switches in one swoop. A final example explains a recent situation where it would have been very difficult to recover if they hadn't had configurations backed up in NetBrain.

"We had a router on a remote sight and they [the engineering team] wanted to temporarily put a work around in by using a switch to do the routing whilst they ordered the new equipment. They hopped into NetBrain grabbed all interface configurations, routing configurations, [and] got it into the core switch and [we were] on our way. If those configurations weren't backed up anywhere, the time it would have taken to do the reconfiguration would be triple – quadruple potentially."

As well as getting to the root cause of incidents faster, the team has found similar value in proving that it's not always the network at fault. Whenever something isn't working correctly, everyone blames the network because it's the foundation on which everything else works. With NetBrain, they've been able to rule out the network much earlier in the troubleshooting process. Before, they spent a lot of time defending the network and now they can clearly show the root cause doesn't lie with them.

Assisting with Cloud Initiatives

Shortly after the organisation adopted NetBrain, they began their cloud journey with Microsoft Azure and AWS. They now have remote sites and remote data centres that NetBrain is helping to document in their early stages. While still early in their journey, it's good to know that NetBrain is assisting in Day-1 operations and is ready to support Day-2 when it arrives.

Ramping Up

Our NOC analyst has a very clear plan to optimise the organisation's application of NetBrain, starting with training the wider IT teams so they can use NetBrain themselves. With the Cyber team and Service Desk identified for training, this will lower their dependency on network engineering to provide the information they need, allowing them to go straight to the network when necessary and making them more efficient with less troubleshooting idle time.

"Automation is a big part of the industry and they [the wider IT team] all know it. For an environment this big it [automation] is a necessity".



The further development of NetBrain Executable Runbooks is also in their plans, which will take their troubleshooting automation one step further. And since they are migrating their ticketing system to ServiceNow, there is an obvious need to integrate that tool with NetBrain. This will deliver troubleshooting efficiency gains as they look to trigger the incident response process with the ticketing system and help populate the CMDB with the most current and accurate network data.

We look forward to being a part of this company's journey as they continue to move from strength to strength with NetBrain's support.

About NetBrain

Founded in 2004, NetBrain is the market leader for network automation. The NetBrain platform automates the resolution of every network incident, helping NetOps teams resolve 100s or 1,000s of tickets daily. Today, more than 2,400 of the world's largest enterprises and managed services providers use NetBrain to automate network troubleshooting, accelerate change management and documentation, and strengthen network security — all while integrating with a rich ecosystem of network management tools. NetBrain is headquartered in Burlington, Massachusetts, with offices in Sacramento, California; Munich, Germany; London, the United Kingdom; Toronto, Canada and Beijing, China.