

# Release Notes for Juniper® HealthBot Release 3.0.0

Release 3.0.0  
12 May 2020

These release notes accompany Juniper Networks HealthBot Release 3.0.0.

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|--|--|
| Contents                                 | Introduction   2                                 |
|  | Installation   2                                 |
|  | New and Changed Features   2                     |
|  | Redesigned Web GUI   3                           |
|  | Troubleshooting   4                              |
|  | Change in No-Data Alarm Notifications   4        |
|  | Multinode Installation Changes   4               |
|  | Role Based Authentication and Control (RBAC)   5 |
|  | NetFlow Ingest   5                               |
|  | Time Series Database (TSDB) Updates   5          |
|  | Frequency Profiles   6                           |
|  | Offset Time Unit   6                             |
|  | Log File Analysis (LFA)   6                      |
|  | HealthBot API Updates   6                        |
|  | Resolved Issues   6                              |
|  | Known Issues   7                                 |
|  | Requesting Technical Support   7                 |
| Self-Help Online Tools and Resources   8 |  |
| Creating a Service Request with JTAC   8 |  |
| Revision History   9                     |  |

# Introduction

HealthBot is a highly automated and programmable device-level diagnostics and network analytics tool that provides consistent and coherent operational intelligence across network deployments.

Integrated with multiple data collection methods (such as Junos Telemetry Interface, NETCONF, SNMP, syslog, and NetFlow), HealthBot aggregates and correlates large volumes of time-sensitive telemetry data, providing a multidimensional and predictive view of the network. Additionally, HealthBot translates troubleshooting, maintenance, and real-time analytics into an intuitive user experience to give network operators actionable insights into the health of an individual device and the overall network.

## Installation

For information on how to install HealthBot, as well as the software and hardware requirements for HealthBot, see the [HealthBot Installation Guide](#).

## New and Changed Features

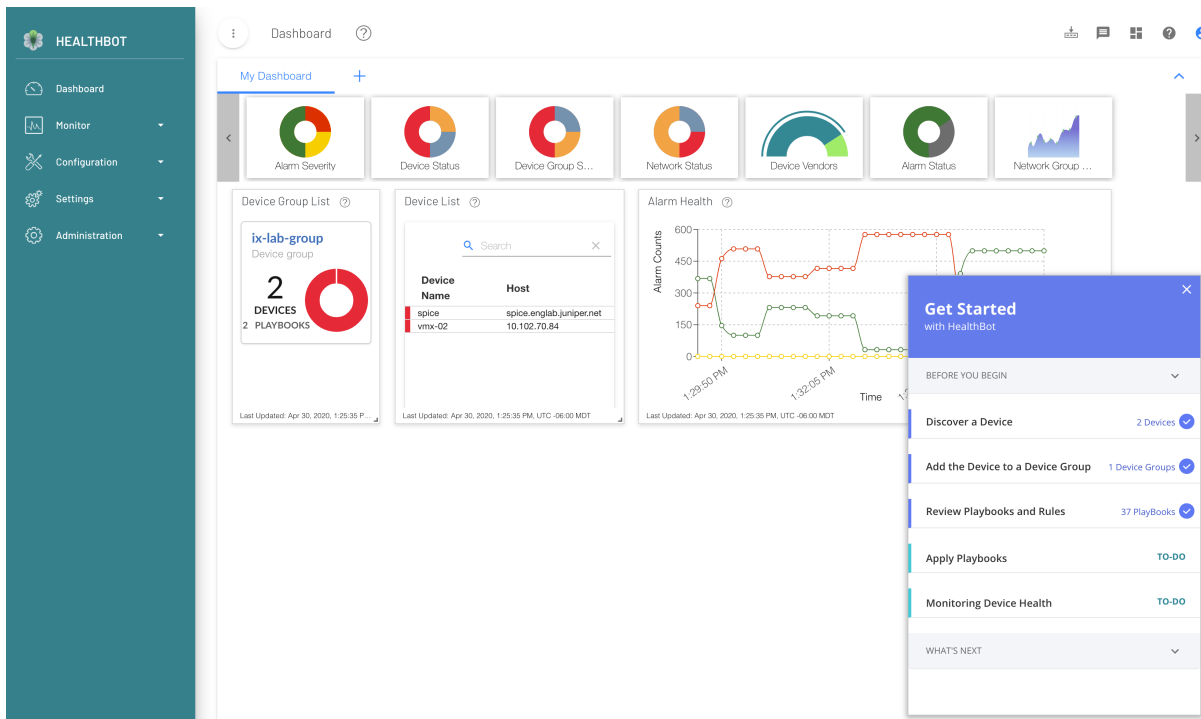
### IN THIS SECTION

- [Redesigned Web GUI | 3](#)
- [Troubleshooting | 4](#)
- [Change in No-Data Alarm Notifications | 4](#)
- [Multinode Installation Changes | 4](#)
- [Role Based Authentication and Control \(RBAC\) | 5](#)
- [NetFlow Ingest | 5](#)
- [Time Series Database \(TSDB\) Updates | 5](#)
- [Frequency Profiles | 6](#)
- [Offset Time Unit | 6](#)
- [Log File Analysis \(LFA\) | 6](#)
- [HealthBot API Updates | 6](#)

We're pleased to announce the availability of HealthBot Release 3.0.0. With this release, the new and changed features include:

## Redesigned Web GUI

For HealthBot Release 3.0.0, a new Web GUI is introduced. The dashboard has been redesigned to allow for more customization using interactive widgets to display information of most interest. Horizontal tabs allow more information to be accessed from a single page; and single click controls expand or contract window sections, allowing you to focus directly on the areas of interest when filling in forms. The left side navigation (left-nav) bar has been reorganized and streamlined. Integrated help is available throughout the GUI, there's a new menu item for sending feedback, and an interactive Getting Started Panel is available for new users.



## Troubleshooting

HealthBot provides four new verification and troubleshooting features: HealthBot self-test, device reachability test, ingest connectivity test, and “No-data” debug. In version 2.1.0, the debug feature was provided as Beta. In version 3.0.0, these features are fully functional and supported.

| Device Group | Device | Topic          | Rule(s)              |
|--------------|--------|----------------|----------------------|
| ix-lab-group | vmx-02 | chassis.alarms | check-chassis-alarms |

| Test Result         | Status |
|---------------------|--------|
| HealthBot Services  | ✓      |
| Device Reachability | ✓      |
| Ingest Connectivity | ✓      |
| Data Streaming      | ✗      |
| Field Processing    | ✗      |
| Trigger Processing  | ✗      |
| API Verification    | ✓      |

## Change in No-Data Alarm Notifications

In previous releases of HealthBot, if no data was generated for an applied rule, HealthBot could not send notification using kafka, MS Teams, webhook, or Slack. Starting in HealthBot release 3.0.0, if an applied rule is in a no-data situation because of no data or insufficient data to evaluate a trigger, an alarm can be raised using Slack, Webhook, or any available notification method.

## Multinode Installation Changes

In previous HealthBot releases, multinode installations were implemented using docker-compose and docker-swarm. This required you to pre-configure many docker components before completing the HealthBot install.

Starting with release 3.0.0, HealthBot uses Kubernetes to manage multinode installations. With this change, no pre-configuration of docker components is necessary. All docker configuration is now completed by the Kubernetes installation process, which is completely automated.

Single-node installations can be either docker-compose based, or Kubernetes based. The difference is whether you answer yes to installing with Kubernetes during the **healthbot setup** part of the installation.

**NOTE:** We plan to remove support for docker-compose based installations in a future release.

## Role Based Authentication and Control (RBAC)

Starting with release 3.0.0, HealthBot has implemented the first stage of RBAC. In this release, user access and control is limited to either read-only or read-write access to all pages and features. Access is governed by user group. Pre-defined user groups are provided for getting started.

## NetFlow Ingest

NetFlow v9 and v10 (IPFIX) are now supported as an ingest/sensor types

## Time Series Database (TSDB) Updates

HealthBot has updated TSDB support to include:

- Database sharding
- Adjustable database replication factor
- High availability (HA)
- Increased resiliency for handling write errors

## Frequency Profiles

Starting with release 3.0.0, HealthBot now provides frequency profiles as a central management point for sensor and rule frequencies. Application of frequency profiles allows for persistent and repeatable behavior in regard to frequencies for rules, sensors, triggers, formulas, references, learning periods, and hold times.

## Offset Time Unit

Starting with release 3.0.0, HealthBot introduces a new offset time unit. In addition to years, weeks, days, hours, minutes, and seconds, HealthBot now accepts an offset time unit. The offset time unit is introduced to show the correlation between sensor or rule-frequency and various time-ranges used within references, vectors, functions, and triggers. An offset time is a multiple of sensor, rule, or trigger frequency.

## Log File Analysis (LFA)

In release 3.0.0, the LFA feature and portal have been removed from the HealthBot GUI.

## HealthBot API Updates

The HealthBot REST API is updated to support the new features introduced in Release 3.0.0.

# Resolved Issues

The following is a list of resolved issues in HealthBot Release 3.0.0:

- In some cases, if you ran the `$ healthbot modify-uda-engine` function twice in a row the second attempt would fail. This issue has been resolved.

## Known Issues

The following is a list of known issues in HealthBot Release 3.0.0:

- If you want to do a multi-node installation of HealthBot Release 3.0.0 (Kubernetes) you must do a fresh installation. To migrate your data from HealthBot Release 2.X (docker-compose) to 3.0.0 (Kubernetes) follow the procedure here: [Migration from HealthBot Release 2.X to 3.X](#).
- A multi-node installation of HealthBot Release 3.0.0 cannot be performed on an existing Kubernetes cluster. You must allow the installer to create a new Kubernetes cluster. Support for installation on exiting Kubernetes clusters is planned for a future release.
- A multi-node installation of HealthBot Release 3.0.0 requires Internet access for the Kubernetes portion of the installation. This installation cannot be completed without Internet access. Support for offline installation is planned for a future release.
- The addition of RBAC features requires that any user credentials present prior to upgrade must be recreated after upgrade to release 3.0.0.
- The RBAC feature is limited to providing either read-only or read-write access to all pages for any user except the **hbadmin** user. Fine grained access to pages or features is not controlled in this release.
- In some cases, Graph and timeline view data is not retained during an upgrade or migration. To deal with this issue, click **Deploy** in the left-nav before performing an upgrade.
- No documentation support is provided for the HealthBot CLI. Contact a Juniper Networks representative for support.

## Requesting Technical Support

Technical product support is available through the Juniper Networks Technical Assistance Center (JTAC). If you are a customer with an active J-Care or Partner Support Service support contract, or are covered under warranty, and need post-sales technical support, you can access our tools and resources online or open a case with JTAC.

- JTAC policies—For a complete understanding of our JTAC procedures and policies, review the *JTAC User Guide* located at <https://www.juniper.net/us/en/local/pdf/resource-guides/7100059-en.pdf>.

- Product warranties—For product warranty information, visit <http://www.juniper.net/support/warranty/>.
- JTAC hours of operation—The JTAC centers have resources available 24 hours a day, 7 days a week, 365 days a year.

## Self-Help Online Tools and Resources

For quick and easy problem resolution, Juniper Networks has designed an online self-service portal called the Customer Support Center (CSC) that provides you with the following features:

- Find CSC offerings: <https://www.juniper.net/customers/support/>
- Search for known bugs: <https://prsearch.juniper.net/>
- Find product documentation: <https://www.juniper.net/documentation/>
- Find solutions and answer questions using our Knowledge Base: <https://kb.juniper.net/>
- Download the latest versions of software and review release notes: <https://www.juniper.net/customers/csc/software/>
- Search technical bulletins for relevant hardware and software notifications: <https://kb.juniper.net/InfoCenter/>
- Join and participate in the Juniper Networks Community Forum: <https://www.juniper.net/company/communities/>
- Create a service request online: <https://myjuniper.juniper.net>

To verify service entitlement by product serial number, use our Serial Number Entitlement (SNE) Tool: <https://entitlementsearch.juniper.net/entitlementsearch/>

## Creating a Service Request with JTAC

You can create a service request with JTAC on the Web or by telephone.

- Visit <https://myjuniper.juniper.net>.
- Call 1-888-314-JTAC (1-888-314-5822 toll-free in the USA, Canada, and Mexico).

For international or direct-dial options in countries without toll-free numbers, see <https://support.juniper.net/support/requesting-support/>.



# Revision History

12 May 2020—HealthBot Release 3.0.0

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