

**FlowPoint SDSL Router**

Firmware version 3.7.x (May 3, 2000)

INTRODUCTION:

Thank you for choosing FlowPoint as your solution for Internet access and LAN-to-WAN connectivity.

The following documents are provided to help you with the setup and configuration of your router:

- Customer Release Notes (this document)
- Quick Start Guide (printed - discusses hardware setup, Web Easy Setup application)
- Command Line Interface document (on CD - covers console or Telnet configuration and advanced settings)

Important Note: Please, use the Quick Start Guide. Refer to the other documents, only if needed.

This document contains late-breaking information about your router and has the following sections:

- Hardware Compatibility
- Configuration Notes
- Key Changes in this Release
- Known Problems
- Documentation
- Technical Support

HARDWARE COMPATIBILITY:

This version of firmware supports the following hardware models: most hardware revisions of model 2210 or 2220. The hardware model number can be found on a label on the bottom of the router. The following product numbers will interoperate with the indicated DSLAM:

2200-12 Nokia SpeedLink™	2200-16 Copper Mountain Systems
2200-18 Point-to-Point router applications	2200-20 Promatary Communications
2200-22 Interspeed Frame Relay	2200-24 Lucent Stinger™
2200-32 Newbridge Networks	2200-34 Paradyne Hotwire™GrandSLAM

These product numbers are displayed by the web GUI or Quick Start after connecting to the router.

CONFIGURATION NOTES:

This device may be configured using several different methods:

- Using Easy Setup from a web browser connected to the router's default IP address of 192.168.254.254
- Using the Windows Quick Start application, which is installed from the Installation CD
- From the console port using the Command Line Interface (CLI) (requires console cable to be connected)
- From a Telnet session connected to 192.168.254.254, again using the CLI

Web Easy Setup GUI:

The simplest method is to use your web browser and connect to the router's built in Web Easy Setup application. Be sure to set your PC's IP driver to use DHCP to get an IP address from the router before trying to connect. If your PC is on a different LAN, type at a Window's DOS command prompt:

`route add 192.168.254.254 x.x.x.x`, where x is the PC's IP address.

To access the Web GUI, connect to 192.168.254.254 and use the username `login` and the password `admin`. Follow the prompts and enter the values provided by your Network Service Provider.

Security Caution:

DSL devices are always on by nature and can pose a data security risk if precautions are not taken.

This router supports HTTP access for configuration changes and this can be a security risk if access is not controlled. The web GUI has a 'Change Access Control' button. You may wish to select 'Allowed from LAN' to stop access from the Internet (WAN). Telnet access and SNMP access can also be disabled. The CLI provides additional commands that allow finer grained access controls.

IP Packet Filtering is included with your router, but it needs to be configured. It is discussed at length in the Command Line Interface document (on Installation CD). A sample set of filters is provided in the `FILTERS.TXT` file in the `samples` directory (see Samples below). Be sure to edit the file to fit your specific configuration and seek expert help if you are not familiar with security. IP filters only work if IP routing is enabled.

Additional Software Tools:

A set of Microsoft Windows applications are on the Installation CD that allows you to configure the router, install new software versions, and set up other advanced options.

There is also a Command Line Interface (CLI) that you may need to set up certain settings like IP filters, host mapping, IPX and optional features like encryption and VPN.

Sample configurations:

There are sample files with CLI configuration commands in the directory called `samples` (if you selected install documentation when installing the Windows Quick Start application). These script files can be edited to fit your specific configuration and then copied to the router using the Quick Start application by clicking the Tools and Execute Script buttons.

VPN Software Options:

L2TP, DES and are software options that can be installed on the router. However, they must be purchased separately and then activated. These are configured using the CLI. See the Command Line Interface document for details. Sample configuration files are provided in the `samples` directory.

Configuration Tips:

The SDSL router is a CPE (customer premise) device by default. If you are not connecting to a DSLAM (CO device) and want to set one router up as a CO (Central Office) enter the following command: `sd term co`.

The WAN line speed is manually set at the CO end and will be determined automatically at the CPE end (although you can specify the starting point of the search algorithm). On some models the WAN speed is set using a management channel.

Use the `ifs` command to show the physical link status (open is good).

The `remote stats` command indicates whether data is actually being received or sent (bytes in/out).

Use the `ping` command to verify the link.

Other handy commands:

<code>sd stats</code>	shows CRC errors on the WAN link (ATM)
<code>frame stats</code>	shows LMI statistics on the WAN link (Frame relay)
<code>sdsl speed xx</code>	start speed search at xx rate
<code>sdsl speed xx noauto</code>	set link speed to xx and disable auto speed searching
<code>atom findpvc on off</code>	used to detect and print unknown VPI/VCI numbers (ATM)

CUSTOMER RELEASE NOTES

KEY CHANGES IN THIS RELEASE:

New Features

- PPP over Ethernet - RFC2516
- Multiple Ethernet Subnets on the LAN supports NAT, RIP, DHCP, ARP and IP filters
- Virtual routes - different routing tables based on the source IP address
- Web GUI supports PPPoE bridging, feature activation, time setting
- Web GUI supports PPPoE login
- NAT supports multiple PPTP clients and one server per IP address
- SDSL Nokia EOC is supported (Requires R5 of Nokia SDSL DSLAM)
- ISDL Line provisioning diagnostics - 2B+D loopback
- Support for AccessLAN ISDL DSLAMs (144-16)
- Support for Paradyne SDSL line card (2200-34)
- Support for NewBridge SDSL router management channel (2200-32)

KNOWN PROBLEMS:

Some applications such as Microsoft Net Meeting and VOIP (H.323) that use IP or UDP protocols may have problems with Network Address Translation. You can avoid this problem by turning off NAT and running as a subnetwork to your ISP. Applications that are supported are: AOL chat, Cu SeeMe, Doom, FTP, L2TP, HTTP, Kali, Netbios over IP, PCanywhere, PPTP, Quake, Quicktime Video, Real Audio, RTSP, SGI Media Base, SMTP, StreamWorks, Telnet, TFTP, Unix commands (finger, rcp, rshell, rlogin, whois), VDO.

Some PPP termination systems do not completely support IP address negotiation. Communications with such systems can result in protocol hangs. The command:

```
remote setpppoptions reacqIPAddr off <remote name>
```

can be used to force the router to always request a new IP address whenever the PPP session is terminated, thus providing a work around until the software in the other systems has been changed.

MS Internet Explorer does not honor the no cache option. Thus old values appear in the Web GUI rather than the current ones. You need to hit the refresh button to see changed values. Netscape does not have this problem.

DOCUMENTATION:

The user manuals are included in soft copy format. The files are installed when the software is installed. You need the freely-available Acrobat Reader to view and print these documents. If you don't have the Acrobat Reader already installed on your system, you can install it from the Installation CD or from Adobe's Web site (<http://www.adobe.com/>). The Acrobat Reader is available for a very wide range of platforms, including MS Windows, Macintosh and many Unix systems.

TECHNICAL SUPPORT:

Should you have any difficulty installing or operating the product, feel free to contact Technical Support.

Before you call, please try to gather a trace file. If you can connect to the router with Quick Start, select 'Help' and 'Technical Support Data' from the menu. This will generate a file that can be used to analyze the problem.

If you can't connect to the router, but are able to use the console interface, use the Tools | Terminal Window menu and then select the 'Technical Support Data' item, or if you are using the Terminal or HyperTerminal applications that come with Windows or any other terminal emulation program (use the parameters: 9600, 8N1), type `system support` and copy and paste the result into a file.

Phone: +1(408) 878-6810

Fax: +1(408) 878-6801

Internet mail: support@flowpoint.com

FTP: [ftp.systemv.com/support](ftp://ftp.systemv.com/support)

Login: anonymous with password set to your email address