

# Release Notes for CradlePoint Rev 1.6 Firmware

## ***Products supported/tested:***

Mobile Broadband Router with VPN (MBR1100)  
Mobile Broadband Router (MBR1000)  
CradlePoint Travel Router (CTR500)  
Cellular Broadband Adapter (CBA250)

## ***Modems/handsets tested (devices added since 1.5 in blue):***

### **USB modems:**

Calcomp a600/Cricket

[Clear USB Modem/Clear](#)

EMOBILE D02HW/EMOBILE

EMOBILE D11LC/EMOBILE

EMOBILE D12LC/EMOBILE

EMOBILE D21HW/EMOBILE

[EMOBILE D22HW/EMOBILE](#)

EMOBILE D21LC/EMOBILE

Franklin CDU-550/Sprint

Franklin CDU-680/Sprint and nTelos, [and Pioneer Wireless](#) (GPS – see Known Issues)

Franklin U300/Sprint & Xohm (3G and 4G support)

Huawei EC168/Alltel

[Huawei EC168C](#)

[Huawei UMG-181/T-Mobile & AT&T](#)

Huawei E220/AT&T

Huawei EC228/Alltel

[LG L-02A/AT&T and DoCoMo](#)

Novatel MC930D/AT&T

Novatel MC950D/AT&T

Novatel U720/Sprint and Verizon (GPS – Sprint only)

Novatel U727/Sprint and Verizon (GPS – Sprint only)

Novatel U760/Sprint and Verizon (GPS – Sprint only)

[Novatel MiFi 2200/Sprint and Verizon](#)

Option Quicksilver/AT&T \* (see Known Issues)

Pantech UM100/Cricket

Pantech UM150/Verizon and Alltel

Pantech UM175/Verizon and Alltel

Sierra Wireless 595U USB/Sprint, Verizon and Telus (GPS – Sprint only)

Sierra Wireless Compass 597U/Sprint (GPS)

Sierra Wireless Compass 598U/Sprint [and Pioneer Wireless](#) (GPS)

Sierra Wireless 875U USB/AT&T

Sierra Wireless 880U/AT&T

Sierra Wireless 881U USB/AT&T

Sierra Wireless Compass 885U USB/AT&T

Sierra Wireless AT&T USBConnect Mercury/AT&T

[Softbank C01LC/Softbank](#)

ZTE MF626 (b-mobile 3G)/AT&T

ZTE MF636/Rogers

[ZTE TU25/Clear and Xohm](#)

### ***ExpressCard modems:***

Huawei E870/AT&T

Kyocera KPC-680/Sprint, Verizon, and nTelos

Novatel C777/Sprint

Novatel EX720/Sprint (GPS)

Novatel V740/Verizon

Novatel X950D/AT&T

Option GT Max 3.6 Express/AT&T \* (see Known Issues)

Option GT Ultra Express/AT&T \* (see Known Issues)

[Sierra Wireless 402/Sprint and Pioneer Wireless](#)

Sierra Wireless 597E/Sprint and Telus (GPS – Sprint only)

Sierra Wireless 880E/AT&T

## Handsets:

HP iPaq 910/AT&T  
HTC Touch/Sprint  
HTC Mogul PPC-6800/Sprint (see usage note under RNDIS below)  
HTC Apache PPC-6700/Sprint  
LG VX8000 and VX8300/Verizon  
LG VX7200/Verizon  
LG Musiq/Sprint  
LG Fusic LX-500/Sprint  
Motorola v3c RAZR/Sprint and Verizon  
Motorola RAZR2/Sprint  
Motorola Q and Q9c/Sprint  
Motorola RAZR v3xx/AT&T  
Motorola Q v9h/AT&T  
Motorola KRZR/Sprint  
Palm 700w/Sprint and Verizon  
Palm 700p/Verizon  
Palm 755p/Sprint  
Palm Centro/Sprint  
[RIM BlackBerry Bold 9000/AT&T](#)  
RIM BlackBerry Curve 8310/AT&T  
RIM BlackBerry Curve 8330/Sprint and Verizon  
RIM BlackBerry 8703e/Sprint and Verizon  
RIM BlackBerry 8830/Sprint and Verizon  
RIM BlackBerry Pearl 8130/Sprint and Verizon  
RIM BlackBerry 9530 Storm/Verizon  
Samsung ACE/Sprint  
Samsung A900/A900M/A920/Sprint  
Samsung SCH-i830/Sprint  
Samsung SGH-A707/AT&T  
Samsung BlackJack (SGH-i607)/AT&T

Samsung SPH-m520/Sprint

Sanyo M1/Sprint

Sanyo SCP-6600 (Katana)/Sprint

Sanyo Katana 2/Sprint

Sanyo SCP-8400/Sprint

### **Notes:**

- Upgrading to this firmware release may cause a factory reset from previous firmware. Please be sure to save your configuration settings (Tools -> Admin menu) before loading this firmware and then restore your configuration afterwards if necessary.
- If you upgrade to this version and download a WiMAX modem driver onto your router, the router will not allow you to downgrade back to version 1.3.x. If you need to downgrade your router back to a 1.3.x version, contact CradlePoint support to receive instructions to remove the WiMAX driver and perform the downgrade.
- Devices marked as AT&T were tested using the AT&T network in the United States. The device may or may not work with other UMTS/GSM carriers internationally.

### **New Features added in this release:**

- The Modem -> Settings page has a menu that allows the user to select or enter a WiMAX realm. The router will automatically select a realm based on the WiMAX carrier connection, but this gives the user the ability to select a realm if roaming or if it is necessary in your market. [The default realm for the router is set to sprintpcs.com, if you are not using that realm please change your setting.](#)
- USB 2.0 support. Firmware changes will allow higher speed data transfers for those modems that support > 5Mbps transfer rates.
- Managed services allow you to securely control your routers from anywhere on the Internet. You can manage their configuration, change their f/w, monitor their status and view their stored logs from any Internet-connected web browser. When (and only when) this feature is enabled the router will automatically attempt to contact the management server whenever its WAN link comes up. All session management is done over the WAN link using an SSL-secured connection. Contact CradlePoint to enable this feature and establish a management account.
- Ability to work with supported BlackBerry devices using BlackBerry firmware version 4.5.

- U300 in CDMA mode and Signal Strength Mode. The U300 did not update Signal Strength in 3G mode dynamically, it does now.
- If the router finds that the WAN subnet it is connecting to is equal to its LAN/WLAN subnet, it will increment its local value by 10 to avoid the conflict. For example, if the router is assigned 192.168.0.123 on its WAN port, it will change its default LAN/WLAN address to 192.168.10.1 and all attached devices will be given an address in the 192.168.10.x range.

### ***Additional UI/usability changes:***

- CTR500 Signal Strength lights. If you want to turn off the Signal Strength lights, press the Signal Strength button and they will be disabled. Press the Signal Strength button again and they will be re-enabled.
- Internet password/User Password was moved to the Tools -> User Login page for consistency with other User Login settings.
- (MBR1100) Added Log filters specific to IPsec VPN log messages.
- (WiMAX) Changed Tools -> Firmware page "Modem" references to "WiMAX Modem" for clarity.

### ***Defects fixed:***

- Connecting and disconnecting 64+ wired clients trips max user bounce page on MBR products. This was fixed so that only wireless clients will count towards that maximum.
- As a side effect of fixing the Blackberrys for OS 4.5, the phone now exits 'Modem Enabled Mode'. Originally a Blackberry was plugged, initialized, and told to enter data mode. When this happened, the phone enters 'Modem Enabled Mode'. When the phone was disconnected, it stayed in 'Modem Enabled Mode', requiring the user to toggle Manage Connections->Mobile Network for a couple of seconds. With the fix for 4.5, when the Blackberry is disconnected, it exits 'Modem Enabled' Mode immediately.

### ***Known issues:***

#### **GPS**

- GPS and Mapquest. When using Mapquest, the default zoom is out too far to be really useful. While you can zoom in, if you use auto-refresh the loaded page will be zoomed out again. Workaround is to either use one of the other map sites, or do not use auto-refresh with Mapquest.
- GPS, Internet Explorer 7.0, and Yahoo maps. When using IE 7.0 and Yahoo maps, the position on the map would not refresh. The Latitude and Longitude

change on the address bar, so this is likely an IE 7.0 issue.

- GPS, Safari 3.04, and Windows Vista. Safari and Windows Vista would not load any of the map sites. Safari worked fine on an Apple Mac.

## Carrier

- nTelos. These modems appear to block incoming ports. That affects the ability to use features such as Remote Management, GPS Network port on WAN, and responding to a WAN ping. It will also effect using IPSEC VPN.
- AT&T. These modems appear to block incoming ports and also NATs ports. That affects the ability to use features such as Remote Management and Port Forwarding. It will also effect using IPSEC VPN with two AT&T modems. If you are using one AT&T modem and a Modem from another carrier, IPSEC VPN should work. To resolve the issue of AT&T blocking ports contact your Carrier provider and ask for the Mobile Terminated Data plan.
- Cricket. Cricket NATs the public address, ports, and blocks all incoming ports. So Dynamic DNS, Port Forwarding, and IPSEC VPN is not supported on Cricket modems.

## Wireless

- Wi-Fi Protected Setup (WPS). If you are using WPS to enable security from an insecure wireless network (Basic -> Wireless -> Security Mode = None), a WPS-aware client will not be able to attach to the wireless network. If you use WPS from a secure wireless network, a WPS-aware client will attach correctly. If you reboot the router after using WPS to configure wireless security, a WPS-aware client will attach correctly.

## Modem/Phone

- Option GT Max and Ultra Express card usage note. The Option cards have relatively large openings on the top of their cards for their SIM card. The ExpressCard bracket retention tabs in an MBR1100 or MBR1000 may slide into the side opening of the Option card when removing the card, apparently locking the card into the router. If this happens, you can get the ExpressCard out of the router by folding a small piece of paper (or cutting a business card to fit the slot) and then sliding it into the top of the slot. This will push the retention tab up so that it cannot contact the opening on the card. A simple workaround is to put a piece of tape over the side opening of the card after inserting the SIM. The CTR500 does not have a bracket, so it will not have this issue. But the Option cards do not have retention slots near the antenna housing (as Sierra and Novatel modems do), so the ExpressCard locking mechanism on a CTR500 will not work with an Option

card.

- Option GT and Ultra Express modem support. These modems can take up to 2.5 minutes to make a data connection. In our tests, they appear to spend a long time attempting to get a signal before they can make a data connection. The Ultra seems to connect more quickly in our tests. [Note that the the Ultra Express' performance in the router is not as good as in the PC. This modem works with the router, but if you have a choice any of the other GSM modems such as the Novatel or Sierra Wireless are more compatible.](#)
- Load Balancing and modem with a SIM PIN. If a modem that requires use of a SIM PIN is the Primary WAN connection, Load Balancing will not work correctly. Data will only go in/out of the Primary modem and not any other modem. If the modem with the SIM PIN is not the Primary connection, Load Balancing will work correctly. The Advanced -> Failover/Load Balance -> WAN Interfaces menu allows the end user to adjust modem priority.

## **WiMAX**

- Advanced Failover/Load Balancing Note. When the U300 is in WiMAX mode, changing priorities will actually move two devices (the WiMAX and CDMA modems are on the same port).
- Best performance of the router and modem occur with the router's WiFi channel set to a low number (1 or 2). At higher frequencies the WiFi and WiMAX radios may interfere with each other, which you may see as lower network performance.
- Only one WiMAX modem is supported at a time. Load balancing among WiMAX modems is not supported. Load balancing among a single WiMAX modem, the Wired WAN port, and multiple CDMA modems is supported.

## **IPSec (MBR1100 only)**

- None