ISis ImageStream®

Configuring Services: Serial Console (sconsole) Menu

Version: 3446

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Router Installation and Configuration Manual/Configuring Services: Serial Console (sconsole) Menu

This chapter describes how to operate the ImageStream router's serial console service. The serial console service allows you to connect a modem, dumb terminal, terminal program such as minicom, TeraTerm or Hyperterminal to the router for out-of-band console management and configuration.

This chapter includes the following topics:

◊ Default serial console settings
◊ Configuring the serial console for use with a terminal or terminal program
◊ Configuring the serial console for use with a modem
◊ Enabling the serial console at boot-time
◊ Disabling the serial console at boot-time
◊ Starting the serial console service
◊ Stopping the serial console service

Default Serial Console Settings

The default serial console settings are as follows. 9600 Baud, 8 data bits, No parity bit and 1 stop bit.

Enabling or Disabling Sconsole

After logging in, the main menu is displayed (your menu may look slightly different):

```
ISis-Router main menu
1. Configuration menu
2. Show interface status
3. Advanced
4. Router software management
5. Backup/Restore
6. halt/reboot
0. Log off
```

Select menu option 1, Configuration menu, and press **Enter** to configure the router. The Configuration menu should appear (your menu may look slightly different):

```
Configuration menu
1. AAA (Password) Configuration
2. Global configuration
3. Network interface configuration
4. Firewall and QOS configuration
5. Service configuration
6. Dynamic routing configuration
7. Save configuration to flash
0. ISis-Router main menu
```

Select menu option 5, Service configuration, and press **Enter** to configure the router's service configuration settings. The Service configuration menu will be displayed (again, your menu may look slightly different):

```
Service configuration
1. System scheduler (cron), (running)
2. Dialout PPP, (stopped)
3. IPSec VPN (Free S/Wan), (stopped)
4. NetFlow exporter (nprobe), (stopped)
5. network interfaces (sand), (running)
6. sconsole (mgetty), (running)
7. snmp (net-snmp), (stopped)
8. ssh (OpenSSH), (running)
0. Configuration menu
```

Select menu option 6, sconsole, and press **Enter** to configure the router's serial console settings. The sconsole menu will be displayed (again, your menu may look slightly different):

```
sconsole (mgetty), (running)
1. Configure sconsole options
2. Enable sconsole on boot
3. Disable sconsole on boot
4. Start sconsole
5. Stop sconsole
0. Service configuration
```

To configure sconsole, select menu option 1, Configure sconsole options, and press **Enter**. This will open the default sconsole configuration file in your default text editor (your file may look slightly different):

```
getty /bin/mgetty
tty     ttyS0
speed 9600
debug 0
```

Configuring the Serial Console for Use with a Terminal or Terminal Program

The order of the commands entered into this file is not important. The first step is to specify the Linux utility used to provide console services. Use the getty keyword to specify this program. The syntax for this command is:

```
getty { path to program }
```

Unless you have loaded your own serial tty control program onto the router, use the default value in the file.

The **tty** keyword specifies the serial port to use for serial console services. The tty command's syntax is:

```
tty { serial login terminal name }
```

Unless you want to use a secondary serial port, and your router is equipped with a secondary port, use the default value in the file.

The **speed** keyword specifies the baud rate to use with the serial console. The default value is 9600 baud, which is a common setting for most dumb terminals and other programs. The speed keyword uses the syntax:

```
speed { bps }
```

Note: Acceptable baud rates are 2400, 4800, 9600, 19200, 38400, 57600, and 115200. The serial port uses 8 data bits, no parity bit, 1 stop bit and provides hardware flow control. These settings are not configurable.

Configuring the Serial Console for Use with a Modem

1. Configure sconsole options

If you want to connect a modem to the router's serial port, you must add the "modem" keyword. This keyword will instruct the serial console program to initialize the attached modem and to automatically answer any inbound calls to that modem. Your modem must not be set to auto answer. The syntax of this command is:

```
modem
```

This command requires no parameters.

Once you have entered all of the configurations for your site in this file, save the file by pressing Control-X. If you have made changes to the file, the router will prompt you to save the file at the bottom of the screen:

```
Save modified buffer (ANSWERING "No" WILL DESTROY CHANGES) ?
Y Yes N No ^C Cancel
```

If you press Y on your keyboard. The router will prompt you for a file name:

```
File Name to write: /etc/sconsoled.conf
^C Cancel
```

You should accept the default filename. If you choose to save the file in a different location, the router will not automatically locate the file and instate any changes. Press **Enter** on the keyboard to accept the default. The **^C** notation indicates the key combination Control-C. You may press Control-C at any time during the save process to return to the file.

Note: You must save the settings to the router's non-volatile flash memory! If the router is rebooted before saving, your changes will be lost! See Chapter 26, "Backup/Restore Menu: Managing Configurations" for more information.

Once you have saved the file by pressing **Enter**, the router will display the following:

```
Stopping sconsole...done
Starting sconsole...done
```

and return you to the Serial console menu.

Enabling the Serial Console at Boot-time

2. Enable sconsole on boot

Selecting this menu option enables the serial console when the router is booted. This does not start the serial console service on the router if it is not running, unless the router is first rebooted. By default, the serial console is enabled on boot. To enable the serial console boot, select this menu option by pressing 2 and **Enter**. The router will display the following message:

```
sconsole enabled on boot.
```

If the serial console has already been enabled on boot, the router will display the message:

```
sconsole already enabled on boot.
```

The resulting message will only be displayed for a few seconds, and then you will be returned to the Serial console menu.

Disabling the Serial Console at Boot-time

3. Disable sconsole on boot

Selecting this menu option disables the serial console when the router is booted. This does not stop the serial console service if it is running, unless the router is first rebooted. To disable the serial console on boot, select this menu option by pressing 3 and **Enter**. The router will display the following message:

```
sconsole disabled on boot.
```

If the serial console has already been disabled on boot, the router will display the message:

```
sconsole already disabled on boot.
```

The resulting message will only be displayed for a few seconds, and then you will be returned to the Serial console menu.

Starting the Serial Console Service

4. Start sconsole

Selecting this menu option starts the serial console service on the router. Starting the serial console does not automatically enable the serial console when the router is booted. To start the serial console

service, select this menu option by pressing 4 and **Enter**. The router will display the following message:

```
Starting sconsole...done.
```

The message will only be displayed for a few seconds, and then you will be returned to the Serial console menu.

Stopping the Serial Console Service

5. Stopping sconsole

Selecting this menu option stops the serial console service on the router. Stopping the serial console configuration does not automatically disable the serial console when the router is booted. To stop the serial console service, select this menu option by pressing 5 and **Enter**. The router will display the following message:

```
Stopping sconsole...done.
```

The message will only be displayed for a few seconds, and then you will be returned to the Serial console menu.

Returning to the Service Configuration Menu

0. Service configuration

Selecting this menu option returns you to the "Service configuration" menu. To return to the Service configuration menu, press 0 and **Enter**. The router will display the Service configuration menu:

```
Service configuration
1. System scheduler (cron), (running)
2. Dialout PPP, (stopped)
3. IPSec VPN (Free S/Wan), (stopped)
4. NetFlow exporter (nprobe), (stopped)
5. network interfaces (sand), (running)
6. sconsole (mgetty), (running)
7. snmp (net-snmp), (stopped)
8. ssh (OpenSSH), (running)
0. Configuration menu
```

Returning to the Service Configuration Menu