

Citrix NetScaler Quick Start Guide: 7000 Platform

Citrix® NetScaler® 9.1

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You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the NetScaler Request Switch™ 9000 Series equipment. If the NetScaler equipment causes interference, try to correct the interference by using one or more of the following measures:

Move the NetScaler equipment to one side or the other of your equipment.

Move the NetScaler equipment farther away from your equipment.

Plug the NetScaler equipment into an outlet on a different circuit from your equipment. (Make sure the NetScaler equipment and your equipment are on circuits controlled by different circuit breakers or fuses.)

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Last Updated: June 2009

Quick Installation and Configuration

Welcome to the Citrix NetScaler Application Delivery product line. Please take a minute to review the following instructions before proceeding with the installation of the Citrix NetScaler 7000 appliance. If you require further explanation of any item covered in this document, please see the *NetScaler Hardware Installation and Setup Guide*.

Note NetScaler 9.1 nCore is not supported on this hardware platform.

Before You Begin

Before installing your Citrix NetScaler 7000, prepare all of the equipment and materials you will need during the installation process. Completing this preparation up front will ensure a smooth installation with minimal interruption.

Ensure that the following components and accessories are included:

- One NetScaler 7000 appliance
- One accessory kit that contains:
 - One RJ-45 to DB-9 adapter
 - One 6 ft RJ-45/DB-9 cable
 - One 7000 Quick Start Guide
 - One Citrix NetScaler Resource CD
 - One AC power cable
- One mounting rail kit

In addition to the items listed above, the following items may also be required:

- Ethernet cables
- Ethernet switch ports to connect to the appliance
- Management workstation (PC or laptop)
- Ethernet crossover cables

The NetScaler Appliance

Your NetScaler appliance has the following parts. We will be referring to the different parts of the NetScaler during setup and configuration.

Figure 1 The Citrix NetScaler 7000, Front Panel

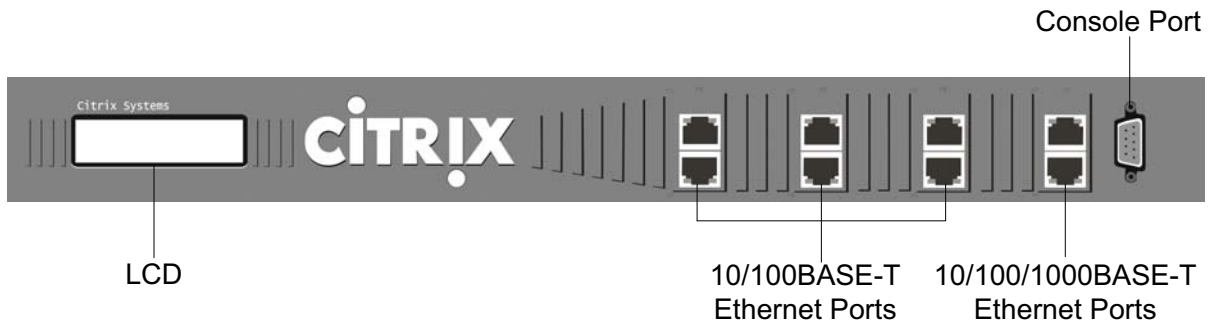
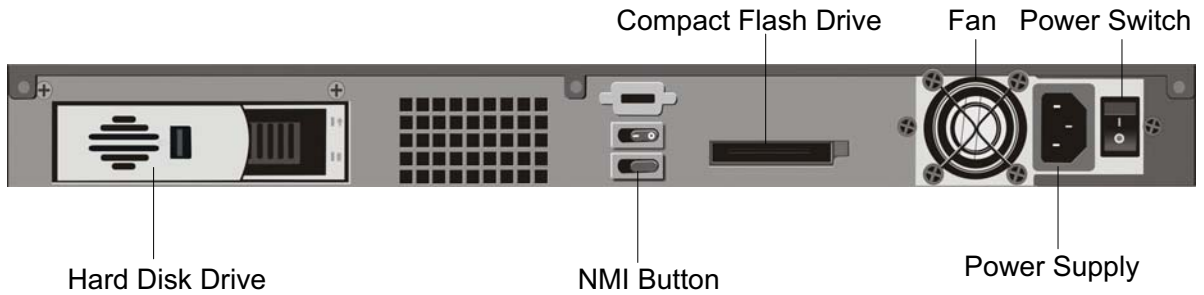


Figure 2 The Citrix NetScaler 7000, Back Panel



Configuration Requirements

Once the appliance is rack mounted, you will need the following information to complete the initial setup:

- **NetScaler IP address:** The NetScaler IP (NSIP) address is the management IP address of the appliance.
- **Mapped IP address:** The Mapped IP (MIP) address is used by the appliance to represent the client when communicating with a server.
- **Default gateway:** The IP address of the default gateway corresponds to the router that forwards traffic outside of the system subnet.
- **Root password:** The root user (nsroot) has full administrative privileges on the appliance. The root password is used to authenticate the user.

Installation

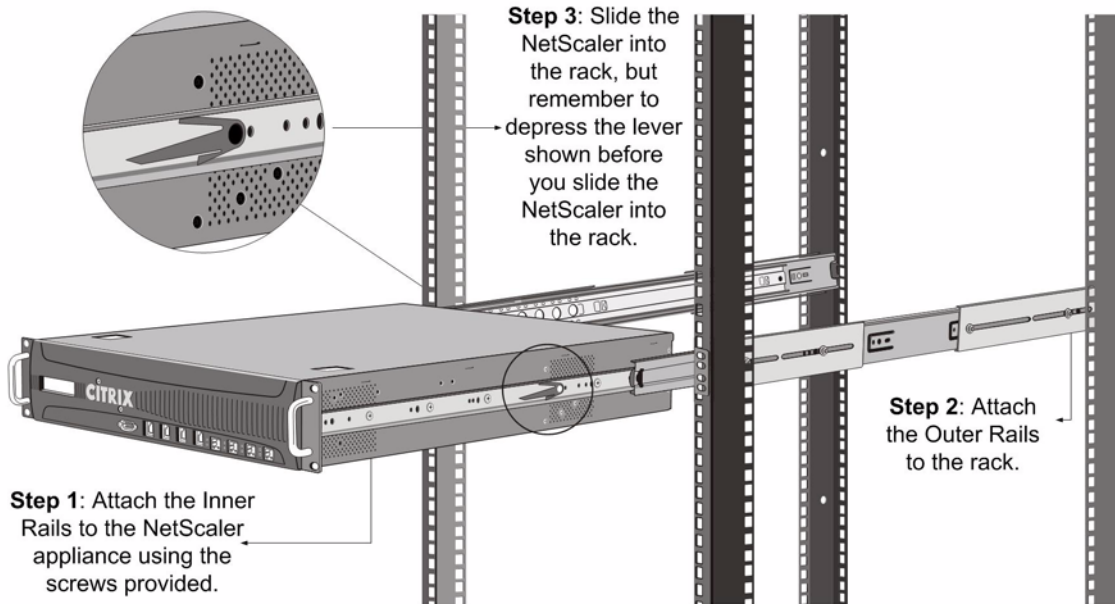
The following section describes the procedure for rack mounting the NetScaler hardware.

Note The illustrations in the following sections may not represent the actual NetScaler appliance.

Rack Mounting a Citrix NetScaler Appliance

The appliance is shipped with rack-rail hardware. This hardware consists of two inner rails that are secured to the appliance, one on each side, and a rack rail assembly that is attached to the rack. Figure 3 illustrates the steps involved in mounting the Citrix NetScaler appliance to a rack.

Figure 3 Rack Mounting a Citrix NetScaler Appliance



Appliance Precautions

- Determine the placement of each component in the rack before you install the rail.
- Install the heaviest appliance on the bottom of the rack first, and then work up. Equipment should be mounted into a rack so that a hazardous condition does not arise due to uneven mechanical loading.
- Allow the power supply units and hot swap hard drives to cool before touching them.
- Install the equipment near a socket outlet for easy access.
- Mount equipment into a rack with airflow sufficient for safe operation.
- If installed in a closed or multi-unit rack assembly, the ambient operating temperature of the rack environment may be greater than the ambient temperature of the room. Therefore, consider the lowest and highest operating temperatures of the equipment when making a decision about where to install the appliance in the rack.

Rack Precautions

- Ensure that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on them.
- In a single rack installation, attach a stabilizer to the rack.
- In multiple rack installations, couple (attach) the racks together.

- Always make sure the rack is stable before extending a component from the rack.
- Extend only one component at a time, extending two or more simultaneously may cause the rack to become unstable.
- The handles on the left and right of the front panel of the appliance should only be used for extending the appliance out of the rack. These handles should not be used for mounting the appliance on the rack. Rack-rail hardware described earlier should be used instead.

Connecting a NetScaler to the Network

Connect the interfaces on the appliance to the network ports on the appropriate switches using the Ethernet/fiber optic cables.

Figure 4 Connecting a Citrix NetScaler Appliance to Your Network



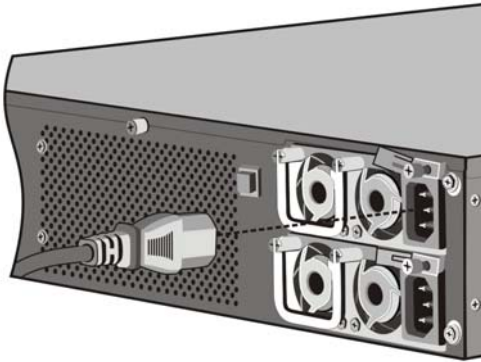
Warning Connecting multiple network ports to the same switch or VLAN can result in a network loop.

Note By default, the NetScaler is configured to use auto-negotiation. When you install a NetScaler for the first time, be sure to configure your other equipment to use auto-negotiation for the ports that are connected to the NetScaler. After initial log on and configuration, you can choose to disable auto-negotiation.

Connecting a NetScaler to a Power Source

The appliance has one power supply input. Connect the AC power cable to the inlet receptacle on the back of the appliance and connect the other end of the power cable to a power outlet. Turn the NetScaler ON by pressing the ON / OFF switch on the back of the unit. The Citrix logo and LCD on the front of the NetScaler will illuminate after starting, and the LCD will indicate the operational status of the appliance.

Figure 5 Connecting a Citrix NetScaler Appliance to a Power Source



Note If you wish to update to the latest release of the system software before proceeding, see the *NetScaler Migration Guide*. This document is located in the `/var/netscaler/doc` directory on your appliance. You can also access the document by logging on to the appliance using a Web browser and selecting the **Documentation** tab in the configuration utility.

Electrical Safety Precautions

Basic electrical safety precautions should be followed to protect yourself from harm and the appliance from damage.

- Be aware of the location of the emergency power off switch to disconnect the electrical outlet. If an electrical accident occurs, you can quickly remove power from the appliance.
- Use of a regulating uninterruptible power supply (UPS) protects the appliance from power surges and voltage spikes and keeps the appliance operating in case of power failure.
- Do not work alone when working with high voltage components.
- Always disconnect power from the appliance when removing or installing any component. When disconnecting power, you should first shut down the appliance and then unplug the power cords of all the power supply units connected to the appliance.
- Do not use mats designed to decrease static electrical discharge as protection from electrical shock. Instead, use rubber mats that have been specifically designed as electrical insulators.
- The power supply cords must include a grounding plug and must be plugged into grounded electrical outlets.
- Consideration should be given to the connection of the equipment to the power supply circuitry and the effect of what a circuit overload might have. Appropriate consideration of equipment nameplate railings should be used when addressing this concern.
- A reliable ground must be maintained at all times. To ensure this, the rack should be grounded. Particular attention should be given to power supply connections other than the direct connection to the branch circuit (for example, the use of power strips).

Setting Up Connectivity

Before you can configure and manage the appliance, you will need to connect it to a management workstation or network. To do this, use any one of the following methods.

- Use the default IP address to connect to the configuration utility.
- Use a serial console cable to connect to the command-line interface (CLI).

GUI-based Configuration

To set up the appliance using the configuration utility, you will need an administrative workstation or laptop configured on the same network as the appliance. To run the configuration utility, you will also need Java RunTime Environment (JRE) version 1.4.2_04 or later.

To configure the NetScaler using the configuration utility

1. Connect the NetScaler to a management workstation or network.
2. Open a browser and type: **http://192.168.100.1**

Note The NetScaler is preconfigured with the IP address 192.168.100.1.

3. In **User Name**, type **nsroot**.
4. In **Password**, type **nsroot**.
5. In **Start in**, select **Configuration**, and then click **Login**.
6. In the Setup Wizard, click **Next** and follow the instructions in the wizard.
7. To confirm that the NetScaler is configured correctly, you can either ping the new NetScaler IP address (NSIP) or use the new NSIP to open the configuration utility in a browser.

CLI-based Configuration

To set up the appliance using the CLI, connect the serial cable to the console port. Access the command line with a terminal emulator. For computers running Hyperterminal, Tera Term, or Minicom as terminal emulators, use the following settings:

- Baud rate: 9600
- Data bits: 8
- Parity: None
- Stop bits: 1
- Flow control: None

Use the following credentials for logging on to the NetScaler:

User name: **nsroot**

Password: **nsroot**

To configure the NetScaler using the CLI

At the NetScaler command prompt, type:

```
set ns config -ipaddress IPAddress -netmask Netmask
```

```
add ns ip IPAddress Netmask -type Type
```

```
add route Network Netmask Gateway
```

```
set system user nsroot Password
```

```
save ns config
```

```
reboot
```

Example

```
set ns config - ipaddress 10.102.29.60 - netmask 255.255.255.0
```



```
add ns ip 10.102.29.61 255.255.255.0 -type mip
add route 0.0.0.0 0.0.0.0 10.102.29.1
set system user nsroot administrator
save ns config
reboot
```

Note For information about deploying a high availability (HA) pair, see the *NetScaler Networking Guide*.

System Specifications

The following table summarizes the specifications of the Citrix NetScaler 7000.

Specifications	7000
Processor	1 single-core
Memory	1 GB
Number of Power Supplies	1
Power Supply input voltage & frequency	100-240 AC, 47-63Hz
Maximum Power Consumption	250 W
Weight (lbs.)	28
Height	1U
Width	EIA 310-D
Depth	24 in/ 61 cm
Operating Temperature (degree celsius)	0-40
Humidity range (non-condensing)	5%-95%
Safety Certifications	UL & TUV-C
EMC & Susceptibility	FCC Class A
Compliance	RoHS

Additional Information

In addition to the guide you are currently reading, the *NetScaler Quick Start Guide*, the following guides for NetScaler 9.1 may contain information that is relevant and useful for your system environment.

- *Citrix NetScaler Hardware Installation and Setup Guide*. Hardware installation and initial configuration information for all hardware models and platforms.
- *Citrix NetScaler Getting Started Guide*. Core concepts, installation, and configuration instructions for setting up a NetScaler for the first time. Includes hands-on labs that covers commonly used features.
- *Citrix NetScaler Migration Guide*. Migration instructions for setting up a new version of a NetScaler with a list of all new and deprecated commands and parameters, APIs, SNMP OIDs, and log messages.
- *Citrix NetScaler Administration Guide*. Manage and monitor the NetScaler using built-in features, such as AAA policies, role-based authorization, SNMP, and statistical counters.
- *Citrix NetScaler Traffic Management Guide*. Configuration and installation information for traffic management features, such as load balancing, content switching, and DNS.
- *Citrix NetScaler Application Optimization Guide*. Configuration and installation information for optimization features, such as integrated caching and TCP buffering. Most optimization features are policy-based.
- *Citrix NetScaler Application Security Guide*. Configuration and installation information for security features, such as Denial of Service (DoS) protection, content filtering, and rewrite.
- *Citrix NetScaler Networking Guide*. Configuration information for networking features with an emphasis on dynamic routing.
- *Citrix NetScaler Policy Configuration and Reference Guide*. Configuration and reference information for controlling the behavior of NetScaler functions by using advanced policies and expressions, classic policies and expressions, and HTTP callouts.
- *Citrix Application Firewall Guide*. Installation and configuration instructions for a standalone Citrix Application Firewall and the integrated Citrix NetScaler Application Firewall feature.
- *Citrix NetScaler Developer's Guide*. A guide for application developers who use XML API.
- *Citrix NetScaler API Reference*. A reference guide for application developers.
- *Citrix NetScaler Command Reference Guide*. A reference that includes all NetScaler commands.
- *Citrix NetScaler Log Message Reference*. A reference that includes syslog and Web server log messages.
- *Citrix NetScaler SNMP OID Reference*. A reference that includes Simple Network Management Protocol (SNMP) object identifiers for objects in the Management Information Base (MIB).
- *Citrix NetScaler Release Notes*. Up-to-date information about new features and known issues.

A complete set of documentation is available on the **Documentation** tab of your NetScaler and from <http://support.citrix.com/>.

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