ManageEngine

BEST PRACTICES GUIDE

NetFlow Analyzer

https://www.manageengine.com/products/netflow/

This document will list the best practices for ManageEngine NetFlow Analyzer.

1. Hardware and Software requirements

Performance of NetFlow Analyzer depends considerably on the CPU and memory of the system. The following table describes the configuration of the system required for various deployments.

We strongly recommend having a dedicated server for NetFlow Analyzer when going into production. NetFlow Analyzer can be used to monitor up to 20,000 interfaces depending on the edition. The hardware configuration for Professional Edition and Enterprise Edition installations is mentioned below.

Parameter	Professional Edition	Enterprise Edition	
		Central Server	Collector
Processor	2.4 GHz Quad Core Processor	2.4 GHz Dual Core	3.2 GHz Quad core
RAM	4 GB	4 GB	8 GB
Hard-disk space	200GB for database	600 GB	1 TB SATA hard disk
Operating System	64 bit	64 bit	64 bit

Please note that change in flow rate will lead to change in system requirements as below:

Rate of Flow/Second	Processor	RAM	Disk space for Aggregate Data (Forever)	Additional Disk space for RawData (Optional)	Server Type
0 to 3k	2.4 GHz Quad Core Processor	4 GB	200 GB	75 GB/Day	-
3k to 6k	3.2 GHz Quad Core Processor	6 GB	200 GB	150GB/Day	64 bit
6k to 9k	3.2 GHz Quad Core Processor	8 GB	200 GB	225GB/Day	64 bit

9k to 10k	3.2 GHz Quad Core Processor	16 GB	200 GB	250GB/Day	64 bit
10k to 25k	3.2 GHz Quad Core Processor	18 GB	225 GB	-	64 bit
25k to 50k	3.2 GHz Quad Core Processor	20 GB	250 GB	-	64 bit
50k to 75k	3.2 GHz Quad Core Processor	22 GB	300 GB	-	64 bit
75k to 100k	3.2 GHz Quad Core Processor	24 GB	350 GB	-	64 bit

Note
- Aggregated data is calculated based on the top 100 records.
- To monitor more than 5000 interfaces, using a 64-bit machine with a Quad Core processor and 16 GB of RAM is recommended.

The recommended software requirements for installing and running NetFlow Analyzer are as follows:

Supported Operating System	Supported Browsers
Windows Server 2019	Google Chrome (preferred)
Windows Server 2016	Mozilla Firefox
Windows Server 2012 R1 & R2	Internet Explorer 11
Windows 10	Microsoft Edge
Windows 8	
Windows 7	
Windows Vista	

Windows Server 2008 R1 & R2	
RedHat Linux 6.0 & above	
Cent OS 6.0 & above	
Fedora 18 & above	
Debian version 6.0 & above	
Ubuntu 12 6.0 & above	
SUSE 10 & above	

2. Configuring NetFlow Analyzer

Up to 600 interfaces can be monitored using NetFlow Analyzer – Professional Edition. If the number of interfaces being monitored is more than 600, NetFlow Analyzer – Enterprise Edition needs to be used. Refer the following link for more information on Enterprise Edition:

https://www.manageengine.com/products/netflow/distributed-monitoring-with-enterprise-edition.html

3. Database Management

PostgreSQL

- Comes bundled with the product.
- In case of failover, please use MS SQL.

Microsoft SQL

1. Supported versions:

SQL 2019 | SQL 2017 | SQL 2016 | SQL 2014 | SQL 2012 | SQL 2008

2. Important Notices:

1. For production, use 64 bit versions of SQL.
2. Recovery mode should be set to SIMPLE.

3. SQL and OpManager should be in the same LAN. Currently WAN based SQL installations are not supported.

3. Collation:

- English with collation setting (SQL_Latin1_General_CP1_CI_AS)
- Norwegian with collation setting (Danish_Norwegian_CI_AS)
- Simplified Chinese with collation setting (Chinese_PRC_CI_AS)
- Japanese with collation setting (Japanese_CI_AS)
- German with collation setting (German_PhoneBook_CI_AS)

4. Authentication:

Mixed mode (MSSQL and Windows Authentication).

5. BCP:

The "bcp.exe" and "bcp.rll" must be available in the bin directory.

The BCP utility provided with Microsoft SQL Server is a command line utility that allows you to import and export large amounts of data in and out of SQL server databases quickly. The bcp.exe and bcp.rll will be available in the MSSQL installation directory. If MSSQL is in a remote machine, copy bcp.exe and bcp.rll files and paste them in the <\OpManager\bin> directory.

Note:

- The SQL server version compliant with the SQL Native Client must be installed in the same Server.
- For production, use 64 bit versions of SQL.
- Recovery mode should be set to SIMPLE.
- SQL and NetFlow should be in the same LAN. Currently WAN based SQL installations are not supported.

Data backup & restoration

Backup

Following table lists the backup utilities bundled with NetFlow Analyzer and their purpose. Ensure you use the one that fits your backup needs:

Utility	Path	Database	Purpose
BackupDB.bat (for Windows) BackupDB.sh (for Linux)	OpManager\bin\backup	MSSQL | PGSQL	This utility does a backup of the configuration.

Restoration

To restore the backed up data,

1. Go to *<OpManager Home>/bin/backup* directory
2. Execute RestoreDB.bat (use RestoreDB.sh for Linux) with the backup file name as argument. See example below:
   C:\<OpManager Home>\bin\backup>RestoreDB.bat
   "OpManager\backup\BackUp_APR3_2009_17_43_38_8100.zip"

To restore the backed up data for MSSQL,

1. Go to *<OpManager Home>/bin/backup* directory
2. Restore the data using RestoreDB.bat present under OpManager/bin/backup directory and restart OpManager.

   For ex : C:\<OpManager Home>\bin\backup>RestoreDB.bat
"c:\OpManager\backup\BackUp_APR3_2009_17_43_38_8100.zip"

Note: The following steps are applicable for NetFlow Analyzer builds 12300 and above.

Performance tuning

We recommend tuning Java and a few database parameters to improve the performance of the system.

1. To access performance tuning settings, navigate to **Admin** > **Installation Info**.
2. Click on **Configured heap**, 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.

Other General Guidelines

You can install NetFlow Analyzer as a Windows or Linux Service.

Refer the following link for details on installation:
https://www.manageengine.com/products/netflow/help/installing-and-starting.html

If you are planning to use the Enterprise Edition, please read and understand the EE architecture before you proceed with the installation:
https://www.manageengine.com/products/netflow/help/installing-and-starting-nfa-enterprise-edition.html

To change the default HTTP port used by NetFlow Analyzer, refer the Server Settings document given in the below link. You can refer to this document on other settings that you can modify:
https://www.manageengine.com/products/netflow/help/basic-settings.html

For any questions, reach out to us at: netflowanalyzer-support@manageengine.com