

Patch Release Note

Patch 54266-01

For AR440S and AR441S ADSL Routers

Introduction

This patch release note lists the issues addressed and enhancements made in patch 54266-01 for Software Release 2.6.6 on existing models of AR440S and AR441S ADSL routers. Patch file details are listed in [Table 1](#).

Table 1: Patch file details for Patch 86264-03.

Base Software Release File	54-266.rez
GUI Resource File Names	d440Se14.rsc (AR440S) d441Se14.rsc (AR441S)
Patch Release Date	21-Oct-2004
Compressed Patch File Name	54266-01.paz
Compressed Patch File Size	161304 bytes

This release note should be read in conjunction with the following documents:

- Release Note: Software Release 2.6.6 for AR440S ADSL Routers (Document Number C613-10412-00) available from www.alliedtelesyn.co.nz/documentation/documentation.html.
- AR400 Series router Documentation Set for Software Release 2.6.6 available on the Documentation and Tools CD-ROM packaged with your switch, or from www.alliedtelesyn.co.nz/documentation/documentation.html.
- Errata to the Documentation: Software Release 2.6.6 for AR440S ADSL Routers (Document Number C613-06011-00) available from www.alliedtelesyn.co.nz/documentation/documentation.html.



WARNING: Using a patch for a different model or software release may cause unpredictable results, including disruption to the network. Information in this release note is subject to change without notice and does not represent a commitment on the part of Allied Telesyn International. While every effort has been made to ensure that the information contained within this document and the features and changes described are accurate, Allied Telesyn International can not accept any type of liability for errors in, or omissions arising from the use of this information.

Some of the issues addressed in this Release Note include a level number. This number reflects the importance of the issue that has been resolved. The levels are:

- Level 1** This issue will cause significant interruption to network services, and there is no work-around.
- Level 2** This issue will cause interruption to network service, however there is a work-around.
- Level 3** This issue will seldom appear, and will cause minor inconvenience.
- Level 4** This issue represents a cosmetic change and does not affect network operation.

AR441S ADSL Router Hardware Platform

Patch 54266-01 includes support for the AR441S ADSL (Annex B) router.

Each AR441S router consists of a base CPU card, enclosure, and power supply. The base CPU card supports:

- One Asymmetric Digital Subscriber Line (ADSL) Annex B port.
- Five 10/100 LAN switch ports.
- One asynchronous RS-232 (ASYN0) port.

The PIC bay can accommodate any of the following PICs:

- AT-AR020 PRI E1/T1 PIC, one Primary Rate E1/T1 port.
- AT-AR021(S) BRI-S/T PIC, one Basic Rate ISDN S/T port.
- AT-AR021(U) BRI-U PIC, one Basic Rate ISDN U port.
- AT-AR022 ETH PIC, one Ethernet LAN AUI/10BASE-T port.
- AT-AR023 SYN PIC, one Synchronous port with universal 50-way AMPLIMITE connector.
- AT-AR024 ASYN4 PIC, four Asynchronous ports with RJ-45 connectors.
- AT-AR026 4ETH PIC, four 10BASE-T/100 BASE-TX auto-negotiating ports with RJ-45 connectors.
- AT-AR027 VoIP-FXS PIC, two Foreign Exchange Subscriber (FXS) ports with RJ-11 connectors.

Main system

Main features of the AR440S routers are:

- 300 MHz RISC processor.
- 64 MBytes of SDRAM.
- 16 MBytes of flash memory (1 MByte reserved for boot block code).
- 5 x 10/100 Mbps full duplex, Layer 2 switched Ethernet LAN ports. All LAN ports have Auto-MDI, however if Auto-MDI is turned off, then all ports are hardwired as MDI-X. Software can also force a port to either MDI or MDI-X. 802.1Q tagged VLANs are supported.
- 1 x ADSL Annex B port
- 1 x asynchronous DTE port.
- Universal AC power supply.
- On-board hardware encryption processor for DES, 3DES and AES.



Some encryption options may require feature licenses.

The RS-232 asynchronous serial port (ASYN 0) has a DB9 male connector, is wired as a DTE port and can be used as a general purpose port for terminals, printers or modems. The default communications settings are:

- 9600 bps
- 8 data bits
- 1 stop bit
- no parity
- hardware flow control

ADSL Interfaces

The ADSL port has an RJ11 connector, and supports Dying Gasp.

Power supply

The routers have a universal AC input connector and a power switch on their rear panel. The routers require a power input of 100-240 VAC and 50–60Hz.



Some interfaces that may be installed in the router are not transformer isolated. This means they will be referenced to the frame ground of the equipment and may be damaged if connected to an interface on another piece of equipment which is at a different ground potential.

For more information about the hardware, see the *AR400 Series Hardware Reference* on the *Documentation and Tools CD-ROM*.

PCR: 40613 Module: SYN Level: 3

When the Test facility was used to test an AR023 synchronous PIC interface, it sent some debugging messages, "SYNCheckInterface", to the console port. This issue has been resolved: the Test facility no longer sends these messages.

PCR: 40618 Module: Firewall Level: 3

When NAT was enabled and the router was configured to pass FTP requests to a server inside the network, the Firewall translated the ftp-data source port (tcp/20) of an FTP server located on a private interface to another port. Such packets no longer conformed strictly to RFC 959, and some other firewalls on the Internet may then have denied them. This issue has been resolved: the Firewall now sends all ftp-data packets from port 20 on the firewall, whether or not NAT is enabled.

PCR: 40619 Module: IPG Level: 2

The output of the **show config dynamic** command incorrectly displayed the following parameters for the **set ipv6 prefix** command, even when they were not specified with the command:

- The **valid** parameter displayed an incorrect value; the router did not use this incorrect value.
- The **preferred** parameter displayed an incorrect value; the router did not use this incorrect value.
- The **onlink** parameter displayed the default value **yes**.
- The **autonomous** parameter displayed the default value **on**.

This issue has been resolved: the unused parameters are no longer displayed.

PCR: 40625 Module: SWK Level: 2

The GUI on the AR441S did not display a port map on the System Status page. This issue has been resolved. GUI resource file **d441Se14.rsc** or later is also required to display the port map on the AR441S.

PCR: 40629 Module: Firewall Level: 2

A fatal exception in the firewall occurred occasionally when a large number of proxied connections were rapidly established, for example, during a SYN attack. This issue has been resolved.

PCR: 40633 Module: ENCO Level: 2

The encryption engine on the AR441S was not initialised. 3DES outer, 3DES inner and AES encryption algorithms were not available. This issue has been resolved.

PCR: 40638 Module: Firewall Level: 2

When a global interface was dynamically assigned an IP address via DHCP or PPP, NAT configurations with dynamic private interfaces (**interface=dyn-<dyn-int-name>**) were not updated. This resulted in the failure of sessions received on dynamic private interfaces because the global IP address was invalid. This issue has been resolved.

PCR: 40647 Module: ETH**Level: 2**

When a virtual Eth interface was created over ATM, for example, using the command:

```
create eth=0 over=atm=0.1
```

and a VPN configuration was applied directly to that Eth interface, the router ran out of buffers and caused a fatal exception under heavy reception load.

This issue has been resolved: a limit has now been set so that the virtual Ethernet interfaces, like physical Eth interfaces, stop reception by dropping excess packets when the ethernet receive queue is too long or when the router is running out of buffers. The `ifInDiscards` counter, displayed in the output of the **show eth counter** command, is incremented when this happens on a virtual Eth interface.