Release Notes

Digi TransPort Product Range

Version 5170 (Bootloader 6.91)

March 25, 2013

<span style="color:red">This release is for the WR21 only</span>

## INTRODUCTION

This is a production release of firmware for the Digi Transport product range.

The Digi TransPort WR21 is a full featured, cellular router offering the flexibility to scale from basic connectivity applications to enterprise class routing and security solutions. The WR21 is designed for Wide Area Network connectivity including 2.5G/3G/4G networks and beyond.

The Digi TransPort WR41 and WR44 are enterprise class cellular routers that provide secure high speed wireless connectivity to remote sites and devices for primary and backup wireless broadband network connectivity. The multifunction routers feature a flexible design, allowing users to choose from a variety of configurations including multiple serial ports (async/sync), GPS, GPS/CAN/I/O, Wi-Fi or telemetry modules, in addition to standard features like USB, serial and Ethernet interfaces.

The Digi TransPort WR44R is a rugged, all-in-one 3G/4G mobile communications solution with true enterprise class routing, security and firewall. Featuring a heavy-duty case aluminium enclosure, the Digi TransPort WR44R offers a flexible interface design with an optional integrated Wi-Fi access point (with multi SSID), USB, serial and 4-port Ethernet switch, as well as a variety of configuration options including multiple serial ports (async or sync), GPS, GPS/CAN/IO or I/O only modules.

The Digi TransPort WR44RR is a rugged enterprise-class cellular router design for rail environments. Its rail industry ratings, versatility, security features and performance make it ideal for applications such as Positive Train Control (PTC), wayside device communications and on-board passenger Internet access.

The Digi TransPort DR64 is a DSL cellular router that provides high speed wireless connectivity to remote sites and devices for primary or backup wireless broadband wireless broadband network connectivity.

The Digi TransPort VC74 is an enterprise class VPN concentrator that provides secure end-to-end connectivity for large numbers of remote devices and networks. Fully compatible with all Digi VPN enabled cellular and wired routers; a centralized Digi TransPort VC7400 enables a fully integrated, single vendor solution with the highest level of reliability and security.

## SUPPORTED PRODUCTS

Digi TransPort WR21
Digi TransPort WR41

Digi TransPort WR44
Digi TransPort WR44R
Digi TransPort WR44RR
Digi TransPort DR64
Digi TransPort VC7400

## SUPPORTED CELLULAR MODEMS

Within the TransPort product family, Digi has continued to add support for cellular modules as vendors make updates and improvements to support the latest chipsets and cellular technology. As new modules come on the market and older ones go obsolete, Digi is committed to supporting the products we have sold and continue to sell to our customers. The level of support that we are able to provide falls into one of the following categories:

### 1. FULL SUPPORT

These modules are shipping in Digi products. An essential part of our product testing is to make sure these modules are compatible and function properly. Operational and performance issues with these modules that are found by customers will be verified, scoped and scheduled to be fixed in an upcoming firmware release.

**C-motech**

| | |
|---|---|
| CNE680 | Revision IDs: |
| | 68SWE-14 [Jun 08 2009 20:53:19] |
| | CNU68PT [Nov 16 2009 05:10:52] |

**Sierra Wireless**

| | |
|---|---|
| MC5727 | Modem Revision: p2410701,51240 [Nov 08 2007] |
| | BOOT: SWI6800V2_PP.01.07.01 2007/11/08 |
| | APPL: SWI6800V2_PP.01.07.01 2007/11/08 |

| | |
|---|---|
| MC7710 | Revision ID: |
| | SWI9200X_03.00.11.00AP R4152 CARMD-EN-10527 2011/12/20 14:52:19 |

**Ericsson**

| | |
|---|---|
| F3307 | Revision ID: R2A11 |
| F3507g | Revision ID: R1D06 |
| F5521gw | Revision ID: R2A07 |
| F5321gw | Revision ID: R1C08 |

**Option Wireless**

| | |
|---|---|
| GTM380 | Revision IDs: |
| | 2.8.0Hd (Date: Oct 11 2007, Time: 10:20:29) |
| | 2.9.1Hd (Date: Dec 17 2007, Time: 16:00:17) |
| | 2.12.0Hd (Date: May 27 2008, Time: 11:19:10) |

**Qualcomm GOBI 2000**

| | |
|---|---|
| Sprint | Revision ID: D1055-STUTCSFD-3702  1  [May 25 2009 12:00:00] |

| | |
|---|---|
| Verizon | Revision ID: D1055-STUTDSVD-3574  1  [Apr 12 2009 21:00:00] |
| Generic HSPA | Revision ID: D1025-STUTABGD-3574  1  [Apr 07 2009 19:00:00] |

**Huawei**

| | |
|---|---|
| EM680 | Generic UMTS: D3200-STSUGN-1575  1  [Nov 22 2010 09:00:00] |
| | Verizon: D3600-STSUVH-1576  1  [Nov 23 2010 16:00:00] |
| | Sprint: D3600-STSUSH-1576  1  [Nov 23 2010 16:00:00] |

**Cinterion**

| | |
|---|---|
| MC75i | Revision 01.100 |

**Fusion Wireless**

| | |
|---|---|
| FW2763P | Revision: 8.5.16 |

**Novatel Wireless**

| | |
|---|---|
| E362 | Verizon, Revision ID: 3.24.04 SVN 0 [2012-03-08 14:54:21] |
| E371 | AT&T, Revision ID: 3.32 SVN 1 [2011-12-16 10:00:07] |

**Telit**

| | |
|---|---|
| HE910g | Revision ID: 12.00.001-B015 |

## 2. PARTIAL SUPPORT

These modules had shipped in Digi products in the past but are no longer actively supported by the module vendor.  Firmware testing no longer includes these modules, however every attempt is made to maintain support as features and improvements are implemented.  Issues with these modules that are found by customers will be verified, scoped and either scheduled to be fixed or a newer, supported module offered as an upgrade option.

**Option Wireless**

| | |
|---|---|
| GTM 378 | Revision IDs: |
| | 2.4.2Hd (Date: Aug 24 2007, Time: 14:27:26) |
| | 2.5.7Hd (Date: Jan 11 2008, Time: 11:18:56) |
| | 2.5.10Hd (Date: Feb 04 2008, Time: 14:25:03) |
| | 2.5.13Hd (Date: Feb 18 2008, Time: 18:31:16) |
| | 2.5.23Hd (Date: Nov 03 2008, Time: 10:21:08) |
| GTM 382 | Revision IDs: |
| | 1.4.6.0Hd (Date: Oct  1 2008, Time: 11:50:07) |
| | 1.8.0.0Hd (Date: Jan 14 2009, Time: 14:46:50) |
| | 1.9.1.0Hd (Date: Mar 26 2009, Time: 09:10:10) |
| | 2.9.4.13Hd (Date: Nov 23 2009, Time: 09:40:55) |

**Motorola**

| | |
|---|---|
| G24-L | |
| G24-EQ | |

**Cinterion**

MC55i
TC63i

**Sierra Wireless**

| | |
|---|---|
| MC5725 | p2005001,20224 [Sep 21 2006 15:43:22],, VID:  PID: |
| MC8755 | Revision IDs: |
| | U1_1_9MCAP G:/WORKSPACES/FIRMWARE/U1_1_9MCAP/MSM6275/SRC 2006/04/04 21:50:28 |
| | U1_2_44MCAP G:/WS/FW/U1_2_44MCAP/MSM6275/SRC 2006/09/27 17:24:51 |
| MC8780 | |
| MC8790 | Revision ID: |
| |  K1_0_2_8AP C:/WS/FW/K1_0_2_8AP/MSM6290/SRC 2008/09/17 |

**Novatel Wireless**

EU740
EU870D


## 3. LIMITED SUPPORT

These modules have never shipped in Digi TransPort products and have never been part of firmware testing and verification efforts.  These modules may be similar to full/partially supported modules by the same vendor and may even have been informally tested and shown to work in Digi products. Operational and performance issues with these modules that are found by customers will be evaluated and scoped to be fixed on a business case basis.

**Ericsson**

| | |
|---|---|
| F3607gw | Revision ID: R1G08 |

**Huawei**

| | |
|---|---|
| EM660 | Revision ID: 11.102.11.06.000 |
| EM770W | Revision ID: 11.128.03.00.00 |
| EM820W | Revision ID: 11.810.09.05.00 |


## 4. NOT SUPPORTED

These modules have never shipped in Digi TransPort products and are known to be incompatible.

**None**


# SUPPORTED WIMAX MODULES

GCT / Quanta Microsystems, Inc.:
WM553

## HIGHLIGHTED PRODUCT CHANGES

Starting with the firmware version 5140, the changes described in this section are incorporated in these products. Please refer to the HISTORY section of these release notes to identify the specific revision in which these changes were introduced.

1. **IDIGI MANAGER PRO SUPPORT**

   The iDigi Manager Pro allows the user to remotely configure and manage the Digi TransPort product via the iDigi service.
   See [www.idigi.com](www.idigi.com) for more information on iDigi.

2. **PYTHON SUPPORT FOR WR41/44 CARDS**

   The WR41/44 cards are now fully supported by the digihw Python module.

3. **HOSTNAME SUPPORT IN FIREWALL RULES**

   Hostnames can now be used instead of an IP address in a Firewall rule.

4. **IDIGI OPT-IN SUPPORT**

   iDigi Opt-In is an iDigi auto-registration feature that will allow iDigi to learn the contact details of the TransPort device which allows for easier setup when using iDigi. It does this by getting the TransPort router to send a one-off SMS message to iDigi. This feature is enabled by default for new factory configured routers and can be disabled via the Remote Management > iDigi Web GUI page or the "`idigi 0 sms_optin off`" CLI command.

5. **DEVICE FLEET APPS (DFA) SUPPORT**

   Device Fleet Apps (DFA) is a Python application for the X-Trak3. ConnectPort X5 and TransPort WR44R fleet devices. DFA enables the device to work with MAP3.1 and send real-time alerts and messages pertaining to tracking and other value added features via both the cellular interface or by SMS.

6. **LTE CELLULAR SUPPORT**

   The Novatel Wireless E362/E371 and Sierra Wireless MC7710 LTE modules are now supported by the WR21, WR41v2 and WR44v2.

## ENHANCEMENTS

1. **Updates to Cellular Module Connection Control**

   Updates to the cellular module connection control task to reduce the reconnection times when the WR21 experiences an unexpected disconnect by the Huawei EM680 (GOBI 3000) module.
   There is a new CLI command "modemcc 0 chk_aodi <0|1> which will automatically enable always on mode for a short period of time following an unexpected disconnect to force the module to reconnect immediately rather than wait for traffic before reconnecting.

## BUG FIXES

There are no bug fixes related to this release.

## KNOWN ISSUES

1. On the Digi TransPort DR64, the Export/Import feature on iDigi Manager Pro will not work due memory limitations on the DR64 platform.

## DOCUMENTATION ERRATA

None.

## ADDITIONAL INFORMATION

It is recommended that you perform a backup of your device's settings prior to upgrading your firmware.  If you should need to revert back to a previous version of firmware, this will ensure that you will be able to restore your device to its previous settings in the event that some settings are not restored properly after downgrading the firmware.

To backup your device settings, follow this simple procedure:
1. Open the web user interface and navigate to the "Administration" section and select "Backup/Restore".
2. Select the parts of the devices' settings that you wish to backup.
3. Click the "Backup" button and select the location to where you want to save your backup file.

To restore:
1. Navigate to the same section within the web UI.
2. Click the "Browse" button to select the backup file you saved in the previous steps.
3. Click the "Restore" button to upload the configuration settings contained in your backup file.

## HISTORY

**5169 (Bootloader 6.91) – March 6, 2013**

**ENHANCEMENTS**
1. Support has been added for the Novatel Wireless E362 and E371 LTE modules. The modules are able to fall back to HSPA+/UMTS networks. (SAROS-2)

2. Support has been added for the Telit HE910g PCIe form factor HSPA+ cellular module. (WR44-15)

3. Support has been added to the WR21 for low power modes that allow the CPU to be run at slower speeds, the Ethernet and the Cellular interfaces to be turned off and for the LEDs to

be disabled. Multiple power profiles can be configured and the WR21 can switch between them as needed. (WR21-4)

4. Support for the iDigi SMS messaging has been added. (SAROS-22)

5. It is now possible to configure GMT offset with a fraction of a hour with the SNTP configuration. Previously it was only possible to configure GMT offsets with a hour granularity. (SAROS-27)

6. Added support for MAC bridging to the WR21. (WR21-7)

7. The RealPort "dcddiscards" parameter has been updated to support the modem daughtercards. Also RealPort has been updated to support the Serial Port configuration regarding the duplex and Async mode (e.g. RS232 / RS485) modes. (SAROS-36)

8. Added support on the WR44v2 and DR64 for sending PPP-MAX-PAYLOAD tags if the configured PPP MRU is larger than 1492. (SAROS-19)

9. Many countries use the first and/or last Sunday in the month as the day to start or end Daylight Saving Time (DST). Up to now, the TransPort firmware has only supported a specific day of the month as the start and end day, which has meant the configuration needs to be updated every year to account for the changing DST date. It is now possible to the user configure the first or last weekday of a month. The new parameters are

```
sntp 0 dstoffdommode <-4..4>
sntp 0 dstondommode <-4..4>
```

e.g.

to end DST on the first Sunday in April:
    sntp 0 dstoffday 1          (Sunday)
    sntp 0 dstoffmon 4          (April)
    sntp 0 dstoffdommode  1     (First week)

to start DST on the last Sunday in September
    sntp 0 dstonday 1           (Sunday)
    sntp 0 dstonmon 9          (September)
    sntp 0 dstondommode -1     (Last week)

(SAROS-42)

10. A PPP parameter (ppp 0 norxrst) has been added as a workaround for a situation where a cellular module can connect to a network and negotiate an IP address but no route any data. It is likely to be a network issue but the TransPort firmware has been modified to detect this condition and power cycle the cellular module. (SAROS-35)

11. A configurable delay to the interface deactivation has been added to the default static routes. This to prevent a backup interface from deactivating too soon after a primary interface comes back online. There a new parameters for the static routes and default static routes, "route <n> deact_dly <secs>" and "def_route <n> deact_dly <secs>". (SAROS-18)

12. The firewall has been modified so that a stateful rule will fail immediately when an ICMP destination unreachable message is received instead of waiting for a timeout. (SAROS-24)

**BUG FIXES**

1. Fix for the WR21 when the Web GUI would become inaccessible during and after a period of heavy load. (WR21-6)

2. Fix for the WR41v2 Wi-Fi where it would stop transmitting after a varying amount of time, sometimes after a few minutes. Packets would continue to be received OK. (WR41-2)

3. Fix for the wifitest command on the WR41v2 where the RSSI being reported was being inverted. The RSSI is now bounded to be 0 to 100. (WR41-5)

4. Fix for the WR21 where disabling the Ethernet speed and duplex auto-negotiation would result in the Ethernet interface in not working. This affects release 5165 and later. (WR21-8)

5. Update to SNMP user configuration on the Web GUI so that the access levels are a drop down menu rather than a free text field. (SAROS-28)

6. Update to the static route configuration on the Web GUI to include OpenVPN interfaces as an option. (SAROS-29)

7. Fix for the reporting of the GOBI CDMA signal strength events so that they now match the technology currently in use. (SAROS-26)

8. Fix for iDigi where an error dialog was being generated when trying to access Management > Network Status submenus (WR21-5)

9. Fix for the "wificonn 0 cscan" command that was not working correctly. The command will perform a scan of the available Wi-Fi Access Points and print a list of them. (SAROS-37)

10. Fix for receiving SMS messages on a Vodafone GDSP SIM. The Vodafone GDSP SIMs use a closed user group with a private numbering scheme. The TransPort routers where interpreting the numbers as international. (SAROS-33)

11. Update to the iDigi configuration on the Web GUI to move the Data Service token configuration from the standard page to the advanced page. (SAROS-34)

12. Fix for when using the Chrome browser with the Dual SIM wizard. The wizard would fail to start approximately half the time. (SAROS-20)

13. Fix for iDigi where the importing of configuration would cause the TransPort router to disconnect from the iDigi server. (SAROS-40)

## 5168 (Bootloader 6.85) – January 15, 2013

**ENHANCEMENTS**

There are no enhancements in this release.

**BUG FIXES**

1. Fix for the WR41v2 platform where it could lock up during a warm reboot. This was due to a silicon change in the WR41's CPU which affects CPUs with a date stamp of 1105 or later. This issue is documented in Freescale's i.MX27 Errata document (Erratum 10).

## 5167 (Bootloader 6.83) – December 21, 2012

**ENHANCEMENTS**

1. A new configuration parameter "web 0 tacacspageauth" has been added to allow page by page authentication to be disabled when this parameter is set to "OFF". The default value of this parameter is "ON" which maintains the current TACACS+ web page authentication.
   This parameter can also be configured on the Configuration > System > General page. (Jira: SAROS-9)

2. The CDMA carrier name has been added to the mobile status web page and modemstat command. (Jira: SAROS-13).
   Also the EV-DO signal strength is displayed when available (Jira: SAROS-8)

3. A new RealPort parameter "dcdiscards" has been added. When this is "ON", data will be discarded when DCD is OFF from the modem.

**BUG FIXES**

1. Fix for GOBI modules so that they can now handle empty SMS messages. They are now reported in the Event log and made available to Python scripts. Previously this had only worked for non-GOBI modules. (Jira: SAROS-15)

2. Fix for the Wi-Fi receive function so that all protocols are forwarded rather than just IP and ARP. This allows PPPoE to work over Wi-Fi.

3. Fix for a WR44v2 issue when performing encryption on large (>1600 bytes) packets.

4. Fix for the DR64 for a crash due a spurious interrupt which is probably due to a faulty cellular module. This fix checks for a NULL pointer dereference.

5. Fix so that the Router ID, Hostname and Secondary Hostnames are properly cleared on the iDigi Manager Pro when these parameters are cleared using the CLI.

6. Fix for a Python issue where multiple scripts are executed in quick succession (e.g. using the autocmd configuration). The problem was the one of the scripts was getting executed multiple times.


## 5166 (Bootloader 6.81) – December 6, 2012

### ENHANCEMENTS

1. The WR44 and DR64 Wi-Fi driver has been updated to better handle noisy environments. The noise floor calibration period has been changed from 30 seconds to 1 second to allow the chipset to respond to more quickly to changing environments. A new parameter "wifi 0 noise_floor_offset" has added to allow the user to add an extra offset to the noise floor calculated by the chipset. The default value of the offset is 12. Increasing this number will affect the Wi-Fi as it means the sensitivity of the chipset is reduced to handle noisy environments.

2. The Surelink wizard has been updated to allow a hostname to be configured for the Ping address. (Vantive 45512)

3. The iDigi support has been updated to include a status field <active_network> in the RCI "mobile_stats" group which indicates whether the cellular module is currently using GSM or CDMA technology to connect to the network. (Vantive 45041)

### BUG FIXES

1. Fix for time and date stamps on USB FAT and FAT32 files.

2. Fix for Python UDP sockets on which a call to the function select() that could hang if a call to function recvfrom() is not made previously. (Vantive 43584)

3. Update to the iDigi support to include MultiTx configuration support. (Vantive 45315)

4. Update to the iDigi support to handle the CONN_CTRL_REDIRECT messages correctly. Previously the server would send an IP address of the server to connect to. The server can now send an URL which the TransPort will do a DNS lookup on. (Vantive 45720)


## 5165 (Bootloader 6.81) – November 14, 2012

### ENHANCEMENTS

1. Support for User and System directories has been added to the Flash File System. When upgrading to the new firmware version, all files become "system" files and go into the root (/) directory.

   User files are stored in the /user directory.

   System and User files are stored in different Flash sectors. This means that the chances of corrupting a system file and thus potentially stopping the router from working correctly is reduced.

   The CLI behaviour is similar to that of a DOS window.

   e.g.

   ```
   cd /user
   copy <file> /user/<dest>
   copy /user/<file> ../<dest>
   dir
   dir /user
   ```

2. In this mode, the TransPort, acting as a client, is supplied a virtual IP address from the remote end and negotiates a tunnel with local selectors 0.0.0.0/0. It also send a CFG_SET message to the server indicating routes for the virtual IP and the locally configured TransPort selectors for the eroute.

   A new value (3) for the "eroute <x> vip" parameter has been defined. When configured to this value, the TransPort will attempt to negotiate an NEM+ mode tunnel. Note that vip value 2 is also an NEM+ mode configuration but this is for use for servers configured in a different way.

3. The CMotech provisioning script has been updated to allow specification of a phone number (MDN).

4. An option has been added to reopen a socket if it closes. There is a new parameter, "keepopen". The default value is OFF so that the current behaviour is unchanged.

   Also MultiTx configuration has been added to iDigi.

5. The TransPort Monitor MIB now has a separate CDMA group. The CDMA related objects in the GPRS group have been deprecated.

6. Support for including a key value of 0 in GRE headers has been added. This has meant the removing the "tun <x> tunkey" parameter and replacing it with the "tun <x> key" and "tun <x> usekey" parameters. In order to be backwards compatible, configurations using a non-zero key value will be copied into the new "key" parameter and "usekey" parameter will be turned to ON.

7. ICCID and Cell ID information is now reported for Sierra Wireless 3G and LTE modules.

8. The Wi-Fi hotspot configuration on the Web GUI has been updated to only display the .asp and .htm files on the flash file system. It is also editable to allow the user to enter their own filename.

**BUG FIXES**

1. Update to the WR44 and DR64 Wi-Fi stack so that when multiple Access Points are configured, the beacon transmit interval is maintained and not dependant on the number of Access Points configured.

2. Fix for Wi-Fi EAP authentication where some servers send a success packet with an incorrect ID.

3. Corrected the LTE module codes (e.g. L1, L2) being reported in the Digi Part Number. (Vantive 45209)

4. Fixes to the WR41 Wi-Fi stack
   a. A packet could get queued on the Transmit queue and not be transmitted. The problem was due to packets being queued for a non-associated Access Point. These packets were being correctly discarded but the driver would then quit the transmit process without checking to see if there were any more packets to transmit.
   b. The driver now recovers better from errored USB TX requests. Previously, Wi-Fi packets would stop being transmitted after 8 such errors.
   c. The driver could get into a state where it was transmitting data packets only at the lowest possible rate after a channel change or watchdog reset.

5. Fix to ICMP packets being sent over an IPsec tunnel using a Wi-Fi interface. These packets were being incorrectly encrypted which resulted in them being dropped at the remote end of the IPsec tunnel.

6. The WR44 now has a new configuration parameter, "usbcon <x> force_full_speed <ON|OFF>". It defaults to OFF for the internal USB port and ON for the external port. This allows the possibility for USB devices to enumerate successfully in high-speed mode rather than being constrained to full-speed mode. The "usb show" command will now display the current port speed.

7. Fix for the USB EHCI driver where transmit descriptors were not being freed properly when transfers were aborted resulting in an endless loop and the router rebooting.

8. Issuing the "at\mibclr" command without specifying a section now results in an error result. Previously this could cause some routers to reset.

9. Fix for the Ethernet driver for when PHY negotiation is switched off. The PHY would need a reset to take changes to the speed and duplex settings.

10. Fix to GPS so that the "init_str" configuration is CRLF terminated.

11. Fix to the FAT file system driver to support some FAT32 USB sticks that have the FAT16 variables to non-zero values. (Vantive 45693)

A new command "fatinfo <drive> (e.g. fatinfo u:) has been added to display the FAT information for a drive.

## 5164 (Bootloader 6.80) – October 5, 2012

**ENHANCEMENTS**
1. Device Fleet Apps (DFA) is a Python application for the X-Trak3. ConnectPort X5 and TransPort WR44R fleet devices. DFA enables the device to work with MAP3.1 and send real-time alerts and messages pertaining to tracking and other value added features via both the cellular interface or by SMS.

2. EDP file transfer facility provides a secure method of transferring files between a TransPort device and the iDigi server.

3. It is now possible to enable server certificate validation on a SSL client. When enabled, if the server certificate chain cannot be verified (need CA certificate installed onto the unit), the SSL negotiation will fail.
   The new command is "sslcli 0 verify <ON|OFF>". The default is OFF.

4. The QoS status page has been updated so that it supports up to 20 priority queues.

**BUG FIXES**
1. Fix for WR44v2 Ethernet Port Isolate mode which resulted in packets from connected devices, such as Wi-Fi clients, not being forwarded until a learned entry in the Ethernet switch had timed out after a period of approx 5 minutes.

2. Fix for large file uploads over iDigi where the device could potentially crash with files over 100,000 bytes in size. (Vantive 44766)

3. Fix for WR44v2 Wi-Fi where the channel being used was incorrectly reported in Web UI and the "wifistat" CLI command.

4. Change to the WR21 Ethernet MDIO output holdtime to 13ns. It was previously 6ns which violated the minimum defined by the IEEE802.3 standard and could have resulted in errors during PHY reads and writes.

5. Fix to the WR41 FEC Ethernet controllers in which the receive length included the length of the CRC. This was causing problems with regard to the Wi-Fi bridging on the WR41.

6. Fix for the file upload over iDigi when loading multiple files are once. (Vantive 44782)

7. Fix to the Wi-Fi analyser so that transmitted frames are correctly analysed when WEP or WPA/WPA2 PSK is enabled.

8. For iDigi Import which was overwriting serial port configuration when the serial port was configured to be used for Mobile interface. (Vantive 45026)

9. Fix to Python where failed connections would not result in an error result when the socket is in non-blocking mode.

10. Modification to Python so that when Python is printing, the command session inactivity timer is reset so that a remote session shouldn't timeout when a Python application is busy printing.

11. Fix for the WR21 where the cellular module could lock up due to an USB host controller failure.

## 5162 (Bootloader 6.75) – August 20, 2012

### ENHANCEMENTS

1. Improvements have been made to the downstream performance of HSPA modules such as the Ericsson 5521 and Huawei EM820. On the WR21 is now possible to get 13Mbps. (Vantive 43665)

2. Support for EAP-PEAP has been added when running in client mode. MSCHAPv2 is only secondary authentication method currently supported.
   Two new parameters have been added to the wifinode configuration.
   eap_tls      : Enables EAP-TLS authentication.
   eap_peap   : Enables EAP-PEAP authentication.
   Note. when EAP-PEAP is used, the password should be configured into the sharedkey parameter.

3. Support has been added to Dynamic DNS to allow the user to specify a service provider.
   To use this new feature, the 'provider' parameter should be set to "other" and the new parameter "provider_hostname" should be configured appropriately. Usage of different service providers relies on the server protocol being similar to the original DYNDNS protocol that is supported.

4. Two new report parameters "trace" and "debug" have been added to RealPort. They both have the values 0, 1, 2 or 3.
   0: Off
   1: Place the debug or trace information in the analyser trace.
   2: Print the debug or trace information on the debug port.
   3: Place the debug or trace information in the analyser trace AND print it out on the debug port.

5. Support has been added to allow the user to specify the source IP address of RADIUS packets. The new parameters are "ip_ent" and "ip_add".

6. Two new commands "mem clrreg" and "mem unclrreg" have been added. The command "mem clrreg" will cause the "mem dmpreg" command to report

   Registers cleared

   OK

   It will do this until the next illegal exception or the command "mem unclrreg" is performed. (Vantive 43219)


**BUG FIXES**

1. Fix for the Python file open "rw" mode. This was broken in release 5157.

2. Implemented the same VRRP Ethernet promiscuous change that was in the 5159 release on the WR44v2 and VC7400 platforms.

3. Added a parameter "ip 0 maxdnscache" which is used to specify the maximum time (in seconds) that the unit will cache negative DNS responses for. The maximum TTL for positive DNS responses remains at 300 seconds.
   This new parameter is available on the "Advanced Network Settings" page on the Web GUI.

4. Fix for WR21 single Ethernet models where ETH 1 was showing up as a separate physical Ethernet port on the web. It now appears as a logical port, linked to ETH 0 and is configured as such.

5. Fix for WR21 in Standard mode where it was displaying the "Include this route in RIP advertisements" parameter for static routes and default routes on the Web GUI. Also it was displaying the RIP, OSPF, and BGP admin parameters on the IP routing page on the Web GUI. (Vantive 44390)

6. Fix to Wi-Fi that was causing a crash during production test.

7. Fix to Python where we were unnecessarily byte swapping IP addresses returned after resolving DNS hostnames. This was causing sockets to connect to the wrong IP address.

8. Fix to IP_X25 to stop the number of X25 contexts being depleted with each inbound call (for when the relevant matching outbound call does not succeed).

9. Fix for the iDigi password security negotiation. When the security type is set to password, the password is now correctly sent to the iDigi server.

10. Fix for a crash with the SNTP server when a DNS request was successfully resolved.

11. Fix for PPP when using with Android phones. The Android phones request the server negotiate an IP address but rejects a subsequent request for the IP address suggested in the NAK packet. The effect was the server completed negotiations but thinks it had an IP address of 0.0.0.0. Now, if we are about to make an IP address request for 0.0.0.0, we use the value configured into the PPP instead. For client PPPs, this may actually be 0.0.0.0 still, but for servers it may not be.

12. Fix for the Ethernet where a device could be accessed locally from a different IP subnet but in the same IP supernet. There is a new Ethernet parameter "arpnetonly" to restrict the IP addresses to which the device respond. (Vantive 44851)

13. Fix for bridging when using a logical Ethernet interface to bridge to Wi-Fi when the logical Ethernet interface was connected to an Ethernet interface other than 0. This resulted in Wi-Fi packets not being delivered to the Ethernet interface.


## 5159 (Bootloader 6.74) – June 29, 2012

### ENHANCEMENTS
1. New Web page and CLI command to display the current RealPort status. The CLI command is "rport 0 status".

2. Added support (ATS97) to configure the number of consecutive transmit watchdogs on a serial port after which the router will be rebooted. The default value for S97 is 0 which disables this feature.


### BUG FIXES
1. Fix for SNMP where the incorrect community string was being sent to TACACS+ when a previously configured community string was longer than the current one.

2. Fix for Wi-Fi on the WR41 to better handle TX EOF errors which were causing the WR41 to stop transmitting packets.

3. Fix rare race condition where the APN string could be ignored by the Ericsson 3307 module on the WR41v2.

4. Change to the Ethernet padding. We have for a long time been padding the minimum Ethernet frame to 64 bytes excluding the 4 byte FCS. The correct thing to do is to pad to 64 bytes including the 4 byte FCS. This probably makes no difference to any real-world protocol operation, just the display in Wireshark which was displaying FCS errors for frames that were padded.

5. VRRP change so that the Ethernet port is switched to promiscuous mode if any VRRP instance connected to the port is in Master mode.
The "eth <n> status" command now displays the current MAC address so that when in VRRP master mode, the VRRP MAC address is displayed.

6. Fix for iDIgi connections where the router would get into a continual connect/disconnect loop. (Vantive 44133)


## 5158 (Bootloader 6.73) – June 22, 2012

### ENHANCEMENTS
1. Update to the PPP statistics handling so that it can support more than 4GB of data before wrapping around. This was causing problems with the PPP data limiting feature where customers were sending more than 4GB of per month. (Vantive 43058)

2. The client's MAC address is now displayed on the DHCP status page.

3. The Python file system has been upgraded to support appending to files. The following Python file open modes are now supported: "r", "w", "a", "r+", "w+", "a+".
Note: This is not supported on RAM or USB files.

4. Added the serial number to the Web GUI System Information page.

5. A checkbox has been added to the iDigi configuration web page to allow the user to enable SSL when connecting to the iDigi server.

6. Support has been added for the no-ip.com free DNS name service.

7. Support has been added for logical Ethernet interfaces that are not associated (e.g. isolated) with any physical Ethernet interface. To isolate the logical interface, set the "physadd" parameter to -1 or "None" via the Web page.


### BUG FIXES
1. Fix to the Digi part number cellular section that is reported by the CLI and on the Web GUI.

2. Fix to L2TP so that outgoing sockets are closed after the tunnel goes down to avoid leaving an open but inactive socket.

3. Change to IPsec web page so that the TCP/UDP port filters are labelled with "Local" and "Remote" instead of "Source" and "Destination".

4. Fix to WR21 when running in Hub mode where frames that passed through the switch seemed to end up with an additional FCS field, which upsets some client applications.

5. Fix to OSPF where a crash could occur to due to a change made in release 5149.

6. Fix to IP routing so that locally generated UDP broadcast packets do not get filtered out. This fixes a problem where a Python script attempting to send class C broadcast wouldn't work.

7. Fix to iDigi PPP configuration so that the NAT configuration uses an enumerated type with three choices, "Disabled", "IP address" and "IP address and port"

8. Workaround added for the problem with the Ericsson F5521 module on the WR21 when it switches between firmware configurations. Also changed DCD control for the F5521 to always on in order to improve recovery time after a power cycle.

9. Fix for the Huawei EM820W module to only report the lower 2 bytes of the cell ID.

10. Fixed incorrect Web GUI error message when applying Analyser settings when IPsec is disabled.

11. Updated the power cycle timing when using the Ericsson F3307 module on the WR41v2 to be the same as the F5521 module.

12. Fix to the VLAN Web configuration page to allow multiple Ethernet interfaces on be on the same VLAN.

13. WWAN LED now works on the WR21 platforms with the Cinterion MC75i module.

14. Fix for the Web GUI Mobile page to allow quotes inside the module initialisation strings.

15. Fix for the firmware update via iDigi to skip unrecognised files included in the firmware ZIP file.


## 5157 (Bootloader 6.67) – May 25, 2012

**ENHANCEMENTS**
1. Enhancements to Radio PAD so that only "set 0:0" or "set 0:8" values are accepted. All other values (e.g. set 0:2) will cause the prevailing parameter 0 value to persist and it will NOT return an error so that communications can continue. Also a new PAD parameter "ignore_set" was added to allow any "set ..." command to be ignored and not return an error.

2. Support for extending the number of slaves supported when operating "act-as-slave" in Modbus. Also added Modbus broadcast support when in slave mode. There is a new parameter "modbus <x> bcasts_in <on|off>" which when set to on will enable this support.

3. The number of route that we will accept from a remote OpenVPN device has been increased from 8 to 10.

4. Support for appending to files that already exist via Python has been added. Files can be opened with the 'wa' mode.

5. MultiTx can now be configured to send a "Socket ID" string to the server when socket connects. There are two new parameters "send_sockid" and "sockid".
   MultiTx can now buffer data until it matches the incoming serial data before allowing the data to be sent over the socket. There are three new parameters "fwd_match", "matchstring" and "strip_match". When the "strip_match" parameter is set, MultiTx will strip off the matchstring from the data sent over the socket.

**BUG FIXES**

1. Fix to VRRP to ensure the correct "Power-On" VRRP state with regard to the "link_deact" setting stopping the VRRP state machine to progress when powering up with the Ethernet status down. Also a fix to prevent any queued packets being sent after an interface switches to Backup state.

2. Fix to iDigi Manager Pro support to ensure identical behaviour as through the Web GUI. Most notable was the IPsec default IPsec behaviour where because iDigi Manager Pro is case sensitive, it caused problems when viewing the configuration via the Web GUI.

3. Remove Exclusive mode from RealPort.

4. Fix for fast routing lookups which was broken in firmware release 5.140.

5. Fix to IPsec for when the router is the initiator and is using IKE main mode and an ID type of IPv4 address, the ID delivered to the responder was being encoded incorrectly.

6. Fix for configuring the USB disable feature via the Web GUI on the WR21.

7. Fixes to the VC7400 to help prevent watchdog reset when the VC7400 is heavily loaded as an IPsec concentrator.

8. Fix to the Event logcodes web page. Only one attachment list (usually the last one) was getting updated when the "Apply" button was clicked.

9. Change to the routing code so that if a route's nexthop (gateway) address is 0.0.0.0 we will use the IP gateway of the interface (or the IP address of the interface if the gateway if not configured). This is a workaround for a problem seen in BGP where a learned route wasn't being inserted into the routing table. In this case, the remote peer was available only via the default route, which seemed to be a factor in the route not being learned.

10. Fix to iDigi to prevent the router from disconnecting from the iDigi server when it receives an invalid control opcode. (Vantive 43717)


## 5154 (Bootloader 6.62) – April 20, 2012

**ENHANCEMENTS**

1. Added support for disabling the command interpreter on particular serial ports that are being used for other functionality. The new CLI command is "cmd <n> cmd_processor <ON|OFF>". The default setting for this parameter is ON.

2. For platforms that support RS485 functionality, two new parameters, "Async Mode" (RS232/RS485) and "Duplex Mode" (full/half) have been added. If RS485 functionality is detected then these parameters will be available on the Network->Interfaces->Serial->Serial Port x->Advanced page.

**BUG FIXES**

1. Fix for IPsec where the wrong SAs were being removed at the point where the milliseconds uptime variable rolled over.

2. Fix for the VC7400 boot issue where the VC7400 could get into a state which would result in the unit rebooting several times before successfully booting.

3. Fix for Modbus so that in Slave mode, the "rawmode" settings are ignored. Also added a new parameter "slave_to" which is used in the slave mode to specify the amount of time we wait for a response after relaying the Modbus request.

4. IPsec/firewall change for outbound packets that don't initially match an eroute but have address translation performed by the firewall after the firewall processes them, are sent back for another eroute lookup. This has been added to fix a problem where packets weren't being tunnelled as the eroute lookup was only performed before the firewall processing, and they didn't match any eroute at that point

5. Fix for NTP drift precision per minute setting where negative values were not allowed by the Web GUI (Vantive 43107).

6. Fix for iDigi where the CLI command "ati5" was not working correctly. (Vantive 43201)

7. Fix for iDigi Import function on the WR41 where it would fail with error message "Timeout sending message to device" (Vantive 43178)

8. Fix for Ping over Wi-Fi where duplicate Ping responses could be received and cause a crash when the Ping command has completed.

9. Fix to correct Ec/Io reporting with the GOBI 3000 module (Vantive 43385)


## 5152 (Bootloader 6.57) – April 6, 2012

**ENHANCEMENTS**

1. iDigi Opt-In is an iDigi auto-registration feature that will allow iDigi to learn the contact details of the TransPort device which allows for easier setup when using iDigi. It does this by getting the TransPort router to send a one-off SMS message to iDigi. This feature is enabled by default for new factory configured routers and can be disabled via the Remote Management > iDigi Web GUI page or the "`idigi 0 sms_optin off`" CLI command.

2. CLI commands can now be run via the iDigi Manager Pro interface.

3. Added support to be able to configure the TCP port which can be used to access the Serial interfaces. The default port is 4000 + Serial interface number for Telnet connections and 4200 + Serial interface for SSL connections. If the default port is not being used, the configured port can be used for either Telnet or SSL connections if SSL is enabled.

4. When RADIUS authentication is used with Wi-Fi (WPA/WPA2 Enterprise), a RADIUS accounting message is also sent to the RADIUS server.

5. When using a GOBI module, the current channel is reported in the Mobile interface status.

6. The Wi-Fi analyser settings have been added to the Global Wi-Fi configuration page.

7. The Python heap size on the WR21 was increased to 10MB and is now the same as the WR41 and WR44.

8. The CDMA RSSI is now reported in the Mobile interface status page on iDigi.

9. The EDVO and CDMA Ec/Io and signal strengths can now be retrieved using the TransPort Monitor MIB.

10. On non-legacy platforms, the number of firewall rules that are supported has been increased from 400 to 500.

11. For Source MAC bridging, support for a wildcard ( '*' ) has been added. This is enabled and configured by setting 'bridgemac x mac *' to any entry in the bridgemac configuration table.

12. RealPort did have a limitation of a maximum of 11 connections. It will now support connections as long as there is a socket available.

**BUG FIXES**

1. Increased Wi-Fi heap size from 100KB to 500KB due to problem when there is a large number of Wi-Fi Access Points in the vicinity.

2. Fix for SNMP Bulk Requests where the unit would reset when attempting to send the SNMP response with too much data. If more data is requested than can be returned (approx. 4KB), the unit will not send the SNMP response.

3. VRRP fix for the DR64 platform when configured in Port Isolate mode. VRRP packets received on a non-VRRP configured port were being delivered in error to a VRRP instance associated with a different Ethernet interface.

4. Fix to multicast routing where the first UDP fragment wouldn't get routed. Instead it was being delivered to the local UDP packet handler.

5. Fixes to RealPort to ensure that disconnecting from a Serial interface happens straight away and when using Windows DUN.

6. Fix to Python time functions to better support local and gm time functions. Now configured offset and DST status are accounted for when returning the time (Vantive 42327).

7. Fixes to iDigi and Web firmware update to check the main image and web filenames to ensure they match the platform (Vantive 42162).

8. Update to PPP negotiation, when initiating a connection, if the PPP has remote authentication turned off (r_pap and r_chap OFF), we will reject authentication requests from the remote peer. If r_pap is ON, we will ACK requests to do PAP and NAK requests to do CHAP. If r_chap is ON, we will NAK requests to do PAP and ACK requests to do CHAP. If PPP has local authentication turned on but none is negotiated (e.g. due to beign rejected by the peer), we will terminate the negotiation.

9. Added missing user access setting from SNMP User configuration Web GUI page.

10. Fixes to iDigi to prevent illegal XML characters from being downloaded to the iDigi server (Vantive 42404, 42680)

11. Fix for iDigi reconnect issue where the router could get into a state that it would fail to reconnect after disconnecting (Vantive 42518)

12. Fix for TACACS+ to check that the sequence number of the response from the server matches the expected value and also use the correct sequence number in session continue messages to the server.

13. Fix for iDigi Firmware Update feature to ensure that when enabled, the iDigi idle timer does not cause the router to disconnect from the iDigi server (Vantive 42678)

14. Fix for Wi-Fi hotspot problem where DNS mode would be used if hotspot was enabled whether or not it was configured for HTTP mode or DNS mode.

15. Fix for iDigi DNS cache status page where an error would occur if the DNS cache was empty. (Vantive 42921)

16. Fix to digihw Python module for the Telemetry1 card when invalid ports were mishandled. (Vantive 42629)

17. Fix for handling of Wi-Fi short slot time capability where the unit would always use a short slot time which could cause 802.11b devices which require long slot times to be unable to connect.

18. Fix to IPsec where SAs were being deleted over older ones at the point in time where the fast tick timer counter wrapped from a positive 32 bit value to a negative value (e.g. after ~298 hours).

19. Updates to Python so that it supports unbuffered outputs to stdout and also the "stderr2stdout" configuration is on by default. (Vantive 42948, 42998)

20. Fix for NHRP (tun mgrp mode) mode which had been broken.

21. Fixes for the iDigi Import feature (Vantive 43112)

22. Fix for the iDigi AutoCmd and Command Mapping pages where an invalid number of parameters would be displayed (Vantive 43111)

23. Fixes for Modbus slave mode (Vantive 43093)

## 5146 (Bootloader 6.55) – February 10, 2012

**ENHANCEMENTS**
1. There are now 3 ping contexts available which means that three 3 separate ping commands can run concurrently. Note that a command session may still only run one ping command at a time.

2. Added support to report the RF band information in the Mobile status for GOBI modules in UMTS mode.

3. Added support for the Python hashlib module which includes MD5, SHA1, SHA256 and SHA512 support.

4. It is now possible to configure the TTL for UDP packets in Python using the setsockopt function. Set the IP_TTL option for unicast packets and IP_MULTICAST_TTL for multicast packets. The default multicast TTL is 1.
   To send multicast UDP packets from Python, switch the IGMP parameter to 'ON' on the outgoing interface and ensure there is a matching group membership present.

5. Added support for sending serial data to multiple (up to 5) TCP or UDP destinations. When enabled, the configured Serial port is opened and serial data from the port is sent to all configuration destinations. When using TCP, 'perm' mode is used, which means the TCP connection is initially opened but will disconnect if the socket becomes idle. When there is additional data to send, the socket is reopened. Data from all connected sockets is forwarded to the Serial port.

6. Added software counter support that sets the number of Ethernet interfaces in the unit.

7. Added support for sending RADIUS start/stop accounting messages when a Wi-Fi Access Point is configured with Enterprise mode (WPA/WPA2 with RADIUS). The accounting messages will be sent as per RADIUS client 1 configuration.

8. A hostname can now be used instead of an IP address in a Firewall rule.
   **e.g.** `pass out break end proto tcp from any to any port=80 -> to filtering.service.com inspect-state`

**BUG FIXES**
1. Fix to the serial port driver on the WR21 for receive FIFO thresholds. To turn off the FIFO, issue command ATS98=1 on the desired port. For the setting to take effect you need to change the baud rate (ATS31=x) or save the setting (AT&W) and then reboot.

2. Fix to Wi-Fi isolation mode to allow packets (unicast or broadcast) to be bridged between Wi-Fi and Ethernet interfaces when isolation is enabled.

3. Fix to the serial port driver on the WR21 when reading the RTS input state which resulted in a lot of spurious RTS ON/OFF flow control events.

4. Fix for GRE tunnels where some tunnel IP addresses were not being added to the DR64 packet processor address table. This would occur when the software counter is used to increase the number of GRE tunnels above the default.

5. The GOBI carrier selection wizard no longer wipes the GSM APN when switching between CDMA and GSM modes.

6. Fix for File upload using iDigi where the unit would run out of buffers when uploading large files (Vantive 41503)

7. Added iDigi configuration support for WiMAX (Vantive 41752)

8. Added more type checking for iDigi parameters (Vantive 41416, 41514, 41852)

9. A Python thread can now only open one FLASH file for writing at a time. Any subsequent open requests for writing will fail.

10. VRRP change to increase the period where a unit will stay in the Backup state from 3 seconds to 6 seconds. This is to try and help avoid a case where interconnecting switches between VRRP units are getting confused because both units are in the Master state.

11. Fix for WAN LED with the GOBI module.

12. Fix for MAC address parameters (e.g. Ethernet MAC Filters, Wi-Fi MAC Filters) to ensure better parameter checking (Vantive 41502)

13. Fix to prevent message leak when using SNMP Informs.

## 5143 (Bootloader 6.48) – January 13, 2012

**ENHANCEMENTS**
1. Added support for %s in the SNMP Community configuration which gets translated to the Serial number.

2. Added support for auto-negotiation and duplex options for the WR21.

3. Added EC/IO support to the modemstat response for GOBI 3000 WCDMA mode.

4. Added new IP Passthrough parameter "lease" which allows the user to specify the DHCP lease time to use when in IP Passthrough mode. The default value is 180 seconds.

5. Added firmware update support for the Fusion CDMA modules.

6. Added support for DNS redirect for Wi-Fi hotspot mode so that DNS queries are intercepted and the IP address of the Wi-Fi device is returned to the requester so that the hotspot splash page is displayed.

7. SNTP now supports the same two parameters "inhibit_int" and "inhibit_add" as supported by NTP. When configured, SNTP will not attempt to update until the specified interface is connected.

8. Added new DHCP client parameter "idismac". When turned on, the MAC address of the Ethernet interface is used as the client ID. When off (default). The unit behaves as before where the ID is based upon the serial number and Ethernet interface number.

**BUG FIXES**

1. Fix to WR21 Ethernet so that it can operate at 10Mbps.

2. Fix for problem with the Dynamic DNS web page where the setting for the default interface was not working correctly.

3. Fix for the RCI descriptor for the "do_command target="file_system" which was giving an invalid response. (Vantive 40770)

4. Fix so that configuration changes made via iDigi are logged in the Event log (Vantive 40991)

5. Fix so that PPP statistics are correctly displayed via iDigi (Vantive 41017)

6. Fix for iDigi where an invalid XML response could be returned by the unit (Vantive 41272)

7. Fix to allow files that contain "priv" in their name but do not start with "priv" to be accessed via iDigi. (Vantive 41388)

8. Fix for the RCI MAC filtering configuration that would reject configuration of 12 characters (Vantive 41392)

9. Fix for the RCI vlan configuration so that invalid configuration is rejected (Vantive 41393)

10. Fix for the RCI Wi-Fi country configuration so that invalid configuration is rejected (Vantive 41395)

11. Fix for the RCI wifinode sharedkey setting where to a too large value could cause the unit to reboot or other settings to become corrupted (Vantive 41411)

12. Fix for the RCI definition of the modemcc asy_add parameter (Vantive 41416)

13. Fix for the iDigi filesystem put_file request (Vantives 40772 and 41468)

14. Fix for the RCI setting of the modemcc check_reg parameter which was only accepting one of its three possible values (Vantive 41506)

15. Corrected RCI descriptors that were using type 'char'. They now have type 'uint32' (Vantive 41514)

## 5142 (Bootloader 6.45) – December 2, 2011

**ENHANCEMENTS**
1. Added support for the Telemetry2 card to the Python digihw module.

2. Added GPS SNR support to the at\mibs=gps command. This now reports the SNR for up to 8 satellites.

3. Added support for CDMA signal quality info (RSSI, EC/IO) for the Huawei EM680 module.

4. Support for Modbus TCP to Serial mode added.

5. The number of NAT entries supported on the WR21, WR41 and WR44 has been increased from 250 to 4000.

6. VRRP was updated to allow the VRRP priority to be adjusted according to the status of another VRRP instance.

**BUG FIXES**
1. Fix for the WR41 firmware upgrade via Web GUI and iDigi for when there is not enough flash space. The main image is now overwritten directly rather than a temporary copy being created.

2. Fix for iDigi configuration handling which will reject a configuration request if the given string value is too long for the parameter.

3. Fix for file download via iDigi where it would hang if there wasn't enough flash space to store the file. The unit will now return a "Memory Error" if there is not enough flash space to store the file.

4. Modemcc parameters "psys" and "psys_2" settings now work on Ericsson modules.

5. Fix for iDigi <attr> tags to report the correct type.

6. SNMP fix for a snmpwalk operation that failed with a non-incrementing OID.

7. SNMP fix for where the unit would report the wrong number of interfaces if SYNC option was disabled.

8. Fix to SNMP settings on the Web GUI Network Services page.


## 5141 (Bootloader 6.37) – November 4, 2011

**ENHANCEMENTS**
1. Support for NHRP (Dynamic VPN) added to WR21 Enterprise mode.

2. Support for RCI over HTTP added. It can be enabled or disabled via the Web GUI Network Services page or by the new command "cmd 0 rcihttp <on|off>".

3. Python digihw GPIO support added for the Telemetry1 and Telemetry2 cards. Also Python digihw temperature and voltage monitor support added for the Telemetry1 card.

**BUG FIXES**

1. Fix to firewall recovery. When using a list of destination IP addresses with recovery, it was possible for the current index into the list table to be reset to the start before the other entries in the table had been tried.

2. Fix to Web GUI firmware update in which an "already underway" error occurs. It was caused by the web page requesting the status too soon, sometimes before the upload header has been sent. This most likely to be seen when downloading a large ZIP file (e.g. containing a GOBI file).

3. PAD fix to ensure a new call is not started until the previous call has been confirmed as cleared.

4. Fix for command filtering bug.

5. Fix for IPsec Tunnel Web GUI bug were the checkbox for "link tunnel with interface" was left unchecked when the parameter was configured.

6. Removed duplicate "transip" entry in the CLI command table.


## 5140 (Bootloader 6.35) - October 21, 2011

**ENHANCEMENTS**

1. Added support for iDigi Manager Pro which allows the user to remotely configure and manage the Digi TransPort product via the iDigi service.

2. The digihw Python module updated to include support for GPS interfaces.

3. Added serial numbers to configuration tag support so that tags can be used to create device specific configuration based on the serial number.

4. Added a new POTS parameter "pots 0 connect_secs x" to define the maximum number of seconds to wait for the modem to connect.

**BUG FIXES**

1. Fix to VRF problem when routing from one VRF to another.

2. Fix to X25 switch so that if an answering XOT does NOT indicate any P or W facilities we ASSUME that whatever we asked for has been accepted.

**5139 (Bootloader 6.32) - October 07, 2011**

**ENHANCEMENTS**
1. Support for WR21 released.

2. Added 3G service LED support to the WR44. It will now use the Serial DTE LED if the ASY LED mode is set to "Connection" on the WEB GUI. The CLI command is "cmd 0 asyled_mode 0".

3. Added access to the DR64 motherboard temperature via the SNMP Sarian-Monitor MIB.

4. Added support for ftime into Python so that fractional portion of seconds (10ms granularity) is returned with calls to time.time().

**BUG FIXES**
1. Fix for GP UDP sockets that weren't closing down due to inactivity correctly and after receiving ICMP unreachable messages.

**5138 (Bootloader 6.29) - September 24, 2011**

**ENHANCEMENTS**
1. WiMAX support added to WR41, WR44 and WR44R.

**BUG FIXES**
1. Fix for problem with WEB pages not showing Ethernet interfaces in the menu when configured for WiMAX or Wi-Fi client.

2. Fix for problem where Serial port goes dead after configuring PPP away from a SYNC port.

3. Fix an OSPF problem where a local default route was being replace by a learnt default route when the local default route went OOS but then being ignored when it came back into service.

**5137 (Bootloader 6.29) - September 15, 2011**

**ENHANCEMENTS**
1. Added support for NHRP for WR41 and WR44.

**BUG FIXES**
1. Fix for IKE OpenSWAN interoperability problem.

2. Fix for lockup problem with EDGE (Cinterion MC75i) modules which could lock up when using a GTech SIM card. The modemcc sms_interval setting is now used to control whether or not to attempt SMS storage initialization

3. Fix to WEB GUI so that logical Ethernet interface now only displayed if we have logical Ethernet interfaces.

4. Fix to Ericsson module power cycle logic to reduce the overall power cycle times.

5. GOBI carrier wizard no longer sets the Verizon username and password.

6. Fix for IKE problem to correct event log entry when SAs expire.

7. Fix to DTR status on the VC7400.

8. Fix to WEB GUI so that the Wi-Fi parameters "Hide SSID" and "Enable Station Isolation" are only displayed when in Access Point mode.

9. Fix to WEB GUI to submit changes to the Sync interface parameters correctly.

10. Fix for VPN negotiation problem with OpenSWAN relating to IP protocol/port matching.

11. Update to SDRAM timings on the DR64 mk2 platforms.


## 5134 (Bootloader 6.24) - September 01, 2011

**ENHANCEMENTS**
1. Added support GOBI 3000 module.

2. Added EAP-TLS support for Wi-Fi client mode. Two new parameters "identity" and "sslcli_add" have been created. "identity" is the identity delivered to the EAP authentication server. "sslcli_add" indicates which SSL client configuration to use.

3. Update to the Wi-Fi 4 way handshake so that we don't send the PMKID KDE which seems to break some Wi-Fi client implementations.

4. GPS task no longer reconfigures the baud rate at start-up on the WR44. This reduces the delay before getting the first data from the GPS receiver.

5. Changes to WEB GUI so that it is more obvious that it is possible to edit the field for input combo-boxes.

**BUG FIXES**
1. Fix for Fleet card issue where after a daughtercard reset, the revision would sometimes be reported as "unknown" and CAN/J1708 messages could take a while to get synchronized.

2. Fix to WEB GUI Wi-Fi page for the "Identity" parameter which wasn't being set properly.

3. Fix for problem with loading the Python Quick Start wizard which resulted in Python running out of memory and/or threads.

4. Fix for the gprsRegistered MIB object so that it is set for the GOBI CDMA mode.

5. Fix for NAT on OpenVPN interfaces. Received packets that should have had their destination addresses translated were not being modified.

6. Fix for issue in the RADIUS client where the local session ID counter is stored as a 16 bit value but is matched against an 8 bit value in response packets. This meant that after the first 256 packets, RADIUS was unable to match packets.

7. Fix a WEB GUI backup problem when using IE8.

8. Fix for BGP which would crash if enabled and no configuration file is configured.

9. Fix for Firewall/Routing code where packets needing to be directed to a gateway configured in a static route were actually being directed to the interface's default gateway. This bug applied to outbound packets matching an inbound stateful inspection rule.

10. Fix for WEB GUI OSPF and BGP configuration editor page which wasn't saving the files correctly.

11. Fix for a PPP issue when a PPP interface configured to automatically connect using a SYNC interface wouldn't reconnect.

## 5132 (Bootloader 6.20) - July 20, 2011

**ENHANCEMENTS**
1. Update to WEB GUI IPsec configuration page.

2. On the WR41, the power for Ericsson modules is now held off for an additional 40 seconds after boot-up. For the Ericsson F5521 module, the power is held off for an additional 35 seconds. This is to work around a problem of a very slow voltage discharge on the WR41.

3. Add support for SNMP Informs.

4. SCEP change so that the certificate basic constraints field is checked when deciding which prefix to give the filename.

5. Increased the maximum length of the RADIUS username parameter from 20 to 80 characters.

6. Updates to the FTDI USB serial driver to support more devices and to fix issues with flow control and DTR.

**BUG FIXES**

1. Fix for the WEB GUI IKE/IKEv2 Responder page layout.

2. Fix to WEB GUI GRE tunnels page to clear the Source interface if the source IP address is configured.

3. Fix for problem when updating firmware using the WEB GUI which could result in excessive FLASH space being used.


## 5131 (Bootloader 6.07) - June 17, 2011

**ENHANCEMENTS**

1. QoS changes
   a. Queue rate limits are adjusted more promptly when other queues allow it.

   b. If a queue's min and max speed settings are the same, the estimated link speed does not factor into whether or not that queue can send packets.

2. Support for %s (serial number) format specifier added into DynDNS hostname parameters.

3. Change to Web GUI Date and Time page to split the SNTP and NTP configuration.

**BUG FIXES**

1. RealPort fixes
   a. Fix for RealPort software flow control.

   b. Fix for RealPort watchdog that could sometimes happen with big buffers.

   c. Fix to ensure the Serial port is closed when a persistent close is received.

   d. Fix for a problem where the TransPort would sometimes send back a Persistent Open response to an Immediate Open request if the previous Open request was a Persistent Open.

2. Fix to ensure the configuration timer is stopped when a port is closed.

**5130 (Bootloader 6.06) - June 02, 2011**

**ENHANCEMENTS**

1. QoS changes to add support for estimating the interface speed. Previously, automatic adjustments of queue throughput setpoints would only work if the link speed was configured into the QoS context.

**BUG FIXES**

1. Fix for Ericsson F5521 module so that we now support firmware R2A07 and correctly handle automatic firmware configuration switching.

2. Changes to WEB GUI PPP status pages to display status information correctly.

3. Fix to RealPort which would stop a Linux client from sending more than 256 characters on the RealPort port.

4. Fix to SSL client to offload some of the SSL exchange work to a lower priority task. This resolved an issue where certain certificates resulted in an unusually large amount of processing and causing the DR64 platforms to have a watchdog reset.


**Release notes for firmware versions prior to 5130 are available on request via email to**
**support.wizards@digi.com**