

# LN1000 Mobile Secure Router Quick Start

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This document describes how to install and configure the Juniper Networks® LN1000 Mobile Secure Router.

## Contents

Quick Start Description . . . . .	2
Installing the LN1000 Mobile Secure Router . . . . .	3
Powering On the Router . . . . .	4
Performing Initial Software Configuration . . . . .	4
Safety Warnings . . . . .	6
Related Documentation . . . . .	7

## Quick Start Description

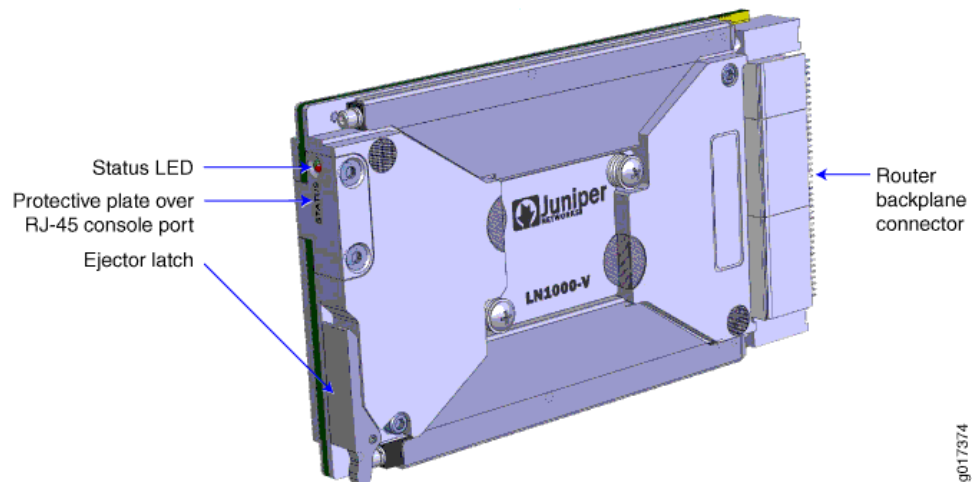
This Quick Start contains information you need to install and configure the LN1000 Mobile Secure router quickly. For complete installation instructions, see the *LN1000 Mobile Secure Router Hardware Guide*.

The LN1000 Mobile Secure Router is an embedded router that operates in both wire-line and wireless environments with communication nodes that are either mobile or stationary. The router provides reliable and secure data, voice, and video services. The LN1000 router processes WAN and LAN routing functions. The router offers multiple DiffServ classes and can interleave lower priority real-time data (voice traffic) with higher priority non-real-time data. It is developed on 3U compact node slot interface (VITA) architecture as defined in the VITA 46.0 IEEE 1101.2 specifications and runs JUNOS Software for routing, forwarding, and security.

The LN1000 Mobile Secure Router can be used effectively in the following environments:

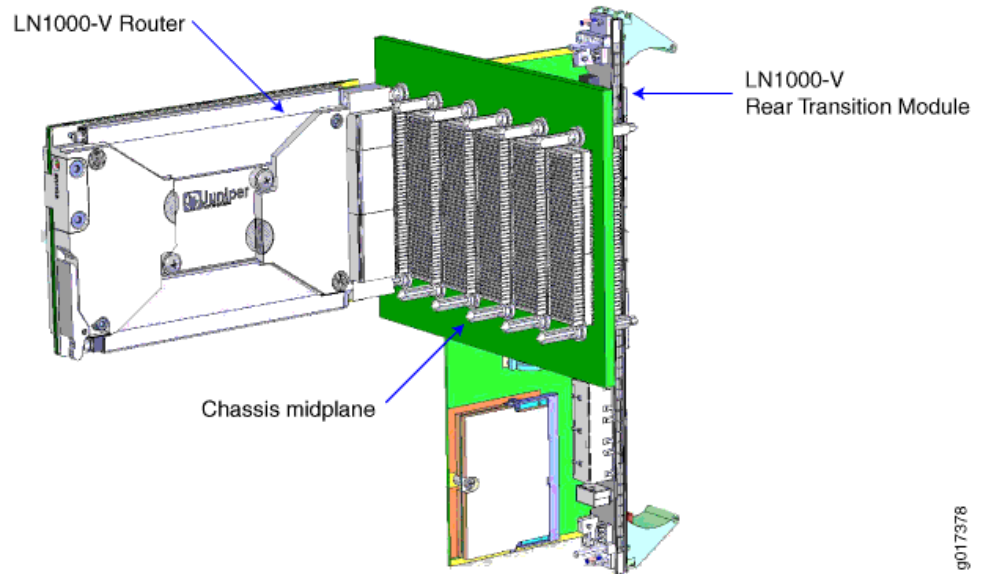
- Defense communities
- Public sector safety organizations, such as first responders

Figure 1: LN1000 Mobile Secure Router



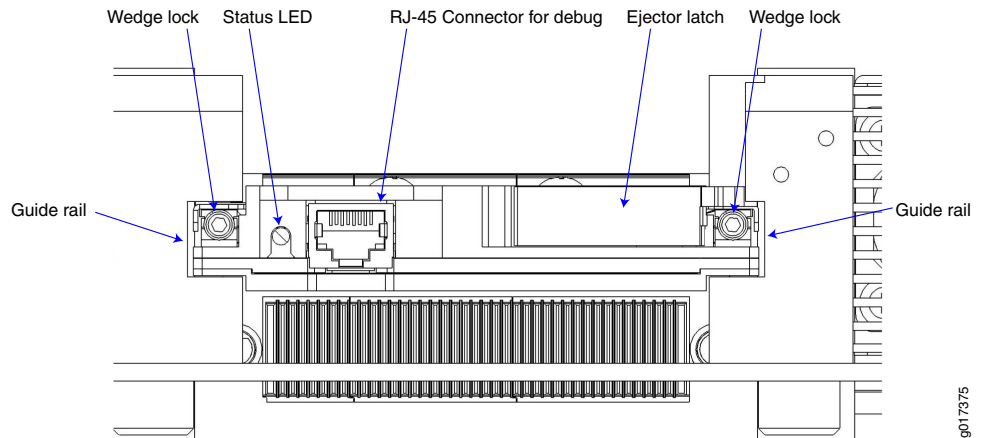
You can install the LN1000 router in a standard VITA 46.0-compliant chassis. Optionally, you can install it in a VITA 46.0-compliant chassis with a midplane and an LN1000 rear transition module.

Figure 2: LN1000 Mobile Secure Router Installed with an LN1000 Rear Transition Module



## Installing the LN1000 Mobile Secure Router

Figure 3: LN1000 Mobile Secure Router — Front Panel



To install the LN1000 router in a VITA 46.0-compliant chassis:

1. Insert the router into the guide rails located on the front of the chassis.
2. Slide the router forward until the connector on the router's back panel contacts the connector in the chassis.
3. Push in the injector/ejector latch on the right side of the router front panel to complete the installation.
4. Using the 3/32 Allen wrench, tighten the two wedge locks to a torque of 5 in-lb.



**CAUTION:** The guide rails provide cooling to the conduction-cooled router. If you do not properly tighten the wedge locks, the router can overheat and fail.

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## Powering On the Router

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Power for the LN1000 Mobile Secure Router is supplied by the chassis in which it is installed. To power on the router, ensure that power to the chassis is turned on. The chassis delivers 15.0 V and 3.3 V power to the LN1000 router through a standard IDE 4-pin connector.

## Performing Initial Software Configuration

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The LN1000 router is shipped with the JUNOS Software preinstalled and ready to configure when you power on the device. When the device boots, it attempts to start the image on the included internal NAND flash drive. You configure the LN1000 router by issuing JUNOS command-line interface (CLI) commands, either on a console device attached to the CONSOLE port on the Routing Engine, or over a Telnet connection to a network connected to the Ethernet port on the Routing Engine.

Gather the following information before you configure the device:

- Hostname you want the device to use on the network
- Name of the domain you want the device to use
- IP address and prefix length information for the Ethernet interface
- IP address of a default router
- IP address of a DNS server
- Password for the root user

To configure the software:

1. Verify that the device is powered on.
2. Log in as the root user.
3. Start the CLI.

```
root# cli
root@>
```

4. Enter configuration mode.

```
configure
[edit]
root@#
```

5. Set the root authentication password by entering a cleartext password, or an encrypted password, or an SSH public key string (DSA or RSA).

```
[edit]
root@# set system root-authentication plain-text-password
New password password
Retype new password password
```

- Configure an administrator account on the device.

```
[edit]
root@# set system login user admin class super-user authentication
plain-text-password
```

- Configure the password for the administrator account.

```
[edit]
root@# set system root-authentication plain-text-password
```

- Commit the configuration to activate it on the device.

```
[edit]
root@# commit
```

- Log in as the administrator you configured in Step 6.

- Configure the name of the device. If the name includes spaces, enclose the name in double quotation marks (" ").

```
configure
[edit]
admin@# set system host-name hostname
```

- Configure the IP address and prefix length for the device's Ethernet interface. You can optionally use the location-based IP address Pools configuration. For further information, see the *LN1000 Mobile Secure Router User Guide*.

```
[edit]
admin@# set interfaces ge-0/0/0 unit 0 family inet address address/prefix-length
```

- Configure the traffic interfaces (ge-0/0/1–ge-0/0/7).

```
[edit]
admin@# set interfaces ge-0/0/1 unit 0 family inet address address/prefix-length
admin@# set interfaces ge-0/0/5 unit 0 family inet address address/prefix-length
```

- Optionally, configure the default route.

```
[edit]
admin@# set routing-options static route 0.0.0.0/0 next-hop gateway
```

- Configure basic security zones and bind them to traffic interfaces.

```
[edit]
admin@# set security zones security-zone trust interfaces ge-0/0/5
admin@# set security zones security-zone untrust interfaces ge-0/0/0
```

- Configure basic security policies.

```
[edit]
admin@# set security policies from-zone trust to-zone untrust policy policy-name
match source-address any destination-address any application any
root@# set security policies from-zone trust to-zone untrust policy policy-name then
permit
```

- Check the configuration for validity.

```
[edit]
admin@# commit check
configuration check succeeds
```

17. Commit the configuration to activate it on the device.

```
[edit]
admin@# commit
commit complete
```

18. Optionally, display the configuration to verify that it is correct.

```
admin@# show
```

19. When you have finished configuring the device, exit configuration mode.

```
[edit]
admin@host# exit
admin@host>
```



**NOTE:** The installation and initial configuration procedures connect the device to the network but do not enable it to forward traffic. For complete information about enabling the device to forward traffic, including examples, see the *LN1000 Mobile Secure Router User Guide*.

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## Safety Warnings

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The router module is designed to protect against the risk of electrical shock and other hazards during installation, operation, and maintenance, and under likely fault conditions, including human error. It complies with grounding requirements of NFPA 70-93, article 250. As a precautionary measure to avoid harm to yourself as you install and maintain the router module, follow these general safety guidelines for working near and with electrical equipment.

These general safety guidelines and warnings help ensure your safety and protect the router from damage. The list of guidelines might not address all potentially hazardous situations in your working environment, so be alert and exercise good judgment at all times.

- Perform only the procedures explicitly described in this documentation. Make sure that only authorized service personnel perform other system services.
- Keep the area around the chassis clear and free from dust before, during, and after router installation.
- Keep tools away from areas where people could trip over them while walking.
- Do not wear loose clothing or jewelry, such as rings, bracelets, or chains, which could become caught in the chassis.
- Wear safety glasses if you are working under any conditions that could be hazardous to your eyes.

- Do not perform any actions that create a potential hazard to people or make the equipment unsafe.
- Never attempt to lift an object that is too heavy for one person to handle.
- Never install or manipulate wiring during electrical storms.
- Never install electrical jacks in wet locations unless the jacks are specifically designed for wet environments.
- Do not open or remove the router's outer covering. Such an action voids your warranty and could expose the router's internal components to electrostatic discharge (ESD).
- Do not push or force any objects through any opening in the chassis frame. Such an action could result in electrical shock or fire.
- Avoid spilling liquid onto the router chassis. Such an action could cause electrical shock.
- Avoid touching uninsulated electrical wires or terminals that have not been disconnected from their power source. Such an action could cause electrical shock.

## Related Documentation

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- For detailed information about the LN1000 hardware, see the *LN1000 Mobile Secure Router Hardware Guide*.
- For specific routing configuration options available for the router, see the *LN1000 Mobile Secure Router User Guide*.

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