INTRODUCTION

NetFlow Analyzer is a complete traffic analysis and network performance monitoring tool that leverages flow technologies like NetFlow, sFlow, IPFIX, NetStream J-Flow, AppFlow, and cFlow to provide real-time visibility into network traffic patterns and bandwidth performance. NetFlow Analyzer supports all major vendor devices, including Cisco, Enterasys Extreme Networks, HP ProCurve, Huawei, Juniper, Riverbed, and more.

Using Cisco technologies like NBAR, CBQoS, IP SLA, WAAS, and Medianet, NetFlow Analyzer helps in application recognition; validates QoS policies; monitors performance metrics like jitter, latency, and packet loss; and provides insight on traffic optimization performed by your Cisco devices.
NetFlow Analyzer is an integrated flow collector and analyzer that comes bundled with PostgreSQL database and requires no configuration. The product also supports MS SQL database. The recommended hardware requirements for NetFlow Analyzer are found below:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Essential Edition</th>
<th>Enterprise Edition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Central server</td>
</tr>
<tr>
<td>Processor</td>
<td>2.4GHz quad-core processor</td>
<td>2.4GHz dual-core</td>
</tr>
<tr>
<td>RAM</td>
<td>4GB</td>
<td>4GB</td>
</tr>
<tr>
<td>Hard disk space</td>
<td>200GB for database</td>
<td>600GB</td>
</tr>
<tr>
<td>Operating system</td>
<td>64-bit</td>
<td>64-bit</td>
</tr>
</tbody>
</table>
Please note that change in flow rate will lead to change in system requirements as follows:

<table>
<thead>
<tr>
<th>Rate of flow/second</th>
<th>Processor</th>
<th>RAM</th>
<th>Disk space for aggregated data (forever)</th>
<th>Additional disk space for raw data (optional)</th>
<th>Server type</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 3k</td>
<td>2.4GHz Quad-Core Processor</td>
<td>4GB</td>
<td>200GB</td>
<td>75GB/day</td>
<td></td>
</tr>
<tr>
<td>3k to 6k</td>
<td>3.2GHz Quad-Core Processor</td>
<td>6GB</td>
<td>200GB</td>
<td>150GB/day</td>
<td>64-bit</td>
</tr>
<tr>
<td>6k to 9k</td>
<td>3.2GHz Quad-Core Processor</td>
<td>8GB</td>
<td>200GB</td>
<td>225GB/day</td>
<td>64-bit</td>
</tr>
<tr>
<td>9k to 10k</td>
<td>3.2GHz Quad-Core Processor</td>
<td>16GB</td>
<td>200GB</td>
<td>250GB/day</td>
<td>64-bit</td>
</tr>
<tr>
<td>10k to 25k</td>
<td>3.2 GHz Quad Core Processor</td>
<td>18GB</td>
<td>225GB</td>
<td>-</td>
<td>64-bit</td>
</tr>
<tr>
<td>25k to 50k</td>
<td>3.2 GHz Quad Core Processor</td>
<td>20GB</td>
<td>250GB</td>
<td>-</td>
<td>64-bit</td>
</tr>
<tr>
<td>50k to 75k</td>
<td>3.2 GHz Quad Core Processor</td>
<td>22GB</td>
<td>250GB</td>
<td>-</td>
<td>64-bit</td>
</tr>
<tr>
<td>75k to 100k</td>
<td>3.2 GHz Quad Core Processor</td>
<td>24GB</td>
<td>300GB</td>
<td>-</td>
<td>64-bit</td>
</tr>
</tbody>
</table>

Note: Aggregated data is calculated based on the top 100 records.

For the device exporting NetFlow, ensure that the NetFlow export version format is the same as the Cisco NetFlow version 5, 7, or 9. For information on Cisco devices and iOS versions supporting Netflow, consult the [Cisco NetFlow Device Support](https://www.manageengine.com/products/netflow/help/supported-devices-netflow.html) table.
<table>
<thead>
<tr>
<th>Supported operating system</th>
<th>Supported browsers</th>
<th>Supported databases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windows Server 2019</td>
<td>Internet Explorer 10.0 &amp; above</td>
<td>PostgreSQL (bundled with the product)</td>
</tr>
<tr>
<td>Windows Server 2016</td>
<td>Mozilla 30 &amp; above</td>
<td>MS SQL</td>
</tr>
<tr>
<td>Windows 10</td>
<td></td>
<td></td>
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<tr>
<td>Windows 8</td>
<td></td>
<td></td>
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<tr>
<td>Windows 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows Vista</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windows Server 2008 R1 &amp; R2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RedHat Linux 6.0 &amp; above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cent OS 6.0 &amp; above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fedora 18 &amp; above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debian version 6.0 &amp; above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ubuntu 12 &amp; above</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SUSE 10 &amp; above</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Note:

NetFlow Analyzer is an integrated flow cNetFlow Analyzer that runs in both Windows and Linux; supports NetFlow® versions 5, 7, and 9; sFlow®; cflowd®; J-Flow®; IPFIX®; and NetStream®.

Connection ports

NetFlow Analyzer uses the following ports, and we recommend that these ports are not blocked or used by other services. The port numbers mentioned below can be changed as per your network requirements. Refer to the user guide for advanced product information, or contact technical support.

- **Web server port**: 8060, TCP, to connect to NetFlow Analyzer GUI from a web browser.

- **NetFlow Listener port**: 9996, UDP, to receive NetFlow exports from routers.

- **Embedded database port**: 13306, to connect to the PostgreSQL database in NetFlow Analyzer.

- **MS SQL port**: 1433, port that connects NetFlow Analyzer to a SQL database.

- **Wrapper port**: 32000-32999

- **JVM port**: 31000-31999, to connect to Wrapper
INSTALLATION

Installing in Microsoft Windows:

1. Navigate to your **download location**, and then launch the **executable file**.

2. In the welcome screen that appears, click **Next**.

3. Accept the **terms of the license agreement**, and click **Yes**.

4. Select **Trial version** or **Free Edition** and click **Next**.

5. Enter the **installation location**, and click **Next**.

6. Enter the **web server port** and **listener port**, then click **Next**.

7. Register for technical support (optional), and click **Next** or **Skip**.

8. On the **extracting files** screen, select the back-end database for NetFlow Analyzer and click **Next**.

9. Click **OK** to turn off antivirus scanners, and prevent them from interfering with database files.

10. The installation summary should be displayed. Click **Finish**.
Installing in Linux:

1. Download the BIN file `ManageEngine_NetFlowAnalyze64bit.bin` and assign execute permission using the command: `chmod 777 ManageEngine_NetFlowAnalyze64bit.bin`

2. Execute the following command:
   
   ```
   ./ManageEngine_NetFlowAnalyze64bit.bin -i console
   ```

Note:

During installation if you get an error message stating that the temp folder does not have enough space, try executing this command with the `-is:tempdir` option, where `sudo ./ManageEngine_NetFlowAnalyzer_xxxx.bin -is:tempdir (sudo ./ManageEngine_NetFlowAnalyzer_xxxx.bin -i console, for non-x11 machines)` is the absolute path of an existing directory.

3. Follow the instructions as they appear on the screen to successfully install NetFlow Analyzer on to your machine. **POST-INSTALLATION**

Prerequisite: If there are any antivirus scanners or automatic backup applications running, they might interfere with database files and the normal functioning of the database. Exclude the home directory, `OpManager_home` directory, from antivirus scanners. If the database is running in a remote server, network connectivity should be up to avoid the chance of data loss.
Default login credentials

Username: admin
Password: admin

Note: The username and password can be modified later.

Configuring flow exports

Export flow can be done in two ways:

- **Predefined Flow Export**, where the device type and configuration commands are auto-discovered.
- **Custom Flow Export**, where the users can manually enter the configuration commands.

Accessing NetFlow Analyzer

To access NetFlow Analyzer, enter the following in your browser's address bar: http://localhost:8060 or http://<server_IP_address>:<port>

Note: If you have changed the default web server port (8060) during installation, use that port number instead of 8060.
Viewing reports

Once the device has been configured to export NetFlow packets to the server, NetFlow Analyzer will receive the packets and generate reports automatically. Log in to the NetFlow Analyzer web client to view NetFlow reports.

Performance tuning

We recommend tuning Java and a few database parameters to improve the performance of the system.
1. To access performance tuning settings, go to **Admin > Installation Info.**

2. Click on **configured heap size**, and edit it.

3. After you have updated the values, the server has to be restarted.

To learn more on performance tuning, refer this page.

## License

NetFlow Analyzer licensing is based on the number of interfaces to be monitored from your routing and switching devices. For example, if you have 10 devices, each with 1 LAN, 1 WAN, and 1 VLAN interface, you have a total of 30 interfaces. If you need reports for only the WAN and VLAN interfaces from each device, then you need a license for 20 interfaces. It's the monitored interfaces that count, not the total number of interfaces in your network.

## Free Edition

After the download and installation, the product runs as a fully featured trial version (excluding add-ons) for 30 days and then switches to the Free Edition. The Free Edition allows you to manage a maximum of two interfaces with all the features of the Essential Edition.
**Essential Edition**

The Essential Edition of NetFlow Analyzer allows you to manage a maximum of \( n \) interfaces (where \( n \) is the number of interfaces for which you have purchased the NetFlow Analyzer license).

**Enterprise Edition**

The Enterprise Edition is a scalable bandwidth monitoring solution that involves a single Central server and \( n \) number of distributed collectors based on the number of remote locations. It contains all the features of the Essential Edition and also reports on CBQoS, NBAR, NetFlow Analyzer’s Advanced Security Analytics Module, and Capacity Planning.

**Support**

Support: netflowanalyzer-support@manageengine.com  
Onboarding assistance:  
Resources: https://www.manageengine.com/products/netflow/resources.html  
Forums: https://pitstop.manageengine.com/portal/community/netflow-analyzer/  
Blogs: http://blogs.manageengine.com/netflowanalyzer  
Help doc: http://help.netflowanalyzer.com/  
Request a free demo:  
Live online demo: http://demo.netflowanalyzer.com/  
Tech videos: https://www.youtube.com/channel/UCHLusaahd4nS9esD3xBVeUQ