

Know Your Network

A New Administrator's Guide to Network Monitoring

Network Visualization

Visualizing your network can provide you with important information about the state of your network at a glance.

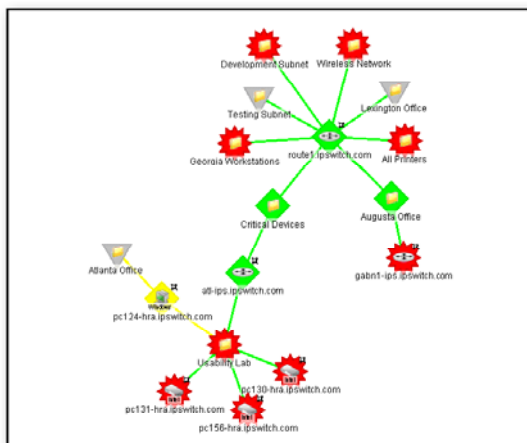
There are several benefits to visualizing your network. For visual-thinkers, it provides a means for a better understanding of a network by providing graphical representations of where network machines are and how they are connected. This spatial relationship is not easily described through a simple device list, but comes to life in a network map. Performance reports can also provide useful information that is easily understood at a glance.

WhatsUp Gold provides several useful features to aid network administrators in visualizing their networks.

Map View

WhatsUp Gold's Map View allows you to create graphical representations of your network. Each device's icon provides important information about its type and status. Map View can also show the status of your network's interfaces and provide visual indications of polling dependencies.

If you have a large set of devices, or want to represent a topology specific to your network, you can use graphics annotations, grouping and arrange options, and attached lines to create custom map views.



This map was created during an SNMP scan during device discovery. It shows the relationship between different subnetworks that are connected to each other via the networks depicted here.

Annotations are graphical tools that let you customize a map. You can add various shapes, lines, and text to visually organize a set of devices.



Annotation Toolbar

In the Map view toolbar, click an annotation icon to make it the active tool. Then you can drag the cursor on a map to create a line, rectangle, circle, polygon or network cloud. You can change an annotation's properties, including border width and color, by selecting the annotation and selecting **Properties** from the right mouse menu.

Link Lines vs. Attached Lines

You can use Link lines to monitor the status of the network link, or the Interface service, between two devices. Link lines can also be used to show the status of any service a device has an Active Monitor for.

Link lines are rendered in the color of their device state:

- Green indicates a service. This includes services that have not yet been polled.
- Red indicates a service that is down.
- Gray indicates a service listed in the device's Active Monitors list, but not currently monitored
- Orange indicates that the device is currently in maintenance mode.

Also important to the understanding and use of Map View are connecting links and attached lines. Connecting links represent a service, for example an interface, which connects two devices. They are drawn as links from one device to another. If two devices have mutual links, the single line can consist of more than one color, if one of the two devices goes down while the other remains up. The center-point of the line that goes back to the up device is green, while the other half turns red. Essentially, the color of the line represents the state of the service on the host that the color touches.

Attached lines show an arbitrary connection between devices and move with the device. These are visual representations assigned by the user, and not reflections of true connectivity between the two devices. (Link lines show the actual connectivity.)

Device View

With a view similar to Microsoft's Windows Explorer, WhatsUp Professional's Device View provides an overview of each device and subgroup on your network. In this view, devices are organized by device group, and appear in the list alphabetically. Each device's icon provides information about its device state and the state of monitors associated with it. A status column shows the number of devices in the group with a breakdown of how many devices are in each device state.

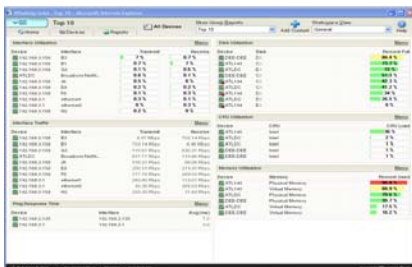
For a complete listing of the device icons, please see the WhatsUp Gold online help and User Guide.

Reports

WhatsUp Gold's Performance Reports are also integral to visualizing your network as they provide the most current information on the state of your network. Two reports important to performance monitoring and network visualization are the Top 10 Report and the Device Status Report.

The Device Status Report details the current status (a snapshot) of one device within a group. The sections within this report only contain data if those performance monitors have been enabled for the device on **Device Properties > Performance Monitors**.

The Top 10 Report is a collection of reports that displays the top 10 devices in your network based on the criteria of each report section. You can configure how you want the report to look including the order of the reports, the number of items in each report, and which column the report appears in.



Yo
de

ng

on the **All Devices** link at the top of each report window.

Network Operations Center

With so much pertinent network information available through WhatsUp's Device View, Map View, and reports, network administrators need a way to view this information easily, without having to constantly bounce back and forth between the three on one machine. An effective solution is to set up a Network Operations Center, or a NOC (pronounced *knock*.)

A NOC incorporates multiple screens, giving network administrators more visual real estate with which to view important information about their network's current state.



Ipswitch Atlanta NOC

Ipswitch has created a NOC to test the usability of WhatsUp's visualization features. The Ipswitch NOC is made up of three flat-screen LCD panels connected through a hole in the wall to a computer on the other side.

The NOC always runs and has become a major feature in the WhatsUp Gold development office. It generally displays the Top 10 Report, the network map, and rotates between the device status reports for the file server and the main switch.

More Information

For more information about how to use WhatsUp Gold, refer to the User Guide, and the WhatsUp Gold online help. Both are great resources for configuration and solution information.

