

Release Notes for Cradlepoint Rev 7.0.10 Firmware

Products supported/tested:

AER3100/AER3150

AER2200/AER2200-FIPS

AER2100

AER1600/AER1650

AP22

CBA850

CR4250

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR350

IBR200

New features added in this release (Not all features are in all products – see their respective Data Sheets):

- Improved the "Distance Interval" field to be independent of the "Stationary Event Threshold (seconds)" field in GPS's Send-to-Server, Send-to-Client, and Send-to-Serial configuration. Prior to 7.0.10, "Distance Interval" would only report as configured if the "Stationary Event Threshold (seconds)" and "Stationary Distance Threshold (meters)" were both non-zero. The actual value of the "Stationary Event Threshold (seconds)" didn't have any effect on the Distance Interval reporting, other than it needed to be non-zero. This has been improved in 7.0.10, and the "Distance Interval" field will now report as configured. Note that if there is a current configuration that has the "Distance Interval" field configured to a non-zero value, and "Stationary Event Threshold (seconds)" and "Stationary Distance Threshold (meters)" are also both non-zero, then GPS will report more often than it did in 7.0.0. In no case will GPS report less often in 7.0.10 than it did in 7.0.0.
- Added additional status for WiFi as WAN and Wireless Client connections.

- CP Secure Web Filter Preview Mode: Policies can be applied in a "Preview" mode and the logs reviewed to see what traffic would have been blocked or allowed based on that policy.
- Multiple Local Networks per VLAN:
 - Supported only on AER2200 platform.
 - This feature allows more than one local network (Local IP Network in NCOS GUI) to share the same VLAN interface.

Additional UI/Usability changes:

- Removed excessive warnings with WiFi client connect alerts
- Changed TX Power setting to reflect relative distance at which a particular signal level can be achieved based on the percentage the user provides.

Defects fixed:

- Fixed an issue where ECM does not allow setting DFS channels on an AP22
- Increase the default proxy timeout to 60 seconds to fix an issue found when trying to use LogMeIn to remotely manage devices connected to a router
- When filling out forms in the CP Secure Web Filter UI on the router, pressing the cancel button after editing would not always reset the form data properly
- LP4. Resolved APN restoration under certain carrier reject conditions when using a Verizon static IP SIM

Security issues:

Note: All customers are reminded that **changing the default Administration (login) and WiFi passwords** are necessary for router and network security. The default passwords are unique, but are not as safe as a strong password that only you know. The security of the Internet depends on your cooperation.

- Product Line Test page has had a majority of the information available removed. The web page is available on the router's Admin LAN and it showed both the router's Serial Number and MAC address. As these are related to the router's default password, they were removed. At the same time, we removed a majority of the additional information from that page. Additional information about this page is available in the Cradlepoint Connect portal on the Product Line Test Disclosure page.

Known issues

- Feature: Multiple Local Networks per VLAN
 - Scenario:
 - Configuration change for a VRRP-enabled local network that is **sharing** a VLAN interface to using a **dedicated** VLAN interface.
 - Potential problem:
 - This configuration change **may** result in loss of connectivity to that network.
 - Customer Impact:
 - If that network is used for admin access, that access may not be available any more.
 - Traffic carried through that network is disrupted.
 - Workaround:
 - When making the above mentioned configuration change in 'Scenario':
 - a. Disable VRRP on the affected networks.
 - b. Make the desired configuration change.
 - c. Once the networks are up using their dedicated VLAN interface re-enable VRRP.
 - Recovery from the problem state:
 - Admin Access is still available from another network
 - Trigger a re-configuration of the local networks by making a non-feature affecting change to any of the networks.
 - For example:
 - change the name of a network and then restore it back.
 - create a temporary local network and then delete it.
 - Admin access is not available from any other network
 - Reboot the router

Modems tested: ([new 7.0.10 modems / modem platforms](#))

are in blue text)

Cradlepoint Cellular Devices (Embedded & USB Modems)

Cradlepoint AER16x0LPE-AT / *AT&T (USA)*

Cradlepoint AER16x0LPE-GN / *T-Mobile, US Cellular (USA); Generic (North America)*

Cradlepoint AER16x0LPE-SP / *Sprint (USA)*

Cradlepoint AER16x0LPE-VZ / *Verizon (USA)*

Cradlepoint AER16x0LP4 / *AT&T, T-Mobile, Verizon (USA)*

Cradlepoint AER22x0-600M / *AT&T (USA, Canada); Sprint, T-Mobile, Verizon (USA); Generic (Europe, Australia, NZ)*

[Cradlepoint AER2200-1200M / AT&T \(USA\)](#)

Cradlepoint IBR2x0-10M-VZ / *Verizon (USA)*

Cradlepoint IBR2x0-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR2x0-10M-C / *Sprint (USA)*

Cradlepoint IBR350L / *Verizon (USA)*

Cradlepoint IBR350LPE-AT / *AT&T (USA)*

Cradlepoint IBR350LPE-GN / *T-Mobile (USA); Generic (North America)*

Cradlepoint IBR350LPE-SP/ *Sprint (USA)*

Cradlepoint IBR350LPE-VZ / *Verizon (USA)*

Cradlepoint IBR350P2 / *AT&T (USA); Generic GSM-compatible locations (World)*

Cradlepoint IBR6x0B-LP4 / *AT&T, T-Mobile, Verizon (USA)*

Cradlepoint IBR6x0C-LPE-AT / *AT&T (USA)*

Cradlepoint IBR6x0C-LPE-GN / *T-Mobile (USA); Generic (North America)*

Cradlepoint IBR6x0C-LPE-SP/ *Sprint (USA)*

Cradlepoint IBR6x0C-LPE-VZ / *Verizon (USA)*

Cradlepoint IBR6x0C-150M-B-EU / *Generic operators (Europe)*

Cradlepoint IBR6x0C-150M-C-AU / *Generic operators (Australia)*

Cradlepoint IBR900LPE-VZ / *Verizon (USA); also certified on AT&T (USA), Sprint (USA), and Generic (North America)*

Cradlepoint IBR9x0LP5 / *Generic (APAC)*

Cradlepoint IBR9x0LP6 / *AT&T, Sprint, T-Mobile, Verizon (USA); Generic (North America, Europe)*

Cradlepoint IBR9x0-600M / *AT&T (USA, Canada); Sprint, T-Mobile, Verizon (USA); Generic (Europe, Australia, NZ)*

[Cradlepoint IBR9x0-1200M / AT&T \(USA\)](#)

Cradlepoint IBR11x0LPE-AT / *AT&T (USA)*

Cradlepoint IBR11x0LPE-GN / *C-Spire, T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)*

Cradlepoint IBR11x0LPE-SP / *Sprint (USA)*

Cradlepoint IBR11x0LPE-VZ / *Verizon (USA)*

Cradlepoint IBR11x0LP3-EU / *Generic (Europe), Telstra (Australia)*

Cradlepoint IBR11x0LP6 / *AT&T, Sprint, T-Mobile, Verizon (USA); Generic (North America, Europe)*

Cradlepoint IBR1700-600M / *AT&T (USA, Canada); Sprint, T-Mobile, Verizon (USA); Generic (Europe, Australia, NZ)*

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Cradlepoint MC400L2 / *Public Safety Band 14 only (USA)*

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Cradlepoint MC400-600M-C / AT&T, FirstNet (USA)

[Cradlepoint MC400-1200M / AT&T \(USA\)](#)

3rd Party USB Cellular Modems

Franklin U770 ("Sprint Plug-In-Connect Tri-Mode USB Modem") / Sprint (USA)

Franklin U772 ("Franklin U772 USB Modem") / Sprint (USA)

Huawei E3276 / Telus (Canada)

Huawei E368 ("AT&T USBConnect Force 4G") / AT&T (USA)

Netgear AC340U ("AT&T Beam") / AT&T (USA)

Netgear AC341U ("NETGEAR® 341U USB Modem") / Sprint (USA)

**supports Netgear firmware 4.07.01.11 and MR2 firmware 45.04.20.00*

Novatel 551L LTE ("Verizon USB551L") / Verizon (USA)

Novatel U620L ("Verizon MiFi® 4G LTE Global USB Modem U620L") / Verizon (USA)

Novatel U679 ("4G LTE Novatel Wireless U679 Turbo Stick") / Bell Mobility (Canada)

Novatel USB730L ("Verizon Global Modem USB730L") / Verizon (USA)

Pantech UML295VW ("Verizon 4G LTE USB Modem UML2954G LTE") / Verizon (USA)

**requires Pantech firmware version L0295VWD821F.B4 or later*

Sierra Wireless 308 USB ("AT&T USBConnect Shockwave") / AT&T (USA)

Sierra Wireless 313U ("AT&T USBConnect Momentum 4G") / AT&T (USA)

Sierra Wireless 320U ("Telstra USB 4G (Sierra AirCard 320U)") / Telstra (Australia)

Sierra Wireless 330U ("4G LTE Sierra Wireless U330 - Turbo Stick") / Bell Mobility (Canada)

Sierra Wireless 330U ("LTE Rocket Stick – Sierra Wireless AirCard 330U") / Rogers (Canada)

ZTE MF683 ("T-Mobile Rocket 3.0 4G Laptop Stick") / T-Mobile (USA)

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IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

IBR350

New features added in this release (Not all features are in all products – see their respective Data Sheets):

- Many Security changes are in the 7.0.0 NCOS release. They are detailed in the Security issues section below.
- Entitlement/Licensing changes. Routers and APs will no longer require a reboot when a new Feature License is downloaded to the device.
- AP Discovery added to AER2200-FIPS
- Wireless packet capture on AP22

Additional UI/Usability changes:

- Added T-Mobile static IP APN to automatic APN table
- Ability to apply CP Secure Web Filter Policies to Multiple LANs

- Corrected a misspelling in the CP Secure Webfilter UI
- In CP Secure Webfilter UI, red triangles for 'dirty' cells on NEW policies didn't account for a sorted grid.
- In the Static Route Editor, for clarity the "Allow Network Access" route option was renamed to "Open Firewall for Network Access"

Defects fixed:

- Signal Strength LEDs may not show up after boot on certain products
- QoS DSCP tag error on IBR200 UI. DSCP is not supported on the IBR200 and the UI was fixed.
- USB mass storage device was unmounted after upgrade to 6.6.4
- Configuration sync-suspended issue when WPA/WPA2 WiFi password was between 32-64 characters
- General GNSS improvements, such as recovery of GPS data, centralized GNSS data store, GLONASS satellite count, avoid fix overrun
- Fixed First Time Setup wizard text inconsistencies
- Modified temperature display to match temperature mitigation measurement
- If the WAN isn't up when CP Secure Web Filter tries to send a DNS request, sometimes those requests get "stuck" and eventually cause the router to reboot. Added a timeout for those requests.
- When adding a new custom category for CP Secure Web Filter, add it to the categories of each policy to make sure they will be filtered.
- Upstream proxy settings in the UI allowed invalid entries
- Webfilter blocked page wasn't rendering correctly on iphone and mac devices
- When setting up Hotspot services, the NAS/Gateway box was being incorrectly cleared when loading a partner profile
- CP Secure Web Filter UI did not properly handle the case when a network that was part of a policy was deleted

Security issues:

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not as safe as a strong password that only you know. The security of the Internet depends on your cooperation.

- On a periodic basis we have a third party perform a security penetration test on our routers. They made several recommendations to improve the security of the router and user interactions.
- NetCloud OS version 7.0.0 will change the default administration and WiFi passwords of routers and APs produced after December 2018 to be the router's Serial Number, not the MAC address. This is a longer password and cannot be seen through a WiFi scan or on the LAN connection. The Serial Number can only be seen through NCM, the router's UI Dashboard, or on the production sticker on the router. **The default password will not change on existing routers, as the production sticker's default password would be invalid.** Please use NCM or the device's UI to change the default password on the first login as prompted.
- The default NCOS configuration would allow numerous failed authentication attempts without locking out the administration account or banning the IP address of the attacker. The capability to block this attack has been in NCOS for many years, but was not enabled by default. Version 7.0.0 makes this blocking the default. It enabled Advanced Security Mode and Ban IP Address on the System > Administration > Router Security UI page.
- Devices shared the same SSL/TLS certificates and SSH host keys. Each product type (IBR1100, AER1600, etc) shares the same certificates/keys which can be used for HTTPS and SSH communication with the device (note that this is different than passwords). Each device will now generate a unique SSH server host key upon initial boot/factory reset. This may cause a warning if you have used SSH to connect to a device previously and the key has changed. This is expected.

Known issues

- Using the Webfilter feature prevents accurate application identification resulting in large portions of traffic being classified as Not Available.

Modems tested: ([new 7.0.0 modems / modem platforms are in blue text](#))

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