



# **Industrial Wireless Modems**

## **Firmware Release Notes**

**Version 3.8.3**

**February 18, 2010**



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## Related Products

This release applies to the following products:

- Legacy Industrial Wireless Modems (BT-4000 / BT-5000 Series):
  - BT-4200, BT-5200: CDMA 1xRTT Wireless modems
  - BT-4400, BT-5400: GSM/GPRS Wireless modems
  - BT-4600, BT-4600A, BT-5600, BT-5600A: CDMA EVDO and EVDO A Wireless modems
- Sixnet Industrial Wireless Modems (BT-5000v2 / BT-6000 Series):
  - BT-6401, BT-6401EB, BT-6421: GSM/EDGE Wireless modems
  - BT-5600v2: CDMA EVDO A Wireless modem with GPS
  - BT-6600, BT-6601, BT-6601EB, BT-6621: CDMA EVDO A Wireless modems
  - BT-6800, BT-6801, BT-6801EB, BT-6821: GSM/HSPA Wireless modems
  - BT-5800v2: GSM/HSPA Wireless modem with GPS

## Upgrade Instructions

Table 1, below, provides a summary of the update procedure to follow depending on the firmware which currently resides in the modem (i.e. is being upgraded from).

| Model                        | Normal update | Advanced update required | Advanced update for IPsec support <sup>1</sup> |
|------------------------------|---------------|--------------------------|--|
| 4000 or 5000 (non-v2) series | >= 3.x        | <= 2.x                   | N/A  |
| 6000 or 5000v2 series        | >= 3.6.0      | <= 3.4.9                 | <= 3.6.1                                       |

Table 1 - Upgrade Process Matrix

### Normal update

1. Use a crossover cable or USB to connect modem and PC
2. Start BlueVue Device Manager and Click "Change connection type" and make sure it is "Modem IP".
3. Type the modem IP address in the related field if needed
  - a. For USB connection, default Modem IP is 192.168.111.1
  - b. For Ethernet connection default Modem IP is 192.168.0.1
4. After the modem is detected, click File > Configuration and click "Firmware" tab
5. Select the update file you want to use, then click "Upgrade"
6. Wait for the firmware update to end and the modem to restart

### Advanced update

Download the Advanced Update Package from the [Sixnet](http://www.sixnet.com) website and follow the instructions in the "Advanced Firmware Update & Recovery Guide".

<sup>1</sup> In this case, an advanced upgrade is necessary to gain IPsec support. IPsec functionality is optional, so if IPsec support is not required, a basic upgrade can be performed instead, assuming that the minimum release is met as per the "Advanced update required" column.

## Version 3.8.3 – Release Notes – February 18, 2010

### Dependencies

Unchanged from 3.8.0, see below.

### Fixed Issues

| ID   | Subject         | Description  |
|------|-----------------|--|
| 1113 | IP pass-through | Occasionally, when first acquiring the WAN IP address or when the WAN IP address gets re-negotiated, the modem may fail to configure the interface assigned to IP pass-through with the WAN IP until the modem resets. |

### Known issues

Unchanged from 3.8.0, see below.

## Version 3.8.2 – Release Notes – February 12, 2010

### Dependencies

Unchanged from 3.8.0, see below.

### New Features & Improvements

| ID   | Subject | Description  |
|------|---------|--|
| 1053 | HSPA    | <b>HSPA automatic configuration</b><br>When the modem is reset to factory configuration (AT&F or Action > Reset Modem in BVDM), the connection dial string, username, password and APN are automatically set according to the SIM card settings. |

### Fixed Issues

| ID   | Subject       | Description   |
|------|---------------|---|
| 1032 | Serial port   | Serial port not reset to configuration settings after BVDM disconnects. |
| 1037 | Events        | AT+BEVGSS syntax should be verified                                     |
| 1039 | Serial IP     | IP->Serial and Serial->IP values inverted in SIP diag                   |
| 1092 | RF            | EVDO A modems may fail to connect (Verizon and Sprint only).            |
| 1097 | RF            | WAN LED does not blink to indicate WAN activity                         |
| 1098 | RF            | Modem failed to log RF Diagnostic information (DM) in QxDM              |
| 1099 | Configuration | Modem loses its password after upgrade                                  |
| 1102 | RF            | HSPA: Manual network selection (+COPS) is missing parameter             |
| 1107 | AT            | Frequent +BMDIAG/+BNSTAT resets modem                                   |
| 1108 | Configuration | Firmware upgrade sets MTU to zero                                       |

### Known issues

Unchanged from 3.8.0, see below.

## Version 3.8.1 – Release Notes – January 11, 2010

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### Dependencies

Unchanged from 3.8.0, see below.

### Fixed Issues

| ID   | Subject | Description   |
|------|---------|---|
| 1082 | AT      | Frequent connections/disconnections from telnet AT commands reset modem.  |
| 1087 | Events  | MI2 and MI3 PRL and GPS version fields are missing for some modem models. |
| 1089 | Events  | Information is missing in initial ignition ON BEP message.                |
| 1088 | RF      | BT-6400 series modems fail to report EDGE service when available.         |
| 1092 | RF      | EVDO A modems may fail to connect (Verizon and Sprint only).              |
| 1090 | Startup | Improve hardware verification (Ethernet and USB) at modem startup.        |
| 1100 | Startup | Improve cold weather modem startup.                                       |

### Known issues

Unchanged from 3.8.0, see below.

## Version 3.8.0 – Release Notes – December 18, 2009

### Dependencies

|                    | BT-4000 / BT-5000 Series |                  | BT-5000v2 / BT-6000 Series |                            |
|--------------------|--------------------------|------------------|----------------------------|----------------------------|
|                    | Current Versions         | Minimum Versions | Current Versions           | Minimum Versions           |
| <b>Kernel</b>      | 2.6.15.1bt5              | 2.6.15.1bt5      | 2.6.21 #btw06              | 2.6.21 #btw02 <sup>2</sup> |
| <b>Boot Loader</b> | 1.1.3bt10                | 1.1.3bt8         | 1.2.0-btw04                | 1.2.0-btw02                |
| <b>File System</b> | 3.0.0                    | 2.0.0            | 3.0.0                      | 3.0.0                      |

### Important Notes

- Release 3.6.2 added IPsec functionality to the BT-5000v2 and BT-6000 series modems. If upgrading from a version prior to 3.6.2, an advanced upgrade is necessary to enable IPsec support.

### New Features & Improvements

| ID   | Subject          | Description   |
|------|------------------|---|
| 674  | Firmware upgrade | <b>Modem initiated upgrade package download</b><br>The AT+BWGET can be used to download an upgrade package from an FTP or HTTP site.  |
| 1014 | Events           | <b>WAN event added to BEP</b><br>The WAN event (see AT+BEVENT) can be used to signal when the modem has a WAN IP address and when it changes.   |
| 1015 | Events           | <b>Modem Originated Management</b><br>Destination type 3 (MOM) can now be used to initiate management action from the modem. See AT+BRPRDS/AT+BEVRPR/AT+BEVENT.<br>This feature is meant to operate with BlueVue Group (release 2.1.80) |
| 1017 | Events           | <b>Add new BEP payloads: MI2, MI3, RF2, IP1</b><br>Those new message payloads can be used to report status information to a management server.  |
| 1018 | Events           | <b>Add new BEP payload: AU1</b><br>This new BEP payload can be used authenticate BEP messages.  |
| 1019 | Events           | <b>Add new BEP payload: AC1</b><br>This new BEP payload can be used to exchange AT commands and responses between a management server (BVG) and the modem.  |
| 1027 | GPS              | <b>Synchronize modem time on GPS: AT+BGPSDT</b>   |

<sup>2</sup> The “minimum” kernel version of 2.6.21 #btw02 does not support IPsec. If IPsec is required, an advanced upgrade should be performed to upgrade the kernel to 2.6.21 #btw04 or above.

## Fixed Issues

| ID   | Subject    | Description  |
|------|------------|--|
| 1028 | Serial IP  | Modem fails to transfer files via Serial IP  |
| 1035 | IPSEC      | AT+BIPSSN? does not display the remote subnet configuration  |
| 1040 | RF         | RF diagnostic pass-through via serial fails  |
| 1054 | FTP        | The FTP server was failing when enabled multiple times.  |
| 1055 | DHCP       | In IP pass-through, the DHCP lease time is reduced to 30 seconds until the WAN IP is available and assigned to the local interface. The configured DHCP lease time is then used. |
| 1056 | GPS/Events | GPS/BEP UDP destinations connects/disconnects every 30 seconds<br>This occurred when +BSYNC was used and no ACK messages were received.  |
| 1057 | RF         | HSPA: Intermittent high latency and ping packet loss   |
| 1073 | AT         | AT+BIPINF returns ERROR  |
| 1077 | GPS        | GPS fix not reported   |
| 1079 | UDP        | Intermittent high latency and loss of UDP packets  |
| 1080 | RF         | HSPA: MCC reported instead of MNC  |

## Known Issues

| ID  | Subject    | Description   |
|-----|------------|---|
| 917 | Activation | New modems on Sprint now utilize OMA-DM instead of IOTA for provisioning, resulting in an error when the AT!IOTASTART command is issued. OMA-DM can be started with AT!dmdc=2 instead.<br>This change requires BlueVue Device Manager 1.7.9 for automatic activation. |
| 880 | Activation | A bug in the Sierra Wireless MC5727 module returns ERROR during activation when in fact the activation may have been successful.<br>A workaround is available in BlueVue Device Manager 1.7.9.  |
| 966 | WAN LED    | The WAN LED on BT-5800v2 and BT-6800 series may not indicate the connection status when the RF Transmit has been disabled and then re-enabled using AT+BRFPON. This issue only exists with RF module firmware: K1_0_2_8AP.  |