

Day One+

JSI on Juniper Support Portal Quick Start (vLWC)

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Step 1: Begin

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In this guide, we provide a simple, three-step path, to quickly get you up and running with the Juniper Support Insight (JSI) solution. We've simplified and shortened the installation and configuration steps.

Meet Juniper Support Insights

Juniper® Support Insights (JSI) is a cloud-based support solution that gives IT and network operations teams operational insights into their networks. JSI aims to transform the customer support experience by providing Juniper and its customers with insights that help improve the network performance and uptime. JSI collects data from Junos

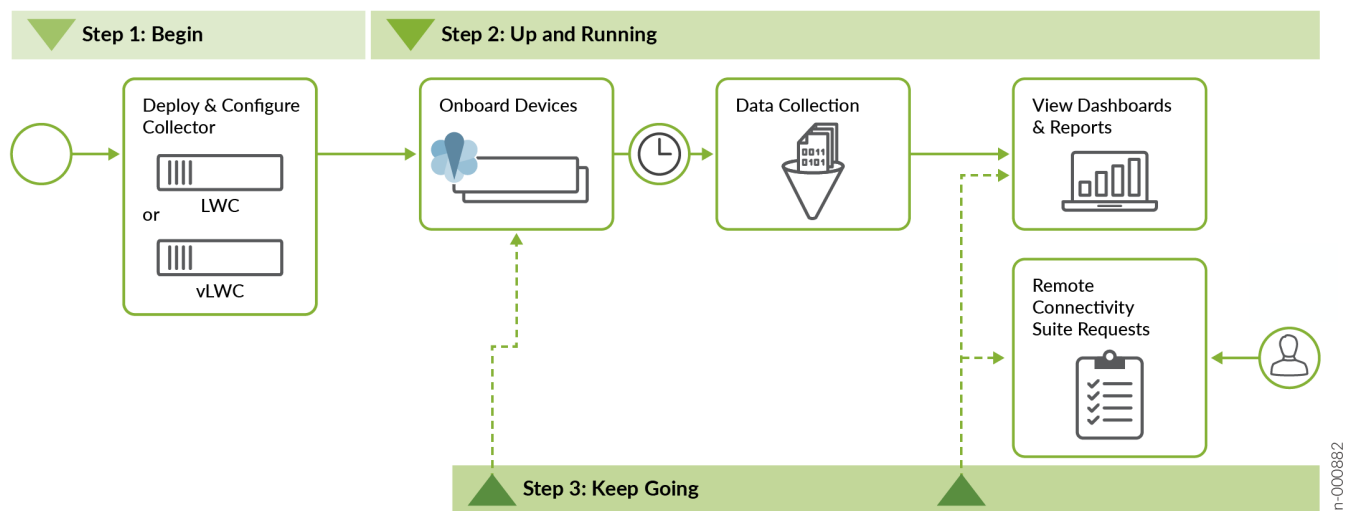
OS-based devices on customer networks, correlates it with Juniper-specific knowledge (such as service contract status, and End of Life and End of Support states), and then curates that into actionable insights.

Virtual Lightweight Collector

The Virtual Lightweight Collector (vLWC) is a VMWare-ready data collection tool that gathers operational data from Juniper devices on customer networks. JSI uses this data to provide IT and network operations teams with actionable operational insights into the onboarded Juniper devices on customer networks. The vLWC uses your existing VMWare infrastructure to provide a virtualized solution while offering the capabilities of the LWC.

At a high level, getting started with the JSI solution involves the following steps:

1. Installing and configuring a Virtual Lightweight Collector (vLWC)
2. Onboarding a set of Junos devices to JSI to initiate data collection
3. Viewing notifications about device onboarding and data collection
4. Viewing operational dashboards and reports



NOTE: This Quick Start guide assumes that you have ordered the JSI-vLWC solution, which is available as part of Juniper Care support service, and that you have an active contract. If you have not ordered the solution, please contact your Juniper Account or Services teams. Accessing and using JSI is subject to the Juniper Purchase and License Agreement (JPLA). For general information on JSI, see [Juniper Support Insights Datasheet](#).

Install and Configure the Virtual Lightweight Collector

In this guide, we show you how to install and configure the vLWC on a VMWare environment.

Before You Begin

To successfully install and deploy vLWC, you must meet the following requirements:

- VMware vCenter Server access (using VMware vSphere Client, version 6.7.0 or later)
- One of the following minimum hardware requirements:

Table 1: Hardware Requirements

Configuration Type	Total Devices Supported	Number of vCPUs	Memory	Storage
Small	Up to 10,000 devices	6 CPUs	16 GB RAM	400 GB disk space
Large	Up to 20,000 devices	12 CPUs	32 GB RAM	400 GB disk space



WARNING: The vLWC can experience data collection issues if your system does not meet the minimum requirements. A lack of CPU and/or memory resources can cause the vLWC to go into a holding pattern and stop collecting data.

- Three VM network interfaces:

Table 2: Interface Description

Connectivity	Interface Name	Description
Internal	int	Internal network to access the Junos devices being monitored by JSI. This network should not have access to the Internet.
External	ext	External network with HTTP/HTTPS and DNS Internet connectivity to connect to Juniper Cloud directly or through an active proxy server.
Management	cap	Connectivity to the management network host services: <ul style="list-style-type: none"> • Port 443/HTTPS for the Captive Portal web page • Port 22/SSH for the JSI shell



NOTE: While configuring the internal, external, and management interfaces, you must ensure that the subnet of the IP address assigned to the internal network port, external network port, and captive (management) portal are different from each other.

- The vLWC software is provided as a single downloadable OVA file.



NOTE: There are two end-user scenarios:

- Customer—A customer can request the vLWC software for themselves.
- Partner—A partner can request the vLWC software and then either associate it to themselves or to one of their customer accounts.

To download the vLWC software, visit the vLWC request page on Juniper Support Portal at <https://supportportal.juniper.net/s/vlwc-form>, submit a form with the requested information, and receive a link over an email to download the vLWC software. Refer [Download vLWC Software](#) for more information.



NOTE:

- The OVA file will be created specifically for your installation. It contains your serial number as an encrypted vApp property that will be used during the initial boot process of the VM.
- You can deploy only one vLWC OVA image with a unique serial number in your network. Deploying multiple vLWC OVA images with the same serial number is not supported. If you want to deploy multiple instances of vLWC in your network (for example, vLWC for production and lab), you must request a separate vLWC OVA image by submitting another request form.

- Support for VMXNET3 network adapters.

Here's how to install vLWC using the vCenter Server:

1. Login to the vCenter Server using your username and password in the vSphere Client.
2. Click **Menu > Hosts and Clusters** to open the Hosts and Clusters page.
The Hosts and Clusters page lists all your data centers and vSphere clusters on the left pane.
3. Right-click your data center and click **Deploy OVF Template...** from the **Actions** menu.
The Deploy OVF Template page opens.
4. Depending on where your OVA file is available, select the **URL** option and provide the URL to the OVA file, or select the **Local file** option and click **Choose Files** to browse the local drive and upload the vLWC OVA image. Click **Next**.

Deploy OVF Template

1 Select an OVF template
2 Select a name and folder
3 Select a compute resource
4 Review details
5 Select storage
6 Ready to complete

Select an OVF template

Select an OVF template from remote URL or local file system

Enter a URL to download and install the OVF package from the Internet, or browse to a location accessible from your computer, such as a local hard drive, a network share, or a CD/DVD drive.

☐ URL

☒ Local file

vLWC-2.3.0.ova

The Select a name and folder page opens.

5. Enter a unique name for the vLWC vApp. Select the data center where you want the vApp installed and click **Next**.

The Select a compute resource page opens.

The vLWC vApp name that you enter is for easy identification only, and has no effect on the vLWC. The default vLWC vApp name is the OVA file name.

6. Select the compute resource (a specific host or a cluster) where you want the vApp installed, and click **Next**.

The Review details page opens.

7. Verify the details listed on this page to make sure everything looks correct with the product, version, vendor, downloaded vApp file size, and the storage capacity of the virtual disk. Once you have verified the details, click **Next**.

The Select storage page opens.

8. Select the datastore you want to use for storing the virtual disk of the vLWC. Select **Thick Provision Eager Zeroed** as the virtual disk format. Select the VM storage policy and click **Next**.

The Select networks page opens.

9. Select the VMWare network to attach to each network interface using the Destination Network drop-down for each of the source network. You can ignore the IP allocation settings as they are not used by the vLWC. Click **Next**.

Deploy OVF Template

- ✓ 1 Select an OVF template
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Review details
- ✓ 5 Select storage
- 6 Select networks**
- 7 Customize template
- 8 Ready to complete

Select networks

Select a destination network for each source network.

Source Network	Destination Network
ext	infra0
cap	infra4
int	infra5

3 items

IP Allocation Settings

IP allocation: Static - Manual

IP protocol: IPv4

CANCEL BACK NEXT

The Customize template page opens.

- Specify the network settings for each vLWC interface over a series of 20 vApp properties. For each interface, select the correct address type. For static address, specify the necessary settings for that interface. The internal and external interfaces must each have unique a DNS entry.

Table 3: Supported IP Address Versions for Interfaces

Interface	Supported IP Address
Internal	IPv4 or IPv6 address
External	IPv4 address only
Management	IPv4 address only

Deploy OVF Template

- ✓ 1 Select an OVF template
- ✓ 2 Select a name and folder
- ✓ 3 Select a compute resource
- ✓ 4 Review details
- ✓ 5 Select storage
- ✓ 6 Select networks
- 7 Customize template**
- 8 Ready to complete

Network	20 settings
vLWC internal interface IPv4 address type	The current interface type for the internal interface for getting an IPv4 address. The internal interface is responsible for connecting to network devices that the LWC is collecting data from. Possible values are none, static,
vLWC internal interface network IPv4 address for static interface	IPv4 address for the internal interface when interface type is set to static. The internal interface is responsible for connecting to network devices that the LWC is collecting data from.
vLWC internal interface IPv4 prefix for static interface	IPv4 prefix for the internal interface when interface type is set to static. The internal interface is responsible for connecting to network devices that the LWC is collecting data from.
vLWC internal interface IPv4 gateway address for static interface	IPv4 gateway address for the internal interface when interface type is set to static. The internal interface is responsible for connecting to network devices that the LWC is collecting data from.
vLWC internal interface IPv4 DNS address for static interface	IPv4 DNS address for the internal interface when interface type is set to static. This DNS server address will be used to resolve hostnames for internal

CANCEL
BACK
NEXT

Once you have configured your network, click **Next**. The Ready to complete page opens.

11. Verify the configured settings for the vApp deployment and click **Finish** to start the deployment of the vLWC.

Deploy OVF Template

✓ 1 Select an OVF template

✓ 2 Select a name and folder

✓ 3 Select a compute resource

✓ 4 Review details

✓ 5 Select storage

✓ 6 Select networks

✓ 7 Customize template

8 Ready to complete

Ready to complete

Click Finish to start creation.

Provisioning type	Deploy from template
Name	vLWC-2.3.0
Template name	vLWC-2.3.0
Download size	3.0 GB
Size on disk	7.6 GB
Folder	
Resource	vLWC_Dev01
Storage mapping	1
All disks	Datastore: FN1ZV3E1; Format: Thin provision
Network mapping	3
ext	LWC946CAP16
cap	LWC946CAP16
int	LWC946CAP16
IP allocation settings	
IP protocol	IPv4
IP allocation	Static - Manual
Properties	vLWC internal interface IPv4 address type = DHCP vLWC internal interface network IPv4 address for static interface = vLWC internal interface IPv4 prefix for static interface = vLWC internal interface IPv4 gateway address for static interface = vLWC internal interface IPv4 DNS address for static interface = vLWC internal interface IPv6 address type = None vLWC internal interface network IPv6 address for static interface =

CANCEL

BACK

FINISH

12. Wait for VMWare to deploy the vApp. You should see progress bars in the recent tasks section indicating the progress of the vApp deployment. This process can take approximately 30 minutes or more depending on the speed of your cluster, datastores, and your connection to the vSphere.

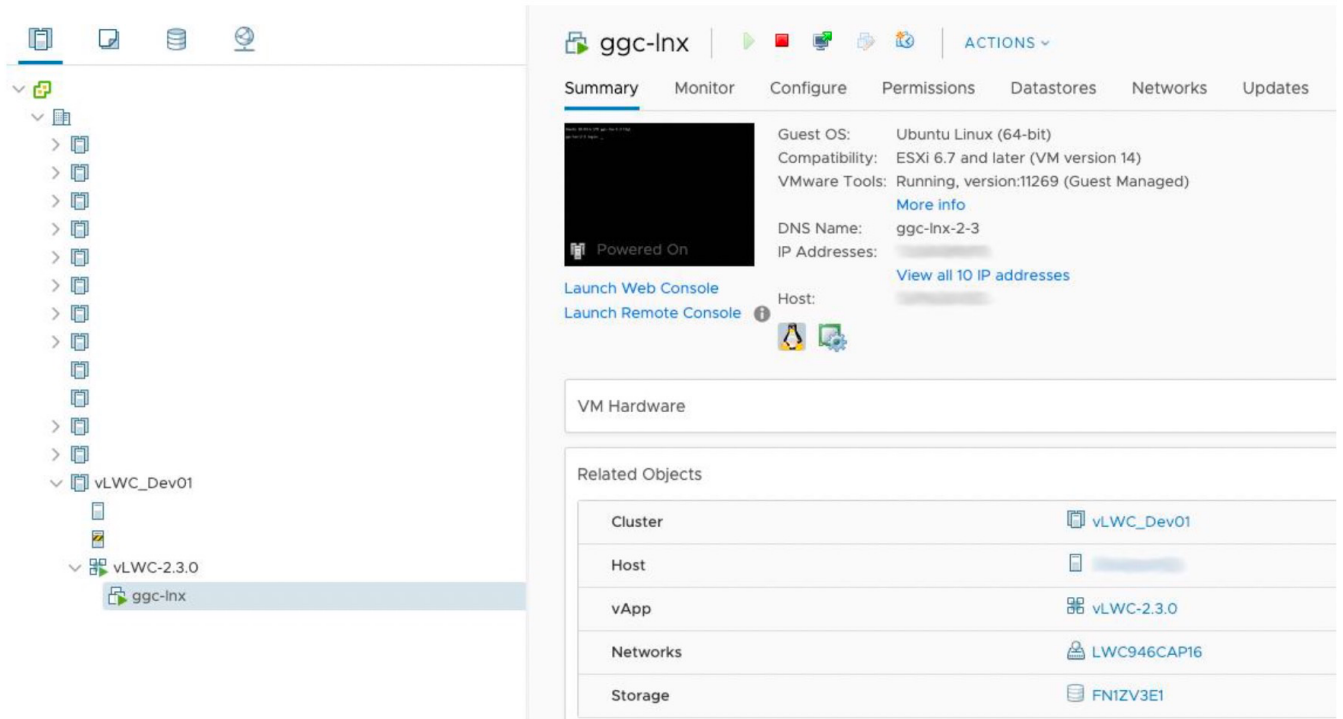


NOTE:

- If you encounter the error message *"Failed to deploy OVF package. ThrowableProxy.cause The operation is not supported on the object. The operation failed due to The operation is not supported on the object."*, ensure that DRS is enabled for the cluster in which you are deploying the vApp.
- If you encounter any other error when you click **Finish**, it is possible that you took too long to complete the steps above and the deployment process timed out. You can reattempt the deployment process if this happens and if you encounter an error for the second time, open a Juniper TAC case for assistance.

13. To start vLWC, you can right-click the newly created vApp and click **Power On** from the Actions menu.

The vLWC is now installed and running in your environment. To confirm, you can view the summary page of the **ggc-lnx** VM located under the vLWC vApp entry. It should show an Ubuntu Linux (64-bit) VM running with VMware Tools also running along with the IP addresses assigned to the VM in the IP addresses list.



Configure the Virtual Lightweight Collector

IN THIS SECTION

- [Internal and External Network Requirements | 9](#)
- [Configure Network Settings through Captive Portal | 11](#)
- [Configure Network Settings Through JSI Shell | 14](#)

Once the vLWC vApp is installed, you can add or modify various vLWC settings through the Captive Portal web page (see ["Configure Network Settings through Captive Portal" on page 11](#)) or the JSI Shell (see ["Configure Network Settings Through JSI Shell" on page 14](#)).



NOTE: You must connect to the captive portal from a local IP address. Connection to the captive portal from the browser will fail if the connection request originates from a non-local network.

Before you configure the Lightweight Collector (LWC), refer to the ["Internal and External Network Requirements" on page 9](#).

Internal and External Network Requirements

vLWC requires:

- An internal network port that connects the vLWC to the Juniper devices on the network.
- An external network port that connects the vLWC to the Juniper Virtual Private Cloud.

Before connecting the vLWC to the internal network, ensure that you have:

- A DHCP or static IP address.
- IP connectivity to the Domain Name Server (DNS), all the direct devices on the network, and bastion hosts used (if applicable) to access the devices.



NOTE: Bastion hosts utilize a SOCKS5 proxy server to reach target devices in the customer's network. Bastion hosts also support connection hopping, where an SSH session is first established with a customer's Linux-based device, which then initiates a subsequent SSH session to the target device.

- Enabled NETCONF in the Junos OS configuration of all target Juniper devices. The vLWC uses SSH credentials to connect to the devices on the network and, if used, bastion hosts.

See also [Establish an SSH Connection for a NETCONF Session](#).

Before connecting the vLWC to the external network, ensure that you have:

- A DHCP or static IP address.
- A DNS server in case you have selected a static address. In case of any subsequent change to the DNS, you must inform Juniper about it and get it updated. Otherwise, the vLWC might lose connectivity to the external endpoints.

The vLWC supports real static, private static, or DHCP addresses. It prefers Network Address Translation (NAT).

- Accessibility to the DNS and IP addresses specified in [Table 4 on page 10](#) through the IP addresses assigned to external port on the vLWC.

Table 4: Outbound Connectivity Requirements

Description	DNS Name	IP Address	Port
Juniper cloud	AWSPProxy-prod.jssprod.junipercloud.net	52.223.32.79, 35.71.174.221, 35.164.173.102, 52.26.8.178, 54.149.201.209	443



NOTE:

- The IP addresses assigned to the internal and external interfaces must be from different subnets.
- The internal and external interfaces must each have a unique DNS entry.

Ensure that these interfaces can reach their respective DNS servers over both UDP and TCP on port 53.

Configure Network Settings through Captive Portal

Here's how to view network status and configure network settings using the vLWC Captive Portal webpage:

1. Open a browser on your computer and enter the URL `https://cap_interface_address` in the address bar, where `cap_interface_address` can be the configured static IP address, or the IP address assigned by the DHCP server to the management (cap) interface.

The **JSI Data Collector** login page appears.

2. Enter the vLWC serial number in the **Serial Number** field and click **Submit** to log in.

On successful login, the **JSI Data Collector** page appears.

The following image displays the JSI Data Collector page when the vLWC is not connected.

The screenshot shows the JSI Data Collector web interface. At the top, it says "JSI Data Collector" and "Configure your Collector". Below this, there's a "Connection Status" section indicating "Juniper Cloud Disconnected" and "Not Provisioned".

The main configuration area is divided into three sections:

- External Network:** Includes fields for IP Type (IPv4), Source (DHCP), IP Address (LWC SW), Subnet Mask, Gateway, and DNS Server. There are "EDIT" and "Refresh" (circular arrow icon) buttons. Below the fields is an "Active Proxy" toggle switch set to "Enable/Disable".
- Internal Network:** Divided into IPv4 and IPv6 settings. IPv4 settings include IP Type (IPv4), Source (DHCP), IP Address, Subnet Mask, Gateway, and DNS Server. IPv6 settings include IP Type (IPv6), Source (Static), IP Address (::1), Prefix Length (/0 to /128), Gateway, and DNS Server (Not configured). Each section has "EDIT" and "Refresh" buttons.
- Connection Status:** Two boxes show "Connection Status IPv4" and "Connection Status IPv6", both indicating "Gateway Disconnected" and "DNS Disconnected".

On the right side, there are several informational panels:

- Instructions:** Explains the connection status and provides instructions for downloading RSI files.
- Troubleshooting:** Provides steps for downloading and uploading RSI files.
- Reboot Collector:** A button to reboot the collector.
- Shutdown Collector:** A button to shutdown the collector.

At the bottom right, it says "Version: 1.0.43".



NOTE: If the default DHCP configuration on the vLWC is successful, the Captive Portal web page shows the vLWC's connection status as connected, and populates the fields in all the configurations sections appropriately.

Click the **Refresh** icon under the External Network or Internal Network sections to refresh the current connection states for that section.

The **JSI Data Collector** page displays configuration sections for the following:

- **External Network**—Lets you configure external network port that connects the vLWC to the Juniper's Cloud. Supports DHCP and static addressing. The External Network configuration is used to perform device provisioning.
 - **Internal Networks**—Lets you configure the internal network port that connects the vLWC to the Juniper devices on your network. Supports DHCP and static addressing.
 - **Active Proxy**—Lets you configure the active proxy IP address as well as the port number if your network infrastructure controls access to the Internet though an active proxy. You need not configure this element if you are not using an active proxy.
3. Click the **Edit** button under the element that needs to be updated.

You need to modify the fields in:

- The **Internal Network** and **External Network** sections if their connection states indicate that they are disconnected.



NOTE:

- The IP addresses assigned to the internal and external interfaces must be from different subnets. This requirement applies to both DHCP and static configurations.
- The internal and external interfaces must each have a unique DNS entry.

Ensure that these interfaces can reach their respective DNS servers over both UDP and TCP on port 53.

You must not use the same IP address or DNS entry for both the interfaces.

- The **Active Proxy** section if you are using an active proxy. This section is collapsed by default if an active proxy is disabled or not configured. To configure, click **Enable/disable** to expand the **Active Proxy** section.

Active proxy uses SOCKS5 proxies to route connections to the target Juniper devices in the customer's network.



NOTE: If you choose to use an active proxy, ensure that it forwards all the traffic from the vLWC to the AWS cloud proxy (see Outbound Connectivity Requirements table in "[Internal and External Network Requirements](#)" on page 9 for the AWS cloud proxy URL and ports). Juniper cloud services blocks all the inbound traffic coming through any path other than the AWS cloud proxy.



NOTE: If you choose to use an active proxy, ensure that the LWC's external interface IP configuration can reach the active proxy's URL or IP address.



NOTE:

- You must use a different subnet for the IP address assigned to the internal network, external network, and the management (cap) interface. This applies to both DHCP and static configurations.

4. After modifying the fields, click **Update** to apply the changes and return to the homepage (the JSI Data Collector page).

If you want to discard your changes, click **Cancel**.

If the vLWC connects to the gateway and DNS successfully, the respective configuration element (internal or external network section) on the JSI Data Collector homepage shows the connection status as **Gateway Connected** and **DNS Connected** with green tick marks against them.

The JSI Data Collector homepage displays the **Connection Status** as:

- Juniper Cloud Connected** if the external connectivity to the Juniper Cloud is established and the active proxy (if applicable) settings are correctly configured.
- Cloud Provisioned** if the device is connected to Juniper Cloud and has completed the Zero Touch Experience (ZTE) process. After the Cloud connection status becomes **Juniper Cloud Connected**, it takes about 10 minutes for the provision status to become **Cloud Provisioned**.

The following image displays the JSI Data Collector page when the vLWC is connected successfully.

The screenshot shows the JSI Data Collector configuration interface. At the top, the status bar indicates 'Connection Status' with green checkmarks for 'Juniper Cloud Connected' and 'Cloud Provisioned'. The main configuration area is divided into 'External Network' and 'Internal Network' sections. The 'External Network' section shows fields for IP Type (IPv4), Source (DHCP), IP Address (LWC SW), Subnet Mask, Gateway, and DNS Server. Below these fields are 'EDIT' and 'C' (Cancel) buttons. The 'Internal Network' section has a toggle for 'Active Proxy' (disabled) and 'Enable/Disable' buttons. It also has fields for IPv4 and IPv6 settings, including IP Type, Source, IP Address, Subnet Mask, Gateway, and DNS Server. Below these fields are 'EDIT' and 'C' buttons. On the right side, there are three panels: 'Instructions' with links for 'Internal & External Networks' and 'Troubleshooting', 'Reboot Collector' with a 'REBOOT' button, and 'Shutdown Collector' with a 'SHUTDOWN' button. At the bottom right, the version '1.0.43' is displayed.

If the vLWC does not connect to the cloud, click **Download Light RSI** to download the light RSI file, create a Tech Case in the Juniper Support Portal, and attach the downloaded RSI file to the case.

In some cases, the Juniper support engineer might ask you to attach the Extensive RSI file to the case. To download it, click the **Download Extensive RSI**.

Configure Network Settings Through JSI Shell

The JSI Shell is an SSH menu system for the vLWC. In addition to viewing the network status, you can use the JSI Shell to view and modify the network settings for the internal network, external network, optional active proxy and the management (cap) interface. See [Configure Network Settings through JSI Shell](#) for more information.

Step 2: Up and Running

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Now that you've deployed the Virtual Lightweight Collector (vLWC), let's get you up and running with Juniper Support Insights (JSI) on Juniper Support Portal!

Access Juniper Support Insights

To access Juniper Support Insights (JSI), you must register on the [User Registration](#) portal. You also require a user role (Super Admin, Admin or Standard) assigned. To get a user role assigned, contact [Juniper Customer Care](#) or your Juniper Services team.

JSI supports the following user roles:

- **Standard**—The Standard users can view the device onboarding details, operational dashboards, and reports.
- **Admin**— The Admin users can onboard devices, perform JSI management functions, view the operational dashboards and reports.
- **Super Admin**—The Super Admin users can perform all the functions as a regular admin, and also manage the JSI roles to grant and revoke access (from **Insights** menu > **Advanced Settings** > **User Role Management** page).



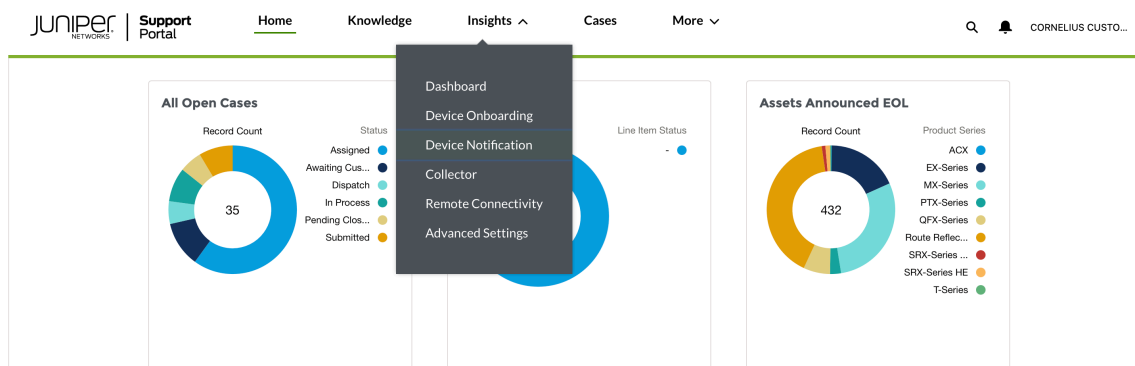
NOTE: Users managed by the super admin must be associated with the same account as the LWC.

To locate a user, the super admin must enter the full email address (example: jsuser@email.com) in the search field of the **User Role Management** page. If searching for the user by their full email address does not yield any results, contact your Juniper Services team for assistance.

- **RCS Operator**—The RCS Operator users can view device onboarding details, operational dashboards, and reports. In addition, they can receive and approve RCS requests.

Here's how to access JSI:

1. Log in to Juniper Support Portal (supportportal.juniper.net) by using your Juniper Support Portal credentials.
2. On the **Insights** menu, click:
 - **Dashboards** to view of a set of operational dashboards and reports.
 - **Device Onboarding** to perform device onboarding to initiate data collection.
 - **Device Notifications** to view notifications about device onboarding, data collection, and errors.
 - **Collector** to view the details of the vLWC associated with the account.
 - **Remote Connectivity** to view and manage Remote Connectivity Suite requests for a seamless device data collection process.



View the Virtual Lightweight Collector Connection Status

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- [View the Connection Status on the JSI Shell | 16](#)

You can view the Virtual Lightweight Collector (vLWC) connection status on the following portals:

- Juniper Support Portal

- The vLWC Captive Portal webpage and vLWC JSI Shell. The Captive Portal webpage and JSI Shell provides a more detailed view, and has options that let you change the vLWC configuration settings and perform troubleshooting.

View the Connection Status on Juniper Support Portal

Here's how to view the vLWC connection status on Juniper Support Portal:

1. On Juniper Support Portal, click **Insights > Collector**.
2. Check the summary table to see the Connection Status of the vLWC. The status should be shown as **Connected**. If the status is shown as **Disconnected**, check if the vLWC is installed and powered on.

View the Connection Status on the Captive Portal

See "[Configure Network Settings through Captive Portal](#)" on page 11 for more information.

View the Connection Status on the JSI Shell

See "[Configure Network Settings Through JSI Shell](#)" on page 14 for more information.

Onboard Devices

You'll need to onboard devices to initiate a periodic (daily) data transfer from the devices to the Juniper Cloud. Here's how to onboard devices in a JSI setup that uses a vLWC:



NOTE: You must be an admin user to onboard a device.



NOTE: Ensure that the NETCONF SSH subsystem is configured on your Juniper devices (on port 22) to onboard these devices to JSI. JSI supports NETCONF SSH sessions on port 22 only. JSI NETCONF sessions on other ports, such as port 830, are currently not supported.



NOTE: For information on Junos configurations and permissions required for JSI, see the FAQ - [What permissions does the JSI user need in Junos to operate JSI?](#)

Here's how to onboard devices to JSI:

1. On Juniper Support Portal, click **Insights > Device Onboarding**.
2. Click **New Device Group**. The following image represents the device onboarding page with some sample data filled in.

Device Group

Device Group

Name

Data Center Device Group

Description

Device List

IP Address

192.0.2.0, 192.0.2.1

Upload Target URL

Upload Files

Or drop files

Download Sample CSV File

Collector Name

DD1120AN0169

Site ID

00000050001

Credentials

Add Credential

Existing Credentials

Selected Credential

Credential Name

testuser

Select Credential Type

User Name / Password

SSH Key

User Name

mypassword

Password

.....

Back to list

Connections

Add Connection

Existing Connections

Existing Bastion Host

Select Connection Type

Direct

Via Bastion Host

Submit

3. In the **Device Group** section, enter the following details for the devices to be associated with the LWC:

- **Name**—A name for the device group. A Device Group is a collection of devices with a set of common credentials and modes of connection. The operational dashboards and reports use the device groups to provide a segmented view of the data.



NOTE: Data displayed depends on the end-user type:

- Customer—Can view device groups associated with your customer account IDs.
- Partner—Can view device groups for all customer account IDs that you are authorized to access.

- **IP Address**—IP addresses of the devices to be onboarded. You can provide a single IP address or a list of IP addresses. Alternatively, you can upload the IP addresses through a CSV file.
 - **Collector Name**—Automatically populated if you have only a single vLWC. If you have multiple vLWCs, select from the list of available vLWCs.
 - **Site ID**—Automatically populated if you have only a single Site ID. If you have multiple Site IDs, select from the list of available Site IDs.
4. In the **Credentials** section, create a set of new credentials or select from the existing device credentials. JSI supports SSH keys or usernames and passwords.
5. In the **Connections** section, define a connection mode. You can add a new connection or choose from the existing connections to connect the device to the vLWC. You can connect the devices directly or through a set of bastion hosts. You can specify a maximum of five bastion hosts.

Bastion hosts utilize a SOCKS5 proxy server to reach target devices in the customer's network. Bastion hosts also support connection hopping, where an SSH session is first established with a customer's Linux-based device, which then initiates a subsequent SSH session to the target device.

6. After entering the data, click **Submit** to initiate device data collection for the device group.

View Notifications

Juniper Cloud notifies you about the device onboarding and data collection status. Notification could also contain information about errors that need to be addressed. You can receive notifications in your email, or view them on Juniper Support Portal.

Here's how to view notifications on Juniper Support Portal:

1. Click **Insights > Device Notifications**.
2. Click a **Notification ID** to view the content of the notification.

The screenshot shows the Juniper Support Portal interface. The 'Insights' menu is open, highlighting 'Device Notification'. Below the menu, a table displays a list of notifications. The table has columns for Notification ID, Type Name, Collector, Account, Type, and Created Date. The first four rows show notifications with IDs M-0000154649 through M-0000154646, all with the type 'New Measurement Data Available' and collector 'DD1720AN0111'.

Notification ID	Type Name	Collector	Account	Type	Created Date
1 M-0000154649	New Measurement Data Available	DD1720AN0111	JSI Test Account RCS		9/1/2023 12:35 AM
2 M-0000154648	New Measurement Data Available	DD1720AN0111	JSI Test Account RCS		9/1/2023 12:31 AM
3 M-0000154647	New Measurement Data Available	DD1720AN0111	JSI Test Account RCS		8/31/2023 11:35 PM
4 M-0000154646	New Measurement Data Available	DD1720AN0111	JSI Test Account RCS		8/31/2023 11:31 PM

View Operational Dashboards and Reports

The JSI operational dashboards and reports are dynamically updated based on a periodic (daily) device data collection, which is initiated when you onboard a device. The dashboards and reports provide a set of current, historic, and comparative data insights into the devices' health, inventory, and lifecycle management. The insights include the following:

- Software and hardware systems inventory (chassis to component level detail covering serialized and non-serialized items).
- Physical and logical interface inventory.
- Configuration change based on commits.
- Core files, alarms, and Routing Engine health.
- End of Life (EOS) and End of Service (EOS) exposure.

Juniper manages these operational dashboards and reports.

Here's how to view the dashboards and reports on Juniper Support Portal:

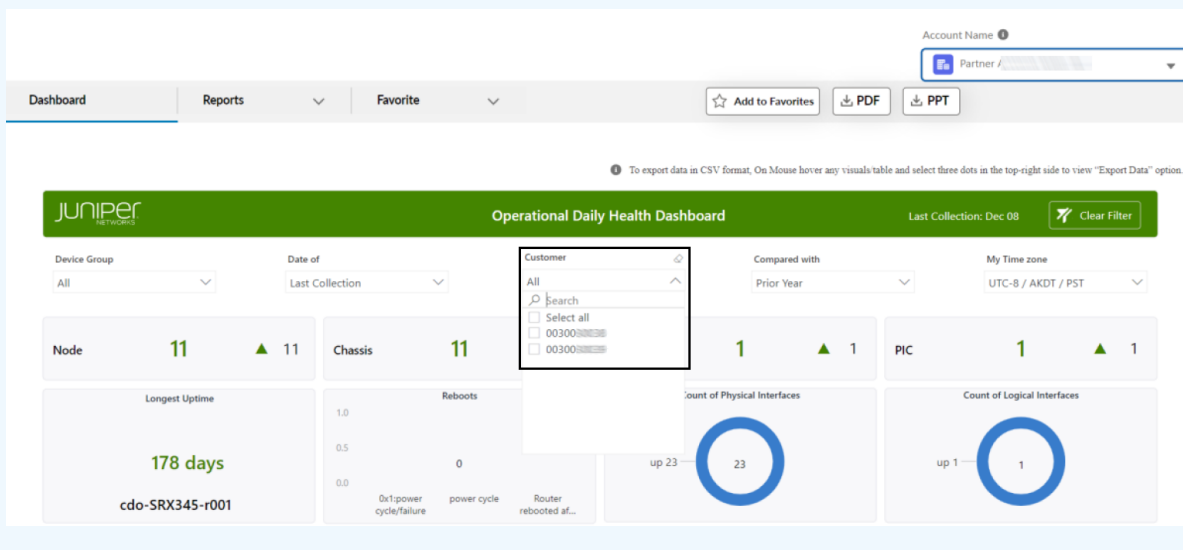


NOTE: Dashboards and reports are customized based on the end-user type:

- Customer—Displays data insights for the devices associated with the customer account.
- Partner—Displays a consolidated view with device insights from all supported customers.

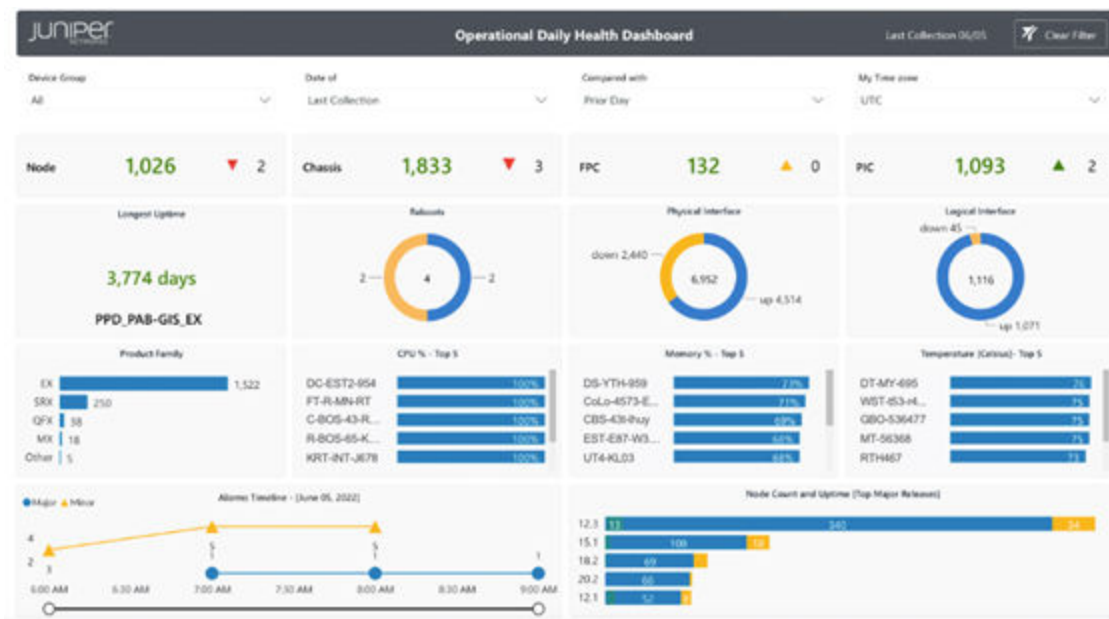
You can filter the view to display insights specific to individual customers.

To view insights specific to individual customers, select the customer ID from the Customer drop-down, as shown;



1. Click **Insights > Dashboard**.

The **Operational Daily Health Dashboard** is displayed. This dashboard includes charts that summarize the KPIs associated with the account, based on the last collection date.



2. From the **Reports** menu on the left, select the dashboard or report you want to view.

Dashboard
Reports
Favorite
Add to Favorites
PDF
PPT

Device Group
All

Node
Longer
3

uranus-northern

Report types
Standard

Inventory	Exposure	Health	Routing
Hardware Inventory	Proactive Bug Notification (PBN) Review and Analysis	Device Timeline	ISIS
Hardware Hierarchy	Security Advisories and Vulnerabilities	Alarm Details	OSPF
Device Management Inventory	Hardware EOL-EOS Status	Commit History	BGP
Compare Hardware	Software EoE-EoS	Coredump	RSVP
Search Hardware	Suggested Software Releases	System Report	
Physical Interface	Serial Number Exception	Routing Engine Health	
Logical Interface			
Asset and Contract			
License			

Chassis Count [Top Products]

MX 25

CPU % - Top 5

neptune-east-9... 44%
neptune-north-... 38%

Memory % - Top 5

mars-southeast... 57%
saturn-south-1... 54%

Temperature - Top 5

venus-west-137 50°C
moon-west-140 49°C

The reports typically consist of a set of filters, an aggregated summary view, and a detailed tabular view based on the data collected. A JSI report has the following features:

- **Interactive views**—Organize the data in a meaningful way. For example, you can create a segmented view of the data, click through, and mouse-over for additional details.

- **Filters**—Filter data based on your user type (customer or partner) and requirements.

Data filtering based on end-user type:

- Customer—View and filter device groups associated with your customer account IDs.
- Partner—View and filter device groups associated with all customer account IDs that you are authorized to access.

You can filter data specific to one or more device groups for a specific collection date and a comparison period.

- Favorites—Tag reports as favorites for ease of access.
- PDF, PTT, and Data formats—Export the reports as PDF or PTT files, or in data format. In data format, you can download the report fields and values for each report component (for example, chart or table) by using the **Export Data** option as shown below:

Dashboard

Reports

Favorite

Add to Favorites

PDF

PPT

To export data in CSV format, On Mouse hover any visuals/table and select three dots in the top-right side to view "Export Data" option.

Commit History

Last Collection: Jun 17

Clear Filter

Device Group

Host

User

Chassis Serial Number

Log Contains

Commit Date UTC Range

My Time zone

All

All

All

All

All

Last 1 Weeks

UTC

Commit Time Local

Host

Chassis Serial Number

User

Log

Client

Comment

Export data

Prepare for a Remote Connectivity Suite Request

IN THIS SECTION

- [View RCS Requests | 21](#)
- [Configure RCS Device Settings | 23](#)

The JSI Remote Connectivity Suite (RCS) is a cloud-based solution that streamlines the support and troubleshooting process between Juniper support and customers by making the device data collection process seamless. Instead of iterative exchanges between Juniper support and the customer to obtain the right device data, RCS retrieves this in the background automatically. This timely access to essential device data facilitates swift troubleshooting of the issue.



NOTE: RCS is supported on devices connected directly or through Bastion Host via SOCKS5 proxy, but is not supported on devices connected through Bastion Host using connection hopping. Ensure your device connection method is compatible before initiating an RCS request.

At a high level, the RCS request process involves the following steps:

1. Submit a technical support case through the customer portal.
2. A Juniper support engineer will contact you about your technical support case. If necessary, the Juniper support engineer may propose an RCS request to retrieve device data.
3. Depending on the rules from the RCS settings (**Ask Approval** enabled), you may receive an email containing a link to authorize the RCS request.
 - a. If you consent to share the device data, click the link in the email, and approve the request.
4. The RCS request will be scheduled for a specified time and the device data is securely relayed to Juniper support.



NOTE:

- You must have JSI administrator privileges to configure RCS device settings, and approve or deny RCS requests.
- RCS uses the Secure Copy Protocol (SCP) for file collection. SCP is enabled by default and does not require any configuration changes.

View RCS Requests

Here's how to view RCS requests on Juniper Support Portal:

1. On Juniper Support Portal, click **Insights** > **Remote Connectivity** to open the Remote Connectivity Requests Lists page.

The Remote Connectivity Requests Lists page lists all the RCS requests made. You can use the drop-down list on the top left corner of the page to customize your viewing preference.

Remote Connectivity Requests
Recently Viewed ▾

50+ items

	Log Request Id ▾	Type ▾	Approval Status ▾	Related Case Number ▾	Device Serial Number ▾	Log Request Create Date/... ▾	Created By ▾
1	LR-000271	Core File Collection	Approved	TEST-2023-0831-634439		8/31/2023 10:56 AM	Ray Smith
2	LR-000270	RSI Collection	Approved	TEST-2023-0831-634439		8/31/2023 10:35 AM	Ray Smith
3	LR-000220	RSI Collection	Pending Approval	TEST-2023-0823-634289		8/29/2023 7:20 AM	George Wilson
4	LR-000222	RSI Collection	Pending Approval	TEST-2023-0823-634289		8/29/2023 7:52 AM	Jane Miller

2. Click the Log Request Id of an RCS request to open the Remote Connectivity Requests Detail page.

From the Remote Connectivity Requests Detail page, you can view the RCS request details and perform the following tasks:

- Modify the serial number.

You modify the serial number if you provided RCS authorization for the wrong serial number during case creation. Click **Change Serial Number or SSRN** to enter the correct serial number of the device.



NOTE:

- You must enter the serial number of a JSI-connected device to avail the RCS feature.
- The updated serial number must be of the same product family as the original device.

If you want to authorize RCS for a different product family, create a separate case. JTAC has separate support teams for each product family. Opening a separate support case for the desired product family helps the support teams assist you with a quicker solution.

The **Case Details** section displays the serial number of the device for which the case was opened, and the RCS request was initially authorized.

The **Requested Serial Number** section displays the updated serial number of the device for which the RCS request is initiated.

- Adjust the requested date and time (set to a future date/time).



NOTE: If the time zone is not specified in your user profile, the default time zone is Pacific Time (PT).

- Append notes.
- Approve or deny the RCS request.



Remote Connectivity Request

LR-000270

RCS Type

RSI Collection

JTAC Notes

RSI Request for 12:40pm CST

Requested

Ray Smith

Status

Document Uploaded

Access Request Date and Time

8/31/2023, 10:40:00 AM

Case Details

Case Number

TEST-2023-0831-634439

Case Type

Tech

Serial Number / Software Support Ref No

Software

Version

19.4

System/Router Name

a10-40

Summary

8/31 RCS Test

Requested Serial Number

Serial Number / Software Support Ref No.

Software

17.3R2.10

Product Series

EX

Platform

SRX1500

System/Router Name

cdo-SRX1500-r001

☐ Change Serial Number or SSRN

Approval Details

☐ I would like to change the requested Date & Time

Notes ⓘ

Back

Deny



Approve

Configure RCS Device Settings

You can configure both RCS collection and core file collection preferences from the RCS settings page. Here's how to configure the Remote Connectivity RSI Collection settings on Juniper Support Portal:

1. On Juniper Support Portal, click **Insights** > **Remote Connectivity** to open the Remote Connectivity Requests Lists page.
2. Click **Settings** on the top right corner of the page. The Remote Connectivity RSI Collection Settings page opens. This page enables you to set global collection permissions and create permission exceptions based on different criteria.

Remote Connectivity Settings
Configure your log collection settings. Set global permissions or create collection rules by day, device, or device group.

Account Name   XXXXXXXXXX


System Log Collection

RSI Collection

Ad hoc Commands

Core File Collection

Global Collection Permissions


* Select the default collection permissions for all devices and device groups. 

☒ Ask Approval
 ☐ Always Allow
 ☐ Always Deny

Edit


Day and Time Rules Create specific day and time exceptions to your global collection permissions. **Add**

Day	Duration	Permission Type	Notes	Action
No items to display.				

Device Group Rules Create separate collection rules for specific device groups. 

Device Group Name	Permission Type	Notes	Action
No items to display.			

Add

Device List Rules Create separate collection rules for specific devices. 

Device List	Permission Type	Notes	Action
No items to display.			

Add

- Global collection permissions are configured at an account level. For multiple JSI-connected accounts, you can select the account using the Account Name drop-down list on the top right corner of the page.
- To configure global collection permission, click **Edit** in the Global Collection Permissions section and change permission to one of the following:
 - Ask Approval**—An approval request is sent to the customer when Juniper support initiates an RCS request. This is the default setting when no permission is explicitly selected.
 - Always Allow**—RCS requests initiated by Juniper support are automatically approved.
 - Always Deny**—RCS requests initiated by Juniper support are automatically declined.



NOTE: When you have the global collection permission, and one or more exceptions configured with conflicting permissions, the following order of precedence will apply:

- Device list rules
- Device group rules
- Day and time rules
- Global collection permission

- To create exceptions based on specific day and time, click **Add** in the Date and Time Rules section. The Day and Time Rules Settings page opens.

You can configure an exception based on days and duration, and click **Save** to save the exception and return to the Remote Connectivity RSI Collection Settings page.

Remote Connectivity Settings
Configure your log collection settings. Set global permissions or create collection rules by day, device, or device group.

Account Name: [Dropdown]

System Log Collection

RSI Collection

Ad hoc Commands

Core File Collection

***Select Days**

☒ Monday ☒ Wednesday ☒ Friday
☒ Tuesday ☒ Thursday ☐ Sunday
☐ Saturday

Set your duration

***Start Time** 9:00 AM ***End Time** 5:00 PM ☐ All Day

***Select Permission Type**

☒ Ask Approval ☐ Always Allow ☐ Always Deny

Notes

[Text Area]

Cancel Save

6. **NOTE:** Before configuring collection rules for device groups, ensure that a device group already exists for the account.

To create separate collection rules for specific device groups, click **Add** in the Device Group Rules section. The Device Group Rules Settings page opens.

You can configure the collection rule for a specific device group, and click **Save** to save the rule and return to the Remote Connectivity RSI Collection Settings page.

Remote Connectivity Settings
Configure your log collection settings. Set global permissions or create collection rules by day, device, or device group.

Account Name: [Dropdown]

System Log Collection

RSI Collection

Ad hoc Commands

Core File Collection

Select Device Groups

Device Group Name	Description
<input checked="" type="checkbox"/> JSAS-Junos	

***Select Permission Type**

☒ Ask Approval ☐ Always Allow ☐ Always Deny

Notes

[Text Area]

Cancel Save

- To create separate collection rules for individual devices, click **Add** in the Device List Rules section. The Device List Rules Settings page opens.

You can configure the collection rule for individual devices, and click **Save** to save the rule and return to the Remote Connectivity RSI Collection Settings page.

Remote Connectivity Settings
Configure your log collection settings. Set global permissions or create collection rules by day, device, or device group.

Account Name

System Log Collection

RSI Collection

Ad hoc Commands

Core File Collection

*** Device List**

IP Addresses (IPv4 or IPv6)

192.168.0.1

OR

Upload IP Addresses File in CSV Format

Upload CSV Or Drop CSV

[Download Sample IP Address CSV File](#)

*** Select Permission Type**

☒ Ask Approval ☐ Always Allow ☐ Always Deny

Notes

Step 3: Keep Going

IN THIS SECTION

- [What's Next? | 27](#)
- [General Information | 27](#)
- [Learn with Videos | 27](#)

Congratulations! Your JSI solution is now up and running. Here are some of the things you can do next.

What's Next?

If you want to	Then
Onboard additional devices or edit the existing onboarded devices.	Onboard additional devices by following the procedure explained here: "Onboard Devices" on page 16
View the operational dashboards and reports.	See "View Operational Dashboards and Reports" on page 18
Manage your notifications and email subscriptions.	Log into the Juniper Support Portal, navigate to My Settings and select Insights to manage your notifications and email subscriptions.
Get help with JSI.	Check for solutions in the FAQs: Juniper Support Insights and the Lightweight Collector and Knowledge Base (KB) articles. If FAQ or KB articles do not address your issues, contact Juniper Customer Care .

General Information

If you want to	Then
See all documentation available for Juniper Support Insights (JSI)	Visit the JSI Documentation page in the Juniper TechLibrary
Find more in-depth information about installing the Virtual Lightweight Collector (vLWC)	See the Virtual Lightweight Collector Deployment Guide .

Learn with Videos

Our video library continues to grow! We've created many, many videos that demonstrate how to do everything from install your hardware to configure advanced Junos OS network features. Here are some great video and training resources that will help you expand your knowledge of Junos OS.

If you want to	Then
Get short and concise tips and instructions that provide quick answers, clarity, and insight into specific features and functions of Juniper technologies	See Learning with Juniper on the Juniper Networks main YouTube page
View a list of the many free technical trainings we offer at Juniper	Visit the Getting Started page on the Juniper Learning Portal