

Know Your Network

A New Administrator's Guide to Network Monitoring

Critical Servers

The availability of critical servers can be the difference between a smooth-running organization, and a business in turmoil.

Your routers are stable, and your switches seem to be constantly available, so things are going great on your network, right?

Network monitoring doesn't stop with monitoring those dedicated devices. There is another level of monitoring that can be just as important to the productivity of a company as the availability of its routers and switches: the monitoring of critical servers installed and running on your network.

What Are Critical Servers?

These are servers running on your network that control the flow of information and communication through your company and out to your customers. If your network is the backbone of your company, these servers produce and control the lifeblood of your organization. The critical server types found in most networks are: Web Servers, Mail Servers, and FTP Servers. These servers sit on a machine and listen to specific ports that are assigned to them. Therefore, all of these server types may actually be running on the same machine.

This topic breaks down each of those server types and explains how and what to monitor on those servers.

Web Servers

Web or HTTP servers hold your internet and intranet sites and 'serve' the sites to the browser of the user connecting to the server. If the web server is down, your customers will be unable to use your e-commerce system to purchase goods, or to view important information you have on your web site. There are many brands of servers in use on the Internet, but there are only two major web server protocols in use. These are HTTP and HTTPS.

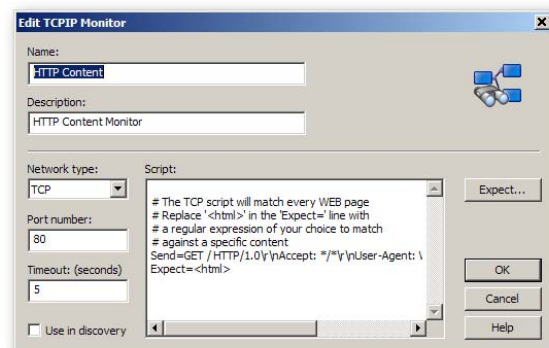
HTTP servers (Hypertext Transfer Protocol) are the basic, non-secure means your server uses to handle communications between itself and the user's browser.

HTTPS servers are SSL (Secure Sockets Layer) enabled and encrypt data as it serves it to the user's browser. This is useful when downloading sensitive data, or using an e-commerce system.

Monitoring Web Servers

In WhatsUp Gold there are two ways you should monitor your web servers. The first is a simple TCP/IP monitor that makes sure the server is up and running and the second is a content scan monitor that monitors what is on the page itself. WhatsUp is installed with HTTPS and HTTP monitors that you can assign to any of your web servers without any additional configuration.

Configuring a content scan monitor is a little more involved. With this type of monitor, you have to create a script the monitor uses to check on a specific text string on your website.



As an example, you have a site with the following text somewhere in the HTML code: *Beachside Automotives has the best deals!*

The script to scan for that content would be:

```
Send=GET / HTTP/1.0\r\nAccept: */*\r\nUser-Agent:WhatsUp Gold/1.0\r\n\r\n Expect  
Beachside Automotives has the best deals!
```

Mail Servers

A mail server is a system that sends and receives e-mail from e-mail clients or other e-mail servers, using a collection of other servers that handle each function. The SMTP (Simple Mail Transfer Protocol) server handles outgoing mail, while the POP3 (Post Office Protocol) or IMAP (Internet Mail Access Protocol) server handles incoming mail.

If any of these servers were to go down, communications across your organization could be completely shut down. WhatsUp Gold provides Active Monitors for each of the server types used by most e-mail systems. To monitor these servers, associate the active monitor to the device running the server. If the servers are listening on the default port for that server type, then there should be no need to configure the monitor any further.

WhatsUp Gold Premium Edition also has an active monitor created specifically for Microsoft® Exchange™ Server. The Exchange Monitor extends monitoring to parameters reported by Microsoft Exchange, allowing you to get an early warning of degradation in performance. For example, you can monitor the SMTP queues to see if performance is within an expected range, and if not, you can intervene before the SMTP service fails. In other words, you can detect a looming problem before it causes an application or service failure.

FTP Servers

An FTP (File Transfer Protocol) server (such as Ipswitch WS_FTP Server) stores files that are served up to users who are connected to the server through an FTP client. Many businesses use their FTP server to house downloadable applications and image files so they are accessible at any time for those with an account on the server. It is also used for customers to upload files for processing and storage.

For businesses that use this type of server, it could take days before a user reports the server down, causing a loss in productivity.

Through WhatsUp Gold, users can assign FTP active monitors and alerts to their devices running the server so that they are notified as soon as there is a problem.

What is Happening?

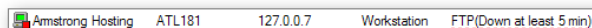
Once you are monitoring your critical servers, you now need to know how to check on the status of those monitors. The most obvious way is to create an action that alerts you when one of these monitors goes down. It can be an e-mail action, a beeper, or any other type of action you can come up with that would solve your problem.

Another way is to keep an eye on the device status icons on your device list or device map. When the monitor on a device goes down, the icon will change to reflect this status.



In the graphic above, the device on the left is reachable, but one of the monitors on that device is down. The device on the right is completely unreachable, so the entire device is considered down.

In the device list view, all down monitors are listed in the status column for each device. This list shows the monitor name and the current state for that monitor.



Device Status and Device Group reports also show the devices and monitors that are currently down.

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.

