

NetBeez Integrated Service Monitoring on Cisco Catalyst



The NetBeez App Hosting integration to Cisco Catalyst 9000 Series switches embeds “NetBeez’ network performance monitoring” into the leading network infrastructure for wired and WiFi campus environments giving network engineering teams full capabilities to proactively monitor and troubleshoot issues, reducing disruption to the end-user.

Introduction

Starting with Cisco IOS-XE version 16.12.1, Cisco users can install the NetBeez Docker agent on Cisco Catalyst 9000 Series switches. This new integration is part of the [Cisco application hosting](#) framework, which enables third-party, off-the-shelf applications to run on top of Cisco devices. As you’ll read in the next paragraphs, NetBeez and Cisco users will have much to gain from this integration, such as:

- Easy deployment and maintenance of NetBeez agents
- Ability to rapidly scale their reach to large WANs
- Integrated Service Level (SLA) Monitoring within Catalyst 9000



WAN Monitoring with NetBeez

NetBeez is a distributed network monitoring solution that enables network engineering teams to monitor remote Wide Area Network locations via dedicated hardware or software agents, called Beez. The Beez run active monitoring tests, such as ping, traceroute, and iperf, as well as DNS and HTTP checks against web and cloud applications. Like a canary in a coal mine, the Beez proactively detect remote performance issues that impact end-users and business operations. The performance data logged by the Beez is sent, in real-time, to the NetBeez central server, where it's processed for alerting, displayed on the user dashboard, or consumed by third-party applications via the available APIs.

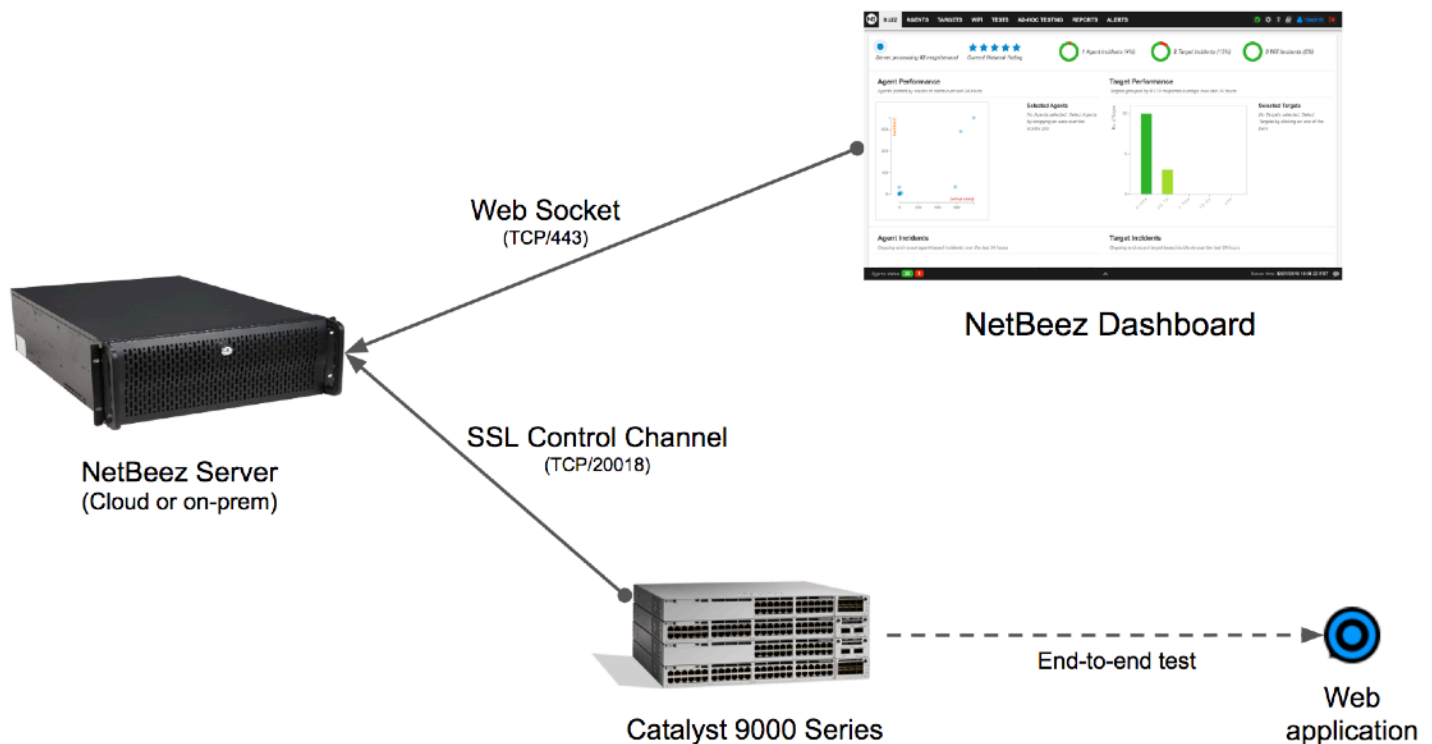


FIGURE 1 - NetBeez architecture and components: the user dashboard, the central server, and the remote monitoring agents running on top of Catalyst 9000 Series switches.

Traditionally, the Beez run on top of a NetBeez-programmed Raspberry Pi that is plugged into an access switch at remote WAN sites. In the past, companies that needed to monitor large WANs required a considerable investment of time and resources to ship and deploy the hardware appliances to remote locations. The Cisco App Hosting removes this “physical barrier” involved in the deployment and maintenance process of the Beez. Catalyst owners can now easily install the NetBeez Docker agent via the Cisco CLI on their switches. **With the Cisco App Hosting integration, the Catalyst 9000 is capable of hosting NetBeez agents and can run network performance tests remotely, from the user perspective.**

Configuring Catalyst for App Hosting

Configuring a Catalyst 9000 Series switch to host a NetBeez Docker agent is fairly simple. Before you begin, make sure you meet the following requirements:

- A Cisco Catalyst 9000 switch with IOS-XE version 16.12.1 or later releases
- A USB SSD-120G for Catalyst 9000 Series switches
- A NetBeez server running version 2.0 or later releases
- The NetBeez Docker agent v2.0.5 or later releases

If you are new to NetBeez, you can contact your reseller or email sales@netbeez.net to request a new server. The NetBeez Docker agent can be downloaded for free on the [NetBeez Docker Hub page](#).

Once you have all the required components to enable the integration, follow the step-by-step procedure as outlined in the documentation article '[Running NetBeez on Cisco Catalyst 9000 Switches](#)'. The procedure will have you:

1. Create a user VLAN that will be used by the NetBeez Docker agent as uplink,
2. Map the user VLAN to one of the switch's access or trunk ports,
3. Create an AppGigabitEthernet interface that serves as an internal bridge between the eth0 interface on the NetBeez agent and the user VLAN mentioned in step 1,
4. Define configuration parameters needed by the NetBeez Docker agent to connect to the server.

The following diagram illustrates how these different components relate to each other:

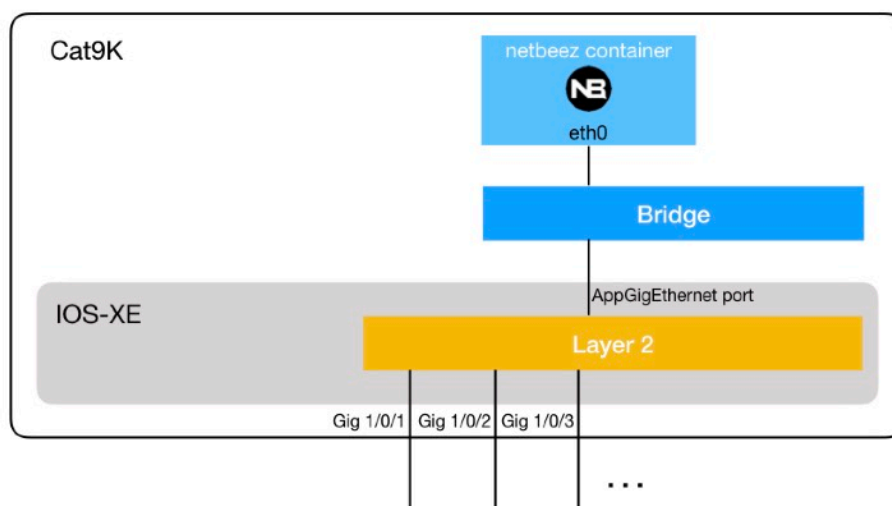


FIGURE 2 - Diagram representing the internal components that need to be configured to enable the NetBeez Cisco integration.

Scaling NetBeez Deployment with Cisco DNA

Cisco DNA Center facilitates the deployment and maintenance of NetBeez agents at scale. The procedure that we have presented in the previous page is applied to individual Cat9k switches via the command line. The problem with the command line interface is that it doesn't scale; you'd have to perform this procedure on as many switches you plan to install a NetBeez agent.

Version 1.3.1.0 of Cisco DNA (Sep. 25, 2019), includes an update to App Hosting that supports new Docker-based applications, such as NetBeez's network monitoring agents. With Cisco DNA, you can now push apps to multiple switches at the same time without having to apply the configuration manually. The deployment procedure is very simple. From the Cisco DNA user interface, you'll go to the Provision section, then select Services, then App Hosting. From the App Hosting home page, you'll find a "New Application" link that will allow you to upload the NetBeez tar file that you have downloaded from Docker Hub.

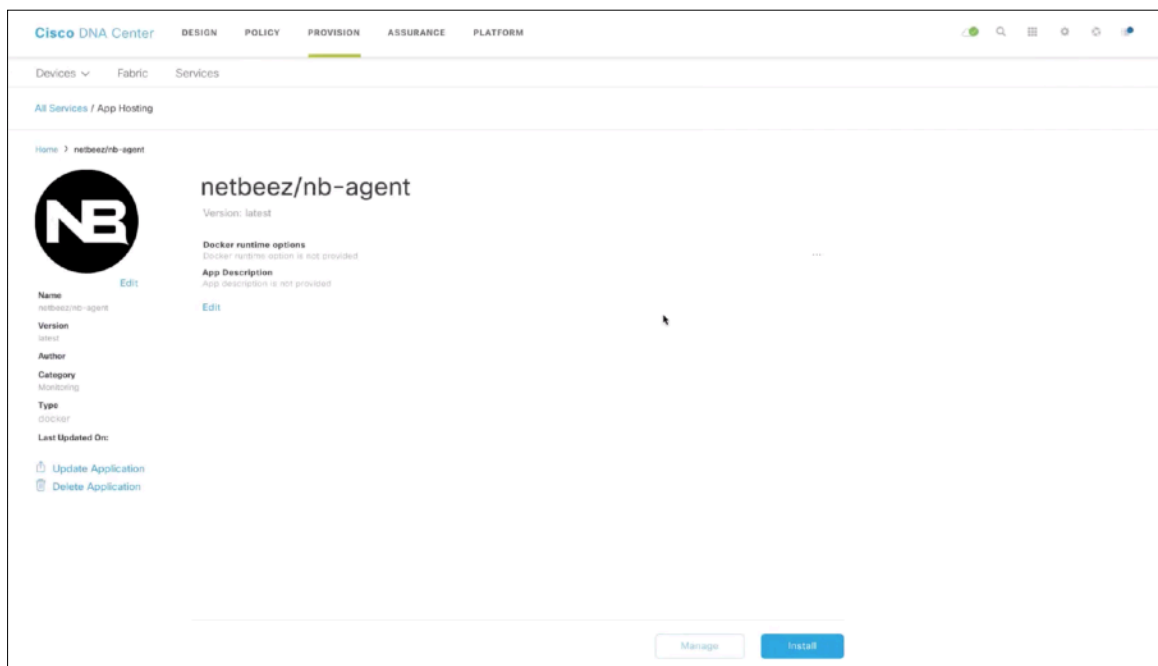


FIGURE 3 - The NetBeez Docker archive is uploaded on Cisco DNA Center and pushed to any Cisco Catalyst series switch that supports App Hosting.

Follow the step-by-step procedure to install NetBeez agents with Cisco DNA Center.

Detect Network Problems Before Users Do.

Request A Demo



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://www.netbeez.net> or follow us on Twitter at [@NetBeez](https://twitter.com/NetBeez). NetBeez is a Cisco Preferred Partner since 2017.

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