Firmware Release Notes

AN-300-RT-4L2W Araknis Network Router

Version 1.0.5.39

Release Details

Release Date	2018/06/14
Firmware Version	1.0.5.39
Product SKUs Affected	AN-300-RT-4L2W

Installation Notes

- While previous settings should be retained, we strongly recommend making a backup of the current configuration before updating to this firmware.

Resolved Functional/Local Issues

- DHCP Server Settings: Fixed issue with IPs to printers (specifically Hewlett-Packard).
- Client Table: Firewall software no longer prevents population / quick population of the table.
- Auto-Reboot: Fixed issue with using 2 WAN connections and DST wherein the router would engage in a reboot loop.
- Client Table: Sorting no longer causes the help bubbles to disappear.
- Configuration: Corrected language for the help bubble.
- DHCP Server Settings: Fixed issue wherein a gateway cannot be added on the static route page for a subnet that is not configured with a server.
- DHCP Server Settings: Fixed issue with error checking wherein an error would be thrown for simply changing the subnet mask without adjusting the IP range.
- Port Forwarding: When using OvrC and the local UI, you can no longer create duplicate rules.
- VLANs: Fixed error message regarding trying to set multiple untagged VLANs on a single port.
- DDNS: Fixed issue wherein within a Double NAT environment and using DynDNS service, the router would report its local IP rather than the public WAN IP.

© 2016 Araknis Networks®

Firmware Release Notes

AN-300-RT-4L2W Araknis Network Router

Version 1.0.5.34

Release Details

Release Date	2017/09/07
Firmware Version	1.0.5.34
Product SKUs Affected	AN-300-RT-4L2W

Summary of Changes in Version 1.0.5.34

- The following items are the primary focus of the update. See a complete list of changes in the following section, Detailed Changes.

New Settings

- IPTV Button – (Firewall Settings Menu) When enabled, packets received by the router will be properly processed with no service interruption (solves the choppy reception issue with Verizon MoCA services)
  Default: OFF
- Flow Control Button – (Firewall Settings Menu) Enable to smooth L2->L3 traffic and avoid packet loss during traffic congestion.
  Default: ON
- MAC-based Access Management – (Security Settings Menu) Used to restrict access to router's web GUI/ menus. Enable and add the MAC addresses that are allowed access.
  Default: OFF (any device may connect)

New/Resolved Functionality

- Added support for IGD v2 (UPnP+).
- Fixed OvrC reconnect issues with caused a large portion of routers in the field to not reconnect to OvrC after a server outage.
- Fixed incompatibility issue between the router and the OvrC Hub that caused the Hub to indicate slower-than-expected connection speed.
- Fixed memory leak issue in the DHCP daemon which was causing the router to lock up.

Detailed Changes

Added/Removed Features

- New IPTV button - If user enables it, packets received by the router will be properly processed with no service interruption.
- Added Flow Control button to smooth L2->L3 traffic in order to avoid packet loss during traffic congestion.
- The NSD table is now disabled for use when it is not explicitly enabled.
- When "Auto (1Gbps)" or "Disabled" is selected, "Duplex" options are now grayed out.
- Added an "Apply" confirmation pop-up.

© 2016 Araknis Networks®

- Added an Energy Efficient Ethernet Help Bubble.
- Added support for IGD v2 (UPnP+)
- Added "Reset to Default" button to OpenVPN settings page.
- Added "Block All Traffic" option to Content Filter. If enabled, all sessions (http/https/ftp...) containing the pre-defined keyword will be blocked.
- Added "User Accounts" table allowing the user to create different user accounts with multiple privilege levels.
- Added MAC based access management – Allows the user to configure MAC Based Access to the router, such that only devices with the pre-defined MAC address can gain access to the router.
- Added functionality to the router log – Now specifically indicates which WAN connection is down when more than one WAN is established.
- Removed UPnP log entry for SpecifiedArrayIndexInvalid, since it has no ill effect or relevance to user operation.

Resolved Cloud Issues

- Added functionality wherein the router makes several connection attempts to the OvrC server when OvrC service is affected by an outage.
- Added debug log entry for the ping/pong issue with regards to false OvrC disconnects.
- Fixed issue with SMTP – When enabled, the router would pass Internet, but would disconnect from OvrC and restrict login.
- Fixed issue wherein the OvrC Daemon would randomly shut down.
- Fixed issue with port forwarding where OvrC only displays up to 20 port forwarding rules even though 25 are possible in the local UI.
- Fixed incompatibility issue with the OvrC Hub where it would indicate slower than expected connection speed when paired with the Araknis router.
- Fixed issue with UPnP where the router was not able to identify itself as the IGD, which affected UPnP port forwarding as well as OvrC Web-Connect.
- Fixed issue with the count of clients – On OvrC, there would be a different number of clients counted than in the client table on the local UI.
- Fixed issue with the DST functionality in OvrC wherein the time zone offset is actually not taking effect. Now it operates in accordance with DST.

Resolved Functional/Local Issues

- Fixed issue with the Router not handing out DHCP/IPs.
- Fixed a memory leak issue in the DHCP daemon, which caused the router to lose network connectivity, DHCP, and telnet access.
- Fixed UPnP related issue wherein the router "Status Page" would show as inaccessible.
- Fixed issue where even if a WAN port were disabled, it would still have related static routes in the static route table, allowing access.
- Fixed issue with the router becoming inaccessible after turning the firewall off.

© 2016 Araknis Networks®

- Fixed issue where, when UPnP is started, the router loses network connectivity for approximately one minute.
- Fixed issue with the system management daemon locking up while the router is doing a no-ip DDNS update.
- Fixed issue where the "Client Table" would show out of order alphabetically in terms of host name and numerically in terms of IP address.
- Fixed issue with having an extended subnet IP range, which would cause clients that were not reserved to drop off periodically.
- Fixed issue where an error would be thrown for PPTP IP range even when PPTP is disabled.
- Fixed issue in the DHCP status table where "DHCP IPs used" would show connected devices when nothing is actually connected to that particular network.
- Fixed issue with Rate Control settings not actually limiting when zero was used in the range.
- Fixed issue with IPsec G2G connection needing to be restarted periodically. This was due to having keep alive enabled on both ends rather than disabled on one end of the tunnel and dead peer detection disabled on both ends.
- Fixed issue with IP addressing where the NAK message is not sent by the router, causing delays in IP provisioning.
- Fixed miscellaneous issues with the UPnP daemon locking up/shutting down due to inefficiency/difficulty handling requests.
- Fixed issue where LAN-LAN ACLs that were established prior to restart would still not work after a restart.
- Fixed issue with the Smartbit where throughput would be halved due to other system improvements.
- Fixed issue with the Allworx phone system not pulling a DHCP address. The router was incorrectly handling requests from the phones.
- Fixed issue with the random occurrence of graphics in the top left corner of the interface.
- Fixed issue with the Crestron CEN NSP-1 not being ping-able over multiple VLANs.
- Fixed issue with MeshGateway devices not pulling a DHCP address from our router.
- Fixed issue with the UPnP Daemon not shutting down regardless of whether the toggle is disabled or enabled.
- Fixed issue with Open VPN – Adding/deleting an account would cause a loop where you can no longer add or delete accounts without a factory default.
- Fixed issue with the ACL page losing its settings due to a specific user interaction.
- Fixed issue with denial of a remote session to the router when the router detected a syn flood attack due to a low detection threshold for syn packets.
- Fixed issue with Class A and Class B subnets auto filling the subnet and VLAN ID columns when they should not be.
- Fixed issue with no static routing warning message when the static route being applied is not a part of any established subnet in the router.
- Fixed issue with DHCP reservation rules not taking effect until settings changes were made on other pages.

© 2016 Araknis Networks®

- Fixed issue with the Static DNS setting not taking effect regardless of whether the Static DNS setting was checked or not.
- Fixed issue with time setting not retaining most recent settings when a reboot occurs soon after settings change.
- Fixed issue with DHCP reservation not taking effect on a /23 subnet.
- Fixed issue with DDNS – If two DDNS entries were configured, one for each WAN, both would still set themselves to the primary WAN.
- Fixed miscellaneous issues with setting an IP range for PPTP with regards to the established subnets and DHCP servers in the router.
- Fixed issue with enabling HTTPS – The user could enable the setting without being forced to change the default password.
- Fixed a spelling error on the third page of Quick Setup – "yout" should be "your".
- Fixed miscellaneous issues and made operational enhancements to the "Connect"/"Disconnect" functionality on the VPN – Status page.
- Fixed issue with the content filter functionality not rolling over at the 24hr mark.
- Fixed issue with using the router with Verizon MoCA services where the router was processing the packets out of order and causing choppy video.
- Fixed issue with VPN logs – One particular message regarding attempted re-connects would continue regardless of whether the user disabled the VPN or not. This would cause connection status not to display correctly either.
- Fixed issue with client devices not pulling an IP from the router, causing the DHCP daemon used to crash unexpectedly.
- Fixed issue with Network Service Detection, showing as disabled after enabling it via the UI toggle.
- Fixed issue with Content Filter – Settings could be applied without any entry for keyword.
- Fixed issue with Content Filter, changing "Block All Traffic" to show "Block DNS Resolution".
- Fixed issue with DHCP reservation – A newly added device would take the name of the last device in the list, particularly in the case of Control 4 devices.
- Fixed issue – Where the number of DHCP clients would not show up properly if the server entry were configured across subnets.
- Fixed issue with DHCP reservation – Use of particular special characters such as "&" would render incorrectly on the client table.
- Fixed issue with UPnP rules being added and displayed on the manual port forwarding table.
- Fixed issue with the Client Table devices such as IoT devices would not show up due to ARP response behavior.
- Fixed issue with PPTP – The router would reboot if the user port forwarded remotely into the Router UI.
- Fixed issue with the UI – The user could not access PPTP settings due to left navigation link issue.
- Fixed issue with disabling or enabling a WAN port – Does not refresh the static route table in a timely manner-sometimes would not update at all.
- Fixed issue with the Save Changes Popup occurring without changes being made on the WAN, DDNS and Security Pages.

© 2016 Araknis Networks®

- Fixed issue with the Client Table – Duplicate entries were being shown for the same device, other times different devices by MAC.
- Fixed issue with Firewall – Underlying remote management feature does not behave appropriately with regards to whether the firewall functionality is enabled/disabled.
- Fixed issue with WAN – Behavior of IP settings entries prohibits the user from entering an IP when the port is set to static.
- Fixed issue with configuration boxes not centered on the Settings – System page.
- Fixed issue with System Time sometimes displaying "undefined-undefined-undefined".
- Fixed issue with SNMPv3 behavior – If a user was deleted from the User Table, it would prompt the user with excessive and incorrect error messages.
- Fixed miscellaneous issues and made enhancements to the QoS Table for simplicity and ease of use.
- Fixed issue with the DHCP server – If it is set to "none" then an existing VLAN could not be used.
- Fixed issue with DoS prevention – Did not work with regards to ICMP flood. Now it does.
- Fixed issue with the Safari browser – A random blue bar would render on the screen.
- Fixed issue with ACLs – Duplicates (service/port) were allowed by the UI, which should not be. Now prohibits such an entry.
- Fixed issue with the System – Status page showing the ports as being set to "1000M" at startup.
- Fixed issue with ACLs – It was possible to add a rule without a service, now disallowed.
- Fixed issue with Port Forwarding, OpenVPN, and PPTP – Empty values were being accepted for miscellaneous IP entry fields.
- Fixed issue with Auto-Reboot – If disabled, it would cause the reboot schedule and reboot time to revert back to the same values as before auto-reboot was enabled.
- Fixed issues with Auto-Reboot – Invalid times and defaults were taking effect with regards to the reboot time. Now it operates according to standardized HH:MM format without any odd reversions.
- Fixed issue with Port Forwarding "Add" button displaying oddly, preventing the user from clicking it.
- Fixed issue with Login/Password fields using IE where an "eye reveal" or "x" symbols would be displayed for fields that don't have that functionality.
- Fixed issue with UPnP where the router would only allow certain devices to open a port once. Now, it functions to allow multiple open ports for the same device.
- Fixed issue with Port Forwarding – The checkbox was not centered in the enable column.
- Fixed grammatical error with the SPI help bubble on the Firewall page and Clients and Services pages.
- Fixed issue with Rate Limiting where the user was forced to choose an IP only within the DHCP ranges available on the LAN page, now accepts statically addressed IPs outside those given ranges.
- Fixed issue with Rate Limiting help bubble location, now located next to the word "Rate Control Settings".
- Fixed issue with the System Log – If cleared, required a reboot to start logging again. Now, while all past entries are cleared, the log still persists.
- Fixed issue with the Client Table where the lease time would display as a negative number.
- Fixed issue with wording regarding the DHCP reservation button, now instead of "Yes", it states "Add".

© 2016 Araknis Networks®

- Fixed issue with SNMPv3 with traps not being generated/received.
- Fixed issue with Settings – System – Going to the page and then clicking on any other page in the left navigation prompts the user to save settings.
- Fixed issue with browser's auto-save password feature – The router created a multiple pop-up nuisance by filling in the "current password field on Settings – System page as well.
- Fixed miscellaneous issues with conforming well to UPnP standards.
- Fixed issue with the Static Route table – Top three rows were colored incorrectly, now interlaced properly.
- Fixed miscellaneous naming/grammatical issues with the ACLs page.
- Fixed issue with the Settings – LAN page, when specifically attempting to make a Subnet IP X.X.X.254 entry and then changing the subnet range to x.x.x.1-x.x.x.149, the router would default the Subnet IP to x.x.x.1 while applying a range of x.x.x.2-x.x.x.149.
- Fixed issue with Access Rules on the Clients and Services page – The router used to count both enabled and disabled Access Rules created via the ACLs page, now only counts the enabled rules.
- Fixed issue with the Static Route page – The router would allow the user to enter improperly Subnet(Destination) IPs/Subnet Masks. Now there is a subnet calculator which notifies the user.
- Fixed issue with IPSec – A LAN side client could not establish an aggressive mode tunnel to a remote server when the router was set to load-balance across dual-WAN.
- Fixed miscellaneous issues with the "Close" button and UI styling of the detail window for Group VPN on the VPN – Status page.

Contacting Technical Support

Phone: (866) 838-5052
Email: support@araknisnetworks.com

© 2016 Araknis Networks®

Firmware Release Notes

AN-300-RT-4L2W Araknis Network Router

Version 1.0.4.7

Release Details

Release Date	1/22/2016
Firmware Version	1.0.4.7
Product SKUs Affected	AN-300-RT-4L2W

Installation Notes

- While previous settings should be retained, we strongly recommend making a backup of the current configuration before updating to this firmware.

New Features

- Added QoS functionality to the router. Includes rate limiting, COS and DSCP manipulation.
- Added updated help bubbles to the UI interface.
- Added MAC filtering feature for source interface on the ACLs page
- Added to the upper limit of the max concurrent VPN connections using PPTP, now allowing up to 15 connections at once. Previous max was 5.

Resolved Functional/Local Issues

- Fixed bug that prevented traffic being communicated via HTTPs when using popular browsers with our router. Known as the Logjam vulnerability.
- Fixed bug that prevented establishment of UPnP rules across all VLANs, not just the default.
- Fixed issue where having a VPN connection using either PPTP or OpenVPN led to the router intermittently crashing.
- Fixed bug that did not properly allow port ranges to be entered and applied on the port forwarding page.
- Fixed bug that created an inability to access the device on Android-based phones and tablets.
- Fixed bug resulting from an errant UPnP log message that would cause the system page UI not to load.
- Fixed bug that caused the content filter to hold onto previous settings, continuing to block traffic.
- Fixed bug that caused the LAN and System page not to load.
- Fixed bug that disallowed input of a range of IPs when doing One-to-One NAT.
- Fixed bug where the number of days displayed for System Uptime would increase with each second that passed.
- Fixed typo in warning box for router reboot page. Now says: “If the page does not refresh automatically after 2 minutes, please press the Login button.”
- Fixed bug on DDNS page that caused both WAN 1 and WAN 2 to have the same IP address as well as return incorrect IPs when resolving domain names.

© 2016 Araknis Networks®

- Fixed numerous issues with clarity of design and inefficacy of NSD in ensuring WAN backup worked properly.
- Fixed bug wherein port forwarding into the router's GUI caused the System Status page to disappear.
- Fixed typo on the Quick Setup WAN 1 page, wherein Static IP was spelled incorrectly.
- Fixed issue on the Quick Setup Port forwarding page, wherein the add, back, next, and cancel buttons overlapped.
- Fixed issue wherein high latency and jitter resulted at high throughput levels as a result of energy efficiency standards(EEE). Added default state of EEE off, and toggle to turn it back on in case of user needs.
- Fixed issue where a device name, either from client or reservation tables, would not show up in the clients table of the router.
- Fixed bug on the DDNS page where two out of three of the DNS server options did not work due to a messaging issue between the DNS server and the host router.
- Fixed typo on the Ports Status page. Now indicates that "Bytes" are what is sent/received, not packets.
- Fixed bug on SNMP page where SNMP v3 user management settings could not be saved.
- Fixed typo in warning box for "Apply Settings" button across all pages. Now says, "Are you sure you would like to apply these settings?"
- Fixed typo in the warning box for System Name on the System Settings page. Now says, "Please input System Name", when the System Name is blank.
- Fixed typo in warning box for entering an invalid date and time on the System Settings page. Now says, "Invalid date format".
- Fixed bug where UPnP would remain active even after disabling the functionality via the Firewall page of the Local UI.
- Fixed issue where PPTP type primary WAN connections did not operate correctly. Resolved by removal of option due to issues and extremely low use case.

Resolved Cloud Issues

- Fixed bug that caused the OvrC device details page to not display any information.
- Fixed bug where the default WAN gateway would not display on OvrC due to a messaging error.
- Fixed bug where the WAN interface always returned active status, regardless of whether that particular interface was disabled.
- Fixed bug related to incorrect messaging between router and OvrC server that resulted in occasional failure of firmware upgrades via OvrC.
- Fixed bug where the OvrC upgrade process is perceived to stall, due to the router not undergoing proper messaging protocol.
- Fixed bug where the router was sending system time in incorrect format, resulting in errant display of time.

Contacting Technical Support

Phone: (866) 838-5052

Email: support@araknisnetworks.com

© 2016 Araknis Networks®