Software Maintenance Release Note

Maintenance Version 291-10

for AR415S, AR440S, AR441S, AR442S, AR450S, AR725, AR745, AR750S, AR750S-DP, and AR770S routers and AT-8600, AT-8700XL, Rapier i, Rapier w, AT-8800, AT-8900, x900-48, AT-9900, and AT-9800 Series switches

This software maintenance release note lists the issues addressed and enhancements made in Maintenance Version 291-10 for Software Version 2.9.1. Version details are listed in the following table:

Models	Series	Release File	Date	Size (bytes)	GUI file
AR415S, AR440S, AR441S, AR442S, AR450S	AR400	54291-10.rez	24 July 2007	4946220	415s_291-10_en_d.rsc 440s_291-10_en_d.rsc 441s_291-10_en_d.rsc 442s_291-10_en_d.rsc 450s_291-10_en_d.rsc
AR750S, AR750S-DP, AR770S	AR7x0S	55291-10.rez	24 July 2007	4074888	750s_291-10_en_d.rsc (AR750S and AR750S-DP)
AR725, AR745	AR7x5	52291-10.rez	24 July 2007	4114292	_725_291-10_en_d.rsc _745_291-10_en_d.rsc
AT-8624T/2M, AT-8624PoE, AT-8648T/2SP	AT-8600	sr291-10.rez	24 July 2007	2468216	8624t_291-10_en_d.rsc 8624poe_291-10_en_d.rsc 8648t_291-10_en_d.rsc
AT-8724XL, AT-8748XL	AT-8700XL	87291-10.rez	24 July 2007	2411128	8724_291-10_en_d.rsc 8748_291-10_en_d.rsc
Rapier 24i, Rapier 48i, Rapier 16fi	Rapier i	86291-10.rez	24 July 2007	4587048	r24i_291-10_en_d.rsc r16i_291-10_en_d.rsc r48i_291-10_en_d.rsc
Rapier 48w	Rapier w	86291-10.rez	24 July 2007	4587048	-

Models	Series	Release File	Date	Size (bytes)	GUI file
AT-8824, AT-8848	AT-8800	86291-10.rez	24 July 2007	4587048	8824_291-10_en_d.rsc 8848_291-10_en_d.rsc
AT-8948, AT8948i, x900-48FE, x900-48FE-N, x900-48FS	x900-48	89291-10.rez	24 July 2007	4884216	-
AT-9924T, AT-9924SP, AT-9924T/4SP	AT-9900	89291-10.rez	24 July 2007	4884216	9924_291-10_en_d.rsc
AT-9812T, AT-9816GB	AT-9800	sb291-10.rez	24 July 2007	3988344	9812_291-10_en_d.rsc 9816_291-10_en_d.rsc

Caution: Using a maintenance version on the wrong model may cause unpredictable results, including disruption to the network.

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

■   the Release Note for Software Version 2.9.1, available from www.alliedtelesis.co.nz/documentation/relnotes/relnotes.html, which describes the new features since Version 2.8.1

■   your router or switch's Document Set for Software Release 2.9.1. This document set is available on the CD-ROM that shipped with your router or switch, or from www.alliedtelesis.co.nz/documentation/documentation.html

Caution: Information in this release note is subject to change without notice and does not represent a commitment on the part of Allied Telesis, Inc. While every effort has been made to ensure that the information contained within this document and the features and changes described are accurate, Allied Telesis, Inc. can not accept any type of liability for errors in or omissions arising from the use of this information.

Enabling and Installing this Release

To use this maintenance release you must have a base release license for Software Release 2.9.1. Contact your distributor or reseller for more information about licences. To enable this release and install it as the preferred release, use the commands:

```
enable rel=xx291-10.rez num=2.9.1

set install=pref rel=xx291-10.rez
```

where *xx* is the prefix to the filename, as shown in the table on page 1. For example, to install the release on an x900-48FE switch, use the commands:

```
enable rel=89291-10.rez num=2.9.1

set install=pref rel=89291-10.rez
```

Levels

Some of the issues addressed in this Maintenance Version 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.

Features in 291-10

Software Maintenance Version 291-10 includes the resolved issues and enhancements in the following tables. In the tables, for each product series:

- "Y" indicates that the resolution is available in Version 291-10 for that product series.

- "–" indicates that the issue did not apply to that product series.

Level 1

No level 1 issues

Level 2

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016759	Switching, DHCP Snooping	2	Enabling DHCP snooping (correctly) adds a hardware filter to all untrusted ports, to block all IP traffic coming from those ports. Previously, disabling DHCP snooping did not delete these filters. This meant that the switch dropped all IP traffic from the previously-untrusted ports until the switch was restarted. Also, attempting to manually delete the hardware filters did not actually remove them. These issues have been resolved. The switch now removes the filters if you disable DHCP snooping or manually delete the filters.	-	-	-	-	-	-	-	-	Y	Y	-
CR00018655 CR00018656	IP Gateway	2	If the user did not specify the **destination** and **dmask** parameters when entering the **set ip filter** command, the destination and dmask of the filters were reset to **any**. Also, it was not possible to delete an IP filter by using the **delete ip filter** command, even when all required parameters were present. These issues have been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00018663	**Switching**	**2**	The resolution to CR 444 meant that packets processed by the CPU are now subjected to the same filtering as packets switched in hardware. However, this filtering did not always return the expected results. Sometimes its IP address matching was incorrect, and it did not correctly process filters with an action of **nodrop**. These issues have been resolved.	-	-	-	Y	Y	Y	Y	Y	-	-	-
CR00018691	**OSPF**	**2**	On a router or switch with OSPF redistribution enabled, OSPF did not redistribute the interface route when an interface came up (for example, after a reboot). This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00018693	**QoS**	**2**	QoS policies, traffic classes, and flow groups could not have an ID number of 0 (zero). This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00018778	**IP NAT, Firewall**	**2**	When using IP NAT, the router or switch would reboot when processing TCP SYN packets. This issue only occurred with IP NAT, which is configured by using the **add ip nat** command. It did not occur with firewall NAT. This issue has been resolved.	Y	Y	Y	-	-	-	-	-	-	-	-

Level 3

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00018514	**Ping**	**3**	Traceroute (the **trace** command) did not work. It returned the error "The destination is either unspecified or invalid" even if the destination was reachable. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Level 4

No level 4 issues

Enhancements

No enhancements

Features in 291-09

Software Maintenance Version 291-09 includes the enhancement in the following table, which is available for x900-48FE and x900-48FE-N switches.

Level 1-4

No level 1-4 issues

Enhancements

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00018530	**Core**	**-**	CPU fan monitoring is now disabled by default on x900-48FE and x900-48FE-N switches. Monitoring the fan is unnecessary unless an accelerator card is installed on the switch, so disabling monitoring reduces the number of messages that the switch displays and logs. To enable monitoring, use the command: 　　enable cpufanmonitoring To disable it again, use the command: 　　disable cpufanmonitoring When monitoring is enabled, the command **show system** displays the CPU fan status in the entry labelled "Main fan". Note that this behaviour is already available on AT-8948 switches.	-	-	-	-	-	-	-	-	Y	-	-

Features in 291-08

Software Maintenance Version 291-08 includes the resolved issues and enhancements in the following tables. In the tables, for each product series:

■ "Y" indicates that the resolution is available in Version 291-08 for that product series.

■ "−" indicates that the issue did not apply to that product series.

Level 1

No level 1 issues

Level 2

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00000444	Switching, IGMP, IP Gateway	2	If a packet should have matched a hardware filter with a **deny** action and have been discarded, but an IP routing entry had not yet been learnt for the packet, then the packet was not discarded. This issue has been resolved and the packet is now discarded.	-	-	-	Y	Y	Y	Y	Y	-	-	-
CR00000484	Switching	2	When a **nodrop** action was specified on a port as part of an L3 filter, it was observed that the port was still dropping packets. This was observed after the ARP entry for the destination IP expired from the switch's L3 table. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	-	-	-
CR00001231	Firewall	2	The router or switch sometimes recorded more events in its deny event queue than was specified by the **detail** parameter of the **set firewall policy attack** command. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00003495	**Classifier**	**2**	The following issues existed with classifiers: ■ classifiers matching **protocol=ipv6** and **ipprotocol=icmp** could be created more than once ■ classifiers matching **protocol=ipv6** and **ipprotocol=1** could be created but were meaningless because 1 represents IPv4 ICMP ■ classifiers matching **protocol=ip** and **ipprotocol=58** could be created but were meaningless because 58 represents IPv6 ICMP. These issues have been resolved. Also, classifiers now default to **protocol=ip** (IPv4) if: ■ no value is specified for the **protocol** parameter, or ■ **protocol=any** and **ipprotocol=icmp**.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00004018	**VLAN**	**2**	Removing then re-adding ports to a Nested VLAN, with rapid STP enabled, caused the port in the Alternate Discarding state to leak a small number of packets. This issue has been resolved.	-	-	-	-	-	-	-	-	-	Y	-
CR00005472	**BGP**	**2**	When BGP was in the OpenSent state and it received an out-of-sequence message (such as a KeepAlive message), BGP would return to the Idle state. This issue has been resolved. BGP now sends a notification message to the other BGP peer, as expected.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00005812	**IP Gateway**	**2**	When the router or switch received an IP packet whose length was greater than the MTU on the outgoing link, and the packet contained an IP option that was not designed to be fragmented (such as Timestamp), then the resulting constituent fragments would have incorrect IP header lengths. This could lead to data corruption. On routers, this issue applied to all routed packets. On switches, it applied to packets processed by the CPU, not to packets switched in hardware. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00007178	**RIPng**	**2**	The following issues occurred with RIPng: ■ RIPng dropped requests from peers with non link-local addresses. ■ for a solicited response, if the routes did not exist on the device, RIPng returned a metric of 0 for them instead of returning a metric of 16 ■ RIPng performed split-horizon checking for solicited responses ■ RIPng used the link-local address to respond to all requests, even if the request used a non link-local address and therefore the reply should have also used a non link-local address These issues have been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00008847	**Install, MIB**	**2**	Previously, the MIB objects configFile and createConfigFile would return the current configuration file, and the MIB object currentConfigFile would return 'no such object'. This issue has been resolved. The objects configFile and createConfigFile now return the boot configuration file. The object currentConfigFile now returns the current configuration file.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00009473	**Classifier**	**2**	The output of the **show classifier=**_number_ command did not show the protocol number. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00010654	**Firewall**	**2**	When adding a firewall application rule, it was possible to specify FTP as the application but not specify the **command** parameter. This meant that the rule would allow all FTP commands through, even if **action=deny** had been specified. This issue has been resolved by making the **command** parameter mandatory when the application is specified as FTP.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00010951	**PPP**	**2**	If the router or switch received an LCP packet with an unrecognised code, it responded with a CodeReject packet of incorrect length that did not respect the established MRU of the peer. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00010967	**PPP**	**2**	If the router or switch received an LCP packet with an unrecognised protocol, it responded with a ProtocolReject packet of incorrect length that did not respect the established MRU of the peer. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00010968	**PPP**	**2**	When the established Maximum Receive Unit (MRU) of the remote PPP peer was greater than the established MRU of the local PPP peer, Echo Reply packets did not respect the established MRU of the remote peer. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00011231	**Core**	**2**	In most circumstances the stack dump for an AR7x5 router was invalid and did not contain complete information about the cause of a reboot. This issue has been resolved.	-	Y	-	-	-	-	-	-	-	-	-
CR00012218	**VPN, GUI**	**2**	Enabling VPN (IPsec) on the GUI caused the GUI VPN page to stop displaying information about some or all of the existing VPN policies. This issue has been resolved.	Y	-	Y	-	-	-	-	-	-	-	-
CR00012727	**OSPF**	**2**	Sometimes when a type 7 external LSA was translated to a type 5 external LSA the forwarding address was set to 0.0.0.0 in the translated type 5 LSA. This issue has been resolved, so that the forwarding address is always copied from the type 7 LSA being translated.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00012751	**OSPF**	**2**	When the router or switch is acting as an area border router and one of the areas is an NSSA (Not So Stubby Area), the router or switch will create a default route for the NSSA and inject this into the NSSA. Previously, the router or switch was also redistributing this route into other areas as a static route when static route redistribution was turned on. This was not desirable behaviour. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00012871	**TTY**	**2**	Unexpected characters could appear on the terminal emulator display when the column size was set greater than 80 and the user edited a command that spanned more than one line of the display. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013597	**DVMRP, Frame Relay**	**2**	If a frame relay interface was configured as a DVMRP interface, then the DLC value was not correctly generated in output of the command **show config dynam** or in the configuration script generated by the command **create config**. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	-	-	-	-
CR00013660	**Core, SNMP**	**2**	Previously, SNMP returned an incorrect product ID number for AR750S-DP routers. This issue has been resolved. The value of the sysObjectID object is now 80 for AR750S-DP routers.	-	-	Y	-	-	-	-	-	-	-	-
CR00013735	**LACP, Switching**	**2**	When moving ports from an LACP-controlled trunk to a manually-configured trunk, ports were incorrectly set in an STP blocking state. Therefore, traffic would not flow over the trunk. This issue has been resolved. Note: When you move ports from an LACP-controlled trunk to a manually-configured trunk, you must delete the ports from LACP.	-	-	-	-	-	-	-	-	Y	Y	-
CR00013763	**OSPF**	**2**	If the obsolete command **set ospf rip=both** was entered, the router or switch correctly automatically replaced it with the following two commands in the dynamic configuration: add ospf redistribute protcol=rip set ospf rip=export However, if the command **create config** was used to save the configuration, after system start-up the configuration file did not contain the command **add ospf redistribute protocol=rip**. This meant that OSPF stopped redistributing RIP routes after a reboot. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013778	**IPv6**	**2**	If a user shortened the prefix length of an IPv6 interface address, then lengthened it, it became impossible to change the prefix length again. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00013893	**MSTP**	**2**	Executing the commands **disable mstp port=**_number_ or **enable mstp port=**_number_ would not disable or enable the port on all MSTIs. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	-
CR00013982	**L2TP**	**2**	An L2TP call could be deleted when still attached to the PPP interface. Doing this caused the router or switch to reboot. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	-	-	-	-
CR00014044	**IGMP**	**2**	When large numbers of multicast streams were passing through the switch and there was no multicast routing protocol running (such as PIM or DVMRP), the CPU would experience regular periods of extended high utilisation. This could result in lost control packets and network instability. This issue has been resolved.	-	-	-	-	-	-	-	-	-	-	Y
CR00014146	**TTY**	**2**	When a file was redirected (for example, by a trigger), if the mail hostname was not available or not configured, the router or switch would reboot. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014230	**TTY**	**2**	If the built-in editor was used to delete the last line of a file, the router or switch could reboot. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014295	**IGMP**	**2**	IGMP snooping would process IGMP protocol packets that had incorrect IP TTL fields (i.e. that had values other than 1). This issue has been resolved.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014320	**OSPF**	**2**	Occasionally, when OSPF was started, not all the Type-7 LSAs were translated into Type-5 LSAs. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014827	**PIM6**	**2**	If an IPv6 accelerator was used, and the upstream router forwarded IPv6 multicast data just before the prune limit timer expired, then the downstream router sometimes did not send the prune until significantly after the timer expired. This issue has been resolved.	-	-	-	-	-	-	-	-	Y	Y	-
CR00015169	**MSTP, GUI**	**2**	Using the web-based GUI to set the Point-to-Point Link in the MSTP CIST Port configuration to a non-default value would generate an error. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	-
CR00015805	**ISAKMP, IPv6**	**2**	During the boot up, the router or switch waited 5 seconds before beginning ISAKMP prenegotiation. For VPN tunnels over IPsec for IPv6, this was not long enough for the router or switch's interfaces to come up before prenegotiation began. Also, the router or switch did not obtain the most recent active ISAKMP SA when multiple SAs existed. These issues have been resolved. The router or switch now waits 6 seconds, and obtains the most recent SA and uses that for Phase 2 negotiations.	Y	Y	Y	Y	Y	Y	-	-	-	-	-
CR00015964	**Switching**	**2**	If the switch had a large number of routes in its forwarding database (FDB), and the command **show switch fdb** was used to display the contents of the FDB, and the switch's CPU was busy at the time, then the switch sometimes rebooted. This issue has been resolved.	-	-	-	-	-	-	-	-	Y	Y	-
CR00016262	**Load**	**2**	When attempting to upload files from the switch using TFTP to an IPv4 server address, the router or switch reported an error if IPv6 was not enabled. It was not possible to upload files using TFTP to an IPv6 server address at all. These issues have been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016340	**DHCP Snooping**	**2**	DHCP Snooping has been enhanced to operate in a customised VLAN ID translation (VID translation) environment. Previously, DHCP Snooping was not supported with VID translation. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016587	**IPv6**	**2**	The timer that governs the interval between repeated neighbour solicitation messages could only be configured by using the **ndretrans** parameter of the **set ipv6 nd** command, and not through router advertisements that the router or switch received from other routers. This issue has been resolved. Instead of using the **ndretrans** parameter of the command **set ipv6 nd**, use the **retrans** parameter to configure the timer interval. Also,routers or switches acting as hosts will now correctly update their timer values to the value specified in any router advertisements that they receive.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016592	**DHCP6**	**2**	Previously, it was possible to enter the incomplete commands **delete dhcp6 policy=**name or **set dhcp6 policy=**name without specifying any other parameters. This issue has been resolved. If this is done, the router or switch now displays the warning: Warning (2117007): One or more parameters may be missing.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016840	**STP**	**2**	Previously, when the switch was a Spanning Tree root bridge in a network and a user raised the switch's root bridge priority enough to stop the switch from being the root bridge, unnecessary delays in convergence occurred. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00016956	**IP Gateway**	**2**	The **set ip filter** command would not accept the **protocol** parameter. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016964	**ISAKMP**	**2**	When the router or switch negotiated an IPsec tunnel with RFC3947 NAT-T, its NAT-OA payload had two bytes of reserved fields after the ID field instead of the three bytes specified by RFC 3947. This could prevent the tunnel from working properly when the tunnel was between an Allied Telesis router or switch and some other vendor. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	-	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016985	**ATM**	**2**	If a PPP instance was destroyed after an attached ATM channel had been modified using the **set atm channel** command, the router rebooted. The router could also reboot if an ATM channel was deleted under similar circumstances. This issue has been resolved.	Y	-	-	-	-	-	-	-	-	-	-
CR00016989	**IPsec**	**2**	AlliedWare IPsec would not interoperate with Microsoft Windows Vista VPN clients. This was because Microsoft changed the IPSec behaviour in Vista such that Vista's private local IP address is sent as the local identification instead of an FQDN. When an IPSec tunnel between AlliedWare and Vista was brought up, the hosts could not communicate. This issue has been resolved. AlliedWare IPsec can now communicate with peers that send their private local IP address as the local identification.	Y	Y	Y	Y	Y	Y	-	-	-	-	-
CR00017081	**Classifier**	**2**	The **show classifier** command did not allow users to display only the classifiers that had their IP source address and MAC source address parameters set to **dhcpsnooping**. This issue has been resolved. For example, the command **show classifier ipsa=dhcpsnooping** now displays those classifiers that have their IP source address set to **dhcpsnooping**. Also, it is no longer possible to create two identical classifiers with DHCP snooping parameters.	-	-	-	-	-	-	-	-	Y	Y	-
CR00017093	**Firewall**	**2**	When the router was acting as a firewall and performing DNS relay, it used the local IP interface private address as the source address for some packets that it sent out the public interface. When the router acts as a DNS relay, it receives DNS requests from the private interface and sends a new packet on the public interface. These new packets were given the wrong address. This issue has been resolved. Such packets now have their source address set to the public interface address as required.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017226	**IPsec**	**2**	If an IPsec tunnel with no encryption (NULL) was negotiated in AlliedWare over NAT-T, the ESP packets did not contain an RFC 3948 compliant checksum. This means that some vendors may have discarded packets sent by the AlliedWare peer over such a tunnel. This issue has been resolved. Note the null encryption is useful for debugging the traffic over an IPsec tunnel and should not be used in a working IPsec solution.	Y	Y	Y	Y	Y	Y	-	-	-	-	-
CR00017227	**IPsec**	**2**	An IPSec checksum recalculation error occurred with UDP traffic when the ESP encapsulation was added. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	-	-	-
CR00017255	**Switching**	**2**	Previously, trunk members were given the STP state in hardware of port 1, instead of having the STP state of the lead port in the trunk. The software state (as displayed with the command **show stp port**) was correct. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	-	-	-
CR00017256	**Switching**	**2**	When using multi-homed IP interfaces on a VLAN, it was possible that L3 hardware switching would stop for all multi-homed interfaces on that VLAN, if one of the multi-homed interfaces was removed or went into an administratively down state. This issue has been resolved.	-	-	-	-	-	-	-	-	Y	Y	-
CR00017337	**Switching**	**2**	It was possible to set up a classifier that matched MPLS frames at layer 2, but the switch would not correctly match these MPLS frames against the classifier. This issue has been resolved. The switch now correctly matches MPLS frames against such a classifier.	-	-	-	-	-	-	-	-	Y	Y	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017368	**QoS, DHCP Snooping**	2	Some small memory access violations existed in DHCP snooping. These violations have been resolved. Also, a new console error message is displayed if a user tries to add a duplicate classifier to a QoS policy. For example, if traffic class 101 belongs to policy 2 and a user tries to add a flow group to traffic class 101 when the flow group's classifier is number 54 and already belongs to policy 2, the following message is displayed: Error (3099297): Duplicate classifier (54) on policy 2. A similar new log message has also been added, which says: Duplicate classifier (<number>) found on <string> <number> Note that a classifier can exist in two separate policies but cannot exist twice in the same policy.	-	-	-	Y	Y	Y	Y	Y	Y	Y	-
CR00017456	**IP Gateway**	2	The router or switch could reboot when the local interface address had been specified by using the **set ip local** command, and then the underlying interface from which the local interface took its address was either deleted or had its address changed. In both these cases, the local interface was correctly reset back to an undefined address, but a route to this address was not deleted. This could cause routing difficulties and a reboot when packets for that address were received. This issue has been resolved. The route is now correctly deleted.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00017488	**Firewall**	2	When a VoIP call using SIP was initiated from the public side of the firewall, occasionally the firewall created two UDP sessions for the call with different UDP source ports. This happened if the first packets of the STP (voice data) stream arrived earlier than the 200 OK message that was supposed to establish the session. The result was that the public side caller could not hear the call. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017518	**ISAKMP**	**2**	The router or switch sometimes could not establish a VPN when the remote peer was behind a NAT gateway and the router or switch's remote ID was set to **default**. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	-	-	-
CR00017634	**PPP**	**2**	If a PPPoE AC service had been added, but AC mode had not been enabled by using the **enable ppp ac** command, PADI frames were processed anyway, potentially leading to a reboot. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00017659	**TTY**	**2**	Previously, it was not possible to configure a TTY service on the router (by using commands like **create service**). This issue has been resolved.	Y	-	Y	-	-	-	-	-	-	-	-
CR00017662	**Core**	**2**	Stopping and restarting two fans on the switch in a particular order could put the fan fault detection mechanism into a state in which the system LED would not flash for a fan fault. This issue has been resolved.	-	-	-	-	Y	-	-	-	-	-	-
CR00017724	**IGMP**	**2**	When the switch had a hardware filter configured that would match and discard a received IGMP packet, IGMP snooping still processed the packet and added the details to its snooping database. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	-	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017731	**IP Gateway, DHCP**	**2**	When the DHCP server was enabled on a router or switch that also had a local IP interface defined by using the **set ip local** command, outgoing DHCP server packets would use the **set ip local** command's IP address as their source address. Furthermore, if the broadcast flag was set to TRUE in the DHCP Discover message that the server was replying to, then the server would send the DHCP Offer packet out the wrong IP interface with the wrong source IP address. Microsoft Windows Vista has the broadcast flag set to TRUE. These issues have been resolved. The DHCP server configuration now ignores any local IP interfaces set by using the **set ip local** command, and the server now sends the Offer message out the interface that it received the Discover on.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00017749	**Switching**	**2**	If a multicast route had an odd number of downstream interfaces attached to it, and the last downstream interface was deleted, the second to last downstream interface could experience a loss of packets. This issue has been resolved.	-	-	-	-	-	-	-	-	Y	Y	-
CR00017816	**PIM**	**2**	PIM would sometimes start forwarding duplicate packets from the RP to downstream interfaces if the SPT Bit had been set and had become unset. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	-	Y	Y	Y
CR00017906	**VLAN, MSTP**	**2**	If ports were removed from a VLAN and MSTP was enabled, then the port removal was not included in the configuration displayed by the command **show config dynam** or saved by the command **create config**. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	-

Level 3

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00000503	**PKI**	**3**	Some PKI commands (including **add pki ldap**, **create pki enroll**, and **create pki keyupdate**) only worked if their parameters were entered in a particular order. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00001106		**3**	The command **add fire policy=**_name_ **rule=**_number_ **act=allow int=**_int_ **ip=**_ipadd_ **list=**_filename_ would incorrectly be rejected, with an error message stating that **list** and **ip** were mutually exclusive. This issue has been resolved, so that **list** and **ip** can be used together in the same firewall rule.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00001438	**TACACS+**	**3**	If TACACS+ was used for authentication and the TACACS+ server went down during an authentication attempt, the router or switch added the attempted login names to the TACACS+ user list (as displayed in output of the **show tacplus user** command). However, the router or switch correctly did not log users in with those names. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00002587	**IP Gateway**	**3**	Sometimes an incorrect error message was printed if a user tried to enable IP multicast switching on a device that did not support it. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	-	-	-
CR00003354	**Firewall**	**3**	The firewall message "Port scan from _<source>_ is underway" was repeated more times than messages about other attack events. This could cause confusion. This issue has been resolved. The message is now displayed with the same frequency as other firewall attack event messages.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00003356	**Firewall**	**3**	The firewall sometimes did not report that an attack had finished until several minutes after it actually finished. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00004004	**File**	**3**	The **show file** command did not check whether the specified file system was valid. If an invalid file system type was entered (such as **show file=abc:*.***), the router or switch reported that no files found instead of reporting that the file system **abc** did not exist. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00005048	**GUI**	**3**	The following issues occurred with the GUI: ■ the menu item and related page title for configuring PPPoE and PPPoA interfaces was incorrectly named "PPP". This issue has been resolved by changing the names to "PPPoE / PPPoA". ■ the UPnP selection option on the firewall pages did not work. This issue has been resolved. Note that if you want to use the GUI to configure a PPP interface over ISDN, use the Dial-up menu option to do so.	Y	-	Y	-	-	-	-	-	-	-	-
CR00005187	**LACP**	**3**	If a user attempted to enable LACP on AT-9800 series switches—which do not support LACP—the switch incorrectly said that the module had been enabled. This issue has been resolved. The switch now displays an error message instead.	-	-	-	-	-	-	-	-	-	-	Y
CR00005894	**Classifier**	**3**	Previously, a classifier with **protocol=ip** matched both IPv4 and IPv6 packets when used with software QoS, instead of only matching IPv4 packets. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	-	-	-	-
CR00005940	**BGP**	**3**	There were several cases in BGP where an error was discovered in an incoming packet, but the incorrect error subcode was reported in the accompanying NOTIFICATION message. Also, NOTIFICATION messages did not contain the aberrant data in their data fields, as required by the RFC. These issues have been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00006303	**SNMP**	**3**	On AR725 and AR745 routers, which have no VLAN support, an SNMP Get request for dot1qMaxVlanId or dot1qMaxSupportedVlans incorrectly returned a value. This issue has been resolved.	-	Y	-	-	-	-	-	-	-	-	-
CR00006613	**Bridge**	**3**	Predefined bridge protocols XEROX PUP and PUP Addr Trans with the encapsulation of EthII and protocol type 0x0200 and 0x0201 are invalid and obsolete, since they are less than the minimum ETHII protocol type of 1500 (decimal). Bridging with these protocols could cause the router to reboot. This issue has been resolved by replacing the predefined protocol types with the more modern equivalents 0x0a00 and 0x0a01. Also, if you enter a protocol type less than the minimum, the router now displays an error message.	Y	Y	Y	-	-	-	-	-	-	-	-
CR00007394	**GUI**	**3**	When a user used the GUI to attempt to delete a local interface that was in use by another protocol, the operation (correctly) failed, but the GUI did not display an error message to explain the failure. This issue has been resolved.	Y	Y	Y	Y	-	Y	Y	Y	-	Y	Y
CR00007404	**MSTP**	**3**	If a network running MSTP was connected to a network running RSTP and MSTP message debugging was enabled on a switch, the debug output could loop for a very long time with invalid data. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	-
CR00007926	**Switching, IP Gateway**	**3**	The x900 series switches did not send an ICMP Redirect packet when they received a packet and the route to the packet's destination was back to the packet's sender. The switches routed the packet back to the source but did not send an ICMP Redirect message. This issue has been resolved. The x900 series switches now send an ICMP Redirect message.	-	-	-	-	-	-	-	-	Y	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00008122	**TTY**	**3**	When prompted to enter a file name while using the command line file editing utility, no more than 23 characters could be typed, even if the existing characters were deleted using the backspace key. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00008378	**Firewall**	**3**	The command **enable firewall notify=port port=*asyn-number*** was not available on switches, only on routers. If a user created a configuration on a router and used this option, the configuration had to be modified if transferred to a switch. This issue has been resolved. The **notify=port** option and the **port** parameter are now available on switches. However, these **port** parameters have been deprecated in favour of the **asyn** parameters, so warning messages are printed to indicate this if the commands are used.	-	-	-	Y	Y	Y	-	-	-	-	Y
CR00009086	**Switching**	**3**	When the commands **enable switch port=*number* automdi** and **disable switch port=*number* automdi** were executed from a telnet session, some INFO messages were output to the asyn0 console session instead of the telnet session. This issue has been resolved.	-	-	-	-	-	-	-	-	Y	Y	-
CR00010144	**STP, SNMP**	**3**	Previously, newRoot and topologychange traps (located at 1.3.6.1.2.1.17.0) were only generated by the bridging module. This has been extended to the STP module. Please note that this applies only to standard STP, not Rapid STP.	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00010229	**Install, SNMP**	**3**	Previously, MIB objects instRelMajor, instRelMinor and instRelInterim values were only correct for bootrom (default) builds. This issue has been resolved. Now the correct values are returned for these objects when the current install matches the temporary or preferred install.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00010306	**Install**	**3**	If a user attempted to enter a filename with an invalid format, the resulting error message did not correctly describe the format that should have been used. Also, the router or switch returned an incorrect error message when a user attempted to delete a non-existent release licence file. These issues have been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00010315	**BGP**	**3**	Previously, it was possible to enter bad BGP peer IP addresses, such as 0.x.x.x, 127.x.x.x and 255.255.255.255. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00010465	**Switching**	**3**	The "?" help for the command **show switch sock=con inst=*value*** showed a maximum value of 4294967295. This issue has been resolved. Valid instance values are 0 and 1.	-	-	-	Y	Y	Y	Y	-	-	-	-
CR00010538	**Firewall**	**3**	When firewall events were recorded in the Notify queue (displayed in output of the command **show firewall event=notify**), the IP address shown would be the address of the very first packet that belonged to that event flow. For example, if 64 host scan packets were required to trigger a host scan event and the first packet had a target IP of 1.1.1.1 and the 64th had an IP of 1.1.1.64, then the IP address recorded would be 1.1.1.1, even though the event was not actually recorded until the 64th packet arrived. Additionally, the source and destination ports in this display would always show as 0. These issues have been resolved.The IP addresses shown are now those of the particular packet that triggered the event notification, and the source and destination ports match the actual ports used by that packet.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00010976	**PPP**	**3**	If the router or switch received an Echo-Request that did not comply with RFC 1661, it processed and replied to the Echo-Request. This issue has been resolved. Non-complying Echo-Requests are now ignored.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00010979	**PPP**	**3**	PPP incorrectly ACKed a LCP ConfigureRequest containing the Magic-Number option with a value of 0. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00010984	**PPP**	**3**	If the router or switch received an incorrectly formatted PAP request packet, it used to process the packet. This issue has been resolved—now it silently discards the packet. Also, if the router or switch received a PAP request packet with a zero length user ID, it used to send the packet to the authentication database. This issue has been resolved—now it NAKs the packet.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00011223	**Core**	**3**	On AT-8948 and AT-9924SP switches with an empty PSU bay, an SNMP walk through of the fanAndPsPsuStatusTable would display lines for the non-existent PSU, with the value of "no such instance". This issue has been resolved. The walk through now only includes installed PSUs.	-	-	-	-	-	-	-	-	Y	Y	-
CR00011259	**GUI**	**3**	Some of the features supported in the web-based GUI did not have a complete set of online help pages generated for them. This issue has been resolved.	Y	Y	Y	Y	-	Y	Y	Y	-	Y	Y
CR00011315	**IP Gateway**	**3**	When the limit for the number of IP interfaces was reached and a user tried to add another IP interface over a VLAN, the router or switch displayed the following misleading error message: Error (3005273): No more VLAN interfaces may be added. This issue has been resolved. The error message is now: Error (3005273): No more IP interfaces over VLANs may be added.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00011438	**Ping**	**3**	When the router or switch pinged a host whose hostname consisted only of the digits 0-9 and the letters A-F, it treated the given hostname as a hexadecimal IPX address even if the hostname was in the host list. This issue has been resolved. Now, when the router or switch pings a host using a hostname, it checks the hostname in the host list first. If it does not find the host in the host list, then it treats the hostname as an IPX address.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00011824	**Firewall**	**3**	When a firewall UDP session starts up, the session timeout should be 5 minutes for the first 5 packets of the session, then change to the configured UDP session timeout value. Previously, the timeout changed after the 6th UDP packet belonging to that session, instead of after the 5th packet. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00012066	**IP Gateway**	**3**	The command **show ip cassi** command is obsolete but was still available. This issue has been resolved. The command has been removed from the command line. To obtain the same information, use the command **show conf dyn=ip**.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00012168	**Classifier**	**3**	Output of the **show classifier** command displayed only the hexadecimal protocol value for IP SNAP, instead of also displaying the protocol name. This issue has been resolved. The output now displays: 0000000800 (IP SNAP)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00012885	**OSPF, GUI**	**3**	If there were virtual OSPF interfaces, then the OSPF Interfaces GUI page showed all interfaces as belonging to the backbone area (0.0.0.0). This issue has been resolved.	Y	Y	Y	Y	-	Y	Y	Y	-	Y	Y
CR00013352	**STP**	**3**	The help displayed by the command **set stp port=all ?** listed some parameters twice. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013494	**IP Gateway**	**3**	Once a default local IP address had been set, it could not be deleted. This was because the default interface does not have an interface number, but to delete a local interface, the user must specify the interface's number. This issue has been resolved, by adding an option called **default** to the **delete ip local** command. To delete the default local interface's address, use the command: delete ip local=default Note that this resets the interface, including removing its IP address, but does not remove the interface itself.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013543	**DHCP**	**3**	If a user attempted to add a policy option to a DHCP policy by using the **set** command instead of the **add** command, then the resulting error message did not clearly indicate the cause of the error. For example, entering the command: set dhcp policy=test arptimeout=234 resulted in the error message: Error (3070061): ARPTIMEOUT not found. This issue has been resolved. The error message now reads: Error (3070279): Option ARPTIMEOUT was not found in policy test or was not added using the ADD DHCP POLICY command.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013635	**Ping, Traceroute**	**3**	In the **set trace** command, it was possible to specify a minimum TTL value that was higher than the maximum TTL value. This issue has been resolved. The **minttl** and **maxttl** parameter are now checked to ensure that the value of **minttl** is less than or equal to the value of **maxttl**.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013637	**Ping, Traceroute**	**3**	If the value specified for the minimum time-to-live parameter (**minttl**) of the **traceroute** command exceeded the value set for the maximum time-to-live parameter (**maxttl**), the router or switch would attempt to execute the trace rather than generate an error message. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013832	**EPSR, SNMP**	**3**	When a user destroyed an EPSR domain, SNMP Requests returned information about the domain even though it no longer existed. This issue has been resolved.	-	-	-	-	-	-	-	-	Y	Y	-
CR00013920	**Ping, Traceroute**	**3**	If a user attempted to perform a traceroute without specifying the address to trace (either in the **trace** or **set trace** commands), the router or switch attempted to trace 0.0.0.0. This issue has been resolved. The router or switch now displays an error message.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014103	**VRRP, GUI**	**3**	The VRRP priority could not be modified through the GUI—the priority option was there but did nothing. This issue has been resolved.	Y	Y	Y	Y	-	Y	Y	Y	-	Y	Y
CR00014137	**PPP**	**3**	A PPPoE Access Concentrator service that had been added by using the **acinterface** parameter to specify a VLAN (or by using the deprecated **vlan** parameter) could be deleted without specifying the **acinterface** parameter (or the deprecated **vlan** parameter). This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00014159		**3**	RSTP (correctly) only uses the top 4 of the available 16 bits for the bridge priority. If a user enters a value that is not a multiple of 4096, the switch rounds the value down. Previously, the switch did not inform users when it rounded the value. This issue has been resolved. The switch now displays an info message when it rounds the bridge priority. Note that this only happens for RSTP. STP uses all 16 bits for the bridge priority.	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00014203	**OSPF**	**3**	When OSPF was disabled and a BGP redistribution definition existed, then the obsolete command **set ospf bgplimit=***limit* did not update the limit in the BGP redistribution definition. This meant that the limit was incorrect when OSPF was enabled again. This issue has been resolved.	Y	Y	Y	Y	Y	Y	–	–	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014304	**LLDP**	**3**	The help displayed for the LLDP **port** parameter (in such commands as **show lldp port=?)** incorrectly indicated that the **port** parameter is a "string 1 to 255 characters long". The **port** parameter is instead an Ethernet switch port number or a range of numbers. This issue has been resolved. The help is now correct.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014330	**Ping**	**3**	The maximum value for the **delay** parameter of the **ping** command was too long. This issue has been resolved by changing the range for the delay from 0-4294967295 to 0-604800. This new maximum is the number of seconds in one week.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014879	**Switching, RSTP, SNMP**	**3**	Previously, an incorrect value was returned for the port number when responding to an SNMP Request for MIB object dot1dSTPRootPort. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00015466	**Core, Install, PoE**	**3**	The output of the **show cpu** command on the AT-8624POE switch showed relatively high CPU usage when the device was idle. This issue has been resolved.	-	-	-	-	-	-	Y	-	-	-	-
CR00016183	**File**	**3**	If a user attempted to delete a locked file, such as the currently-installed GUI resource file, the router or switch displayed both an operation error message and an operation successful message. This issue has been resolved by removing the incorrect operation successful message.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016429	**OSPF**	**3**	Previously, OSPF logged the same message for two separate errors. These errors were when OSPF rejected a database description message because: ■ the neighbour was in a state of "down" or "attempt", or ■ the MTU received from the neighbour was larger than the receiving system could handle. This issue has been resolved. Separate error log messages are now generated for these two errors.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016452	**PPP**	**3**	It is valid to use the command **create ppp=*number*** to create a PPP interface without specifying the underlying layer 1 interface. However, executing this command, or including it in a boot script, resulted in an error. This issue has been resolved.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016578	**IPv6**	**3**	If IPv6 was disabled and a user entered any of the following commands: add ipv6 interface add ipv6 6to4 add ipv6 tunnel create ipv6 interface enable ipv6 advertising then the router or switch correctly displayed a warning message to indicate that IPv6 was disabled and also correctly performed the specified configuration. However, it did not display an "Operation successful" message to indicate that the configuration had changed. This issue has been resolved. The router or switch now displays the "Operation successful" message as well as the warning message.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016735	**ATM**	**3**	Sometimes, the router displayed the following error message: Internal Error: speed mismatch causing transmit internal rate underrun error. This was due to a mismatch in the synchronisation between the internal rate of the ATM controller in the CPU and the speed of the ATM PHY connector. This synchronisation mismatch had a small impact on ATM performance. This issue has been resolved.	Y	-	-	-	-	-	-	-	-	-	-
CR00016925	**TTY**	**3**	If a user was accessing the router or switch via telnet, and sent a ^P (break) character followed by the character d or D, then the router or switch displayed an unwanted diagnostic message. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017019	**Port Authentication**	**3**	On termination of an 802.1x session, an accounting message is sent to the Radius server. This enhancement implements the Acct-Input-Octets, Acct-Output-Octets, Acct-Input-Packets, and Acct-Output-Packets fields in the message. Note that this enhancement only applies to ports in single-supplicant mode. These fields in the accounting message for ports in multi-supplicant mode still all have a value of 0.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Level 4

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00011228	**GUI, Switch**	**4**	The Diagnostics > Layer 2 Forwarding Database page of the GUI displayed extra internal (SYS or CPU) entries. This issue has been resolved. The GUI and the command **show switch fdb** now display the same information.	–	–	–	Y	Y	Y	Y	Y	–	–	–
CR00013409	**Switch**	**4**	Previously, if you used the ? or Tab keys to obtain help for the **set switch ageingtimer** command, the resulting help said that valid entries were from 0 to 4294967295. However, the correct range of values is from 16 to 4080 seconds for AR750S routers and from 10 to 630 seconds for AR770S routers. This issue has been resolved. The "?" help now displays the correct ranges.	–	–	Y	–	–	–	–	–	–	–	–
CR00014205	**OSPF**	**4**	The command **purge ospf** did not delete OSPF redistribution definitions. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014302	**TTY**	**4**	If the router or switch configuration file contained the command **set tty idle**, the router or switch produced a corrupted log message when it started up. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Enhancements

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00012822	**BGP**	**-**	The BGP counter output display has been significantly improved. Also, the command **show bgp counter=all** now prints out the RIB, UPDATE, DB and PROCESS counters.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016099	**MACFF, DHCP Snooping**	**-**	MAC-forced forwarding has been enhanced for use in a hospitality situation, such as a hotel. The enhanced solution allows hotel guests to connect to the network without having to change their IP settings, while still ensuring privacy for each guest. Typically some guests will obtain their IP address from the hotel's DHCP server and others will have statically configured IP addresses in their PCs. The solution is designed to interoperate with a specialised Access Router that is able to deal with the full range of IP addresses that will be in use on the guests' PCs. The Nomadix Access Gateway (from www.nomadix.com) is an example of such a specialised access router. Configuration of the new feature is similar to the existing MAC-forced forwarding configuration. On each edge switch, you also need to enter the following new command before enabling DHCP snooping: disable dhcpsnooping ipfiltering You also need to turn on ARP security and allow authorised clients to send only unicast packets, by entering the following commands: enable dhcpsnooping arpsecurity enable dhcpsnooping strictunicast This enhancement also introduces the ability to add MACFF servers with static MAC addresses, rather than relying on ARP to determine them based on IP addresses. To do this, enter the command: add macff server mac=*macaddr*	-	-	-	Y	Y	Y	Y	Y	-	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016662 CR00016891 CR00017335 CR00017937		-	This software release supports the new x900-48FS switch. For an overview of the switch, see "Support for the new x900-48FS switch—CR00016662" on page 92.	-	-	-	-	-	-	-	-	Y	-	-
CR00016913	PPP	-	This enhancement enables the PPPoE client to establish a session promptly after a restart or power cycle. This is done by sending a PPPoE Active Discovery Terminate (PADT) frame in response to a frame received with an unknown PPPoE session ID.	Y	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00017197	SSH, User, RADIUS	-	SSH sessions to the router or switch can now be authenticated via RADIUS. The router or switch attempts to authenticate an SSH user via RADIUS if the user to be authenticated is not configured in the local user database and the router or switch has RADIUS configured.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00017395	Firewall	-	This enhancement enables the firewall to establish accurate MSS (Maximum Segment Size) values for TCP sessions without using the MTU discovery process. MTU discovery depends on ICMP error packets, so does not work in networks that do not forward ICMP error packets. To enable this feature, use the command: enable firewall policy=*name* adjusttcpmss The **adjusttcpmss** parameter enables the firewall to adjust the MSS value stored inside incoming TCP SYN packets, to reflect the lower of the two MTU values on the ingress and egress interfaces. Normally, for example, if a TCP SYN packet arrives from an interface with an MTU of 1500 and leaves on an interface with an MTU of 1000, the MSS inside the SYN packet will remain at 1460. When this feature is enabled, the MSS will be adjusted to 960 because the firewall knows that the egress interface has a smaller MTU. Note that the firewall does not change the original MSS value if it is already lower than the values of the ingress and egress interfaces. To disable this feature, use the command: disable firewall policy=*name* adjusttcpmss This feature is disabled by default.	Y	Y	Y	Y	Y	Y	-	-	-	-	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017482	**IGMP Snooping**	**-**	The IGMP snooping fast leave option has been enhanced, to make it available when multiple clients are attached to a single port on the snooping switch. For configuration information, see "IGMP snooping fast leave in multiple host mode—CR00017482" on page 93.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00017532	**WAN Load Balancing**	**-**	WAN load balancing can now also balance traffic across IP interfaces that are configured on VLANs. This means it is now available for the following IP interfaces: ■ eth (such as eth0) ■ ppp (such as ppp0) ■ vlan (such as vlan1)	Y	-	Y	-	-	-	-	-	-	-	-
CR00017701	**IGMP**	**-**	IGMP filtering is now available on AT-8600 series switches. For more information, see the *IP Multicasting* chapter of the switch's Software Reference, or *How To Configure IGMP for Multicasting on Routers and Managed Layer 3 Switches*, available from www.alliedtelesis.com/resources/literature/howto.aspx.	-	-	-	-	-	-	Y	-	-	-	-

Features in 291-07

Software Maintenance Version 291-07 includes the resolved issues and enhancements in the following tables. In the tables, for each product series:

■ "Y" indicates that the resolution is available in Version 291-07 for that product series.

■ "–" indicates that the issue did not apply to that product series.

Level 1

No level 1 issues

Level 2

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	Rapier w	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017869	IP Gateway	2	If two routes to the same destination were present in a switch, and the route of lower preference was deleted (in other words, the route whose details were present in the hardware routing database), then the hardware routing database was not updated with the remaining route as it should have been. This could cause serious routing issues. This issue has been resolved so that hardware routing database updates are carried out correctly.	-	-	-	-	-	-	-	-	-	Y	Y
CR00018039	Switch	2	Running the command **show switch tab=ip** could result in a reboot if a large number of routes (10,000 or more) were present on the switch. This issue has been resolved so that the command can run no matter how many routes are present on the switch. However, the output from the command may be truncated due to buffer space restrictions.	-	-	-	-	-	-	-	-	-	Y	Y

Level 3

No level 3 issues

Level 4

No level 4 issues

Enhancements

No enhancements

Features in 291-06

Software Maintenance Version 291-06 provided support for the new Rapier 48w switch. For more information, see "Support for the new Rapier 48w switch" on page 95.

Features in 291-05

Software Maintenance Version 291-05 includes the resolved issues and enhancements in the following tables. In the tables, for each product series:

- "Y" indicates that the resolution is available in Version 291-05 for that product series.

- "–" indicates that the issue did not apply to that product series.

Level 1

No level 1 issues

Level 2

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00007737	**IGMP Snooping**	**2**	When a port left a multicast group, the router or switch assigned the All Groups port to that multicast group. This could be seen in the output of the command **show ip igmp**—the list of ports for the group would include the All Groups port. This issue has been resolved.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00010003 CR00011533	**WAN load balancer, Firewall**	**2**	The router rebooted if a user cleared all active WAN load balancer sessions on a router that had more than approximately 15000 active sessions. This issue has been resolved Also, the maximum session limit for the WAN load balancer should be 2 * the firewall session limit. On AR415S and AR442S routers, users can increase the firewall session limit by adding special feature licenses. Previously, if the firewall session limit changed, it was necessary to reboot the router to update the WAN load balancer session limit. This issue has been resolved. The WAN load balancer limit now updates when you enable the firewall session license.	Y	Y	Y	-	-	-	-	-	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00012980	**VLAN**	**2**	Previously, it was possible to destroy a VLAN when it was configured as an IP interface. This issue has been resolved. Now, you can only destroy a VLAN if it has no IP configuration.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00013041	**IPsec**	**2**	The router or switch would establish IPsec Security Associations (SAs) if ISAKMP was enabled but IPsec was disabled. This issue has been resolved. The router or switch only sets up SAs if IPsec is enabled.	Y	Y	Y	Y	Y	-	-	-	-	-
CR00013500	**User, 802.1x**	**2**	If the reauthentication period for 802.1x port authentication was set to less than 20 seconds, the router or switch sometimes rebooted. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013527	**OSPF**	**2**	When the router or switch produced an OSPF type 7 LSA, it sometimes specified a route out of an interface that was down. This would stop the router or switch from forwarding traffic to the route's destination. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014344	**GUI**	**2**	Previously, some GUI pages did not display correctly in version 7 of Internet Explorer. This issue has been resolved.	-	-	-	-	-	Y	-	-	-	-
CR00014851	**SHDSL**	**2**	Very occasionally, an AR442S router would reboot if SHDSL interface train-up took an excessively long time. This issue has been resolved.	Y	-	-	-	-	-	-	-	-	-
CR00014955	**OSPF**	**2**	The router or switch sometimes rebooted when converting OSPF type 7 LSAs to type 5 LSAs. This issue has been resolved by increasing the robustness of the translation mechanism. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015569	**Firewall**	**2**	When only NAT was enabled on the firewall, during some TCP connections in which either end of the connection sends FIN (finished) messages immediately after sending some data and the other end ACKs (acknowledges) the data and the FIN message consecutively, the firewall sometimes incorrectly interpreted the first ACK message (intended for the data) as belonging to the FIN message and prematurely shut the connection down. This could prevent the firewall from opening up new connections using the same port numbers. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00015592	**BGP, IP Gateway**	**2**	When BGP learned new best routes for a particular destination, it did not always clear any active IP flows that used the previous best route. Therefore, the router or switch continued to forward traffic sub-optimally. This issue has been resolved. Now, when BGP inserts new routes into the IP route table, it deletes all active route flows, so any active flows change to using the new route. The time taken to delete a full table of IP flows has also been greatly reduced.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00015736	**Switch**	**2**	Sometimes IP routed traffic would be sent out the correct port, but with the destination MAC of another device on the network. This issue was most likely to occur in configurations that use multi-homed interfaces on multiple VLANs for end devices. This issue has been resolved.	-	-	-	-	-	-	-	Y	Y	-
CR00015822	**Switch**	**2**	When the command **enable ip macdisparity** was used, and a static ARP entry was configured with an L2 multicast MAC address, the switch should have broadcast traffic to that multicast MAC address out all ports in the VLAN. This was not happening. This issue has been resolved.	-	-	-	-	-	-	-	Y	Y	-
CR00015861	**VRRP**	**2**	After manually disabling the master VRRP router, sometimes a backup router that should assume master status would not do so, and VRRP would cease to function properly. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015938	**DHCPv6**	**2**	For DHCPv6, the router or switch now supports Prefix Delegation according to RFC 3633. The previous implementation was according to an Internet draft and did not interoperate with other DHCPv6 implementations. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00015974	**DHCPv6**	**2**	The DHCPv6 client regularly wrote the file client6.dhc, which over time caused unnecessary Flash compactions. This issue has been resolved. The DHCPv6 client now only writes the file when the contents are different from the previous time that the file was written. This greatly reduces the number of Flash compactions caused.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00015984	**DHCPv6**	**2**	DHCPv6 authentication did not work correctly. This issue has been resolved. You can now configure the router or switch to authenticate DHCPv6 exchanges.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00015989	**TPAD**	**2**	When using the TPAD autodial feature and sending multiple transactions over a TCP/IP connection, the router or switch responded to good APACS packets by sending an ACK. This ACK was unnecessary and could cause interoperability issues. This issue has been resolved. The router or switch no longer sends the ACK in these circumstances.	Y	Y	Y	Y	-	-	-	-	-	-
CR00016034	**IP Gateway, Firewall**	**2**	Previously it was not possible to add a static ARP entry for the corresponding partner address of a /31 subnet interface. This issue has been resolved. The router or switch will now also allow /31 ARP requests to pass through the firewall.	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00016060	**IGMP**	**2**	If a port was disabled from being an All Routers group port for IGMP, and that port received All Routers group traffic, it would incorrectly be added to the All Routers group. This issue has been resolved.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016128	**IPsec, IPv6**	**2**	When the **icmptype** parameter was changed to **none** for an IPv6 IPsec policy, an incorrect ICMP type value was displayed in output of the command **show config dyn** and saved in the configuration file produced by the command **create config**. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	-	-	-
CR00016180	**GUI, Firewall**	**2**	When configuring the firewall with the GUI, the **Policy options** tab did not update its display when options were changed from the default settings. For example, if the user cleared a checkbox and clicked the **Apply** button, the router correctly turned off that option, but the GUI showed a check in the checkbox. This issue has been resolved.	Y	-	-	-	-	-	-	-	-	-
CR00016200	**Core**	**2**	The router or switch's handling of soft errors has been further improved. Soft errors are spontaneous changes in the information stored in a digital circuit, caused by physical effects.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016288	**SYN**	**2**	The polarity of the CD output of RS-232 DCE and V.35 DCE SYN cables was reversed—it was ON when OFF was selected and vice-versa. This issue affected AR750S, AR770S, and AR44xS series routers. This issue has been resolved.	Y	-	Y	-	-	-	-	-	-	-
CR00016303	**Load**	**2**	The **upload** command did not always work if the **server** parameter was set with the **set load** command instead of being specified in the **upload** command. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016327	**IP Gateway**	**2**	If a policy filter was configured, ping sometimes failed. This happened because the router or switch assigned the ICMP echo replies to an IP flow without checking that the interface for the echo replies matched the interface for the flow. Therefore, the router or switch could use the wrong flow to forward the replies. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016364	**DHCPv6**	**2**	If an IPv6 DHCP client was forced to rebind to a router or switch acting as a DHCP server, the server returned incorrect timing parameters to the client. Some clients were able to cope with this, but others could end up losing their DHCP lease. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016365	**DHCPv6**	**2**	The following issues occurred with DHCPv6: ■ The option IDs for DNS name server and domain search list were incorrect. This caused interoperability issues with other implementations. ■ The domain names specified in the domain name option were encoded incorrectly. This caused interoperability issues with other implementations. ■ If a user entered two DNS servers for a DHCPv6 policy, then saved the configuration, the command was not saved correctly. When the router or switch ran the configuration on start-up, it added only the second DNS server to the policy. These issues have been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016379	**IGMP Proxy, Switch, IP Gateway**	**2**	If IGMP proxy was enabled and multicast data was received on a downstream VLAN interface, that data would be transmitted to other interfaces. Also, the VLAN interface that received the data would forward two copies of the packet to other ports on that VLAN. These issues have been resolved.	Y	-	Y	Y	Y	Y	Y	Y	Y	-
CR00016394	**IP Gateway**	**2**	ARP did not work correctly on logical /31 interfaces, which prevented regular IPv4 communications from working over these logical /31 interfaces. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016418	**STP**	**2**	If the switch received IGMP packets on the non-lead port of a trunk group which was participating in a Spanning Tree, in some circumstances the switch would forward the packets out of an STP-blocked port in the trunk. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016489	**BGP**	**2**	When BGP capability matching was changed to **strict**, that setting was not displayed in output of the command **show config dyn** or saved in the configuration file produced by the command **create config**. When the router or switch ran the configuration file on start-up, the capability matching setting reverted to the default of **loose**. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016526	**PPP**	**2**	An interoperability issue with a malfunctioning PPP peer meant that the peer could ACK an IP address of 0.0.0.0 when it was required to offer a valid public IP address. This issue has been resolved. The router or switch now refuses to accept this incorrect negotiation and instead resends a configure request for an IP address.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016576	**IPv6**	**2**	The router or switch sometimes rebooted after receiving an IPv6 router advertisement, or after the command **set ipv6 interface** was entered. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016621	**Switch**	**2**	On 48-port switches, hardware filters with the **eport** parameter specified did not always behave correctly. This issue has been resolved.	-	-	-	Y	Y	Y	Y	-	-	-
CR00016698	**BGP**	**2**	The following issues occurred when using BGP aggregate specifications (created using the command **add bgp aggregate**): ■ When an aggregate route was originated from routes learnt from external peers, and then all of the contributing child routes were withdrawn by the external peers, the aggregate route was not removed from the routing table. It could still be advertised to external peers. ■ When a network or import entry (**add bgp network** or **add bgp import**) resulted in a route entry that had the same prefix length as the aggregate specification, then BGP (correctly) originated the aggregate route. However, deleting the network or import definition did not remove the aggregate route from the routing table. These issues have been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016727	**TCP, Telnet**	**2**	The speed of the output from the Telnet server has been increased.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016762	**ISDN**	**2**	For AR44xS series routers with system territory set to USA, the ISDN Q.931 SPIDs failed to initialize to the ISDN exchange/ISDN USA profile simulator (both manual and auto SPIDs) after a reboot. This happened because the router did not write *.spd files to Flash memory, so the SPID initialization failed on reboot because the SPIDs did not exist. This issue has been resolved. The *.spd files are now correctly written to Flash memory, which allows SPIDs to initialise after a reboot.	Y	-	-	-	-	-	-	-	-	-
CR00016804	**Bridge**	**2**	If an Ethernet packet, including its FCS (Frame Check Sequence), was encapsulated in PPP and bridged to a VLAN interface, the packet could contain two FCS values. This issue has been resolved.	Y	Y	Y	-	-	-	-	-	-	-
CR00016855	**Frame Relay**	**2**	When the MTU of a Frame Relay logical interface was modified (by using the command **set interface=**_fr-int_ **mtu=**_value_), incorrect interface and MTU settings were displayed in output of the command **show config dyn** and were saved in the configuration file produced by the command **create config**.	Y	Y	Y	Y	-	-	-	-	-	-
CR00016856	**Firewall**	**2**	When the firewall policy for an interface had a NAT type of ENAPT, the firewall did not correctly translate the destination addresses of incoming packets that matched "allow" rules. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	-	-	Y
CR00016911	**Classifier**	**2**	When a non-default protocol was specified for a classifier, in some circumstances that protocol setting was not displayed in output of the command **show config dyn** or saved in the configuration file produced by the command **create config**. When the router or switch ran the resulting configuration file on start-up, the protocol setting was lost. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016940	**Core**	**2**	Some versions of the AT-G8T GBIC prevented the switch from detecting and setting up the AT-A47 expansion board correctly. This issue occurred on start-up when the GBIC was installed and had a link up. This issue has been resolved.	-	-	-	-	-	Y	-	-	-	-
CR00016941	**IP Gateway**	**2**	When there were multiple routes to a destination and the best route was deleted from the switch's hardware routing table, the switch did not use the alternative route. Also, the switch only used the best route, even if ECMP was supported. This issue has been resolved. When multiple routes exist and the best route is deleted from the hardware table, the switch now adds the next best route to the hardware table correctly. If the switch supports ECMP, all routes are now added to hardware, not just the best route.	-	-	-	Y	Y	Y	Y	Y	Y	Y
CR00017006	**Switch**	**2**	Previously, the link to the AT-G8T GBIC would not come up automatically when its auto-negotiation slide switch was set to "on". This was because the switch configured the GBIC in a fixed speed mode by default. This issue has been resolved. The link now comes up automatically when the auto-negotiation slide switch is set to "on". To bring the link up when auto-negotiation is set to "off", use the command: set swi port=*port-list* speed=1000mf	-	-	-	-	-	-	-	-	-	Y
CR00017031	**IGMP Snooping**	**2**	If a port on the router or switch joined and left many IP multicast groups, the router or switch sometimes did not transmit all multicast packets to all receivers. This issue has been resolved.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y
CR00017036	**Switch**	**2**	In some trunk configurations, the STP state of trunks was incorrectly applied to non-trunk ports. This could result in incorrect traffic flows in the network. This issue has been resolved.	-	-	-	-	-	-	-	Y	Y	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017074	**DHCPv6**	**2**	DHCPv6 prefix delegation contained the followed issues: ■ previously, the command **create dhcp6 range** accepted ranges with an invalid prefix length. This issue has been resolved. The router or switch now displays an error unless the prefix length is in the range 48-64. ■ previously, when the router or switch requested a prefix to delegate to its **appint** interfaces, it could only use prefixes of length 48 or 64. This issue has been resolved. The requesting router or switch can now use any prefix that has been delegated to it, as long as the prefix length is less than or equal to 64 bits. ■ The requesting router or switch would allocate an address to the interface through which it connects to the delegating router or switch. This issue has been resolved. The router or switch no longer does this.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00017076	**IPsec**	**2**	When entering the command **set ipsec policy**, the value of the **respondsetbadspi** was incorrectly reset to its default of **false**, unless it was also included in the **set** command. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	-	-	-
CR00017146	**IP Gateway**	**2**	When the router or switch's Local address was pinged, the router or switch responded from the interface address of the interface through which it received the ping, instead of the Local address to which the ping was sent. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00017151	**Telnet**	**2**	When Reverse Telnet was enabled the command shell was (correctly) disabled on all ASYN ports apart from ASYN0. However when Reverse Telnet was disabled again, the command shell was not re-enabled on the other ASYN ports. This issue has been resolved.	Y	Y	Y	Y	-	-	-	-	-	-
CR00017239	**VLAN, IGMP Snooping**	**2**	When a user configured IGMP static router ports, the configuration file produced by the command **create config** could be invalid. When the router or switch ran the resulting configuration file on start-up, it produced an error instead of configuring the router ports. This issue has been resolved.	Y	-	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00017257	**WAN Load Balancer**	**2**	If two WAN load balancer healthcheck hosts were defined, and one was unreachable and the other was reachable, WAN load balancer resources were (correctly) in the UP state because at least one healthcheck host was reachable. However, removing the reachable host (by using the command **delete wanlb healthcheck**) should have changed the WAN load balancer resources to the DOWN state, but did not. This issue has been resolved. If the only healthcheck host available is unreachable and the resource is currently in the UP state, the next unreachable healthcheck received from that host now forces the resource to the DOWN state.	Y	Y	Y	-	-	-	-	-	-	-

Level 3

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00008225	**Core**	**3**	Some early software versions, on some products, supported the command **show system temperature**. This command was deprecated after version 2.6.4. If a user entered this command on any product, the following message was displayed: Info (1034107): SHOW SYSTEM TEMPERATURE is no longer available. Please use SHOW SYSTEM ENVIRONMENTAL instead. However, only the following products use the **show system environmental** command to display the temperature: AR750S and AR770S routers, and AT-8600, AT-8800, AT-8948, x900-48, and AT-9900 series switches. Other products use **show system** instead. On the other products, the above error message was incorrect because it stated that the **show system environmental** command was available. This issue has been resolved. On products that do not use **show system environmental**, the following error message is displayed if you enter the **show system temperature** command: Info (1034090): Command unavailable on this product.	Y	Y	-	Y	-	-	Y	-	-	Y
CR00009036	**File**	**3**	If a user tried to copy a small file (less than 32 bytes) in Flash when there was not enough free Flash space for the file and its header, the router or switch did not generate an error message, and the copying could appear to have succeeded. This issue has been resolved. The error message: Insufficient space to store file [file name] is now displayed under those conditions.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00010518 **CR00010710**	**Core**	**3**	The **show cpu** statistics were unnecessarily inaccurate. For example, a router or switch that was effectively idle showed a CPU usage of 10% to 12%. This issue has been resolved. When the router or switch is effectively idle, the CPU usage now displays as less than 5%.	-	Y	-	-	-	-	-	-	Y	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00011629	**PIM, PIM6, ECMP**	**3**	Previously, the switch's count of PIM4 and PIM6 bad Bootstrap Messages (BSMs) could be high, because the switch forwarded BSMs over interfaces that contained an Equal Cost Multipath (ECMP) route to the receiving interface. This issue has been resolved. BSMs are no longer forwarded via all interfaces contained in an ECMP group, but only via one interface in the group.	-	-	-	-	-	-	-	Y	Y	-
CR00012495	**IGMP**	**3**	When an IGMP filter was destroyed, switch ports that used the filter did not have their IGMP filter setting returned to "None". This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014324	**PPP**	**3**	The interface MIB ifInOctets and ifOutOctets counters displayed by the **show ppp counter** command incorrectly included the lower layer framing octets and were 5 octets per frame greater than they should have been. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00014919	**QoS, DHCP snooping**	**3**	DHCP snooping accepted a minimum of one new client per QoS flow group, instead of a minimum of one new client per port. This meant that DHCP snooping sometimes did not respect the lease limit (**maxlease**) on a port. This issue has been resolved.	-	-	-	Y	Y	Y	Y	Y	Y	-
CR00015092	**ATM**	**3**	Previously, the information output by the "?" help for the ATM channel **pcr** parameter was incorrect. This issue has been resolved. The "?" help now displays: required - decimal in the range 32-155000 (dependant on physical interface) If you enter a value larger than the maximum PCR allowed on a specific physical interface, the router now displays the following message for ADSL: The PCR supplied was too large, the maximum is 1024 and the following message for SHDSL: The PCR supplied was too large, the maximum is 4608	Y	-	-	-	-	-	-	-	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015558	**ASYN**	**3**	Under some circumstances, when a PC terminal emulator was opened to communicate with a router or switch after the router or switch had fully booted up, the login prompt did not immediately display. To display the login prompt, it was necessary to remove and re-insert the cable. This issue applied to all models' ASYN ports except ports on the AR024 PIC. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015690	**DHCP6**	**3**	In the command **create dhcp6 range**, the **ip** parameter correctly has the syntax *prefix1*[-*prefix2*]. However, the second prefix was previously not optional. This issue has been resolved, so that the second prefix (of the form *ipv6address/ prefixlength*) is no longer required. If you do not enter a second prefix, it is now calculated from the first prefix. The second prefix has the same prefix length at the first and has all 1s in the non-significant part of the address. For example, the second prefix for 3ffe:1:2:3::/64 would be 3ffe:1:2:3:ffff:ffff:ffff:ffff/64.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00015881	**SNMP, Switch**	**3**	The SNMP objects dot3StatsSQETestErrors and dot3StatsCarrierSenseErrors are not supported on AR750S, AR410, and AR450S routers. Previously SNMP GET got a random value for these objects. This issue has been resolved. SNMP GET now gets 0 for these objects.	Y	-	Y	-	-	-	-	-	-	-
CR00015969	**WAN load balancer**	**3**	After the command **reset wanlb resource=all** was entered, WAN load balancer resources would show their state as "UP" even if the underlying IP interface was down. This issue has been resolved.	Y	Y	Y	-	-	-	-	-	-	-
CR00016001	**DHCPv6**	**3**	When a DHCPv6 client was soliciting for servers, the selection of the best server did not proceed in the way specified by the RFC. This issue has been resolved.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016177	**Switch, MIB**	**3**	The default value of the MIB object ifJackType for the GBIC slot on AT-8800 series switches was incorrect if no GBIC card was plugged in. This issue has been resolved. The default value is now "other(1)".	-	-	-	-	Y	-	-	-	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016228	**QoS**	**3**	If a QoS policy uses the same classifier more than once, the router or switch now displays a warning message. You should not use a classifier more than once in a policy because the operation of such policies is unpredictable.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016463	**DHCPv6**	**3**	For the command **create dhcp6 range**, DHCPv6 now checks that the specified address or prefix range is valid for the specified type of range. Valid options are: ■ *address1-address2* (e.g. 3ffe:1:2:3:4:5::1-3ffe:1:2:3:4:6::ffff) This is a range of addresses for address assignment (**type=normal** or **type=temporary**). ■ *address/prefixLen* (e.g. 3ffe:1:2:3:4:5::/96) This is a range of addresses for address assignment (**type=normal** or **type=temporary**). ■ *address/prefixLen-address/prefixLen* (e.g. 3ffe:1:2::/48-3ffe:1:40::/48) This is a range of prefixes for prefix assignment (**type=pd**).	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00016799	**Core**	**3**	For revision M1 of AR770S routers, the low-end threshold for monitoring the 1.2 volt rail was too high. This caused power supply monitoring false alarms. To check the router revision, use the command **show system** and check the "Rev" entry underneath the time and date. This issue has been resolved—the threshold is now correct.	-	-	Y	-	-	-	-	-	-	-
CR00017008	**Core**	**3**	Revisions M3-1and later of the AR745 router do not support Redundant Power Supplies. Therefore, for these routers, RPS monitoring information has been removed from output of the command **show system**, and it is no longer possible to use the command **set sys rpsmonitor**.	-	Y	-	-	-	-	-	-	-	-

Level 4

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00000396	**IGMP**	**4**	If a static IGMP port went link down, it was not shown in the "Static Ports" list in the output of the **show ip igmp** command. This was only a display issue. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00011560	**Install**	**4**	It is no longer possible to specify a compact flash file as the boot configuration file. If the command **set config=cf:**_**filename**_**.cfg** is entered, the router or switch does not change the current boot configuration file and instead displays the following error message: Cannot specify configuration file in Compact Flash	-	-	Y	-	-	-	-	Y	Y	Y
CR00013976	**IGMP**	**4**	The list of parameters output by the "?" help for **show ip igmp ?** incorrectly included "IGMP". This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015543	**Bridge**	**4**	In output of the command **show bridge spanning**, the bridge identifier was correctly displayed as a hexadecimal number, but it was not obvious that the number was hexadecimal. This issue has been resolved. The output now has 0x in front of the hexadecimal number, to make it clear that it is hexadecimal.	Y	Y	Y	-	-	-	-	-	-	-
CR00016126	**QoS, Switch**	**4**	When a QoS policy was associated with a port that was set to a speed less than the maximum speed of the port, a warning message would be displayed on the console session and in the log when the port state changed to UP. This message stated that the QoS policy operation may be affected by the speed setting of the port. Having this message displayed on the console was considered unnecessary and potentially confusing. This issue has been resolved.The message is now only displayed in the log.	-	-	-	Y	Y	Y	Y	Y	Y	Y
CR00016451	**IP Gateway**	**4**	When a second metric was displayed in the output of the command **show ip route** (because of OSPF, for example) this metric was truncated to 2 characters. This issue has been resolved. The output now displays both metrics in a field up to 10 characters long.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Enhancements

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014288	**GUI**	**-**	An ADSL connection option has been added to the Wizards page of the GUI for AR44xS routers. This option links to the xDSL configuration section, which lets you configure all basic ADSL or SHDSL settings on one convenient page. If your router GUI does not open at the Wizards page, click on the Wizards button at the top of the left-hand menu to access it.	Y	-	-	-	-	-	-	-	-	-
CR00014667	**PPP**	**-**	This enhancement increases the amount of time that the router or switch waits for a CHAP Success message. This enables the router or switch to successfully complete authentication, even in particularly slow networks. The first authentication attempt still times out after 3 seconds, but the second attempt takes 6 seconds to time out, and any further attempts take 9 seconds.	Y	Y	Y	Y	Y	-	-	Y	Y	Y
CR00015432	**ADSL, GUI**	**-**	The GUI for AR440S and AR441S routers now displays statistics for the ADSL port. You can now see: ■ a pop-up summary box, by clicking on the port on the System Status page ■ ADSL port details, by selecting the new ADSL Statistics page in the Diagnostics menu ■ ASDL port counters, by selecting the new ADSL Counters page under Layer 1 Counters in the Diagnostics menu	Y	-	-	-	-	-	-	-	-	-
CR00016078	**Software QoS, PPP, Ethernet, VoIP**	**-**	The router or switch now supports software QoS on PPPoE interfaces. Note that this enhancement is not available on AR770S routers.	Y	Y	Y	Y	-	-	-	-	-	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016150	**IPsec, IPv6**	-	To establish a tunnelled IPsec connection for IPv6, you may need to specify the source IP interface in the IPsec and ISAKMP policies. This enhancement enables you to do so. To specify the source interface, use the **srcinterface** parameter in the commands: create ipsec policy=*name <other parameters>* set ipsec policy=*name <other parameters>* create isakmp policy=*name <other parameters>* set isakmp policy=*name <other parameters>* The global address of the source interface (if available) will be used as the local address of the policy.	Y	Y	Y	Y	Y	-	-	-	-	-
CR00016221	**Load, MIBs**	-	With this enhancement, you can use SNMP to: ■ set parameters for uploading files from the router or switch, and ■ upload files to a TFTP server SNMP already lets you save the current configuration to a file on the router or switch. You can use this with the new options to back up the configuration to a TFTP server. For more information, see "Backing up the configuration with SNMP—CR00016221" on page 96.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016234	**DHCP Snooping**	**-**	This enhancement enables the router or switch to log discarded ARP requests when ARP security is enabled. By default, discarded ARP requests are not logged. To turn logging on, use the command: enable dhcpsnooping log=arpsecurity To turn it off, use the command: disable dhcpsnooping log=arpsecurity To see whether it is enabled, use the existing command: show dhcpsnooping and check the new "Logging enabled" entry. To view the log entries, use the command: show log	-	-	-	Y	Y	Y	Y	Y	Y	-
CR00016285	**MACFF**	**-**	It is now possible to use MAC-forced forwarding on non-private VLANs. Because MAC-forced forwarding is primarily a security feature, the switch displays a warning message if you do so. This enhancement allows you to use MAC-forced forwarding to limit broadcast traffic in a network where private VLANs are not appropriate.	-	-	-	Y	Y	Y	Y	Y	Y	-
CR00016361	**Switch**	**-**	AT-8948, AT-9900 and x900-48 series switches now support AT-SPTX tri-speed Cu SFPs.	-	-	-	-	-	-	-	Y	Y	-
CR00016437	**MSTP**	**-**	In the command **set mstp configname=*name***, the switch now accepts the character "." in the ***name***.	-	-	-	Y	Y	Y	Y	Y	Y	-

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016459	**Core**	**-**	This enhancement disables CPU fan monitoring on AT-8948 switches. Monitoring the fan is unnecessary unless an accelerator card is installed on the switch, so disabling monitoring reduces the number of messages that the switch displays and logs. To enable monitoring, use the command: enable cpufanmonitoring To disable it again, use the command: disable cpufanmonitoring When monitoring is enabled, the command **show system** displays the CPU fan status in the entry labelled "Main fan".	-	-	-	-	-	-	-	Y	-	-
CR00016523	**SNMP**	**-**	This enhancement enables you to specify whether SNMP adds 0x00 padding when the most significant 9 bits of an object's value are all 1, or whether the encoding follows the ASN.01 BER rule, which cuts off the most significant byte of 0xff. This setting has an impact on all integer type MIB objects, including 32 bit and 64 bit counter objects. To add the padding, use the command: set snmp asnberpadding={on|yes|true} For examples, see "SNMP ASN.01 BER Padding—CR00016523" on page 99.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00016758	**IP NAT**	**-**	This enhancement enables you to turn off TCP state and sequence checking in IP NAT. It also allows all ICMP packets go through IP NAT. To do this, use the command: enable ip nat bypasstcp When **bypasstcp** is enabled, IP NAT performs IP address and port translation for TCP packets and forwards the packets, regardless of the TCP sequence number and the current TCP state. It also allows ICMP echo reply and other ICMP packets to initiate a session and get forwarded. To disable the bypassing, use the command: disable ip nat bypasstcp Bypassing is disabled by default because it degrades the security of IP NAT. However, it is useful when you need NAT on VRRP routers. Note that this enhancement does not apply to firewall NAT.	Y	Y	Y	-	-	-	-	-	-	-
CR00016776	**IP Gateway**	**-**	This enhancement allows ARPs to move between ports on the router's VLAN interfaces.This assists with wireless station roaming. To enable this feature, use the command: enable ip arp silentroam To disable it, use the command: disable ip arp silentroam	Y	-	Y	-	-	-	-	-	-	-
CR00016785	**Core**	**-**	The default summertime dates have been updated to reflect the changes for North America made by the American Energy Policy Act of 2005. By default, summertime now starts on the second Sunday in March and ends on the first Sunday in November.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00016977	**Script**	**-**	This enhancement enables you to use aliases in commands in script files. The router or switch expands the aliases when it runs the script (except when it runs the script at start-up).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Features in 291-04

Software Maintenance Version 291-04 includes the resolved issues and enhancements in the following tables. In the tables, for each product series:

■ "Y" indicates that the resolution is available in Version 291-04 for that product series.

■ "–" indicates that the issue did not apply to that product series.

Level 1

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013787	ISAKMP, Logging	1	It was possible for invalid log messages to overwrite the log message buffer and cause the router or switch to reboot. Such invalid log messages could occur with VPN tunnels, for example. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013813	TTY, User	1	When a user telnets into the router or switch, to login via RADIUS authentication, the telnet connection establishes and then user login authentication starts. Previously, if the remote user closed the telnet connection before RADIUS responded to the authentication request, then the router or switch rebooted when it received the RADIUS Reply message. This issue has been resolved. The router or switch now does not reboot if the telnet connection is closed before the RADIUS Reply message arrives.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013963	Switch	1	Under heavy broadcast traffic, it was possible for the switch forwarding database (FDB) to lock up. This issue has been resolved.	–	–	–	–	–	–	–	Y	Y	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014145	Core DHCP Snooping	1	DHCP Snooping determines when a client lease will expire by taking the current time and adding the client's assigned lease period to it. Previously, DHCP Snooping did not update this expiry time if the switch's clock time changed, which can happen because of NTP, summertime, or a user manually re-setting the time. Therefore, if the switch's clock time changed, DHCP clients could expire and lose connectivity. This issue has been resolved. If the switch's clock changes, DHCP Snooping now updates its client expiry times.	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00016314	Core	1	AR442S routers did not run the user-specified configuration script at start up. Also, they incorrectly displayed the message "INFO: Initialising Flash File System" twice during start up. These issues have been resolved.	Y	–	–	–	–	–	–	–	–	–

Level 2

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00010511	BGP	2	Turning **defaultoriginate** on or off for a BGP peer (by using the command a**dd bgp peer**) did not cause BGP to generate an update, even if automatic updating was enabled (**enable bgp autosoftupdate**). This issue has been resolved.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00012564	L2TP	2	Setting a timeout on L2TP packet debugging caused the router or switch to reboot. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013592	**HTTP**	**2**	A badly formed response from a particular HTTP server caused the router or switch to reboot when it attempted to load a non-existent file from that server. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013700	**IP Gateway**	**2**	When an IP packet was queued by the ENCO module or other applications, and the IP flow for the packet became invalid while the packet was queued, the router or switch sometimes rebooted. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013791	**IGMP, VLAN**	**2**	Disabling IGMP snooping correctly increased the number of L3 filter matches available. However, if the configuration was saved and then run after a reboot, the switch incorrectly limited the number of L3 filter matches to the number available when IGMP snooping was enabled. If the maximum number of matches had been configured, this meant that some matches were missing after a reboot. This issue has been resolved.	–	–	–	Y	Y	Y	Y	–	–	–
CR00013823	**Switch**	**2**	In very rare circumstances, a port could stop transmitting traffic if its speed was modified or it was reset while under heavy traffic load. This issue has been resolved.	–	–	–	–	–	–	–	–	–	Y
CR00013929	**ADSL ATM Ethernet**	**2**	When performing RFC1483 encapsulation of Ethernet frames, the AR44xS routers did not pad frames out to the 64-byte minimum frame size (the RFC does not require such padding to be performed). This resulted in an interoperability issue with ATM switches that discarded (rather than padded) the undersize frames upon decapsulating them. The effect of this was that when an AR44xS router was connected to an ATM network that contained such switches, the router could fail to connect at the PPP session level. This issue has been resolved. The router now always pads undersize Ethernet frames to the 64-byte minimum frame size before it performs RFC1483 encapsulation. This avoids the possibility of this interoperability issue.	Y	–	–	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014228	**Switch**	**2**	When the router generated packets (such as ARP requests) and sent them out multiple LAN ports, it always sent them as untagged packets. This issue has been resolved, so that LAN traffic will be tagged or untagged as specified in the VLAN port configuration.	–	–	Y	–	–	–	–	–	–	–
CR00014269	**Switch**	**2**	If a user explicitly set the learn limit to zero by entering the command: set switch port=*number* learn=0 intrusion=discard and the learn limit had either not been explicitly set previously or had been explicitly set to a non-zero value, then the switch would not learn any MAC addresses. It treated 0 as meaning "learn 0 addresses" instead of meaning "no limit". This issue has been resolved. A learn limit of 0 means "no limit" in all circumstances.	–	–	–	–	–	–	–	Y	Y	–
CR00014298	**Switch**	**2**	Packet loss sometimes occurred when an IGMP snooping group timed out. This issue has been resolved.	–	–	–	–	–	–	–	Y	Y	–
CR00014323	**Switch EPSR**	**2**	When EPSR was used in a network with a 10 Mbps multicast or broadcast flow, the EPSR ring frequently alternated between a state of failed and complete. This issue has been resolved.	–	–	–	–	–	–	–	Y	Y	–
CR00014340	**Bridge, Switch, VLAN**	**2**	Bridging STP did not work if a VLAN was added as a bridge port. This issue has been resolved.	Y	–	Y	–	–	–	–	–	–	–
CR00014437	**Core Install Stacking**	**2**	If a switch's configuration was saved (by using the command **create config=*filename***), and then the command **set config=*filename*** was entered, the configuration file should have been propagated through the stack to other switches that did not have a file of that name. This did not happen. This issue has been resolved.	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00014673	**Load**	**2**	Attempts to upload a file to a TFTP server failed if a invalid IP address was specified in previous attempts. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014714	PIM	2	If a PIM interface was set as the BSR candidate interface (by using the command **add pim bsrcandidate interface=***interface*) and that interface went down, PIM would select another interface as the BSR candidate interface. The router or switch also set the new interface as the BSR candidate interface in the dynamic configuration. This issue has been resolved. PIM only looks for a new interface to use as the BSR candidate address if the user has not specified an interface.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00014748	Reverse Telnet	2	Reverse Telnet used to filter out Ctrl-D characters, making it impossible to perform certain actions on the remote device. This issue has been resolved.	Y	Y	Y	Y	–	–	–	–	–	–
CR00014795	RIPv6	2	When a user disabled RIPv6 or deleted a RIPv6 interface, the router or switch correctly set the metric of any affected RIPv6 routes to 16, indicating that the route was unavailable. However, the router or switch continued to try to use such routes to route packets if no alternative better routes existed. This issue has been resolved. When a route's metric is 16, it is no longer used to route traffic.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00014834	Switch	2	When STP detected a topology change and therefore the switch flushed its ARP table entries, sometimes the switch did not remove entries for non-lead trunk ports. Therefore, ARP entries for these ports contained incorrect routing information. These incorrect entries were not replaced until after they timed out. This issue has been resolved.	–	–	–	Y	Y	Y	Y	Y	Y	Y
CR00014925	IP Gateway	2	When the switch had a static route to a destination, and a user added a more specific static route to the same destination, then the switch should have removed the less specific route from its hardware switching table, but did not. This stopped the switch from routing packets to that destination. This issue has been resolved.	–	–	–	Y	Y	Y	Y	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014987	**Core Switch**	**2**	If a terminal emulator started up after the router started up, the router did not display a login or command prompt. This issue occurred with some terminal emulators (including Tera Term Pro) when connecting to the AR415S router. This issue has been resolved.	Y	–	–	–	–	–	–	–	–	–
CR00015032	**PKI**	**2**	When adding a certificate to PKI, if the length of the public key in the certificate was longer then 2048 bits (256 bytes) the router or switch could reboot. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015071	**IP Gateway**	**2**	Routing over a PPP interface could fail if the switch had a default route out an Ethernet port. The default route switched all packets, even those destined for the PPP interface. This issue has been resolved. The resolution involves adding routes over the PPP interface to the switch hardware tables with an instruction to trap these packets to the CPU. Therefore these routes now appear in the hardware tables, and can be displayed by using the command **show switch table=ip**.	–	–	–	–	–	–	–	Y	Y	Y
CR00015087	**Classifier, DHCP snooping, Switch, MACFF**	**2**	When MAC-forced forwarding (MACFF) was running, the switch did not filter multicast packets correctly. This issue has been resolved.	–	–	–	Y	Y	Y	Y	–	–	–
CR00015156	**Switch**	**2**	On AR750S, AR750S-DP, and AR400 Series routers, if a user set a switch port to autonegotiate speed and duplex mode (by using the command **set switch port=number speed=auto**), the link went down. This issue has been resolved.	Y	–	Y	–	–	–	–	–	–	–
CR00015207	**Firewall**	**2**	If a VoIP call came in through the SIP ALG from the public side of the firewall and was then transferred by the device on the private side, the firewall session was not always updated. When this happened, the person to whom the call was transferred could not hear the person who had called. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	–	–	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015348	**GUI**	**2**	The GUI could not be used to access the dual power supply AR750S-DP router. This issue has been resolved. The GUI resource file to use is 750s_281-06_en_d.rsc.	–	–	Y	–	–	–	–	–	–	–
CR00015396	**IP Gateway**	**2**	If you defined an IP filter without specifying the optional **type** parameter, the default value of **type=traffic** was added to the filter in the dynamic configuration. This prevented you from using the configuration file with software version 2.7.6 and older releases. This issue has been resolved. The **type** parameter is only added to the dynamic configuration if you enter a value for it.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015474	**Ethernet**	**2**	If an AR020 PRI E1/T1 PIC was installed on an AR415S, the router's Ethernet interface stopped receiving unicast or multicast packets correctly—it only received broadcasts correctly. This issue has been resolved.	Y	–	–	–	–	–	–	–	–	–
CR00015638	**Switch**	**2**	On AR770S routers, when generating multicast or broadcast CPU traffic out a VLAN that had multiple active switch ports in it, the traffic would only egress port 1. This issue has been resolved.	–	–	Y	–	–	–	–	–	–	–
CR00015697	**Switch**	**2**	Mirroring the traffic on port 1 of any line card caused the switch to lose packets.	–	–	–	–	–	–	–	–	–	–
CR00015925	**ADSL**	**2**	The ADSL Annex B firmware has been updated on AR441S routers. This improved interoperability with some DSLAMs.	Y	–	–	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015936	**Switch**	**2**	It was not possible to set a tri-speed SFP to a fixed speed in the configuration script that the AT-9924SP switch runs when it starts up. This issue has been resolved, so the SFP can be set to a fixed speed from the configuration script Also, it was possible to use the command **set swi port=*number* speed** on an empty SFP bay. The command reported that the operation had been successful, but an inserted SFP was instead set to its previous or default setting. This issue has been resolved. It is no longer possible to set the speed of an empty SFP bay.	–	–	–	–	–	–	–	–	Y	–
CR00015949	**IPv6**	**2**	Sometimes, when a router or switch received an IPv6 router advertisement message, it incorrectly created a duplicate of an already-existing interface route. If a user then deleted the IPv6 interface that these two routes belonged to, the router or switch could reboot. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00015971 **CR00015937** **CR00015864**	**WAN Load Balancing**	**2**	The following issues occurred with WAN load balancing (WANLB): ■ when a WANLB resource port became unavailable, existing sessions on the unavailable resource did not move to a backup resource ■ if packets were sent over a WANLB session, then that session timed out, and then the same packets were sent again, a new session did not establish. This stopped the packets from being sent the second time. ■ when WANLB was used with Firewall NAT, the orphan timeout setting of WANLB sessions was not updated correctly. This could mean that WANLB resources appeared to be available when they were not. These issues have been resolved.	Y	Y	Y	–	–	–	–	–	–	–
CR00016037	**User**	**2**	If the router or switch used RADIUS authentication and all the RADIUS servers were unavailable, then the device correctly checked its user database for a RADIUS backup user and authenticated that user. However, if that user then logged out, they were unable to log in again until after the RADIUS server Dead Time timer had expired. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Level 3

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00007000	**GUI, IGMP**	**3**	The graphical user interface (GUI) listed an invalid local interface in the Interface drop-down list on the page for adding a static IGMP association. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	–	Y	Y
CR00009274	**Switch IP Gateway**	**3**	If many VLANs simultaneously went from up to down, or down to up, the switch became unresponsive for a period of time. This issue has been improved by reducing the processing overhead for VLAN state changes.	–	–	–	–	–	–	–	Y	Y	–
CR00009302	**Switch**	**3**	The number of filters that can be created on an AT-8848 switch is limited by the number of filter matches available. Previously, if a user attempted to create a filter, and an existing filter already used the same filter match as the new filter, the switch counted this as two matches being used. This reduced the number of available filters. This issue has been resolved.	–	–	–	–	Y	–	–	–	–	–
CR00009478	**BGP**	**3**	When a peer's **inroutemap** filter assigned an incoming route to a well-known BGP community, the router or switch did not use the community's restricted advertisement settings, such as NoExport or NoAdvertise. This issue has been resolved. Also, output of the command **show bgp peer** now shows whether a route has been assigned to a community. This is indicated by a flag "m", as shown in bold in the following route entry example: > 192.2.2.0/24 192.168.1.2 IGP - 100 **m** SEQ 1; The flag "m" indicates that this route has at least one community attached to it.	Y	Y	Y	Y	Y	–	–	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00010136	**IP Gateway**	**3**	If an IP interface was added and deleted many times, an excessive number of memory buffers became full. Also, when an IP interface was deleted, the IGMP query timer (**set ip igmp int=***interface* **querytimeout=***value*) sometimes continued running and later caused the router or switch to reboot. These issues have been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00012230	**IP Gateway**	**3**	When running the boot ROM release, it was possible to configure the router or switch as a DHCP client by using the command **add ip interface=***int* **ip=dhcp**. However, the boot ROM release does not include the DHCP client feature, so the router or switch did not receive an IP address via DHCP. This issue has been resolved. It is no longer possible to configure the router or switch as a DHCP client when running the boot ROM release.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00012493	**IP Gateway, IGMP Proxy**	**3**	Where IGMP proxy is enabled, only one upstream interface may be defined. Previously, when the command **add ip interface=***int* **ip=***ipadd* **igmpproxy=upstream** was used to try to create a second upstream interface, an error message was correctly displayed. However, the interface was still added, using **igmpproxy=off**. This issue has been resolved. The second interface is no longer added if this error occurs. Also, if an interface had been set as the upstream interface and was later changed to a downstream interface, a different upstream interface could not be specified, even though there was no active upstream interface. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00012585	**User**	**3**	When authenticating users via RADIUS, the number of times that the router or switch attempts to contact the RADIUS server is determined by the Server Retransmit Count (displayed in output of the command **show radius**). Previously, this count incorrectly included the initial request. For example, a Retransmit Count of 3 meant that up to 3 attempts were made to contact the server. This issue has been resolved, so that the Retransmit Count no longer counts the initial request. For example, a Retransmit Count of 3 now means that up to 4 attempts are made to contact the server.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00012832	**BGP**	**3**	When the router or switch had thousands of static routes and BGP static import was periodically turned on and off, BGP used an excessive number of memory buffers. Excessive buffer use could also occur with BGP in other rare circumstances. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00012858	**DHCP**	**3**	Previously, it was not possible to have multiple static DHCP entries with the same client ID (MAC address), even if the static entries were for different DHCP ranges. This issue has been resolved. You can now add static DHCP entries for a given MAC address to multiple ranges. Note that you cannot have multiple entries for a given MAC address on the same range.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013150	**File**	**3**	If a boot configuration script included a command to delete a file followed by a command to create a file of the same name, a fatal exception occurred when the router or switch ran that script on reboot. This issue has been resolved so that the fatal exception no longer occurs. However, you should avoid putting such file operations into boot configuration scripts. To enhance multi-tasking, the file handler performs file operations in the background. This is not possible when executing a boot configuration script, so the file operations may be queued until after boot-up. In this case, this means that the file deletion will not be finished before the file creation command tries to execute.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013629	**IGMP**	**3**	When IGMP fast leave was enabled and the switch received a leave message via a trunk port, the switch only removed the port from the multicast group if the port was the master trunk port. This issue has been resolved. When fast leave is enabled, non-master trunk ports now leave multicast groups as soon as the switch receives a leave message.	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00013694	**Switch, IP Gateway**	**3**	For layer 3 Jumbo frames, this software version improves initial layer 3 flow setup and handling of flows that exceed the layer 3 MTU mid-flow.	–	–	–	–	–	–	–	–	Y	–
CR00014038	**IGMP IP Gateway**	**3**	The IGMP Default Timeout Interval is automatically calculated by IGMP in accordance with RFC 2236, but the following command allows you to over-ride the calculated value: set ip igmp timeout=*value* Previously, the router or switch sometimes set the interval to the calculated value instead of using the value entered in the command above. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014047	**DHCP Snooping**	**3**	Previously, DHCP snooping correctly refused to allocate new DHCP leases once the **maxleases** value had been exceeded, but it did so by discarding the server's acknowledgement message instead of forwarding it to the client. Therefore, the DHCP server recorded the address as allocated, which meant the IP address range could be exhausted. This issue has been resolved. The server no longer records addresses as allocated once the **maxleases** value is exceeded.	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00014152	**Switch**	**3**	On AR415S, AR44xS, AR750S and AR770S routers, when a switch port went down or was reset by using the command **reset switch port=*number***, this deleted the dynamically-learned forwarding entries for all ports. This issue has been resolved. Now entries are only deleted for the port that went down or was specified in the command.	Y	–	Y	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014163	**Firewall**	**3**	When the firewall was performing NAT on UDP video streams and two streams started up at the same time, sometimes one or both streams displayed excessive jitter. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	–	–	–
CR00014178	**Core**	**3**	The following issues occurred with environmental monitoring: ■ on AR750S and AR770S routers, the values reported by the **show system** command were incorrect for the first few seconds after a cold restart ■ on AR770S routers, the router did not indicate power supply problems through log messages or the system LED These issues have been resolved.	–	–	Y	–	–	–	–	–	–	–
CR00014285	**BGP**	**3**	The default setting for BGP capability matching is now **loose** instead of **strict**. This matches the requirements of RFC 4271.	Y	Y	Y	Y	Y			Y	Y	Y
CR00014305	**Switch**	**3**	On AT-8748XL and Rapier 48i switches, mirroring did not work when: ■ only one (not both) of the uplinks had an expansion module installed and ■ that uplink (port 49 or 50) was the mirror port This issue has been resolved.	–	–	–	Y	–	–	Y	–	–	–
CR00014313	**GUI, Log**	**3**	If the user cleared the Queue Output checkbox on the Modify Log Output Definition page of the GUI, it displayed an error instead of making the change. This issue has been resolved. The GUI can now be used to turn off queuing of logging output.	Y	Y	Y	Y	Y	Y	Y	–	Y	Y
CR00014327	**MSTP, GUI**	**3**	When using the GUI to configure the MSTP CIST, users had to specify the external and internal port path costs. If these were not specified, the GUI gave an error instead of configuring the CIST. This issue has been resolved. By default, the GUI now specifies "default" for the path costs. This value of "default" leaves the current setting unchanged.	–	–	–	Y	Y	Y	Y	Y	Y	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014328	**IP Gateway, Switch**	**3**	If a port had static ARP entries defined for a VLAN, then adding the port to another VLAN made those static ARP entries inactive. Also, deleting a port from a VLAN would delete all static ARP entries that were defined on that port, including entries for other VLANs. Note that this deletion issue did not occur on Rapier i, AT-8800, AT-8700XL, or AT-8600 Series switches. Both of these issues have been resolved.	Y	–	Y	Y	Y	Y	Y	Y	Y	Y
CR00014652	**PIM6**	**3**	If a user changes the PIMv6 BSR candidate priority to the same value as the currently-elected BSR's priority, then the router or switch should be elected as the BSR if its IPv6 address is higher than the currently-elected BSR. This did not happen. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00014659	**DHCP**	**3**	On the DHCP server, a user could create two static DHCP entries for the same client in one range. This was only possible if the client had first obtained a dynamic address from the server. This issue has been resolved. It is now impossible to add the same static client twice, even when that client has a pre-existing dynamic entry.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014724	**IGMP Snooping**	**3**	When the router or switch received an IGMP Leave message, it did not update IGMP Snooping counters correctly in some circumstances. This issue has been resolved.	Y	–	Y	Y	Y	Y	Y	Y	Y	Y
CR00014746	**WANLB, IP Gateway**	**3**	It was possible to delete an IP interface that was configured as a WAN load balancer resource. This issue has been resolved.	Y	Y	–	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014755	**BOOTP IP Gateway**	**3**	It was possible to add a BOOTP relay destination using an interface that was not running IP. It was also possible to delete an IP interface even though BOOTP relay destinations were defined for the interface. Both of these situations could allow the router or switch to be mis-configured. This issue has been resolved by adding checks for these situations to the command handlers. It is no longer possible to add a BOOTP relay destination using an interface not in use by IP, and no longer possible to delete an IP interface if BOOTP relay has destinations defined using that interface.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014782	**PIMv6**	**3**	The command **show pim6 staterefresh** sometimes corrupted the terminal display output with random characters. To recover, it was necessary to reset the terminal session. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00014872	**GUI**	**3**	The router or switch rebooted if the Opera browser was used to browse to its GUI. This issue has been resolved. However, note that the GUI does not fully support Opera. Some functionality may not be available.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015107	**GUI**	**3**	HTTP pipelining did not operate correctly on some web browsers when browsing to the GUI. This made some images very slow to load. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	–	Y	Y
CR00015126	**IP Gateway**	**3**	For IP filters of **type=routing**, the first filter entry could not be set to match on the following IP address/mask pair: source=0.0.0.0 smask=255.255.255.255 This IP address/mask pair corresponds to the default route. This issue has been resolved. You can now match on the default route in the first entry of a filter.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015148	**IP Gateway DHCP**	**3**	When a router or switch was configured to use DHCP to assign an address on an interface, and then set to have a static address on that interface, the DHCP client in the router or switch would continue to negotiate with the DHCP server. This tied up a DHCP lease. This issue has been resolved. Assigning a static address to an interface will stop the DHCP client from requesting an address from a DHCP server.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015155	**Load**	**3**	File upload via the IPv6 version of TFTP was not operating correctly. This issue has been resolved.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00015159	**IP Gateway**	**3**	If the router or switch received an IP subnet broadcast packet that was directed to a unicast MAC address, it incorrectly responded with an ICMP unreachable message, unless an appropriate IP helper configuration existed. This issue has been resolved. When there is no IP helper configuration, the behaviour now depends correctly on the setting of the **directedbroadcast** parameter for the IP interface. If **directedbroadcast=on**, the packet is sent out as a MAC broadcast. If **directedbroadcast=off**, the packet is dropped. ICMP unreachable messages are not sent in any case.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015258	**IGMP snooping VLAN**	**3**	The command **add igmpsnooping vlan=***vlan* **routerport=***port* adds a static IGMP router port, for a specific VLAN and port pair. Previously, it was possible to remove the port from that VLAN without updating the static router port association. This issue has been resolved. When you remove a static router port from a VLAN, the router or switch now removes that port from the static router port list and updates all layer 2 entries.	Y	–	Y	Y	Y	Y	Y	Y	Y	Y
CR00015346	**Switch**	**3**	The 64-bit counter type objects in the ifXTable of the Interfaces Group MIB (RFC 2863) returned non-zero values for ports that had never been up. This issue has been resolved.	Y	–	Y	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015666	**IP Gateway**	**3**	Subnet broadcast packets would not be routed correctly when the interface to which the subnet broadcast was destinated was an interface on the device, but its link status was down. Even though an alternate route to the destination existed, the device would send the packets incorrectly. This issue has been resolved. When a subnet broadcast is received, it will be correctly forwarded to an alternate route even if the destination interface is down.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00015798 **CR00016058**	**Switch**	**3**	If the switch received a packet on a port and therefore started using MAC-based authentication to authenticate the port, and then received another packet during the authentication process, then occasionally the switch dropped the second packet. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	–
CR00015915	**Ethernet**	**3**	The AR415S router processed some IP multicast packets incorrectly on its eth0 interface. This issue has been resolved.	Y	–	–	–	–	–	–	–	–	–

Level 4

CR	Module	Level	Description	AR400	AR7x5	AR7x05	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00004677	**Core**	**4**	When the router or switch rebooted, its internal clock lost approximately 1 second. This issue has been resolved. The time loss on reboot has been reduced.	Y	Y	Y	Y	Y	–	Y	Y	Y	Y
CR00009087	**Core, Utility**	**4**	The following issues occurred with the commands **show debug active** and **disable debug active**: ■ The command did not adequately warn users if an invalid module number had been entered into the **active** parameter. This issue has been resolved. The router or switch now displays an error unless the value is between 1 and 142. ■ The CLI "?" help description for the **active** parameter listed an incorrect number range and also listed modules that cannot be manipulated through this command. This issue has been resolved. The "?" help description is now correct.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00011695	**QoS**	**4**	The "?" help description for switch commands that accept a value in bytes (or similar units such as kbytes or bytes/s) incorrectly indicated that the units were bps. The commands this issue applied to depend on the switch model, but include commands such as: create qos trafficclass=*value* maxburst=? create qos policy=*value* dtcmaxburst=? set qos red=*value* start1=? set swi port=*value* bcl=? set swi dlfl=? This issue has been resolved. The "?" help description now displays the correct units.	–	–	–	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00012602	**MSTP**	**4**	If the command **set mstp cist port=*value*** was entered with no other parameters, the resulting error message ("One or more parameters may be missing") was displayed as an INFO message. This issue has been resolved. The message now displays as an ERROR message.	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00013045	**SNMP, Core, TTY**	**4**	The MIB object hrSystemNumUsers displayed the number of login users since the router or switch started up, instead of the number of currently-active login users. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013112	**IP Gateway**	**4**	The **blackhole** parameter of the commands **add** and **set ip route** had no "?" help description. This issue has been resolved.	–	–	–	–	–	–	–	Y	Y	–
CR00013188	**LACP**	**4**	Previously, when an attempt to add a port to LACP was unsuccessful, the switch displayed an appropriate warning message followed incorrectly by an "operation successful" message. This issue has been resolved. The switch no longer displays "operation successful" when port addition fails.	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00013221	**IP Gateway**	**4**	The output of the command **show ip route** did not contain any spaces between the route tag value and the metric value when the tag value was long. This issue has been resolved by adding the missing spaces. The content and relative position of the values have not changed.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013260	**TACPLUS**	**4**	If a user added a TACACS+ server when TACACS+ was not enabled, previously the router or switch displayed a single "info" message that indicated that the module was not enabled, but did not display a message confirming the server addition. However, the router or switch did add the server. This issue has been resolved. TACACS+ is now consistent with other modules—the router or switch displays the following "warning" and "info" messages: Warning (2111049): The TACP module is not enabled. Info (1111003): Operation successful.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013463	**Ping**	**4**	Previously, if you used the ? or Tab keys to obtain help about the **timeout** parameter for the **ping** command, the resulting help said that the maximum timeout was 65535. However, the correct maximum is 60 seconds. This issue has been resolved. The "?" help now displays the correct range of values.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013589	**Install**	**4**	When a router or switch was using a trial licence for release software and the trial period elapsed, the router or switch rebooted without indicating the reason for the reboot. This issue has been resolved. The following error messages now explain why the router or switch is rebooting: ERROR: There are no valid licences available for the current software release. The device will now reboot. ERROR: The trial licence for the current software release has expired. The device will now reboot.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013640	**NTP**	**4**	Output of the command **show ntp** displays a "Host Address" field. This is the address of the interface from which the router or switch sends NTP packets. Previously, if the IP address changed, the "Host Address" field did not change, even though NTP used the new address. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014106	**Core**	**4**	If the router or switch runs a configuration file on start-up that contains the command **set summertime** before the command **enable summertime**, a log message on start-up says that summertime needs to be enabled. However, summertime is correctly applied to the router or switch. Previously, if you configured summertime then saved the configuration by using the command **create config**, **set summertime** came before **enable summertime** in the resulting configuration file. This issue has been resolved. When you save the configuration, **enable summertime** now comes before **set summertime** in the resulting configuration file, so the log message is not produced.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014151	**VLAN**	**4**	The following error message: "Error (3089399): Operation not allowed on a .NESTED port." contained an extraneous "." before the word "NESTED". This issue has been resolved. The "." has been removed.	–	–	–	–	–	–	–	Y	Y	–
CR00014170	**Core**	**4**	The **show exception** command did not display the correct exception type for watchdog exceptions on AR750S, AR750S-DP, or AR770S routers. This issue has been resolved. The correct exception type is now displayed.	–	–	Y	–	–	–	–	–	–	–
CR00014250	**LLDP**	**4**	In output of the command **show lldp localdata**, the field lldpLocSysDesc gives information about the router or switch model and software version. Previously, this information was sometimes split incorrectly across 3 rows. This issue has been resolved. The information now displays correctly.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014318	**DDNS**	**4**	If a user made a configuration change to DDNS (dynamic DNS) when DDNS was not enabled, previously the router displayed a message that indicated that the module was not enabled, but did not display a message confirming the change. However, the router did make the change. This issue has been resolved. DDNS is now consistent with other modules—the router displays the following "warning" and "info" messages: Warning (2142049): The DDNS module is not enabled. Info (1142003): Operation successful.	Y	–	Y	–	–	–	–	–	–	–
CR00014367	**GUI**	**4**	The GUI included pages for configuring MAC-based port authentication. However, this feature is not available on AT-9800 Series switches. This issue has been resolved. The GUI pages have been removed.	–	–	–	–	–	–	–	–	–	Y
CR00014712	**Firewall**	**4**	If the router or switch renumbered a firewall rule, it displays a message. Previously, this message had a status of "info" instead of "warning". This issue has been resolved.	Y	Y	Y	Y	Y	–	–	–	–	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014750	**DHCP**	**4**	Previously, when a user entered the command **delete dhcp range=*range* ip=*ipadd***, the router or switch would display an "Operation successful" message, even when the client entry in question was unused. This issue has been resolved. For unused clients, this command now results in the following new message: "Nothing to delete, client is unused."	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014778	**VLAN, Bridging**	**4**	It was possible to specify a value of 0 for the **ageingtimer** parameter in the command **add** and **set vlan=*vlan* bridge**, even though this value was meaningless. This issue has been resolved. The lowest valid value for **ageingtimer** is 1.	Y	–	Y	Y	–	–	–	–	–	–
CR00015080	**ATM**	**4**	When an SHDSL or ADSL interface re-trained after having been in a "link up" state, spurious error messages could appear on the console. This issue has been resolved. The messages were not genuine error messages and no longer appear.	Y	–	–	–	–	–	–	–	–	–
CR00015130	**Switch**	**4**	The following commands have been deprecated in software versions 2.9.1 and later, and therefore (correctly) have no effect on the switch: set switch port=*number* thrashlimit=*value* set switch port=*number* thrashrefill=*value* Previously, if a user entered these commands, the switch incorrectly displayed an "Operation successful" message. This issue has been resolved. The switch now displays a warning message indicating that the commands are deprecated. For information about the commands that replace these commands, see the "Limiting Rapid MAC Movement" section of the Switching chapter of the Software Reference.	–	–	–	–	–	–	–	Y	Y	–

Enhancements

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00003036	**Core**	**-**	It is now possible to hotswap NSMs on NEBS-compliant Rapier i switches. To hotswap the NSM, press the Hot Swap button beside the NSM, check that the Swap LED turns on and the In Use LED turns off, then remove the NSM. Place the new NSM in the bay, then press the Hot Swap button again to make the NSM available for use.	–	–	–	Y	–	–	–	–	–	–
CR00012881	**IP Gateway**	**-**	The IP implementation has been enhanced to accept IP interfaces with a /31 netmask. This results in a slightly non-standard subnet that has no network address or broadcast address. This has become a popular extension to IP, because it reduces wastage of IP addresses on point-to-point links.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013129	**Many**	**-**	This enhancement extended the "?" help for VRRP, OSPF, SNMP, IP routes, user database, VLANs, logging, and file management. The "?" help for these (and several other) modules now gives information about all command parameters.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00013449	**Firewall**	**-**	The firewall now supports FTP sessions that use the security extensions defined in RFC 2228. Previously, the firewall dropped sessions that used those security extensions. This enhancement makes more-secure FTP available between private-side clients and public-side servers, and between public-side clients and private-side servers.	Y	Y	Y	Y	Y	–	–	–	–	Y
CR00013610	**Telnet TTY**	**-**	This enhancement enables you to select whether the system name appears at the login prompt for telnet client sessions. By default, the system name appears. To prevent it from appearing, use the command: SET TELnet LOGINSYStemname=OFF Note that the login prompt appears before you log into the router or switch.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013992	**Core**	**-**	AR770S routers have a CPU fan that the software now monitors in the same manner as the main fan. The state of the CPU fan is displayed along with that of the main (chassis) fan in the output of the **show system** command. If a problem develops with the CPU fan, the router notifies you in the following ways: ■ The system LED flashes in a single flash pattern ■ An SNMP trap is issued on the fanAndPSMainFanStatus atRouter private MIB object ■ A log message is generated that says "CPU fan status is not good".	–	–	Y	–	–	–	–	–	–	–
CR00014067	**File**	**-**	The commands **create file**, **add file**, **reset file permanentredirect**, and **show file permanentredirect** were not supported on AR725 and AR745 routers. These commands enable you to save the output of other router commands in text files on the router. For more information about these commands, see the "Managing the File System" chapter of the Software Reference.	–	Y	–	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014172	**BOOTP**	**-**	This enhancement enables you to associate a BOOTP relay destination with a given interface. To do this, use the new optional **interface** parameter in the command: ADD BOOTp RELAy=*ipadd* INTerface=*interface* BOOTP packets received on this interface are relayed to the specified relay destination only. You can define the same interface for multiple relay destinations; the router or switch relays any BOOTP packets received to each relay destination. If you do not specify an interface, the destination becomes a "generic" destination. If the router or switch receives a BOOTP message on an interface for which no specific destination is defined, the router or switch relays the message to all generic destinations. This is the same as the behaviour prior to this enhancement. To remove a destination that is associated with an interface, use the command: DELete BOOTp RELAy=*ipadd* INTerface=*interface* To see the interfaces that each destination is associated with, use the pre-existing command: SHow BOOTp RELAy	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014238	**DHCP Snooping**	**-**	DHCP snooping records its client database into a file in NVS (if possible) or Flash memory. In previous versions, that file was named bindings.dsn. From this version, the file structure has changed and the file is now named bind0002.dsn. When you upgrade a switch to this version, the switch creates the new client database file 10 seconds after initialising the new version. After that, you can safely delete the old bindings.dns file, if desired. Note that the functionality of DHCP snooping has not changed, only the filename.	–	–	–	Y	Y	Y	Y	Y	Y	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014241	**BGP** **IP Gateway**	**-**	This enhancement enables you to force BGP to select the best route on the basis of network prefix alone, instead of on the basis of preference, then metric, then network prefix. To do this: 1. Give the desired dynamic routing protocol a preference of 0, which is the preference of interface routes, by using the command: SET IP ROUTe PREFerence=0 PROTocol={BGP-ext|BGP-int|OSPF-EXT1|OSPF-EXT2|OSPF-INTEr|OSPF-INTRa|OSPF-Other|RIP|ALL} 2. Create a route map to give matching routes the same metric as your interface routes. To change the metric, use the command: ADD IP ROUTEMap=*routemap* ENTry=1..4294967295 SET METric=1 3. Add the route map as a filter to the BGP peers by using the command: ADD BGP PEer=*ipadd* REMoteas=1..65534 INRoutemap=*routemap* [*other optional parameters*] The above process gives matching routes the same preference and metric as interface routes. This forces IP routing to compare the network prefixes of the interface route and the other routes. IP routing then chooses the most specific route as the best route for that destination, instead of automatically choosing the interface route as the best route without considering any other routes which may have more specific network prefixes.	Y	Y	Y	Y	Y	–	–	Y	Y	Y

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014300	**DHCP Snooping, MACFF**	**-**	The following enhancements have been made to DHCP snooping, to support MAC-forced forwarding: ■ MAC-forced forwarding checks the DHCP snooping database to find out which router has been assigned to each DHCP client. DHCP snooping determines this from the router list in DHCP acknowledgement messages. However, some clients do not request a router. DHCP snooping now modifies request messages from such clients, to ensure that they request a router. This enables MAC-forced forwarding to interoperate with such clients. ■ Output from the command **show dhcpsnooping database** now displays the list of routers that are assigned to each client, as shown in bold in the following example: `Current valid entries` `MAC Address      IP Address    Expires(s)  VLAN  Port  ID  Source` **`  Router list`** `-----------------------------------------------------------------` `00-00-cd-28-06-7b  192.168.99.1 52          1    13    2   Dynamic` **`  192.168.199.254`**	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00014354	**Ethernet Switch**	**-**	This enhancement enables you to use 100 Mbps fiber SFPs with AR770S routers. Support has been added for AT-SFPX/15 and AT-SFPX/40 SFPs.	–	–	Y	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014715	**DNS**	-	A new log message has been added to provide more information about rejected DNS requests. The message has a log type of 052 / IPDNS and subtype 002 / UNRES, and reads: DNS request for *<domain-name>* rejected by server. Code *<number>*, *<explanation>*. The following codes and explanations exist: 0: No Error—no error occurred 1: Format Error—there was a problem with the message construction 2: Server Failure—there was a problem with the server itself 3: Name Error—the name does not exist in the domain 4: Query Not Implemented—the received query was not supported 5: Refused—Refused for policy, rather than technical, reasons 6: YX Domain—the name exists when it should not 7: YX RR Set— a resource record exists that should not exist 8: NX RR Set— a resource record that should exist does not exist 9: Not Authoritative—the receiving server is not authoritative 10: Not Within Zone—the specified name is not within the zone specified in the message	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
CR00014728	**DDNS**	-	When you activate a Dynamic DNS (DDNS) update (by entering the command **activate ddns update**), the router now warns you of possible negative consequences and prompts you for whether or not to continue. Also, if you attempt to activate a DDNS update when DDNS is disabled, the router displays a warning message that indicates that DDNS is disabled.	Y	–	Y	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014845	**IP Gateway OSPF**	**-**	When OSPF is running over an on-demand PPP link and the link goes down, IP notifies OSPF that the link is down and OSPF stops sending Hello packets over the link. In a network in which routes over the PPP link are all dynamically learnt through OSPF, the PPP link will not come back up because without OSPF there are no routes to direct traffic at that link. This enhancement enables you to stop IP from notifying OSPF that the PPP link is down. OSPF keeps sending Hello messages, which bring the link back up again. To enable this feature, set the new optional **notifyospfdown** parameter to **no** in one of the commands: ADD IP INTerface=*int* NOTIfyospfdown={NO|YES} [*other parameters*] SET IP INTerface=*int* NOTIfyospfdown={NO|YES} [*other parameters*] The default value for this parameter is **yes**, which means that IP notifies OSPF when the interface goes down and OSPF sets the interface state to Down. OSPF does not send Hello messages to the interface, and OSPF is inactive on the interface until it receives an Up notification. This is the behaviour prior to this enhancement. Also note the following points: ■ the parameter applies to the entire IP interface, not an individual logical interface. Setting it on one logical interface sets it on all other logical interfaces associated with the same IP interface. ■ the parameter only applies to on-demand PPP links. IP always sends notifications for other interfaces, even if this parameter is set to **no**. To see the parameter setting, use the existing command **show ip interface**.	Y	Y	Y	Y	Y	–	–	Y	Y	Y
CR00015269	**Switch, EPSR**	**-**	EPSR uses a classifier-based hardware filter to select packets in the control VLAN. The hardware filter now only uses 2 of the available 16 bytes to match packets. This increases the number of other classifier-based features you can use when running EPSR.	–	–	–	–	–	–	–	Y	Y	–
CR00015628	**Switch**	**-**	The switch now fully recognises the latest revision of the AT-SPTX SPF, so all of the features of the SFP can be utilised.	–	–	–	–	–	–	–	–	Y	–

Features in 291-03

Software Maintenance Version 291-03 includes the resolved issues and enhancements in the following tables. In the tables, for each product series:

■ "Y" in a white column indicates that the resolution is available in Version 291-03 for that product series.

■ "-" in a white column indicates that the issue did not apply to that product series.

■ a grey-shaded column indicates that Version 291-03 has not been released on that product series.

"-" in a grey column indicates that the issue did not apply to that product series.

"Y" in a grey column indicates that the issue applied to that product series. These issues are resolved in the next Version (291-04).

Level 1

No level 1 issues

Level 2

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014960	Switch RIPng	2	Creating a large number of IPv6 RIPng interfaces (more than 250) sometimes caused the switch to reboot. This issue has been resolved.	–	–	–	–	–	–	–	Y	Y	–
CR00015102	IPv6	2	If a large number of IPv6 multicast routes were added (more than1000) on a switch with an IPv6 accelerator card, the switch could reboot. This issue has been resolved.	–	–	–	–	–	–	–	Y	Y	–
CR00015585	ATM	2	AR442S routers sometimes rebooted while using the Test Facility to test the SHDSL interface. This issue has been resolved.	Y	–	–	–	–	–	–	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00015678	**IPv6**	**2**	When a switch was heavily loaded with IPv6 traffic, it could reboot because a large quantity of traffic was queued while waiting for a neighbour's MAC address to resolve. This issue has been resolved by limiting the number of packets that can be queued while waiting for a neighbour's MAC address to resolve.	Y	Y	Y	Y	Y	–	–	Y	Y	Y

Level 3

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00013270	**QoS**	**3**	By default, queue lengths were set to the maximum possible values for each port type. This could make low-priority queues inappropriately starve higher-priority queues of buffer resource. This issue has been resolved. The default queue length has been reduced to 128 frames for all port types. If required, you can change them by using the existing command: SET QOS POrt={*port-list*|ALL} EGRessqueue[=*queue-list*] [Length=16..3648] [*other optional parameters*]	–	–	–	–	–	–	–	Y	Y	–
CR00014306	**LLDP Switch**	**3**	The switch included a permanent L3 filter to stop CDP (Cisco Discovery Protocol) packets from being forwarded. This made one less L3 filter match available to users. This issue has been resolved. CDP still requires an L3 filter, but the filter is automatically created when CDP is enabled and destroyed when CDP is disabled.	–	–	–	Y	Y	Y	Y	–	–	–

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014959	**QoS**	**3**	Destroying a traffic class or flow group also destroyed all classifiers that were associated with that traffic class or flow group. This issue has been resolved. User-created classifiers are no longer destroyed. Automatically-created classifiers are still destroyed, such as classifiers for DHCP snooping.	–	–	–	Y	Y	Y	Y	Y	Y	–
CR00015510	**Switch**	**3**	When the switch performed layer 3 routing across a trunk, it did not balance traffic across all ports in the trunk group. This issue has been resolved.	–	–	–	Y	Y	Y	Y	–	–	–
CR00015798 **CR00016058**	**Switch**	**3**	If the switch received a packet on a port and therefore started using MAC-based authentication to authenticate the port, and then received another packet during the authentication process, then occasionally the switch dropped the second packet. This issue has been resolved.	Y	Y	Y	Y	Y	Y	Y	Y	Y	–

Level 4

No level 4 issues

Enhancements

CR	Module	Level	Description	AR400	AR7x5	AR7x0S	Rapier i	AT-8800	AT-8600	AT-8700XL	x900-48	AT-9900	AT-9800
CR00014222	**IGMP snooping, Switch, VLAN**	-	IGMP snooping learns which ports have routers attached to them, so it can forward relevant IGMP messages out those ports. By default, snooping identifies router ports by looking for ports that receive specific multicast packets (such as IGMP queries, PIM messages, OSPF messages, and RIP messages). In some network configurations, this learning process cannot identify all router ports. For such networks, this enhancement enables you to statically configure particular ports as multicast router ports. To specify the static router ports, use the new command: add igmpsnooping vlan={*vlan-name*|1..4094} routerport=*port-list* To stop ports from being static router ports, use the new command: delete igmpsnooping vlan={*vlan-name*|1..4094} routerport=*port-list* To list the static router ports, use the existing command: show igmpsnooping and check the new "Static Router Ports" field.	Y	–	Y	Y	Y	Y	Y	Y	Y	Y

Features in 291-02

Version 291-02 was not released.

Features in 291-01

Version 291-01 was not released.

Support for the new x900-48FS switch—CR00016662

The x900-48FS is a new model in the x900 Series of layer 3 gigabit and fast Ethernet switches. Its key features are:

■ Multi-layer Fast Ethernet switch

■ 48-port 100BASE-X SFP sockets, 100 Mbps, full or half duplex

■ 4-port 1000BASE-X SFP uplink sockets, 1000 Mbps, full duplex

■ Support for hot-swappable SFP modules

■ Hot-swappable, load sharing PSUs

■ 1U height, rack-mountable

■ Non-blocking Layer 2 and Layer 3 IP switching

■ IPv6-ready hardware for accelerated unicast and multicast routing

■ 4096 Layer 2 multicast entries

■ 1024 Layer 3 IPv4 multicast entries

■ 4096 logical IPv6 interfaces

■ 32 MBytes of fixed flash

■ 256 MBytes of Synchronous DRAM, expandable to 512 MBytes with DIMM

■ CompactFlash slot for hot-swappable expansion of flash memory up to 128 MBytes

x900-48FS front panel
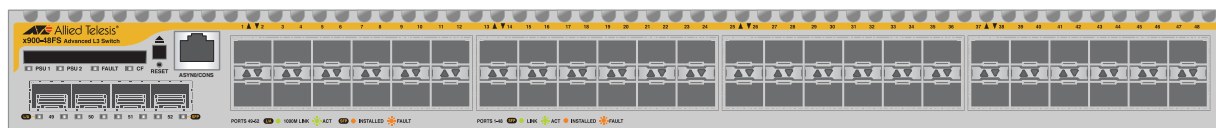
For more information about the x900 Series and expansion options, see the Hardware Reference. The Hardware Reference is available from www.alliedtelesis.co.nz/documentation/manuals.html.

IGMP snooping fast leave in multiple host mode—CR00017482

The IGMP snooping fast leave option has been enhanced, to make it available when multiple clients are attached to a single port on the snooping switch. Fast leave now has two modes available:

- **multiple host mode**—the new feature. In multiple host mode, the snooper tracks which clients are joined to a given IP multicast group on a given port. As soon as the last client leaves a group on a port, the snooper shuts off the multicast to that port.

- **single host mode**—the existing functionality. In single host mode, as soon as the snooper receives a leave message for a group on a port, it shuts off the multicast. This mode assumes that there are no other clients on the port that are still interested in receiving the multicast, so is suitable only when clients are directly attached to the snooper.

To specify the new multiple mode, use the command:

```
set igmpsnooping vlan={vlan-name|1..4094|all} fastleave=multiple
```

To specify single mode, use either of the commands:

```
set igmpsnooping vlan={vlan-name|1..4094|all} fastleave=single
set igmpsnooping vlan={vlan-name|1..4094|all} fastleave=on
```

The command **show igmpsnooping vlan** has also been enhanced. The new command syntax is:

```
show igmpsnooping vlan={vlan-name|1..4094|all} [group={multicast-ip-address|allgroups}] [detail]
```

The **group** parameter lets you display information for only one group or for only the All Groups port (the **allgroups** option).

The **detail** parameter displays more detailed information, including expiry times for each port, and in the case of multiple host fast leave mode, the list of hosts on a port. The following example shows this.

```
IGMP Snooping
------------------------------------------------------------------------
Status ........................... Enabled
Disabled All-groups ports ........ None

Vlan Name (vlan id) ..... default (1)
Fast Leave ............. Multiple Host Topology
Query Solicitation ...... Off
Static Router Ports ..... None
Group List ............. 2 groups

  Group 224.0.1.22                        Timeout in 256 secs
    Port 24                               Timeout in 257 secs
      Hosts: 1
        00-00-cd-27-be-f5 (172.20.176.200)    Timeout in 257 secs

  Group 239.255.255.250                   Timeout in 258 secs
    Port 24                               Timeout in 259 secs
      Hosts: 1
        00-00-cd-27-be-f5 (172.20.176.200)    Timeout in 259 secs
```

Support for the new Rapier 48w switch

The Rapier 48w is a new model in the Rapier Series of layer 3 gigabit and fast Ethernet switches. Its key features are:

- 48-port 10BASE-T/100BASE-TX (RJ-45 connectors)

- Two 1000BASE SFP ports

- Two asynchronous serial console ports with DB9 connectors

- One Network Service Module bay, with support for various WAN interface cards

- Auto-negotiating Layer 3 Managed Switch

- Enhanced switching core

- Replaceable air filters and fan-only modules (FOMs) for NEBS applications

Rapier 48w front panel
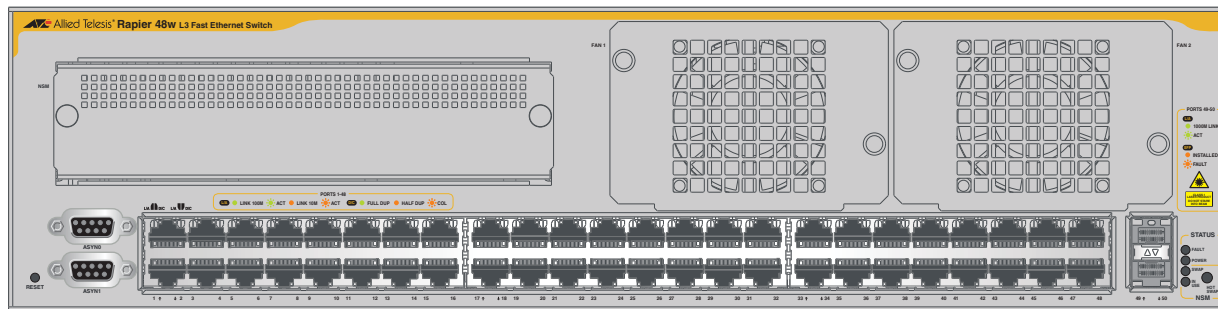
Rapier 48w rear panel
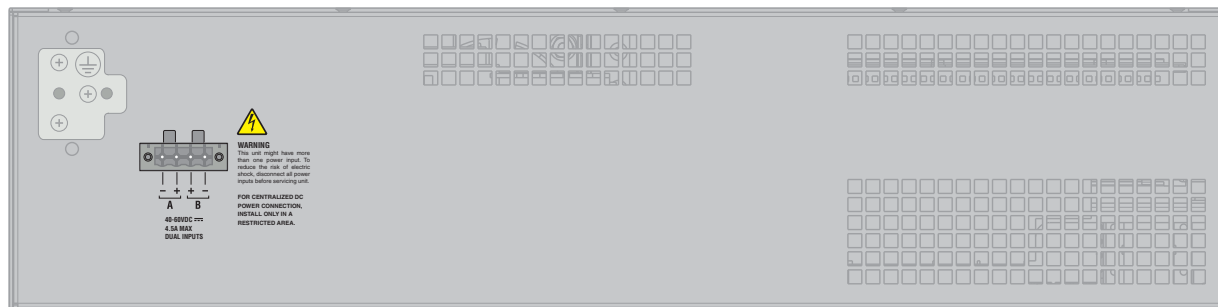
For more information about the Rapier Series and expansion options, see the Hardware Reference. The Hardware Reference is available from www.alliedtelesis.co.nz/documentation/manuals.html.

Backing up the configuration with SNMP—CR00016221

With this enhancement, you can use SNMP to:

■   set parameters for uploading files from the router or switch, and

■   upload files to a TFTP server

SNMP already lets you save the current configuration to a file on the router or switch. You can use this with the new options to back up the configuration to a TFTP server. To do this, perform the following steps.
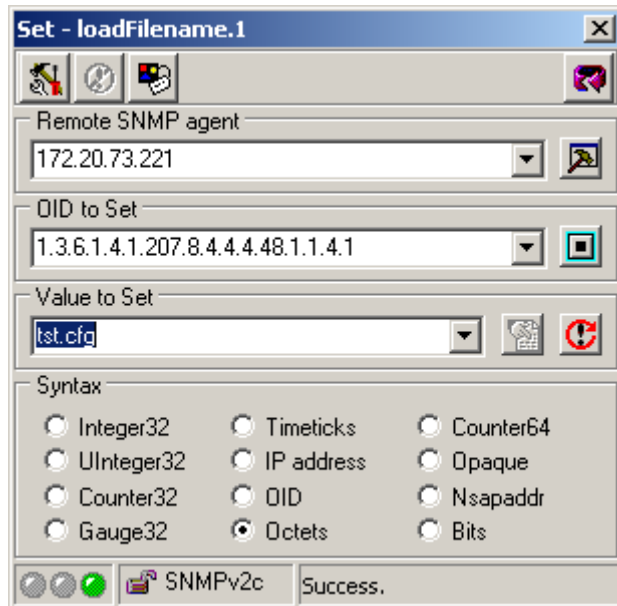
1.   Save the configuration

To save the current configuration, use SNMP SET createConfigFile. The following screenshot shows this for a file called tst.cfg.
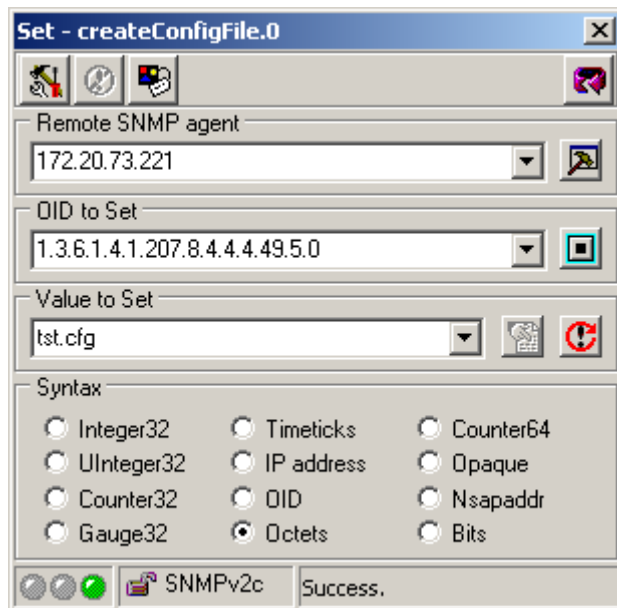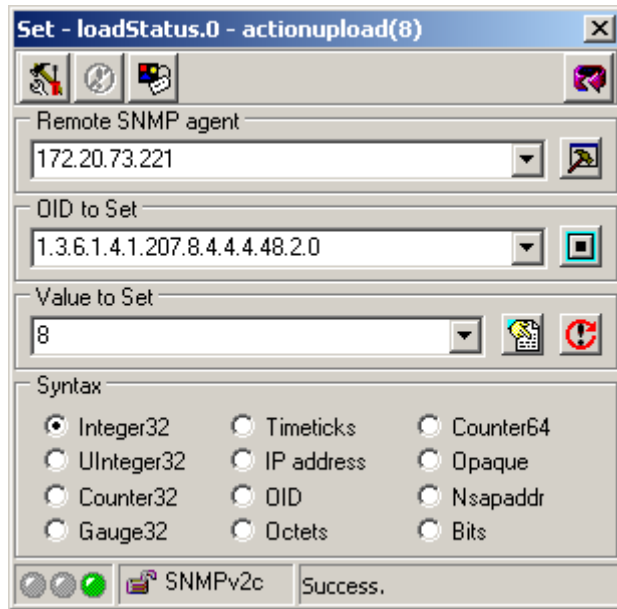
2. Set the load parameters

To specify the server IP address, use SNMP SET loadServer. To set the filename, use SNMP SET loadFilename. The following screenshot shows setting the filename to tst.cfg.

3. Upload the file

To upload the file, use SNMP SET loadStatus and set it to a value of 8. The following screenshot shows this.

SNMP ASN.01 BER Padding—CR00016523

This enhancement enables you to specify whether SNMP adds 0x00 padding when the most significant 9 bits of an object's value are all 1, or whether the encoding follows the ASN.01 BER rule, which cuts off the most significant byte of 0xff. This setting has an impact on all integer type MIB objects, including 32 bit and 64 bit counter objects.

To add the padding, use the command:

```
set snmp asnberpadding={on|yes|true}
```

To use the ASN.01 BER rule, which is the default, use the command:

```
set snmp asnberpadding={off|no|false}
```

The following table lists examples.

Bits	Value (decimal)	Value (hex)	asnberpadding setting	Encoding
counter32	4289592837	0xFFADFE05	on	41 05 00 ff ad fe 05
			off	41 03 ad fe 05
counter64	18410715280977201498	0xFF800000ff80895A	on	46 09 00 ff 80 00 00 ff 80 89 5a
			off	46 07 80 00 00 ff 80 89 5a

To see whether or not padding is added, use the command:

```
show snmp
```

and check the new "ASN.01 BER Padding" field.