Migrating or Upgrading to a 64-bit Extreme Management Center® Engine

Beginning in NetSight version 6.3, the 32-bit engine image is no longer supported. Any Extreme Management Center engine currently running a 32-bit OS image must be upgraded to the newer 64-bit image prior to upgrading to 8.4.

This document provides instructions for migrating from one of the following Extreme Management Center server systems to a new 64-bit hardware or virtual Extreme Management Center engine.

- Windows 32-bit Extreme Management Center server
- Linux 32-bit Extreme Management Center server
- Linux 32-bit Extreme Management Center engine

It also provides instructions for upgrading an existing Linux 32-bit Extreme Management Center engine to the new 64-bit software. This would require you re-image your existing engine.

NOTE: In order to successfully install and run the new software you must have an Extreme Networks Enterprise license, not a Macrovision license. Contact your sales representative for information on obtaining a new Enterprise software license. To determine which type of license you have, access the License tab in the Server information window in any of your Extreme Management Center applications (Tools > Server Information > License tab). The license displays in the License column. Macrovision licenses start with the word INCREMENT. Enterprise licenses start with a number, for example 0001:.

Instructions on:

Determining If You Have a 32-bit Extreme Management Center Engine

Use the following information to determine if you are running a 32-bit or 64-bit Extreme Management Center engine.

If the Extreme Management Center engine is currently running version 4.4 or earlier, it is a 32-bit engine.

For Extreme Management Center engine running version 5.0 or later, run the following command from the client command line:

```
more/etc/os-version
```

If the contents of the file say "Ubuntu 12.04lts (64bit)", you have a 64-bit engine.
If the contents of the file say "Slackware 12.2 (32bit)", you have a 32-bit engine.

Migrating to a New 64-bit Extreme Management Center Engine

The process begins by installing the Extreme Management Center software on the new system. After you have performed the installation, it is necessary to manually transfer some of the existing data and configuration files from the old system to the new system. The following steps provide information on what data needs to be transferred, and steps for performing the transfer.

Preliminary Steps

You should perform these steps prior to changing over to the new server on your network.

NOTE: The hostname for the 64-bit hardware or virtual Extreme Management Center engine system cannot include illegal characters such as an underscore (_) or a blank. For more information on legal hostname syntax, see RFC 952 and RFC 1123.

1. Decide whether to use the same IP address for the new server used on the old server. If you use a different IP address, update the following components that send information back to the server:

- All devices sending traps or syslog message to the server
- All devices that have the Extreme Management Center server set up as a NetFlow flow collector
- The ExtremeControl engine management IP address for each engine
- Any ACLs that allow the Extreme Management Center server to access SNMP for devices

2. Backup the Extreme Management Center database on the old system.
    a. On the old system, select Tools > Server Information. Select the **Database** tab.
    b. Click on the **Backup** button and make note of the location where the backup is saved.
3. Install the new software on the 64-bit Extreme Management Center hardware or virtual engine.
4. Create any local user accounts that are needed on the new server.
5. Configure the mounts used by the old server on the new server.
6. Copy all the files and subdirectories from the TFTP directory on the old server to the new server.
7. If you have Beta features enabled on the old server, you must enable them on the new server before restoring the database backup to the new server. Select Tools > Options > Suite Options > Advanced Suite Settings.

NOTE: If you are installing the new software on a 64-bit hardware engine with dual NICs, you may need to make configuration changes following the installation, depending on which NIC you want the server to bind to. Please refer to the Systems with Multiple NICs section of the *Extreme Management Center Installation Guide* for information.

Migration Steps

This section provides steps for migrating data and server certificates from the old system to the new system.

1. Stop the Extreme Management Center server on both the old and new systems.
2. Copy the Extreme Management Center backup directory and subdirectories from the old system to the new system. If you have archived configurations or created any configuration templates in Inventory Manager, there is a database directory and an InventoryMgr directory. Both directories must be copied to the new system.

3. Copy the following files from the old system to the new system. You may not need to copy all the files, depending on whether you have created custom configurations for Extreme Management Center. For example, you only need to copy the FlexViews directory if you have created custom FlexViews, and you only need to copy the MyMibs directory if you have imported any MIBs into Extreme Management Center.

   Linux Systems - Copy files from the old Linux system to the new 64-bit Extreme Management Center engine. In the following paths, *<install directory>* refers to the destination path on the new engine with a default installation directory.

   - *<install directory>*/services/snmptrapd.conf
   - *<install directory>*/appdata/NSJBoss.properties
   - *<install directory>*/appdata/snmptrapd.conf
   - *<install directory>*/appdata/license files
   - *<install directory>*/appdata/OneView/MyReports
   - *<install directory>*/appdata/VendorProfiles/Staged/mibs/MyMibs
   - *<install directory>*/appdata/System/mibs/thirdparty
   - *<install directory>*/appdata/VendorProfiles/Staged/myVendorProfile/My FlexViews and all subdirectories
   - *<install directory>*/appdata/System/deviceTypes /myDeviceTypes.properties
   - *<install directory>*/appdata/System/Shared/autoGroups.xml
   - *<install directory>*/appdata/System/Shared/ThirdPartyMenu.xml
   - *<install directory>*/appdata/logs and all subdirectories
   - *<install directory>*/appdata/CommandScriptTool
   - /etc/snmp/snmpd.conf (only if you are migrating from a 32-bit Extreme Management Center engine)

   Windows Systems - Copy files from the old Windows system to the new 64-bit Extreme Management Center engine. In the following paths, *<install directory>* refers to the source path on the Windows system with a default installation directory.

   - *<install directory>*\services\snmptrapd.conf
   - *<install directory>*\appdata\NSJBoss.properties

- *<install directory>*\appdata\snmptrapd.conf
- *<install directory>*\appdata\license files
- *<install directory>*\appdata\OneView\MyReports
- *<install directory>*\appdata\System\mibs\MyMibs
- *<install directory>*\appdata\System\mibs\thirdparty
- *<install directory>*\appdata\System\FlexViews\My FlexViews and all subdirectories
- *<install directory>*\appdata\System\deviceTypes \myDeviceTypes.properties
- *<install directory>*\appdata\System\Shared\autoGroups.xml
- *<install directory>*\appdata\System\Shared\ThirdPartyMenu.xml
- *<install directory>*\appdata\logs and all subdirectories
- *<install directory>*\appdata\CommandScriptTool

4. If you have configured any scripts for the Console Alarms Manager, move those scripts to the new system. Scripts are located in the *<install directory>*\scripts directory on the Extreme Management Center server.
5. If you are using Data Center Manager (DCM), copy the following files from the old system to the new system.
   - *<install directory>*/jboss/server/default/deploy/udcp_jboss.war and all subdirectories
   - *<install directory>*/jboss/server/default/conf/udcp and all subdirectories
6. If you have installed a custom server certificate on the old system, configure the server private key and certificate for the new system.

   If the new server has the same hostname as the old server, use the same private key and certificate. Copy the *<install directory>*/jboss/server/default/deploy/NetSight/common /keystore.jar/nsserver.keystore from the old system to the new system.

   If the new server has a different hostname than the old server, contact your certificate authority and request a new certificate. When you have the new certificate, follow the instructions for generating a server private key and

server certificate in the Update the Extreme Management Center Server Certificate topic.

7. Set the server certificate trust mode on the new server to handle the certificates it receives from other servers. These steps must be performed if you have ExtremeControl engines on your network and/or connect to LDAP servers, **and** you want the server certificate trust mode to be "Locked." For more information, see Server Certificate Trust Mode.

    a. Create the new server with the Server Certificate Trust Mode set to "Trust All" (the default). This avoids certificate trust problems while the server is being set up.

    b. Once the new server is set up and communicating with other servers and engines as necessary, follow the normal steps of transitioning the Server Certificate Trust Mode to "Trust And Record" where the server learns the certificates it should expect to receive, and then to "Locked" when this has been completed.

8. Shutdown the old Extreme Management Center server machine.
9. Configure the IP address on the new machine.
10. Start the new Extreme Management Center server.
11. Restore the latest database backup from the old server to the new server. If archived configurations or configuration templates are saved in Inventory Manager, restore both the database and InventoryMgr directories to the new system.

    a. On the new system, select Tools > Server Information. Select the **Database** tab.

    b. Click on the **Restore** button and select **Restore Saved Database**.

NOTE: When restoring a saved database to a new Extreme Management Center server installation, any memory or database configuration changes on the original server requires a manual change on the new server in order to replicate the configuration of the original Extreme Management Center server.

- Duplicate changes to the default -Xmx memory settings in the *<install directory>*\services\nsserver.cfg file on the new server when the database is restored. To change the memory setting to match the previous server, stop the Extreme Management Center server and edit the nsserver.cfg file.
- Manually update the mySQL my.ini file to match any changes made on the original server. For instructions on modifying the my.ini file, see the Change the MySQL my.ini File section in the ExtremeControl Deployment Guide.

12. If you are migrating from a Windows server and the Extreme Management Center users on the new server are authenticating to a local system, edit each user to change the hostname (unless the new system's hostname is the same). Use the following steps to add or edit users on the new system:
    a. In any Extreme Management Center application, select Tools > Authorization/Device Access.
    b. Select the **Users/Groups** tab.
    c. In the Authorized Users section, click on the **Add User** or **Edit** button to add or edit the user information.
13. Update the Syslog pattern on the new server.
    a. Start the Extreme Management Center Console client and select Tools > Alarm/Event > Event View Manager.
    b. Edit the Syslog entry under the Available Log Managers.
    c. Change the Log Directory to /var/log/syslog.
    d. Change the Pattern to Ubuntu LINUX Syslog Pattern.
    e. Click **OK**.
14. Verify that the new Extreme Management Center engine is working correctly.
15. If you are migrating from a Windows server, verify that the TFTP root directory path specified on the Administration > Options > Inventory Manager tab for Extreme Management Center Server > TFTP Settings is using the correct path (for example, a Linux path and not a Windows path). For Linux engines, the default path is "/tftpboot".

16. If you have customized the nstftpd.cfg file, verify that it matches the firmware directory path specified in the TFTP Transfer Settings option on the Administration > Options > Inventory Manager tab.

Upgrading a 32-bit Extreme Management Center Engine

This section provides instructions for upgrading an existing Linux 32-bit Extreme Management Center engine to the new 64-bit software. This process requires that you re-image your 32-bit engine to the 64-bit software. The re-imaging operation reformats the hard drive, and install the new 64-bit engine software, the operating system, and all related Linux packages. This requires you back up all the appropriate data on your engine to a different machine prior to the upgrade.

Backup Existing Engine Data

This section provides steps for backing up your existing engine data to a different machine used as a backup system. This is done prior to installing the new 64-bit software on your engine.

1. Make a record of your local user account information.
2. Make a record of your mount information.
3. Make a record of your engine configuration information. Configure the new engine software.
    - Engine hostname, IP address, and netmask
    - Default Gateway IP address
    - Name Server IP address and domain name
    - NIS (Network Information Services) Server IP address

NOTE: The hostname for the 64-bit engine system cannot include illegal characters such as an underscore (_) or a blank. For more information on legal hostname syntax, see RFC 952 and RFC 1123.

4. Backup the Extreme Management Center database.
    a. Start the Extreme Management Center Console client and select Tools > Server Information. Select the **Database** tab.
    b. Click on the **Backup** button and make note of the Database Path where the backup is saved.
    c. Create a new backup, if necessary.
    d. Copy the backup directory and all the subdirectories to the backup system. If you have archived configurations or created any configuration templates in Inventory Manager, there is a database directory and an InventoryMgr directory. Both directories must also be copied to the backup system.
5. Close Console and stop the Extreme Management Center engine. To stop the engine, use the *<install directory>*/scripts/stopserver.sh script.
6. Copy the following files from the engine to the backup system. You may not need to copy all the files, depending on whether you have created custom configurations for Extreme Management Center. For example, you only need to copy the FlexViews directory if you have created custom FlexViews, and you only need to copy the MyMibs directory if you have imported any MIBs into Extreme Management Center.

    In the following paths, *<install directory>* refers to the destination path on an engine with a default installation directory.

    - *<install directory>*/services/snmptrapd.conf
    - *<install directory>*/appdata/NSJBoss.properties
    - *<install directory>*/appdata/snmptrapd.conf
    - *<install directory>*/appdata/license files
    - *<install directory>*/appdata/OneView/MyReports
    - *<install directory>*/appdata/System/mibs/MyMibs
    - *<install directory>*/appdata/System/mibs/thirdparty
    - *<install directory>*/appdata/System/FlexViews/My FlexViews and all subdirectories
    - *<install directory>*/appdata/System/deviceTypes /myDeviceTypes.properties
    - *<install directory>*/appdata/System/Shared/autoGroups.xml
    - *<install directory>*/appdata/System/Shared/ThirdPartyMenu.xml

- *<install directory>*/appdata/logs and all subdirectories
- *<install directory>*/appdata/CommandScriptTool/etc/snmp/snmpd.conf

7. If you have configured any scripts for the Console Alarms Manager, copy those scripts to the backup system. Scripts are located in the *<install directory>*/scripts directory on the engine.
8. If you are using Data Center Manager (DCM), copy the following files to the backup system.
   - *<install directory>*/jboss/server/default/deploy/udcp_jboss.war and all subdirectories
   - *<install directory>*/jboss/server/default/conf/udcp and all subdirectories
9. If you have installed a custom server certificate on the engine, backup the server private key and certificate to the backup system.

   If keeping the same hostname for the engine, you are able to use the same private key and certificate. Copy the *<install directory>*/jboss/server/default/deploy/NetSight/common/keystore.jar/nsserver.keystore to the backup system.

   If using a different hostname for the engine, contact your certificate authority and request a new certificate. When you have the new certificate, follow the instructions for generating a server private key and server certificate in the Update the Extreme Management Center Server Certificate topic.

10. Copy all the files and subdirectories from the TFTP directory to the backup system. The TFTP root directory is specified on the Administration > Options > Inventory Manager tab.

Re-image and Configure the Engine

Once you have backed up the engine data, use the steps in this section to re-image your engine.

1. Install the new 64-bit software on the engine using the instructions in Chapter 3, Reinstalling Extreme Management Center (NetSight) Engine Software, in the *SNS-NSS-A Installation Guide*.

   The installation guide is on the Extreme Management Center (NetSight) (NMS)

Documentation web page:http://extranet.extremenetworks.com/downloads/Pages/NMS.aspx.

After entering your email address and password, follow this path to the document: Software & Security > NetSight (NMS) > Documentation > Manuals & Release notes > select a version of Extreme Management Center (NetSight) > Extreme Management Center (NetSight) Engine.

2. Configure the engine following the instructions in Chapter 2, Configuration, in the *SNS-NSS-A Installation Guide*.
3. Create any local user accounts needed on the engine.
4. Configure the mounts on the new engine.

Restore Data

This section provides steps for restoring data and server certificates from the backup system to the engine.

1. Stop the Extreme Management Center engine. To stop the engine, use the *<install directory>*/scripts/stopserver.sh script.
2. Copy the Extreme Management Center backup directory and subdirectories from the backup system to the engine.
3. Copy the files that you backed up in step 6 above, using the same destination paths.
4. Copy the scripts for the Console Alarms Manager, if applicable. Scripts should be copied to the *<install directory>*/scripts directory on the engine.
5. If you are using Data Center Manager (DCM), copy the backed up files to the engine.
   - *<install directory>*/jboss/server/default/deploy/udcp_jboss.war and all subdirectories
   - *<install directory>*/jboss/server/default/conf/udcp and all subdirectories
6. If you are using a custom server certificate, restore the server private key and certificate to the engine.

   If you are keeping the same hostname for the engine, copy the private key and certificate from the backup system to the engine using this destination path:
   <install directory>

/jboss/server/default/deploy/NetSight/common/keystore.jar/nsserver.keystore

If you are using a different hostname for the engine, contact your certificate authority and request a new certificate. When you have the new certificate, follow the instructions for generating a server private key and server certificate in the Update the Extreme Management Center Server Certificate topic.

7. Copy the TFTP directory and subdirectories from the backup system to the engine. The TFTP root directory is specified in the Administration > Options > Services for Extreme Management Center Server, and by default is /tftpboot.
8. Start the Extreme Management Center engine and the Extreme Management Center Console client. To start the engine, use the *<install directory>*/scripts/startserver.sh script.
9. Restore the Extreme Management Center database.
    a. If you have Beta features enabled, you must enable them on the new engine before restoring the database backup. Select Administration > Options > Backup.
    b. Click on the Restore button and select the Restore Saved Database option. Enter the path to the Extreme Management Center backup directory.
    c. Click Restore to restore the saved database.
10. Set the server certificate trust mode on the engine to handle the certificates it receives from other servers. These steps must be performed if you have ExtremeControl engines on your network and/or connect to LDAP servers, and you want the server certificate trust mode to be "Locked." For more information, see the Server Certificate Trust Mode section of the Extreme Management Center and ExtremeControl Secure Communication Help topic.
    a. Configure the Extreme Management Center server with the Server Certificate Trust Mode set to "Trust All" (the default). This avoids certificate trust problems while the server is being set up.
    b. Once the server is set up and communicating with other servers and engines as necessary, follow the normal steps of transitioning the Server Certificate Trust Mode to "Trust And Record" where the server

learns the certificates it should expect to receive, and then to "Locked" when this has been completed.

11. Update the Syslog pattern on the engine.
    a. In the Console client, select Tools > Alarm/Event > Event View Manager.
    b. Edit the Syslog entry under the Available Log Managers.
    c. Change the Log Directory to `/var/log/syslog`.
    d. Change the Pattern to Ubuntu LINUX Syslog Pattern.
    e. Click **OK**.
12. Verify that the new Extreme Management Center engine is working correctly.
13. If you have customized the nstftpd.cfg file, you should verify that it matches the Firmware Directory Path specified in the TFTP Transfer Settings option in Inventory Manager (Tools > Options > Inventory Manager > File Transfer Settings > TFTP Transfer Settings).

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