Configuring Network-Related Settings

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Server NIC Configuration

Server NICs

Two NIC modes are available for connection to the CIMC. In one mode, you can also choose an active-active or active-standby redundancy mode, depending on your platform.

NIC Mode

The **NIC Mode** drop-down list in the **NIC Properties** area determines which ports can reach the CIMC. The following mode options are available, depending on your platform:

- Cisco Card—A connection to the CIMC is available through an installed adapter card.
- Dedicated—A connection to the CIMC is available through the management Ethernet port or ports.
- Shared LOM—A connection to the CIMC is available only through the LAN On Motherboard (LOM) Ethernet host ports. In some platforms, a 10 Gigabit Ethernet LOM option is available.

  Note In shared LOM mode, all host ports must belong to the same subnet.

- Shipping (if supported)—A connection to the CIMC is available through the management Ethernet port or ports using a limited factory default configuration.

Note Shipping mode is intended only for your initial connection to the CIMC. Configure another mode for operation.

NIC Redundancy

The **NIC Redundancy** drop-down list in the **NIC Properties** area determines how NIC redundancy is handled:

- None—Redundancy is not available.
- Active-Active—All Ethernet ports operate simultaneously. This mode provides multiple paths to the CIMC.
- Active-Standby—One port fails over to the other.

The available redundancy modes vary depending on the selected network mode and your platform. For the available modes, see the server installation and service guide for your server. This guide is available from the *Cisco UCS C-Series Servers Documentation Roadmap* at http://www.cisco.com/go/unifiedcomputing/c-series-doc.

Configuring Server NICs

Configure a server NIC when you want to set the NIC mode and NIC redundancy.

Before You Begin

You must log in as a user with admin privileges to configure the NIC.

Procedure

Step 1 In the **Navigation** pane, click the **Admin** tab.

Step 2 On the **Admin** tab, click **Network**.

Step 3 In the **Network** pane, click the **Network Settings** tab.

Step 4 In the **NIC Properties** area, update the following properties:

Name	Description
NIC Mode drop-down list	The NIC mode. This can be: • **Dedicated**—The management port is used to access the CIMC. • **Shared LOM**—The LOM (LAN On Motherboard) ports are used to access the CIMC. • **Shared LOM 10G**—The 10G LOM ports are used to access the CIMC. • **Cisco Card**—The ports on the adapter card are used to access the CIMC. This option is only available for some adapter cards. • **Shipping**—The out-of-the-box defaults will be used for all options. This option is only available for some C-Series servers.

Name	Description
NIC Redundancy drop-down list	The NIC redundancy options depend on the mode chosen in the **NIC Mode** drop-down list and the model of the server that you are using. If you do not see a particular option, then it is not available for the selected mode or server model. The available options are: • **none**—Each port associated with the configured NIC mode operates independently. The ports do not fail over if there is a problem. • **active-active**—If supported, all ports associated with the configured NIC mode operate simultaneously. This increases throughput and provides multiple paths to the CIMC. • **active-standby**—If a port associated with the configured NIC mode fails, traffic will fail over to one of the other ports associated with the NIC mode. **Note** If you select this option, make sure all ports associated with the configured NIC mode are connected to the same subnet to ensure that traffic is secure regardless of which port is used.
MAC Address field	The MAC address of the CIMC network interface selected in the **NIC Mode** field.

Note The available NIC mode options may vary depending on your platform.

If you select Shared LOM, make sure that all host ports belong to the same subnet.

Step 5 Click **Save Changes**.

Configuring Common Properties

Use common properties to describe your server.

Before You Begin

You must log in as a user with admin privileges to configure common properties.

Procedure

Step 1 In the **Navigation** pane, click the **Admin** tab.
Step 2 On the **Admin** tab, click **Network**.
Step 3 In the **Network** pane, click the **Network Settings** tab.
Step 4 In the **Hostname** field, enter the name of the host.
Step 5 Click **Save Changes**.

Configuring IPv4

Before You Begin

You must log in as a user with admin privileges to configure IPv4.

Procedure

Step 1 In the **Navigation** pane, click the **Admin** tab.
Step 2 On the **Admin** tab, click **Network**.
Step 3 In the **Network** pane, click the **Network Settings** tab.
Step 4 In the **IPv4 Properties** area, update the following properties:

Name	Description
Enable IPv4 check box	If checked, IPv4 is enabled.
Use DHCP check box	If checked, the CIMC uses DHCP.
IP Address field	The IP address for the CIMC.
Subnet Mask field	The subnet mask for the IP address.
Gateway field	The gateway for the IP address.
Obtain DNS Server Addresses from DHCP check box	If checked, the CIMC retrieves the DNS server addresses from DHCP.
Preferred DNS Server field	The IP address of the primary DNS server.
Alternate DNS Server field	The IP address of the secondary DNS server.

Step 5 Click **Save Changes**.

Connecting to a VLAN

Before You Begin

You must be logged in as admin to connect to a VLAN.

Procedure

Step 1 In the **Navigation** pane, click the **Admin** tab.

Step 2 On the **Admin** tab, click **Network**.

Step 3 In the **Network** pane, click the **Network Settings** tab.

Step 4 In the **VLAN Properties** area, update the following properties:

Name	Description
Enable VLAN check box	If checked, the CIMC is connected to a virtual LAN.
VLAN ID field	The VLAN ID.
Priority field	The priority of this system on the VLAN.

Step 5 Click **Save Changes**.

Network Security Configuration

Network Security

The CIMC uses IP blocking as network security. IP blocking prevents the connection between a server or website and certain IP addresses or ranges of addresses. IP blocking effectively bans undesired connections from those computers to a website, mail server, or other Internet servers.

IP banning is commonly used to protect against denial of service (DoS) attacks. CIMC bans IP addresses by setting up an IP blocking fail count.

Configuring Network Security

Configure network security if you want to set up an IP blocking fail count.

Before You Begin

You must log in as a user with admin privileges to configure network security.

Procedure

Step 1 In the **Navigation** pane, click the **Admin** tab.

Step 2 On the **Admin** tab, click **Network**.

Step 3 In the **Network** pane, click the **Network Security** tab.

Step 4 In the **IP Blocking Properties** area, update the following properties:

Name	Description
Enable IP Blocking check box	Check this box to enable IP blocking.
IP Blocking Fail Count field	The number of times a user can attempt to log in unsuccessfully before the system locks that user out for a specified length of time. The number of unsuccessful login attempts must occur within the time frame specified in the **IP Blocking Fail Window** field. Enter an integer between 3 and 10.
IP Blocking Fail Window field	The length of time, in seconds, in which the unsuccessful login attempts must occur in order for the user to be locked out. Enter an integer between 60 and 120.
IP Blocking Penalty Time field	The number of seconds the user remains locked out if they exceed the maximum number of login attempts within the specified time window. Enter an integer between 300 and 900.

Step 5 Click **Save Changes**.