



IBM Storage Network®

# IBM Network Advisor v12.4.4 Release Notes

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## Release overview

IBM Network Advisor 12.4.4 is a software maintenance release based on IBM Network Advisor 12.4.3. All hardware platforms and features supported in IBM Network Advisor 12.4.3 are supported in 12.4.4. This release supports key FC SAN features including support for FabricOS 7.4 and enhancements to Reporting, Usability, and REST API library.

IBM Network Advisor is a software management platform for SAN networks. It provides network administrators the ability to quickly access network topology, health and performance data required to troubleshoot and remediate network issues. IBM Network Advisor is licensed and deployed to manage SAN only networks.

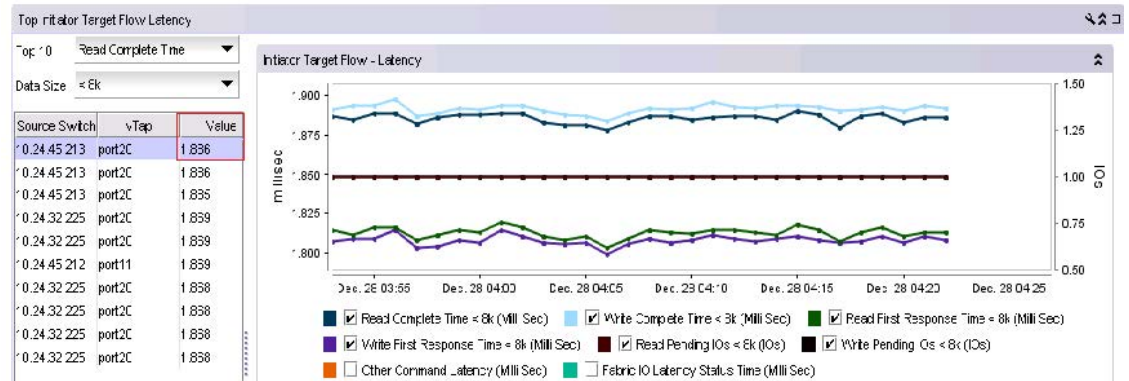
The fixes included in this release are listed in the defect tables at the end of this document.

## Software feature overview

### SAN Management feature enhancements

IBM Network Advisor 12.4.4 supports the following SAN capabilities and enhancements:

- Platform support
  1. 7.4.1a
- Other Changes
  1. Top 'N' flow widgets such as "Top initiator read complete time" in the Top flows Dashboard are changed to show the value for the specific measure alone. This is applicable to the Top IT and ITL latency widgets also available in the Top Flows dashboard as shown in the following figure.



2. Changes to the drill down table that is launched from the dashboards
  - a. The Drill down shows +1 hr and -1 hr data from the current data point with 5 mins granularity for 30 min and 1 hr time scope options selected in the dashboard.
  - b. The Drill down shows +12 hr and -12 hr data with 30 min granularity for the other 30 mins and 1 hr time scope options selected in the dashboard.

**IBM Network Advisor upgrades:** IBM Network Advisor 12.3.2-12.3.4 and 12.4.1-12.4.3 running on the Linux and Windows operating systems can be upgraded to IBM Network Advisor 12.4.4.

**Note 1:** Enterprise and Professional Plus editions are not supported on 32-bit servers. To migrate Enterprise and Professional editions to a 64-bit server, refer to the "Pre-migration requirements when migrating from one server to another" section of the *IBM Network Advisor Installation and Migration Guide*.

**Note 2:** Direct migration from pre-12.3.2-12.3.4 releases to 12.4.4 are not supported. Refer to tables 9 and 10 in the *Installation and Migration Guide* for migration paths from DCFM and Network Advisor pre-12.3.2-12.3.4 releases.

**Note 3:** Refer to Table 11, “SMI Agent only migration paths,” in the *Installation and Migration Guide* for SMI Agent only migration paths.

**Note 4:** SAN users may add IP management to Network Advisor 12.4.x for SAN+IP network management with procurement of the IP functionality. Also, IP users may add SAN management to Network Advisor 12.4.x for SAN+IP network management with the procurement of SAN functionality.

**Note 5:** Migration from 12.4.4 to 14.0.0 is not supported. Users must migrate to 14.0.1 or later.

**Migration Impact:**

New IBM model names for the IBM switches will not be shown automatically upon migration. To see these new names, edit the existing model name with that of the new name in the “oem-switch-model-mapping.properties” file located in the ‘conf’ folder of NA home location. Restart the server to make changes take effect.

## Operating Systems supported

IBM Network Advisor 12.4.x is supported on the following operating systems.

**Note:** The minimum required system physical memory for running IBM Network Advisor 12.4.x (server plus one local client) for the different editions is as listed below:

- Professional Edition: 4GB (32-bit OS), 6GB (64-bit OS)
- Pro-plus and Enterprise Editions (supported on 64-bit OS only):16GB

### ***Recommended system requirements for server (plus 1 client)***

<b>Installation resources</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>
Installed Memory	16 GB	16 GB	16 GB
Processor Core Count (physical + logical)	2	4	8
Disk Space	20 GB	80 GB	100 GB
Server Heap	Default	Default	Default
Client Heap	Default	Default	Default

### ***Recommended system requirements for server managing Analytics Monitoring Platform***

<b>Installation resources</b>	<b>Small</b>	<b>Medium</b>	<b>Large</b>
Installed Memory	32 GB	32 GB	32 GB
Processor Core Count (physical + logical)	24	24	24
Disk Space	1 TB	2 TB	3 TB
Server Heap	6 GB	6 GB	6 GB
Client Heap	2 GB	2 GB	2 GB

**Notes:**

1. It is recommended to use only the remote client for the IBM Network Advisor server when managing the Analytics Monitoring Platform with more than 20K flows
2. SSD storage is recommended for better performance when managing the Analytics Monitoring Platform

When managing Analytics Monitoring Platform, it is recommended to use a server with a minimum of two Processors/CPU's, with each Processor/CPU having a minimum of six Physical cores with two or more threads (logical cores) per core, resulting in a minimum total of 24 logical cores.

Table1 64-bitserver / client operating system support

Operating System (architecture) / Installer	Versions
Windows	<ul style="list-style-type: none"> <li>• Windows 8 and 8.1 Enterprise</li> </ul>
Windows Server	<ul style="list-style-type: none"> <li>• Windows Server 2008 R2 Datacenter, Standard, and Enterprise</li> <li>• Windows Server 2012 and 2012 R2 Standard, Datacenter</li> </ul>
Linux	<ul style="list-style-type: none"> <li>• Red Hat Enterprise Linux Adv6.4, 6.5, 6.6, 7.0</li> <li>• Oracle Enterprise Linux 6.4, 6.5, 7.0</li> <li>• SUSE Linux Enterprise Server 11.3, 12.0</li> </ul>

### Browser support

Recommended browser versions for Web client:

- Internet Explorer 11.0.9 update version RTM (Windows 8.1, Windows Server 2008 R2, Windows Server 2012 R2)
- Internet Explorer 10.0.9 update version RTM (Windows 2012)
- Firefox 37 and later (Windows/Linux)
- Chrome 47 and later (Windows)

Table 2 JRE support

IBM Network Advisor version	JRE version supported
12.0.2	JRE 1.7u17
12.0.3, 12.1.2, 12.1.3	JRE 1.7u25
12.0.4, 12.1.4, 12.1.5	JRE 1.7u45
12.1.6	JRE 1.7u45 and JRE 1.7u51 [Windows] JRE1.7u67 [Linux]
12.3.2	JRE 1.7u67
12.3.3	JRE 1.7u71, 1.7u72
12.3.4	JRE 1.7u76, 1.8_u31
12.4.1	JRE 1.7u 79, 1.7u80, 1.8_u45
12.4.2	JRE1.7u79,1.7u80,1.8_u51
12.4.3, 12.4.4	JRE 1.7u79, 1.7u80, 1.8_u66

**Note 1:** Web Tools launched from IBM Network Advisor is also supported for the above combinations.

**Note 2:** (Applicable only to Web Tools from FOS releases done before 2/13/2015.) Due to java signing certificate expiration, Web Tools launched from IBM Network Advisor will not work with JRE. An attempt

to launch the Web Tools will be blocked and “Failed to validate certificate. The application will not be executed” message will display. To work around this issue, uninstall JRE 8, install JRE 7 updates 79/80 and set the security level to Medium.

For users with JRE 7 installation, an attempt to launch the Web Tools will be blocked and “Application Blocked by Security Settings” message will display. To work around this issue, JRE 7 users can simply reduce the security level from High to Medium and continue using JRE 7 update 79/80.

**Note 3:** Oracle enforces the latest JRE update to be used to web start the applications. The recommended versions for this release are listed in the JRE support table. Beyond the JRE expiration date, users will see the message “**Your Java version is out of date**” on an attempt to launch the web client.

You can either ignore the message “Your Java version is out of date” by selecting the “**later**” option and then proceeding with the web start client, or you can install the latest released JRE patch and then web start the client. The following warning will display and can be ignored: “The client system has java version <Latest Installed JRE> but the recommended java version is <as noted in the JRE support table>. Do you want to continue?”

**Note 4:** JRE 1.7.0 update 51 and later support begins with the following Fabric OS versions:

- Fabric OS v6.4.3f
  - Fabric OS v7.0.2e
  - Fabric OS v7.1.1c
  - Fabric OS v7.1.2
  - Fabric OS v7.2.1
  - Fabric OS v7.3.0
  - Fabric OS v7.4.0
- a. Apply the following workaround when launching Web Tools using a browser or Network Advisor Remote client for all Fabric OS versions earlier than the ones listed above:
- On Windows:  
Go to C:\Program Files\Java\jre7\lib\security
  - On Linux:  
Go to <jre install directory>/lib/security
  - Edit java.security file and change the value to 256 from 1024  
forjdk.certpath.disabledAlgorithms=MD2, RSA keySize< 1024
- Apply the following workaround on the Network Advisor server when launching Element Manager from the Network Advisor client for all Fabric OS versions earlier than the ones listed above:
- On Windows:  
Go to <Network Advisor install directory>jre64\lib\security
  - On Linux:  
Go to <jre install directory>/lib/security
  - Edit java.security file and change the value to 256 from 1024  
forjdk.certpath.disabledAlgorithms=MD2, RSA keySize< 1024

**Table 3** Supported scalability limits by Network Advisor editions

	Enterprise edition			Professional Plus edition	Professional edition
	Small	Medium	Large		
SAN switch ports	2000	5000	15000	2560	300
SAN switches and Access Gateways	40	100	400	40	15
SAN devices	5000	15000	40000	5000	1000

SAN Fabrics	25	50	100	36	2
Managed Hosts	20	100	400	100	20
vCenters	1	5	10	5	1
VMs (includes powered down VMs)	1000	5000	10000	5000	1000

**Note:** Virtual Fabrics are counted as fabrics when calculating the managed count limits.

**Note:** Supported network latency between Network Advisor server and client or server and devices is 100ms.

**Note:** Professional Plus edition is not supported for the IP package.

**Note:** Supported network latency between Network Advisor server and client or server and devices is 100ms.

## Device platform and firmware requirements

The following table lists the versions of Brocade software supported in this release. IBM and Brocade recommend using the latest software versions to get the greatest benefit from the network. IBM and equivalent Brocade hardware products are listed.

Operating System	IBM Switch/Director	Brocade Switch/Director
<b>Switch (b-type and B-Model) firmware versions</b>		
FOS 5.0.x, 5.1.x, 5.2.x, 5.3.x, 6.0.x, 6.1.x, 6.2.x, 6.3.x, 6.4.x, 7.0.x, 7.1.x, 7.2.x, 7.3.x, and 7.4.x	SAN24B-4 Express (2498-B24, -24E) SAN40B-4 (2498-B40, -40E) SAN80B-4 (2498-B80) SAN24B-5 (2498-F24, 249824G, 2498-X24) SAN48B-5 (2498-F48) SAN96B-5 (2498-F96, -N96) SAN06B-R (2498-R06) SAN 42B-R (2498-R42) IBM Converged Switch B32 (3758-B32, -L32) VA-40FC SAN384B (2499-192) SAN768B (2499-384) SAN384B-2 (2499-416) SAN768B-2 (2499-816)	Brocade 300 Brocade 5100 Brocade 5300 Brocade 6505 Brocade 6510 Brocade 6520 Brocade 7800 Brocade 7840 Brocade 8000 VA-40FC Brocade DCX-4S Brocade DCX Brocade DCX 8510-4 Brocade DCX 8510-8

## Installing IBM Network Advisor

Refer to the *IBM System Storage Network Advisor Installation and Migration Guide* for complete installation instructions. The installation instructions below provide a brief overview for the following operating systems:

- Microsoft Windows
- Linux

The Network Advisor Server runs as multiple services on Windows and multiple processes on Linux; they start automatically after installation.



### **To install IBM Network Advisor on Windows (Server)**

1. Download and extract the zip archive
2. Navigate to the **Windows** folder
3. Run *install.exe*
4. Follow the instructions to complete the installation.

### **To install IBM Network Advisor on Linux (Server)**

1. Download and extract the *tar.gz* archive
2. Navigate to the **Linux** folder.
3. Run *Install.bin* from the **File Manager** window.
4. Follow the instructions to complete the installation.

### **To launch the IBM Network Advisor client**

To launch the IBM Network Advisor client on the same local machine as the Network Advisor server, launch the client as follows:

#### **Windows:**

- Select: **Start > Programs > Network Advisor 12.4.x > Network Advisor 12.4.x**
- Launch the client from the desktop icon.
- Launch command prompt and go to the location "<Install location>/bin" and enter "**dcmclient**"

#### **Linux:**

- Launch the client from the desktop icon.
- Launch terminal and go to the location "<install location>/bin" and enter "**sh dcmclient**"

**Web browser, Windows and Linux:** Follow the steps below for launching the client from a web browser.

1. To launch the IBM Network Advisor client from a remote host, do the following:  
Open a browser window and type the IBM Network Advisor server hostname or IP address in the **Address** field; for example:  
<https://NetworkAdvisorServerhost1.companyname.com/>  
<https://192.x.y.z/>
2. If, when the Network Advisor server was installed, a Network Advisor web server HTTPS port number was specified (instead of the default 443), you must specify the port number after the hostname or IP address. In the following examples, 8080 is the web server port number:  
<https://NetworkAdvisorServerhost1.companyname.com:8080/>  
<https://192.x.y.z:8080/>

#### **Note 1**

The web started remote client is supported with JRE versions listed in the JRE support section in this document. The supported JRE version needs to be installed on the remote client system prior to establishing a server connection.

#### **Note 2**

The remote client can be launched in the following ways:

- Enter the server IP in the browser. The page will redirect to web client login page. Select the “Desktop client” option. A page will display with two options to start the remote client:
  - Web start the client
  - Download the client bundle (64-bit OS only). (Supported for the same or cross-OS platforms.)
- Enter the server IP in the browser. The page will redirect to web client login page. Login to the web client and then select the “Desktop Client” menu option for remote client launch

### Note 3

Launching the element manager applications within the Network Advisor client is done using Java Web Start technology. This requires that the local system's web browser is able to run Java web start applications. This setting may have been turned off, due to recent Java zero-day vulnerabilities.

To turn on Java content in the browser, follow the steps below:

1. Launch the "Java Control Panel"  
(refer to [http://java.com/en/download/help/win\\_controlpanel.xml](http://java.com/en/download/help/win_controlpanel.xml) to locate the Java Control Panel application on Windows)
2. In the Java Control Panel, click the **Security** tab.
3. Select the **Enable Java content in the browser** check box. This will enable the Java plug-in for the browser.
4. Click **Apply**. When the Windows User Account Control (UAC) dialog appears, allow permissions to make the changes. Click **OK** in the Java Plug-in confirmation window.
5. Now launch Element Manager from the IBM Network Advisor client.

## Important SAN Notes

1. For the Professional edition of IBM Network Advisor, the support for SAN fabric count increased from 1 to 2 fabrics and support for switch port count is reduced from 1000 to 300 switch ports.
2. If you see the following error message "Signature could not be validated" during firmware download or technical support data collection using SCP/SFTP, then it could be due to a mismatch in the signature key used in the ssh handshake between the switch and SCP/SFTP server. Use the following CLI command work around to address the issue:
  - For Fabric OS devices  
sw0:FID128:admin>sshutildelknownhost  
  
IP Address/Hostname to be deleted: <IP Address of SSH server to be deleted>If this work-around does not work, go to Server > Options > Software Configuration > FTP/SFTP/SCP, and deselect the SCP/SFTP option.
3. If you see the following error message "Remote Host: Could not connect to remote host." During technical support data collection (Fabric OS and Network OS devices only)) using SCP/SFTP, then it could be due to a mismatch in the signature key used in the ssh handshake between the switch and SCP/SFTP server. Try the following cli command work-around to address the issue:
  - For Fabric OS devices  
sw0:FID128:admin>sshutildelknownhost  
  
IP Address/Hostname to be deleted: <IP Address of SSH server to be deleted>If this does not work, go to Server > Options > Software Configuration > FTP/SFTP/SCP, and uncheck the SCP/SFTP option
4. Firmware Download fails if built-in SCP is used as preferred protocol. The workaround is to use the FTP option in IBM Network Advisor.
5. Trying to move a large number of ports (200+) between logical switches with the 'Reset to Default' option selected, results in operation time-out.
6. During installation, if Network Advisor database initialization fails on Windows Operating System, verify access to the drive where the installation is located. If the user "Administrator"

alone has access to the drive, then required permissions should also be provided to “Authenticated Users”. Then continue with the installation.

7. The FCIP links will not be shown in the topology for tunnels with degraded circuits.
8. IP Ping, IP Route, and Trace route is not supported for SAN42B-R.
9. IBM Network Advisor uses SNMPv3 by default to discover SAN products. If required, you can select the ‘Manual’ option in the **Discovery** dialog and choose SNMPv1 for discovery, as in case of AG discovery which requires use of SNMPv1 by default
10. A delay of 5 to 7 minutes is seen when Web Tools is launched on a system (through Network Advisor or directly in a web browser) where internet access is not available and the network does not return a ‘destination unreachable’ message. This issue occurs as Java tries to validate the SSL certificates with external CAs. This problem can be avoided on such systems by modifying the below Java properties:

**On Windows:** C:\Users\

**On Linux:** home/< logged in user name>/.java/deployment/deployment.properties

In the ‘deployment.properties’ file, edit the parameters below and set them to ‘false’.

If these parameters are not present, add them and then save the file. Then re-launch Web Tools.

deployment.security.validation.ocsp = false

deployment.security.validation.crl = false

11. Real time graph will not display proper data for FCIP tunnels when the polling interval is 10 sec. User need to keep 20 sec polling interval in graph to see the correct data for SAN42B-R.
12. Emulex: HTTPS discovery for ESXi host will work only with certificate import
13. If IBM Network Advisor is installed on Linux Operating System, the Fabric OS Element Manager and HCM cannot be launched if the client is launched using dcm client script available in the Network Advisor installation folder. The Launch in Context (LIC) dialogs from the SMIA configuration tool (launched from Server Management Console) also cannot be launched (e.g. Discovery Dialog, Options Dialog etc.). To use the above features on Linux machines, launch IBM Network Advisor client from a browser (after installing the supported JRE version), pointing to the Network Advisor server installed on that machine.

### **Workaround**

Complete the following two steps to work around this issue.

**Step 1)** Add following line in the <<User Home>/.java/deployment/deployment.properties file.

**deployment.expiration.check.enabled=false**

For example, if the user is root then the absolute path of this file would be as follows:

/root/.java/deployment/deployment.properties.

**Step 2)** Launch the Java Control Panel using the command below and then click **OK**.

<Network Advisor Home>\jre\bin\jcontrol

14. Secure Syslog is not supported from Network Advisor.
15. Configuration of Quiet time from **Maps Configure** dialog is not recommended from IBM Network Advisor.

16. SAN Configuration Purge Backup is **being enabled** automatically when “Enable Scheduled Backup” is set and remains enabled after disabling the scheduled backup.
17. Session timeouts observed in Reports page of the Web Client after five minutes. Browser refresh is required to proceed.
18. User should not perform any write operations on FCIP tunnels which have circuits with different IDs.
19. When CIMOM server is bound to host name, SLP service fails to get registered. Workaround: To overcome this issue user can bind the CIMOM server to IP Address instead of host name.
20. Firmware upgrade will happen serially for SAN42B-R switches with HA configured tunnels between them. For parallel download on SAN42B-R switches use CLI
21. FCIP circuit trace route verification fails when attempted from Network Advisor
22. Web tools launch is not supported for Analytics Monitoring Platform
23. When generating the Detailed Flow I/O Analytics Report for the entire managed network scope, it may take up to 90 minutes for the report to complete.

### ***Display of Logical switches***

If you create Logical switches through the **Logical Switch** dialog box, the logical switch displays under **Undiscovered Logical Switch** in the **Existing Logical Switches** panel. You have to rediscover the newly created logical switch fabric by opening the **Discovery** dialog and add the IP address of the chassis using the **Add** dialog.

### ***SSL connections using certificates with MD5 signatures***

After upgrading to IBM Network Advisor 12.x from 11.x, SSL-based product communication will fail if the devices have ‘weak’ authentication certificates. The user will see “Fabric Discovery failed because SSL certificate of the seed switch uses a weak algorithm. Install SSL Certificate with strong authentication algorithm on the switch and try again” for devices with weak certificates. Devices discovered prior to migration will not be manageable in IBM Network Advisor after migration. Java 1.7 used by IBM Network Advisor 12.x disables the use of certificates with ‘weak’ authentication. The certificates on such devices need to be updated to be compliant with JRE v1.7. Please refer to the ‘Secure Sockets Layer protocol’ section of FOS Admin guide for details on updating certificates

The recommended solution is to replace the certificate on the network device with a certificate using the more secure SHA signature. If that is not practical, the Network Advisor server configuration can be changed to accept MD5 signatures. Note that accepting MD5 signatures may result in warnings from network security scanning tools.

To accept MD5 signatures, edit the following text file:

On 64-bit Windows or Linux: <install-dir>/jre64/lib/security/java.security

Remove “MD5” from the following line near the end of the file:

jdk.tls.disabledAlgorithms=MD5, DES, 3DES, RC2

The modified line should appear as:

jdk.tls.disabledAlgorithms=DES, 3DES, RC2

The change will take effect the next time the Network Advisor server is restarted.

## **Reset Ports operation in Logical Switches dialog**

### **Note 1:**

Reset ports to default operation is applicable only when the ports are moved from one logical switch to another logical switch through the right arrow button i.e., from (Chassis ports Tree/Tree Table) LHS to (Logical Switches Device Tree) RHS device tree.

It is not applicable when:

- Ports from a Logical Switch are moved to default Logical Switch through Left Arrow button, i.e., from (Logical Switches Device Tree) RHS to (Chassis ports Tree/Tree Table) LHS.
- When a Logical Switch is deleted - its ports will not be reset to default before moving to Default Logical Switch before its deletion

Ports which are moved to the default logical switch can be reset to default, if they are moved from Chassis ports Tree/Tree Table LHS to Logical Switches Device Tree RHS device tree.

### **Note 2:**

Reset ports to default operation will not clear FCIP configurations in the following scenarios:

- In IBM SAN06B-R switches and FX8-24 blades, GE ports cannot be reset to default unless their corresponding VE ports are cleared of their FCIP configurations.
- Switch reset to default operation on IBM SAN42B-R switches may fail due to GE port sharing or if the associated VE port exists in another LS.

## **Additional important notes for SAN**

1. 64 bit OS is required to run Network Advisor Professional-Plus and Enterprise Editions.
2. User role privileges related to SAN and IP features are prefixed with 'SAN -' and 'IP -' strings. After migration from an older version, new privilege names will be displayed in the **Role Management** dialog with these prefixes.
3. IBM Network Advisor server startup and restart can take up to 10+ minutes to complete.
4. To avoid excessive telnet/ssh login messages in the IBM Network Advisor master log and event report, and the device CLI console, disable lazy polling by deselecting the "Enable lazy polling" checkbox in **IP Discovery Global Settings > Preferences Dialog**.
5. Starting with 12.0, the number of client connections supported has increased to 25. Refer to the *Installation and Migration Guide* for details. In addition to those details, the following database memory setting is required:
  - The PostgreSQL's parameter "shared\_buffers" memory allocation should be increased to 1024MB. To change this setting, edit the <installation\_directory>\data\databases\postgresql.conf file.  
**Change the line:** shared\_buffers = 256MB  
**To:** shared\_buffers = 1024MB
  - The server needs to be restarted.
6. In Linux 64 bit machines, connecting to the database through Open Office using ODBC will not work. The solution is to connect from Windows ODBC Client to the 64 bit Linux machine where IBM Network Advisor is running to view the Database tables.
7. If you are using the ODBC connection from a remote host to the database, after migrating to 12.0.x, you will no longer be able to connect from the remote host. If you want to connect from the remote host, refer to the "Configuring remote client access to the database" section in the *Installation and Migration Guide*.
8. Technical Support data collection for discovered Products fails through an external Linux FTP server on a Windows installation of Network Advisor. To successfully collect support save data for NOS and FOS devices, the following configuration needs to be done in the VSFTPD FTP server

before triggering the support save by setting external VSFTPD FTP Linux server (other than NA FTP server):

/etc/vsftpd.conf file and set "chroot\_local\_user=YES"

9. The client only application can be installed on a machine other than the server (without using a web browser) by creating a client bundle on the server, then copying and installing that client on another machine. Refer to the 'Client only installation' section of the *Installation and Migration Guide* for details.
10. "Server is not available" message will be displayed in the **login** dialog when user changes the default server port [24600] and tries to launch a remote client from client bundle. It is recommended to use the default server port.
11. Intermittently HTTP 500 error message is displayed when launching the Web Client. Server restart will fix the issue.
12. Error code 10003 reads "Common DCFM error". Instead it should read "10003: [...] Another transaction in progress".
13. User needs to run the "sanperformancestatenable" script from NA home utilities folder to enable/disable performance statistics collection for SMIA only package installation. Following are the steps to execute the script.
  - Windows: Open cmd prompt and move to <BNA\_HOME>\utilities and run sanperformancestatenable.bat dbusernamedbpasswordenable|disable
  - Linux: Open terminal and move to <BNA\_HOME>\utilities and run sanperformancestatenabledbusernamedbpasswordenable|disable
14. User needs to use a different name (non-default) for the widget when attempting to add "Top Product Response Time" widget to avoid this error "Monitor could not be added. Duplicate monitor name".
15. Intermittently the Port Traffic/SFP/Error Time Series Report generation may fail when the port count is greater than 50 and the Time Scope is greater than 3 days.
16. REST API does not provide FCIP circuit measures for the GigE port.
17. "CLI through server" for FC/LC mode cluster and CLI Template based deployments for LC mode cluster will not function when product communication is set to "SSH Only".
18. IBM Network Advisor is now enforcing minimum disk space requirements during migration. When the disk space requirements are not met, IBM Network Advisor displays an error message prompting the user to use the script to delete performance data and retry migration.
19. The following step from the "Migration Data" section of the *Installation and Migration Guide* is no longer applicable and can be ignored during the migration: "To migrate historical performance data, select the SAN and IP check boxes, if necessary."
20. SNMP Trap auto-registration does not happen for a discovered VCS which is configured with 'Read Only' community string alone. Registration can be done manually post discovery through **Product Trap Recipients** dialog.
21. When IBM Network Advisor is managing more than 1500 IP products, you may experience some performance degradations such as delays while launching some dialogs.
22. Due to Microsoft Windows operating system restriction which does not allow services logged in as Local System user to interact with the desktop, the GUI application cannot be launched using "Launch a Script" option of **Add Event Action**.  
  
Refer the following link for more information:  
<http://msdn.microsoft.com/en-us/library/windows/desktop/ms683502%28v=vs.85%29.aspx>
23. LDAP users have to provide usernames with case sensitivity, as defined in LDAP server, to successfully login into Network Advisor client.

24. During migration, if insufficient space is detected, then a warning message will be displayed with an option to rollback. If user chooses "No", then migration will be aborted. As a result, the source version services will remain uninstalled. Please refer to the Installation and Migration Guide for instructions to install the source version services manually.
25. The firewall ports listed in the Installation and Migration guide need to be open bi-directionally for all the bi-directional protocols.
26. If the source Network Advisor has more products discovered, then it is recommended to stop all the services manually in the Network Advisor Server Management Console of the older version before initiating migration with the Configuration Wizard.
27. Reports: It is recommended to run no more than 50 schedules at the same time to avoid performance issues.
28. Service start up failure can be seen in Windows 2008 R2 OS and the recommendation is to apply this hot fix from <http://support.microsoft.com/kb/257779>
29. User must stop all the services through SMC, then close the SMC and perform a partial uninstall; or do not perform any partial uninstall and allow the NA take care of it during direct migration.
30. To avoid 100% CPU utilization when server runs with Analytic platform, recommending user to launch a remote client to monitor NA instead of launching local client in server.
31. Occasionally remote client would fail to launch with older java's due to java issue. Recommending user to re-insall java and launch a remote client.
32. Web start will not work if machine on which the client is launched, is installed with both 32 bit and 64 bit JREs. This problem is observed with both java 1.7 and 1.8 as well. To work around this issue, uninstall the 32 bit JRE and re-launch the browser.
33. NA AMP monitoring and support Save concurrently causes flow to show as inactive in BNA. This is due to internal daemon reboot. Workaround is to un-monitor AMP from NA before collecting support save.
34. Summary dashboard performance and latency widgets will not show older data if the time scope is older than 12.4.4 up time.
35. Top Flows dashboard Top N widgets will not show older data if the time scope is older than 12.4.4 up time if "Any" is chosen as the data size.

### ***Patch installer troubleshooting***

Patch installer may not launch if UAC is enabled on a Windows 7/8/2008/2008 R2/2012 editions. You must first disable the UAC using the procedure provided in the Appendix G: **Troubleshooting** section of the *User Manual*, and then launch the patch installer.

### ***Support Saves may take a long time with large databases***

As databases grow larger from Event, sFlow, and Performance Collector data, the Support Save operation may take a long time to run. Larger databases will promote longer Support Save operations. Make sure you have a minimum of 20GB disk space for Support Save and Backup operations.

### ***Installation on network mounted drives is not supported***

Installation onto a Windows network mounted drive is not supported but installation is allowed and the DB fails to start.

### ***Client disconnects***

Under heavy server load or degraded network links, there is a potential for the IBM Network Advisor client to get disconnected from the server. Workaround is to restart the client.



## Performance statistics counters - calculation formulae

For calculating the statistics for FC, GE, FCIP and TE port we use SNMP to query the respective OIDs, mentioned below in the table.

For calculating the HBA and CNA statistics, we use the APIs provided by HCM. And for EE monitors we use HTTP to get the TX, RX and CRC error values.

Polling interval for historical graph is 5 min and for real-time, it changes based on the granularity value selected in the Real Time graph dialog.

Counter Name	Type	Protocol used	Source value	Formula
TX	FC	SNMP	.1.3.6.1.3.94.4.5.1.6	$TX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
RX	FC	SNMP	.1.3.6.1.3.94.4.5.1.7	$RX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
TX	GE	SNMP	.1.3.6.1.2.1.31.1.1.1.10	$TX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
RX	GE	SNMP	.1.3.6.1.2.1.31.1.1.1.6	$RX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
TX	FCIP	SNMP	.1.3.6.1.2.1.31.1.1.1.10	$TX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
RX	FCIP	SNMP	.1.3.6.1.2.1.31.1.1.1.6	$RX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
Uncompressed Tx/Rx MB/sec	FCIP	SNMP	.1.3.6.1.4.1.1588.4.1.1.6	$(\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
TX	EE Monitors	HTTP	Port RX (variable from the return html file)	$TX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
RX	EE Monitors	HTTP	Port TX (variable from the return html file)	$RX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
TX	HBA, CNA	HCM API	NA	$TX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
RX	HBA, CNA	HCM API	NA	$RX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
TX	TE	SNMP	.1.3.6.1.2.1.31.1.1.1.10	$TX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
RX	TE	SNMP	.1.3.6.1.2.1.31.1.1.1.6	$RX = (\text{Delta value}^1 / (1000 * 1000)) / (\text{Polling interval}^2)$
TX% / RX%	FC	NA	TX = .1.3.6.1.3.94.4.5.1.6 RX = .1.3.6.1.3.94.4.5.1.7	TX% or RX% for FC = $((\text{delta value}1 \text{ of TX or RX}) / ((\text{Bytes transmitted} * \text{port speed}) * (\text{polling interval}2)) * 100$ where Bytes transmitted for 1G,2G,4G,8G, and 16G port speed is 106250000 and Bytes transmitted for 10G port speed is 127500000. If utilization is less than 1, the value is 0.0.

TX% / RX%	GE	SNMP	TX = .1.3.6.1.2.1.31.1.1.1.10 RX =.1.3.6.1.2.1.31.1.1.1.6	TX% or RX% for FC = ((delta value1 of TX or RX) / (((125000000* port speed)*(polling interval2))) * 100. If utilization is less than 1, the value is 0.0.
TX% / RX%	FCIP	SNMP	TX = .1.3.6.1.2.1.31.1.1.1.10 RX =.1.3.6.1.2.1.31.1.1.1.6	TX% or RX% for FCIP = ((delta value1 of TX or RX) / (maximum bytes transmitted))*polling interval2))) * 100, where maximum bytes transmitted = tunnel speed
TX% / RX% (Pre 6.4.1 Edison release)	TE	SNMP	TX = .1.3.6.1.2.1.31.1.1.1.10 RX =.1.3.6.1.2.1.31.1.1.1.6	TX% or RX% for TE = ((delta value1 of TX or RX) / ((125000000* 10)*(polling interval2))) * 100. If utilization is less than 1, the value is 0.0.
Cumulative Compression Ratio	FCIP		.1.3.6.1.4.1.1588.4.1.1.4	Compression Ratio = current value/ 1000 Since for compression ratio we will take the current compression ratio value
Receive EOF	TE		.1.3.6.1.2.1.16.1.1.1.5	Receive EOF = Delta value <sup>1</sup> / (1000 * 1000)
Other Counters				Other counters = Delta value <sup>1</sup>
Current Compression Ratio	FCIP	NA	NA	(ifHCInOctets + ifHCOctets) / fcip Extended Link Compressed Bytes

- 1) Delta value<sup>1</sup>: is the difference of value retrieved between the two consecutive polling cycles.
- 2) Polling interval<sup>2</sup>: duration between the two polling cycle in seconds

## SMI Agent

1. For IBM Network Advisor that has more than 30K instances, the CIMOM takes more memory to generate CIM instances
2. If the user performs Enumerate Instances and the total size is more than 2 MB for all managed fabrics, it may result in out of memory issue. In this case, the user has to increase the CIMOM heap size to fetch zone database size of 2 MB.  
Note: For 1.6 MB of zone database (144600 zone members), with 9 GB of heap size the Brocade\_zonemembershipsettingdata instances are retrieved.

### **Indications delivery depends on SAN size and SNMP registration**

The time to deliver the indication will vary based on Network Advisor SAN size selected during installation. If a large SAN size is selected, indication delivery time will be longer.

Provider classes may take more time to update the fabric changes if the switches managed in IBM Network Advisor are not SNMP registered. As this would cause a delay in indication delivery, all the switches managed in IBM Network Advisor should be SNMP registered

### **CIMOM heap size**

The CIMOM heap size has been increase for small, medium, and large SAN network sizes:

#### **Old heap sizes:**

##### **small**

platform.64.cimom.conf.set.MAX\_HEAP\_SIZE = 1024m

**medium**

platform.64.cimom.conf.set.MAX\_HEAP\_SIZE = 1536m

**large**

platform.64.cimom.conf.set.MAX\_HEAP\_SIZE = 2048m

**Current heap sizes:**

**small**

platform.64.cimom.conf.set.MAX\_HEAP\_SIZE = 1536m

**medium**

platform.64.cimom.conf.set.MAX\_HEAP\_SIZE = 2048m

**large**

platform.64.cimom.conf.set.MAX\_HEAP\_SIZE = 3072m

### ***Logging for CIMOM***

The default logging level is "INFO" in integrated Agent. To change the logging level to DEBUG, update the "com.brocade" category value in cimom-log4j.xml file present in the <Installation Dir>\conf folder.

The log file size and number of log files also can be changed by modifying the file rolling appender parameters in this cimom-log4j.xml file.

Logging Level, File size and Number of Log files can be changed by modifying the following fields: "Log Level", "File Size" and "Number of Files" from the **Configuration Tool** through the **CIMOM** tab.

### ***Service Location Protocol (SLP) support***

The Management application SMI Agent uses Service Location Protocol (SLP) to allow applications to discover the existence, location, and configuration of WBEM services in enterprise networks.

You do not need a WBEM client to use SLP discovery to find a WBEM server; that is, SLP discovery might already know about the location and capabilities of the WBEM server to which it wants to send its requests. In such environments, you do not need to start the SLP component of the Management application SMI Agent.

However, in a dynamically changing enterprise network environment, many WBEM clients might choose to use SLP discovery to find the location and capabilities of other WBEM servers. In such environments, start the SLP component of the Management application SMI Agent to allow advertisement of its existence, location, and capabilities.

SLP installation is optional and you can configure it during Management application configuration. Once installed, SLP starts whenever the Management application SMI Agent starts.

**Management SMI Agent SLP application support includes the following components:**

- slpd script starts the slpd platform
- slpd program acts as a Service Agent (SA). A different slpd binary executable file exists for UNIX and Windows systems.
- slptool script starts the slptool platform-specific program
- slptool program can be used to verify whether SLP is operating properly or not. A different slptool exists for UNIX and Windows.

By default, the Management application SMI Agent is configured to advertise itself as a Service Agent (SA). The advertised SLP template shows its location (IP address) and the WBEM Services it supports. The default advertised WBEM services show the Management application SMI Agent:

- accepts WBEM requests over HTTP without SSL on TCP port 5988

- accepts WBEM requests over HTTPS using SSL on TCP port 5989

### slptool commands

Use the following slptool commands to verify whether the SLP is operating properly.

- `slptool findsrvs service:service-agent`  
Use this command to verify that the Management application SMI Agent SLP service is properly running as a Service Agent (SA).

Example output: `service:service-agent://127.0.0.1,65535`

- `slptool findsrvs service:wbem`  
Use this command to verify that the Management application SMI Agent SLP service is properly advertising its WBEM services.

Example outputs:

`service:wbem:https://10.0.1.3:5989,65535`

`service:wbem:http://10.0.1.3:5988,65535`

This output shows the functionalities of Management application SMI Agent:

- accepts WBEM requests over HTTP using SSL on TCP port 5989
- accepts WBEM requests over HTTP without SSL on TCP port 5988
- `slptool findattrs service:wbem:http://IP_Address:Port`
  - Use this command to verify that Management application SMI Agent SLP service is properly advertising its WBEM SLP template over the HTTP protocol.
  - Example input: `slptool findattrs service:wbem:http://10.0.1.2:5988`
  - Note: Where IP\_Address:Port is the IP address and port number that display when you use the `slptool findsrvs service:wbem` command.
- `slptool findattrs service:wbem:https://IP_Address:Port`
  - Use this command to verify that the Management application SMI Agent SLP service is properly advertising its WBEM SLP template over the HTTPS protocol.
  - Example input: `slptool findattrs service:wbem:https://10.0.1.2:5989`
  - Note: Where IP\_Address:Port is the IP address and port number that display when you use the `slptool findsrvs service:wbem` command.

### SLP on UNIX systems

This section describes how to verify the SLP daemon on UNIX systems.

SLP file locations on UNIX systems:

- SLP log—Management\_Application/cimom /cfg/slp.log
- SLP daemon—Management\_Application/cimom /cfg/slp.conf
- The SLP daemon can be reconfigured by modifying, SLP register—Management\_Application/cimom /cfg/slp.reg

You can statically register an application that does not dynamically register with SLP using SLPAPIs by modifying this file. For more information about these files, read the comments contained in them, or refer to <http://www.openslp.org/doc/html/UsersGuide/index.html>

Verifying SLP service installation and operation on UNIX systems:

1. Open a command window.
2. Type `% su root` and press **Enter** to become the root user.
3. Type `# Management_Application/cimom/bin/slptoolfindsrvsservice:service-agent` and press **Enter** to verify the SLP service is running as a Service Agent (SA).

4. Type # <Management\_Application>/cimom/bin/slptoolfindsrvservice:wbem and press **Enter** to verify the SLP service is advertising its WBEM services.
5. Choose one of the following options to verify the SLP service is advertising the WBEM SLP template over its configured client protocol adapters.
  - Type # Management\_Application/cimom /bin/slptool findattrs service:wbem:http://IP\_Address:Port and press **Enter**.
  - Type # Management\_Application/cimom /bin/slptool findattrs service:wbem:https://IP\_Address:Port and press **Enter**.

**Note:** Where IP\_Address:Port is the IP address and port number that display when you use the `slptool findsrvs service:wbem` command.

### SLP on Windows systems

This section describes how to verify the SLP daemon on Windows systems.

SLP file locations:

- SLP log—Management\_Application\cimom \cfg\slp.log
- SLP daemon—Management\_Application\cimom\cfg\slp.conf  
The SLP daemon can be reconfigured by modifying this file.
- SLP register—Management\_Application\cimom\cfg\slp.reg  
statically register an application that does not dynamically register with SLP using SLP APIs by modifying this file. For more information about these files, read the comments contained in them, or refer to <http://www.openslp.org/doc/html/UsersGuide/index.html>

Verifying SLP service installation and operation on Windows systems:

1. Launch the **Server Management Console** from the **Start** menu.
2. Click **Start** to start the SLP service.
3. Open a command window.
4. Type `cd c:\Management_Application\cimom \bin` and press **Enter** to change to the directory where `slpd.bat` is located.
5. Type `>slptool findsrvs service:service-agent` and press **Enter** to verify the SLP service is running as a Service Agent.
6. Type `>slptool findsrvs service:wbem` and press **Enter** to verify the SLP service is advertising its WBEM services.
7. Choose one of the following options to verify the SLP service is advertising the WBEM SLP template over its configured client protocol adapters.
  - Type `>slptool findattrs service:wbem:http://IP_Address:Port` and press **Enter**.
  - Type `>slptool findattrs service:wbem:https://IP_Address:Port` and press **Enter**.

**Note:** Where IP\_Address:Port is the IP address and port number that display when you use the `slptool findsrvs service:wbem` command.

## Documentation updates

The most recent IBM Network Advisor 12.4.x documentation manuals are available on the IBM Support Portal site: [www.ibm.com/supportportal](http://www.ibm.com/supportportal). In the IBM Support Portal, select or enter the product name, and then select **Product documentation** under the **Product support content** heading. Navigate to the desired publications in the displayed results.

In the IBM Network Advisor SAN Manual, the capabilities and licensing requirements for the 16Gbps FCIP router platform are not listed under the “Fiber channel over IP” chapter. That

information is provided below and will be added in subsequent versions of IBM Network Advisor documentation.

### **Licensing:**

The 16Gbps FCIP router platform requires these FCIP licenses:

- WAN rate upgrade license 1
- WAN rate upgrade license 2
- Advanced Extension (FTR\_AE)

### **Capabilities:**

The 16Gbps FCIP router platform has the capabilities of HA WAN Connectivity, FCIP trunking, Adaptive Rate Limiting, 10 GbE ports, 40 GbE ports, IP Extension Support, FC ports up to 16 Gbps, Compression, Open Systems Tape Pipelining (OSTP), FICON extension, IPSec for tunnel traffic, Diffserv priorities, VLAN tagging, IPv6 addresses for FCIP Tunnels, Support for jumbo frames.

## **Important Notes for Managing the Analytics Platform (Only for AMP Users)**

### **1. Backup and restore recommendations**

- a. With AMP discovered in BNA 12.4.4, for Back up, it is recommended to use with External device with since backing up to CD is not the recommended method. The usable capacity of a CD is approximately 700 MB and needs to be replaced when full. It is recommended that you configure the backup system to target a hard drive or a network drive.

**Note:** The amount of space required for each backup is 1/10th of the size of BNA installation directory and the backup process takes about 1.5 hours for 100GB of data.

- b. By default, the BNA server backup is scheduled to run a backup every 24hrs. Since the data size will be huge, please note the following:
  - i. If a user needs better BNA performance, it is recommended to disable the default scheduled back by disabling the **Enable Backup** option and triggering a manual backup on a weekly basis or based on the need. To trigger a manual backup, select the **Enable Backup** check box and click **Backup Now**.
  - ii. If a user needs to run a back up every day, the performance of the BNA will be impacted due to the backup process. Backups can be planned based on requirements.

### **2. Support save recommendations**

- a. To capture Server and Client support save data, it is recommended to select the **Partial** option. This excludes historical performance data and events from the database capture.

### **3. Disk space recommendation in case of Migration**

- a. It is recommended to have free disk space of 2 times the size of "BNA installation folder/data". Note that it takes approximately 2 hrs to complete the migration for 100 GB of data folder size. For example:

Size of the "BNA installation folder/data is - 500 GB

Additional free disk space required is - 1000 GB (1 TB)

Time that will take for completing migration would be - approximately 10 hours

### **4. Performance considerations for Dashboard**

- a. When there is more than 30k flows monitored in BNA:
  - i. It is recommended to select the 30 minutes or 1 hour time scope for better performance of the drill down graphs/dialogs

- ii. The drill down graph/dialog launch will take around 5 minutes when user selects 6 hours/12 hours/1 day time scope.

**5. Any AMP device should be discovered by only one BNA Server**

## Defects

### Open Defects in IBM Network Advisor 12.4.4

This section lists the open defects with Critical, High, and Medium technical severity as of Jan 4, 2016 in IBM Network Advisor 12.4.4.

<b>Defect ID:</b> DEFECT000561613	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor12.4.2	<b>Technology Area:</b> Dashboards
<b>Symptom:</b> Predefined measures are not selected by default and graph is not plotted for 'Top Initiator Target Flow Latency' or 'Top Initiator Target LUN Flow Latency' dashboard	
<b>Condition:</b> This occurs when 'Other Command Latency' measure is selected from the 'Top 10' combo box of 'Top Initiator Target Flow Latency' or 'Top Initiator Target LUN Flow Latency' dashboard	
<b>Workaround:</b> Manually select the measures to plot the graph in 'Top Initiator Target Flow Latency' or 'Top Initiator Target LUN Flow Latency' dashboard	
<b>Recovery:</b> Manually select the measures to plot the graph in 'Top Initiator Target Flow Latency' or 'Top Initiator Target LUN Flow Latency' dashboard	

<b>Defect ID:</b> DEFECT000580834	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor12.4.3	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> In drill downs of AMP dashboards for Read IPOS measure duplicate names are sometimes seen	
<b>Condition:</b> Monitor AMP in Network Advisor and Launch detailed view dialog from Flow Latency dialog and verify the Measure Read IOPS for each data size in the bottom table	

<b>Defect ID:</b> DEFECT000581621	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Device Monitoring
<b>Reported In Release:</b> Network Advisor12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Unwanted error message is displayed which has no impact on functionality.	
<b>Condition:</b> When a custom dashboard having one or more Performance widgets is deleted, the error message is shown.	



<b>Defect ID:</b> DEFECT000581656	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Device Monitoring
<b>Reported In Release:</b> Network Advisor12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Top Initiator/Target port widgets will show top flows that are not within the displayed data size.	
<b>Condition:</b> Observed when 'Top Flows' dashboard is loaded for the first time or when toggled between dashboards.	
<b>Workaround:</b> When the desired data size option is manually selected, the Top Initiator/Target port widgets will display top flows honoring the selected data size.	

<b>Defect ID:</b> DEFECT000581666	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Detailed View dialog launched for an IT Flow from the 'Flow-Latency'/'Flow-Performance' graphs will highlight the ITL flow as the selected flow in the 'View Flows' table..	
<b>Condition:</b> Double clicking an IT flow from the 'Flow-Latency'/'Flow-Performance' graphs to view its detailed trend will highlight the ITL flow as the selected flow in the 'View Flows' table..	

<b>Defect ID:</b> DEFECT000581691	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Both IT and ITL flows are listed in the Top ITL flow widget.	
<b>Condition:</b> Launching <b>Top Flows</b> AMP dashboard and viewing the Top IT and ITL flow widgets..	

<b>Defect ID:</b> DEFECT000581727	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Top Initiator/Target port widgets do not honor the selected data size.	
<b>Condition:</b> Launching 'Top Flows' dashboard and viewing the Top Initiator/Target port widgets.	

<b>Defect ID:</b> DEFECT000581875	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Right click menu is dismissed after checking/unchecking a column from the widgets in Top Flows dashboard	
<b>Condition:</b> Observed while trying to customise the tables of widgets in Top Flows dashboard	

<b>Defect ID:</b> DEFECT000581879	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> No menu will be displayed upon right click of columns in the customized table.	
<b>Condition:</b> Right click menu will not display if table was already customized to contain only one column (observed in any of the widgets present in the Top Flows dashboard).	

<b>Defect ID:</b> DEFECT000581991	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.4	<b>Technology Area:</b> Dashboards
<b>Symptom:</b> View Flows' table doesn't display data even after the Graph is Plotted in Detailed View Dialog.	
<b>Condition:</b> Launch the <b>Detailed View</b> dialog for a flow from the 'Flow-Latency'/'Flow-Performance' graph.	

<b>Defect ID:</b> DEFECT000582124	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Graphs in Detailed View dialog for Performance measures will display slight variation between their Max and Avg values though all performance measures support identical Max, Avg values.	
<b>Condition:</b> Viewing tooltip of graph for Performance measures in Detailed View Dialog.	

<b>Defect ID:</b> DEFECT000582350	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Some times detailed view dialog will be launched with no details	
<b>Condition:</b> Create a custom widget with Any as data size for Initiator/Target port widgets and launch Detailed view dialog	

<b>Defect ID:</b> DEFECT000582419	
<b>Technical Severity:</b> High	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.4	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> The detailed view dialog will not have show correct values when compared with CLI.	
<b>Condition:</b> Select a flow in the Top Initiator/Target Port widgets and launch Detailed View dialog.	

<b>Defect ID:</b> DEFECT000582549	
<b>Technical Severity:</b> Medium	<b>Probability:</b> High
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.4	<b>Technology Area:</b> Dashboards
<b>Symptom:</b> The number of Top N values shown is not accurate when the Top N count is edited.	
<b>Condition:</b> Edit analytic dashboard to change Top N value from default 10 to some other value.	
<b>Workaround:</b> This is just a count display error and the top N values shown in the widget is accurate.	

### **Defects closed with code change in IBM Network Advisor 12.4.4**

This section lists the defects with Critical, High and Medium Technical Severity closed with a code change as of Jan 04, 2016 in Network Advisor 12.4.4.

<b>Defect ID:</b> DEFECT000568930	
<b>Technical Severity:</b> High	<b>Probability:</b> Medium
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> Dashboards
<b>Symptom:</b> When there are 20k flow monitored in Network Advisor and discovering 2nd AMP in Network Advisor the AMP dashboard might not be loaded.	
<b>Condition:</b> When there are 20k flow monitored in Network Advisor and discovering 2nd AMP in Network Advisor	

<b>Defect ID:</b> DEFECT000568932	
<b>Technical Severity:</b> High	<b>Probability:</b> Medium
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> MAPS - Monitoring and Alerting Policy Suite
<b>Symptom:</b> Analytics Graph does not show statistics when the 2nd AMP is added and is running 20k flows	
<b>Condition:</b> Launching historical graph to view 2 AMP devices each running ~20K flows	

<b>Defect ID:</b> DEFECT000569926	
<b>Technical Severity:</b> High	<b>Probability:</b> Medium
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Some times the real time graph pauses for some polling intervals	
<b>Condition:</b> Monitoring AMP in BNA and real time graph is launched for one of the flow to monitor ream time statistics	

<b>Defect ID:</b> DEFECT000571109	
<b>Technical Severity:</b> High	<b>Probability:</b> Medium
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Some time on the AMP dashboard of Network Advisor the data might not be shown	
<b>Condition:</b> 2 AMP's are monitored in Network Advisor and third AMP is discovered and monitored in Network Advisor	

<b>Defect ID:</b> DEFECT000571928	
<b>Technical Severity:</b> High	<b>Probability:</b> Medium
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> Sometimes all flow are marked as inactive flows in the Flow vision dialog	
<b>Condition:</b> Monitoring flows in Flow vision dialog.	

<b>Defect ID:</b> DEFECT000576274	
<b>Technical Severity:</b> High	<b>Probability:</b> Medium
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> Flow Vision (SAN)
<b>Symptom:</b> When detailed view dialog is launched for a flow from the parent detailed view using the right click menu option, the detailed view launches with no data in the 'View Flows' table. Hence the user will not be able to see the flows related to the selected flow.	
<b>Condition:</b> When detailed view dialog is launched for a flow from the parent detailed view using the right click menu option, the detailed view launches with no data in the 'View Flows' table.	

<b>Defect ID:</b> DEFECT000576588	
<b>Technical Severity:</b> High	<b>Probability:</b> Low
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> Dashboards
<b>Symptom:</b> Drill downs are not populated with flow details once every ten tries.	
<b>Condition:</b> When Drill down dialog is launched from the Summary widget.	

<b>Defect ID:</b> DEFECT000578383	
<b>Technical Severity:</b> High	<b>Probability:</b> Low
<b>Product:</b> Network Advisor	<b>Technology:</b> Monitoring
<b>Reported In Release:</b> Network Advisor 12.4.3	<b>Technology Area:</b> Dashboards
<b>Symptom:</b> User is not able to see the data when the Data size is changed in Top Initiator and target widgets.	
<b>Condition:</b> In SAN Analytics Monitoring dashboard user is not able to see values of datasize 8k to 64k in Top Initiator and target widgets.	