



**Efficient Networks 5800 Business Class Routers**

Firmware version 5.3.x (June 14, 2001)

**INTRODUCTION:**

Thank you for choosing Efficient Networks as your solution for Internet access.

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

- Customer Release Notes (this document – supercedes the copy on the release CD)
- User Guide (printed - discusses hardware setup, Web Easy Setup application)
- Command Line Interface (CLI document; on CD - covers console or Telnet use and advanced settings)
- Technical Reference Guide (on CD)

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

This document contains important 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 release note covers the following hardware models:

- 5851 SDSL (PN 120-5851-xxx)    5851 SDSL (PN 060-5851-xxx) w/ Rapid Secure HW
- 5861 ADSL (PN 120-5861-xxx)    5861 ADSL (PN 060-5861-xxx) w/ Rapid Secure HW
- 5865 ADSL / ISDN                    5871 IDSL

The software product numbers and DSLAMs supported are:

Standard	RapidSecure	DSLAM
5851-001	5851-035	SDSL ATM to the Nokia SpeedLink™ DSLAM (Covad)
5851-002	5851-038	SDSL ATM to the Nokia SpeedLink™ DSLAM
5851-004	5851-039	SDSL FR to the Copper Mountain DSLAM
5851-005	5851-031	SDSL Router pair for Point to Point to a second router
5851-006	5851-040	SDSL ATM to the Promatory/ Nortel UE IMAS DSLAM
5851-008	5851-041	SDSL ATM to the Lucent Stinger™, Lucent Anymedia™ DSLAM
5851-012	5851-042	SDSL ATM to the Newbridge Networks DSLAM
5851-015		SDSL ATM to the Paradyne DSLAM
5851-016	5851-043	SDSL ATM to the Promatory/ Nortel UE IMAS DSLAM (TMC)
5851-017	5851-044	SDSL ATM to the Lucent Stinger™ Autobaud DSLAM
5851-018	5851-045	SDSL ATM to the Nokia Stinger™ Autobaud DSLAM
5851-023	5851-037	SDSL ATM to the PairGain™ DSLAM
5861-002	5861-008	ADSL G.DMT compatible DSLAMs
5861-005		ADSL G.DMT compatible DSLAMs (SBC)
	5861-009	ADSL G.DMT compatible DSLAMs (Verizon)
	5861-012	ADSL G.DMT compatible DSLAMs (Covad)
5865-001		ADSL G.DMT Annex B or ETSI compatible DSLAMS
5871-001		IDSL Adtran, AccessLAN, Cisco, Lucent, New Bridge, Nokia, Pulsecom, Promatory
5871-003		IDSL to the Copper Mountain DSLAM

The model and product numbers are displayed by the web GUI 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. The 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 support advanced access controls.

**An IP Packet Filter Firewall is included with your router but requires configuration.** There is a Set Firewall page on the Web GUI where you can select maximum, medium, minimum or no security from the web GUI. These filter sets are also provided in the `samples` directory on the Installation CD. Firewalls are discussed at length in the Command Line Interface document. 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 host mapping, VRRP, IPX and optional features like L2TP.

#### Sample configurations:

There are sample files with CLI configuration commands on the Installation CD in the directory called `samples`. 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:

IPSec, L2TP, DES and Triple DES are software options that can be enabled on your router. They must be purchased separately from your supplier and then activated. IPSec and the associated Internet Key Exchange (IKE) can be configured using the Web GUI or by using the CLI. L2TP is configured using the CLI. See the CLI document for details. Sample configuration files are provided in the `samples` directory.

#### Network Address Translation (NAT):

This router has special feature code to support many applications through NAT.

The supported applications are: AOL chat, Cu SeeMe, Doom, FTP, L2TP, HTTP, Kali, Netbios over IP, Net Meeting, PCanywhere, PPTP, Quake, Quicktime Video, Real Audio, RTSP, SGI Media Base, SMTP, StreamWorks, Telnet, TFTP, Unix commands (`finger`, `rcp`, `rshell`, `rlogin`, `whois`), VDO.

Other applications that use IP or UDP protocols may have problems with NAT. You may be able to avoid this problem by running in TCP mode or by turning off NAT and running as a subnetwork to your ISP.

**KEY CHANGES IN THIS RELEASE:****Significant Changes in 5.3.x**

## Web GUI enhancements:

- New DHCP page shows current active leases, setting of pool and enable/ disable.
- New NAT page allows NAT enable/ disable; and setting of in bound NAT entries (equivalent to system addserver commands) and display current values.
- New Diagnostic page can display values for: PPPoE, interface, routing table, ATM or TCP
- New Firewall filters page. Allows 4 canned filter sets to be run.  
Files maxsec.txt, medsec.txt, minsec.txt and nosecc.txt must be pre-installed on router.

## Other Features:

- MIB additions:  
New WAN types - ifType: Add values ipOverATM(114), rfc1483(159), sdsI(96)  
Set fpdownload.fpOnlineDownload = 6 allows execution of a script file on router

## New commands:

- date MM/DD/YY - command to set date
- time HH:MM:SS - command to set time of day
- sntp enable|disable (see the CLI for sntp details)
- sntp prefServer, active, request, and server
- sntp offset <Minutes from UTC>
- ike commit [on|off|help] - sets the commit bit for traffic
- ike start (or stop) <ipsec policy name> - for ipsec debugging
- remote setPPPRetryTimer <retryTimerValue> <remoteName>  
where <retryTimerValue> is 0 for off (default) and 1 to 60 for random retry time

## Bug fixes

- Prohibit script file (autoexec.bat) from running when boot recovery mode active
- Fix Interoperability issue with Netscreen 2.5.x

**Significant Changes in 5.1.5**

- For ADSL revise reset modem timer to close the WAN port in case the handshake fails.  
The timer is started when the modem tries to activate and is stopped after a successful activation, or expires, whichever comes first. After <retries> occurrences of this stuck condition (consecutive, or not), the modem is reset (and the retry count reset to 0)
- Change debug timeout command 'dmt to <seconds> min=30, max=3600, default=45'  
(from 30 seconds to 1 hour per try)
- Add command: 'dmt retries <retries> min=1, max=10000, default=10'  
(1 retry means reset after 1 instance of the modem being stuck)  
Changes take effect immediately and are not saved to flash.

**Significant Changes in 5.1.2**

- For ADSL add a 45 sec timer to close the WAN port in case the handshake fails to complete.
- If the above fails to work after 10 attempts, do a reset on the ADSL chip.
- Add a debug DMT timeout command - dmt to x; where x is 45 by default. This is not saved in flash.

**Significant Changes in 5.1.0**

- H.323 Network Address Translation support.  
This allows Microsoft NetMeeting™ and CuSeeMe to work over address translation.
- Microsoft NetMeeting™ server support using addserver tcp 1503 and tcp h323 commands
- Allow hostnames on the Ping and Traceroute commands. e.g. ping www.yahoo.com.  
The DNS server must be set in DHCP or learned from WAN or LAN. (dhcp set value dns x.x.x.x).
- IP Filter type Forward has replaced the filter types Receive and Transmit

## Bug fixes:

- Fix memory leaks in Network address translation.
- Fix memory leak when receiving a packet on an interface that needed an IP address.
- Fix Web GUI memory leaks.
- Do not send a bootp or DHCP requests out a stopped dod interface.

## CUSTOMER RELEASE NOTES

- DSL firmware loaded by mistake in a dual-Ethernet router no longer hangs.
- Add changes to make PPP and dial on demand processing more robust.
- Repair problem where MLP link occasionally is stuck in the 'starting' state.

### KNOWN PROBLEMS:

Netscape users may have trouble installing the Windows applications from the release CD from their browser. The work around is to do a Windows Start and Run D:\dsltools\setup.exe to run the installer, where D: is the CD rom drive.

For H.323 support the fast connect setup and the Gatekeeper (H.245) functionality are not supported. This affects Voice over IP usage for NAT configurations.

Some PPP 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 4 does not honor the no cache option. Thus old values appear in the Web GUI rather than the current ones. You need to go to settings/internet options and set refresh to 'Every visit to the page' to see changed alues. This is not an issue with the Netscape browser.

### DOCUMENTATION:

The Command Line Reference manual, User Guide and draft Release Notes are included in soft copy format on the Installation CD. Use your Browser to open file index.htm on the CD for a table of contents.

You will 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. See if you can connect to the router with Telnet (for Windows, do a Start | Run | Telnet. Login with the administrative password and type `system support` . Copy and paste the result into a file. 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 Terminal or HyperTerminal applications that come with Windows (use the parameters: 9600, 8N1), type `system support` and copy and paste the result into a file.

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