SoftAX for VMware Installation Guide

AX Series Advanced Traffic Manager

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Installation

Overview

Essential Setup Information

- Default SoftAX management IP address: **172.31.31.31 /24**
- Default admin username and password: **admin**, **a10**
- Default enable password: ***blank*** (none)
- Licensing: See "License Installation" on page 25.

This guide describes how to install the SoftAX Advanced Traffic Manager on VMware ESXi.

SoftAX for VMware ESXi is a fully operational, software-only version of the AX Series Server Load Balancing device. The maximum throughput of SoftAX for VMware ESXi is variable and depends on the SoftAX license.

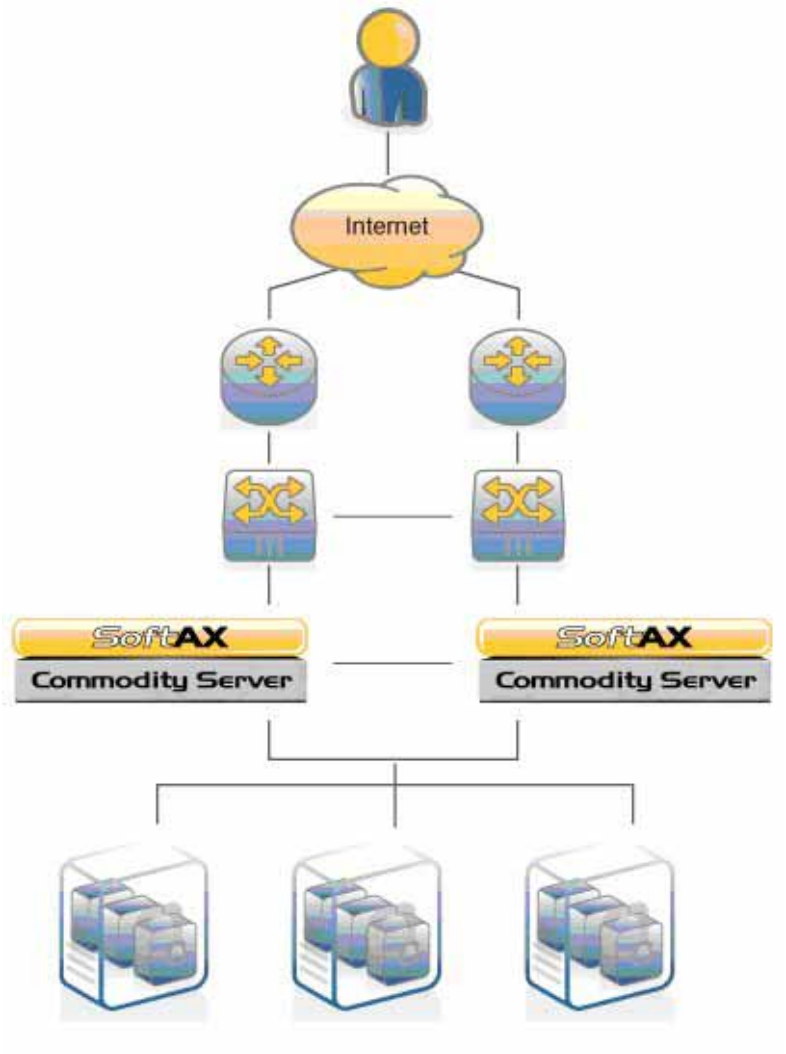
SoftAX is distributed in an OVA format, which is a single-file version of Open Virtualization Format (OVF). The file you will receive from A10 Support has an .ova extension.

You can install SoftAX on a hardware platform running VMware ESXi 4.1 Update 2.

SoftAX is supported for AX Release 2.7.0 or later.

Note: **If the SoftAX network interfaces are in a tagged VLAN, enter 4095 in the VLAN ID field to enable tagging.**

FIGURE 1 SoftAX for VMware ESXi



System Requirements

- Hardware platform running VMware ESXi 4.1 U2. The hardware must meet the following requirements:
  - 1 virtual CPU
  - 8 GB storage
  - 2 GB memory
  - 2 Ethernet ports (one for management and one for data traffic)
  - Processor must support Intel VT technology (for the SoftAX, not the hypervisor)

- VMware ESXi 4.1 Update 2 client (required unless you plan to install using ovftool)
- Separate port groups for each SoftAX interface (see "Add Port Groups (if more needed)" on page 14), configured before you begin SoftAX installation

Note: To obtain VMware ESXi 4.1 Update 2, navigate to the following site: http://www.vmware.com

Licensing

SoftAX for VMware ESXi requires a license. The device will not pass any user traffic without one. In this document, following the installation instructions, instructions for obtaining and installing the license are provided.

Interfaces

SoftAX has 3 Ethernet interfaces after installation:

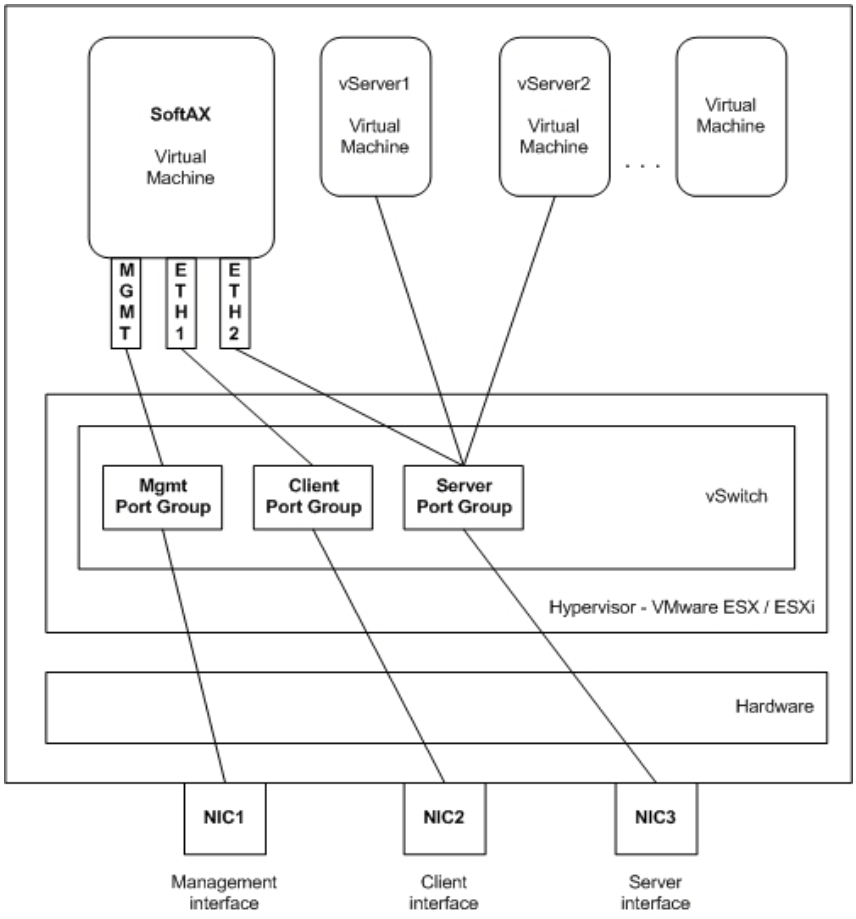
- Management – Dedicated management interface
- Ethernet 1 – Data interface
- Ethernet 2 – Data interface

To connect the SoftAX to other devices, you must connect each SoftAX interface to a separate port group on the virtual switch (vSwitch) on the VMware host.

A typical deployment is to connect one of the data interfaces to the server farm, and connect the other data interface to clients. However, one-arm deployment is also supported. You also can add additional data interfaces as needed.

Figure 2 on page 12 shows an example of SoftAX interface connections. Each SoftAX interface is connected to a separate port group on the VMware host's vSwitch. Each of the port groups is connected to a separate physical interface (NIC).

FIGURE 2 SoftAX for VMware ESXi Interfaces



SoftAX also supports management connection to the command line interface (CLI) through the console in vSphere Client. The console is required for initial configuration. You can access the AX device on the Mgmt (Management), Ethernet 1 (Eth1), and Ethernet 2 (Eth2) interfaces after you configure IP addresses on them and connect them to a port group on a vSwitch.

Feature Support

SoftAX for VMware ESXi supports the same features as the AX Series hardware-based models, with the following exceptions:

- Transparent (Layer 2) deployment
- Hardware-specific features (for example, hardware-based HTTP/HTTPS compression and hardware-based SSL acceleration)
- Role-Based Administration (RBA). Only the shared partition is supported. Private partitions are not supported.
- IPv6 migration features (Large-scale NAT, DS-Lite, NAT64/DNS64)
- Port mirroring
- Trunking (802.1Q trunking)
- SSL Intercept and SSL Forward Proxy (features require SSL ASIC)

SoftAX in Non-promiscuous Mode

Beginning in Release 2.6.1-GR1-P4, SoftAX runs in non-promiscuous mode by default, whereas the default behavior in prior releases was for SoftAX to run in promiscuous mode. By running in non-promiscuous mode, SoftAX can achieve slight performance optimizations, but the following limitations will apply:

- VE interfaces can be bound to only 1 tagged/untagged physical interface
- HA in-line mode configurations are not supported
- VE MAC address assignment scheme changes are not supported

If these limitations are problematic, you may remove them by re-enabling promiscuous mode. A SoftAX system that is running in non-promiscuous mode can be transitioned back to promiscuous mode with the following command:

```
system promiscuous-mode
```

Note: When making the transition from promiscuous mode to non-promiscuous mode (or vice-versa), the SoftAX must be reloaded.

When upgrading to 2.6.1-GR1-P4 from a prior release, SoftAX automatically decides whether to run in promiscuous mode or non-promiscuous mode based on the existing configuration. If the configuration satisfies all requirements for running in non-promiscuous mode, then it will default to running in non-promiscuous mode. Otherwise, the system will continue to run in promiscuous mode in order to avoid introducing incompatibilities.

Installation Using vSphere Client

This section describes how to install an instance of the SoftAX.

Note: The vSphere Client procedures in this guide are based on vSphere Client version 4.1.0.

Add Port Groups (if more needed)

SoftAX requires a separate port group for each SoftAX interface (Management, Ethernet 1, and Ethernet 2), configured before you begin SoftAX installation. If the port groups are not already created in your ESXi, create them using the steps below. Otherwise, go to "Install the SoftAX Instance" on page 15.

To add a port group to a vSwitch:

1. Start vSphere Client and log onto the VMware host system.
2. In the Inventory, select the host.
3. Click the Configuration tab and select Networking.
4. In the right column, select Properties next to the virtual switch (vSwitch) name.
5. Click Add.
6. Select Virtual Machine as the connection type, and click Next.
7. Edit the name in the Network Label field. This is the name you will select in step 10 in "Install the SoftAX Instance" on page 15.
8. If your ESXi physical interface is not tagged, leave the VLAN ID set to 0. If your ESXi physical interface is tagged, set the VLAN ID to the VLAN tag number.
9. Click Next, then click Finish.
10. Repeat for each port group. The SoftAX interfaces must be in separate port groups.
11. Click Close.

Install the SoftAX Instance

1. Start vSphere Client and log onto the VMware host system, if not already logged in.
2. Download or copy the SoftAX .ova archive file into the virtual machine store folder.
3. Select File > Deploy OVF Template.
4. Click Browse and navigate to the SoftAX .ova archive file, and then click Open.
5. Click Next. The OVF Template Details screen appears.
6. Click Next. The End User License Agreement screen appears. Read the license agreement, and if the terms are acceptable, click Accept.
7. Click Next. The Name and Location screen appears. If desired, edit the default name of the SoftAX template, and then click Next.

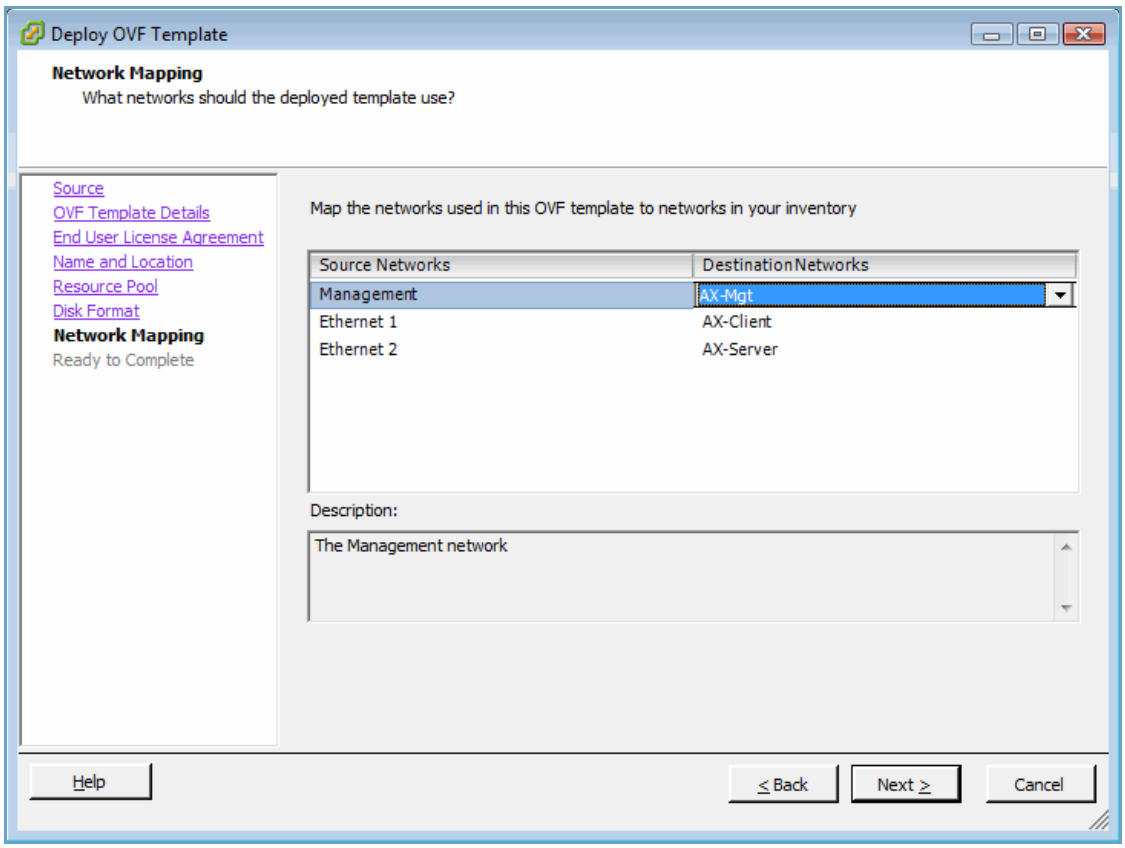
Note: If a SoftAX template is already installed using the default template name, you will need to edit the name of the new template to avoid a conflict.

8. The Resource Pool screen appears. Select the resource pool where you would like to deploy the template, and then click Next.
9. If the Disk Format screen appears, select Thick provisioned format. This option provides better performance than Thin provisioned format.
10. The Network Mapping screen appears. Map each SoftAX network interface (Management, Ethernet 1, and Ethernet 2) to a separate port group in the Destination Networks column.

    To map a network interface, select a SoftAX interface in the Source Networks column, and then select the port group from the drop-down list in the Destination Networks column. For example, select source network “Management” and destination network “Mgmt”. (See Figure 2 on page 12 and Figure 3 on page 16.)

    The actual names of the port groups may differ. You assign the names when you create them as a prerequisite for SoftAX installation.

FIGURE 3 Deploy OVF Template - Network Mapping



11. Click Next. The Ready To Complete screen appears.

12. Verify that all the settings are correct, and then click Finish. vSphere Client deploys the new SoftAX virtual machine.

Modify vSwitch Settings

By default, VMware only allows packets that are addressed to a virtual machine (such as the SoftAX) to be forwarded to the virtual switch (vSwitch) ports connected to that virtual machine. However, for proper operation, the SoftAX also must be able to receive packets that are not addressed to it, such as packets addressed to load-balanced servers.

Note: The procedure below only applies to VMware's vSwitch. If you are using a third-party virtual switch, such as the Cisco Nexus or Catalyst Series, this procedure may not be necessary.

If the SoftAX network interfaces are in a tagged VLAN, tagged VLAN mode also must be enabled on the vSwitch. By default, tagged VLAN support is disabled.

1. Open vSphere Client, if not already open.
2. In the virtual machines inventory, select the host machine on which the SoftAX is installed.
3. Click the Configuration tab.
4. In the Hardware section, click Networking.
5. Click Properties next to the virtual machine to which the SoftAX is connected.
6. Click the Port tab.
7. Select the interface.
8. Click Edit.
9. If the SoftAX network interfaces are in a tagged VLAN, enter 4095 in the VLAN ID field to enable tagging. Otherwise, leave the VLAN ID set to None.

Note: **If the SoftAX network interfaces are in a VLAN and you do not enter '4095' in the VLAN ID field, then the SoftAX configuration will fail.**

10. Click OK.
11. Click Close to close the Properties tab.

Power On the SoftAX

1. Open vSphere Client, if not already open.
2. In the virtual machines inventory, select the SoftAX virtual machine.
3. From the menu bar, select Inventory > Virtual Machine > Power > Power On.

Access the SoftAX CLI on the Console

Initial configuration of SoftAX requires the console. Using the console, you can configure IP addresses on the management and data interfaces.

1. In the virtual machines inventory, select the SoftAX virtual machine.
2. Click the Console tab or right-click and select Open Console. The Console window appears.
3. Click on the console window to activate keyboard support for the console window.

Note: While keyboard support is active for a console window, you can not interact with other windows. To escape the console, press Ctrl+Alt.

Add Ethernet Data Interfaces (if more needed)

The SoftAX has two data interfaces by default. You can add more data interfaces as needed.

Note: The management interface always must be the first interface.

Note: Before adding an interface, see "Add Port Groups (if more needed)" on page 14.

To add a data interface:

1. In the virtual machines inventory, select the SoftAX virtual machine.
2. Click the Getting Started tab, if the page is not already displayed.
3. On the Getting Started page, select Edit virtual machines settings.

   The Virtual Machine Properties dialog appears.
4. Click Add.

   The Add Hardware dialog appears.
5. Select Ethernet Adapter and click Next.
6. In the Adapter Type section, select vmxnet3 from the Type drop-down list.

Note: The type for data interfaces must be "vmxnet3". The type for the management interface is "e1000:.

7. In the Network Connection section, select the vSwitch to which to map the new SoftAX interface.

8. Click Next.

9. Review the configuration information to ensure that it is correct, then click Finish.

   The SoftAX interface is added to the port group on the vSwitch.

10. Reboot the SoftAX virtual machine:

    a. In the virtual machines inventory, select the SoftAX virtual machine.

    b. From the menu bar, select Inventory > Virtual Machine > Power > Reset.

11. To verify the new interfaces, log onto the SoftAX and enter the following command in the CLI: **show interface brief**

    Compare the MAC addresses of the AX interfaces with the MAC addresses on the network interfaces configured in VMware for the SoftAX. They should match.

Installation Using ovftool

To install SoftAX using ovftool:

1. Download or copy the SoftAX64 .ova archive file into the virtual machine store folder.

2. Run a script such as the following:

```
# ovftool \
--acceptAllEulas \
--name=your-vm-name \
--net:"Management"=MGMT \
--net:"Ethernet 1"=Client \
--net:"Ethernet 2"=Server \
--datastore=NFS_ds1 \
/local/path/to/SoftAX64-with-eula.ovf \
'vi://yourusername@vcenter-hostname:443/datacenter-name/host/your-host-name/Resources/
your-resource-group-name/'
```

Table 1 describes the commands shown in the example.

TABLE 1 ovftool commands for installing SoftAX

ovftool Command	Description
`--acceptAllEulas`	Accepts all the End User License Agreements (EULAs) included with SoftAX.
`--name=`*`your-vm-name`*	Name you are assigning to the SoftAX.
`net:"Management"=`*`MGMT`*	Maps the SoftAX Management interface to a port group on the vSwitch. In this example, port group name is “MGMT”.
`net:"Ethernet 1"=`*`Client`*	Maps the SoftAX Ethernet 1 interface to a port group on the vSwitch.
`net:"Ethernet 2"=`*`Server`*	Maps the SoftAX Ethernet 2 interface to a port group on the vSwitch.
`datastore=`*`NFS_ds1`*	Specifies the target datastore for the deployment.
`/local/`*`path/to/`*`SoftAX64-with-eula.ovf`	The filepath to the SoftAX64-with-eula.ovf file.
`'vi:// ...'`	The target type (vi) and the filepath to the installation target.

To power on the SoftAX, use the following command:

```
--powerOn
```

Quick Start

This section shows how to log onto the SoftAX with SSH (CLI) or HTTPS (GUI), and how to obtain and install your product license.

- Default management IP address: **172.31.31.31 /24**
- Default admin username and password: **admin**, **a10**
- Default enable password required for configuration access, blank (none)

For more detailed steps, see the following:

- “Initial SoftAX Configuration” on page 22
- “License Installation” on page 25

USING THE GUI

1. In a web browser, log in and navigate to Config > System > Maintenance > License.
2. Copy the entire host ID. The host ID is the hexadecimal string to the right of the Host ID field name.
3. Include the host ID in an email to the following address: softax@a10networks.com
4. Install the license:
   a. Navigate to Config > System > Maintenance > License and click Install.
   b. Copy and paste the entire text of the license into the License field and click Update.

USING THE CLI

1. In an SSH session, enter the commands shown here:

```
login as: admin
Welcome to AX
Using keyboard-interactive authentication.
Password:a10
[type ? for help]
AX>enable
Password:(just press Enter on a new system)
AX#config
AX(config)#show license uid
```

2. Include the host ID in an email to the following address: softax@a10networks.com
3. Install the license:

```
SoftAX#import license softax-lic1.txt tftp://192.168.1.101/licenses/softax-lic1.txt
SoftAX#show license
Feature Installed: bandwidth
       : 300 Mbps
Version: 1.01
Exp date: permanent
Host ID: 5172DE29D49EE3C101C7A0CD54FB8A0B6EC92CEE
```

Initial SoftAX Configuration

This section describes how to configure IP connectivity on the SoftAX management and data interfaces.

Note: To display a list of commands for a level of the CLI, enter a question mark (**?**) and press Enter. You can display the list separately for each level.

For syntax help, enter a command or keyword followed by a “space”, then enter **?** then press Enter. This works for commands with sub-commands also.

Login via CLI

1. Log into SoftAX with the default username *admin* and the default password *a10*.

```
login as: admin
Welcome to AX
Using keyboard-interactive authentication.
Password:***
[type ? for help]
```

2. Enable the Privileged EXEC level by typing **enable** and pressing the Enter key. There is *no* default password to enter Privileged EXEC mode.

```
AX>enable
Password:(just press Enter on a new system)
AX#
```

3. Enable the configuration mode by typing **config** and pressing Enter.

```
AX#config
AX(config)#
```

4. It is ***strongly suggested*** that a Privileged EXEC enable password be set up as follows:

```
AX(config)#enable-password newpassword
```

Configure the Management Interface

Note: It is recommended to keep the management interface and the data interfaces in separate IP subnets. Otherwise, some operations such as pinging may have unexpected results.

1. Configure the management interface IP address and default gateway. In the factory default configuration, the management interface has IP address 172.31.31.31/24.
   - **Note:** The management interface is an out-of-band interface; therefore, it should not be on the same subnet as any of the data interfaces.
   - In the example below, the IP address for the management interface is 192.168.2.228. None of the data interfaces should have an IP address of 192.168.2.x.

```
AX(config)#interface management
AX(config-if:mgmt)#ip address 192.168.2.228 /24
AX(config-if:mgmt)#ip default-gateway 192.168.2.1
```

2. Verify the interface IP address change:

```
AX(config-if:mgmt)#show interface management
GigabitEthernet 0 is up, line protocol is up.
Hardware is GigabitEthernet, Address is xxxx.yyyy.zzzz
Internet address is 192.168.2.228, Subnet mask is 255.255.255.0
...
```

3. Optionally, configure the AX device to use the management interface as the source interface for automated management traffic generated by the AX device:

```
AX(config-if:mgmt)#ip control-apps-use-mgmt-port
```

(For more information, see the “Enabling Use of the Management Interface as the Source for Automated Management Traffic" chapter in the *AX Series Configuration Guide*.)

```
AX(config-if:mgmt)#exit
AX(config)#
```

Change the Admin Password

A10 Networks recommends that you change the admin password immediately for security.

```
AX(config)#admin admin password newpassword
AX(config)#
```

The SoftAX is now network accessible for configuration under the new IP address and admin password.

Note: By default, Telnet access is disabled on all interfaces, including the management interface. SSH, HTTP, HTTPS, and SNMP access are enabled by default on the management interface only, and disabled by default on all data interfaces.

Save the Configuration Changes – write memory

Configuration changes must be saved to system memory to take effect the next time the SoftAX is powered on. Otherwise, the changes are lost if the SoftAX virtual machine or its host machine are powered down.

To write the current configuration to system memory:

```
AX(config)#write memory
Building configuration...
[OK]
```

FIGURE 4 Console Example

```
Starting up ...

Decompressing Linux... Parsing ELF... done.
Booting the kernel.

SoftAX login: admin
Password:

[type ? for help]

SoftAX>enable
Password:
SoftAX#config
SoftAX(config)#enable-password enpwd1
SoftAX(config)#interface management
SoftAX(config-if:management)#ip address 192.168.2.228 /24
SoftAX(config-if:management)#ip default-gateway 192.168.2.1
SoftAX(config-if:management)#show interface management
GigabitEthernet 0 is up, line protocol is up.
  Hardware is GigabitEthernet, Address is 000c.293f.436a
  Internet address is 192.168.2.228, Subnet mask is 255.255.255.0
  Internet V6 address is ::/0
. . .
```

FIGURE 5 Console Example (continued)

```
SoftAX(config-if:management)#ip default-gateway 192.168.2.1
SoftAX(config-if:management)#show interface management
GigabitEthernet 0 is up, line protocol is up.
  Hardware is GigabitEthernet, Address is 000c.293f.436a
  Internet address is 192.168.2.228, Subnet mask is 255.255.255.0
  Internet V6 address is ::/0
  Configured Speed auto, Actual 1000, Configured Duplex auto, Actual fdx
  Flow Control is disabled, IP MTU is 1500 bytes
  166 packets input,  11349 bytes
  Received 0 broadcasts,  Received 0 multicasts,  Received 166 unicasts
  0 input errors,  0 CRC  0 frame
  0 runts  0 giants
  6 packets output  468 bytes
  Transmitted 0 broadcasts  0 multicasts  6 unicasts
  0 output errors  0 collisions
SoftAX(config-if:management)#ip control-apps-use-mgmt-port
SoftAX(config-if:management)#exit
SoftAX(config)#admin admin password adminewpwd
SoftAX(config-admin:admin)#write memory
Building configuration...
Write configuration to default startup-config
[OK]
SoftAX(config-admin:admin)#
```

License Installation

The SoftAX will not pass any user traffic until you install a license. You must obtain one of the following two types of licenses:

- Free SoftAX **trial** license – Follow the instructions in the email that is auto-generated when you request a SoftAX trial from the following URL: https://www.a10networks.com/softax_trial_license/
- SoftAX **production** license – Send an email containing the SoftAX license UID string to softax@a10networks.com. The UID is a 40-digit hexadecimal number which similar to the following example: `5172DE29D49EE3C101C7A0CD54FB8A0B6EC92CEE`

Note: The license UID is different from the user-configurable host name.

The license has the following format:

```
#Please Do not delete this comment line.
INCREMENT bandwidth atennetw 1.01 permanent uncounted \
    VENDOR_STRING=300 \
    HOSTID=A10_HOSTID=5172DE29D49EE3C101C7A0CD54FB8A0B6EC92CEE \
    ISSUER="My Corporation" ISSUED=2-aug-2010 START=1-aug-2010 \
    SIGN="007F 602F 0598 B789 3FDB 711F 5541 D200 05E5 8F86 5963 \
    1423 C8B3 FE1C 0AA9"
```

Note: Upgrading to a newer VMware version will cause the installed SoftAX license to become invalid due to changes in the UID. If you choose to upgrade to a newer version of VMware, you will need to obtain and install new SoftAX licenses.

Once you have obtained the trial license or production license, you can install it using the GUI or CLI.

Using the GUI

To obtain the Evaluation License:

1. Select Config > System > Maintenance > License.
2. Copy the entire host ID. The host ID is the hexadecimal string to the right of the Host ID field name.
3. Include the host ID in an email to the following address: softax@a10networks.com

To install the Evaluation License:

1. Select Config > System > Maintenance > License.
2. Click Install to display the License input field.
3. Copy and paste the entire text of the license into the License field.
4. Click Update.

Using the CLI

To obtain the Evaluation License:

1. Access the Privileged EXEC (enable) level or any configuration level of the CLI.

2. Enter the following command: **`show license uid`**

3. Copy the entire host ID. The host ID is the hexadecimal string displayed by the CLI.

4. Include the host ID in an email to the following address: softax@a10networks.com

To install the Evaluation License:

1. Access the Privileged EXEC (enable) level or any configuration level of the CLI.

2. Save the license file sent by A10 Networks onto a server that can be locally accessed over the network by the SoftAX.

3. Enter the following command to install the license:

   `import license` *`file-name url`*

   The *file-name* is the name of the license file received from A10 Networks. The *url* specifies the file transfer protocol, username (if required), and directory path.

   You can enter the entire URL on the command line or press Enter to display a prompt for each part of the URL. If you enter the entire URL and a password is required, you will still be prompted for the password. To enter the entire URL:

   - **tftp:**//*host*/*file*
   - **ftp:**//[*user*@]*host*[**:***port*]/*file*
   - **scp:**//[*user*@]*host*/*file*
   - **rcp:**//[*user*@]*host*/*file*

4. Enter the following command to verify license installation:

   `show license`

CLI Example

The following commands log onto the CLI, access the Privileged EXEC level, and display the license host ID:

```
login as: admin
Using keyboard-interactive authentication.
Password:***
Last login: Mon Aug  2 07:58:10 2010

[type ? for help]

SoftAX>enable
Password:******** <blank by default>
SoftAX#show license uid
5172DE29D49EE3C101C7A0CD54FB8A0B6EC92CEE
```

The following command installs the license:

```
SoftAX#import license softax-lic1.txt tftp://192.168.1.101/licenses/softax-lic1.txt
```

The following command verifies license installation:

```
SoftAX#show license
Feature Installed: bandwidth
       : 200 Mbps
Version: 1.01
Exp date: permanent
Host ID: 5172DG29E49EE3C102C7A0CD54FB8A0B6EC92CEE
```

License Upgrade (from Evaluation to Production)

At the end of the evaluation period you will be required to upgrade from the Evaluation License to a Production License. This process will convert the evaluation SoftAX copy to a production copy without having to reinstall the SoftAX.

You can request a Production License by sending an email containing the SoftAX license host ID string to A10 Networks. You can obtain the host ID string and install the production license using the GUI or the CLI.

Using the GUI

To obtain the Production License using GUI:

1. Establish a connection to the AX via the management interface.

2. Select Config > System > Maintenance > License.

3. Copy the entire host ID. The host ID is the hexadecimal string to the right of the Host ID field name.

4. Include the host ID in an email to: softax@a10networks.com

Once you receive the Production License from A10 Networks, you can install it from the AX GUI by doing the following:

1. Select Config > System > Maintenance > License.

2. Click Install to display the License input field.

3. Copy and paste the entire text of the Production License into the License field.

4. Click Update.

USING THE CLI

To obtain the Production License using the CLI:

1. Establish a connection to the AX via the management interface.

2. Access the Privileged EXEC (enable) level or any configuration level of the CLI.

3. Enter the following command: **`show license uid`**

4. Copy the entire host ID. The host ID is the hexadecimal string displayed by the CLI.

5. Include the host ID in an email to the following address: softax@a10networks.com

To install the Production License from the AX CLI:

1. Access the Privileged EXEC (enable) level or any configuration level of the CLI.

2. Save the Production License file sent by A10 Networks onto a server that can be locally accessed over the network by the SoftAX.

3. Enter the following command to install the license:

   `import license` *`file-name url`*

The *file-name* is the name of the license file received from A10 Networks. The *url* specifies the file transfer protocol, username (if required), and directory path.

You can enter the entire URL on the command line or press Enter to display a prompt for each part of the URL. If you enter the entire URL and a password is required, you will still be prompted for the password. To enter the entire URL:

- **tftp:**//*host*/*file*
- **ftp:**//[*user*@]*host*[**:***port*]/*file*
- **scp:**//[*user*@]*host*/*file*
- **rcp:**//[*user*@]*host*/*file*

4. Enter the following command to verify license installation:

```
show license
```

Upgrading SoftAX

The SoftAX uses the same system image as model AX 2500.

To upgrade the SoftAX using the GUI, follow the procedure below:

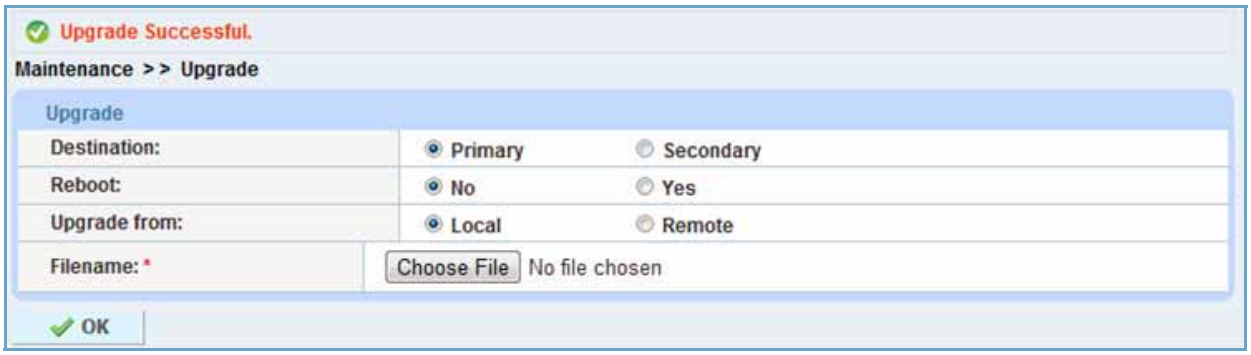
1. To download the latest software tar file, navigate to the following URL: https://www.a10networks.com/support-axseries/downloads.php

Note: A10 Support username and password are required.

2. Once the tar file is downloaded, log into the SoftAX and navigate to Config > System > Maintenance > Upgrade.
3. Select the Destination radio button (Primary or Secondary).
4. Select the desired Reboot option (Yes or No).
5. Select the desired Upgrade from option (Local or Remote).
6. Navigate to the appropriate tar file.
7. Click OK.

The following screen appears when the upgrade is complete:

FIGURE 6 Upgrade Successful page



8. When the upgrade is complete, clear the browser cache to ensure proper display of the AX GUI.

For More Information

For feature information, see the following documents:

- *AX Series System Configuration and Administration Guide*
- *AX Series Application Delivery and Server Load Balancing Guide*
- *AX Series Global Server Load Balancing Guide*
- *AX Series GUI Reference*
- *AX Series CLI Reference*
- *AX Series aFleX Reference*
- *AX Series MIB Reference*
- *AX Series aXAPI Reference*

Some guides include GUI configuration examples. In these examples, some GUI pages may have new options that are not shown in the example screen images. In these cases, the new options are not applicable to the examples. For information about any option in the GUI, see the *AX Series GUI Reference* or the GUI online help.

Documentation Updates

Updates to these documents are published periodically to the A10 Networks support site, on an updated documentation CD (posted as a zip archive). To access the latest version, please log onto your A10 support account and navigate to the following page: Support > AX Series > Technical Library.

http://www.a10networks.com

You will need to enter your customer support username and password.

Providing Documentation Feedback

You can send your comments in e-mail to support@A10Networks.com. We appreciate your comments.

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http://www.a10support.com/adc/

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