Maps - Topological Diagrams

Prerequisites

Please ensure either opCharts or the Opmantek Virtual Machine are installed to use the below feature.

Overview

The Topological Diagram style Map allows the user to dynamically build live informational diagrams based on the logical Layer 2 connections devices have.

A menu listing of all available Maps can be accessed by selecting Views -> Maps from the opCharts menu bar.

Creating a New Topological Diagram

Join Paul McClendon, an Opmantek Support Engineer, as he demonstrates how to create a topological map in opCharts.

1. A Topological Diagram must be created before it can be used or added to a Dashboard. To create a new Map, Click the blue button with the "+" icon in the top-left corner from the Maps screen (Views -> Maps).

2. Next, select Topological Diagram from the Map Type drop-down located in the top-left corner.

3. Assign your Topological Map a Map Name - This must be unique; no 2 maps can have the same Map Name.

4. You can also provide a Description of your Map. This will be displayed on the Maps View page, and also when adding a Map to a Dashboard.

Options

Title - This is what will be displayed in the Component window's title bar.

Background Image - Disabled for Topological Diagram style Maps

Layout - Provides auto arrangement of the icons and their connections. Each has pros and cons, depending on the network architecture, number of devices, and types of connections found

Apply Layout - Applies the currently selected layout to the Topological Map

Auto checkbox - When checked will automatically apply the selected Layout option to the mao and continue to update the layout as new nodes, neighbours, or subnets are added. Checked by default.

Add Node

The Add Node button allows you to add an individual Node to the Map.You may assign a Display Name, separate from the Node's internal name, or leave this field blank and no label will be displayed. A specific icon may also be assigned, or will be auto selected form the built-in icon options based on the type of equipment.

> *Link to Map*
> *If set, the Link to Map option will open a new URL when the link is clicked. You can select either a Map on the current server, or by selecting Custom use any URL (even to other software/sites). This is especially powerful - allowing you to drill down from a top-level abstract diagram to more in-depth levels of detail.*
>
> *By default the Link to Map / Custom option opens the target in the current browser window. However, you can force opCharts to open the link in a new tab/window by enclosing the link URL in double quotes and following it with target=_blank i.e "http://someserv er.com//en/omk/opCharts/dashboards/myawesomedashboard" target=_blank*
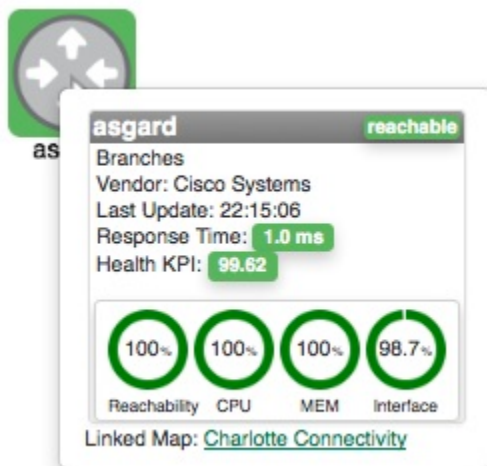
Once the node is added it may be moved around the Map by left-clicking and dragging it to position.

Add Group

The Add Group button allows you to add all nodes contained within a Group at one time. The Display Name field has no effect on the individual nodes being added.

Add Link

> *Note: Links may be added manually. However, the true power of a Topological Map is in dynamically drawing the connections between devices and subnets. See Building the Topological Map below.*

The Add Link button adds a physical connecting line between 2 Nodes or 2 Groups. You can assign the Link a Link Name, which will be displayed within a bordered box at the center point of the line between the 2 Nodes.These links are convenient ways to show relationships between components, without linking those relationships to specific interfaces or data patterns. A link can be deleted by *right*-clicking on the link line and selecting Delete from the pop-up menu.
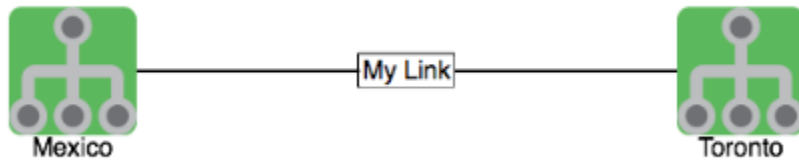
Add Interface Link

The Add Interface Link button allows you to add an interactive Link representing a interface's flow traffic between 2 Node or Group icons. Select your Link Source, the Node providing the Interface, the specific Interface that handles the link, and the Link Destination.
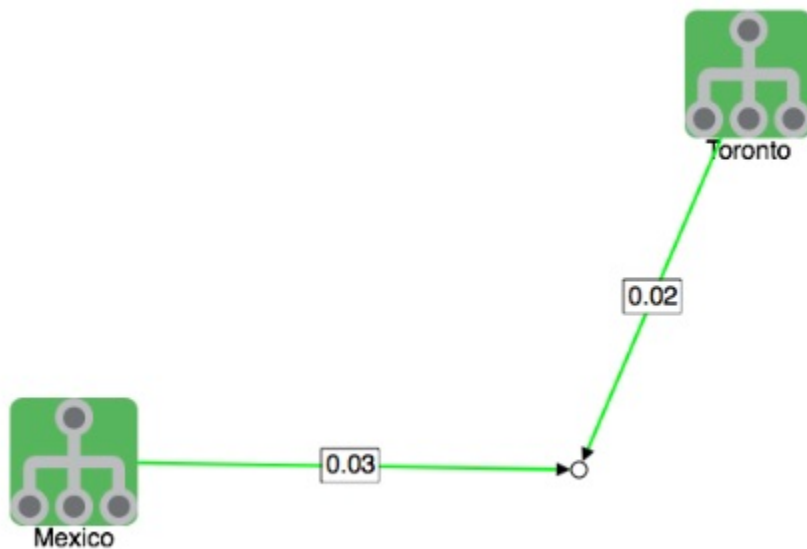

The resulting link will be anchored to the 2 Nodes/Groups and display both the inbound and outbound link speeds as a percentage of the available interface speed. The link is also hinged in the middle, allowing some modicum of adjustment for background artwork and readability.

Note: Link sources and Node/Interface are not required to be the same, the GUI fills out the node name as a suggestion as it's the most likely scenario. If required, the link source and/or link destination can be left blank and the endpoint will remain open for moving to a convenient location.

Add Placeholder

The Add Placeholder button allows you to add an icon to the Network Map that is not linked to a specific Node or Group (like "the Cloud"). Similar to both Nodes and Groups you can assign a Display Name, select a Display Icon, and Link the icon to another Dashboard.

Building the Topological Map

While you can manually add links and Interface Links to a Topological Map, the true power lies in using the logical information the network contains to create those connections.

Add Neighbors

Right-click on a node and select Add Neighbors. Neighbors are direct connections found between devices but can also be virtual machines hosted by a VMware host.
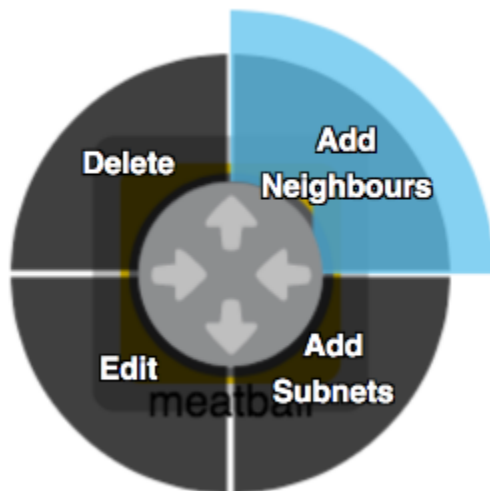
Add Subnets

Right-click on a node and select Add Subnets. Subnets are a logical connection between nodes and not a direct "physical" connection but help to organise and understand logical layouts..

Editing a Node

Nodes on the Topological Map can be edited. Simply return to edit mode (open the Map by selecting Edit from the Map view or by clicking the Edit button in the top-right corner of the Component window) then *RIGHT*-click on the Node you want to edit, select Edit from the pop-up menu.