



# Configuring Domain Name Service on KlasRouter

*KB article reference no. Q10614*

*Version: 1.0*

*Keywords: KlasRouter, DNS, Dynamic DNS,*

The information in this article applies to:

- KlasRouter v2.0

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## 1.0 Introduction

This document describes how to configure Domain Name System (DNS) parameters with KlasRouter. KlasRouter offers two options for configuring DNS, the Domain Name Relay Daemon (DNRD) and Dynamic DNS. Dynamic DNS is a feature that allows KlasRouter to register its IP Address with a Dynamic DNS Server so that external entities can resolve its domain name with the KlasRouter IP Address. This is important because the IP Address given to KlasRouter through a DHCP Server will probably change frequently, but with Dynamic DNS the changing IP Address will be mapped to a static domain name that external entities can resolve using normal DNS procedures. DNRD is a KlasRouter service that acts as a proxy in order to forward DNS requests. DNRD is started upon booting up KlasRouter and will automatically pull DNS Server information from a DHCP Server connected to the Ethernet WAN port. Alternatively, users can manually configure primary and secondary DNS servers and when a client on the Ethernet LAN requests a DNS lookup, KlasRouter forwards the request onto those DNS Servers. The following sections outline the steps needed to configure DNS 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 KlasRouter, you must establish a HyperTerminal Session between a PC and the KlasRouter. Follow the instructions in KlasRouter Application Note 10601 to successfully establish a HyperTerminal Session and open the KlasRouter Main Configuration Menu.

### 2.3 Configuring Dynamic DNS

The following sections outline how to activate, deactivate, edit and update the DDNS information. Follow the steps below to successfully configure DDNS on KlasRouter.

#### 2.3.1 Activating Dynamic DNS

1. Enter '7' on the KlasRouter Main Configuration Menu to enter the Advanced Configuration Menu.
2. Enter '4' on the Advanced Configuration Menu to enter the DNS Configuration Menu.
3. Enter '1' on the DNS Configuration Menu to enter the Dynamic DNS Configuration Menu, shown below in Figure 1.

```

Dynamic DNS Configuration
-----

Dynamic DNS is currently deactivated.

Current Settings:
- Server:      www.dyndns.org
- Protocol :   dyndns2
- Login name:  myloginname
- Password:    mypassword
- My Address:  myhost.mydomain.com

1) Activate Dynamic DNS
2) Deactivate Dynamic DNS
3) Edit Settings
4) Update DNS Server
Press 'x' to Return

Enter Option>1

Dynamic DNS is activated.

```

**Figure 1. Activating Dynamic DNS**

4. Enter '1' to activate the Dynamic DNS feature using the current settings displayed, as shown in Figure 1.
5. Press 'Enter' to return to the Dynamic DNS Configuration Menu.

### 2.3.2 Deactivating Dynamic DNS

1. Enter '2' on the Dynamic DNS Configuration Menu to deactivate the Dynamic DNS feature, as shown in Figure 2.

```

Dynamic DNS Configuration
-----

Dynamic DNS is currently deactivated.

Current Settings:
- Server:      www.dyndns.org
- Protocol :   dyndns2
- Login name:  myloginname
- Password:    mypassword
- My Address:  myhost.mydomain.com

1) Activate Dynamic DNS
2) Deactivate Dynamic DNS
3) Edit Settings
4) Update DNS Server
Press 'x' to Return

Enter Option>1

Dynamic DNS is deactivated.

```

**Figure 2. Deactivating Dynamic DNS**

2. Press 'Enter' to return to the Dynamic DNS Configuration Menu.

### 2.3.3 Editing the Dynamic DNS Settings

1. Enter '3' on the Dynamic DNS Configuration Menu to edit the Dynamic DNS parameters.
2. The current status and Dynamic DNS settings will be displayed. Below that, a menu listing each parameter is available. Enter the number corresponding to the parameter you would like to edit. For example, in Figure 3 shown below, the login name is being changed from 'myloginname' to 'klas'.

```

Dynamic DNS Configuration
-----

Dynamic DNS is currently deactivated.

Current Settings:
- Server:          www.dyndns.org
- Protocol:       dyndns2
- Login name:     myloginname
- Password:       mypassword
- My Address:     myhost.mydomain.com

1) Server
2) Protocol
3) Login name
4) Password
5) My DNS Address
Press 'x' to Return

Enter Option>3

Enter new Login name ('q' to quit)>klas

New Login Name: klas

Press Enter to Return to Dynamic DNS Configuration

```

**Figure 3. Editing the Dynamic DNS Parameters**

3. Press 'Enter' to edit more Dynamic DNS parameters
4. When finished editing the parameters, press 'x' to return to the Dynamic DNS Configuration Menu.

### 2.3.4 Updating the Dynamic DNS Server

1. Enter '4' on the Dynamic DNS Configuration Menu to update the Dynamic DNS Server with the current parameters.
2. Enter the interface you would like to send the information out of, as shown in Figure 4. This must be an interface that has a route to the Dynamic DNS Server. After entering the interface information, KlasRouter will automatically attempt to contact the Dynamic DNS Server, authenticate the account and update the Server with the appropriate IP Address, as shown in Figure 4.

```

Dynamic DNS Configuration
-----

Dynamic DNS is currently deactivated.

Current Settings:
- Server:      www.dyndns.org
- Protocol :   dyndns2
- Login name:  klas
- Password:    mypassword
- My Address:  myhost.mydomain.com

1) Activate Dynamic DNS
2) Deactivate Dynamic DNS
3) Edit Settings
4) Update DNS Server
Press 'x' to Return

Enter Option>

Enter Interface Name (ixp1|ppp0|r560|'q' to quit)>ixp1

Updating DNS Server...

Press Enter to Return to Dynamic DNS Configuration

```

**Figure 4. Updating the Dynamic DNS Server**

3. Press 'Enter' to return to the Dynamic DNS Configuration Menu.

## **2.4 Configuring the Domain Name Relay Daemon (DNRD)**

The following sections outline how to start and stop the DNRD, as well as check the status of DNRD. Follow the steps below to successfully configure the DNRD on KlasRouter.

### **2.4.1 Start the DNRD**

1. Enter '7' on the KlasRouter Main Configuration Menu to enter the Advanced Configuration Menu.
2. Enter '4' on the Advanced Configuration Menu to enter the DNS Configuration Menu.
3. Enter '2' on the DNS Configuration Menu to enter the DNRD Configuration Menu, shown below in Figure 5.

```

Domain Name Relay Daemon Configuration
-----
1) Start DNRD
2) Stop DNRD
3) DNRD Status
Press 'x' to Return

Enter Option>

```

**Figure 5. DNRD Configuration Menu**

4. Enter '1' to start DNRD.
5. Enter the Primary DNS Server IP Address.
6. KlasRouter will prompt you to indicate whether you want to add a Secondary DNS Server. Enter 'y' to add another DNS Server or 'n' to return to the DNRD Configuration Menu.
7. If you opted to add a Secondary DNS Server from Step 5, enter the IP Address of that DNS Server. Figure 6 shows an example of the Primary and Secondary DNS Servers being entered.

```

Domain Name Relay Daemon Configuration
-----
1) Start DNRD
2) Stop DNRD
3) DNRD Status
Press 'x' to Return

Enter Option>

Enter DNS IP Address ('q' to quit)>68.87.71.226
Do you want to add a secondary DNS? (y/n/q)>y
Enter Secondary DNS IP Address ('q' to quit)>68.87.73.242
DNRD activated with DNS: 68.87.71.226 and Secondary DNS: 68.87.73.242
Press Enter to Return to DNRD Configuration

```

**Figure 6. Starting DNRD**

8. Press 'Enter' to return to the DNRD Configuration Menu.

### 2.4.2 Stop the DNRD

1. Enter '2' from the DNRD Configuration Menu to stop the DNRD.
2. Press 'Enter' to return to the DNRD Configuration Menu.

### 2.4.3 Check the DNRD Status

1. Enter '3' from the DNRD Configuration Menu to check the status of the DNRD, as shown below in Figure 7.

```
Domain Name Relay Daemon Configuration
-----
1) Start DNRD
2) Stop DNRD
3) DNRD Status
Press 'x' to Return

Enter Option>

DNRD is activated using DNS: 68.87.71.226 and Secondary DNS: 68.87.73.242
Press Enter to Return to DNRD Configuration
```

**Figure 7. Checking the DNRD Status**

2. Press 'Enter' to return to the DNRD 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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