

Release Notes NCOS 7.21.20

NetCloud OS 7.21.20 Release Notes (February 2021)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200

AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E3000

E300

E100

IBR1700

IBR1100/IBR1150

IBR900/IBR950

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

W2000/W2005

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

- No new features in this release.

NOTE: NetCloud OS 7.2.70 release is the last supported release for the AER1600 router. The AER1650 (non Wi-Fi version) continues to support newer releases.

NOTE: NetCloud OS 7.2.70 release, and newer, no longer officially supports 3rd party USB attached 3G/4G cellular modems. USB cellular modems currently in-use will continue to function, however their support and functionality going forward is no longer guaranteed. 3rd party Ethernet attached modems continue to be supported as "Ethernet WAN" sources only, no support for 3rd party Ethernet modems under Connection Manager modem profiles.

Additional UI/Usability changes:

- The ability to migrate Sprint Curiosity SIMs to the T-Mobile network is now supported in the IBR200-10M-C platform.

Defects fixed:

- (All) Connection Manager "Unrecognized password format" error after profile configuration.
- (All) Tunnel interfaces bound to WANs with static routes and auto gateway in certain cases failed to add route on WAN change.
- (E100, E300, E3000) Adding NetCloud Perimeter gateway client when network web filter configured no longer requires a reboot to access local UI via NetCloud Perimeter IP.

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.

- Upgraded OpenSSL library to 1.1.1h.

For more information regarding security and vulnerability events please visit the public Cradlepoint Security & Trust web page <https://cradlepoint.com/about-us/trust/>

Known issues:

- Feature: (All) SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
- Feature: (All) Wi-Fi client radios
 - Scenario:
 - A race condition could cause Wi-Fi radio startup failover on router boot.
 - Failure:
 - Wi-Fi radios will not beacon. The system log will contain a message "CRIT root Service start exception: wireless."
 - Workaround:
 - The router must be rebooted to restart and recover Wi-Fi radios.

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

Cradlepoint AER1650LPE-AT /AT&T (USA)

Cradlepoint AER1650LPE-GN /T-Mobile, US Cellular (USA);Generic (North America)

Cradlepoint AER1650LPE-SP /*Sprint (USA)*

Cradlepoint AER1650LPE-VZ /*Verizon (USA)*

Cradlepoint AER1650LP4 /*AT&T, T-Mobile, Verizon (USA)*

Cradlepoint AER2200-600M / *AT&T (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint AER2200-1200M / *AT&T, Verizon (USA)*

Cradlepoint AER2200-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint CBA550-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint CBA550-150M-E / *Generic operators (Europe, APAC)*

Cradlepoint E300-C4D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint E300-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint E3000-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint IBR200-10M-VZ / *Verizon (USA)*

Cradlepoint IBR200-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR200-10M-C-SP/ *Sprint (USA)*

Cradlepoint IBR200-10M-D-GN / *Generic operators (Europe)*

Cradlepoint IBR200-10M-E-GN / *Generic operators (Australia)*

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 IBR6x0C-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint IBR900-1200M / *AT&T, Verizon (USA)*

Cradlepoint IBR900-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 /Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT /AT&T (USA)

Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint W2000-5GA /Telstra (Australia)

Cradlepoint W2005-5GA /Telstra (Australia)

NetCloud OS 7.2.80 Release Notes (December 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E3000

E300

E100

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR950-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

W2000/W2005

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

- Updated Python from 3.6.4 to 3.8.4 for security and general improvements. All customer SDK applications should be retested for compatibility with this Python release before upgrading production routers.
- Updated OpenSSL to 1.1.1
- Added Proxy Mobile IPv6 (PMIPv6) for network-based mobility deployments with supported carriers.
 - For detailed information on this feature, please see the following KB article. <https://customer.cradlepoint.com/s/article/PMIPv6>

NOTE: NetCloud OS 7.2.70 is the last supported release for the AER1600 router. The AER1650 (non Wi-Fi version) continues to support newer releases.

NOTE: NetCloud OS 7.2.70 release, and newer, no longer officially support USB attached 3rd party 3G/4G cellular modems. USB cellular modems currently in-use will continue to function, however their support going forward is no longer guaranteed.

Additional UI/Usability changes:

- Exposed IPsec IKEv2 retransmit values and added failback verify option for IPsec tunnels.

Defects fixed:

- SNMPv3 password error resulted in NetCloud Manager configuration suspend after moving router between groups.
- Dynamic Multipoint VPN (DMVPN) tunnels drop if their specified IPsec tunnel is disabled.
- Main route table modification could result in duplicate tables.
- Distributing a static route in the main table with auto gateway prevented start of BGP process.
- Error when importing an open SSID profile from a WiFi-as-WAN scan.

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.

- Updated PPPD (Point to Point Protocol support) for CVE-2020-8597

Known issues:

- Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.

- Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
- Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
- IBR1100 WiFi as WAN or Wireless Client modes
 - Scenario:
 - If a user makes WiFi configuration changes in the local Router UI.
 - Failure:
 - WiFi radio will crash.
 - Reason for Failure:
 - Unable to get scan results need for WiFi as WAN/Wireless Client connection.
 - Workaround:
 - Per best practice, use NetCloud Manager to make all configuration changes.
- IBR9x0 Ethernet issue
 - "TCP timeouts in data streams showing an SSL Error has occurred" issue occurs on the IBR9x0 if the ethernet acceleration is enabled. Starting in the 7.2.60 release, acceleration will be disabled on the IBR9x0.

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

Cradlepoint AER1650LPE-AT / *AT&T (USA)*

Cradlepoint AER1650LPE-GN / *T-Mobile, US Cellular (USA); Generic (North America)*

Cradlepoint AER1650LPE-SP / *Sprint (USA)*

Cradlepoint AER1650LPE-VZ / *Verizon (USA)*

Cradlepoint AER1650LP4 / *AT&T, T-Mobile, Verizon (USA)*

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

Cradlepoint AER2200-1200M / *AT&T, Verizon (USA)*

Cradlepoint AER2200-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint CBA550-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint CBA550-150M-E / *Generic operators (Europe, APAC)*

Cradlepoint E300-C4D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

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Cradlepoint IBR200-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR200-10M-C-SP / *Sprint (USA)*

Cradlepoint IBR200-10M-D-GN / *Generic operators (Europe)*

Cradlepoint IBR200-10M-E-GN / *Generic operators (Australia)*

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

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Cradlepoint IBR11x0LPE-AT / AT&T (USA)

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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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

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Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

NetCloud OS 7.2.70 Release Notes (November 2020)

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AER1600/AER1650

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IBR1100/IBR1150

IBR900/IBR950/IBR950-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

W2000/W2005

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

- Automatic Resolution of WAN IP Address Conflicts - ability to automatically mitigate IP address conflicts between WAN and LAN local IP networks.
 - For detailed information on this new feature, please see the following KB article. <https://customer.cradlepoint.com/s/article/Automatic-Resolution-of-WAN-IP-Address-Conflicts>
- Local IP Network SPAN - ability to monitor any local IP network on the Cradlepoint router and clone that IP traffic to a destination local IP gateway address.
- Smart Operator Selection (S.O.S.) support has been added for the following modems: 1200M, 1200M-B, C18B, 600M
 - For detailed information on this feature, please see the following KB article. <https://customer.cradlepoint.com/s/article/NCOS-Smart-Operator-Selection-S-O-S>
- GRE Tunnel Directed IP Broadcast - added support to enable forwarding of directed IP broadcasts originating from a GRE tunnel.

NOTE: NetCloud OS 7.2.70, and newer, releases no longer officially support 3rd party USB attached 3G/4G cellular modems. USB cellular modems currently in-use will continue to function, however their support going forward is no longer guaranteed.

Additional UI/Usability changes:

- Enhancements to the container health-check configuration.

- Expanded help dialog for container configuration and management.
- Connection Manager with Captive Modem. Ethernet interface is now disabled in Connection Manager when adapter is in Captive Modem mode (i.e. interface becomes Captive Modem only).

Defects fixed:

- Using wildcard configuration requests can in some case cause the router to lock up and reboot. An API call example:
 - `curl -s --basic --user admin:$CP_PASSWORD http://172.16.16.1/api/status/wlan/radio^*/bss^*/bssid`
- Secure Web Filter failing with "Cannot read HTTP header" and "Cloud lookup for <domain> failed" or failing DNS lookups.
- Remote admin access via NCP while Network Web Filter is enabled works as long as one local LAN has admin enabled.
- Static and Policy Routes consistently match correctly during NHRP peer-ups.
- Hotspot allowed domains accepts . (dot) for any preceding host/subdomain and not just a single subdomain as * does.
- VTI tunnels using incorrect interface when configuration changed to or from anonymous.
- Correct issue with configuration changes to WAN devices when Traffic Steering configured could result in the UI locking up and potential reboots.
- (W2000/W2005) Performance issue introduced in 7.2.60 that significantly degraded ethernet to modem performance.

Security issues:

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- No updates in this release

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 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
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- IBR1100 WiFi as WAN or Wireless Client modes
 - Scenario:
 - If a user makes WiFi configuration changes in the local Router UI.
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Modems tested in this release:

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Cradlepoint AER16x0LPE-SP / *Sprint (USA)*

Cradlepoint AER16x0LPE-VZ / *Verizon (USA)*

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

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

Cradlepoint AER2200-1200M / *AT&T, Verizon (USA)*

Cradlepoint AER2200-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint CBA550-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint CBA550-150M-E / *Generic operators (Europe, APAC)*

Cradlepoint E300-C4D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint E300-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint E3000-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint IBR200-10M-VZ / *Verizon (USA)*

Cradlepoint IBR200-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR200-10M-C-SP / *Sprint (USA)*

Cradlepoint IBR200-10M-D-GN / *Generic operators (Europe)*

Cradlepoint IBR200-10M-E-GN / *Generic operators (Australia)*

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 IBR6x0C-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint IBR900-1200M / *AT&T, Verizon (USA)*

Cradlepoint IBR900-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 / Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT / AT&T (USA)

Cradlepoint MC400LPE-GN / T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP / Sprint (USA)

Cradlepoint MC400LPE-VZ / Verizon (USA)

Cradlepoint MC400LP3-EU / Generic (Europe)

Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

Cradlepoint MC400LP6 / AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

NetCloud OS 7.2.60 Release Notes (October 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E3000

E300

E100

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR950-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

W2000/W2005

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

- Initial production software release for the NetCloud SOHO E100 router.
- Added WiFi as WAN feature on the NetCloud Enterprise Branch E300 and E3000 routers.
- Added SCEP client feature to IBR900, IBR600C/IBR650C, and IBR1700 routers.

Additional UI/Usability changes:

- No updates in this release.

Defects fixed:

- Fixed an issue where GPS "Municast" connections would stop sending data if there was also a TCP Send-to-Server connection configured to a server that dropped the connection request.
- Fixed an issue when configuring WEP auto with a 13 character key caused Wi-Fi to crash.
- (IBR1700/AER2200) modified the GPIO controls in the CLI to match other products.
- (E3000) upload speeds heavily diminished in IP Passthrough on a fiber WAN.
- (E3000) wired 802.1x did not function.
- Resolved a duplicate WAN rule sync error after upgrading from 7.2.10 to later NetCloud OS release.
- Resolved inaccurate display of US Cellular APN diagnostic information.

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.

- No updates in this release

Known issues:

- Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

- IBR1100 WiFi as WAN or Wireless Client modes
 - Scenario:
 - If a user makes WiFi configuration changes in the local Router UI.
 - Failure:
 - WiFi radio will crash.
 - Reason for Failure:
 - Unable to get scan results need for WiFi as WAN/Wireless Client connection.
 - Workaround:
 - Per best practice, use NetCloud Manager to make all configuration changes.
- IBR9x0 Ethernet issue
 - The issue listed above for "(AER2200) TCP timeouts in data streams showing an SSL Error has occurred" also occurs on the IBR9x0 if the ethernet acceleration is enabled. Starting in the 7.2.60 release, acceleration will be disabled on the IBR9x0.

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint AER2200-1200M / *AT&T, Verizon (USA)*

Cradlepoint AER2200-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint CBA550-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint CBA550-150M-E / *Generic operators (Europe, APAC)*

Cradlepoint E300-C4D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint E300-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint E3000-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint IBR200-10M-VZ / *Verizon (USA)*

Cradlepoint IBR200-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR200-10M-C-SP / *Sprint (USA)*

Cradlepoint IBR200-10M-D-GN / *Generic operators (Europe)*

Cradlepoint IBR200-10M-E-GN / *Generic operators (Australia)*

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 / Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT / AT&T (USA)

Cradlepoint MC400LPE-GN / T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP / Sprint (USA)

Cradlepoint MC400LPE-VZ / Verizon (USA)

Cradlepoint MC400LP3-EU / Generic (Europe)

Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

Cradlepoint MC400LP6 / AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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 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*

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

NetCloud OS 7.2.50 Release Notes (September 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E3000

E300

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR950-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

W2000/W2005

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

- NetCloud Container Orchestration has transitioned from Early Access to General Availability.
- Added optional ability to bind Local IP Networks in Container service configuration with additional option for static IP address assignment.

- Ability to choose Split DNS as an option when creating policy based routing tables. This allows DNS names resolved using the Split DNS feature to be used as a target for policy based routes.
- Ability to choose Enrollment Server (SCEP) for signing a certificate. This feature supports enrolling with Microsoft/NDES servers.

Additional UI/Usability changes:

- New UI dialog box under container service creation allowing the user to specify an optional static IP address for the attached network.
- New "tag" match condition when creating Route Map entries.
- Removed the "Early Access" label from NetCloud Container Orchestration UI screens.

Defects fixed:

- (E3000) Rare occurrence where on boot-up communication or DHCP did not function on ethernet ports 1-6.
- (E3000/E300) Potential pause in network traffic when VRRP transitioned from Backup to Master.
- (E3000) Console connections are unresponsive when Hardware Flow control is enabled. Hardware Flow control option has been disabled in this release.
- (IBR200) Devices were not able to roll back on reconnect failure when improper DNS servers were loaded.
- (AER2200) TCP timeouts in data streams showing an SSL Error has occurred.
- IPSec tunnels using hostname peers would not update their IP via MOBIKE.
- Require secure for local management would not restrict access across IPSec tunnels.
- (IBR900 w/ COR Dock) Issue in NCOS 7.2.40 release where MC400 modem installed in COR dock disappears from Connection Manager modem WAN profile.
- (5GA) With multiple PDNs enabled and GNSS disabled, it was possible to cause a router reboot when resetting the modem.
- Fixed incorrect interface uptime (e.g. "Uptime: 00:31:60 seconds) in Connection Manager.
- Performance issue when a Wi-Fi client roams between AP22 and attached Cradlepoint router.
- Selecting "20/40 MHz Auto" for the Channel Width in the WiFi Radio Settings makes the beacon only show 802.11g.
- (AER2200, E300, E3000) Issue where a large number of connections when the Quality of Experience feature is enabled could trigger a device reboot.

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.

- No updates in this release

Known issues:

- Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
- IBR1100 WiFi as WAN or Wireless Client modes
 - Scenario:
 - If a user makes WiFi configuration changes in the local Router UI.
 - Failure:
 - WiFi radio will crash.
 - Reason for Failure:
 - Unable to get scan results need for WiFi as WAN/Wireless Client connection.
 - Workaround:

- Per best practice, use NetCloud Manager to make all configuration changes.
- IBR9x0 Ethernet issue
 - The issue listed above for "(AER2200) TCP timeouts in data streams showing an SSL Error has occurred" also occurs on the IBR9x0 if the ethernet acceleration is enabled. Starting in the 7.2.60 release, acceleration will be disabled on the IBR9x0.

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint AER2200-1200M / *AT&T, Verizon (USA)*

Cradlepoint AER2200-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint CBA550-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint CBA550-150M-E / *Generic operators (Europe, APAC)*

Cradlepoint E300-C4D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint E300-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint E3000-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint IBR200-10M-VZ / *Verizon (USA)*

Cradlepoint IBR200-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR200-10M-C-SP / *Sprint (USA)*

Cradlepoint IBR200-10M-D-GN / *Generic operators (Europe)*

Cradlepoint IBR200-10M-E-GN / *Generic operators (Australia)*

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 IBR6x0C-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 / Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT / AT&T (USA)

Cradlepoint MC400LPE-GN / T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP / Sprint (USA)

Cradlepoint MC400LPE-VZ / Verizon (USA)

Cradlepoint MC400LP3-EU / Generic (Europe)

Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

Cradlepoint MC400LP6 / AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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 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*

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

NetCloud OS 7.2.40 Release Notes (August 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E300

E3000

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- Application Aware and Dynamic Traffic Steering features have transitioned from "Early Access" to "General Availability".
- (IBR900 and IBR1700) Added the ability to connect to hidden SSIDs using DFS channels in Wireless Client Mode only.
- (AER2200) Added detection and logging for ethernet queue hang situation.

Additional UI/Usability changes:

- Updated the NetCloud by Cradlepoint logo to the latest version.
- Status > Routing > System Routes has been updated to include all routing tables, policy based routing rules, and arp tables.
- Removed excessive and miscategorized Wi-Fi logging.

Defects fixed:

- Fixed an issue where data usage was not being reported in WiFi as WAN or Wireless Client modes.
- Fixed an issue where a device would roam to DFS channels in WiFi as WAN mode.
- Fixed an issue where a device would connect on a disabled WiFi as WAN profile.
- Fixed a possible deadlock that could occur when switching between WiFi as WAN and a Modem WAN.
- Fixed wired 802.1x that has not been working since NCOS 7.1.80.
- Fixed an issue that can cause data usage to be reported on the wrong WAN interface.

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.

- No updates in this release

Known issues:

- Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
- Selecting "20/40 MHz Auto" for the Channel Width in the WiFi Radio Settings makes the beacon only show 802.11g.
 - Scenario:
 - A user selects the Channel Width on any WiFi Radio configuration page.
 - Failure:
 - The radio with 40 MHz configured will only beacon as 20 MHz 802.11g mode. This significantly decreases performance.
 - Reason for Failure:
 - Wireless driver changes no longer allow previous commands to set bandwidth to be executed.
 - Workaround :
 - Use "20 MHz" on the 2.4 GHz radio (this is the default setting), and use "20 MHz" or "20/40/80 MHz Auto" on the 5.0 GHz radio ("20/40/80 MHz Auto" is the default).
- IBR1100 WiFi as WAN or Wireless Client modes
 - Scenario:
 - If a user makes WiFi configuration changes in the local Router UI.
 - Failure:
 - WiFi radio will crash.
 - Reason for Failure:
 - Unable to get scan results need for WiFi as WAN/Wireless Client connection.
 - Workaround:
 - Per best practice, use NetCloud Manager to make all configuration changes.

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint AER2200-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint CBA550-150M-E / Generic operators (Europe, APAC)

Cradlepoint E300-C4D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint E300-C18B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint E3000-C18B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 / Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT / AT&T (USA)

Cradlepoint MC400LPE-GN / T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP / Sprint (USA)

Cradlepoint MC400LPE-VZ / Verizon (USA)

Cradlepoint MC400LP3-EU / Generic (Europe)

Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

Cradlepoint MC400LP6 / AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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

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

**requires Pantech firmware versionL0295VWD821F.B4 or later*

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

NetCloud OS 7.2.30 Release Notes (July 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E300

E3000

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- Capacity Dashboard has transitioned from "Early Access" to "General Availability".
- Added the ability to configure NetCloud Perimeter as a NetCloud OS local interface in routing and firewall policies.

Additional UI/Usability changes:

- Removed "Early Access" label from Capacity Dashboard on supported products.

Defects fixed:

- (E300) Performance improvement when using IP Passthrough mode on Wired WAN to LAN.
- (IBR1700) Failure to obtain GPS fix even though GPS has a lock.
- Webroot attempts retry of URL lookup.
- Corrected issue where cpcontainer would not install after a factory reset.

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.

- No updates in this release

Known issues:

1. Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
2. Selecting "20/40 MHz Auto" for the Channel Width in the WiFi Radio Settings makes the beacon only show 802.11g.
 - Scenario:
 - A user selects the Channel Width on any WiFi Radio configuration page.
 - Failure:
 - The radio with 40 MHz configured will only beacon as 20 MHz 802.11g mode. This significantly decreases performance.
 - Reason for Failure:
 - Wireless driver changes no longer allow previous commands to set bandwidth to be executed.
 - Workaround :
 - Use "20 MHz" on the 2.4 GHz radio (this is the default setting), and use "20 MHz" or "20/40/80 MHz Auto" on the 5.0 GHz radio ("20/40/80 MHz Auto" is the default).
3. 'Nslookup' utility does not work correctly on the E300 or E3000 products.
4. AP22 is not included in this NetCloud release.

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint AER2200-1200M / *AT&T, Verizon (USA)*

Cradlepoint AER2200-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint CBA550-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint CBA550-150M-E / *Generic operators (Europe, APAC)*

Cradlepoint E300-C4D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint E300-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint E3000-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint IBR200-10M-VZ / *Verizon (USA)*

Cradlepoint IBR200-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR200-10M-C-SP / *Sprint (USA)*

Cradlepoint IBR200-10M-D-GN / *Generic operators (Europe)*

Cradlepoint IBR200-10M-E-GN / *Generic operators (Australia)*

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 / Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT / AT&T (USA)

Cradlepoint MC400LPE-GN / T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP / Sprint (USA)

Cradlepoint MC400LPE-VZ / Verizon (USA)

Cradlepoint MC400LP3-EU / Generic (Europe)

Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

Cradlepoint MC400LP6 / AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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

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

**requires Pantech firmware versionL0295VWD821F.B4 or later*

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

NetCloud OS 7.2.20 Release Notes (June 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E300

E3000

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

W2000

W2005

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

- Initial production software release for the NetCloud Branch 5G Adapter (W2000 and W2005).
- NetCloud application container support and orchestration
 - Released as Early Access, new functionality still under current development and will continue evolve until General Availability.
 - Ability to run and manage Open Container Initiative (OCI) compliant containers on the following products:
 - E3000
 - E300
 - AER2200
 - IBR1700
- Added audit trail with logging when "techsupport access" mode is enabled.

Additional UI/Usability changes:

- Removed from configuration UI the System > NetCloud > Server Host value. This value should only be modified after discussions from Support, please contact Support for more details if needed.

Defects fixed:

- Editing BGP peers with passwords no longer results in a server exception when saving.
- BGP prepend advertises correct when path is entered with commas and/or spaces.
- NTP Client/Server option added to prevent preferring AAAA records on boot and failing to get NTP response.
- (E300/E3000) IP Passthrough mode not resetting LAN interface when WAN Source Changes.
- (E300) Fixed 4G LED displaying correctly.
- WEP Auto Authentication was broken for WiFi.

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.

- No updates in this release

Known issues:

1. Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
2. Selecting "20/40 MHz Auto" for the Channel Width in the WiFi Radio Settings makes the beacon only show 802.11g.
 - Scenario:
 - A user selects the Channel Width on any WiFi Radio configuration page.

- Failure:
 - The radio with 40 MHz configured will only beacon as 20 MHz 802.11g mode. This significantly decreases performance.
- Reason for Failure:
 - Wireless driver changes no longer allow previous commands to set bandwidth to be executed.
- Workaround :
 - Use "20 MHz" on the 2.4 GHz radio (this is the default setting), and use "20 MHz" or "20/40/80 MHz Auto" on the 5.0 GHz radio ("20/40/80 MHz Auto" is the default).

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint AER2200-1200M / *AT&T, Verizon (USA)*

Cradlepoint AER2200-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint CBA550-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint CBA550-150M-E / *Generic operators (Europe, APAC)*

Cradlepoint E300-C4D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

Cradlepoint E300-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint E3000-C18B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

Cradlepoint IBR200-10M-VZ / *Verizon (USA)*

Cradlepoint IBR200-10M-B-AT / *AT&T (USA)*

Cradlepoint IBR200-10M-C-SP/ *Sprint (USA)*

Cradlepoint IBR200-10M-D-GN / *Generic operators (Europe)*

Cradlepoint IBR200-10M-E-GN / *Generic operators (Australia)*

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 IBR6x0C-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 / Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT / AT&T (USA)

Cradlepoint MC400LPE-GN / T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP / Sprint (USA)

Cradlepoint MC400LPE-VZ / Verizon (USA)

Cradlepoint MC400LP3-EU / Generic (Europe)

Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

Cradlepoint MC400LP6 / AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint W2000-5GA /Telstra (Australia)

Cradlepoint W2005-5GA /Telstra (Australia)

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)

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 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*

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

NetCloud OS 7.2.10 Release Notes (May 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E300

E3000

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- Initial production software release for the NetCloud Enterprise Branch E3000 router.
- Active/Active WiFi as WAN Profiles
 - The ability to have concurrent active WiFi as WAN or Wireless client profiles on both the 2.4GHz and 5GHz WiFi radios. This feature will not override existing WiFi as WAN profiles.

Additional UI/Usability changes:

- System > Local Management > Disable Generic Receive Offload (GRO) on certain products. This disables a performance enhancement setting (GRO) if it is causing traffic to stop flowing to LAN ports. This is a very rare situation and should only be used if advised by Cradlepoint Support.
- Added Smart Operator Selection (SOS) support for 150M-B and 150M-E modems.
- Connection Manager > (Profile) > Edit. Modified UI list item to "IPv4 Overrides" to more accurately reflect the purpose of the configuration options under this menu option.

Defects fixed:

- Features requiring OpenSSL that were not functioning on FIPS releases.
- GRE interface had incorrect link and displayed no IP address.
- Having multiple PSK based IKEv2 IPsec tunnels resulted in the same key being transmitted for all tunnels; IDr now defaults to peer IP if unset.
- Unable to connect to a secondary SSID on AER1600.
- 1200M, 1200M-B, C18B modems. Integrated workaround for infrequent and random modem lock-up when certain high-traffic data patterns are present, such as Zoom and Microsoft Teams video conferences.
- Wireless client would not connect to a Hidden SSID after upgrade to 7.2.0.
- Certain WiFi passwords were being reset during a Firmware upgrade.

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.

- No updates in this release

Known issues:

1. Feature: SNMP Queries (GETs)

- Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
- Failure:
 - The query request is rejected by the SNMP agent running in the router.
- Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
- Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint AER2200-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint E300-C4D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint E300-C18B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint E3000-C18B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 /Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT /AT&T (USA)

Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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 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*

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

NetCloud OS 7.2.0 Release Notes (April 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

E300

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- Initial production software release for the NetCloud Enterprise Branch E300 router.
- Improved throughput performance when IPS/IDS, Application Analytics and Client Data Analytics are enabled on AER2200, IBR1700 and IBR900.

Additional UI/Usability changes:

- Changed copyright year to 2020.

Defects fixed:

- Fixed an issue where user was unable to configure or reconfigure SSIDs.
- Fixed an issue when connecting to certain Wi-Fi access points with hidden SSIDs, scan detected Unicode characters.
- Fixed an issue where, if all the SSIDs on a radio are disabled, it would no longer connect to WiFi as WAN.

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.

- No updates in this release

Known issues:

1. Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
2. Features requiring OpenSSL are not available on FIPS releases.

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint AER2200-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint E300-C4D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint E300-C18B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 /Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT /AT&T (USA)

Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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 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*

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

NetCloud OS 7.1.80 Release Notes (March 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- Open EIGRP is now available as Early Access for testing and evaluation. Please see the following [Knowledge Base article](#) for details on functionality, configuration and limitations.

Additional UI/Usability changes:

- No updates in this release

Defects fixed:

- Data Cap reporting service failed to rotate hourly data log some times when very little data was being passed. This could fill up a filesystem and require a factory reset to fix.
- Resolve IPSec start condition that could allow for keys to be used that had not yet been decoded.
- Removed package-error logging on exit 0 of SDK apps
- Added CB's for make-before-break and tunnel recovery for VPN stability
- Limit static multicast configuration to issue a single phyint per interface configured
- Add support for chained certificates to WWAN
- Increased WiFi as WAN stability by avoiding an issue that was causing wireless surveys to only report a single channel
- Inhibit AP is preventing WiFi as WAN connections and breaking client connections

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.

- No updates in this release

Known issues:

1. Feature: SNMP Queries (GETs)

- Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
- Failure:
 - The query request is rejected by the SNMP agent running in the router.
- Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
- Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

2. Feature: WiFi as WAN

- Scenario:
 - User has WiFi as WAN as their only WAN connection
 - SSIDs for the radio have been disabled
- Failure:
 - Unable to connect to AP in the WiFi as WAN profile
- Reason for Failure:
 - With the SSID disabled we will not do a wireless scan
- Workaround:
 - Re-Enable the SSIDs

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint AER2200-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP / Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 /Public Safety Band 14 only (USA)

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Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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

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

NetCloud OS 7.1.70 Release Notes (February 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

New NetCloud features available in this release (Not all features are in all products, please review the [NetCloud Service Plan Features](#)):

- New BGP configuration option; BGP Listen Range. Decreases configuration time and complexity for DMVPN networks and other similar BGP configurations.

Additional UI/Usability changes:

- Added ability to modify GRE tunnel exception route behavior. Default exception mode is "Route", and now featuring ability to change to "Rule" or "None".

Defects fixed:

- Resolved an issue with NHRP where failover/failback events could potentially cause an unreasonable delay in re-registering to the NBMA server.
- Resolved an issue with Wi-Fi as WAN where the client would try to switch channels when connected to an access point.

Security issues:

Notes:

- 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.
- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues Resolved in this release:

- No updates in this release

Known issues:

1. Feature: SNMP Queries (GETs)

- Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
- Failure:
 - The query request is rejected by the SNMP agent running in the router.
- Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
- Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

Modems tested in this release:

Cradlepoint Cellular Modems (Embedded & Modular)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint AER2200-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 /Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT /AT&T (USA)

Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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 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*

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

NetCloud OS 7.1.60 Release Notes (January 2020)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

New NetCloud features available in this release (Not all features are in all products, please review the [NetCloud Service Plan Features](#)):

- BGP listen-range functionality was added.

Additional UI/Usability changes:

- Added the ability to modify exception route behavior for GRE tunnels. Exception route mode is configured as "Route" by default, but configuration can now be changed to "Rule" or "None".

Defects fixed:

- Resolved an issue with NHRP where failover/failback events could potentially cause an unreasonable delay in re-registering to the NBMA server.
- Resolved an issue with Wifi as WAN where the client would try to switch channels when connected to an upstream AP.

Security issues:

Notes:

- 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.
- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues Resolved in this release:

- No updates in this release

Known issues:

1. Feature: SNMP Queries (GETs)

- Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
- Failure:
 - The query request is rejected by the SNMP agent running in the router.
- Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.

- Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

Modems tested:

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint AER2200-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

Cradlepoint IBR900-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint IBR1700-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint MC400L2 /Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT /AT&T (USA)

Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

Cradlepoint MC400-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

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)

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 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*

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

NetCloud OS 7.1.50 Release Notes (December 2019)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

New NetCloud features available in this release (Not all features are in all products, please review the [NetCloud Service Plan Features](#)):

- Added a specific log message to indicate when a Factory Reset is happening.

Additional UI/Usability changes:

- An option to include a RFC-3164 Compliant Header to each syslog message has been added under System Administration System Logging.
- "Listen Range" support for configuring dynamic BGP neighbors has been added under Networking Routing BGP.

Defects fixed:

- Resolved an issue where NTP Synchronization was using only the first IP address to resolve a time server host name, which would cause failure to sync when that first resolution was an IPv6 address on an IPv4 network. Now NTP Synchronization will use up to four of the best responding addresses from the DNS pool for each host name.

Security issues:

Notes:

- 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.

- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues Resolved in this release:

- No security fixes in this version

Known issues:

1. Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

Modems tested: ([new 7.1.50 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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint AER2200-1200M-B / AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / *AT&T, T-Mobile, Verizon (USA); Generic (Canada)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint IBR900-1200M / *AT&T, Verizon (USA)*

Cradlepoint IBR900-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)*

Cradlepoint IBR1700-1200M / *AT&T, Verizon (USA)*

Cradlepoint IBR1700-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

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

Cradlepoint MC400LPE-AT / *AT&T (USA)*

Cradlepoint MC400LPE-GN / *T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)*

Cradlepoint MC400LPE-SP / *Sprint (USA)*

Cradlepoint MC400LPE-VZ / *Verizon (USA)*

Cradlepoint MC400LP3-EU / *Generic (Europe)*

Cradlepoint MC400LP4 / *AT&T, T-Mobile, Verizon (USA)*

Cradlepoint MC400LP5 / *Generic (APAC)*

Cradlepoint MC400LP6 / *AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)*

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

Cradlepoint MC400-1200M / *AT&T, Verizon (USA)*

Cradlepoint MC400-1200M-B / *AT&T (USA), Verizon (USA); NoAmerica GN (T-Mobile USA, Canada), EuAPAC GN (Europe, Australia)*

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

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**supports Netgear firmware 4.07.01.11 and MR2 firmware 45.04.20.00*

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

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*

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

NetCloud OS 7.1.40 Release Notes (November 2019)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

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NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

New NetCloud features available in this release (Not all features are in all products, please review the [NetCloud Service Plan Features](#)):

- The SDK for CP Secure Web Filter was updated to version 0.7MT which allows for multi-threaded environments to increase system performance.
- 600M, 10M-C, LP6. Added support for Sprint's Curiosity™ IoT Core Network SIMs.

- System > Diagnostics > Packet Capture: New functionality has been added to stream packet captures to [Cloudshark.io](https://cloudshark.io) (requires a [Cloud shark.io](https://cloudshark.io) account) or to a Custom URL such as a [Cloudshark.io](https://cloudshark.io) enterprise endpoint.
- Added the ability to capture wireless client to client traffic when doing a packet capture on IBR900, IBR1700, and AER2200.

Additional UI/Usability changes:

- 1200M: For the Generic firmware image, if a non-supported SIM is being used with the 1200M module a SIM mismatch error will now be displayed.

Defects fixed:

- Resolved an issue where signal strength LEDs were not illuminated when a SIM is in SIM slot 2 (SIM state is available).
- Resolved an issue where a boot loop may occur when VPN service is enabled along with a scheduled reboot.
- Resolved an issue where NEMO could connect on an incorrect WAN when more than one available.
- Resolved an issue where On-Demand IPSec connections could be unloaded on IKE re-key.
- SMS interface maintenance: Added additional phone number validation, log entries for SMS log request acknowledgement, and active SIM monitoring to avoid unnecessary SMS requests.
- IBR9x0-1200M, IBR9x0-1200M-B: Added workaround to avoid mixed carrier profile issues within a module's single firmware image (such as AT&T and FirstNet SIMs with AT&T image).
- 1200M, 1200M-B: Corrected an issue that prevented multiple PDN feature from functioning properly.
- APN management maintenance: Added additional APN recovery steps during a restore to factory defaults.
- Captive modem mode: Modified remote device LED display to reflect accurate controlled state, corrected UI to save primary SIM selection, and fixed Profile delete confirmation for Profile names containing markup characters.

Security issues:

Notes:

- 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.
- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues Resolved in this release:

- No security fixes in this version

Known issues:

1. Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

Modems tested: ([new 7.1.40 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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

[Cradlepoint AER2200-1200M-B / AT&T \(USA\), Verizon \(USA\); NoAmerica GN \(T-Mobile USA, Canada\), EuAPAC GN \(Europe, Australia\)](#)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (USA)

[Cradlepoint IBR900-1200M-B / AT&T \(USA\), Verizon \(USA\); NoAmerica GN \(T-Mobile USA, Canada\), EuAPAC GN \(Europe, Australia\)](#)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

[Cradlepoint IBR1700-1200M-B / AT&T \(USA\), Verizon \(USA\); NoAmerica GN \(T-Mobile USA, Canada\), EuAPAC GN \(Europe, Australia\)](#)

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

Cradlepoint MC400LPE-AT / *AT&T (USA)*

Cradlepoint MC400LPE-GN / *T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)*

Cradlepoint MC400LPE-SP / *Sprint (USA)*

Cradlepoint MC400LPE-VZ / *Verizon (USA)*

Cradlepoint MC400LP3-EU / *Generic (Europe)*

Cradlepoint MC400LP4 / *AT&T, T-Mobile, Verizon (USA)*

Cradlepoint MC400LP5 / *Generic (APAC)*

Cradlepoint MC400LP6 / *AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)*

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

Cradlepoint MC400-1200M / *AT&T, Verizon (USA)*

[Cradlepoint MC400-1200M-B / AT&T \(USA\), Verizon \(USA\); NoAmerica GN \(T-Mobile USA, Canada\), EuAPAC GN \(Europe, Australia\)](#)

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)*

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 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*

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

NetCloud OS 7.1.30 Release Notes (October 2019)

Availability and entitlement to NetCloud OS releases requires an active Cradlepoint NetCloud Service subscription. For more information about the Cradlepoint NetCloud Service click [HERE](#).

Regarding NetCloud OS manual download availability: NetCloud OS (NCOS) releases 7.1.0 and greater are no longer available for manual or offline download. NCOS upgrades are performed via NetCloud Manager with an active NetCloud Service subscription. For more information and NCOS upgrade best practices click [HERE](#).

Updating NCOS and WAN bandwidth: NCOS updates performed through NetCloud Manager will result in an internet download consuming WAN bandwidth. The size of this update file can vary depending on the specific hardware platform to be updated as well as the specific NCOS version selected for the update. For most Cradlepoint endpoints, the NCOS update can be approx. 15-20MB.

NOTE: The exception to this approximate file size is the CR4250, which can have update file sizes up to 150MB.

NetCloud Endpoints Supported/Tested in this Release:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router (CVR)

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

New NetCloud features available in this release (Not all features are in all products, please review the [NetCloud Service Plan Features](#)):

- Added the ability to gather GPS data points even when cellular connectivity is lost to send to NCM upon restoration of connection to the service.
- Addition of GPS accuracy heuristic to provide approximations for how accurate a GPS fix is for a device.
- Added the ability to connect to Hidden SSID for IBR600C.

Additional UI/Usability changes:

- Support information on the device (System > Diagnostics > Support): Some buttons and phone numbers have been removed as they no longer match Cradlepoint Connect contact information.
- New APNs have been added to the AutoAPN list: m2m-east.telus.iot, m2m-west.telus.iot
- Added the ability to configure a per-tunnel RSA certificate for IPSec VPN configurations.

Defects fixed:

- IBR1700: Reduced the amount of error-level log messages produced during normal GPS behavior.
- Fixed modem firmware upgrade UI after switch from SIM1 to SIM2.
- Allow NHRP to connect multiple NBMA peers with the same IP address.
- Prevent On-Demand IPSec protected NHRP entries from staying in a "connecting" state indefinitely.

Security issues:

Notes:

- 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.
- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues Resolved in this release:

- No security fixes in this version

Known issues:

1. Feature: SNMP Queries (GETs)

- Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
- Failure:
 - The query request is rejected by the SNMP agent running in the router.
- Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
- Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

Modems tested: ([new 7.1.30 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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint MC400L2 /Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT /AT&T (USA)

Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (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)

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 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*

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

Release Notes for Cradlepoint Rev 7.1.20 Firmware (September, 2019)

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- **IBR1700:** Added Wi-Fi Regulatory domain support as well as DFS certification for AP and Client Mode for wireless client for Australia /New Zealand
- **Captive Modem:** A new feature has been added to allow Captive Modem support. A Captive modem is external modem hardware connected to a controller router over Ethernet for LTE and/or 5G expansion, as well as enabling more optimized cellular radio placement in installations. When connected to a controller router, the Captive Modem will show up in Connection Manager as a typical cellular modem. This is particularly useful for Wireless WAN failover implementations or to provide Wireless WAN connectivity to a controller router that does not have Wireless WAN capability.
- **Routing:** Static Multicast Routing was added under the device Routing menu. This feature allows configuration of static multicast routes that forward multicast traffic from any source interface to any destination interface(s). Multicast traffic can additionally be matched on Source IP address if specified.

Additional UI/Usability changes:

- **CR4250 and AER2200:** A new feature has been added to the Dashboard to provide displays of several system parameters. These gauges show Memory usage, Temperature, Current Throughput, Incoming Packet Loss, CPU usage, and an Overload flag. These gauges also link to Capacity Statistics pages in the Status menu to show a week's worth of collected data. This display is disabled by default on the AER2200 and enabled by default on the CR4250.
 - **Notes:**
 - This Feature is currently released as Early Access.
 - These gauges do not show immediate values - averaged values are displayed, meaning that events such as a quick spike in network usage will not cause the gauges to change.
 - The gauges will go from Green to Yellow to Red based on sustained measurements
 - If any of the gauges or the Overload icon stay red for prolonged periods of time, it is suggested to view the weekly statistics page to see if there are times where the system is running at maximum capacity.
 - The Overload icon is to highlight when the system is running at its expected maximum, even if the Throughput or CPU gauges are not red. For example, a device running CP Secure Threat Management or many IPSec tunnels which can put a high load on the router.

Defects fixed:

- Resolved an issue where a modem could remain in a "Connecting" state after directly upgrading from NCOS 6.1.1 (or earlier) to 7.0.60, 7.0.70, 7.1.0 or 7.1.10
- Updated SMS access to respect default router password.
- Resolved an issue where NHRP could create duplicate child SAs for connections already in progress.

Security issues:

Notes:

- 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.
- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues Resolved in this release:

- Resolved an issue where certain Hotspot use cases could allow an unauthenticated user access some to internal device services.
- IPSec VPN no longer uses "Allow aggressive mode pre-shared key" by default.

Known issues:

1. Feature: NHRP and IPSec on CR4250 Only
 - Scenario:
 - After a firmware upgrade NHRP tunnels may fail to reconnect with this error log: 'Error creating ViciHandler' and not be immediately recoverable.
 - Impact:
 - Any configuration utilizing the "VPN" field in the NHRP configuration page
 - Workaround and recovery:
 - Enabling Debug level for router logs before upgrading prevents this behavior. Restore router logging level after firmware upgrade.
 - Removing the "VPN" configuration and changing the IPSec tunnel configuration to "Initiator Mode": "On Demand" will allow the tunnels to still come up but avoid the error
 - A subsequent reboot clears the issue
2. Feature: SNMP Queries (GETs)
 - Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv

Modems tested: ([new 7.1.20 modems / modem platforms are in blue text](#))

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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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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Cradlepoint IBR900-1200M / AT&T, Verizon (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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

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Cradlepoint MC400LPE-GN /T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP /Sprint (USA)

Cradlepoint MC400LPE-VZ /Verizon (USA)

Cradlepoint MC400LP3-EU /Generic (Europe)

Cradlepoint MC400LP4 /AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 /Generic (APAC)

Cradlepoint MC400LP6 /AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (USA)

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

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

Release Notes for Cradlepoint Rev 7.1.10 Firmware (August, 2019)

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- System Logging: A new feature has been added to logging functionality where router timestamps can be added to log messages sent to a syslog server. This will assist administrators with installations where several routers are configured to send log messages to a central syslog server - event timestamps will be sourced by specific routers at the time the log message is generated rather than when the log message is received by the syslog server. This feature is enabled under System Administration System Logging Enable Logging to a Syslog Server by selecting the new "Include Timestamp" option.
- Traffic Steering: Enhancements to allow Application Match and Dynamic Steering configurations for any target WAN binding, not just "Type is SDWAN".
 - For binding types other than SDWAN, original traffic flows will not be moved in order to avoid flow disruption. The first flows of a particular Initial Match and Application Match will egress as if the rule was not present - Once the application has been identified by the system, subsequent flows will egress the WAN specified in the Target. Similarly, initial flows directed by a Dynamic Steering target will egress the current best WAN based on the selected WAN Performance Identity, and will remain on that WAN if the best WAN subsequently changes.
 - Traffic Steering behavior when the target binding is "Type is SDWAN" remains the same for an Auto VPN network: the original flows will be moved to the target WAN once the application is identified or whenever the best WAN is identified, depending on specified Targets.
- Advanced APN: Added support to allow users to add APN/PLMNs to the otherwise static AutoAPN list under Connection Manager WAN Management Advanced APN tab.
- AutoAPN: For AT&T customers, "i2gold" has been added to the AutoAPN table. Previously, customers using i2gold SIMs would need to specify the APN as a default override. With this release of NCOS, the modem will attempt to connect using the APN of "i2gold" first, then attempt "broadband" second.
- Routing Protocols: The routing protocol stack used by NCOS has been upgraded. All routing protocols supported under previous versions of NCOS will continue to be supported under the new version. This change should be transparent after NCOS update, with no additional configuration changes required. Due to the scope of this change, Cradlepoint recommends as a best practice to customers utilizing complex or advanced routing configurations to update a small subset of devices to gauge device performance and behavior of NCOS 7.1.10 before updating the entire fleet. Additional notes on this change:
 - Protocol routes that are listed under Status Routing System Routes will have values reported under "metric" different than previous releases. Though the value reported is different, the underlying behavior is still the same.
- Route Policies: A new Incoming Device option of "Local:Security" (lo:security) has been added. This enables the configuration of Route Policies to route security services (Such as CP Secure Web Filter) to a specific Route Table.

Additional UI/Usability changes:

- AutoAPN improvements: Added TracFon APN/PLMN to AutoAPN list
- 1200M, 600M, LP6, LP5: For modems with multiple carrier aggregation capabilities, Status Internet Connections (Device) now displays extended diagnostics of each band in use.

Defects fixed

- Resolved an issue with modem network interface statistics rollover.
- Resolved an issue where Wifi as WAN/Wireless Client Data Usage was not reported correctly.

Security issues:

Notes:

- 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.
- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues Resolved in this release:

- When Tech Support Access mode is enabled on the device, a user account named "cproot" is enabled with elevated permissions. This account is disabled after Tech Support Access is turned off or hits the automatic timeout. If an Administrative user manually creates an account named "cproot", this account will also have elevated permissions but without the automatic timeout, logging, or requirement that Tech Support Access is explicitly enabled through device CLI. This release resolves the issue. Administrative users are still able to manually create an account named "cproot", but it will not have elevated permissions.

Known issues:

1. Feature: NHRP and IPSec on CR4250 Only
 - Scenario:

- After a firmware upgrade NHRP tunnels may fail to reconnect with this error log: 'Error creating ViciHandler' and not be immediately recoverable.
 - Impact:
 - Any configuration utilizing the "VPN" field in the NHRP configuration page
 - Workaround and recovery:
 - Enabling Debug level for router logs before upgrading prevents this behavior. Restore router logging level after firmware upgrade.
 - Removing the "VPN" configuration and changing the IPSec tunnel configuration to "Initiator Mode": "On Demand" will allow the tunnels to still come up but avoid the error
 - A subsequent reboot clears the issue
2. Feature: SNMP Queries (GETs)
- Scenario:
 - A user tries to get information from router using CLI commands like 'snmpwalk' and 'snmpget'.
 - The protocol used is SNMPv3 and the security level used is 'authPriv'
 - Failure:
 - The query request is rejected by the SNMP agent running in the router.
 - Reason for Failure:
 - The SNMP agent running in the router does not support 'authPriv' security level.
 - Even though the 'SNMP Configuration' on the router allows for security level 'authPriv', it is supported only for the 'Alert Notifications using SNMP' feature.
 - Workaround :
 - Use the supported security levels only - noAuthNoPriv or authNoPriv
3. Feature: BGP
- Scenario:
 - After updating devices to NCOS 7.1.10, enabling debug mode for BGP no longer reports BGP neighbor event debug log messages. This will be resolved in the next forthcoming NCOS release.

Modems tested: ([new 7.1.10 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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint AER2200-1200M / AT&T, Verizon (USA)

Cradlepoint CBA550-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

Cradlepoint IBR200-10M-VZ / Verizon (USA)

Cradlepoint IBR200-10M-B-AT / AT&T (USA)

Cradlepoint IBR200-10M-C-SP/ Sprint (USA)

Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

Cradlepoint IBR200-10M-E-GN / Generic operators (Australia)

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 IBR6x0C-150M-D / AT&T, T-Mobile, Verizon (USA); Generic (Canada)

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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR900-1200M / AT&T, Verizon (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 (T-Mobile, Canada); Sprint, Verizon (USA); Generic (US Cellular (USA), Telstra (AU), Europe, Australia, NZ)

Cradlepoint IBR1700-1200M / AT&T, Verizon (USA)

Cradlepoint MC400L2 / Public Safety Band 14 only (USA)

Cradlepoint MC400LPE-AT / AT&T (USA)

Cradlepoint MC400LPE-GN / T-Mobile, US Cellular (USA); Bell Mobility, Rogers, Telus (Canada); Generic (North America)

Cradlepoint MC400LPE-SP / Sprint (USA)

Cradlepoint MC400LPE-VZ / Verizon (USA)

Cradlepoint MC400LP3-EU / Generic (Europe)

Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

Cradlepoint MC400LP6 / AT&T, Sprint, T-Mobile, Verizon (USA); Vodafone (Worldwide), Generic (North America, Europe)

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

Cradlepoint MC400-1200M / AT&T, Verizon (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)

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 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*

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

Release Notes for Cradlepoint Rev 7.1.0 Firmware (July, 2019)

Products supported/tested:

AER2200/AER2200-FIPS

AER1600/AER1650

AP22

CBA850

CBA550

CR4250

Cradlepoint Virtual Router

IBR1700/IBR1700-FIPS

IBR1100/IBR1150

IBR900/IBR950/IBR900-FIPS

IBR600B/IBR650B

IBR600C/IBR650C

IBR200

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

- Added the ability to configure a Unique Identifier option for NMEA GPS sentences under System > Administration > GPS Send to Clients. A Unique Identifier can be added at the beginning or end of the NMEA sentence, selected from the following: System ID, MAC address, or user defined custom string (up to 8-characters long).

Additional UI/Usability changes:

- For devices without an active NetCloud license, the UI is limited to showing only allowed WAN and NetCloud Manager configuration pages, and those pages needed to apply NCOS upgrades and feature licenses.
- For devices without an active NetCloud license, only the configuration of NetCloud Manager and WAN connectivity (including WiFi as WAN) is allowed. Other configuration changes are blocked.

Defects fixed:

- Resolved an issue where the device web UI could not be accessed over VPN connections when Network Web Filter Rules are enabled.
- Resolved an issue where Router Services would sometimes not properly source Syslog service.
- Resolved an issue where settings for SNMPv1 or v2 would not be saved in NetCloud Manager or local device user interfaces.

Security issues:

Notes:

- 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.
- As a security best practice, Cradlepoint recommends that NCOS be updated to the most recent version available in order to have all integrated security fixes. At the very minimum, Cradlepoint recommends that any NCOS version **prior** to 7.0.0 be updated to a more current version in order to reduce vulnerability risk.

Issues resolved in this release:

- Integrated changes to cover Linux TCP-related Denial of Service attacks, generally known as TCP Selective Acknowledgement (SACK) attacks, addressing the following vulnerabilities: CVE-2019-11477, CVE-2019-11478, and CVE-2019-11479

Known issues:

1. Feature: NHRP and IPSec
 - Scenario:
 - After a firmware upgrade, NHRP tunnels may fail to reconnect with the error log entry: "Error creating ViciHandler" and not be immediately recoverable.
 - Impact:
 - Any configuration utilizing the "VPN" field in the NHRP configuration page.
 - Workaround:
 - Removing the "VPN" configuration and changing the IPSec tunnel configuration to "Initiator Mode": "On Demand" will allow the tunnels to still come up and avoid the error.
 - A subsequent reboot clears the issue.
2. Feature: CP Secure Threat Management
 - Scenario:
 - CP Secure Threat Management is not fully disabled after turning the feature off.
 - Impact:
 - The memory used by the threat management engine is not recovered and reallocated back to the system, potentially leading to low memory situations.
 - Workaround
 - After disabling CP Secure Threat Management completely, reboot the router.
3. Feature: SNMP Queries:
 - Scenario:
 - Attempts to retrieve information from the device CLI using snmpwalk or snmpget commands along with a SNMPv3 Privacy password (security level authPriv) will fail.
 - Impact:
 - Device information is not able to be obtained through snmpwalk or snmpget CLI commands.
 - Workaround and recovery:
 - The device SNMP agent does not support security level authPriv for the CLI commands snmpwalk and snmpget. This security level is only supported for the Alert Notifications using SNMP feature. The snmpwalk and snmpget commands can be used either with no authentication password or with authentication password only (security levels noAuthNoPriv or authNoPriv) to retrieve device information from the router console.

Modems tested: (new 7.1.0 modems / modem platforms are in blue text)

Note: Beginning in NCOS 7.1.0 some 3rd party USB cellular modems are no longer being supported. As there will no longer be testing on new releases of NCOS, behavior and performance with deprecated 3rd party devices will be considered "as is" and at the user's own risk. This is reflected in the list of currently tested 3rd party devices below.

Cradlepoint Cellular Devices (Embedded & USB Modems)

Cradlepoint AER16x0LPE-AT /AT&T (USA)

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Cradlepoint AER16x0LPE-SP /Sprint (USA)

Cradlepoint AER16x0LPE-VZ /Verizon (USA)

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

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Cradlepoint IBR200-10M-D-GN / Generic operators (Europe)

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

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Cradlepoint IBR11x0LPE-VZ / Verizon (USA)

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Cradlepoint MC400LPE-SP / Sprint (USA)

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Cradlepoint MC400LP4 / AT&T, T-Mobile, Verizon (USA)

Cradlepoint MC400LP5 / Generic (APAC)

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**supports Netgearfirmware4.07.01.11and MR2 firmware 45.04.20.00*

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

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**requires Pantech firmware versionL0295VWD821F.B4 or later*

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