



# Infoblox Installation Guide for Network Automation 1400 Appliance

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## Introduction

This guide provides an overview of the Network Automation NT-1400 network appliance that ships with the Infoblox Network Automation software platform. This document explains how to install and configure the system.

## **Product Overview**

The Network Automation NT-1400 is a network appliance designed for smaller enterprise deployments and for use as a Collector for Operations Center deployments. The NT-1400 supports the Network Automation application suites, including the Automation Change Manager (ACM) for automating responses to network changes; Switch Port Manager (SPM) for managing and controlling switched Ethernet networks; Security Device Controller for managing and controlling firewalls and packet-filtering routers; and the full NetMRI package.

You configure and manage the Network Automation NT-1400 through an easy-to-use Infoblox GUI that works efficiently in Windows, Linux, and Mac environments using standard web browsers. For more information about the Infoblox Network Automation GUI, refer to the Infoblox Network Automation Administrator Guide for your system.

Key features of the Network Automation NT-1400 appliance include the following:

- Optional AC power supply for a redundant hot-swappable 1+1 configuration
- Multiple active Ethernet interfaces for network management (LAN1, LAN2 and MGMT)

The Network Automation NT-1400 appliance is a Class A digital appliance per FCC regulations, and is RoHS and WEEE compliant.

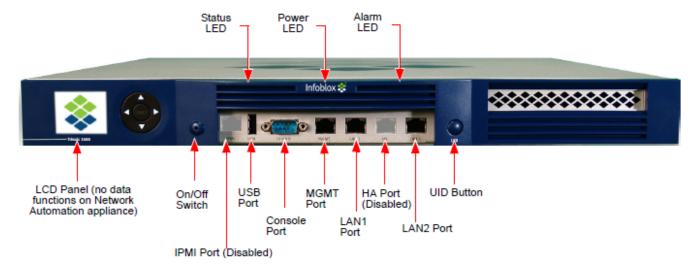
## **Hardware Components**

The Network Automation NT-1400 is a 1-U platform that is mounted in a standard two-post or four-post equipment rack using the mounting brackets and bolts that ship with the appliances. For information about rack mounting, see *Rack Mounting*.

#### **Front Panel**

The Network Automation NT-1400 front panel components include the LCD (liquid crystal display) panel and navigation buttons, communication ports, and LEDs, as shown in *Figure 1*. For explanations of the Ethernet port LEDs, and console and Ethernet port connector pin assignments, see *Ethernet Port LEDs* and *Connector Pin Assignments*.

Figure 1 Network Automation NT-1400, Front View



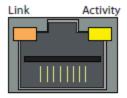
The front panel components are described in *Table 1*. *Table 1 Front Panel Components* 

Component	Description
LCD Panel	An LCD screen that displays the installed software version and the IP address of the appliance. The LCD panel does not support data entry, and shows only basic information about the appliance.

On/Off Switch	A power switch to turn the power supply of the appliance on and off. The switch is hidden. Use a small blunt object, such as a paper clip, to gently push the switch.
USB Port	Reserved for future use.
Console Port	A male DB-9 serial port for a console connection to change basic configuration settings and view system functions through the CLI (command line interface).
	<b>Caution</b> : Should you need to use a USB-to-Serial adapter to carry a serial connection over a USB port in a computer that lacks a 9-pin serial interface, use a properly grounded USB-to-Serial dongle to connect to the serial console port. If the dongle connects to a laptop, the laptop must be grounded properly as well. Failure to do so may result in damage to the serial console port of the Infoblox appliance. Infoblox is not responsible for such damage.
MGMT Port	A 10/100/1000-Mbps gigabit Ethernet port used for appliance management. You must use the MGMT port for initial appliance setup and for primary system operation. The MGMT port may also be used for scan interface connections to managed networks.  Infoblox recommends retaining the MGMT port exclusively for appliance management traffic.
LAN1 Port	A 10/100/1000-Mbps gigabit Ethernet port that is used for scan interface connections to managed networks. You can enable the LAN1 port and define its use through the GUI after the initial setup. For related information, see <i>Configuring Scan Interfaces</i> of the <i>Network Automation Administrator's Guide, Release 6.9.</i>
LAN2 Port	A 10/100/1000-Mbps gigabit Ethernet port that is used for scan interface connections to managed networks. You can enable the LAN2 port and define its use through the GUI after the initial setup. For related information, see <i>Configuring Scan Interfaces</i> of the <i>Network Automation Administrator's Guide, Release 6.9.</i>
UID Button	The unit identification button. When you press the UID button, the LCD panel on the front panel blinks and the UID LED on the rear panel glows blue. In a rack environment, the UID feature enables easier location of the device when moving between the front and rear of the rack.
Status LED	Reserved for future use.
Power LED	An LED that glows blue when there is power to the appliance. When it is dark, the appliance is not receiving power, even if the power cable is plugged in. Ensure that you power on the appliance through the On/Off switch using a small blunt object, such as a paper clip.
Alarm LED	Reserved for future use.

## **Ethernet Port LEDs**

To see the link activity and connection speed of an Ethernet port, you can look at its Activity and Link LEDs. *Figure 2* shows the status the LEDs convey through their color and illumination (steady glow or blinking). *Figure 2 LEDs* 



Label	Color	Port Status
Activity	Steady Yellow	Link is up but inactive
	Blinking Yellow	Link is up and active
	Dark	Link is down
Link	Steady Amber	1000 Mbps
	Steady Green	100 Mbps
	Dark	10 Mbps

## **Connector Pin Assignments**

An Infoblox appliance has three types of ports on its front panel:

• USB port (reserved for future use)

- Male DB-9 console port
- RJ-45 10Base-T/100Base-T/1000Base-T auto-sensing gigabit Ethernet ports (2 active)

The DB-9 and RJ-45 Ethernet connector pin assignments are illustrated in *Figure 3*. DB-9 pin assignments follow the EIA232 standard. RJ-45 Ethernet pin assignments follow IEEE 802.3 specifications. All Infoblox Ethernet ports are auto-sensing and automatically adjust to standard straight-through and cross-over Ethernet cables.

Note: Contact your Infoblox sales representative to obtain Infoblox-specific serial console cables.

10Base-T Ethernet and 100Base-T fast Ethernet use the same two pairs of wires. The twisted pair of wires connecting to pins 1 and 2 transmit data, and the twisted pair connecting to pins 3 and 6 receive data. For 1000Base-T connections, all four twisted-pair wires are used for bidirectional traffic.

Figure 3 Connector Pin Assignments

## Male DB-9 Console Port

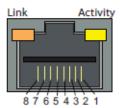
# 1 2 3 4 5

(Looking into the console port on an Infoblox appliance)

### DB-9 Connector Pin Assignments

Pin	Signal	Direction
1	(not used)	
2	Receive	Input
3	Transmit	Output
4	DTE Ready	Output
5	Ground	_
6	DCE Ready	Input
7	RTS (Request to Send)	Output
8	CTS (Clear to Send)	Output
9	(not used)	

#### **RJ-45 Ethernet Ports**



(Looking into RJ-45 Ethernet ports on an Infoblox appliance)

## RJ-45 Connector Pin Assignments

Pin	10Base-T 100Base-T Signal	1000Base-T Signal	T568A Straight-Through Wire Color	T568B Straight-Through Wire Color
1	Transmit +	BI_DA+	White/Green	White/Orange
2	Transmit -	BI_DA-	Green	Orange
3	Receive +	BI_DB+	White/Orange	White/Green
4	(not used)	BI_DC+	Blue	Blue
5	(not used)	BI_DC-	White/Blue	White/Blue
6	Receive -	BI_DB-	Orange	Green
7	(not used)	BI_DD+	White/Brown	White/Brown
8	(not used)	BI_DD-	Brown	Brown

Legend: BI\_D = bidirectional; A, B, C, D = wire pairings

#### **Rear Panel**

The rear panel components include the power connectors, hard disk drive, fans, air vent, and the UID LED, as shown in *Figure 4*. *Figure 4* Network Automation NT-1400, *Rear View* 

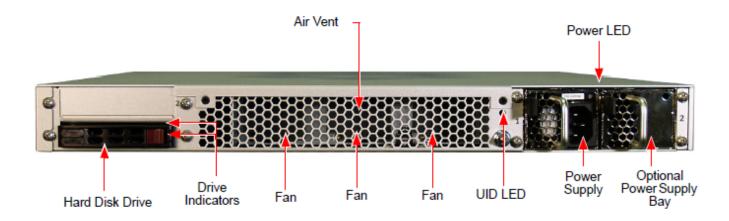


Table 2 Rear Panel Components

Component	Description	
Hard Disk Drive	One (1) Infoblox data storage device.	
Drive Indicators	LEDs that flash green to indicate the hard drive is processing data.	
Fans	A fan system (5 fans total) to help maintain optimum operating temperature. Do not obstruct.	
UID LED	Blue = UID is activated through pressing the UID button on the appliance Blinking Blue = UID is activated through the Info GUI or CLI command Dark = UID is deactivated	
	Note: When UID is activated, the LCD on the front panel blinks at the same time.	
Power Supply	Each power supply has a power outlet for connecting the appliance to a standard AC power source.	
Power LED	The power indicator is green if the power supply has power and is dark if it does not have power.	
Air Vent	An air vent that allows warm air to flow out of the appliance. Do not obstruct.	

# System, Environmental, and Power Specifications

System specifications describe the physical characteristics of the appliance. Environmental specifications describe the temperature and moisture limits it can withstand. Power specifications describe the electrical range within which the appliance circuitry can operate.

## **System Specifications**

- Form Factor: 1-U rack-mountable appliance
- Dimensions: 1.73" H x 17.36" W x 17.2" D (4.4 cm H x 44.1 cm W x 43.7 cm D)
- Weight: Approximately 24 to 28 pounds (10.9 to 12.7 kg)
- Ethernet Ports: MGMT, HA, LAN1, LAN2 auto-sensing 10Base-T/100Base-T/1000Base-T
- Serial Port: DB-9 (9600/8n1, Xon/Xoff)
- USB Port: USB2.0/1.1 compliant
- LCD Panel: LCD (liquid crystal display) with input buttons

## **Environmental Specifications**

- Operating Temperature: 41 to 95 degrees F (5 to 35 degrees C)
- Storage Temperature: -13 to 158 degrees F (-25 to 70 degrees C)
- Operating Relative Humidity: 10% to 90% (non-condensing)
- Airflow CFM (Cubic Feet/Minute): 31 CFM
- Airflow Direction: Front-to-Back

## **Electrical Power Specifications**

- AC Power Supply: Dual input, 450 Watts
  - Input Voltage.: 100 240VAC
  - Input Frequency: 50 60 HZ
  - Input Current: 4A max at 230V
  - Inrush Current: 20A max at 230V
  - Power Factor: > 0.94/230V 50 Hz
  - Maximum Power Consumption: 186W
  - Heat Output (BTU/hour): 636 Maximum
- Optional DC Power Supply: 450 Watts
  - Input Voltage.: -36 72DC
  - Input Current: 20A/ -36VDC, 10A/ -72VDC
  - Inrush Current: 100A 2u sec max
  - Maximum Power Consumption: 186W
  - Heat Output (BTU/hour): 636 Maximum

# Installing the NT-1400 Appliance

Follow these instructions to rack mount the Network Automation NT-1400, connect it to a power source, and cable it to a network. Before proceeding, review the *Infoblox Safety Guide* and follow the necessary precautions.

**Note**: Ensure that you install the appliance in an environment that allows open air to the front and back of the appliance. Do not obstruct the appliance or block air flow going from the front to the back of the appliance.

## **Rack Mounting**

The Network Automation NT-1400 appliances mount into a standard 19" (48 cm) equipment rack. The appliances ship with accessory kits that contain the following: a pair of rack slide brackets and chassis slide rails, a pair of rack ears, eight (8) 10-32 screws, and eight (8) 8-32 screws. Infoblox offers a second four-post rack-mounting kit that you can order separately. This chapter includes instructions for use of both types of rack-mounting kits.

To mount the appliances to an equipment rack, you also need a #2 screwdriver with a cross-headed tip. There are two ways to rack mount the Network Automation NT-1400:

- Two-post rack mount (kit included with purchase)
- Four-post rack mount (aftermarket kit available from Infoblox)

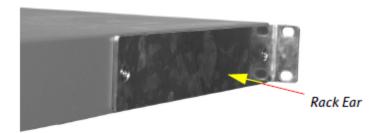
Infoblox offers a second four-post rack-mounting kit that you can separately order. This chapter includes instructions for use of both types of rack-mounting kits.

#### **Two-Post Rack Mount**

To mount the appliance to an equipment rack and secure it at the rear rack posts:

- 1. Align the mounting holes on the rack ears with the rear-most mounting holes on each side of the chassis.
- 2. Attach each rack ear on each side of the chassis with two (2) 8-32 screws, as shown in Figure 5.

Figure 5 Rack Ears in Two-Post Rack Mount



- 3. Lift the appliance and position it in the equipment rack.
- 4. Attach each rack ear to the equipment rack with two (2) 10-32 screws on each side.

### **Four-Post Rack Mount**

To mount the appliance to an equipment rack and secure it at the front and rear rack posts:

- 1. Align the mounting holes on the rack ears with the front-most mounting holes on each side of the chassis.
- 2. Attach the rack ears to each side of the chassis with two (2) 8-32 screws, as shown in Figure 6.
- 3. Slide the inner chassis slide rails out of the rack slide brackets, as shown in Figure 7.

Figure 6 Rack Ears and Chassis Slide Rails in Four-Post Rack Mount

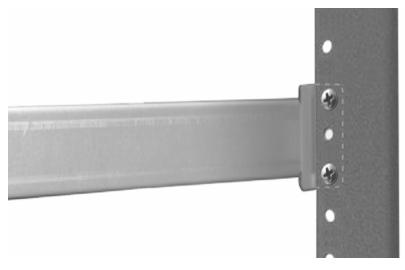


Figure 7 Chassis Slide Rail and Rack Slide Bracket



- 4. Align the mounting holes on the chassis slide rails with the rear-most mounting holes on each side of the chassis. Ensure that you place the chassis slide rails in the correct orientation. Otherwise, the mounting holes do not align properly.
- 5. Attach the chassis slide rails to each side of the chassis with two (2) 8-32 screws, as shown in Figure 6.
- 6. Select a desired location and secure the rack slide brackets to the rear posts of the equipment rack with two (2) 10-32 screws on each side of the rack, as shown in *Figure 8*.

Figure 8 Rack Slide Bracket Attached to the Rear Post of the Rack



- 7. Lift the appliance and position it in front of the equipment rack.
- 8. Align the chassis slide rails on the appliance with the rack slide brackets on the posts of the equipment rack.
- 9. Slide the appliance into the rack slide brackets.
- 10. Secure the rack ears to the rack with two (2) 10-32 screws on each side of the rack.

# Powering the Appliance

The Network Automation NT-1400 ships with one (1) AC power supply module. You can order an additional AC power supply to set up a hot-swappable redundant 1+1 configuration. In the 1+1 configuration, Infoblox recommends using the power cables shipped with the appliance to connect each power supply to separate power circuits. In the event of a power failure on one circuit, the appliance can then operate on the other circuit.

**Note**: If your appliance comes with one power supply and an empty module, ensure that the power supply is in the PSU #1 slot and the empty module in the #2 slot. You cannot switch them.

Network Automation appliances with a single power supply will go dark if the single power supply stops working for any reason. Infoblox recommends ordering an additional Power Supply for a redundant 1+1 configuration.

To power the appliance:

• Connect a power cable between the power connector on the back of the appliance and a properly grounded and rated power circuit that meets the provisions of the current edition of the National Electrical Code, or other wiring rules that apply to your location. Make sure that the outlet is near the appliance and is easily accessible.

# Cabling the Appliance to a Network

Use straight-through Category 5/6 Ethernet cables to connect the Network Automation NT-1400 to the network. The Network Automation NT-1400 appliance does not require a monitor, keyboard, or mouse for normal operation. It requires only an Ethernet connection. Follow these steps to connect the NT-1400 appliance to the network:

1. Configure the appliance to use one port (same port for both system administration and network analysis): Connect from the MGMT Ethernet connector on the appliance front panel to an available Ethernet connection on the network.

or

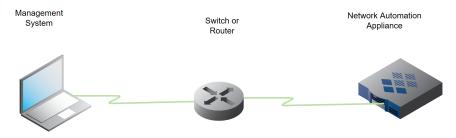
Configure the appliance to use two or three ports (the MGMT port for Network Automation administration and the LAN1 and LAN2 port for network analysis):

- a. Connect from the MGMT Ethernet connector on the appliance front panel to the network supporting your management systems.
- b. Connect from the LAN1 Ethernet connector on the appliance front panel to an available Ethernet connection on the network that Network Automation will be analyzing.
- c. Optionally, connect from the LAN2 Ethernet connector on the appliance front panel to an available Ethernet connection on the network that Network Automation will be analyzing.

Note: The Network Automation NT-1400 appliance supports 10/100/1000Mbps network connections.

- 2. After connecting the network cables, plug the NT-1400 appliance into an AC power source.
- 3. Verify that the Link LED is steady amber or steady green on the RJ45 port, indicating a good connection to the network. If possible, verify that the link indicator is lit on the switch port to which the appliance is connected.

Figure 9 Cabling the NT-1400 Appliance to the Network



When cabling a single Infoblox appliance to the network, connect an Ethernet cable from the MGTM port on the appliance to a switch or router.

**Note**: By default, the Infoblox appliance automatically negotiates the optimal connection speed and transmission type (full or half duplex) on the physical links between its LAN1, LAN2 and MGMT ports and the Ethernet ports on neighboring devices.

4. Use the Infoblox GUI to access the Infoblox appliance from a management system. Through the GUI, you can set up and administer the appliance. For management system requirements and access instructions, see *Initial Network Automation Appliance Configuration*.

# Initial Network Automation Appliance Configuration

The management system is the computer from which you configure and monitor the Infoblox Network Automation appliance. You can access the appliance from the management system remotely across an Ethernet network or directly through a serial cable.

Note: The computer used as the management system must support a minimum screen resolution of 1280x800.

After completing the steps in Cabling the Appliance to a Network, you can make an HTTPS connection to the appliance and access the Infoblox Network Automation GUI using one of the supported Internet Web browsers listed in the Release Notes for the software release installed in your system.

For command-line operation, you can make a terminal console connection through an SSHv2 client. You can also access the CLI by connecting a serial cable directly from the console port of a management system to the console port on the appliance, and then using a terminal emulation program.

**Note**: If you wish to configure the Network Automation appliance for IPv6 connectivity, see the later section, *Configuring a Network Automation Appliance for IPv4 and IPv6*.

Network Automation equally supports IPv4 and IPv6 networks, and reports and manages all devices running IPv4 and/or IPv6 protocols.

# Configuring the Management System

The Network Automation appliance listens on the private IP address 169.254.1.1/24, which can be used at any time to configure the system. The easiest way to access the appliance on that address is to temporarily configure your workstation to use an address on the same subnet, such as 169.254.1.5/24 (or any other address on the same subnet not occupied by another device).

Depending on the operating system, the procedure to configure your workstation can be slightly different. The following procedure is for systems running Windows 7:

- 1. From the Start menu, select Control Panel.
- 2. In the Control Panel dialog box, click Network and Sharing Center.
- 3. In the Network Connections dialog box, click Change Adapter Settings.
- 4. Right-click the icon for the Ethernet interface you wish to change (Local Area Connection, for example), and choose Properties from the

- shortcut menu.
- 5. In the Local Area Connection Properties dialog box, select Internet Protocol Version 4 (TCP/IPv4) in the Network Components list, and then click Properties.
- 6. In the Internet Protocol (TCP/IP) Properties dialog box, select Use the following IP address, and then fill in the IP address and Subnet m ask fields using the IP address 169.254.1.5 and subnet mask 255.255.255.0.
- 7. Click **OK** in the *Internet Protocol (TCP/IP) Properties* and *Local Area Connection Properties* dialog boxes. (Depending on your operating system, you might need to reboot your computer.)

**Note**: This address change is necessary only for the initial setup of Network Automation. Once the setup is complete, return your workstation to its prior configuration.

- 8. Click Close in the Local Area Connections Status dialog box.
- 9. Temporarily disconnect the Network Automation appliance from the network by unplugging the Ethernet cable from the MGMT port of the appliance.
- 10. Obtain an Ethernet cross-over cable and connect your computer to the MGMT port using the cross-over cable.
- 11. Use an SSH client to access Network Automation at the IP address 169.254.1.1.
- 12. Log in with user name admin and password admin.
- 13. Continue the configuration by following the instructions described in Configuring a Network Automation Appliance for IPv4 and IPv6.

## **Notes on Windows IPv6 Configuration**

Of course, users can manage Network Automation on an IPv6 network. The Network Automation Management port has its own factory default link-local IPv6 address that is unique on its connected subnet. The default IPv6 address derives from the Ethernet MAC address of the Management interface (MGMT).

You must use a Windows 7 system to configure Network Automation to run on an IPv6 network, because Windows 7 natively supports IPv6. To configure a new Infoblox Network Automation appliance to be managed through IPv6, do the following:

- Reboot Windows 7, ensure that it is enabled for IPv6 networking, and connect it to the management (MGMT) port of the Network Automation appliance, using a standard Ethernet cable.
- 2. On the Windows 7 system, open a DOS command line window and run ipconfig.

  Check the listing in the Local Area Connection section of the ipconfig listing, and make a note of the interface number associated with the PC's IPv6 Link Local address. The IPv6 value will have an fe80: prefix and end with a %\* designator, such as fe80:505:ac3b:49b7:dc38%15. The value 15 in this example is the interface number, which will vary with each client.
- 3. In a Windows command line, run the following command:
  - netsh interface ipv6 show neighbor
- 4. Find the Interface \*: Local Area Connection section (the \* corresponds to the interface number for your PC system's IPv6 address). No entry should be present in this category for any address starting with the fe80: prefix.
- 5. In the Windows PC's command line, run a multicast IPv6 ping to all nodes on the subnet where the Management port is running. This executes a multicast IPv6 ping to the Network Automation management port connected to the PC. In the Windows command prompt, run the following command:

```
ping -6 -n 5 ff02::1
```

Allow the command to complete whether or not responses occur.

6. In the Windows PC's command line, run the following command a second time:

```
netsh interface ipv6 show neighbor
```

The MGMT port IPv6 link-local address should now appear in the neighbor table under the Interface xx: Local Area Connection section, similar to the following:

```
fe80::230:48ff:febc:97da
```

```
00-30-48-bc-97-da
```

Reachable

- This is the link-local address of the Network Automation appliance management port (MGMT).
- 7. Open an SSH client session to the Network Automation CLI at the IPv6 address shown in Step 6 along with the interface number. Log in with the factory default username/password admin/admin.
  - Next, you assign a globally routable static IPv6 address on the management port.
- 8. Proceed with appliance configuration as described in Configuring a Network Automation Appliance for IPv4 and IPv6.

# Configuring a Network Automation Appliance for IPv4 and IPv6

If Network Automation uses DHCP, make a note of the IP address assigned to Network Automation, and then use the Setup Wizard as described in *Configuring Network Automation Using the Setup Wizard* in the *Network Automation Administrator's Guide*.

Note: The Network Automation appliance supports dual-stack connectivity for reachability on both IPv4 and IPv6 networks. You can use either or both.

Otherwise, configure IP addresses as follows:

- 1. At the CLI (command line interface) command prompt, enter configure server, and specify the following:
- 2. Enter the new Database Name and press Enter.

```
\hbox{\tt Database Name is a descriptive name for this deployment. It is used in reports titles, headers, etc.}\\
```

Recommended: Begin name with uppercase letter.

```
Database Name []: Corp100_west
```

3. For the first-time installation, you can choose to generate a new HTTPS certificate.

```
Do you want to generate a new HTTPS Certificate? (y/n) [n]: y
```

4. Enter the local domain name in which the controller resides. This value is used for truncating device names in Network Automation data sets throughout the system.

```
Domain Name 1 (e.g., example.com) []: corp100.com

Domain Name 2 (optional) []:
```

5. Enter the time server IP address if one is available or is necessary:

```
Time Server [us.pool.ntp.org]:
```

6. Enter the time zone region by typing in the suggested numeric value from the list.

```
Enter choice (0-47) [0]: 45
```

7. Enter the time zone location by typing in the suggested numeric value from the list:

Choose a location within your time zone.

0.	Alaska	1.	Aleutian	2. Arizona	3. Central
4.	East-Indiana	5.	Eastern	6. Hawaii	7. Indiana-Starke
8.	Michigan	9.	Mountain	10. Pacific	11. Samoa

```
Enter choice (0-11) [0]: 10
```

8. Follow the steps for configuring the management port IP settings:

```
+++ Configuring Management Port Settings
```

You must configure an IPv4 or IPv6 address/mask on the management port.

Network Automation can perform analysis from the management port or a separate scan port.

```
IP Address (optional) []: 10.120.25.212
Subnet Mask (optional) []: 255.255.255.0
IPv6 Address (optional) []:
IPv6 Prefix (optional):
You must provide either an IPv4 gateway, an IPv6 gateway, or both.
IPv4 Default Gateway (optional) []: 10.120.25.1
IPv6 Default Gateway (optional) []:
```

Note: You must provide either an IPv4 or IPv6 gateway address, or both, depending on the Network Automation IP address.

The configure server command then requests configuration of the Scan port if you are running two-port configuration:

```
Do you want to configure the Scan Port? <y/n> [n]:
```

Entering  ${\bf N}$  instructs the configure server command to skip IP configuration for the Scan port.

**Note**: The Network Automation appliance uses active Ethernet ports labeled MGMT, LAN1 and LAN2. The LAN1 port corresponds to the Scan port referred to in the configure server command. When you define the Scan port settings in configure server, it is the LAN1 port IP connectivity you are defining for the appliance. In two-port configurations, this interface is used to connect to the networks being scanned and managed by Network Automation. You can also configure the LAN2 port as a another scan interface through the Network Automation UI.

9. Enter **n** to continue. This enforces single-port appliance configuration, and displays the appliance DNS Server settings:

```
DNS Servers are used to map hostnames to IP addresses.
You may enter up to 2 name servers below.
    DNS Server 1 (IP) []: 10.102.3.50
    DNS Server 2 (optional) []: 10.102.3.10
DNS server 1 and DNS Server 2:
```

- 10. Enter the IP addresses of the DNS servers that Network Automation will use.
  - In the Current settings listing, review your entries.

```
Current settings:
Database Name: rgraceDev
Server Name: rgrace-dev
Domain Name 1: inca.infoblox.com
Domain Name 2: inmd.infoblox.com
Time Server: us.pool.ntp.org
Time Region: US
Time Location: Pacific
Mgmt Port IP Address: 10.120.25.212
Mgmt Port Subnet Mask: 255.255.255.0
Mgmt Port IPv6 Address:
Mgmt Port IPv6 Prefix:
Mgmt Port IPv4 Default Gateway: 10.120.25.1
Mgmt Port IPv6 Default Gateway:
Scan Port IP Address:
Scan Port Subnet Mask:
Scan Port IPv6 Address:
Scan Port IPv6 Prefix:
Scan Port IPv4 Default Gateway:
Scan Port IPv6 Default Gateway:
DNS Server 1: 10.102.3.50
DNS Server 2: 10.102.3.10
- Edit these settings? <y/n> [n]:
11. If you accept the settings, enter n.
```

- Configure the system with these settings? <y/n> [y]:
- 12. Enter y to configure the server with the settings you entered. Wait while Network Automation configures the network and sets the web interface to use the new IP address.
- 13. Network Automation automatically reboots if you change its default time zone. Otherwise, a reboot is not necessary.
- 14. Enter exit to log out.
- 15. Shut down the Network Automation unit and physically install it in the global network. The unit is now reachable on its global static IP address for further CLI configuration and UI access.
- 16. Configure Network Automation software using the Setup Wizard, as described in Configuring Network Automation Using the Setup Wiz ard in the Network Automation Administrator's Guide.

## Infoblox Network Automation CLI

The Infoblox CLI allows you to configure and monitor the appliance using a small set of Infoblox commands. There are some tasks, such as resetting the appliance, that you can only do through the CLI. You can access the Infoblox CLI through a direct console connection from your management system to the Infoblox appliance. You can also enable remote console access — that is, SSHv1/v2 client access — through the Infoblox GUI, and then access the CLI from a remote location using an SSHv2 client (Settings icon -> Network Automation Settings -> Security -> SSH Settings tab).

## **Using Network Automation CLI Help**

You can display a list of available Network Automation CLI commands by typing? at the command prompt.

admin64-212.customer.com> ?

Available Commands:

acl	ftp	md5sum	register	set
autoupdate	grep	more	remoteCopy	setup
cat	halt	netstat	removedsb	show
clear	help	ping	removemib	snmpwalk
configure	installdsb	provisiondisk	repair	ssh-key
debug	installhelpfiles	quit	reset	supportbundle
deregister	installmib	rdtclient	restore	telnet
diagnostic	license	reboot	rm	tftpsync
exit	ls	recalculate-spm	route	top
export	maintenance	refreshgroups	sandbox	traceroute

To view an in-depth explanation of a CLI command and its syntax, type command? after the command prompt. For example:

admin64-212.customer.com> show ?
Show Commands:

acl	disk	io	servers	updatelog
certificate	dsb	license	settings	version
date	ethernet	load	stats	virtual
dbprocs	id	memory	tech	
diagnosticlog	idmethods	process	tunclient	
discovery	interfaces	route	updatehistory	

The two main groups of Infoblox CLI commands are set and show. To see the complete list of the set commands, enter help set after the command prompt. Likewise, to see a complete list of the show commands, enter show? For information about the CLI commands, refer to the Infoblox Network Automation Administrator Guide.

# Replacing Appliance Components

Network Automation NT-1400 appliances provide AC power supplies as a field replaceable unit (FRU) in the system.

All replaceable units must be replaced with parts of the same specifications as described in this section. You can also order an offered part as a local spare. For information about compatible parts and their part numbers, see *Table 3*.

# Changing AC Power Supplies

**Note**: Before changing the power supply, make sure it is securely cabled. An apparently failed power supply may simply be improperly connected to its power source.

**Caution**: Never remove a correctly functioning power supply in a live system. Removing the power supply from a correctly operating Infoblox appliance appliance can cause a complete failure of the appliance and require an RMA (Return Material Authorization).

The Network Automation NT-1400 ships with one AC power supply, with the option to add a second power supply for a redundant 1+1 configuration. In a 1+1 configuration, when a power supply fails for any reason, the other assumes the full load automatically and the Infoblox GUI displays a power supply alarm. The appliance can also be configured through the Network Automation software to send an email notification and to report an SNMP trap when such events occur in a 1+1 configuration. This configuration minimizes the chance of system failure due to failure of an individual power supply. *Figure 10* illustrates the process of replacing an AC power supply.

Each power supply weighs about one pound (0.454 kg). The faceplate of the power supply contains a power LED and a power switch. Each AC power supply provides a dedicated power outlet.

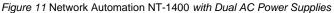
Note: If your appliance comes with one power supply and an empty module, ensure that the power supply is in the PSU #1 slot and the empty module in the #2 slot. A single power supply runs only in #1 slot as shown in *Figure 10*.

Figure 10 Removing a Network Automation NT-1400 AC Power Supply



To replace a Network Automation NT-1400 AC power supply, do the following:

- 1. Turn off the power circuit to the appliance's AC power supply.
- 2. Disconnect the AC power cable from the appliance's AC power supply.
- 3. Gently press the black catch-release lever toward the handle, grip the power supply handle, and pull the power supply unit out of the chassis as illustrated in *Figure 10*.
- 4. Place the replacement power supply into the bay and push it forward until it is fully seated in the chassis. The catch-release lever will gently click into place.
- 5. Reconnect the power cable.
- 6. Turn on the power supply. If it is fully seated, powered on, and operating, the LED glows steady green.





## Network Automation NT-1400 FRUs

Table 3 lists field replaceable units and orderable parts for the Network Automation NT-1400 appliance. It specifies compatibility of the units and their part numbers. Contact your Infoblox field representative or Infoblox Technical Support for more information.

Table 3 Field-Replaceable Units and Orderable Parts

Field-Replaceable Unit	Part Number	Туре	NT-1400
Network Automation NT-1400 Series AC PSU	IB-1400-R2-PSU-AC	FRU and orderable option	Υ
1400 Series rack kit for 2-post or 4-post racks up to 600mm deep	T-800-1400-RAIL-2-4- 600MM	FRU only	Υ
800, 1400 and 2200 Series rack rail kit for 4-post racks 600-900 mm deep, adjustable	T-800-1400-2200- RAIL-4-600-900	FRU only	Υ