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Net-Net® EMS  
Quick Start Guide  
Release Version 6.0  
4000 and 9000

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# About this Guide

The *Net-Net EMS Quick Start Guide* provides the information you need to discover and configure a Net-Net Session Border Controller SBC using the Net-Net Element Management System (EMS). The Net-Net EMS is a network element (NE) management application for Acme Packet's Net-Net family of session border controllers.

## Who is Acme Packet?

Acme Packet enables service providers to deliver trusted, first class interactive communications—voice, video and multimedia sessions—across IP network borders. Our Net-Net family of session border controllers satisfy critical security, service assurance and regulatory requirements in wireline, cable and wireless networks. Our deployments support multiple applications—from VoIP trunking to hosted enterprise and residential services; multiple protocols—SIP, H.323, MGCP/NCS and H.248; and multiple border points—interconnect, access network and data center.

Established in August 2000 by networking industry veterans, Acme Packet is a public company trading on the NASDAQ and headquartered in Burlington, Massachusetts.

## Customer Questions, Comments, or Suggestions

Acme Packet is committed to providing our customers with reliable documentation. If you have any questions, comments, or suggestions regarding our documentation, please contact your Acme Packet customer support representative directly or email [support@acmepacket.com](mailto:support@acmepacket.com).

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## Overview

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This document describes the basic steps you take to perform the following tasks:

- Access the Net-Net EMS graphical user interface (GUI)
- Discover a Net-Net Session Border Controller (SBC)
- Configure the discovered Net-Net SBC (from configuring the physical interface to choosing a signaling service)
- Save and activate the configuration to the Net-Net SBC

The *Net-Net EMS Quick Start Guide* does not go into details about each configuration step or each configuration parameter. Also, it does not include detailed information about configuring the different signaling services. It is intended to provide you with the basics of configuring a Net-Net SBC.

## Using the Net-Net EMS GUI

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This section describes the Net-Net EMS GUI. It explains how to access the logon screen, provides an overview of the Net-Net EMS GUI, and includes examples of the logon and top-level GUI screens.

### Accessing the Net-Net EMS GUI

You can access the Net-Net EMS GUI by HTTP or HTTPS login, using the following address formats:

`http://<EMS server IP address>:9090`

`https://<EMS server IP address>:8443`

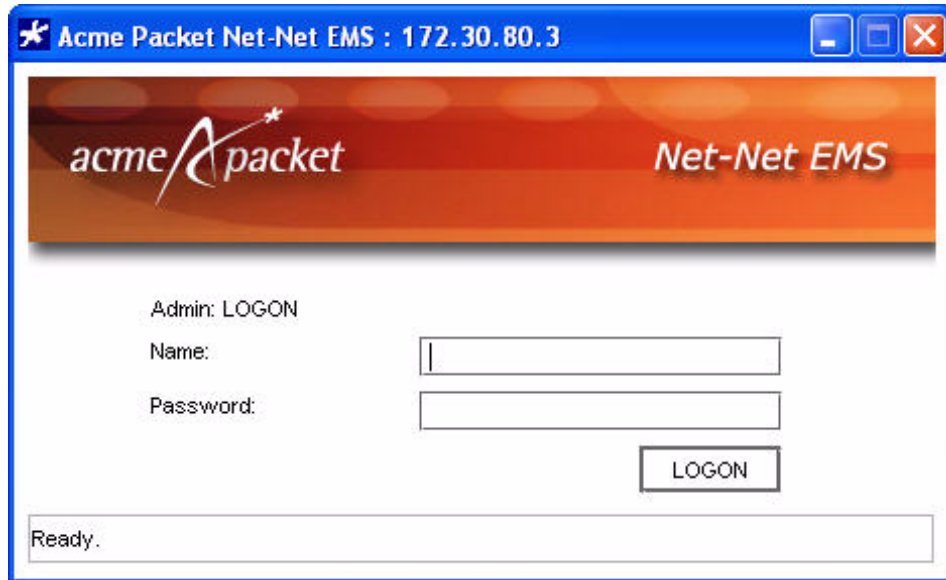
**Note:** If you want to connect to EMS servers over a SSL connection, you must have administrator privileges on the client system.

### HTTP Login

#### To access the Net-Net EMS GUI:

1. Open a Web browser.
2. Connect to the Net-Net EMS server using one of the following address formats:  
`http://<EMS server IP address>:9090`

The Login screen appears.



3. Enter your user name and password and click **LOGON**. (The default username is admin, with a default password of admin.)

### HTTPS Login Using Microsoft Internet Explorer 6.0

The process for a secure login using Microsoft Internet Explorer 6.0 includes first accepting or rejecting the security certificate.

#### To login using Microsoft Internet Explorer 6.0:

1. Open Microsoft Internet Explorer 6.0.
2. Connect to the Net-Net EMS server using the following address format:

*https://<EMS server IP address>:8443*

A Security Alert screen appears:





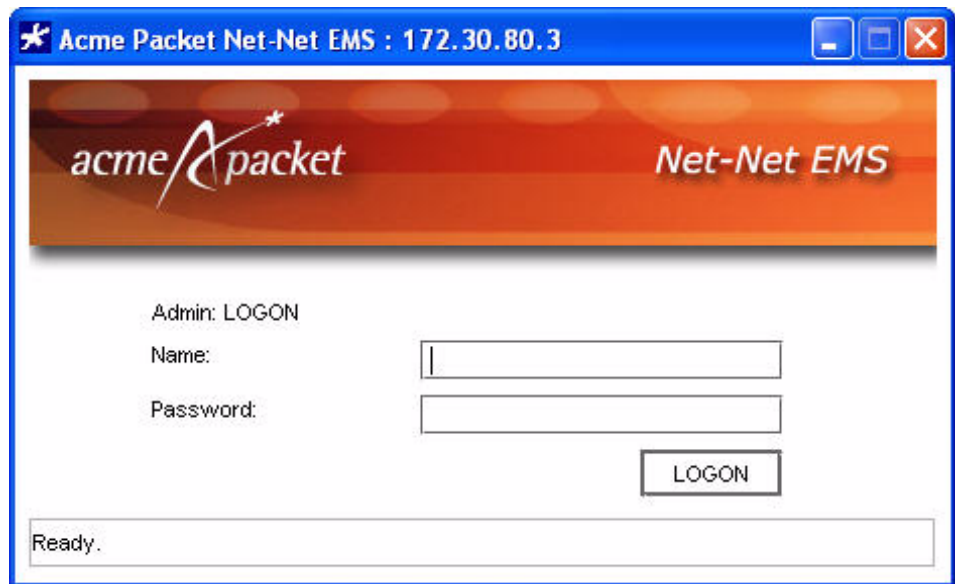
3. Click **Yes** to continue. The Warning - Security screen appears:



4. Click one of the following:

- Yes to accept the security certificate for this session only and to access the Login screen.
- No if you want to reject the security certificate and discontinue the login process.
- Always to permanently accept the security certificate, prevent this screen from appearing, and access the Login screen.
- More Details for more information.

If you choose Yes or Always, the Login screen appears.



5. Enter your user name and password and click **LOGON**. (The default username is admin, with a default password of admin.)

Go to the *After You Login* section to continue.

## HTTPS Login Using Mozilla Firefox 1.0

The process for a secure login using Mozilla Firefox 1.0 includes first accepting or rejecting the security certificate.

### To login using Mozilla Firefox 1.0:

1. Open Mozilla Firefox 1.0.
2. Connect to the Net-Net EMS server using the following address format:

*https://<EMS server IP address>:8443*

A Website Certified by an Unknown Authority screen appears:



3. Click one of the following options and click OK:
  - Accept the certificate permanently
  - Accept the certificate temporarily for the session (this window will appear each time you
  - Do not accept the certificate and do not connect to the Web site

If you choose to accept the certificate permanently or temporarily, the Security Warning appears:



4. Ensure the checkbox is marked if you want this warning to appear each time you view an encrypted page. If you deselect the checkbox, this warning will not appear again.

5. Click **OK** to clear the Security Warning. The Opening WebNMS.jnlp window appears:



6. Click **Open it with the default application (JNLPFile)** and **Always perform this action when handling files of this type**. This popup will not appear next time you connect.
7. Click **OK**. The Warning - Security screen appears:



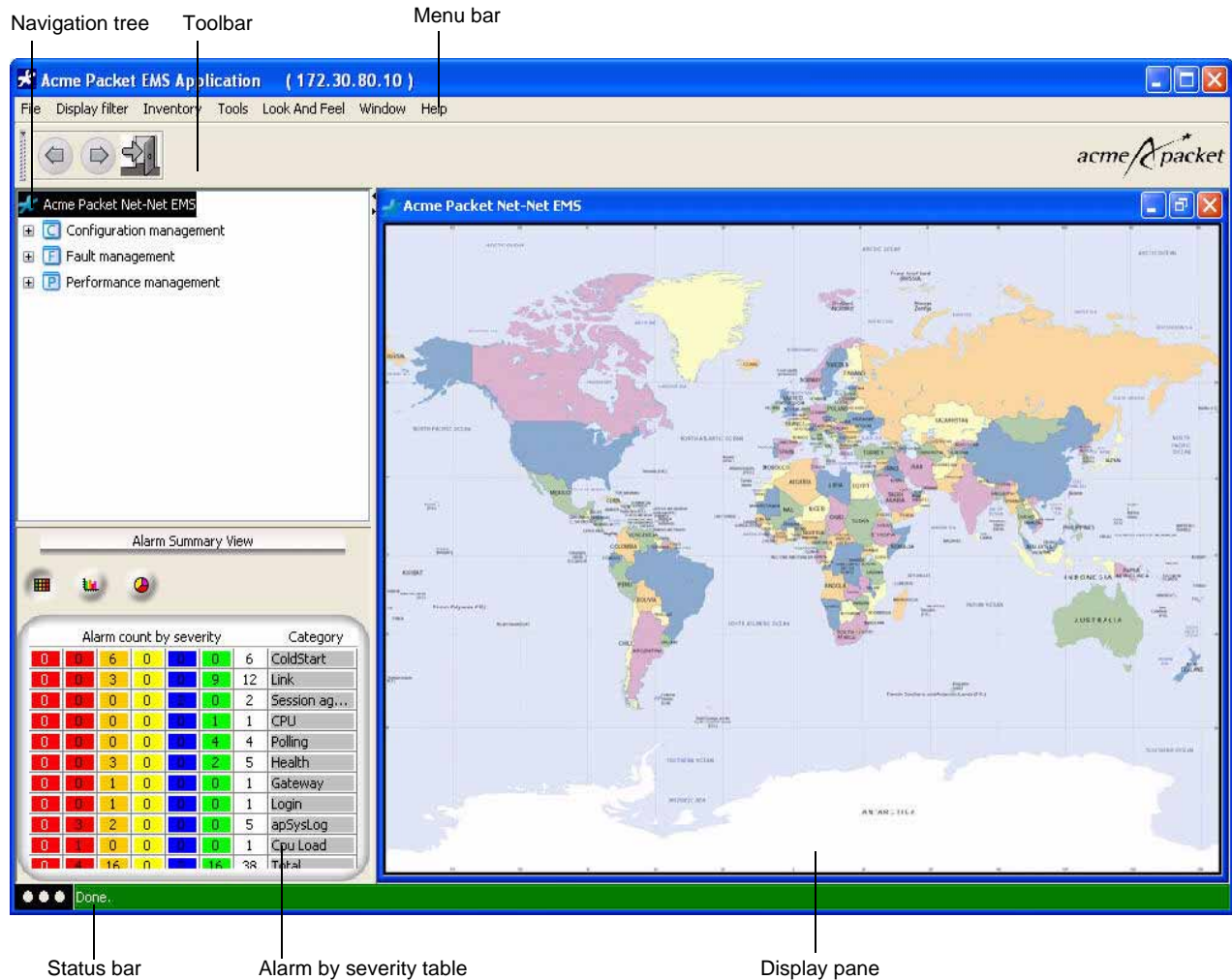
8. Click one of the following:
  - **Yes** to accept the security certificate for this session only and to access the Login screen.
  - **No** if you want to reject the security certificate and discontinue the login process.
  - **Always** to permanently accept the security certificate, prevent this screen from appearing, and access the Login screen.
  - **More Details** for more information.

If you choose Yes or Always, the Login screen appears.

9. Enter your user name and password and click **LOGON**. (The default username is `admin`, with a default password of `admin`.)  
Go to the *After You Login* section to continue.

## After You Login

The Acme Packet splash screen appears displaying a progress bar while contacting Net-Net EMS. Next, the top-level Net-Net EMS screen appears



## Overview of Net-Net EMS GUI

The top-level screen is divided into two panes, with a toolbar across the top of the screen. The left pane is divided into the following three areas:

- Configuration management: discovering and configuring a Net-Net SBC

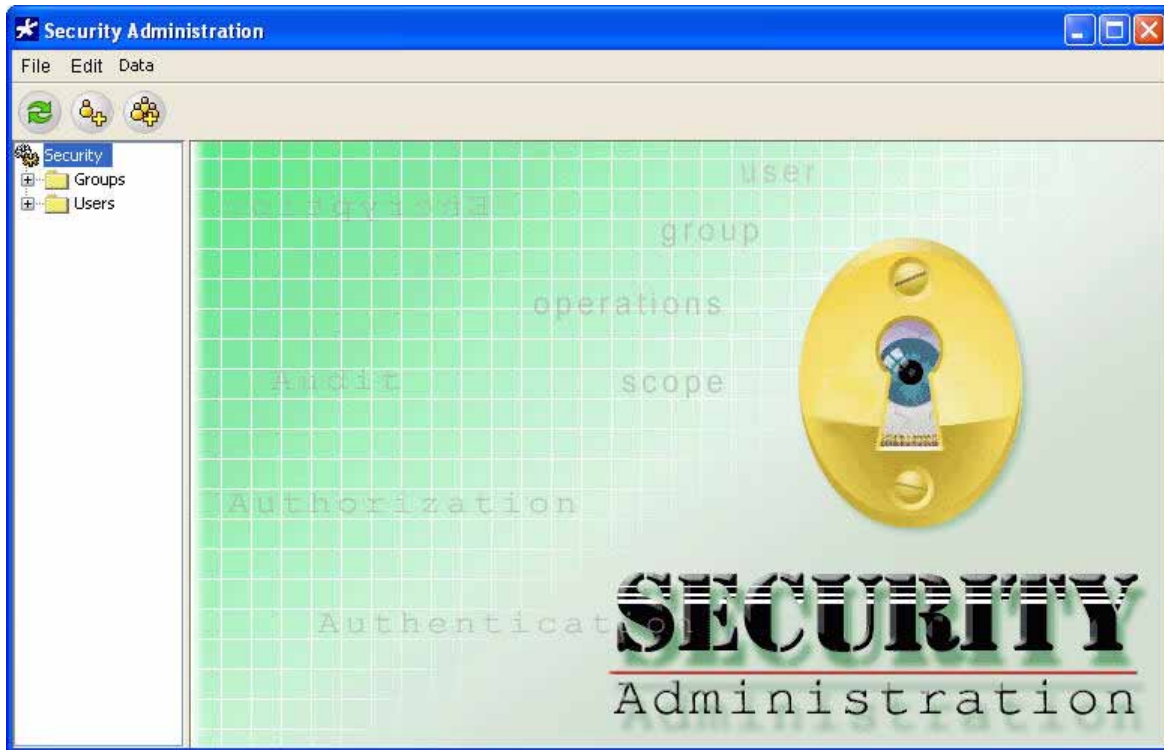
The Active configurations area reflects the current configuration for a Net-Net SBC. You cannot modify these configuration values. You need to make a copy of the active configuration, which is placed in the Inactive configurations area, in order to make changes.

- Fault management: monitoring alarms, events, and syslog.
- Performance management: displays real-time on-demand performance statistics for monitoring performance and utilization. For example, system, session agent- and realm-based session information. You can export this information to .CSV format.

In addition, the toolbar across the top of the screen lets you select some of the same options accessible through right-clicking items in the left pane and select additional tools, such as Security Administration.

## Security Administration

You set security for individual user and groups of users by selecting Security Administration from the Tools option located on the toolbar across the top of the screen. The following example shows the groups and users that have been created.



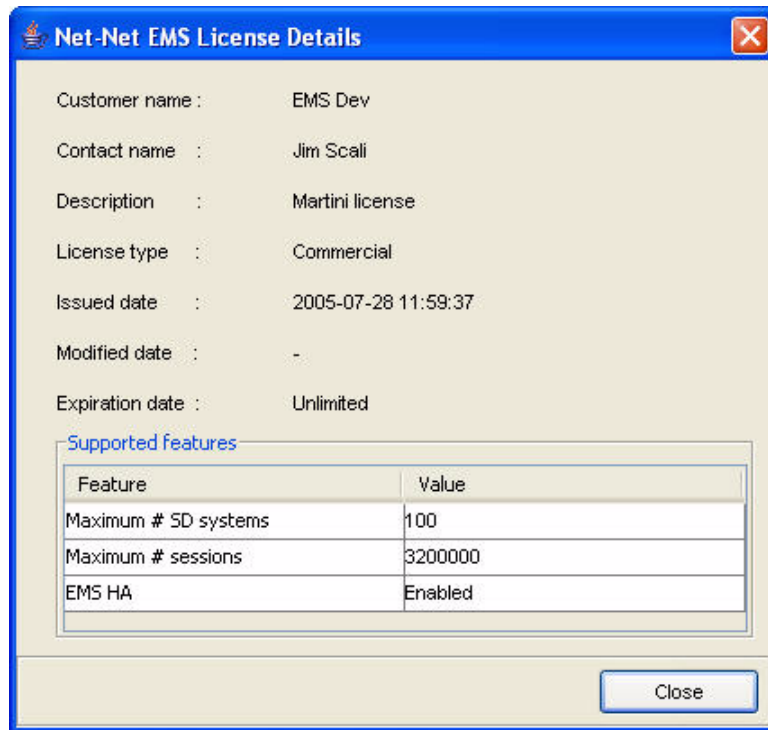


## Viewing Net-Net EMS License Information

This section explains how to view the Net-Net EMS license information.

### To view license information:

1. From the Tools menu, choose **View License**. The Net-Net EMS License Details window appears:



### About the License Data

The following table defines the data displayed by Net-Net EMS for a standalone Net-Net SBC or for the Net-Net SBCs that belong to an HA pair:

Data	Description
Customer name	Name of customer licensed to use Net-Net EMS.
Contact name	Name of the contact person.
Description	Descriptive text that describes the license.
License type	Type of license issued: <ul style="list-style-type: none"> <li>Commercial: indicates Net-Net EMS is licensed for commercial use.</li> <li>Evaluation: indicates Net-Net EMS is licensed for evaluation purposes and beta deployments</li> </ul>
Issued date	Date the Net-Net EMS license was issued in the format: yyyy-mm-dd hh:mm:ss
Modified date	Date modifications were made to the license in the format: yyyy-mm-dd hh:mm:ss

Data	Description
Expiration date	Date the Net-Net EMS license expires. Values are: <ul style="list-style-type: none"> <li>Unlimited for a Commercial license only</li> <li>Specific date in the format: yyyy-mm-dd hh:mm:ss</li> </ul>
<b>Supported features</b>	
Maximum # SD systems	Maximum number of Net-Net SBCs allowed in the Active configurations area. (The number in the Inactive configurations area does not count.) When the maximum number is exceeded, you cannot discover additional systems, apply offline configuration, or save to an offline Net-Net SBC. You must delete the excess number of Net-Net SBCs to proceed. Note: Net-Net SBC HA pair is considered a single system.
Maximum # sessions	Informational only.
EMS HA	Whether EMS HA functionality is enabled.

## Viewing Net-Net SBC License Information

You can monitor the number of Net-Net SBCs and the total number of concurrent sessions under management by the Net-Net EMS server.

### To view license information:

- From the Net-Net EMS toolbar, choose Inventory.
- Choose Inventory details from the drop-down list.  
The Inventory window appears.
- Click the License tab.
- Click the down arrow next to **Type** and choose the type of configuration of the Net-Net SBC node for which you want to view license information. (If there are multiple systems that belong to that type, their names and/or IP addresses appear in the **Name** and **SD system** lists.)



The license information appears in the lower table. For example:

Inventory

TypeStandaloneNameSD system172.30.10.114

HardwareSoftwareLicense

Total capacity32000

License #	Capacity	Install Date	Begin Date	Expire Date	Protocol Names	Feature Names
erfv6so7mc...	32000	22:53:05 MAR 04 ...	N/A	N/A	SIP,MGCP,H323	MF,QOS,ACP,LP,SAG,ACC,HA,PAC

SaveOK

5. Click **OK** to exit the window.
- Note:** You can also right-click a Net-Net SBC in the Active configuration area and choose Inventory details from the pop-up menu.

## About the Configuration Process

This section provides an overview of the Net-Net SBC configuration process. The recommended configuration order consists of the following:

- physical layer
- network interface
- realm and steering pool/media manager
- signaling services (SIP, H.323, MGCP)

### Overview of Net-Net EMS Process

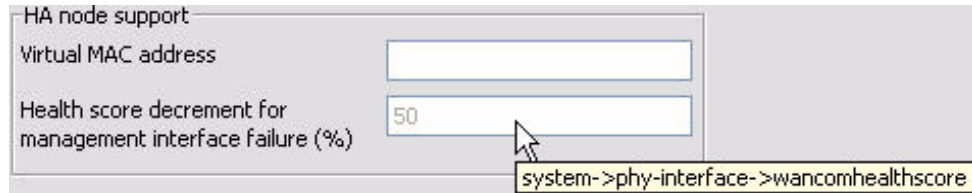
The following steps represent an overview of the configuration tasks:

1. Add a domain.
2. Discover the Net-Net SBC on that domain.
3. Copy the Net-Net SBC discovered to the Inactive configuration area.
4. Edit parameters to configure the Net-Net SBC.
5. Save the configuration to the Net-Net SBC to activate it.

### Using the Net-Net EMS/ACLI Tool Tips

If you are familiar with using the ACLI to configure Net-Net SBCs, you will notice that the Net-Net EMS organizes the configuration information differently from the ACLI organization, although for the most part the content is identical.

While configuring a Net-Net SBC, you can position your cursor over a parameter field or checkbox to view a tool tip. A tool tip displays the complete path to the corresponding ACLI parameter:



### Right-click Mouse Functions

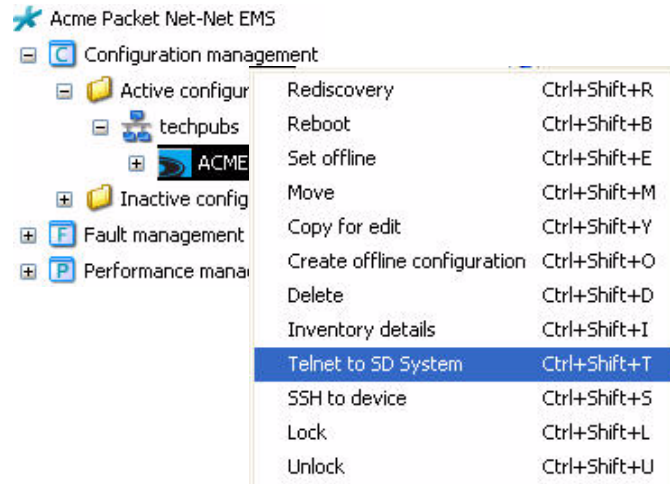
You can right-click on Net-Net SBC configurations in both the Active and Inactive areas to access drop-down lists of maintenance and administrative functions. To choose a function, click the function name.

### Accessing the ACLI

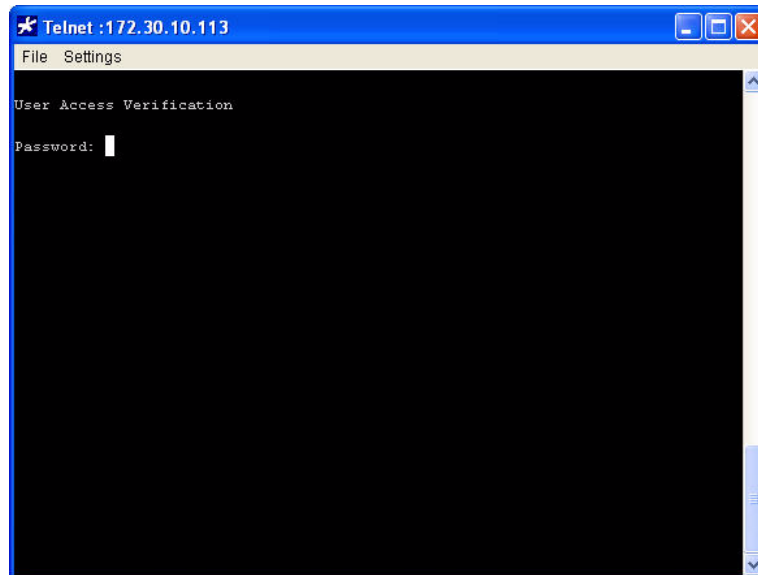
If you want to switch from configuring Net-Net SBCs in the Net-Net EMS to using the ACLI, you can connect through Telnet to the Net-Net SBC. You can then login in to continue working using the ACLI.

**To connect using Telnet:**

1. In the Active configurations area, right click the name of the Net-Net SBC. A list of options appears:



2. Click Tel net to SD system. The Telnet window appears:



3. Login to the Net-Net SBC. See the *Net-Net 5.1 ACLI Reference Guide* for details about logging in and using the ACLI. See the *Net-Net EMS 5.1 Configuration Guide* for details about configuring a Net-Net SBC using the ACLI.
4. Save the configuration to the Net-Net SBC to activate it.

## Reboot Notices

Some Net-Net SBC configuration parameters require a reboot of the system if the values are changed. On-screen notifications about the need to reboot the Net-Net SBC are included where required. For example:

The screenshot shows the 'Net-Net SD system' window with the 'Maintenance' tab selected. A note at the top right states: 'Notice indicates that you need to reboot after editing these values.' Below this, the 'Slot 0' configuration is displayed with the following fields:

Parameter	Value
Device	eth
Host name	topgun
Target name	manhattan
Gateway IP address	172 . 30 . 0 . 1
Ethernet address	172 . 30 . 80 . 113
IP host	172 . 30 . 0 . 169
Software image file name	neo.tar
Username	vxfp
Password	vxfp
Flags	0

At the bottom of the window, there are three buttons: 'Delete', 'Apply', and 'Cancel'.

## Discovering Net-Net SBCs

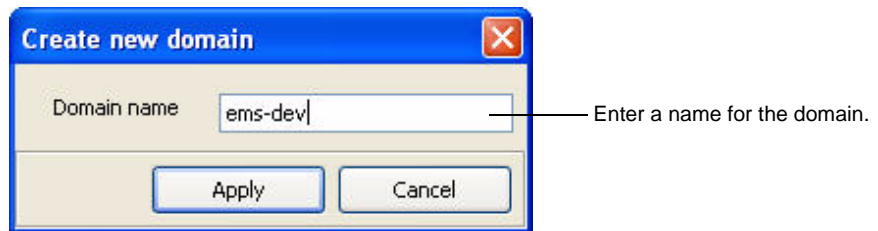
This section explains how to create a domain and discover a Net-Net SBC.

### Creating a Domain

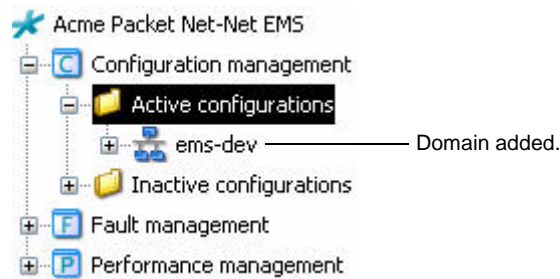
You must place the Net-Net SBCs you discover in a domain defined in the Active configurations area.

#### To create a domain:

1. Click Active configuration to highlight it and right-click. The **Create domain** option appears. (You can also choose **Create domain** from the toolbar at the top of the window.)
2. Click the **Create domain** option to select it. The Create new domain dialog box appears. For example:



3. Enter the name for the domain you want to add and click **Apply**.  
The domain name appears under the Active configuration heading. In the following example the domain named `ems-dev` has been added:



The domain is also automatically added to the Inactive configurations area.

## Discovering the Net-Net SBC

You need to discover the Net-Net SBC before you can configure it. The discovery process identifies the Net-Net SBC in the network and collects configuration data that it stores in the Net-Net EMS database.

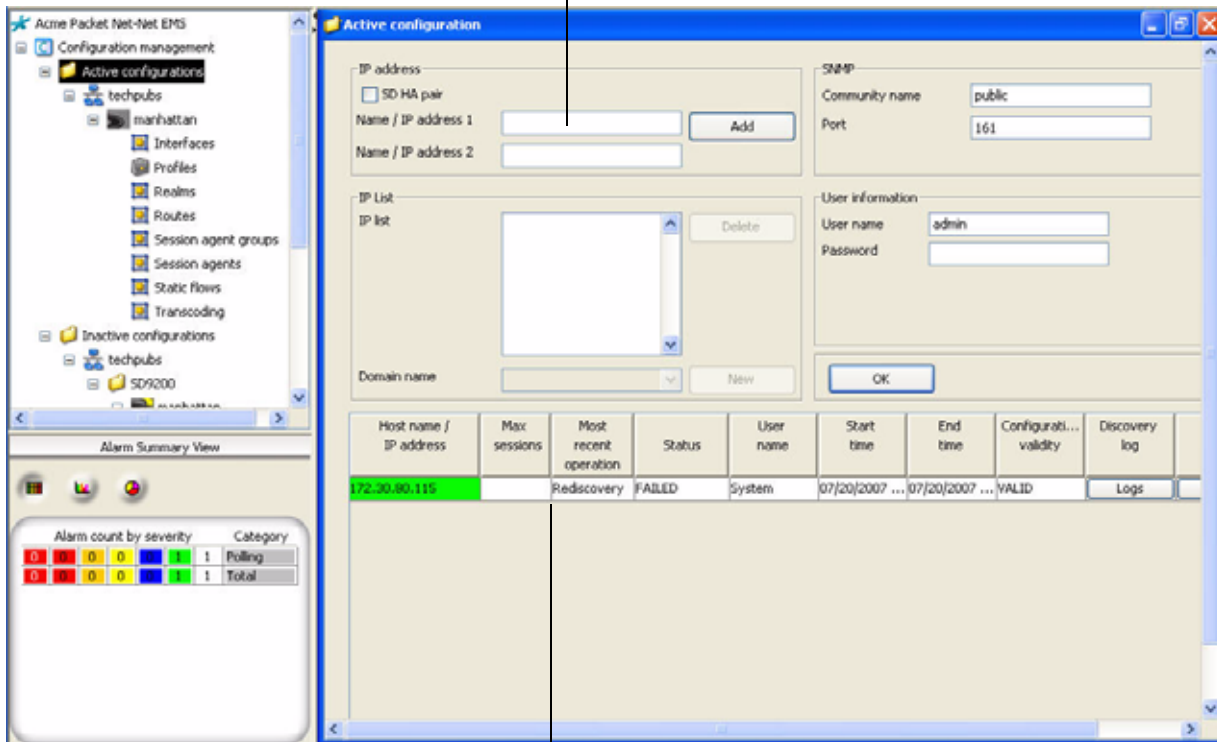
**Note:** The following instructions focus on discovering a single Net-Net SBC. However, you can discover a Net-Net SBC high availability (HA) pair or enter a list of IP addresses to discover multiple systems.

### To discover the Net-Net SBC:

1. Click Active configurations in the Net-Net EMS navigation pane to display the Discovery window in the right pane.

For example:

Configure Discovery in upper half of the window.



View Discovery status, the Discovery log, and the Save log in lower half of the Discovery window.

2. Enter the IP address of the Net-Net SBC you want to discover in the **Name/IP address 1** textbox. The IP addresses appear in the IP list box.

If you need to discover an HA pair, click the **SD HA pair** checkbox to select it and activate the text box for **Name / IP address 2**. The IP addresses appear in the IP list box.

If you need to discover multiple systems, enter each IP address, one at a time, in the **Name/IP address 1** textbox. Click **Add** after each entry. The IP addresses appear in the IP list box.

3. Enter the password associated with the user name. All other areas are filled in for you. Valid user names and passwords include:
  - user and <login password> (for example: user and acme)
  - admin and <enable password> (for example: admin and packet)
4. Click **OK**.

The Discover SD system dialog box closes and the discovery process starts. The icon in the left pane changes. You can monitor the progress of a Discovery by checking the information displayed in the table. For example.

Host name / IP address	Max sessions	Most recent operation	Status	User name	Start time	End time	Discovery log	Save log
172.30.10.114 - 172.30.10.115	32000	Rediscovery	SUCCESS	admin	06/30/2005 12:34:07	06/30/2005...	<a href="#">Logs</a>	<a href="#">Logs</a>
172.30.10.75		Rediscovery	FAILED	System	06/30/2005 14:00:06	06/30/2005...	<a href="#">Logs</a>	<a href="#">Logs</a>
172.30.80.40		Rediscovery	FAILED	admin	06/30/2005 12:38:05	06/30/2005...	<a href="#">Logs</a>	<a href="#">Logs</a>
172.30.80.41		Rediscovery	In-progress	System	06/22/2005 13:40:04	-	<a href="#">Logs</a>	<a href="#">Logs</a>
172.30.10.113		Discovery	In-progress	admin	06/30/2005 14:09:11	-	<a href="#">Logs</a>	<a href="#">Logs</a>

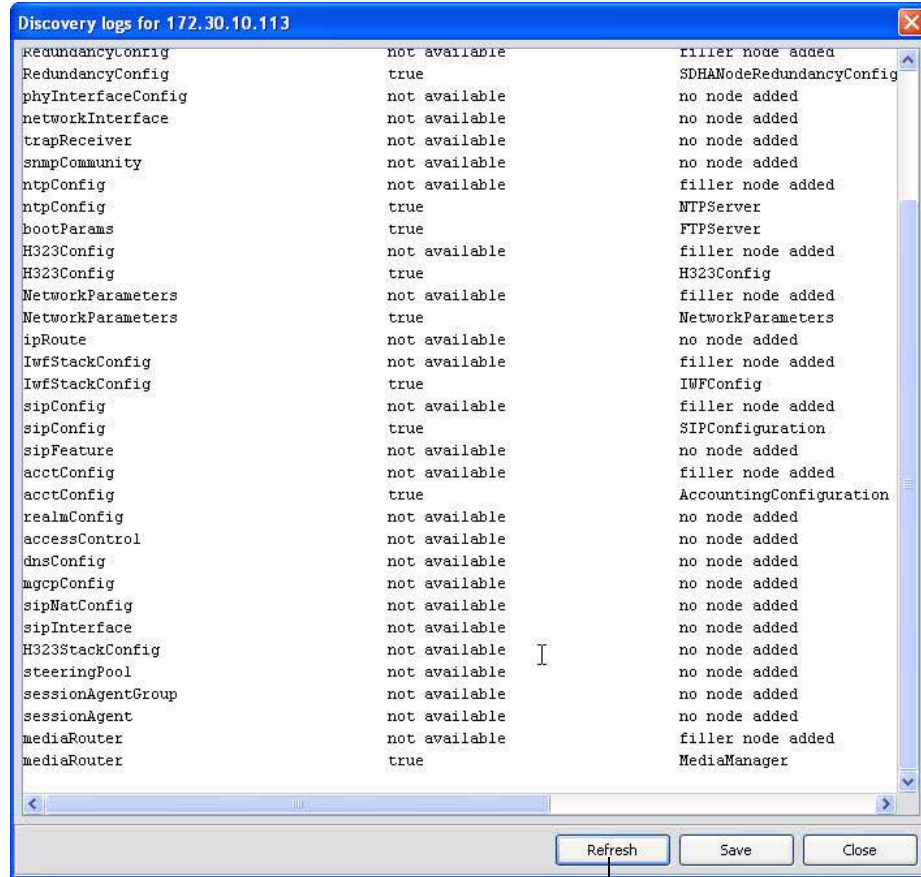
Color indicates status of IP host.

Status indicates Discovery is in progress.

The color of the cells in the first column indicate the status of the IP host:

- green: host is reachable
- turquoise: host is not managed
- red: host is unreachable (standalone or both Net-Net SBCs in an HA pair)
- yellow: one of the Net-Net SBCs in an HA pair is unreachable

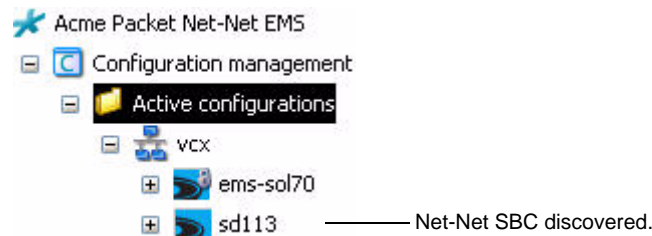
5. In the Discovery log column, click **Logs** to access the Discovery log for the host you are discovering. The Discovery log for that host appears. For example:



Click to refresh the data displayed in the log.

6. Click **Refresh** to update the information.
7. Click **Close** to exit the Discovery log.

Upon completion of Discovery, the Net-Net SBC appears under the domain name. The name of the Net-Net SBC is the same as that of the target name set in the boot parameters. For example::



From here, you make a copy of the Net-Net SBC that goes under the Inactive configurations heading. You can then modify the configuration before saving it back down to the Net-Net SBC.



## Moving the Discovered Net-Net SBC

You can move the discovered Net-Net SBC to a different domain by right-clicking the configuration to access the Move option. Select the target domain's name from the list that appears and click **OK**.

## Copying the Net-Net SBC

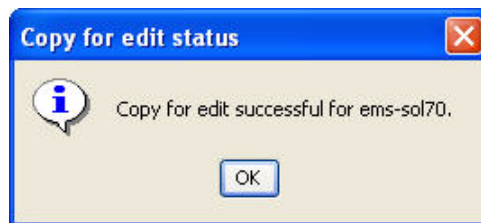
### To copy the Net-Net SBC configuration to edit:

1. Click the newly discovered Net-Net SBC to select it.
2. Right-click to access the popup menu of options. (You can access the same list from the **SD system** option on the toolbar across the top of the screen.)
3. Click **Copy for edit** to select it. The Copy for edit screen appears. For example:

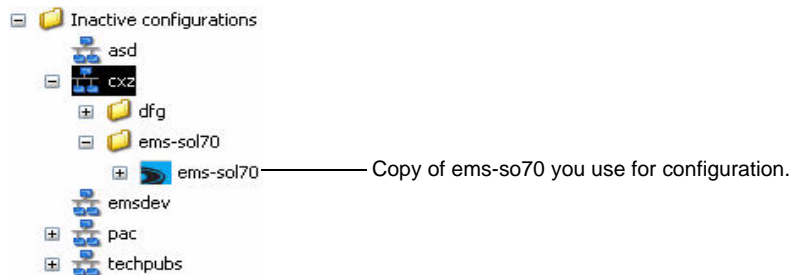


4. Enter a name for this Net-Net SBC copy which you will configure and click **OK**. You can use a descriptive name to indicate this is a copy. For example, `ems-so70_Updated`. (You cannot use spaces when naming the copy.)

A progress message appears, followed by a status message:



5. Click **OK** to clear the message. A copy of the Net-Net SBC was placed under the Inactive configurations area:



You can now edit the copy of the Net-Net SBC and save the changed configuration to the Net-Net SBC. Refer to the *Net-Net EMS 5.1 Configuration Guides* for details about configuring, saving, and activating a Net-Net SBC.

After the configuration is saved and activated, the Net-Net SBC notifies Net-Net EMS that its configuration has changed. Net-Net EMS automatically initiates a rediscovery process for the Net-Net SBC in the background. The progress bar at the bottom of the screen turns blue as the rediscovery begins. The icon in the left pane changes.

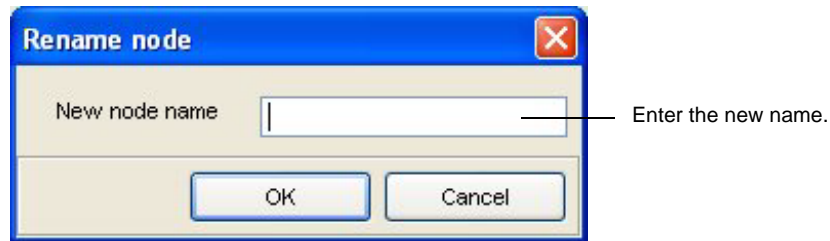
When the rediscovery is complete, the Net-Net SBC in the Active configurations list reflects the newly activated configuration and the icon returns to its original form. The Most recent operation column in the Discovery window lists Rediscovery for that Net-Net SBC.

### Renaming the Net-Net SBC Configuration

You can rename the copy of the Net-Net configuration located in the Inactive configuration area.

#### To rename the Net-Net SBC configuration:

1. Right-click the Net-Net-SBC.
2. Choose Rename. The Rename node window appears. For example:



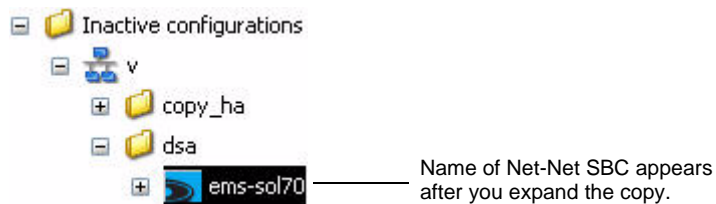
3. Click OK.

## Configuring the Net-Net SBC

This section explains how to configure the copy of the Net-Net SBC you have just made. After configuration you save the copy and activate it.

#### To configure the Net-Net SBC:

1. Click the + sign next to the copy name to expand it. The name of the Net-Net SBC appears. For example:



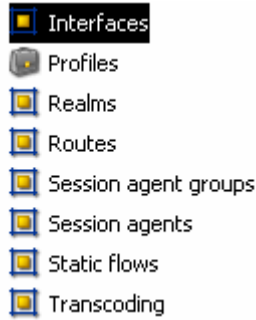
2. From here, you enter configuration information such as a new physical interface card and its associated network interface(s).

## Configuring Physical Interfaces

This section describes how to create physical interfaces on your Net-Net SBC .

### To create and configure a physical interface:

1. Click Interfaces in the Net-Net EMS navigation pane.



The Physical interface table appears in the right pane.

2. Click **Add**. The Create physical interface window appears.
3. Select the type of physical interface in the Operation type drop-down list. For a front media and signaling interface, set this parameter to **media**. For a rear management interface, set this parameter to **maintenance** or **control**.
4. Enter the slot of this physical interface: **0** or **1**.
  - Front interfaces—0 is the left and 1 is the right
  - Rear interfaces—0 is the only valid value
5. Enter the port of this physical interface. From left to right as you face the chassis, the possible values are:
  - Front interfaces—**0 - 3**
  - Rear interfaces—**0 - 2**

- Enter a name for the interface using any combination of characters entered without spaces. For example: **I n t e r n e t** (for a Fast Ethernet media and signaling interface) or **m a i n t 0** (for a maintenance interface).

The screenshot shows a 'Create physical interface' dialog box. The 'Operation type' dropdown is set to 'media & signaling'. The 'Location' group box contains 'Slot' set to 0 and 'Port' set to 1. The 'Physical interface name' field contains 'phyTEST-RIGHT'. The 'Apply' and 'Cancel' buttons are at the bottom right. The status bar at the bottom of the window reads 'Java Application Window'.

- Click **Apply** to continue. A confirmation window indicating the successful addition of the physical interface appears.
- Click **OK** to dismiss the message and continue. The newly-added physical interface appears in the Physical interface table.

## Configuring the Physical Interface

- Click the new physical interface's row in the Physical interface table and click **Edit**. The Edit Physical Interface dialog box appears.
- Retain the default Auto-negotiation - 10/100Mbps value **enabled** so that the Net-Net SBC and the device to which it is linked can automatically negotiate the duplex mode and speed for the link.

If auto-negotiation is enabled, the Net-Net SBC begins to negotiate the link to the connected device at the duplex mode you configure. If auto-negotiation is disabled, then the Net-Net SBC will not engage in a negotiation of the link and will operate only at the duplex mode and speed you set.

- Choose the duplex mode from the drop-down list.

Given an operating speed of 100 Mbps, full duplex mode lets both devices on a link send and receive packets simultaneously using a total bandwidth of 200 Mbps. Given the same operating speed, half duplex mode limits the devices to one channel with a total bandwidth of 100 Mbps.

- Set the bandwidth for this physical interface.

Auto-negotiation - 10/100Mbps

Auto-negotiation - 10/100Mbps: enabled

Duplex mode: half

Bandwidth (Mbps): 100

You can also configure network interfaces in the Edit Physical interface dialog box.

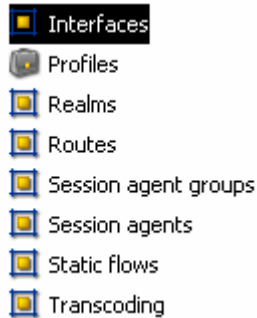
- Click **Apply**.

## Configuring Network Interfaces

You need to configure the network interface(s) associated with your physical interface. You must have one default network interface for your physical interface.

### To configure network interfaces:

- Click Interfaces in the Net-Net EMS navigation pane.



The Physical interface table appears in the right pane.

- Click the row of the physical interface to which the network interface will correspond and click **Edit**. The Edit Physical interface dialog box appears.
- Click **Add** in the Network Interface section. The Add Network interface dialog box appears.
- Enter the subport ID as the VLAN number. If this network interface is not channelized, leave this set to 0. If this network interface is channelized, enter the appropriate VLAN tag.

**Add Network interface**

VLAN number: 01

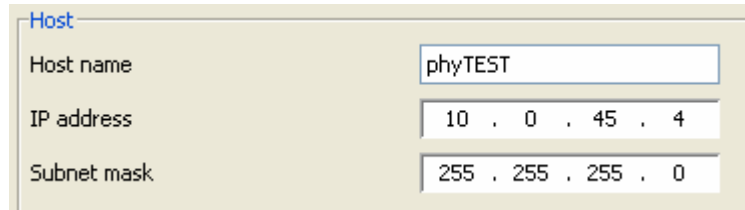
Physical interface: f00

OK Cancel

- Click **OK** to continue.

**Configuring the Network Interface**

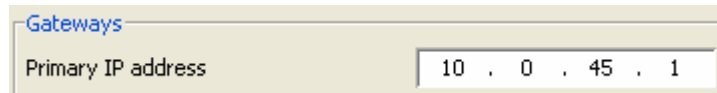
1. Click the row of the network interface you want to configure and click **Edit**.
2. Enter the IP Address of this network interface.
3. Enter the subnet mask of this network interface.



The Host configuration window shows the following fields:

Host	
Host name	phyTEST
IP address	10 . 0 . 45 . 4
Subnet mask	255 . 255 . 255 . 0

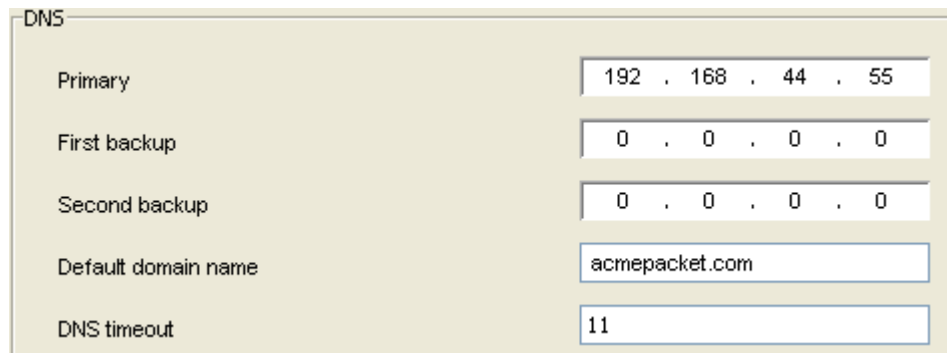
4. Enter the primary gateway that this network interface uses to communicate with the next hop.



The Gateways configuration window shows the following field:

Gateways	
Primary IP address	10 . 0 . 45 . 1

5. Enter the DNS server of this network interface.
6. If needed, enter the secondary DNS server of this network interface.
7. If needed, enter the third DNS server of this network interface.
8. Enter the default domain for use with DNS queries.
9. Enter the DNS timeout value.



The DNS configuration window shows the following fields:

DNS	
Primary	192 . 168 . 44 . 55
First backup	0 . 0 . 0 . 0
Second backup	0 . 0 . 0 . 0
Default domain name	acmepacket.com
DNS timeout	11

10. Scroll to the bottom of the window.

## Configuring a HIP Interface

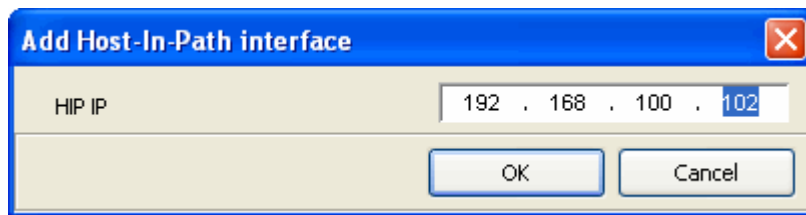
To configure administrative service functionality on a front interface, you must define the IP addresses on the front physical interfaces of your Net-Net SBC where you will receive administrative traffic. Adding HIP entries automatically opens the well-known port associated with a service.

1. Click **Add** in the Host-In-Path Interfaces section of the Network interface window to create a new HIP interface.



The HIP interface window appears.

2. Enter the IP address on this network interface that is allowed to pass traffic to the host. Entries are IP addresses of front panel network interfaces. Enter the appropriate IP address that corresponds to the type of traffic.
  - SNMP: Set the IP address where port 161 is opened. This lets SNMP traffic enter the Net-Net SBC and reach the host.
  - Telnet: Set the IP address where port 23 is opened for Telnet access.
  - FTP: Set the IP address where ports 20 and 21 are opened. This lets standard FTP packets enter the Net-Net SBC and reach the host.
  - ICMP: Set the IP address to pass standard ping packets to the host.
3. Click **OK**.



4. Click **Apply**

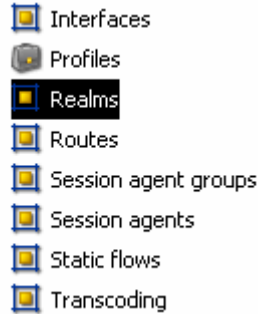
## Configuring Realms and Steering Pools

You can assign multiple realms to a network interface.

### Creating the Realm

To create a realm:

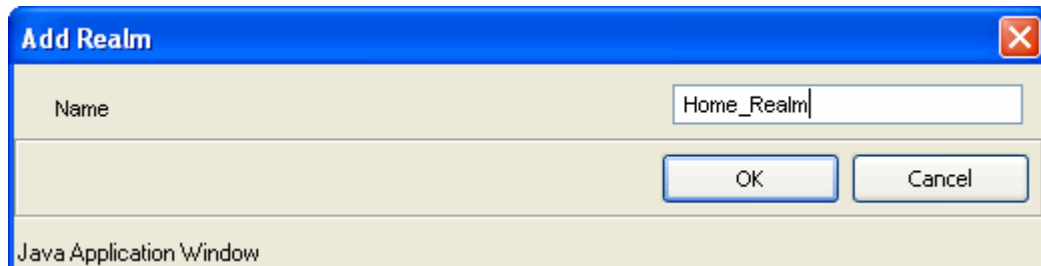
1. Click Realms in the Net-Net EMS navigation tree.



The Realm window appears.

2. Click **Add**. The Add Realm window appears.
3. Enter the name of the new realm you creating and click **OK** to continue.

This parameter uniquely identifies the realm. You will use this parameter in other configurations when asked for a realm identifier value.



The newly created realm appears in the Realm window.

4. Select the newly created realm and click **Edit**.

The Edit Realm window appears in the Net-Net EMS display pane.

5. Enter the IP address prefix and subnet mask combination to set the criteria the Net-Net SBC uses to match packets sent or received on the network interface associated with this realm. This matching determines the realm, and subsequently what resources are used for that traffic.

This parameter must be entered in the correct format where the IP address comes first and is separated by a slash (/) from the subnet mask value. For example, 172. 16. 0. 0/24.

If you leave this parameter set to its default, 0. 0. 0. 0/0, then all addresses will match.



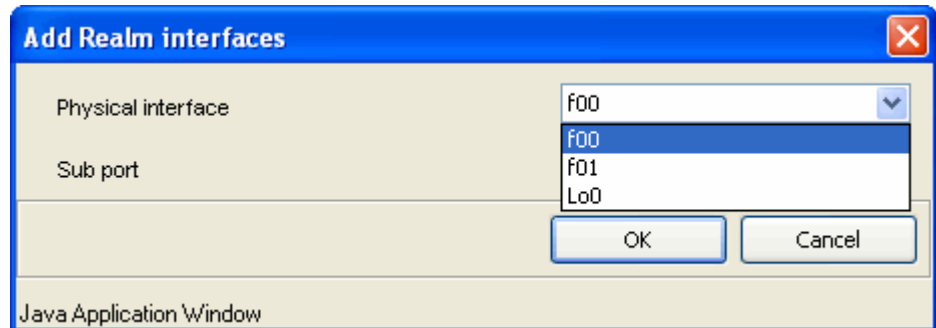


6. Click **Add** in the Network interfaces section of the Realm window.

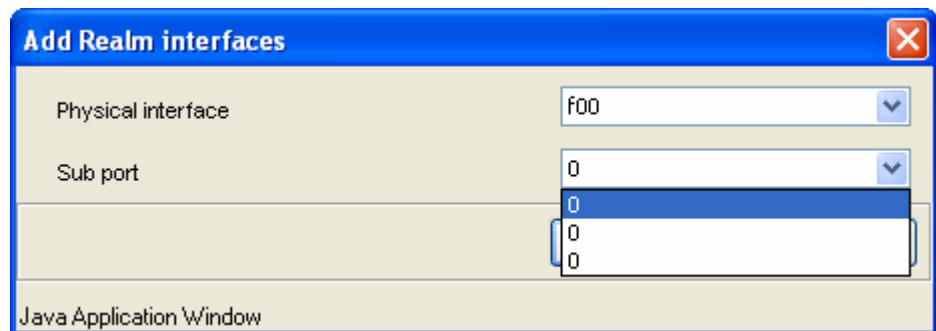
The Add Realm interfaces window appears.

7. Select a physical interface from the drop-down list.

This is the interface and subport through which this realm can be reached by ingress traffic, and through which this traffic exits the system as egress traffic.



8. Select the VLAN identifier for the network interface to which you are assigning this realm

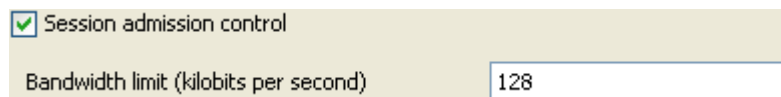


9. Click **OK** to continue.

## Configuring the Realm

### To configure the realm:

1. In the Realm tab of the Edit realm window, enable Session Admission Control by clicking the checkbox.
2. Set the maximum bandwidth resources available for this realm; the default is 0.



3. Click the **Wi thi n thi s realm servi ced by thi s Net-Net system onl y** checkbox to set the behavior of media steering when endpoints within the same realm are communicating.
4. Click the **Wi thi n di fferent realms i n the same subnet servi ced by thi s Net-Net system onl y** checkbox to set the behavior of media steering when endpoints located in different realms, but that are connected to the same network interface, are communicating.

- Click the **Within this realm serviced by different Net-Net systems (SIP only)** checkbox to include multi-system release information in SIP requests sent to this realm.

Release media peer-peer between endpoints

☒ Within this realm serviced by this Net-Net system only

☒ Within different realms in same subnet serviced by this Net-Net system only

☐ Within this realm serviced by different Net-Net systems (SIP only)

- Set the number translations that you want to apply to this realm. Refer to this guide's *Number Translations* section for realm-specific information about using address translations on your Net-Net SBC. If you are not using this feature, you can leave these features blank.
- Set an inbound number translation profile from the drop-down list.
- Set an outbound number translation profile from the drop-down list.

Address translation profiles

Inbound

Outbound

- Select the realm whose network interface's DNS server should be used to resolve this realm's FQDN lookup.

If you do not configure this parameter, then the realm will use the DNS information configured in its associated network interface.

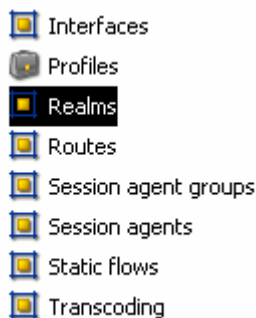
Use DNS Server in this realm

testrealm  
testrealm  
mgcprealm  
h323realm  
Home\_Realm

- Click **Apply**.

## Configuring the Steering Pool

- Click **Realms** in the Net-Net EMS navigation tree.



The Realm window appears.

- Select the realm you want to apply a steering pool and click **Edit**.

The Edit Realm window appears.

3. Click **Add** in the Realm media addresses section.

Realm media address

IP address	Start Port	End Port

The Add Realm media address window appears.

4. Enter the target IP address of the steering pool.
5. Enter the start port of the steering pool; this is the value that begins the range of ports available to this steering pool. The minimum value for this parameter is 0 (default), and the maximum is 65535.

You must enter a valid port number or the steering pool will not function properly.

6. Enter the end port of the steering pool; this is the value that ends the range of ports available to this steering pool. The minimum value for this parameter is 0 (default), and the maximum is 65535.

You must enter a valid port number or the steering pool will not function properly.

**Add Realm media address**

IP Address: 10 . 30 . 20 . 100

Start port: 10000

End port: 11000

Realm Id: testrealm

OK Cancel

Java Application Window

- Click **OK** to continue.  
Your entry will appear in the Realm media address section.
- Click **Apply** at the bottom of the Realm window to complete the configuration.

## Configuring the Signaling Services

Configure the signaling service you chose. See the *Net-Net 5.1 Configuration Guides* for details.

## Saving the Net-Net SBC Configuration

This section explains how to save the configuration changes down to the Net-Net SBC and automatically activate it. During the save process, ACLI users are locked out of making changes to the Net-Net SBC.

### Reboot Message

If you have edited parameters that require a reboot of the Net-Net SBC, a message about rebooting appears when you save your configuration. You can choose from the following options:

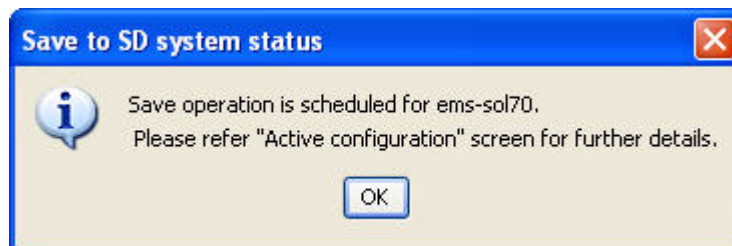
- **Save-Reboot**: to save the configuration, perform a reboot of the Net-Net SBC, and to activate the configuration.
- **Save-Activate**: to save and activate the configuration without rebooting the Net-Net SBC.
- **Cancel**: to cancel the save operation.

### Saving the Configuration

#### To save the Net-Net SBC configuration:

1. Click the name of the Net-Net SBC copy you have configured in the Inactive configuration area to select it.
2. Right-click to access the popup menu of options.
3. Click **Save and activate config** to select it. The Confirmation message appears.
4. Click **Yes** to continue. The save process starts and a message appears indicating the save is in progress.

A second message appears confirming the Save config has been scheduled. For example:



5. Click **OK** to clear the message.
6. Access the Discovery window (click Active configurations in the left pane) to view the results of the Save operation. You can view the Save logs for this Net-Net SBC.

## Viewing the Audit Log

You can view the details of configuration changes by accessing the Audit log.

### To access the audit log:

1. From the Net-Net EMS GUI toolbar, choose Tools.
2. From the Tools drop-down menu, choose Audit Logs.
3. Indicate how you want the information displayed.

You can display the information by user name, by the date/time range, or by using both as the criteria.

4. Click **View**. The log information appears.

The screenshot shows the 'Audit log' window with the following details:

- User name:** ☒ (selected), dropdown menu showing 'admin'.
- Date-time Range:** ☐ (not selected).
- Start date-time:** 2007-01-24 13:50:53
- End date-time:** 2007-01-25 13:50:53
- Refresh** button.
- Audit Log Table:**

User name	Operation name	Time(Date)	Status
admin	Authentication : 10.0.20...	2007-01-24 19:03:37.922	SUCCESS
admin	Discovery	2007-01-24 19:03:42.594	SUCCESS
admin	10.0.200.63:ADD_DOM...	2007-01-24 19:04:01.066	SUCCESS
admin	Authentication : 10.0.20...	2007-01-24 19:04:56.875	SUCCESS
admin	Discovery	2007-01-24 19:05:00.914	SUCCESS
admin	10.0.200.63:COPY v:SD...	2007-01-24 19:05:04.132	SUCCESS
admin	Client logged out : 10.0....	2007-01-24 19:05:51.291	SUCCESS
admin	Delete SD active configu...	2007-01-24 19:07:46.981	SUCCESS
- Buttons:** Delete, Save, Close.

5. Click **Close** to exit the Audit log display.