



# **Secure Router Manual**

***XG-1541***

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**Mar 04, 2024**

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This Quick Start Guide covers the first time connection procedures for the [Netgate 1541 1U Secure Router](#) and also provides information needed to stay up and running.

## GETTING STARTED

Use the following steps to configure the TNSR Secure Router.

1. To configure the Network Interfaces and gaining access to the Internet, follow the instructions provided in the [Zero-to-Ping](#) documentation.

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**Note:** Not all steps in the Zero-to-Ping documentation will be necessary for every configuration scenario.

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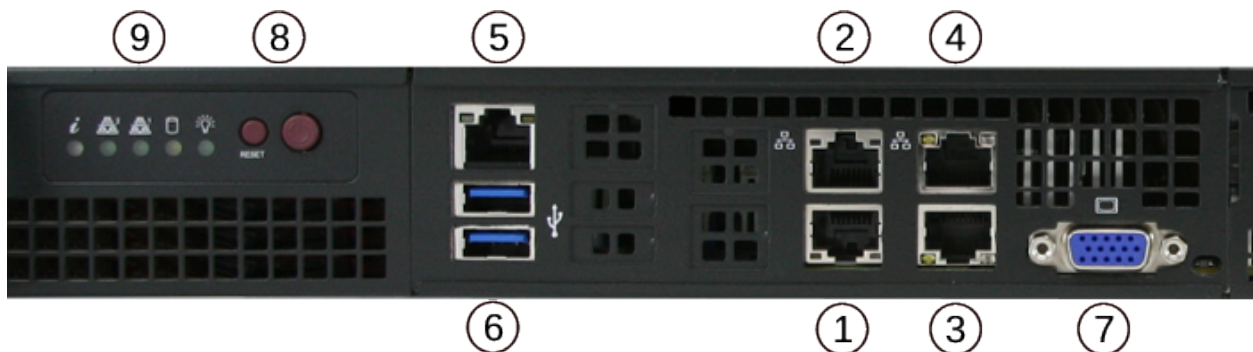
2. Once the Host OS is capable of reaching the Internet, check for updates ([Updating TNSR](#)) before proceeding. This ensures the security and integrity of the router before TNSR interfaces are exposed to the Internet.
3. Finally, configure the TNSR instance to meet the specific use case. The topics are listed on the left column of the [TNSR Documentation](#) site. There are also [TNSR Configuration Example Recipes](#) that might be of assistance when configuring TNSR.

## INPUT AND OUTPUT PORTS

### Contents

- *Input and Output Ports*
  - *Default Configuration*
    - \* *Network Ports*
    - \* *Other I/O*
    - \* *Status LEDs*
  - *With CPIC-8955 Accelerator Card with Intel® QuickAssist Technology*
  - *With 2 Port Intel 1 Gbps Ethernet Expansion Card*
  - *With 2 Port Intel 10 Gbps X710 SFP+ Expansion Card*
  - *With 4 Port Intel 1 Gbps Ethernet Expansion Card*
  - *With 4 Port Intel 10 Gbps X710 SFP+ Expansion Card*

### 2.1 Default Configuration



2.1.1 Network Ports

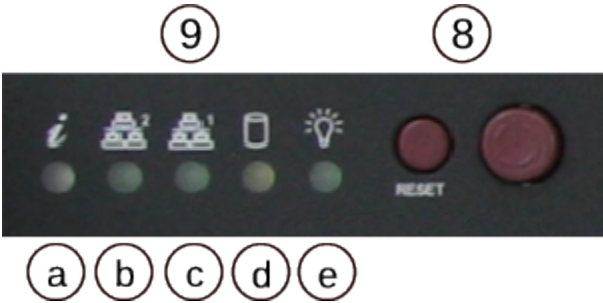
Port	Linux Label	TNSR Label	Port Type	Port Speed
1	eno1	GigabitEthernet6/0/0	RJ-45	1 Gbps
2	eno2	GigabitEthernet6/0/1	RJ-45	1 Gbps
3	eno3	TenGigabitEthernet3/0/0	RJ-45	10 Gbps
4	eno4	TenGigabitEthernet3/0/1	RJ-45	10 Gbps

**Note:** Default Host OS Interface is `eno1`. The Host OS Interface is one network interface that is only available to the host OS and not available in TNSR. Though technically optional, the best practice is to have one for accessing and updating the host OS.

2.1.2 Other I/O

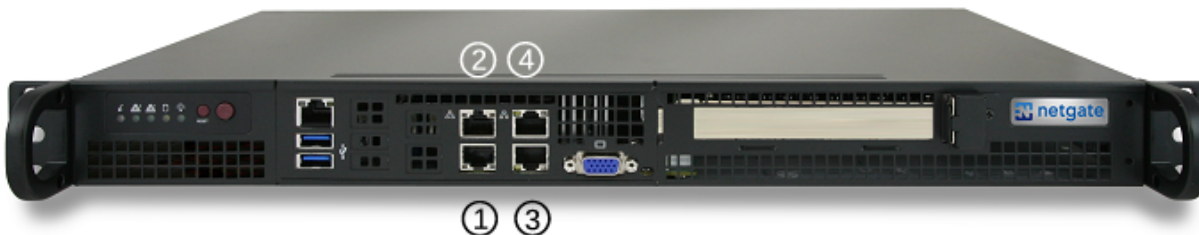
Port	I/O Type
5	IPMI
6	2x USB 3.0
7	VGA
8	Reset & Power buttons
9	Status LEDs (see table below)

2.1.3 Status LEDs



LED	State	Description
9a	Continuously on and red	An overheat condition has occurred. (This may be caused by cable congestion.)
	Blinking red (1Hz)	Fan failure, check for an inoperative fan.
	Blinking red (0.25Hz)	Power failure, check for a non-operational power supply.
	Solid blue	Local UID has been activated. Use this function through IPMI to locate the server in a rack mount environment.
	Blinking blue	Remote UID is on. Use this function through IPMI to identify the server from a remote location.
9b	Flashing	Indicates network activity on igb1 (upper left port).
9c	Flashing	Indicates network activity on igb0 (lower left port).
9d	Flashing	Indicates IDE channel activity on the hard drive.
9e	Illuminated	Indicates power is being supplied to the system power supply units. This LED should normally be illuminated when the system is operating.
	Off	Indicates no power is being supplied to the system power supply. System is powered off.
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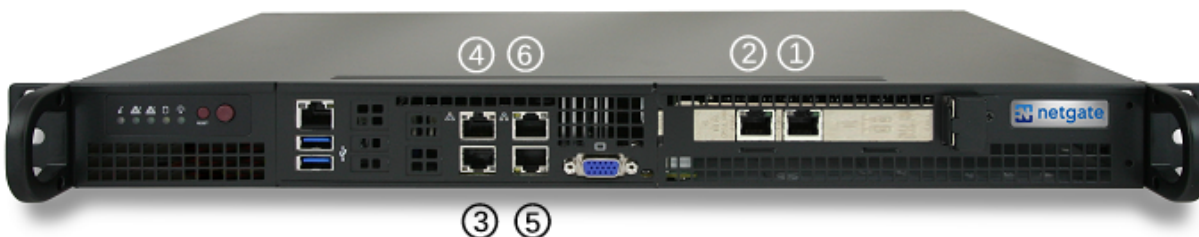
## 2.2 With CPIC-8955 Accelerator Card with Intel® QuickAssist Technology



Port	Linux Label	TNSR Label	Port Type	Port Speed
1	eno1	GigabitEthernet6/0/0	RJ-45	1 Gbps
2	eno2	GigabitEthernet6/0/1	RJ-45	1 Gbps
3	eno3	TenGigabitEthernet3/0/0	RJ-45	10 Gbps
4	eno4	TenGigabitEthernet3/0/1	RJ-45	10 Gbps

**Note:** Default Host OS Interface is `eno1`. The Host OS Interface is one network interface that is only available to the host OS and not available in TNSR. Though technically optional, the best practice is to have one for accessing and updating the host OS.

## 2.3 With 2 Port Intel 1 Gbps Ethernet Expansion Card



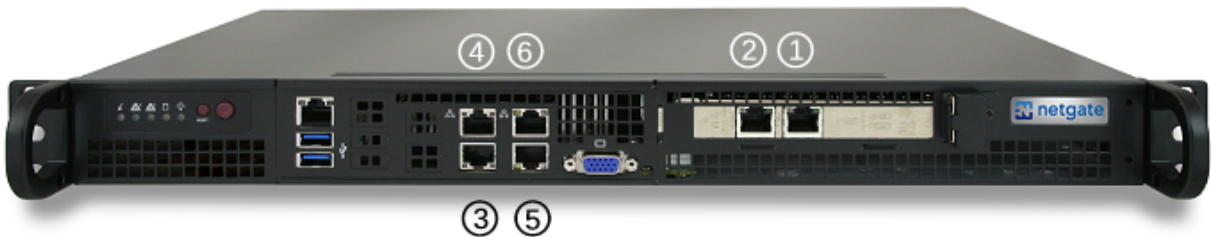
Port	Linux Label	TNSR Label	Port Type	Port Speed
1	ens2f0	GigabitEthernet5/0/0	RJ-45	1 Gbps
2	ens2f1	GigabitEthernet5/0/1	RJ-45	1 Gbps
3	eno1	GigabitEthernet7/0/0	RJ-45	1 Gbps
4	eno2	GigabitEthernet7/0/1	RJ-45	1 Gbps
5	eno3	TenGigabitEthernet3/0/0	RJ-45	10 Gbps
6	eno4	TenGigabitEthernet3/0/1	RJ-45	10 Gbps

**Note:** Default Host OS Interface is `eno1`. The Host OS Interface is one network interface that is only available to the host OS and not available in TNSR. Though technically optional, the best practice is to have one for accessing and



updating the host OS.

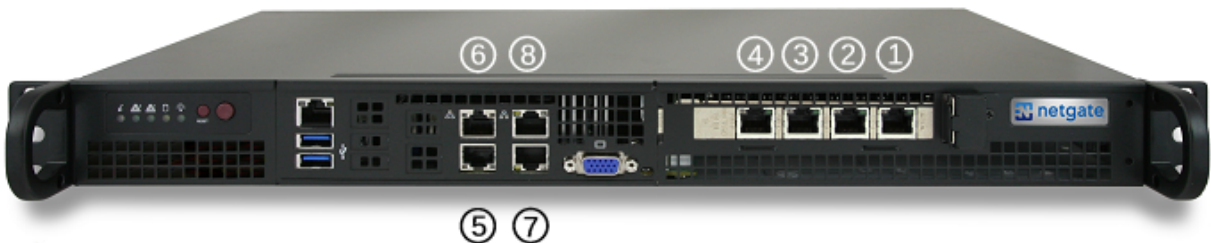
## 2.4 With 2 Port Intel 10 Gbps X710 SFP+ Expansion Card



Port	TNSR Label	Port Type	Port Speed
1	TenGigabitEthernet5/0/1	SFP+	10 Gbps
2	TenGigabitEthernet5/0/0	SFP+	10 Gbps
3	GigabitEthernet7/0/0	RJ-45	1 Gbps
4	GigabitEthernet7/0/1	RJ-45	1 Gbps
5	TenGigabitEthernet3/0/0	RJ-45	10 Gbps
6	TenGigabitEthernet3/0/1	RJ-45	10 Gbps

**Note:** Default Host OS Interface is `eno1`. The Host OS Interface is one network interface that is only available to the host OS and not available in TNSR. Though technically optional, the best practice is to have one for accessing and updating the host OS.

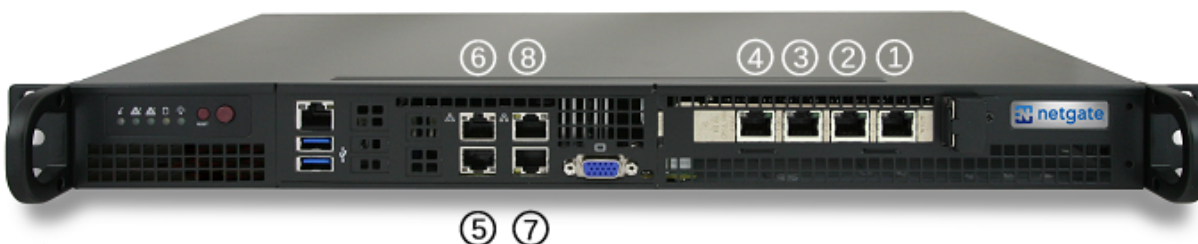
## 2.5 With 4 Port Intel 1 Gbps Ethernet Expansion Card



Port	Linux Label	TNSR Label	Port Type	Port Speed
1	ens2f0	GigabitEthernet5/0/0	RJ-45	1 Gbps
2	ens2f1	GigabitEthernet5/0/1	RJ-45	1 Gbps
3	ens2f2	GigabitEthernet5/0/2	RJ-45	1 Gbps
4	ens2f3	GigabitEthernet5/0/3	RJ-45	1 Gbps
5	eno1	GigabitEthernet7/0/0	RJ-45	1 Gbps
6	eno2	GigabitEthernet7/0/1	RJ-45	1 Gbps
7	eno3	TenGigabitEthernet3/0/0	RJ-45	10 Gbps
8	eno4	TenGigabitEthernet3/0/1	RJ-45	10 Gbps

**Note:** Default Host OS Interface is `eno1`. The Host OS Interface is one network interface that is only available to the host OS and not available in TNSR. Though technically optional, the best practice is to have one for accessing and updating the host OS.

## 2.6 With 4 Port Intel 10 Gbps X710 SFP+ Expansion Card



Port	TNSR Label	Port Type	Port Speed
1	TenGigabitEthernet5/0/3	SFP+	10 Gbps
2	TenGigabitEthernet5/0/2	SFP+	10 Gbps
3	TenGigabitEthernet5/0/1	SFP+	10 Gbps
4	TenGigabitEthernet5/0/0	SFP+	10 Gbps
5	GigabitEthernet7/0/0	RJ-45	1 Gbps
6	GigabitEthernet7/0/1	RJ-45	1 Gbps
7	TenGigabitEthernet3/0/0	RJ-45	10 Gbps
8	TenGigabitEthernet3/0/1	RJ-45	10 Gbps

**Note:** Default Host OS Interface is `eno1`. The Host OS Interface is one network interface that is only available to the host OS and not available in TNSR. Though technically optional, the best practice is to have one for accessing and updating the host OS.

## **CONNECTING TO THE CONSOLE PORT**

Connecting to the VGA console is identical to connecting any computer to a monitor. Connect the VGA cable (DB-15) between the Netgate appliance and the monitor. Use a USB or PS/2 keyboard and mouse as applicable to the hardware.

## ADDITIONAL RESOURCES

### 4.1 Professional Services

Support does not cover more complex tasks such as network design and conversion from other firewalls. These items are offered as professional services and can be purchased and scheduled accordingly.

<https://www.netgate.com/our-services/professional-services.html>

### 4.2 Netgate Training

Netgate training offers training courses for increasing your knowledge of Netgate products and services. Whether you need to maintain or improve the security skills of your staff or offer highly specialized support and improve your customer satisfaction; Netgate training has got you covered.

<https://www.netgate.com/training/>

### 4.3 Resource Library

To learn more about how to use your Netgate appliance and for other helpful resources, make sure to browse our Resource Library.

<https://www.netgate.com/resources/>

## WARRANTY AND SUPPORT

- One year manufacturer's warranty.
- Please contact Netgate for warranty information or view the [Product Lifecycle](#) page.
- All Specifications subject to change without notice.

Enterprise Support is included with an active software subscription, for more information view the [Netgate Global Support](#) page.

**See also:**

For more information on how to use pfSense® software, see the [TNSR Documentation](#) and [Resource Library](#).