



# Configuring Port Address Translation on KlasRouter

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The information in this article applies to:

- KlasRouter v2.0

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## 1.0 Introduction

This document describes how to configure the Port Address Translation (PAT) feature on KlasRouter. PAT is necessary when using a combination of public and private IP addresses between the Wide Area Network (WAN) interfaces and Local Area Network (LAN) interfaces. In order to route packets across the Internet, the WAN interface must be assigned a public IP address. Since public IP addresses are often scarce, most network administrators use private IP addresses on interfaces that are not directly connected to the Internet, such as the KlasRouter Ethernet LAN. PAT is used to convert the Ethernet LAN private IP addresses into a publicly routable IP address by assigning packets the public IP address from the WAN interface in addition to a unique port number identifying the Ethernet LAN interface. In this manner, all of the Ethernet LAN ports share the same public IP address when trying to access the Internet, but are distinguished by a unique port number for return packets. The following sections outline the steps needed to configure PAT with KlasRouter.

## 2.0 Configuration of KlasRouter

### 2.1 Cable Connections

Prior to beginning, ensure the following cable connections have been properly secured:

1. Power cord is plugged in and KlasRouter is on.
2. Control Port Cable is connected to the PCs serial port.
3. Control Port Cable is connected to the 'Control' port on the front of the KlasRouter.

### 2.2 Establishing a HyperTerminal Session

To configure the KlasRouter, you must establish a HyperTerminal Session between a PC and the KlasRouter. Follow the instructions in KlasRouter Application Note Q10601 to successfully establish a HyperTerminal Session and open the KlasRouter Main Configuration Menu.

### 2.3 Configuring the WAN Interface

KlasRouter has a Serial Wide Area Network (WAN) interface and an Ethernet WAN interface. Within the Serial WAN Interface, you can configure it for the PPP or HDLC protocols. PAT is available for the PPP and HDLC protocols on the Serial WAN Interface as well as the Ethernet WAN Interface. For more information on how to configure the WAN Interface, refer to the following KlasRouter Application Notes:

- Configuring the KlasRouter Serial WAN Port: App Note Q10603
- Configuring the KlasRouter Ethernet WAN Port: App Note Q10604

Note that the IP Address you use to configure these interfaces must be a public IP address.

## 2.4 Configuring the Ethernet LAN

Refer to the KlasRouter Application Note Q10605 for detailed information on how to configure the Ethernet LAN.

## 2.5 Configuring PAT

The following sections outline how to start and stop PAT. Follow the steps below to successfully configure the PAT feature on KlasRouter.

### 2.5.1 Starting PAT

1. Press '7' on the KlasRouter Main Configuration Menu to enter the Advanced Configuration Menu.
2. Press '1' on the Advanced Configuration Menu to enter the Port Address Translation Configuration Menu.
3. Depending on the WAN Interface you are using, follow one of the steps below to enable PAT on the WAN Interface, as shown below in Figure 1:
  - a. Press '1' to enable PAT on the PPP Serial WAN Interface.
  - b. Press '2' to enable PAT on the HDLC Serial WAN Interface.
  - c. Press '3' to enable PAT on the Ethernet WAN Interface.

```

Port Address Transl ati on Confi gurati on
-----
1) Start PAT on PPP
2) Start PAT on HDLC
3) Start PAT on Ethernet WAN
4) Stop PAT
5) PAT Status
Press 'x' to Return

Enter Opti on>3

Port Address Transl ati on enabl ed on Ethernet WAN Interface

Press Enter to return to PAT Confi gurati on Menu

```

**Figure 1. Starting PAT on the WAN Interface**

4. Press 'Enter' to return to the PAT Configuration Menu.

### 2.5.2 Stopping PAT

1. Press '7' on the KlasRouter Main Configuration Menu to enter the Advanced Configuration Menu.
2. Press '1' on the Advanced Configuration Menu to enter the Port Address Translation Configuration Menu.
3. Press '4' to stop PAT, as shown below in Figure 1.

```
Port Address Translation Configuration
-----
1) Start PAT on PPP
2) Start PAT on HDLC
3) Start PAT on Ethernet WAN
4) Stop PAT
5) PAT Status
Press 'x' to Return

Enter Option>4

Port Address Translation disabled on KlasRouter

Press Enter to return to PAT Configuration Menu
```

**Figure 2. Stopping PAT on the WAN Interface**

4. Press 'Enter' to return to the PAT Configuration Menu.

## MORE INFORMATION

For more information about KlasRouter and other Klas products, visit the following Klas website:

[www.klasonline.com](http://www.klasonline.com)

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