Monitoring NGINX: Open Source and Plus

NGINX: Open Source and Plus PowerPack Beta version 100

Table of Contents

Introduction 3
What is NGINX? 3
What Does the NGINX: Open Source and Plus PowerPack Monitor? 4
Installing the NGINX: Open Source and Plus PowerPack 4
Configuration and Discovery 6
Prerequisites for Monitoring NGINX Services 6
Creating a SOAP/XML Credential for NGINX 7
Discovering NGINX Component Devices 8
Verifying Discovery and Dynamic Application Alignment 10
Viewing NGINX Component Devices 12
Dashboards 14
Device Dashboards 14
NGINX Webserver Dashboard 15
NGINX Peer Dashboard 16

Chapter 1

Introduction

Overview

This manual describes how to monitor NGINX services in SL1 using the *NGINX: Open Source and Plus* PowerPack.

The following sections provide an overview of NGINX services and the *NGINX: Open Source and Plus* PowerPack:

What is NGINX? 3

What Does the NGINX: Open Source and Plus PowerPack Monitor? 4

Installing the NGINX: Open Source and Plus PowerPack 4

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What is NGINX?

NGINX is a free, open source, high-performance web server that can be used as a reverse proxy, load balancer, mail proxy, and HTTP cache. Both Open Source Software (OSS) NGINX and NGINX Plus are supported by the *NGINX: Open Source and Plus* PowerPack.

What Does the NGINX: Open Source and Plus PowerPack Monitor?

To monitor NGINX web devices using SL1, you must install the *NGINX: Open Source and Plus* PowerPack. This PowerPack lets you discover, model, and collect data about NGINX web services.

The *NGINX: Open Source and Plus* PowerPack includes:

- Dynamic Applications to discover, model, and monitor performance metrics and collect configuration data for NGINX services
- Device Classes for each of the NGINX services SL1 monitors
- A sample Credential for discovering NGINX services
- Device dashboards that display information about NGINX services

NOTE: Support is provided to monitor the status module for the NGINX Open Source Software (OSS) free version. The status module must be enabled on your NGINX server. For more information, see "Prerequisites for Monitoring NGINX Services" on page 6.

Installing the NGINX: Open Source and Plus PowerPack

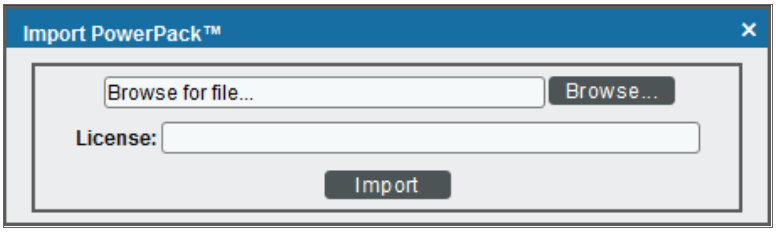
Before completing the steps in this manual, you must import and install the latest version of the *NGINX: Open Source and Plus* PowerPack.

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of that PowerPack that has already been installed on the target system. You can use the ***Enable Selective PowerPack Field Protection*** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the ***System Administration*** manual.)

To download and install a PowerPack:

1. Download the PowerPack from the ScienceLogic Customer Portal.
2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*.

4. The **Import PowerPack** dialog box appears:



5. Click the **[Browse]** button and navigate to the PowerPack file.
6. When the **PowerPack Installer** modal page appears, click the **[Install]** button to install the PowerPack.

> **NOTE:** If you exit the **PowerPack Installer** modal page without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPack Manager** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal page. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Chapter 2

Configuration and Discovery

Overview

The following sections describe how to configure and discover NGINX services for monitoring by SL1 using the *NGINX: Open Source and Plus* PowerPack:

Prerequisites for Monitoring NGINX Services 6
Creating a SOAP/XML Credential for NGINX 7
Discovering NGINX Component Devices 8
Verifying Discovery and Dynamic Application Alignment 10
Viewing NGINX Component Devices 12

Prerequisites for Monitoring NGINX Services

To configure the SL1 system to monitor NGINX services using the *NGINX: Open Source and Plus* PowerPack, note the following for monitoring the NGINX Open Source Software (OSS):

- The status module must be included when NGINX is instantiated.
- The status stub must be configured in the NGINX configuration.

> **NOTE:** Restart NGINX after editing the configuration.

To learn more about the setup of the status module, see the following NGINX resources:

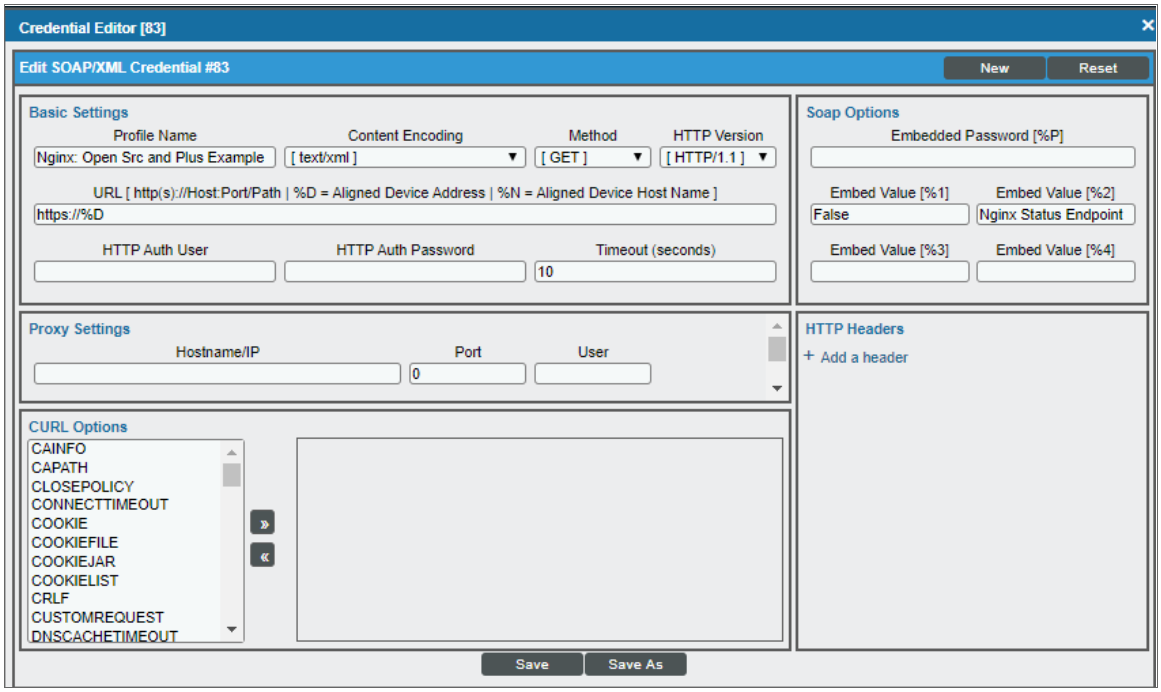
- Monitoring NGINX (https://www.nginx.com/blog/monitoring-nginx)
- Module ngx_http_stub_status_module (http://nginx.org/en/docs/http/ngx_http_stub_status_module.html)

Creating a SOAP/XML Credential for NGINX

To configure SL1 to monitor NGINX web services, you must create a SOAP/XML credential. This credential allows the Dynamic Applications in the *NGINX: Open Source and Plus* PowerPack to communicate with your NGINX web server.

To configure a SOAP/XML credential to access NGINX:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the **NGINX: Open Src and Plus Example** credential, and then click its wrench icon ( ). The **Edit SOAP/XML Credential** modal page appears.

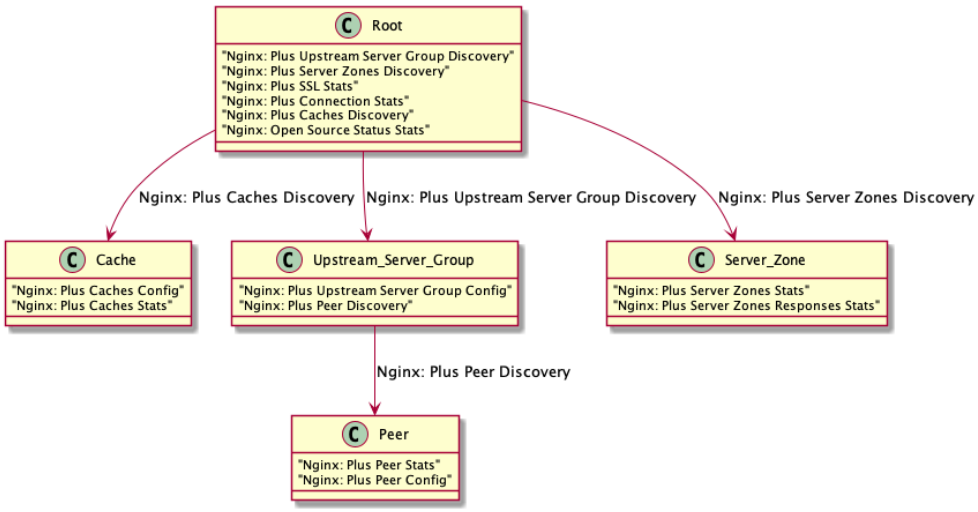


3. Enter values in the following fields:
   - ***Profile Name***. Type a new name for the credential.
   - ***URL***. Leave this field as the default.
   - ***Embed Value [%1]***. Used by the REST libraries for SSL certificate validation. Do one of the following:
     - Type "True" to enable SSL certificate validation.
     - Type "False" or leave this field blank to disable SSL certificate verification.
   - ***Embed Value [%2]***. Type a specific API endpoint name to connect to if you want to override the default /nginx_status endpoint for the Nginx: Open Source Status Stats Dynamic Application.

4. For all other fields, use the default values.
5. Click the **[Save As]** button.

Discovering NGINX Component Devices

To model and monitor your NGINX services, you must run a discovery session to discover your NGINX services. The following diagram illustrates the way the discovery process works for NGINX.

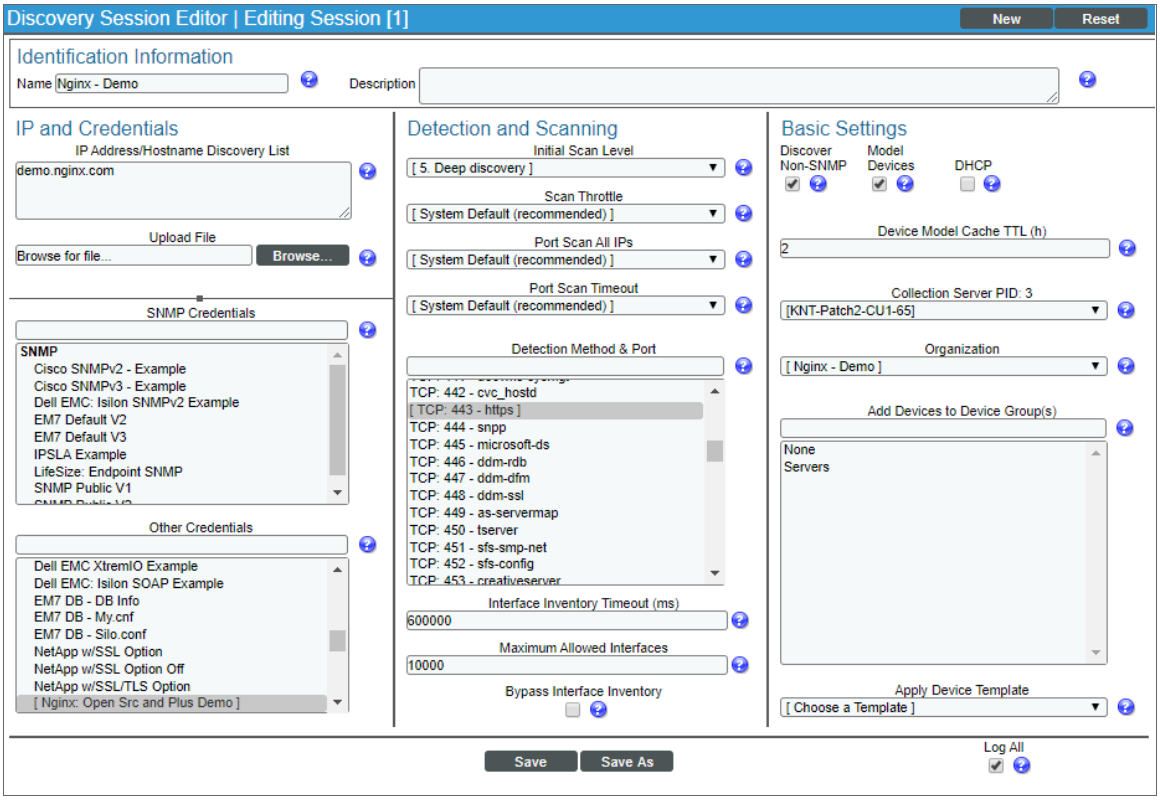


Several minutes after the discovery session has completed, the Dynamic Applications in the *NGINX: Open Source and Plus* PowerPack should automatically align to the services and then discover, model, and monitor the remaining NGINX component devices.

To discover the NGINX service that you want to monitor, perform the following steps:

1. Go to the **Discovery Control Panel** page (System > Manage > Discovery).
2. In the **Discovery Control Panel**, click the **[Create]** button.

3. The **Discovery Session Editor** page appears. In the **Discovery Session Editor** page, define values in the following fields:



- ***Name***. Type a name for the discovery session.
- ***IP Address/Hostname Discovery List***. Type the IP address or hostname of your NGINX server.
- ***Other Credentials***. Select the SOAP/XML credentials you created for the NGINX service.
- ***Initial Scan Level***. Select *5. Deep discovery*.
- **Detection Method & Port**. Select *TCP 80 - http* and *TCP 443 - https*.
- ***Discover Non-SNMP***. Select this checkbox.
- ***Model Devices***. Select this checkbox.
- ***Log All***. Select this checkbox.

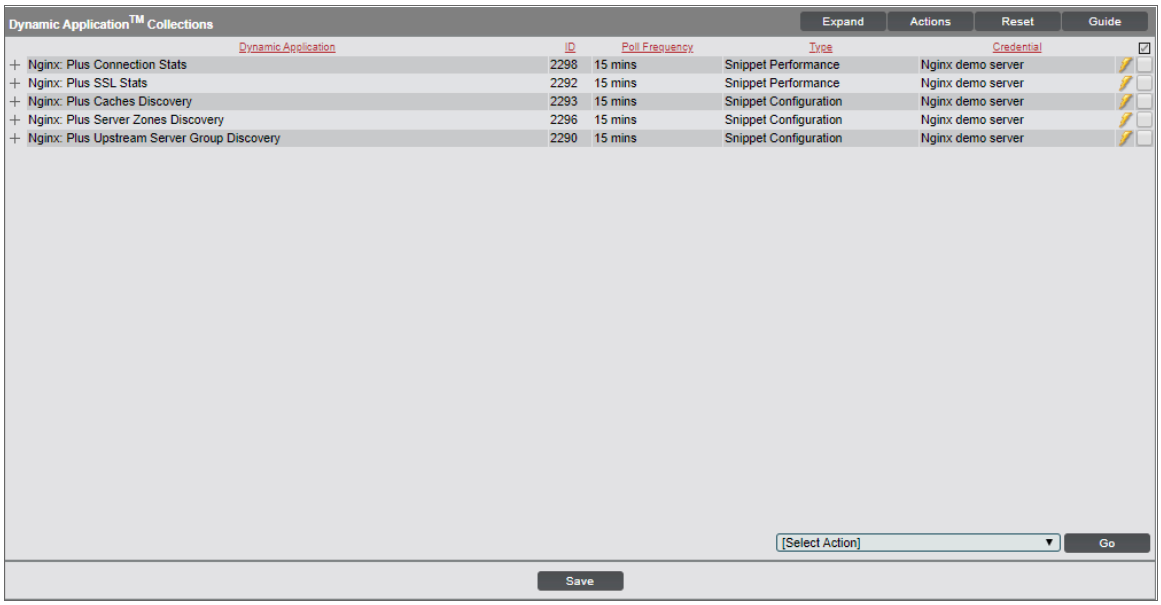
4. Optionally, you can enter values in the other fields on this page. For more information about the other fields on this page, see the ***Discovery & Credentials*** manual.
5. Click the **[Save]** button to save the discovery session and then close the **Discovery Session Editor** window.
6. The discovery session you created appears at the top of the **Discovery Control Panel** page. Click its lightning bolt icon ( ) to run the discovery session.
7. The **Discovery Session** window appears. When the device is discovered, click the device icon ( ) to view the **Device Properties** page for each device.

Verifying Discovery and Dynamic Application Alignment

To verify that SL1 has automatically aligned the correct Dynamic Applications during discovery:

1. After discovery has completed, click the device icon for the NGINX service ( ). From the **Device Properties** page for the NGINX service, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
2. All applicable Dynamic Applications for the service are automatically aligned during discovery.

> **NOTE:** It can take several minutes after the discovery session has completed for Dynamic Applications to appear in the **Dynamic Application Collections** page.

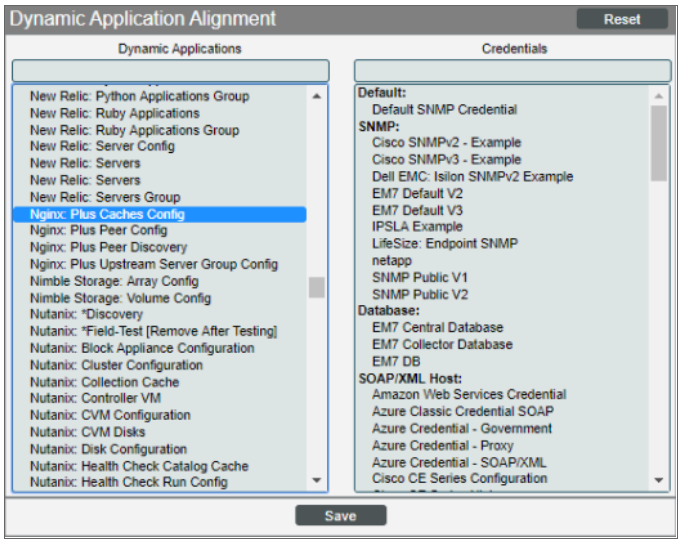


You should see the following Dynamic Applications aligned to the NGINX service:

- Nginx: Plus Connection Stats
- Nginx: Plus SSL Stats
- Nginx: Plus Caches Discovery
- Nginx: Plus Server Zones Discovery
- Nginx: Plus Upstream Server Group Discovery

If the listed Dynamic Applications have not been automatically aligned during discovery, or you want to align more Dynamic Applications, you can align them manually. To do so, perform the following steps:

1. Click the **[Action]** button, and then select *Add Dynamic Application*. The **Dynamic Application Alignment** page appears:

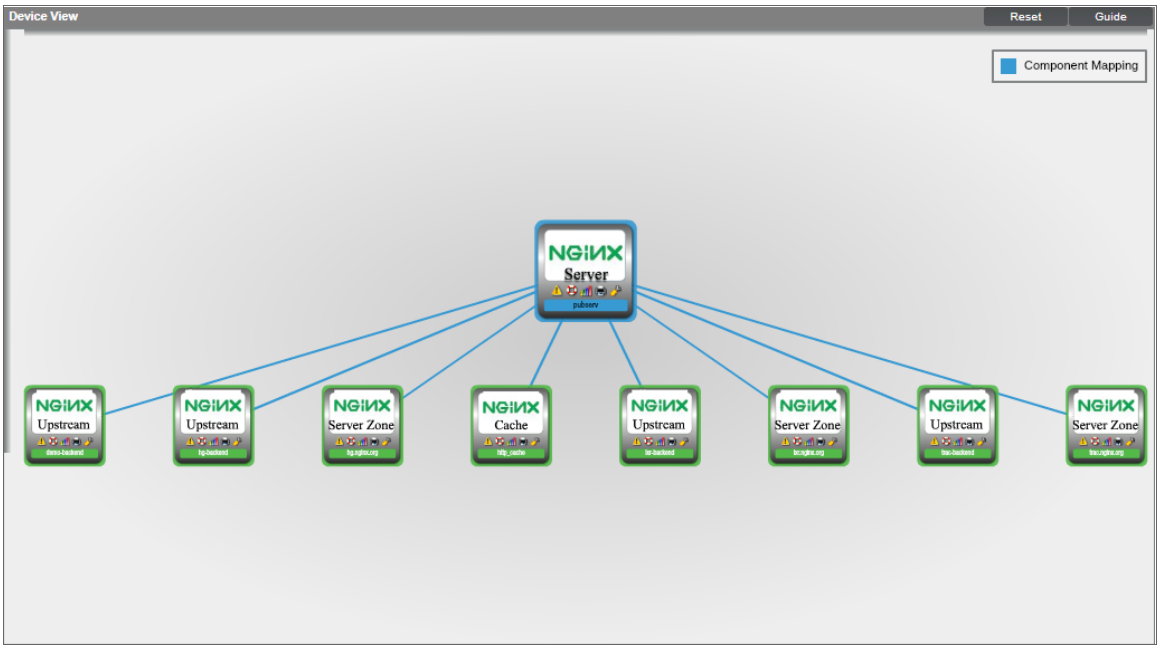


2. In the ***Dynamic Applications*** field, select the Dynamic Application you want to align.
3. In the ***Credentials*** field, select the credential specified in the table.
4. Click the **[Save]** button.
5. Repeat steps 1-4 for any other unaligned Dynamic Applications.

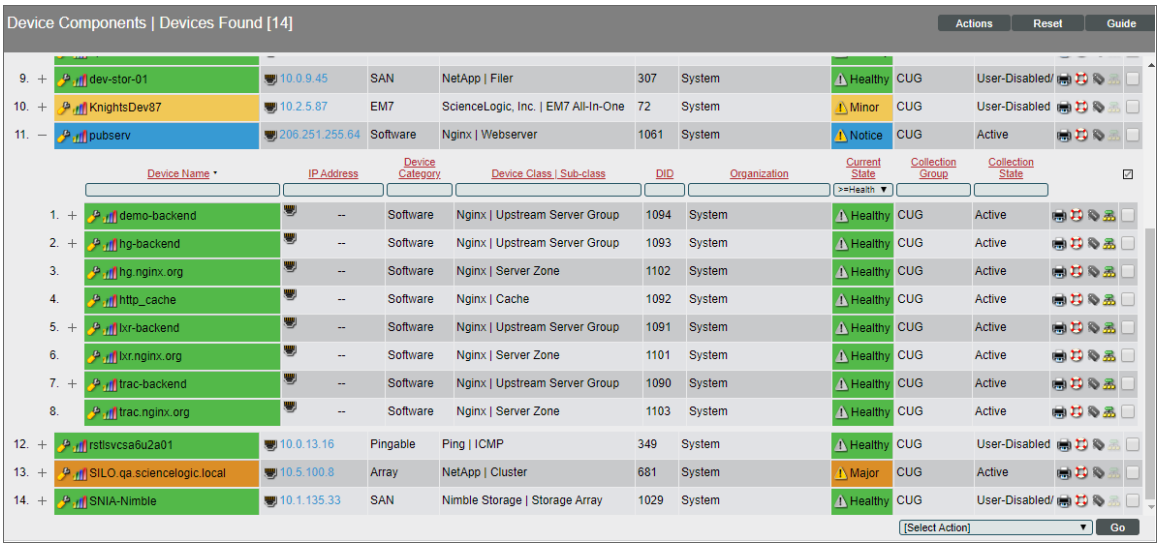
Viewing NGINX Component Devices

In addition to the **Device Manager** page (Registry > Devices > Device Manager), you can view the NGINX service and all associated component devices in the following places in the user interface:

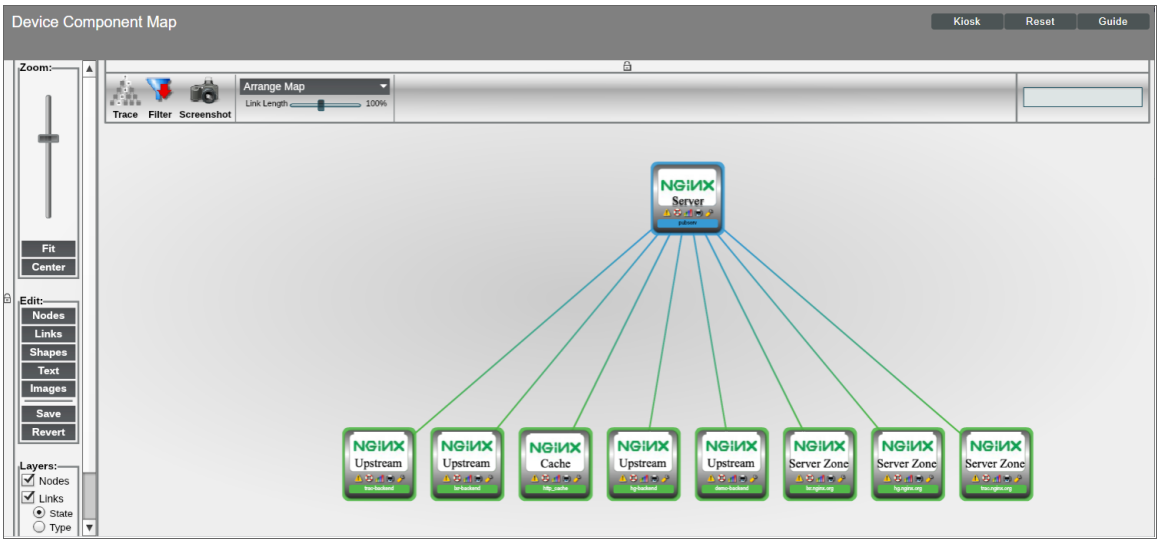
- The **Device View** modal page (click the bar-graph icon [ ] for a device, then click the **Topology** tab) displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-click to select any listed device. This reloads the page to make the selected device the primary device:



- The **Device Components** page (Registry > Devices > Device Components) displays a list of all root devices and component devices discovered by SL1 in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with an NGINX web server, find the server and click its plus icon (+):



- The **Component Map** page (Views > Device Maps > Components) allows you to view devices by root node and view the relationships between root nodes, parent components, and child components in a map. This makes it easy to visualize and manage root nodes and their components. SL1 automatically updates the **Component Map** as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for an NGINX service, go to the **Component Map** page and select the map from the list in the left NavBar. To learn more about the **Component Map** page, see the ***Views*** manual.



Chapter 3

Dashboards

Overview

The following section describes the device dashboards that are included in the *NGINX: Open Source and Plus* PowerPack:

Device Dashboards ***14***

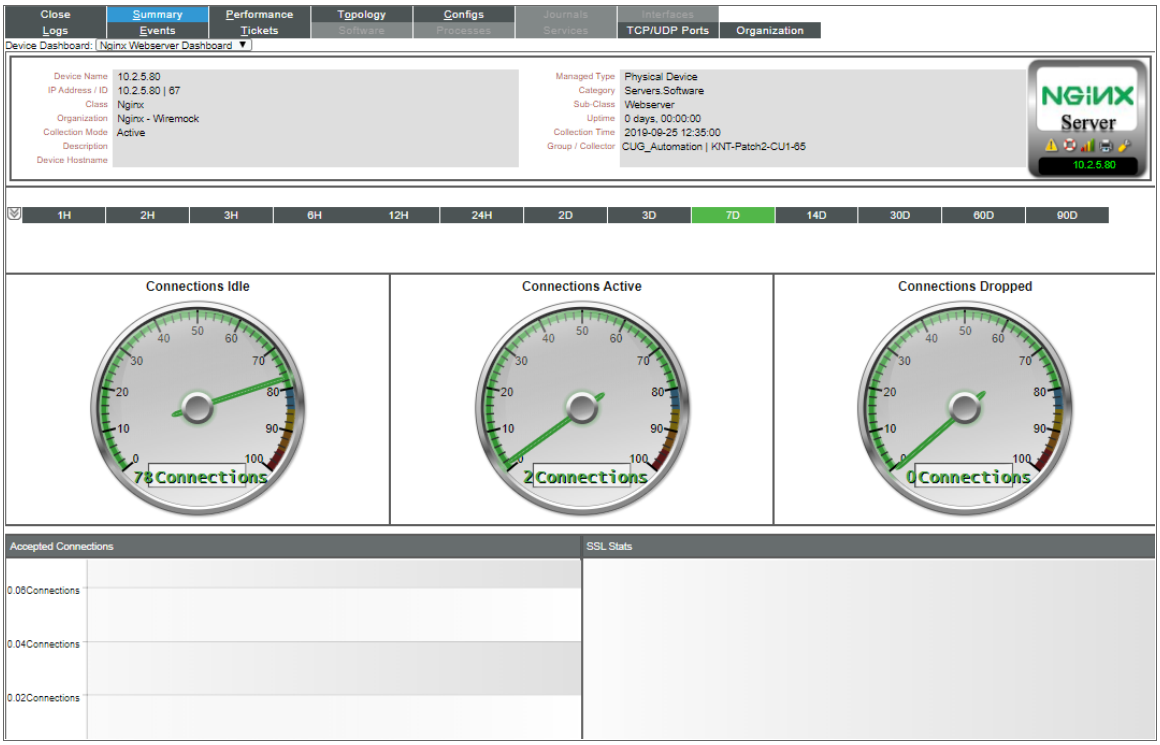
NGINX Webserver Dashboard *15*

NGINX Peer Dashboard *16*

Device Dashboards

The *NGINX: Open Source and Plus* PowerPack includes device dashboards that provide summary information for NGINX servers and peers. The following device dashboards in the *NGINX: Open Source and Plus* PowerPack are aligned as the default device dashboard for the equivalent device class.

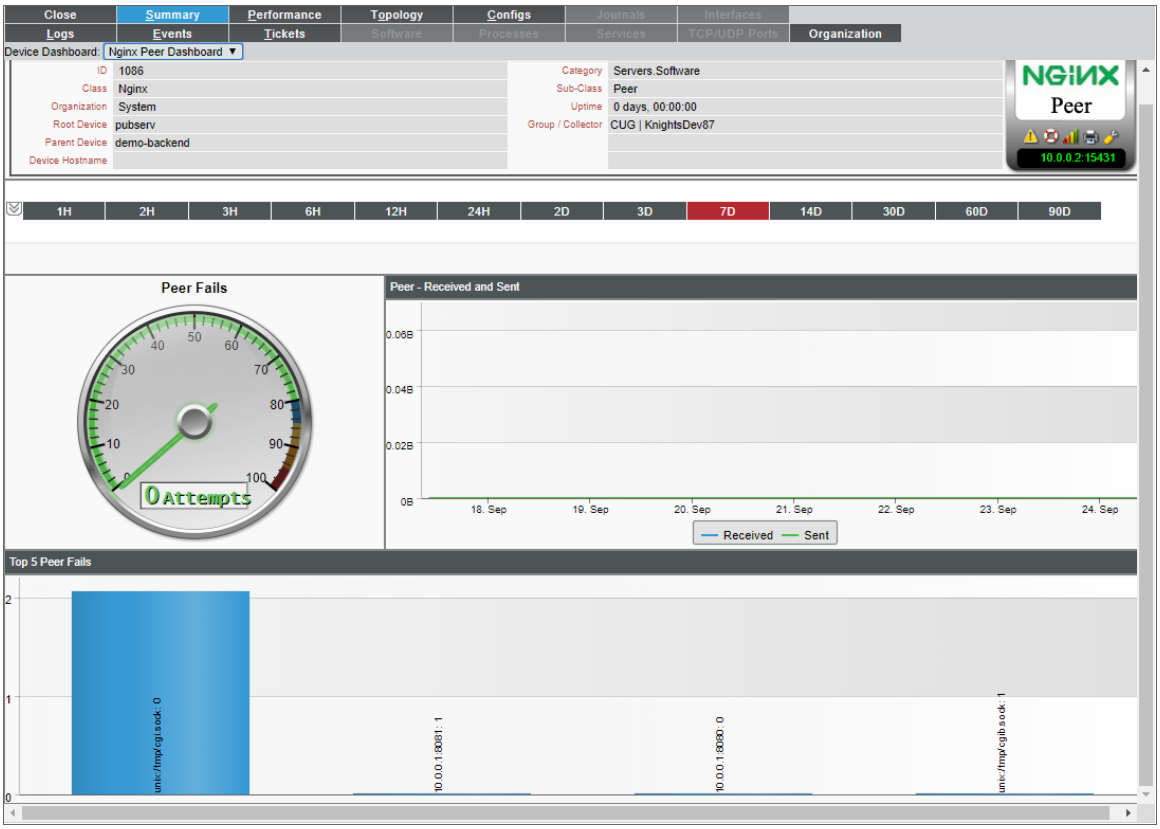
NGINX Webserver Dashboard



The NGINX Webserver Dashboard displays the following information for the NGINX server:

- Connections Idle
- Connections Active
- Connections Dropped
- Accepted Connections
- SSL Stats

NGINX Peer Dashboard



The NGINX Peer device dashboard displays the following information for NGNIX peers:

- Peer Fails
- Peer - Received and Sent
- Top 5 Peer Fails

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