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NETFORT LANGUARDIAN

MONITORING WAN CONNECTIONS

How to monitor WAN connections with NetFort LANGuardian | Aisling Brennan

LANGuardian gives you the information you need to troubleshoot problems and monitor network bandwidth and make the best possible use of the available capacity. It shows at a glance how bandwidth is being used across your WAN, LAN and Internet links. It enables you to see details of usage by specific network links, users, clients, servers, applications and websites.
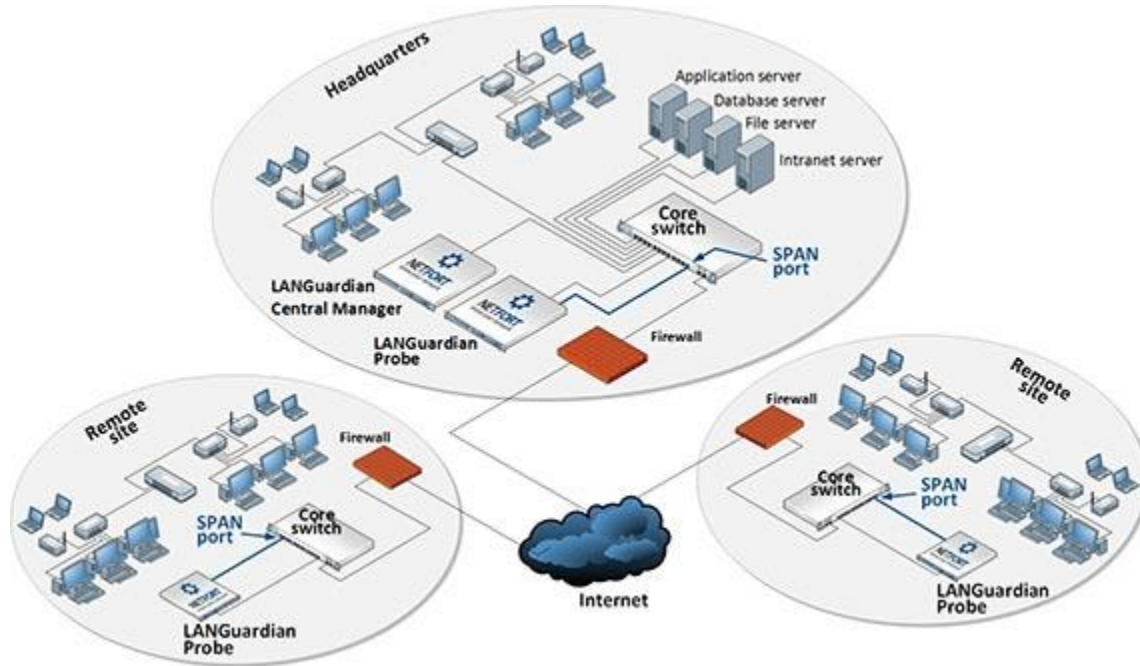
Deployment Diagram – LANGuardian deployed on a network with multiple core switches

If LANGuardian is deployed in a large enterprise network, there are some basic steps that you can take to start monitoring the sites in the WAN.

The following procedure describes five basic steps to start monitoring a WAN connection:

1. <u>Determine the IP address or subnet range for each WAN site.</u> Before you can start monitoring a WAN, you must first determine the IP address range or subnet range for each site in your organization. The following table shows some examples of typical IP information:

IP / Subnet filter	Monitors traffic for …
192.168.127.0/24	All IP addresses in the range 192.168.127.1 to 192.168.127.254
192.168.127.1,192.168.127.2	The IP addresses 192.168.127.1 and 192.168.127.2
192.168.127.0/24,192.168.128.0/24	All IP addresses in the range 192.168.127.1 to 192.168.127.254 and 192.168.128.1 to 192.168.128.254
192.168.0.0/16,!192.168.127.0/24	All IP addresses in the range 192.168.0.1 to 192.168.255.254 but excludes IP addresses in range 192.168.127.1 to 192.168.127.254

2. <u>Set up a Top Applications Report</u> to get an overview of the network and show the top applications being carried on the link. The report Top Applications shows the amounts (and

percentages) of different application identified by fingerprints. You can see what applications/protocols are being used, and how much bandwidth the applications are consuming on the WAN.

    a. Click on **Reports** in the LANGuardian menu bar.
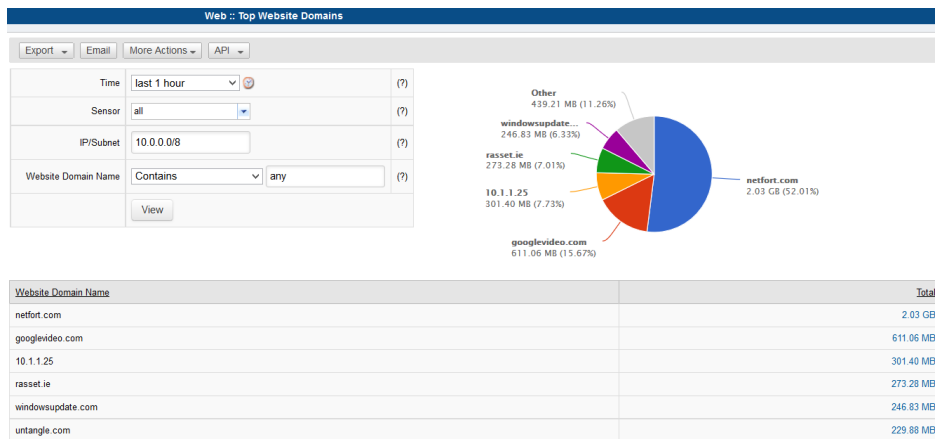   b. In the **IP** section, click on **Top Applications**. The **IP :: Top Applications** report is displayed.
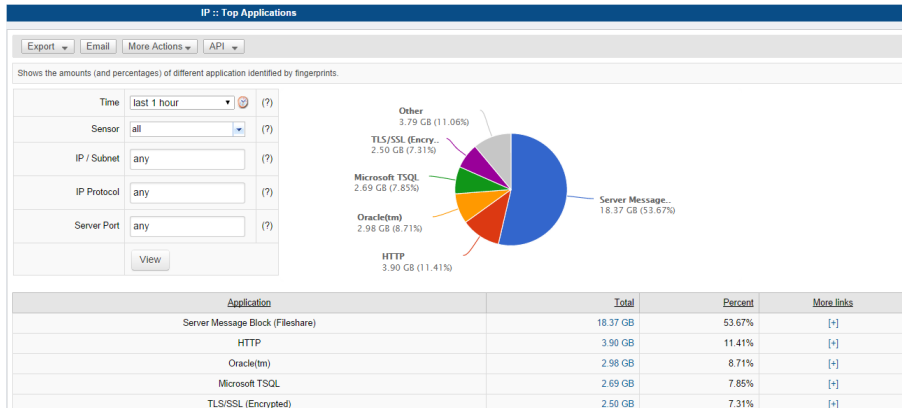
    c. Enter the IP information that you gathered in Step 1 in the **IP / Subnet** field.
    d. Click **View**.
    e. When the report is displayed, click **More Actions** on the report menu bar and select **Save Report**.
    f. Enter a **Name** and **Description** for the report, then click **Save**.

We recommend that you use a naming convention similar to that shown in the following example to ensure that all WAN reports are grouped together when they are listed in the **Custom** Reports section:


3. <u>Set up a Top Website Domains Report</u> to show what are the Top Websites being accessed on the WAN and the amount of bandwidth associated with each domain. You can also get usernames by drilling down and then click on the usernames button.

    a. Click on **Reports** in the LANGuardian menu bar.

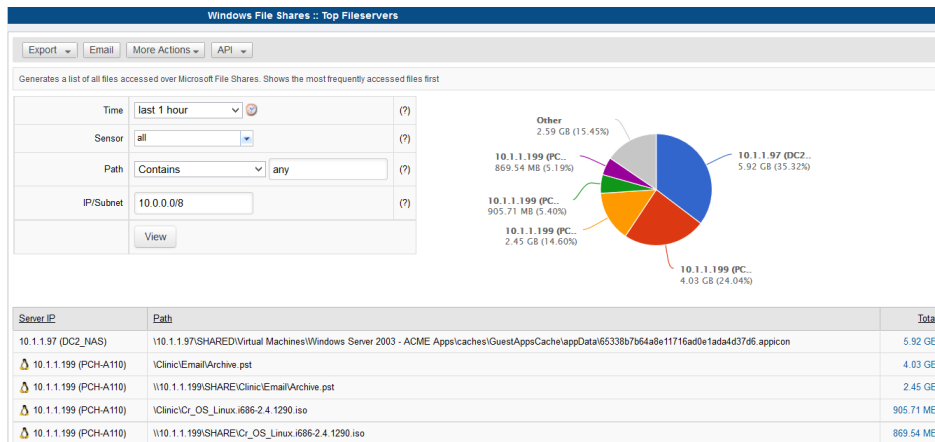b. In the **Web** section, click on **Top Website Domains**. The **Web :: Top Website Domains** report is displayed.

c. Enter the IP information that you gathered in Step 1 in the **IP / Subnet** field.
d. Click **View**.
e. When the report is displayed, click **More Actions** on the report menu bar and select **Save Report**.
f. Enter a **Name** and **Description** for the report, then click **Save**.

4. Add a Proxy Analysis report if there are proxy servers in use on the network. If a proxy server exists on the network then some of the traffic on the WAN links may be associated with clients connecting to Internet sites.

a. Click on **Reports** in the LANGuardian menu bar.
b. In the **Web** section, click on **Top Proxy Clients.** The **Web :: Top Proxy Clients** report is displayed.
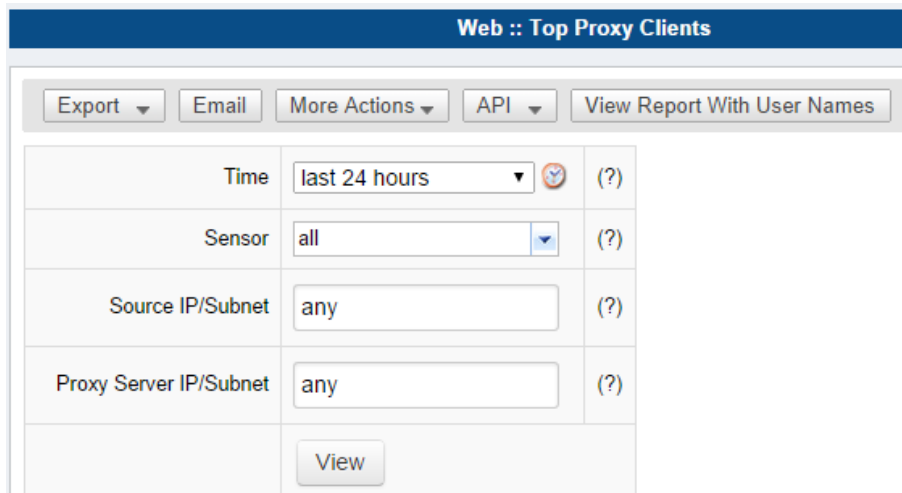
c. Enter the IP information that you gathered in Step 1 in the **Source IP / Subnet** field.
d. Click **View**.

e. When the report is displayed, click **More Actions** on the report menu bar and select **Save Report**.

f. Enter a **Name** and **Description** for the report, then click **Save**.

5. Set up a Top Fileservers Report, if you use Microsoft files shares on your network some of this traffic may be visible on WAN links. The report displays the top fileservers, files being accessed and bandwidth being consumed on the WAN.

a. Click on **Reports** in the LANGuardian menu bar.

b. In the **Windows File Shares** section, click on **Top Fileservers**. The **Windows File Shares :: Top Fileservers** report is displayed.


c. Enter the IP information that you gathered in Step 1 in the **IP / Subnet** field.

d. Click **View**.

e. When the report is displayed, click **More Actions** on the report menu bar and select **Save Report**.

f. Enter a **Name** and **Description** for the report, then click **Save**.

6. **Set up a Top Users Report.** The report shows the most active users generating traffic on the WAN link.

   a. Click on **Reports** in the LANGuardian menu bar.
   b. In the **IP** section, click on **Top Users**. The **IP :: Top Users** report is displayed.
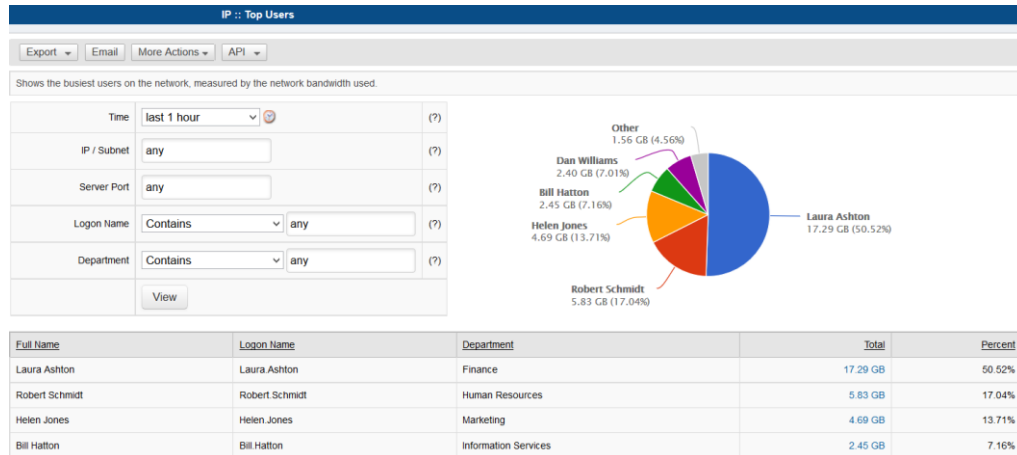
   c. Enter the IP information that you gathered in Step 1 in the **IP / Subnet** field.
   d. Click **View**.
   e. When the report is displayed, click **More Actions** on the report menu bar and select **Save Report**.
   f. Enter a **Name** and **Description** for the report, then click **Save**.

7. **Set up a Trend.** This allows you to plot the WAN site traffic on a graph, which you can use for troubleshooting or to analyze site capacity.
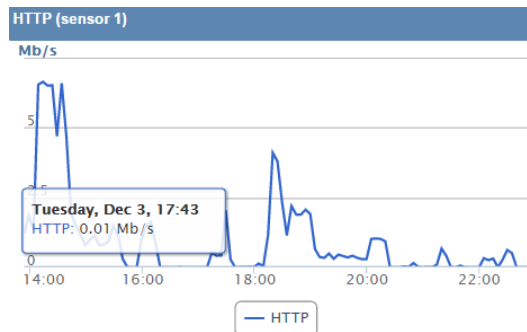
   a. Click on in the LANGuardian menu bar and select **Configure Trends**. LANGuardian displays a list of existing trends.

Trend Wizard			
Add new trend			
Name	Edit	Alarms	Delete
Events per second	↻	💡	✖
Filenames actions	↻	💡	✖
Fileshare Traffic (sensor 1)	↻	💡	✖
HTTP Traffic	↻	💡	✖
HTTP Traffic (sensor 1)	↻	💡	✖
IPV6/ARP Usage (sensor 1) with a <script tag	↻	💡	✖
Mail Traffic	↻	💡	✖
NetScans Trend	↻	💡	✖
P2P Report	↻	💡	✖
SSH Usage	↻	💡	✖

b. To create a new trend, click **Add new trend**. The Trend Wizard is displayed.

Trend Wizard

Title: New York Link
Number of sets: 2
Sensor: 1
Subnet: 172.16.120.0/24
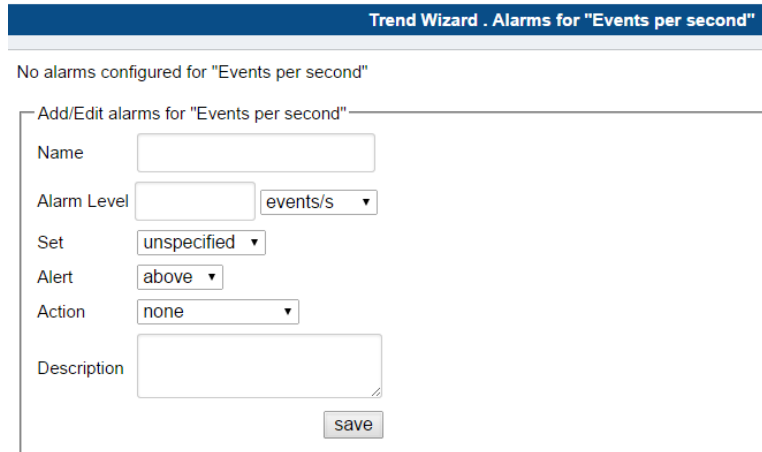Select template: ○ events   ○ total traffic ● subnet traffic ○ packets per second
Add

c. Enter the trend details. The required fields are as follows:

Field	Description
Title	Enter a title for the trend.
Number of sets	The number of data sets to include in the trend.
Sensor	Select the sensor that is monitoring the data for the WAN site.
Subnet	Enter the IP information for the WAN site. This is the information that you gathered in Step 1 of this procedure.
Select template	By selecting **total traffic** you will get a graph with a single line showing total traffic to/from the site. If you select **subnet traffic** you will get two lines on the graph. One for traffic outbound to the remote site and one for inbound traffic from the site. for traffic outbound to the remote site and one for inbound traffic from the site.

d. Click **Add** to create the trend.

e. **Add an alarm** to a trend. You can add an alarm to a trend as follows:

Click on the gear symbol in the LANGuardian menu bar and select **Configure Trends**. LANGuardian displays a list of all existing trends. To add an alarm to a trend, click on the icon in the **Alarms** column next to the trend.

Enter the following alarm details:

Name: Type a name for the alarm

Alarm Level: Type the level at which the alarm is triggered. For example, 100 Mb/s.

Set: Select the appropriate data type that you want to monitor for the alarm from the Set drop - down list. The contents of this drop-down list will vary depending on the trend type.

Alert: Select whether the alarm is triggered when the level goes Above or Below the level specified in Alarm Level

Action: Select the action to take when the alarm is triggered. The options are none, Send Email, Ignore Events, or send snmp trap.

Description: Type a description for the alarm.

Click **save**.

When you view the list of existing trends, the trends for which alarms are set show the icon next to the trend.

You are now ready to add a new WAN dashboard to your LANGuardian system.