GETTING STARTED GUIDE

Network Performance Monitor

Version 2024.4

Part 2 of 2: Get Started

SOLARWINDS

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How do I customize NPM?

Welcome to the Network Performance Monitor (NPM) Getting Started Guide Part 2: Customize.

Complete the following tasks to try out basic customization options in an example scenario. The tasks show how to create a customized summary view with information relevant for the New York IT Department, how to customize an alert and how to create a report for the New York IT Department.

> ⓘ Before you begin, make sure you have NPM installed, and you have discovered your network.

☐	Specify device owners for your nodes. Before you begin, learn more about custom properties. What are custom properties and why use them?
☐	Group nodes relevant for New York IT Department.
☐	Create the customized New York IT Department view with specific widgets.
☐	Add the new view to the My Dashboards menu to easily access the view. Set the view to be the default view open when users log in to the SolarWinds Platform Web Console.
☐	Edit the new view. Add widgets, move interface-related information to a subview, and limit the view to show only the nodes in your New York IT Department group.
☐	Customize the Custom Table widget to display the node status, device owner, and the email address of the emergency contact.
☐	Display devices monitored by New York IT Department on the Intelligent Map.
☐	Optimize the view for large screens or mobile devices.
☐	Create a custom report for the New York team that shows the availability of devices they were responsible for during the last 30 days.
☐	Create a custom alert to notify the New York team when critical nodes are not up.

After you finish this guide, see Beyond Getting Started with NPM for information about other NPM functionality.

Existing customers: Access your licensed software from the SolarWinds Customer Portal. If you need any implementation help, contact our Support Reps.

Evaluators: Download your free 30-day evaluation from www.solarwinds.com. If you need assistance with your evaluation, contact sales@solarwinds.com.

Why use custom properties in NPM?

Custom properties are user-defined fields (such as country, building, asset tag, or serial number) that you can associate with monitored network objects.

Every object you monitor includes a list of default properties used to describe the device, such as IP address, host name, MAC address, and so on. You can also create custom properties and use them to create special alerts, reports, views, and groups. Applications can also have custom properties.

Frequently used custom properties include:

Site

While the Location property is available by default and returns the city specified in the device's settings, you may need to include additional details about the location.

Examples: Rack_Number, Closet_Location, Building_Name, Building_Floor, Building_Acronym

Use: Create groups of items in the same location, build maps, or route alerting information.

Function or Type

SolarWinds recommends organizing your objects by type or function.

Examples: Core_Network, WAN_Interface, Wireless, Server, Domain_Controller, VPN, Windows Servers, Linux Servers, Email Service

Use: Apply special alerting criteria depending on the type of element. For example, if any Core_Network element has problems, escalate the case immediately.

Owner

You can use multiple custom properties to specify who is responsible for an element to help route alerts or create reports.

Examples: A group owner name, such as Networking, SQL_Admins, AD_Admins, or a specific owner.

Uses:

- Define a Contact Email and On_Call_Phone for owners. If there is a problem with a node, the alert can be routed to the correct person.
- Provide a custom view for owners to see their devices and create custom reports, showing only devices they are responsible for.

Service level

Some monitored elements (such as core routers, switches, and applications) may be important enough for someone to be notified any time of the day when there is a problem.

Examples:

- Mark nodes as Critical, and configure alerts to notify.
- With service levels, this custom property can help you specify whether it is 24x7, a business day, or test node, and alert appropriately.

Customization checklist

Before you customize your environment, answer the following questions:

☐	How would you like to logically organize your devices? For example, Location, Site, Lab, and Rack? Function?
☐	What data type is each custom property? For example, boolean, integer, drop-down options only, free-entry text?
☐	What are your owner groups? For example, who is responsible for the Windows servers, Linux servers, devices, applications, and so on?
☐	What are the sites and locations you want to report and alert on?
☐	Do you need to distinguish between high impact objects that must be addressed first (for example, production) and low impact objects that are of lesser priority (for example, development)?
☐	Are there any overrides for specific objects you require for alerting?
☐	Are there any devices, servers, applications, and so on that you want muted (continue to collect data but not see alerts)? Do you want to stop alerts during different periods of the day or night?
☐	Do you want to associate any assets with a purchase date, PO number, vendor contact information, and so on?
☐	Are there any fields you will need to add to allow for integration with other systems? This Orion SDK post provides more information.

Tips

- You can use custom properties to define alerts, reports, and web console views. Use multiple properties together with 'AND' and 'OR' operators for powerful filtering and definition options.

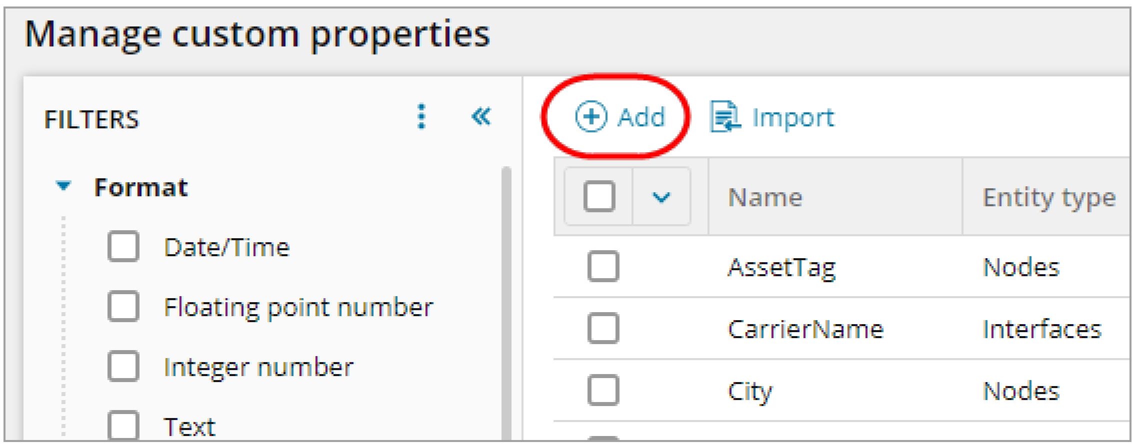
- For each custom property, decide how you are going to use it and how it will work in your environment. For example, instead of a comment on an interface that reads "WAN Link interface - critical interface," try two different Yes/No values, such as "Critical Interface" and "WAN link," which could each apply to multiple interfaces. This approach makes it easier for you to filter reports and alerts. When used together (`Critical = true AND WAN link = True`), it still applies to that interface.

Create a custom property for nodes in NPM

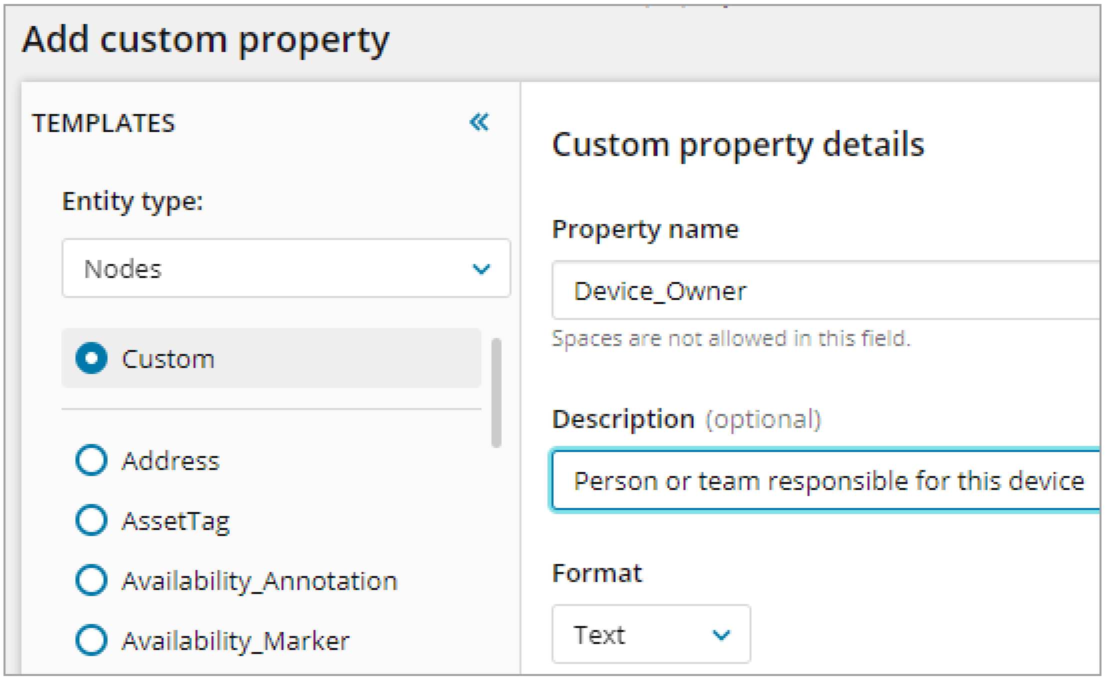
Custom properties are user-defined fields, such as country, building, asset tag, or serial number, that you can associate with monitored network objects.

This example shows how to create the Device_Owner custom property and assign it to multiple nodes. You can use this example to create an application owner, business service owner, or server type owner.

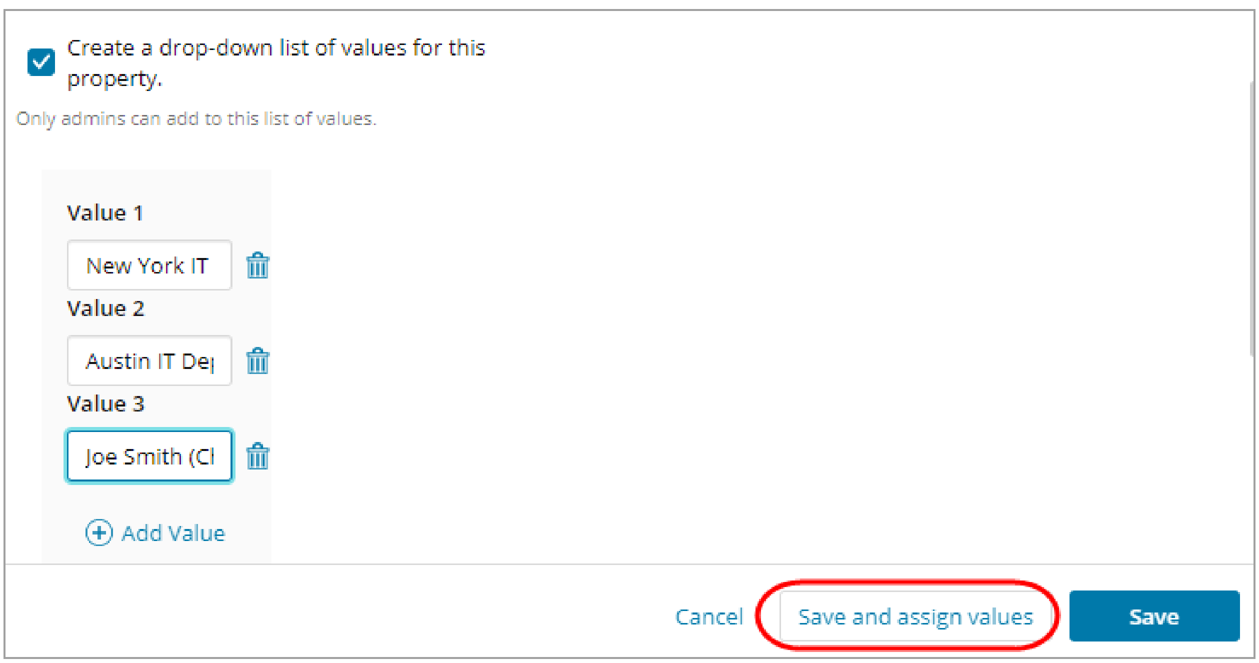
1. Click Settings > All Settings, and in the Node & Group Management grouping, click Manage Custom Properties.
2. Click Add.



3. Select an entity type, and provide the required information.

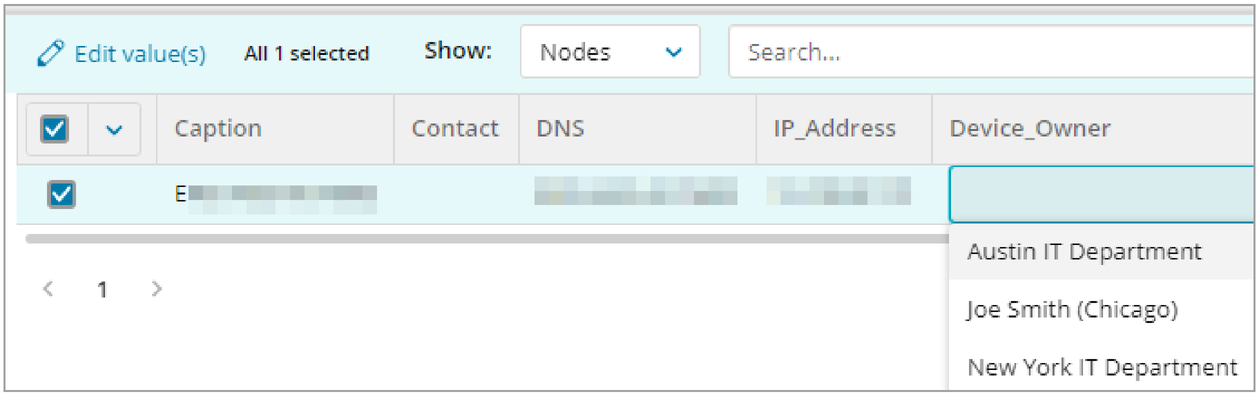


4. Select Create a drop-down list..., add values for the property, and click Save and assign values.

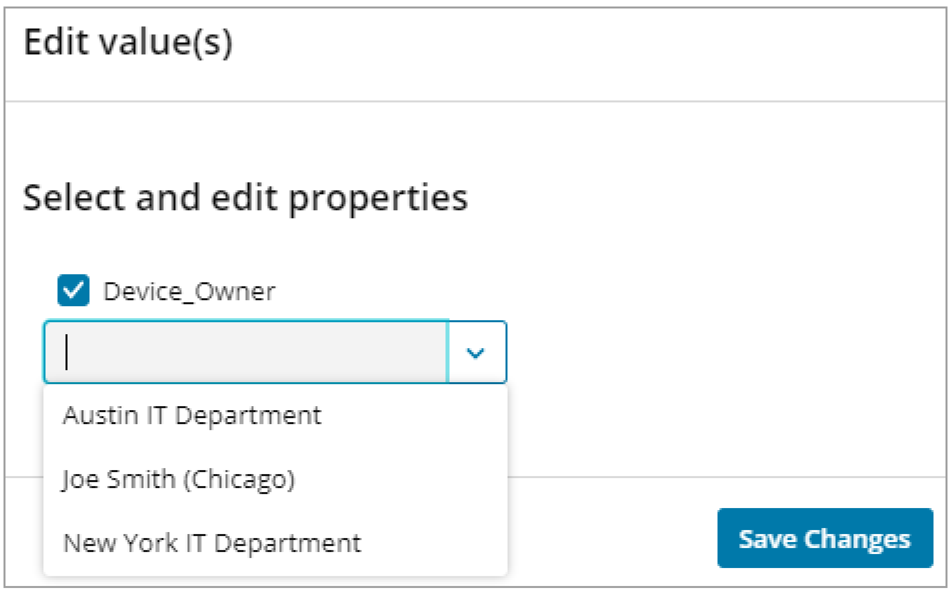


5. On Assign values, select nodes and click Edit value(s).

To define values for individual entities, you can also click into the property name column and specify the value.



6. If you selected multiple entities, select the property box, select the value, and click Save Changes. The selected value is saved for selected entities.



7. Click Cancel or click Manage custom properties in breadcrumbs to return to the Manage custom properties view.
8. Repeat steps 2 through 6 to create the Email_Address custom property.

   The selected nodes now have a responsible person (Device_Owner) and an email address assigned to them. The custom properties can be used for creating alerts and reports.

You can see all custom properties assigned to a node in the Custom Properties for Nodes widget on the Node Details view.

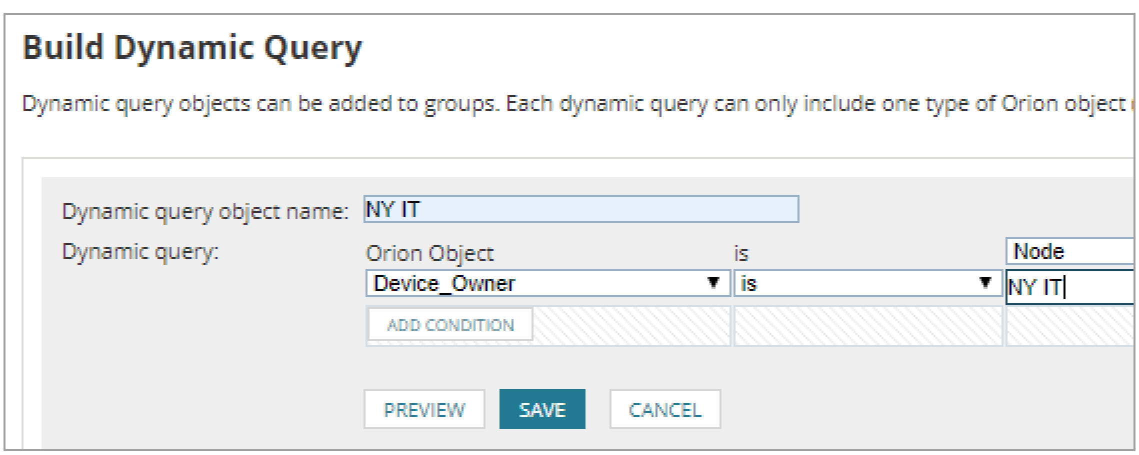
Create a group in NPM

A group is a collection of monitored objects. For example, you can group nodes from the same location, group all your WAN interfaces, or group all devices owned by a certain department. Or, you can group all Windows servers, or SQL servers, or web servers. You can then create alerts and reports or restrict access for the group.

The example below shows how to create a NY IT Department group and add nodes to it. For more details about groups, see [Group monitored objects] in the SolarWinds Platform documentation.

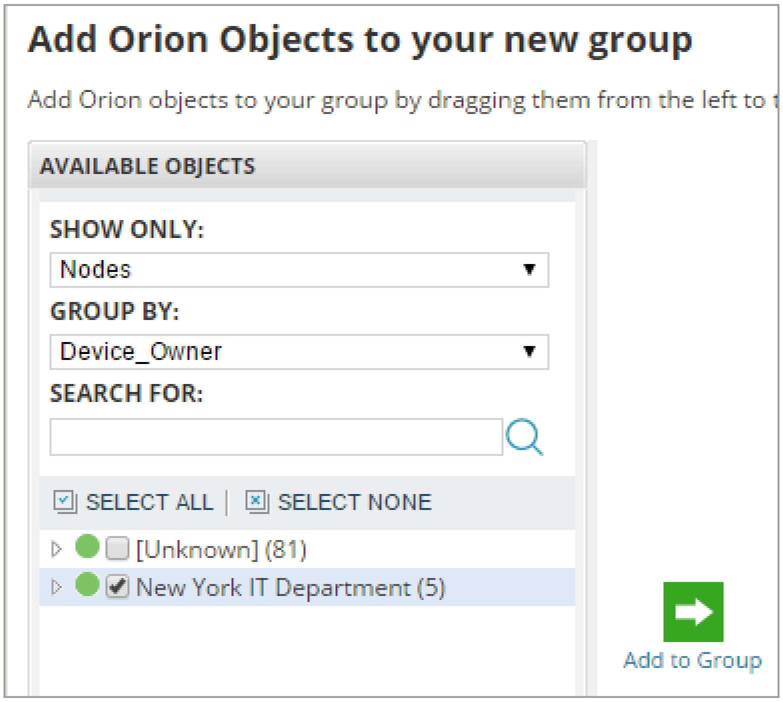
1. Click Settings > All Settings, and in the Node & Group Management grouping, click Manage Groups.
2. Click Add New Group.
3. Provide the required information, and click Next.

4. Define the group members:
   - To define the group based on a specific property, click Add Dynamic Query, specify the property value the group members should have, and click Save. When you start monitoring entities, entities with the defined property will be automatically added to the group.



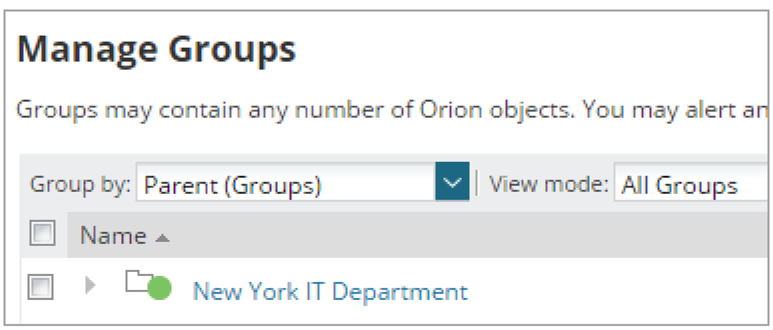
- Select the monitored objects that fit the group definition, and click Add to Group.

> Select a custom property in the Group by list.



5. Click Create Group.

   The new group appears in the Manage Groups list.



   Click the group to display the Group Details view.

> To see group members and their connections on an automatically created Intelligent Map, click the Map subview on the Group Details view.

View entities on Intelligent Maps

Starting with Orion Platform 2018.2, SolarWinds Platform products can map monitored entities on Intelligent Maps.

- **Map related or connected entities**: On an entity details page, click the Map subview to display monitored relations or connections relevant for the entity.
- **Create Intelligent Maps from scratch**: Click My Dashboards > Maps to view list of available Intelligent Maps, and edit or delete existing maps, or create new Maps from scratch.
- **View maps full-screen**: Click a Intelligent Map to display it in the view mode.
- **Integrate Intelligent Maps to views**: Add Intelligent Maps as a widget to seamlessly integrate customized Intelligent Maps to your views.

For details, see the SolarWinds Platform Administrator Guide.

View a map of connected entities

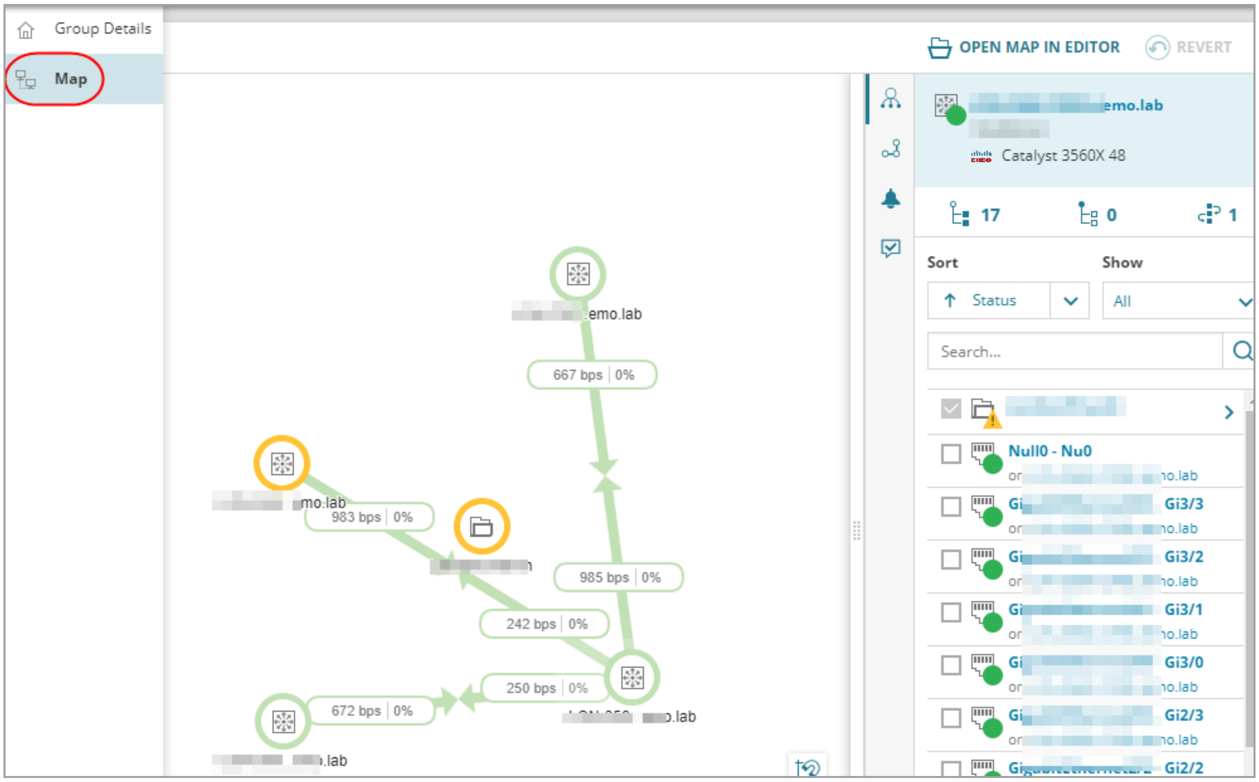
On Maps, you can see entities connected or related to supported entities (such as nodes or groups).

1. Go to the group details view, and click the Map icon in the navigation bar on the left.

   Entities that belong to the group are displayed on a map, including connections between them.

2. Click an object to display more information about it in the navigation pane on the right.

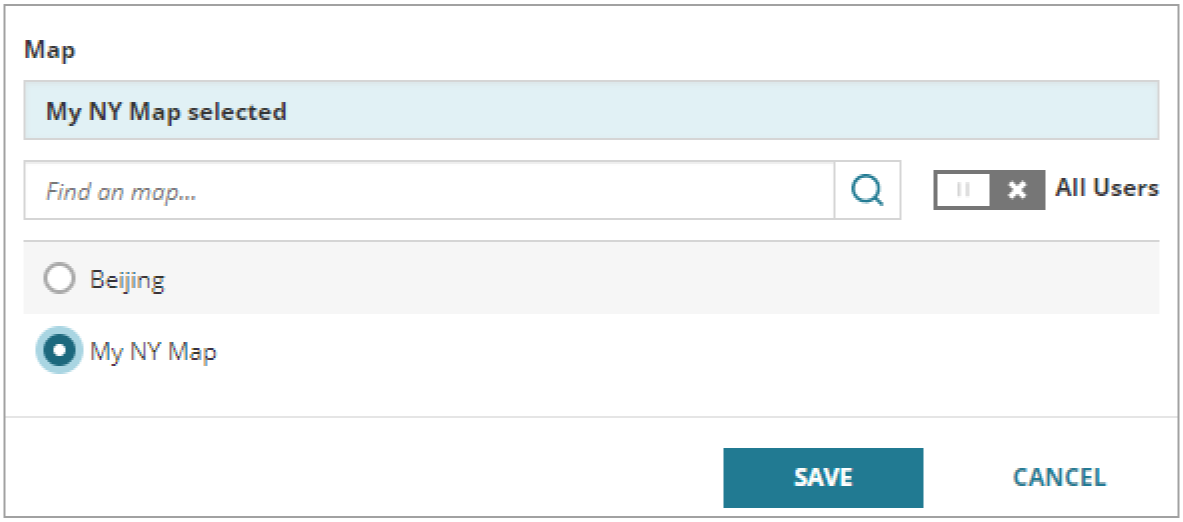
Connections related to the selected object are highlighted on the map, too, with boxes informing you about configured metrics, such as traffic or percent utilization.



Add the map to a view as a widget

1. On the map, click Open Map in Editor.
2. Click Save, provide a name for the map and click Save.
3. Go to the view where you want to add the saved map and add the Orion Map widget there:
    a. Click the Pencil Icon in the top left corner of the view.
    b. Click Add Widgets in the top right and search for Orion Map.
    c. Drag the map widget to its position on the view. Click Done Adding Widgets and then click Done Editing view.

4. Click Choose Map in the widget, select the map, and click Save.



The map is now available in the widget on your view.

What else can you do with Intelligent Maps?

- View details for entities on mapped entities, such as the Map Summary, connected entities, dependent entities, related alerts, or VMAN recommendations.
- View connections between displayed entities, such as topology connections, application dependency connections, or Orion dependency connections.
- Customize the auto-generated maps, such as add/remove related entities, create a group from mapped entities.
- Adjust the auto-generated map by zooming in, zooming out, or panning.
- Create a custom Intelligent Map, add entities, adjust their position, and save the map.
- Create a custom alert based on the Intelligent Maps entity.
- Send mapped objects via email as a report and send the Intelligent Map as a PDF.

See Intelligent Maps in the SolarWinds Platform online help for details.

Create a Summary view and add widgets in NPM

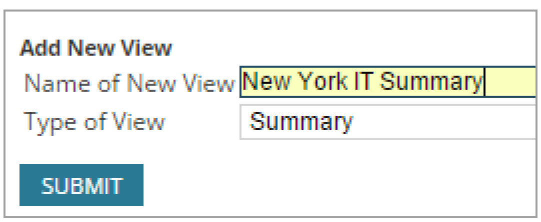
Views are configurable pages of network information that can include maps, charts, summary lists, reports, events, and links to other resources. Summary views provide data about multiple objects. Detail views provide more information for a specific object.

This example shows how to create the New York IT Department Summary view and add the following resources, or widgets:

- Active Alerts
- Hardware Health Overview
- Interfaces with High Percent Usage
- Top 10 Nodes by Current Response Time
- Custom Table
- Map

Create the New York IT Summary view

1. Log in to the SolarWinds Platform Web Console, and click Settings > All Settings.
2. Click Add New View in the Views grouping.
3. Name the view, and select the view type.

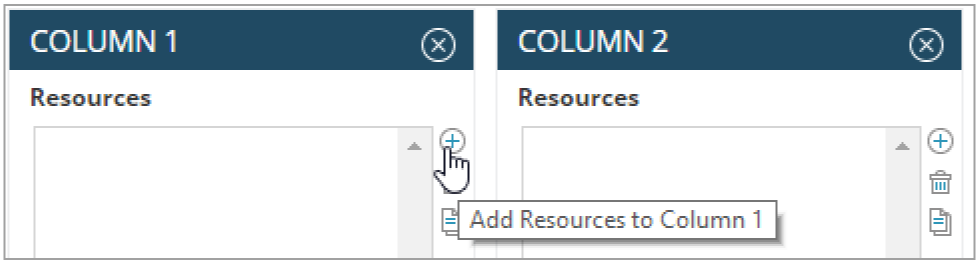


4. Click Submit.

You have now created an empty view. The Customize view page opens automatically. Add resources that contain the information you want to see or immediately add the view to a dashboard.

Add resources, or widgets

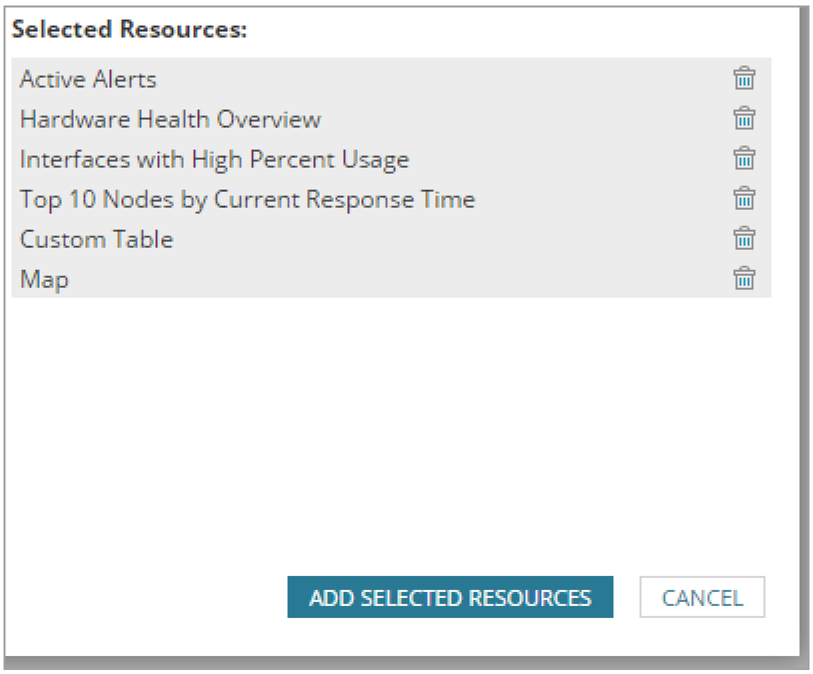
1. On the Customize page, click + next to the column that you want to add the resources, also known as widgets.



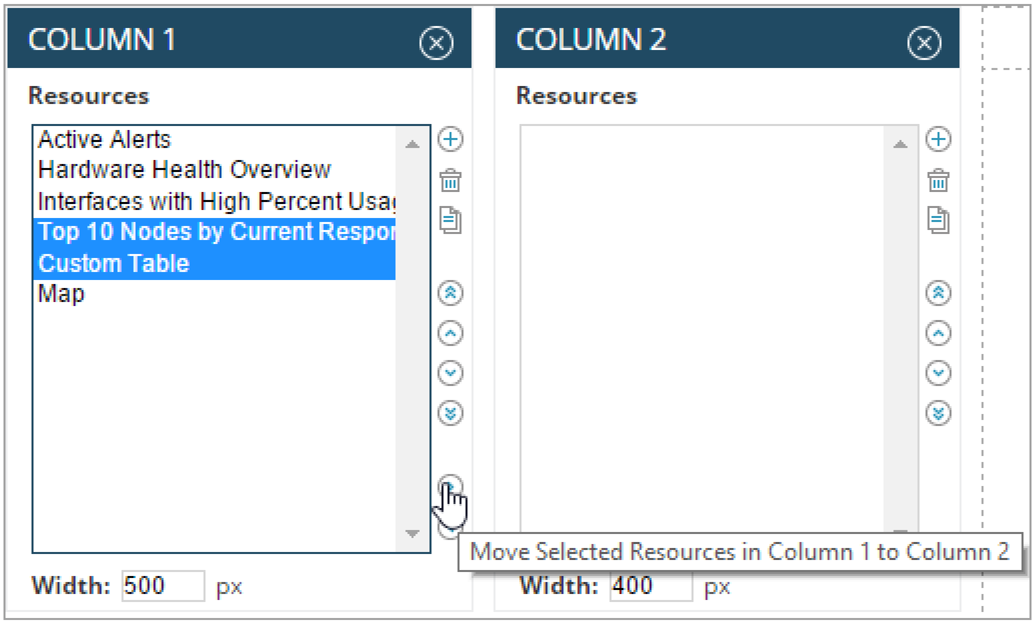
To open the Customize view page, click Settings > All Settings > Manage Views. Select the view, and click Edit.

2. Select resources in the middle pane, and click Add Selected Resources.

You can limit offered resources by criteria in the Group by list, or search for a resource, or widget, in the Search box.



3. Use the arrow icons next to the columns to move resources between columns.



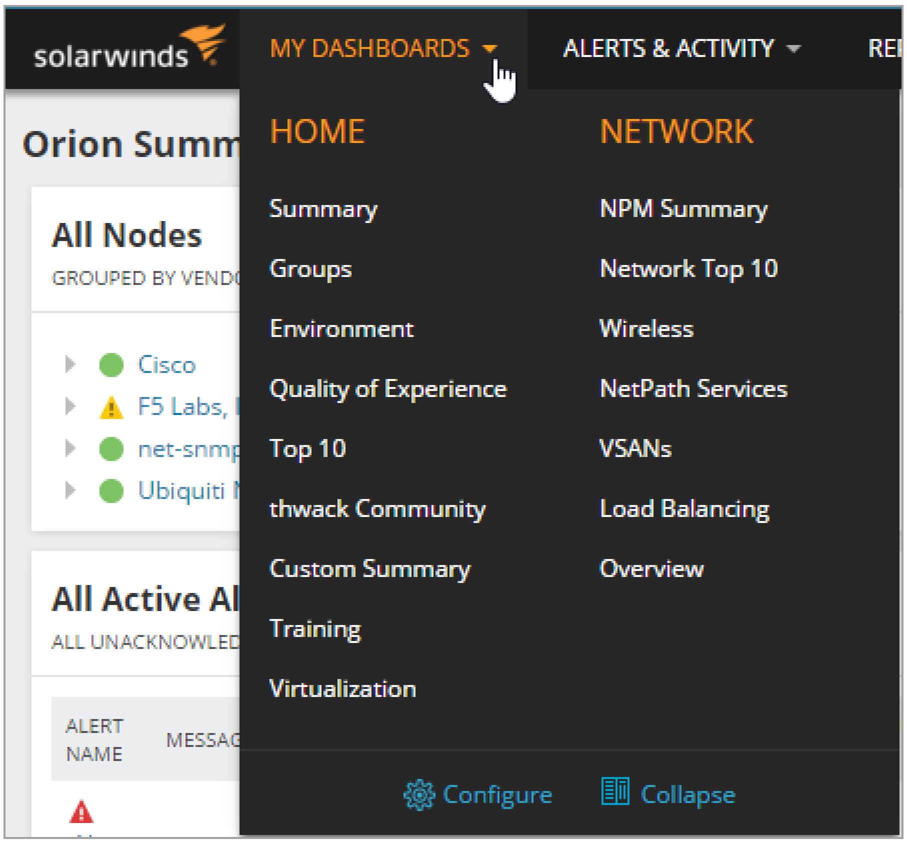
4. Click Done.

The view is now be populated with the widgets you selected.

Add the custom Summary view to My Dashboards in NPM

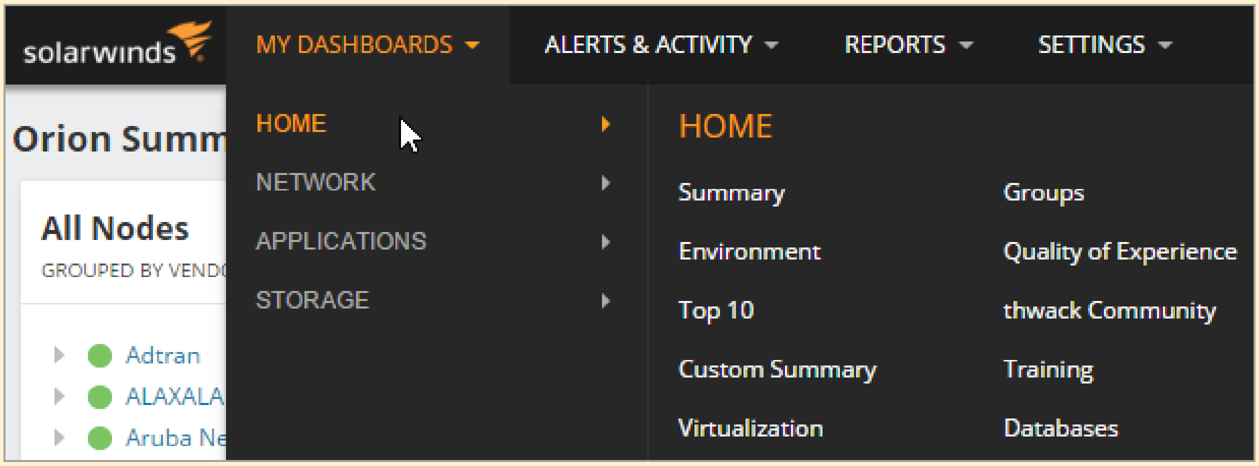
The My Dashboards menu provides shortcuts to SolarWinds Platform Web Console views. The default menu bars include Home, and a menu bar for each installed SolarWinds Platform product.

Click My Dashboards to show the default menus.



You can customize the views and labels in default menus for individual users.

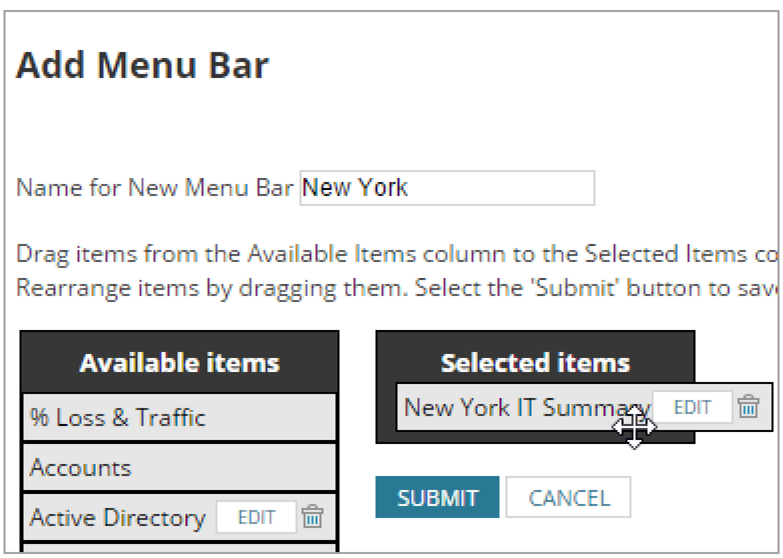
If you do not want to show all items in menu bars, and prefer navigating to display items in a menu bar, click My Dashboards > Collapse.



Create the New York menu bar

When you have a list of items you want users to access from My Dashboards, create a menu bar.

1. Click My Dashboards > Configure.
2. Scroll to the bottom of the page, and click New Menu Bar.
3. Name the menu bar.
4. Drag views from the Available items column into Selected items.



5. Click Submit.

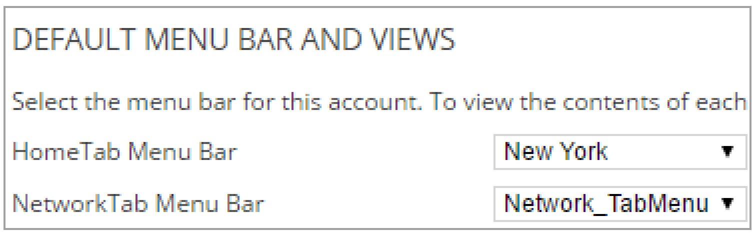
The new menu bar is created. You can now assign it to users who will see the items in My Dashboards.

Add the New York menu bar to My Dashboard for your user

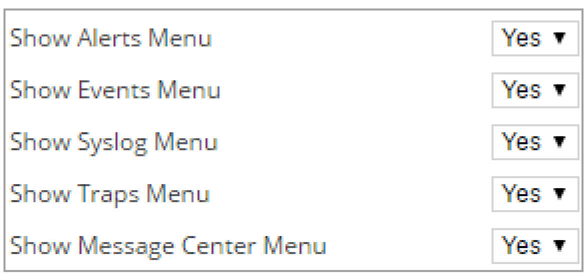
The items users see in My Dashboards and in Alerts & Activity are specified in their user accounts.

> Improve performance by setting the Home Page View to a view with a limited number of resources on it.

1. Click Settings > All Settings in the menu bar.
2. In the User Accounts grouping, click Manage Accounts.
3. Select a user, and click Edit.
4. Scroll down to Default Menu Bars and Views, and select top menu bars from the lists.



5. Select Yes for the items the user can see in the Alerts & Activity menu bar.



6. Select an item and use the arrows to change the order of menu bars. Select an item from the list to specify the default Home page view.

7. Click Submit.

The user can now use the specified links in My Dashboards and Alerts & Activity menu bars.

Edit a view in NPM

You can modify views to suit your needs - add, remove or move widgets, limit displayed objects, or create subviews to help you manage the information on the view.

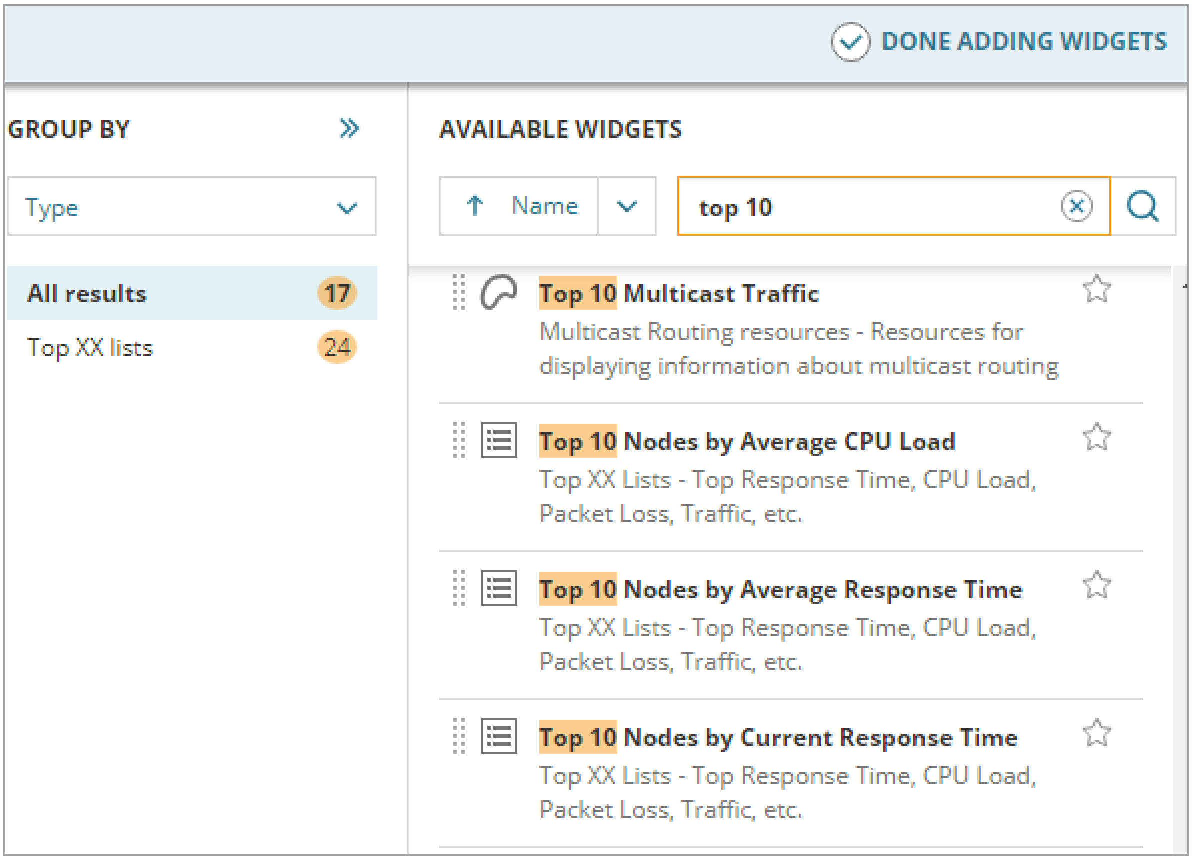
This example shows how to add widgets, create a subview, and limit objects on the view so that the view only displays objects relevant to the New York IT Department group.

> Most view customizations are a matter of clicking the Customize Page icon and drag-and-dropping widgets to views.
> However, some customizations, such as limiting the view, creating NOC views, or removing subviews, require that you click the Customize Page (pencil) icon > Page Settings.

Add Top xx widgets

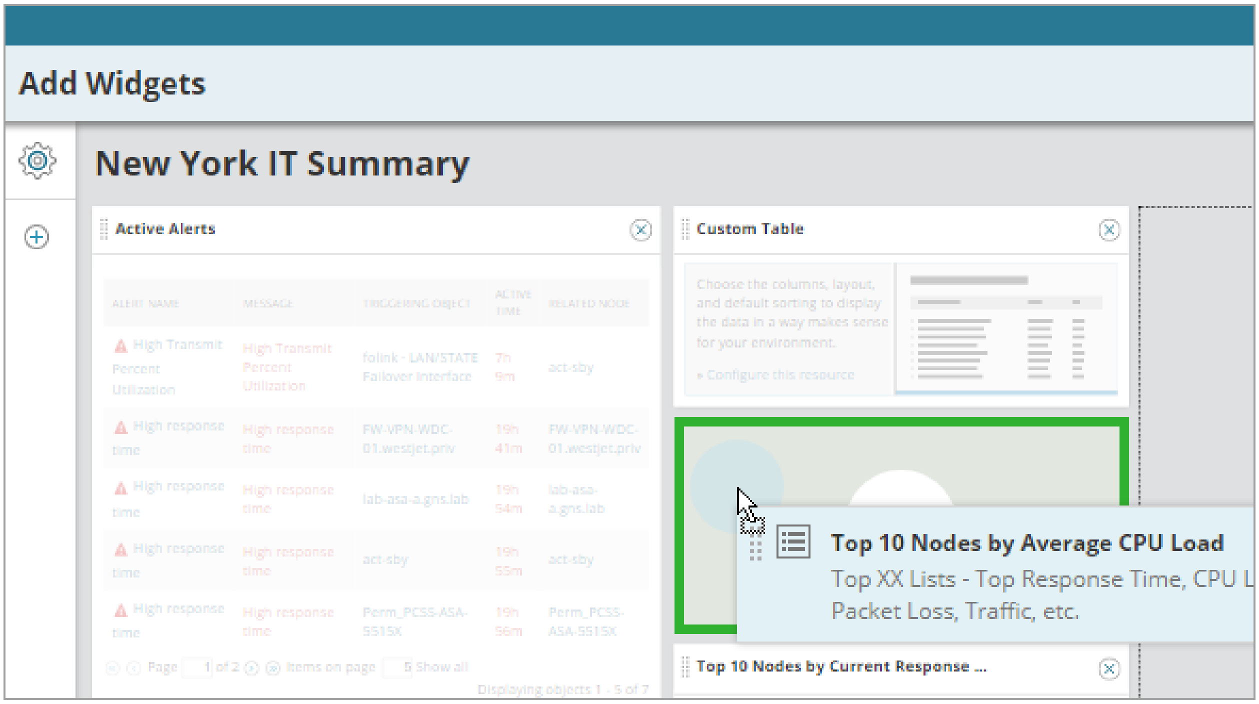
1. On the view, click the Customize Page icon in the top left.
2. In the menu on the top, click Add Widgets.

3. Search for the widget to add.



4. Drag the widget from Available widgets to its position.

To place the widget into a new column, drag it to the position.

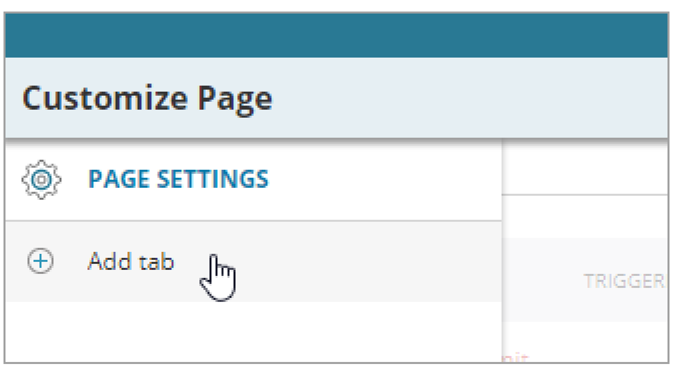


5. Click Done Adding Widgets.

The selected widgets, or resources, display on the view.

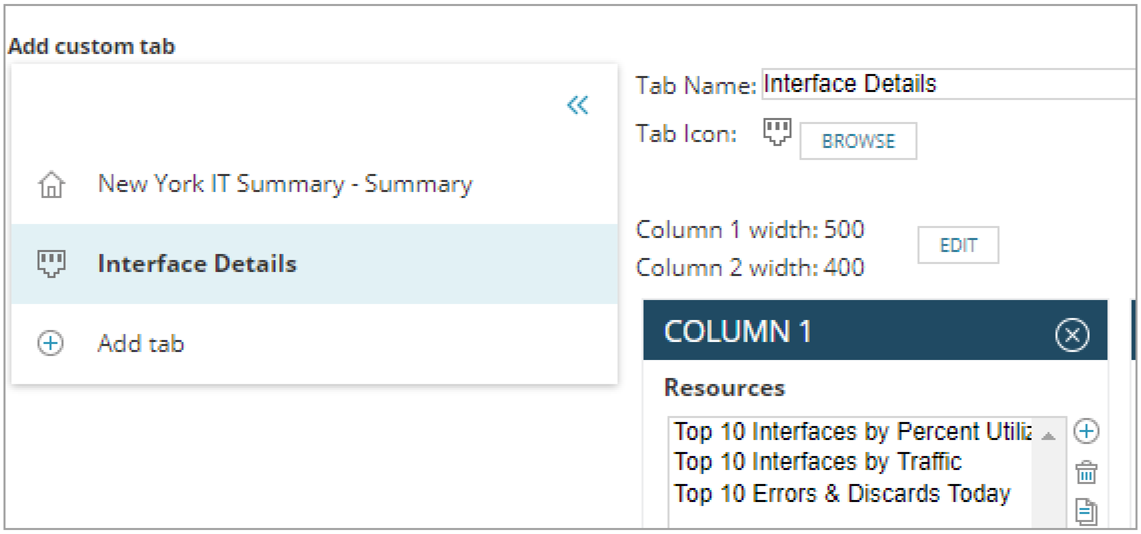
Move interface widgets to a subview

1. On the view, click the Customize Page (pencil) icon.
2. Click Add tab.



3. Enter the tab name, and click Update.
4. Select an icon, add widgets, and click Done.

ⓘ To drag and drop widgets, click Preview, and then add the widgets.



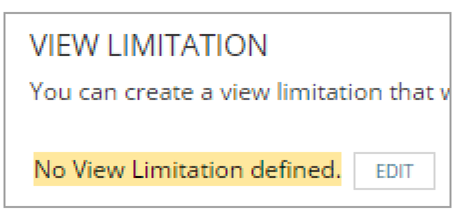
You can access the subview with the resources from the view menu.

Limit the view to show only nodes in the New York Department group

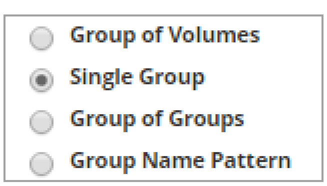
You can limit the monitored elements that are included in a view, which limits the contents of **all** the widgets on the view. You can also limit some widgets by using a SWQL query on the widget.

The example below shows how to limit a view to display only monitored elements owned by the NY IT Department.

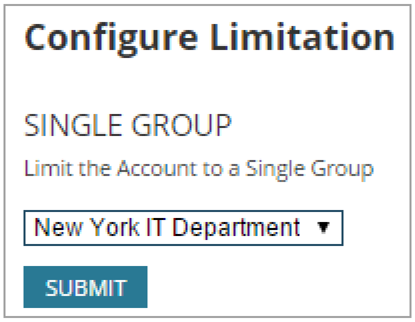
1. On the view, click the pencil icon > Page Settings.
2. Click Edit in the View Limitation area.



3. Select a type of limitation, and click Continue.



4. Configure the limitation as instructed.



5. Click Submit.

   The view now only displays objects defined by the limitation.

Now you have created the New York IT Department view. To make it accessible for users, you must first add it to a menu bar, and assign the menu bar to the users. You cannot see the view without making it accessible first. See Add the custom Summary view to My Dashboards in NPM.

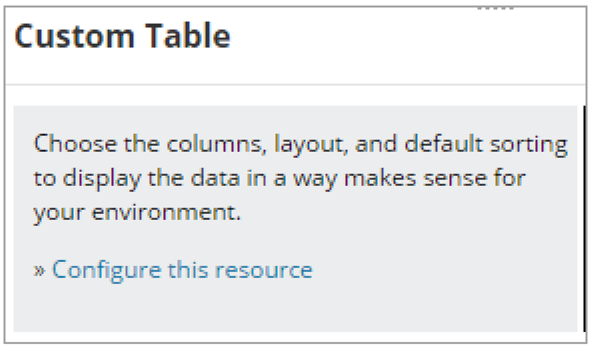
Customize the Custom Table widget in NPM

Widget data can be displayed as pie charts, bar charts, line charts, tree views, and tables. The example below shows how to create a custom table composed of the Node, Status, Device Owner, and Email Address Columns.

1. Locate the blank custom table widget on the view.

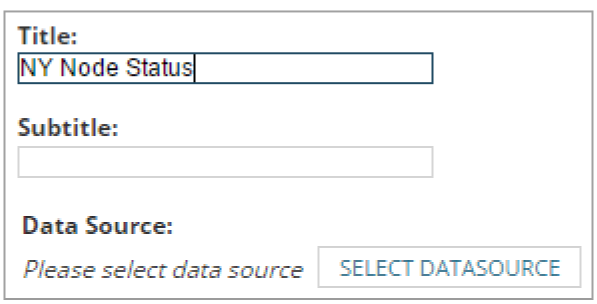
   In this example, find the widget on the New York IT Summary view added in [Create a Summary view and add widgets in NPM](#).

2. Click Configure this widget.

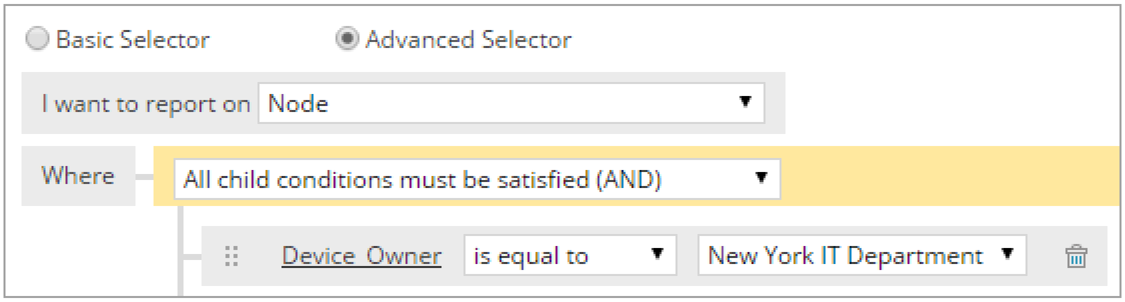
3. Enter a title, and click Select Data Source.

   > Starting with Orion Platform 2020.2, you can display data from a report in the table widget. Click Load Table Configuration from Report, select the report, and click Use. The widget will populate with data defined in the report.

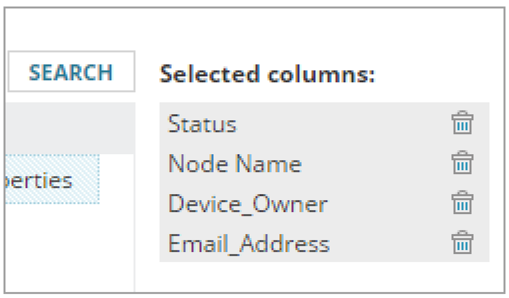
4. Select the object you want to report on, for example, Node.

5. Define a condition that specifies the type of nodes to include, for example, all nodes owned by the New York IT Department.

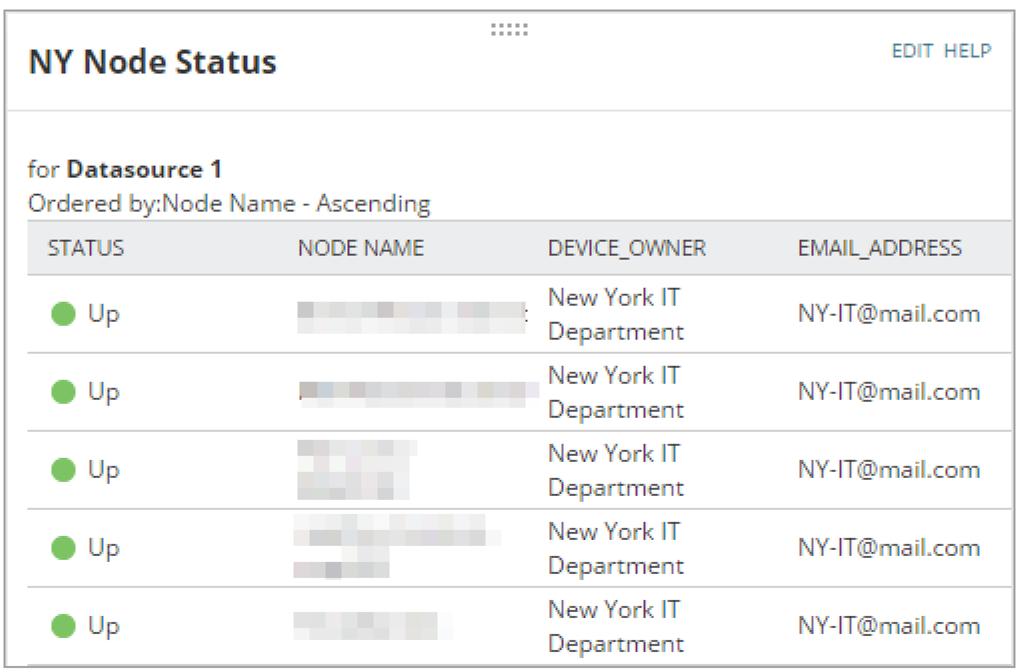


6. Click Add column, select properties, and click Add Column.

   This example includes the Device_Owner and Email_Address custom properties.



The custom table resource populates with the node status, the owner, and a contact email address.



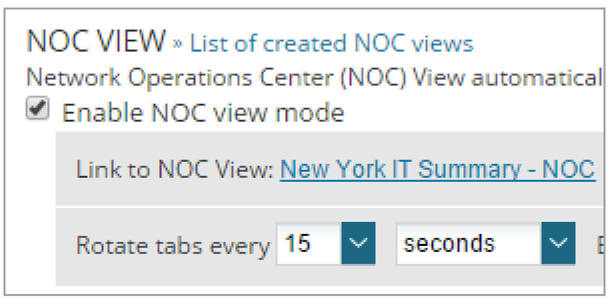
Create a NOC view in NPM

A Network Operations Center (NOC) view provides a single page view of critical statistics that can fit on a TV screen or a mobile device. Subviews rotate automatically on the screen so each subview is available as a separate slide.

Headers and footers are compressed in NOC views, increasing the available space to display resources.

The example below shows how to configure a NOC view for the New York IT Summary view.

1. Click Settings > All Settings.
2. In the View group, click Manage Views.
3. Select the view you want to configure as a NOC view, and click Edit.
4. On the Customize view page, select Enable NOC View.
5. If the view consists of multiple tabs, specify the rotation interval.



6. Click Done & Go to NOC.

> When you open the view, you can switch to the NOC mode by clicking Show in NOC mode in the top right corner of the view.

Create a custom report for NPM showing availability of devices in the last 30 days

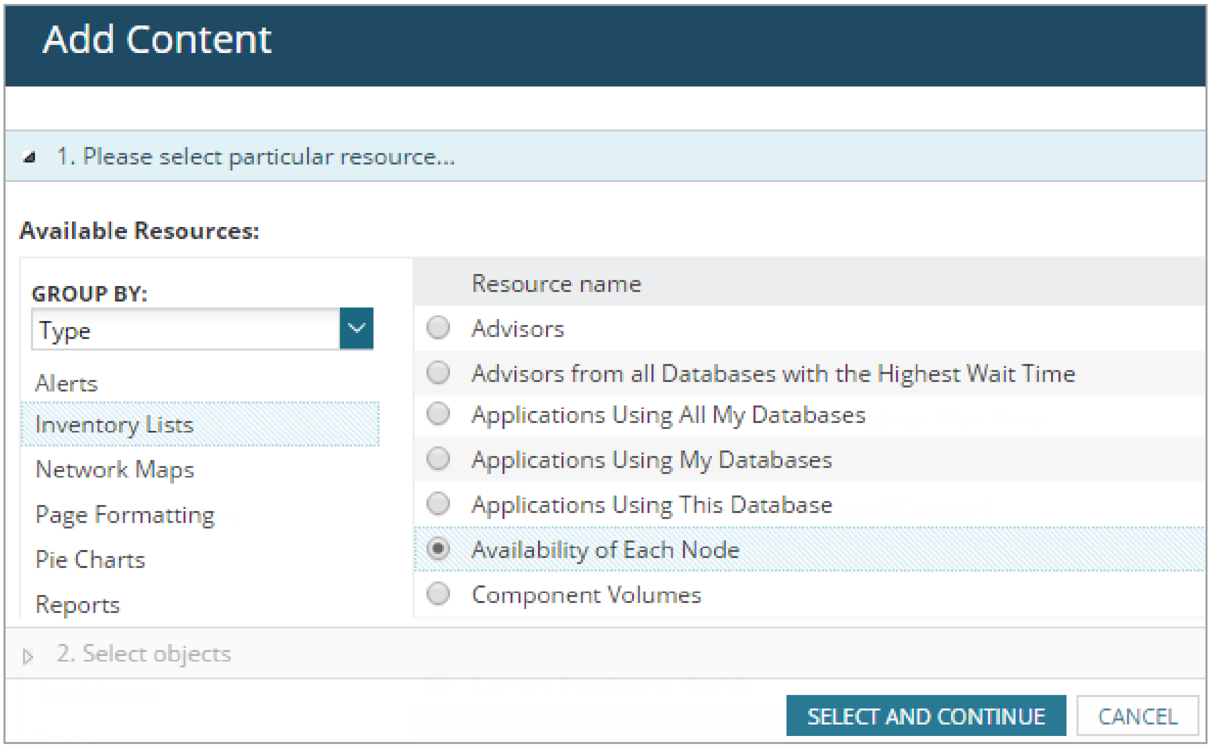
You can combine any SolarWinds Platform Web Console resource or chart into a report. The following example illustrates a custom report for the New York IT team that provides information on the availability of devices for the last 30 days, open alerts, and an infrastructure map.

> Are you interested in custom reports created by your peers or do you need peer advice when creating custom reports? Visit the NPM content exchange on THWACK. Click Reports in the Labels menu to filter out reports.

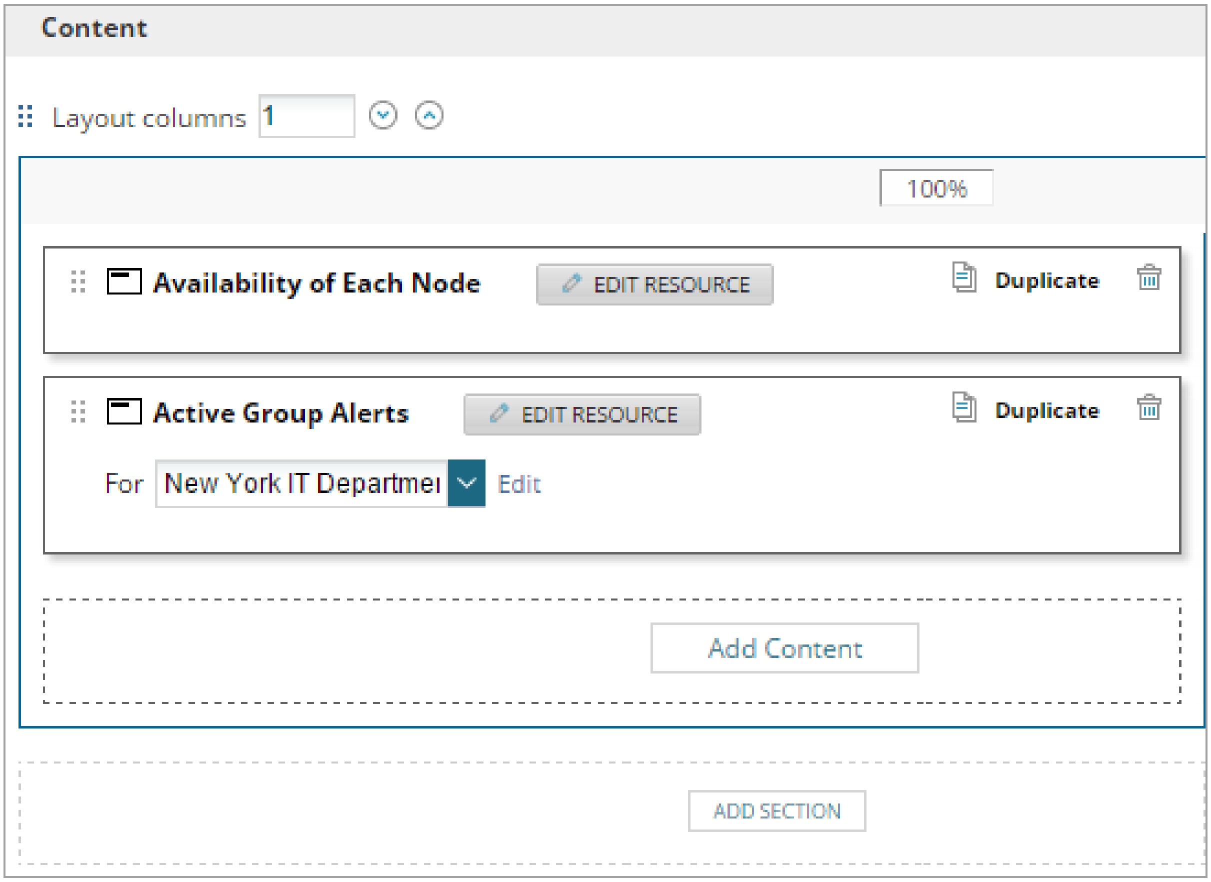
1. Click Reports > All Reports > Manage Reports > Create New Report.
2. On the Layout Builder panel, click Add Content. You may be prompted to add content as soon as you click Create New Report.
3. Select the first resource to add to the report and click Select and Continue.

   Some resources require you to choose a specific object to report on. For example, if you want to track how many people use a specific application, you must choose the application when adding the resource.

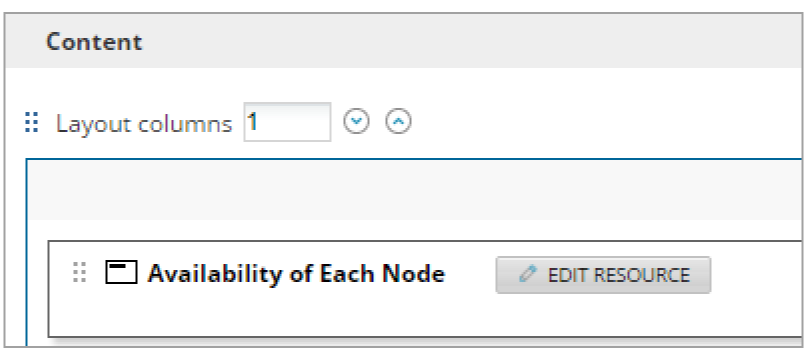
The Layout Builder view is displayed with the selected resource added.



4. In the Content area, add resources and sections to the report.
   a. Click Add content to add resources to your report.
   b. Click Add section to add more rows of content to this report.

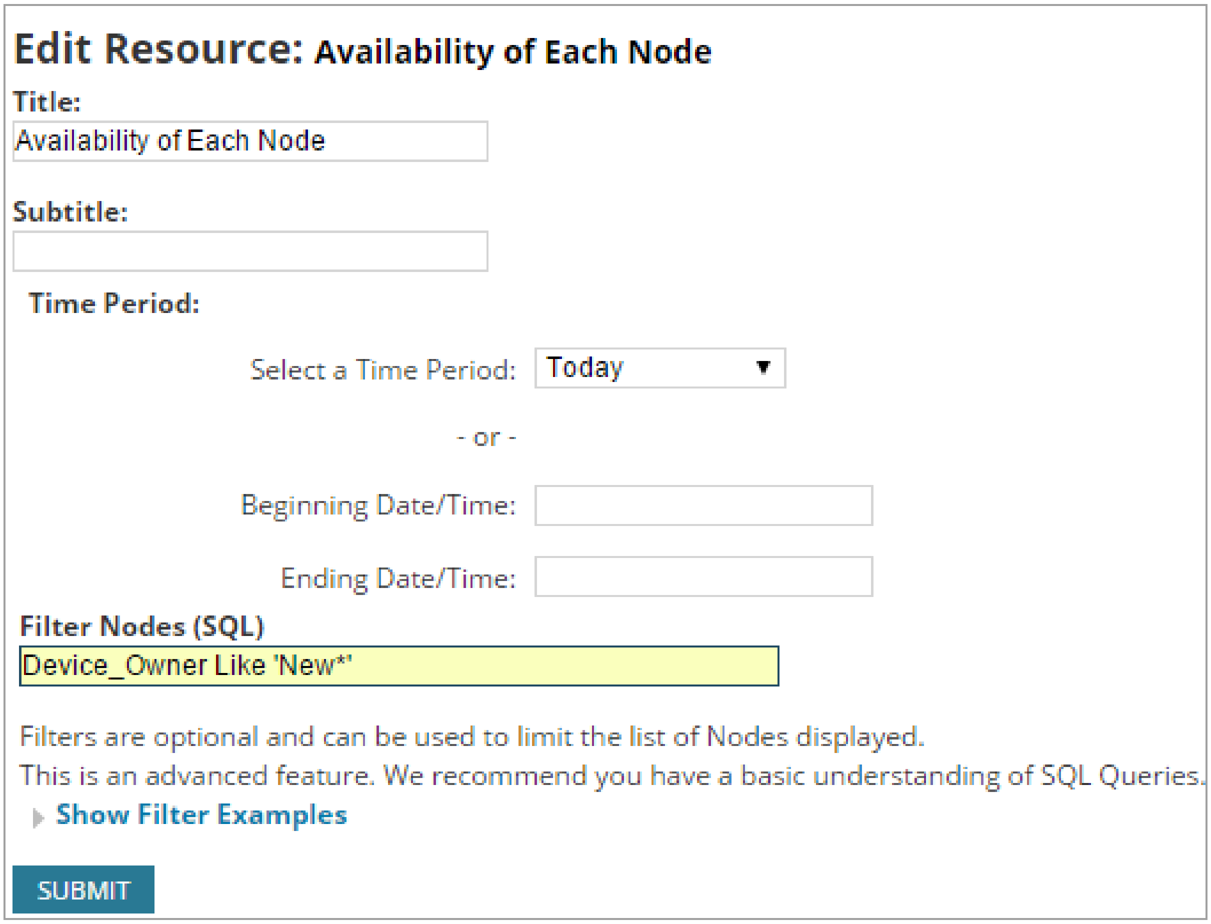


5. To filter a resource to include a specific set of data, click Edit Resource. Not all resources can be filtered.



6. Filter the resource and click Submit.

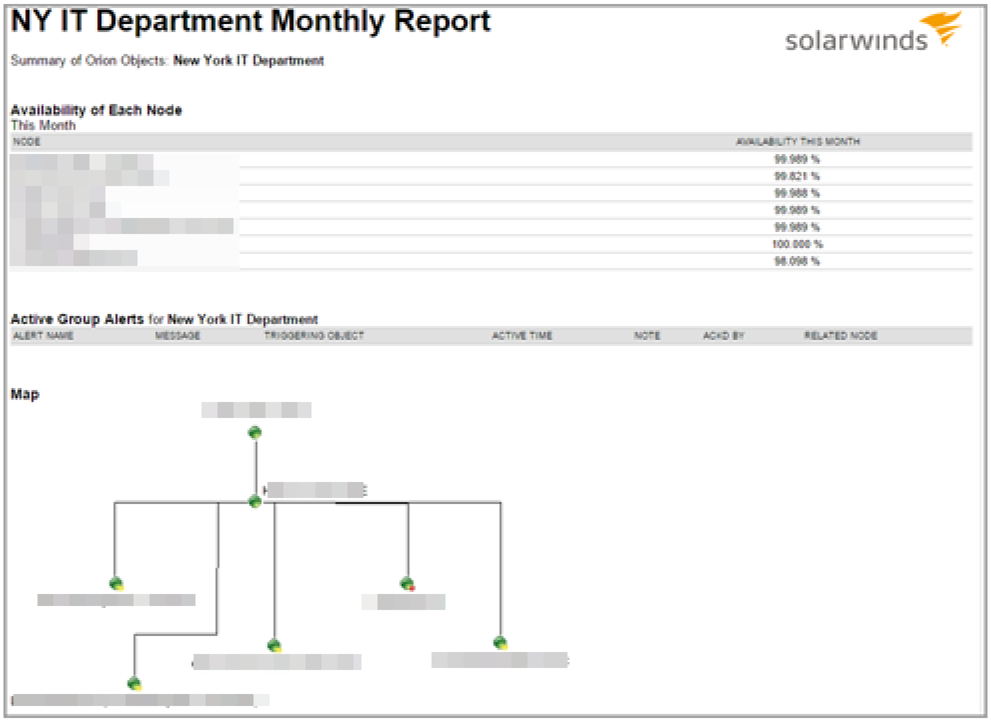
Each resource has different filter options.



7. After adding and filtering the resource, enter a report name, and click Next.
8. On the Preview panel, click Next.
9. Add report properties, such as categories, custom properties, or limitations, and click Next.
10. To schedule the report, click Schedule this report to run regularly, create a new schedule or assign a schedule, and click Next.

    You can schedule a report to be generated, emailed, saved, or printed.
11. Review the Summary and click Submit to save the report.

The following example shows the completed New York monthly report.



Create a custom alert for NPM notifying the team that critical nodes are not up

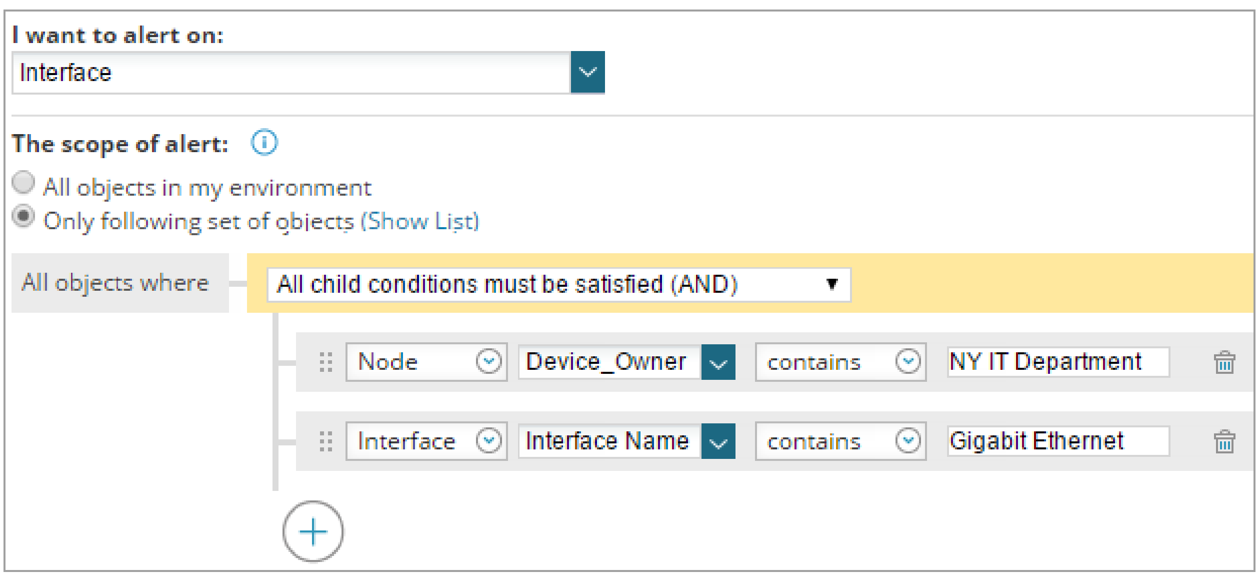
In this scenario, an alert is defined on the two nodes (a router and switch) in the New York IT office that have GB (gigabit) interfaces. When these interfaces go down, the New York offices lose Internet connectivity. It is vital that the IT team knows that there is a problem.

The alert should be triggered when the status of either interface is down (not equal to Up). This alert is also configured to send an email to the New York IT team every minute, and if the alert is not acknowledged in 10 minutes, the alert escalates and sends an email to the Director of IT.

> ⓘ This alert uses custom properties created earlier.

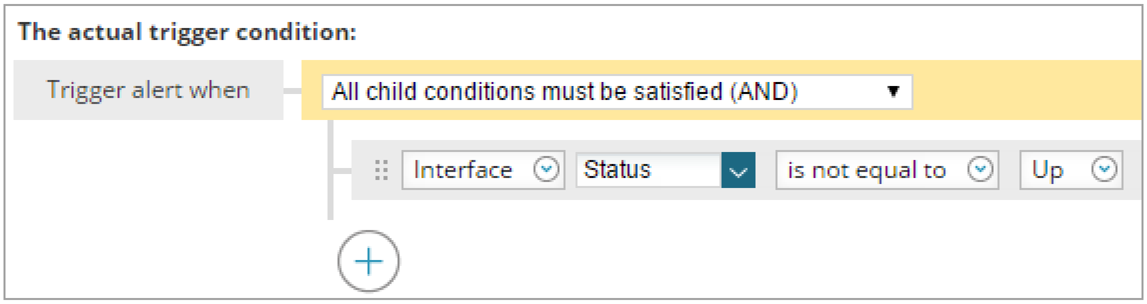
1. Click Settings > All Settings.
2. Under Alerts & Reports, click Manage Alerts.
3. Click Add New Alert.
4. Enter a name and description, and click Next.
5. Define the scope of the alert.

   In this example, the alert applies only to nodes owned by the New York IT Department and have GigabitEthernet in the name.

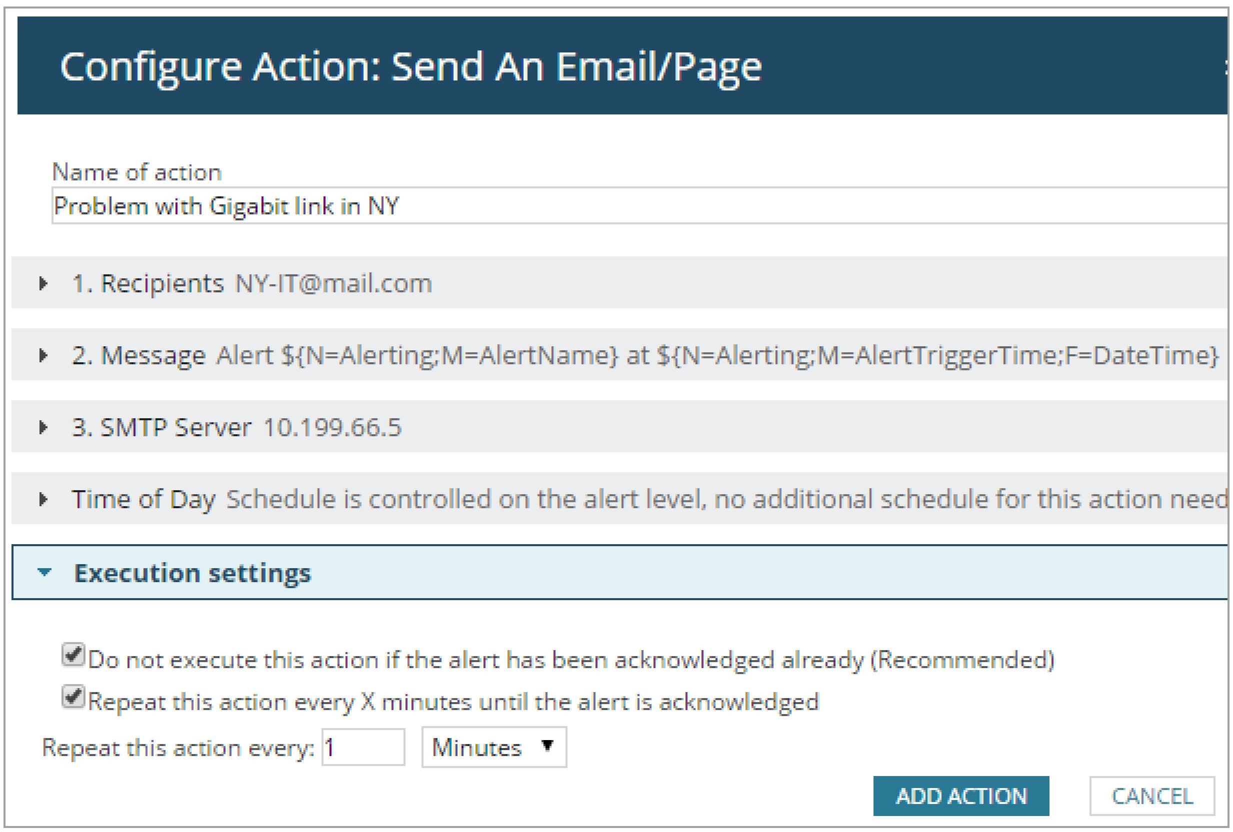
   

6. Define the trigger condition, and click Next.

In this example, the alert is triggered when the status of the interface is not equal to Up.

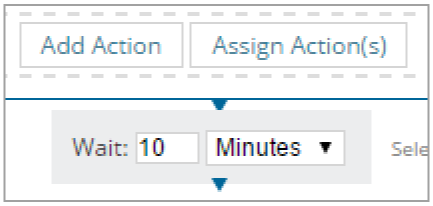


7. On the Reset condition panel, click Next.
8. On the Time of Day panel, click Next.
9. On the Trigger Action panel, click Add Action.
10. On the Add Action dialog box, select Send an Email/Page, and click Configure Action.
11. On the Configure action dialog box, enter a name, recipients, message, and SMTP server details.
12. Click Execution settings, configure the email to be sent every minute, and click Add Action.



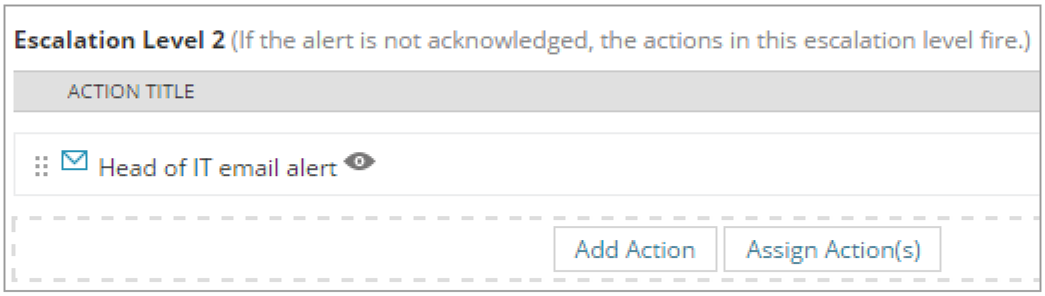
13. Click Add Escalation Level.
14. On the Trigger Actions panel, set the wait time.

In this example, if the alert is not acknowledged within 10 minutes, an email is sent to the Head of IT.



15. In the Escalation Level 2 section, click Add Action, and configure an escalation email to be sent.

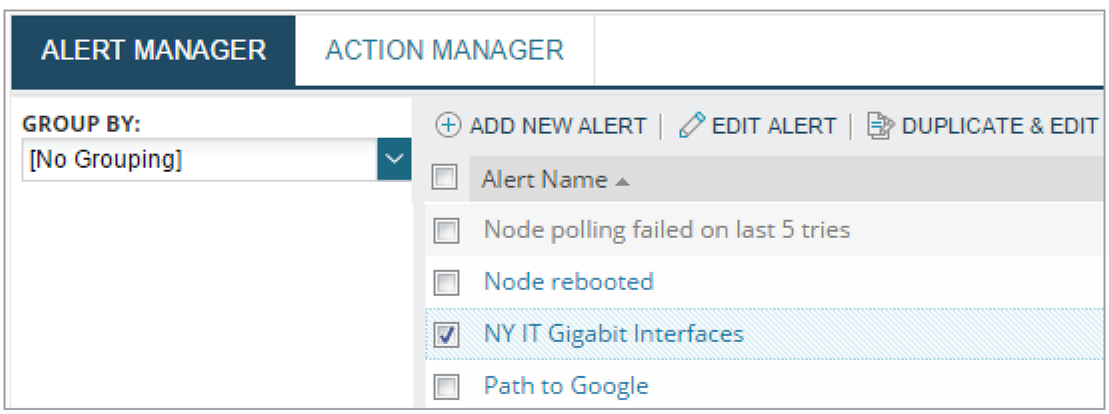
    In this example, an email is sent to the Director of IT.



16. On the Trigger Actions panel, click Next.
17. On the Reset Action panel, click Next.

On the Summary panel, review the alert configuration, and click Submit.

The alert appears on the Manage Alerts page.



Learn more

Review the Alerting resources for SolarWinds Platform products, watch the SolarWinds Labs All about alerts video (40:00) on THWACK, or watch a short video focused on individual activities related to alerts:

- Manage existing alerts (5:35)
- Add a new alert (3:28)
- Understand trigger condition logic (9:16)
- Configure alert options (4:52)
- Understand reset condition logic (3:00)
- Schedule alerts (3:05)
- Integrate the SolarWinds Platform with ServiceNow (8:02)

Beyond Getting Started

NPM is a SolarWinds Platform product. The SolarWinds Platform is the core of the SolarWinds IT Management Portfolio. It ensures data collection, processing, storage, and presentation. It provides common features, such as user accounts and groups, views, dashboards, reporting, alerting, and more that you can use across all SolarWinds Platform products and access from the SolarWinds Platform Web Console.

Now that you've gotten started with NPM, check out the SolarWinds Platform Administrator Guide and NPM Administrator Guide for more information about using other features.

SolarWinds Platform Administrator Guide

Learn more about common features and administrative procedures in the SolarWinds Platform Administrator Guide (PDF), such as:

- Manage users
- Troubleshoot environmental issues with Performance Analysis dashboards
- Make your SolarWinds Platform highly available
- Manage alerts
- Manage reports
- Customize SolarWinds Platform Web Console, for example change SolarWinds logo for the logo of your company, or change the color scheme of the SolarWinds Platform Web Console.
- Customize views, widgets, and charts
- Use thresholds to specify when your nodes change status
- Monitor Hardware health
- Monitor SNMP traps and syslogs in the SolarWinds Platform
- Review events
- Use Quality of Experience
- Protect your environment with High Availability
- Scale your environment

NPM Administrator Guide

Check out the NPM Administrator Guide (PDF) to find out more about other NPM features, such as:

- Discover your network paths with NetPath™
- Monitor custom metrics on your devices

- Use Network Insight for F5 BIG-IP, Cisco Nexus devices, Cisco ASA, and Cisco ACI
- Forecast capacity

You can also connect with the NPM user community on THWACK, where you'll find training videos, blog posts, and information about what the team is working on.