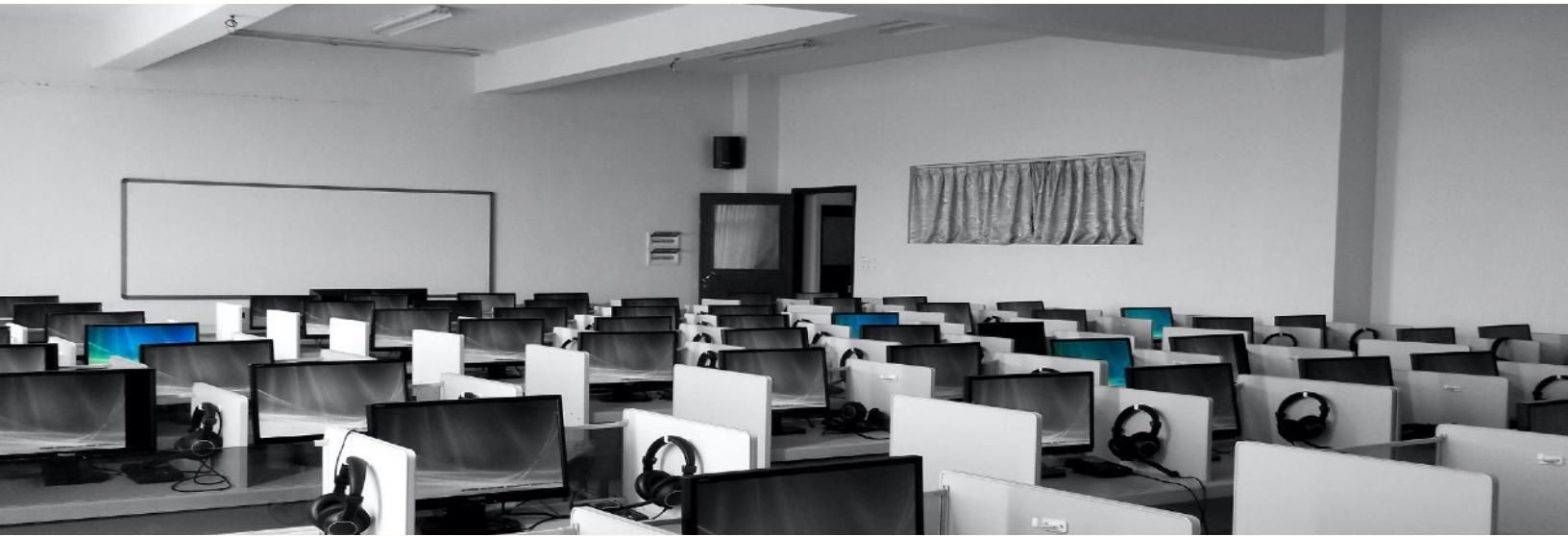

NetBeez helps insurance firm address root causes of VoIP performance issues



At a Glance

Customer: A nationwide supplemental insurance firm

Industry: Insurance and Financial Services

Challenge: The company has a software-defined network based on VMware NSX technology. Almost all servers and applications run in a virtual environment. Identifying and verifying technical issues in such a large virtual network is daunting, and traditional network monitoring tools are of little help.

Solution: NetBeez network monitoring platform with virtual agents.

NetBeez is a distributed network monitoring solution that observes the network from the end user perspective. Other monitoring tools typically stop short of understanding what an end user is seeing or experiencing, especially in remote or branch locations. NetBeez fills this gap with the ability to proactively monitor wired, wireless and virtual networks.

Results:

- Reduced the time to resolution of software-defined network issues that were difficult to pinpoint
- Identified root causes of vexing problems such as intermittent dropped VoIP connections
- Increased the overall effectiveness and business value of the company network

Background

This company is a nationwide provider of supplemental insurance and annuity services. It has underwritten more than 2.5 million policies for 1.5 million policyholders across 49 states. Millions of Americans rely on this firm for financial security.

The company operates a software-defined network built on a VMware NSX platform. The network incorporates two data centers and major offices in the south central US, and several dozen smaller branch offices across the country. The network is micro-segmented with firewalls for security, and almost all the servers and applications are virtualized. It all adds up to a fairly complex network where traditional monitoring tools are of little help.



Their SD-WAN Challenges

- **Get better visibility into a more complex and dynamic virtual network**
- **Quickly validate or rule out root causes of network issues**

“The software-defined network can be very complicated and troubleshooting problems when it doesn’t work as expected can be complicated as well,” according to Ryan, manager of the Network and Identity Management team. “There are certain things that we could easily test on a traditional network with physical switches, routers and firewalls, but with our environment being almost totally virtual, we need to be able to test things virtually.”

He cites problems within segments of their virtual network, from drops due to software bugs or other issues they couldn’t resolve with the tools they had. “We couldn’t isolate it down to figure out exactly what the problem was, especially if the issue wasn’t consistent. Sometimes proving a cause is difficult. We’d get a report that something lost communication, and we’d see an entry in the logs that might indicate it was a network issue, but we couldn’t really prove it.”

Ryan recalls having issues with their Skype for Business environment. “We operate customer call centers, so Skype is a critical application for us,” he says. “We would see occasional drops and didn’t know if it was related to the network or something else. It was a frustrating situation that affected our customers.

The Solution was Easy to Deploy

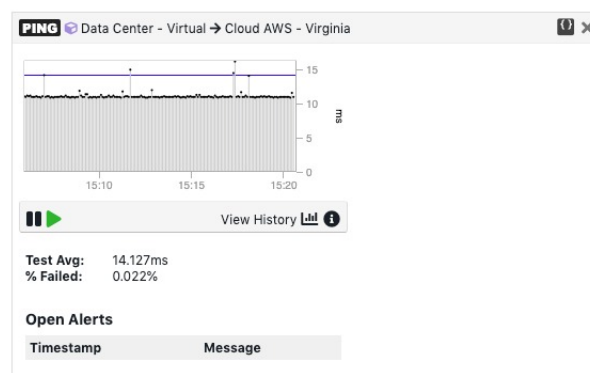
- **Enhanced visibility with NetBeez monitoring with virtual agents**

Ryan says it’s possible to spin up a VM and put diagnostic tools on it to gather data, but that’s a time-consuming approach. “We have SolarWinds and a few other tools, but nothing that really did exactly what we were looking to troubleshoot our software-defined networks. Then we came across NetBeez at a couple of trade shows and we gave it a trial. It was an easy process to stand up and test it and it works really well.”

NetBeez is the perfect tool for the company’s virtual environment. “We put the NetBeez virtual agent on, say, a cluster where we’re seeing some problems. We can easily VMotion that agent from one host to another to see if those problems duplicate. We have found that a lot of times the software-defined networking problems are tied to a host that could be causing the issue. Maybe the host has some kind of network routing issue, or it just gets complicated because there’s a lot of redirection that’s involved, like with the micro-segmentation and firewall rules. If any of that is broken or having a problem, we can see it with NetBeez.”

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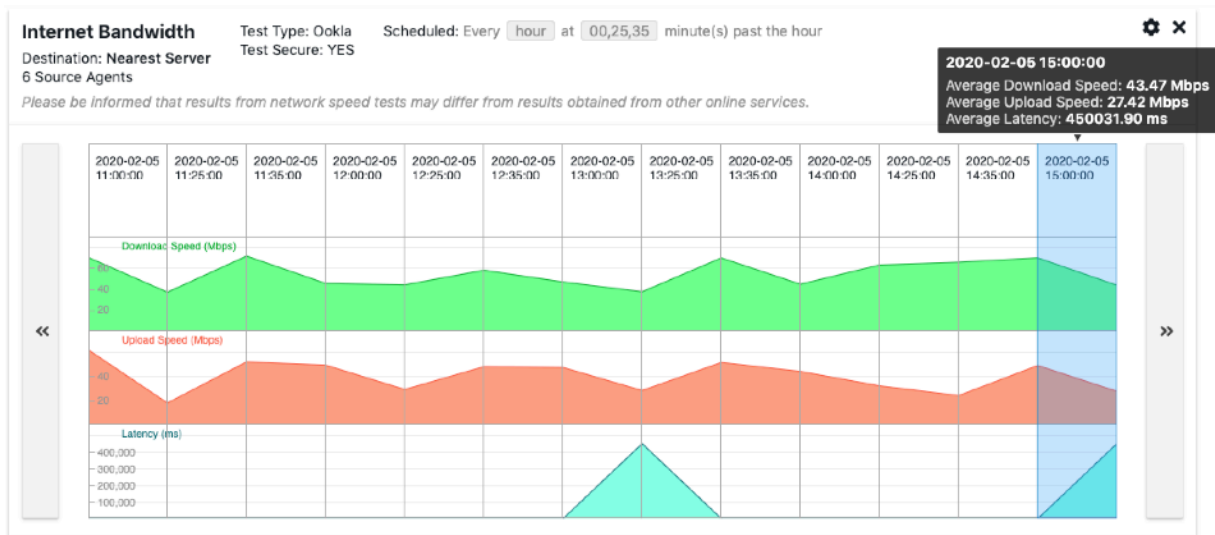
DESTINATION	PING	DNS	HTTP	TRA...
ERP Application (ERP Applica...	■	■	■	■
Performance Tests (Cloud A...	■ ✓	■	■	■
Performance Tests (HQ Rout...	■	■	■	■
Performance Tests (Internet ...	■	■	■	■
End-User Experience (Googl...	■	■	■	■
End-User Experience (YouTu...	■	■	■	■



Ryan describes how they diagnosed the Skype dropped calls issue. “We put a NetBeez agent in a segment that is our external DMZ with a public IP address. We could easily just put the agent out there to be able to directly test from that network. This helped us rule out the firewall and anything network related because we could see the network was functioning just fine when the occasional drops were occurring. The problem had to be something else, and it turned out to be a Windows patch on the Skype server. NetBeez helped us get down to the problem a lot quicker versus setting up manual tests.”

Deploying the NetBeez agents is easy—it’s simply an OVA file with VMware. “We can just drop that in,” says Ryan, “and then there’s just a little bit of setup, like giving it an IP address and telling it where the management server is. It’s a much quicker process than having to stand up a brand-new virtual server, putting patches on it and doing all that ‘fun’ stuff.”

“The main benefit is our time to resolution of issues on our virtual network,”
says Ryan.

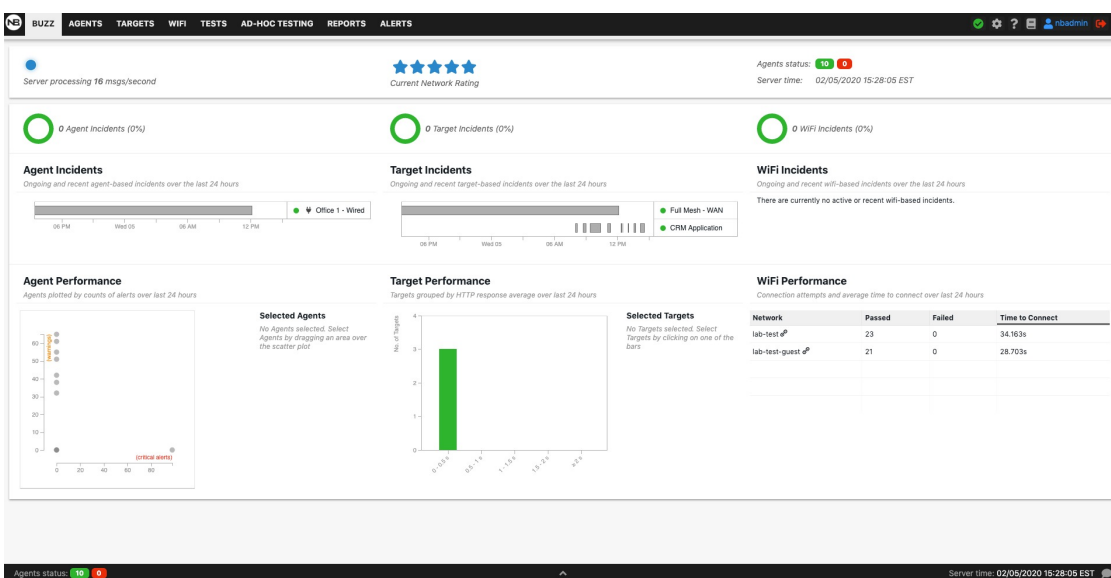


Benefits Included Faster Time to Resolution and Enhanced Root Cause Analysis

- **Faster time to resolution of issues in the virtual environment**
- **Ability to accurately verify or rule out root causes of the issues**
- **Ability to head off problems before they affect end users and customers**

“The main benefit is our time to resolution of issues on our virtual network,” says Ryan. “We are getting problems resolved faster because we have the ability to quickly identify the underlying issues. For example, we have had some software-defined network issues that only occur between our two data centers. Something might be working fine in our primary data center but then our disaster recovery site has an issue with syncing to the primary site. Now we have NetBeez running continuous tests from that site. If we see those issues, we can address it before it becomes a problem that affects our colleagues and our customers.”

Ryan can't say enough about how helpful the virtual agents are. “We're a total VMware deployment, so the virtual agents are just great. It's super easy to deploy them and move them around as needed. We even deployed one in our Azure environment, too.”



Future Plans

The company has primarily focused on putting the NetBeez virtual agents to work across the VMware NSX environment. Future plans include exploring use of the WiFi capabilities, especially for ad hoc issues. “The Raspberry Pi agent is very mobile and very easy to setup and use,” says Ryan. “We plan to explore sending it out to our field locations, or maybe even to employees’ homes if someone has an issue there. Our WiFi monitors today are in custom enclosures in the ceiling grid, so they aren’t portable at all. The NetBeez wireless agents can simply be sent out and plugged in to allow us to do some testing.” He says the wired agents would be useful in remote sites too.

NetBeez is a Valuable Addition

“NetBeez has been an invaluable addition to our toolbox,” says Ryan. “It’s very affordable and allows us to run tests and gain visibility on segments of our network that used to be opaque. Even being able to rule out potential causes of issues is so valuable in terms of saving time and finding root causes much more quickly. This is so important in a sophisticated software-defined network where virtual testing is a must.”

About NetBeez

NetBeez, Inc. is a network performance monitoring company delivering a scalable monitoring solution that continuously simulates user connectivity on Ethernet and WiFi networks. Dedicated hardware sensors or software agents simulate end users and enable proactive identification and troubleshooting of complex network issues, helping to significantly reduce IT’s time to resolution. For more information, visit <https://netbeez.net> or follow us on Twitter at [@NetBeez](https://twitter.com/NetBeez).

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**Detect Network Problems
Before Users Do.**

Request A Demo

