

Release Notes (93000812\_J)  
Digi TransPort Product Range  
Version 6.1.0.3 (Bootloader 7.62)  
January 26, 2018

## **INTRODUCTION**

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

The Digi TransPort WR11 is a full featured, low cost cellular router that offers enterprise class routing and security solutions. The WR11 is designed for Wide Area Network connectivity using 3G networks.

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 WR31 is an intelligent 4G LTE route designed for critical infrastructure and industrial applications. It provides a secure, reliable connection to industrial controllers, process automation equipment and smart grid assets on third party sites or remote locations.

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.

## **SUPPORTED PRODUCTS**

- Digi TransPort WR11
- Digi TransPort WR21
- Digi TransPort WR31
- Digi TransPort WR41
- Digi TransPort WR44
- Digi TransPort WR44R
- Digi TransPort WR44RR

## SUPPORTED CELLULAR MODULES

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 running the latest module firmware and that this latest firmware is compatible and functions properly.

<b>Sierra Wireless</b>	MC7354 (L5)	AT&T	05.05.58.00	005.026_000
		Verizon	05.05.58.01	005.029_001
		Sprint	05.05.63.01	005.037_000
		Generic	05.05.58.00	005.025_002
		Telus	05.05.58.00	005.023_000
		Rogers	05.05.58.00	005.022_000
		Bell	05.05.58.00	005.024_000
	MC7430 (L9)	Generic	02.27.01.00	002.029_000
		Telstra	02.24.05.06	002.026_000
	MC7455 (M8)	AT&T	02.24.05.06	002.027_000
		Verizon	02.24.05.06	002.034_000
		Generic	02.24.05.06	002.026_000
		Telus	02.24.05.06	001.005_000
		Rogers	02.24.05.06	001.005_000
		Bell	02.24.05.06	001.005_000
		SouthernLINC	02.20.03.00	002.017_000
	<b>Huawei</b>	ME909u-521 (L1)		11.234.77.00.00
	<b>Telit</b>	HE910-D (U9)		12.00.028
		DE910 (C1, C2))	Sprint	15.00.006
Verizon			15.00.026	
LE910-NAG (L6)			17.00.503	
LE910-EUG (L7)			17.00.523	
LE910-SVG (L8)			17.00.573	
LE910-NA1 (M6)		AT&T/Generic	20.00.524	
		Verizon	20.00.014	
LE910-NAV2(M5)		AT&T/Generic	20.00.504	
		Verizon	20.00.004	
LE910-EU1 (M3)			20.00.413	
LE910-EUV2 (M7)			20.00.403	
LE910C1-AP (M9)		Generic	25.00.251	
		Telstra	25.00.252	
LE910C1-NS (M4)			25.00.244	
<b>Cellient</b>		MPN200		MO200SWE q6695-SWE-3134

## 2. PARTIAL SUPPORT

The Cinterion MC75i; C-motech CNE680; Ericsson F3307, F3507g, F5521gw, F5321gw; Fusion Wireless FW2763P; Huawei EM680; Option Wireless GTM380, GTM 378, GTM 382; Qualcomm GOBI 2000; Motorola G24-L, G24-EQ; Cinterion MC55i, TC63i; Sierra Wireless MC5727, MC7710, MC8755, MC8780, MC8790; Novatel Wireless EU740, EU870D, E362, E371; WeTelecom MPD-600 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.

## 3. LIMITED SUPPORT

The Ericsson F3607gw; Huawei EM660, EM770W, EM820W 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.

## KNOWN ISSUES

1. WR11 DE910 (C1) routers fail to provision on the Sprint network. Avoid the Sprint Factory Default button or if need be, downgrade to SarOS v5.2.15.6 (or earlier) to re-provision, then upgrade to the latest firmware. [SAROS-2583]
2. When using a Roaming SIM, cellular connections could take over 2 minutes to establish connections when using MC7455 (M8). To work around this, issue a "python -m misc/mcmd at+cfun=0", followed by a "python -m misc/mcmd at+cfun=1", such that the module will save the information related to the cellular connection. [SAROS-2518, SAROS-2593]
3. Cellular connections cannot be established when using the LE910-EUV2 module (M7) with SIM cards that require a PPP username/password. There is no known work around for this. It will be corrected in the next release of SarOS. [SAROS-2566]
4. IMEI field is missing from modemstat after switching from SIM1 to SIM2 on an me909u-521 (L1) module [SAROS-2550]
5. WR11 LE910C1-AP (M9) module is unable to operate with SIMs that have their SIM PIN enabled. There is no work around and this will get corrected in the next release. [SAROS-2640]
6. The Cellular Link Retry counter does not get cleared after establishing a successful connection. Instead, failing attempts accumulate and eventually the module may be reset unnecessarily. [SAROS-2585]
7. MC7354 (L5) Routers connected with HDR Radio Technology are reporting instead 1X Radio Technology. To work around this problem and read the correct Radio Technology, you can issue a "python -m misc/mcmd at!gstatus?" and check System mode output, which reports HDR instead of 1X. [SAROS-2652]
8. Unable to access your router if your TACACS+ service is down and you have enabled Local authentication. This last reported working in 5.2.17.12. There is no known work around for this problem. [SAROS-2632]
9. Routers with HE910-D (U9) are unable to reattach after encountering an Over Temperature shutdown event. This problem can be worked around by using SureLink. The router will recover via a rebootfails condition. [SAROS-2609]

10. MC7354 (L5) Routers with GPS capability may report 0 satellites in view after several hours of operation. The only known workaround is to reset the module. [SAROS-2579]
- 11.

## **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 back up 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**

### **6.1.0.3 (Bootloader 7.62) – January 2018**

#### **ENHANCEMENTS**

1. Added support for the Sprint WR11 LE910C1-NS (M9). [SAROS-2327]
2. Added Stateful Firewall extensions for IPv6, including support for IPv6 addresses and prefixes, icmpv6-type and ICMPv6 unreachable support and IPv6 Subnet IDs. [SAROS-2428, SAROS-2530, SAROS-2531, SAROS-2533, SAROS-2535, SAROS-2536, SAROS-2541, SAROS-2541, SAROS-2542]
3. Added WR11 LE910C1-AP (M9) module download capability via the carrier command, which now has support for a GENERIC firmware (20.00.251) and a Telstra firmware (20.00.252) [SAROS-2513, SAROS-2514]
4. Optimized WR11 L6/L7/L8/M9 modemoff/modemon behavior to enable faster failover and recovery. [SAROS-2605, SAROS-2580, SAROS-2615]
5. Updated the factory default setting for link\_retries (and link\_retries\_2) from 20 to 100 for LE910-NAG (L6), LE910-EUG (L7), and LE910-SVG (L8) Category 3 LTE modules. The value of 20 was much too low and was non-compliant with Verizon and AT&T networks. The original value of 20 could cause a SureLink modem recovery in 3 minutes, whereas now it will take closer to 17 minutes for SureLink modem recovery. This change is only observed if you factory default your modem. [SAROS-2621]

#### **BUG FIXES**

1. Addressed CVE-2008 SSH Vulnerability by configuring CBC ciphers to 0 (disabled) and added the following new CTR ciphers: AES-128-CTR, AES-192-CTR, and AES-256-CTR, with default priority 1 (enabled). Note this change could affect timing of SSH authentication. [SAROS-2612, SAROS-2650]

2. Corrected a defect where VRRP would continuously (and incorrectly) switch back and forth between the Master and Backup interfaces. [SAROS-2625]
3. Corrected Device Cloud lock ups when importing an XML configuration from an incompatible product (for example, a exporting from a WR44 with DSL into a WR44 that does not include DSL). [SAROS-2432, SAROS-2587]
4. Corrected IPsec VPN data stream problem when IKEv2 renegotiated SAs with Cisco ASA routers [SAROS-1990]
5. Corrected LE910 NA1 (M6) update command: “carrier all” failing due to incorrect FTP path and firmware update failures when running the Verizon image. [SAROS-2586, SAROS-2631]
6. Corrected LE910 NA V2 (M5) update command: “carrier all” failing due to incorrect FTP path. [SAROS-2592]
7. Corrected defect in Dual SIM Wizard that caused premature SIM switching (instead of retrying the same SIM) due to improper setting of the PPP pdacttries. [SAROS-2187]
8. Corrected an Ethernet defect that prevented the router from receiving any packets when fragmented IPv4 broadcast frames are present either at start up or when the Ethernet cable is plugged in. [SAROS-2648]
9. Corrected problem with OpenVPN that caused a system crash on start up. [SAROS-2643]
10. Corrected MC7354 (L5) .rom and .sbios file naming error in Flashwriter files, which broke the disaster recovery procedure. [SAROS-2643]

### **6.0.0.6 (Bootloader 7.62) – November 2017**

#### **ENHANCEMENTS**

1. Added cellular modem support for WR11 LE910-NA1 (M6) and WR21/WR31 LE910-NAV2 (M5). [SAROS-2327 ]
2. Added cellular modem support for WR11 LE910C1-AP (M9). [SAROS-2327]
3. Added support for IPv6 over Ethernet interfaces. Each Ethernet interface may be configured as an IPv6 WAN interface or an IPv6 LAN interface. An IPv6 WAN interface learns prefixes, routes and DNS addresses from an upstream router’s Router Advertisement messages and DHCPv6. An IPv6 LAN interface advertises subnetted prefixes in Router Advertisement messages and assigns downstream hosts an address from this prefix via DHCPv6. [SAROS-2204]
4. Added support for MC7430 (L9) Auto SIM detection. [SAROS-2484, SAROS-2485]
5. Added support for LE910-EU1 (M3) and LE910-EUV2 (M7) Over-the-Air module firmware update via the carrier command. [SAROS-2559]
6. Extended the modemstat command for LE910-EU1 (M3) and LE910-EUV2 (M7) modules to include the “APN in Use” field. [SAROS-2428]

#### **BUG FIXES**

1. Corrected WR11 L6/L7/L8 modemoff behavior, which prevented the cellular module to re-enumerate, and prevented cellular connectivity until a system reboot [SAROS-2571]
2. Corrected the WR11/WR21 bootloader to properly set brownout power level, which corrects the power cycle failures where the cellular module would not boot and resulted in all LEDs staying off. [WR11-222, WR11-233, SAROS-2600]
3. Corrected a rarely observed WR44v2 failure that occurred when sending large data blocks through an AES-128/SHA1 IPsec tunnel. The correction uses software authentication and has a significant impact to tunnel throughput. Using iperf over an Ethernet tunnel, the maximum throughput observed when sending 1200 byte TCP frames dropped from 62MBps to 40 MBps. And for 1000 byte UDP frames, either method could reach 54MBps, but CPU utilization increases from 60% to 97% when using the software authentication. [SAROS-2407]

4. Corrected modemcc Factory Default settings for LE910-EU1 (M3) and LE910-EUV2 (M7) modules. [SAROS-2515]
5. Corrected return value for the digihw.wr31\_ain\_get\_value() to return a float instead of a long [SAROS-2258]
6. Corrected the link\_retries value and system timing for the LE910-EU1 (M3) and LE910-EUV2 (M7) modules to recycle within one hour if connection failures persist. [SAROS-2477]
7. Corrected WR21/WR31 crash/reboot when using a 2048-bit key to connect to a Ubuntu OpenVPN server [SAROS-2481]
8. Corrected WR11 LE910-EU1 (M3) modemoff timing defect that knocked some routers off line until reboot [SAROS-2491]
9. Corrected defect when editing and saving the Firewall page using Chrome or Firefox over an HTTPS connection. [SAROS-2562]
10. Corrected the Mobile Preferred System Options pull down menu to match the actual system capability. [SAROS-2568, SAROS-2027]
11. Corrected an Ethernet defect that caused the WR21 to occasionally reboot when in Hub mode. [SAROS-2482]
12. Corrected defect that causes a "Bad Format" error message when clicking the Apply button on the Configuration – Network > Advanced Network Settings page. [SAROS-2573]

### **5.2.19.12 (Bootloader 7.61) – November 2017**

#### **ENHANCEMENTS**

None

#### **BUG FIXES**

1. Fixed a WPA security issue (KRACK) [SAROS-2565]

### **5.2.19.11 (Bootloader 7.61) – October 2017**

#### **ENHANCEMENTS**

None

#### **BUG FIXES**

1. Fixed a problem with MC7430 Firmware Update Failure [SAROS-2494]
2. Fixed a problem with Carrier switch wizard doesn't work for the MC7354 module [SAROS-2520]

### **5.2.19.10 (Bootloader 7.61) – September 2017**

#### **ENHANCEMENTS**

1. Added support for Carrier xxx -ftp implementation [SAROS-2329]
2. Add a new check\_reg setting (3) for reconnecting without modem reset [SAROS-2454]

#### **BUG FIXES**

1. Fixed a security issue where the Web Frontend has critical session information in URL [SAROS-2429]
2. Fixed a security issue where an Invalid input on FTP server causes router to crash KL-DIGI-2017-001 [SAROS-2435]
3. Fixed a security issue with an Overflow and device crash in SNMP Community String - KL-DIGI-2017-002 [SAROS-2440]
4. Fixed a security issue with an Overflow and device crash in SNMP OID - KL-DIGI-2017-003 [SAROS-2441]

5. Fixed a security issue with an Overflow buffer attack on command line with the insana command [SAROS-2442]
6. Fixed a problem where DPD is not working as expected, possibly sequence numbers wrong[SAROS-2450]
7. Fixed a problem Cloud Connector attempts to reconnect too rapidly to HTTP proxy after a failure [SAROS-2459]
8. Fixed a problem where the ppp phonenum didn't get updated when doing "carrier switch" to switch carrier [SAROS-2465]
9. Fixed a problem with SIM PIN support on the LE910 V2 modules [SAROS-2468]
10. Fixed a DNS Cache Snooping Vulnerability [SAROS-2473]
11. Fixed a problem with device descriptors on devices with Telit LE910 V2 modules [SAROS-2480]

### 5.2.19.6 (Bootloader 7.61) – August 2017

#### ENHANCEMENTS

1. Added support for MC7430 cellular module. [SAROS-2121]
2. MC7455 module firmware update. [SAROS-2125]
3. Added support for an NCM CDC USB device driver. [SAROS-2296]
4. "Carrier xxx" implementation [SAROS-2192]
5. Changed the default "modemcc 0 check\_reg" value to 0 so that the device will pass Verizon LTE Data Retry Test. [SAROS-2286]
6. The SureLink wizard now sets "ppp 1 norxrst" whenever it is run. A new page has been added to ask the user if the "ppp 1 rebootfails" paramter should be set. [SAROS-2350]
7. MC7430 SIM detect carrier switch implementation. [SAROS-2193]
8. Updated LTE band values returned from QMI command. [SAROS-2449]
9. Set APN to none after carrier firmware update for sierra\_lte. Updated APN to none for TELIT\_3G in config.fac and config.da0. Updated AT#RFSTS value for LE910-EU1 [SAROS-2445, SAROS-2446]

#### BUG FIXES

1. Fixed a problem where the passthrough device would not get an IP address. [SAROS-2249]
2. Fixed a problem with Cloud Connector when an HTTP proxy sends an unavailable message. [SAROS-2367]
3. Fixed a problem where 'fleet' commands were not getting saved to config.da0. [SAROS-2355]
4. Fixed a problem where IP fragments were not being passed from the WAN-side to the passthrough device. [SAROS-2199]
5. Made a change to IPsec so that when new IPsec SAs to a peer are created, duplicate SAs to a different peer (e.g. when switching to/from a backup peer) are removed. [SAROS-2364]
6. Fixed a problem where UDP NAT wasn't working. This bug was introduced with 5.2.17.x. [SAROS-2250]
7. Fixed a problem where "ppp <x> norxrst" wasn't working on NDIS interfaces. [SAROS-2348]
8. Fixed a problem where "ppp <x> lscnt" wasn't working on NDIS interfaces. [SAROS-2349]
9. Fixed HTTP GET requests so that none of them contain the 'csrftoken' as part of the URL. [SAROS-2429]
10. Fixed a problem where an RCI import of the configuration would fail due to negative 'driftpm' ntp parameter values. [SAROS-2432]
11. Added "X-Frame-Options: SAMEORIGIN" header to HTTP responses. [SAROS-2430]
12. Improved SRAM integrity testing performed at boot time. [SAROS-2164]

### 5.2.18.3 (Bootloader 7.61) – May 2017

#### ENHANCEMENTS

1. Added support for HE910-D module firmware. [SAROS-2016]
2. The device will now download the latest 'carriers.txt' file when performing a modem firmware update on the MC7354 "L5" module. [SAROS-2058]
3. Increased the number of QoS queues to 45. [SAROS-2118]
4. Implemented automatic carrier switch based upon the SIM detected. [SAROS-2124]
5. Implemented Wi-Fi roaming support on the Wi-Fi client code based upon the signal strength of the connection. [SAROS-2126]
6. Added MC7455 ODIS DHIR support. [SAROS-2129]
7. Added QoS feature to update IP packet DSCP values based upon the measure throughput. [SAROS-2135]
8. Made a change to automatically update SIERRA\_3G configurations to SIERRA\_LTE. [SAROS-2136]
9. Added support for diffie-hellman-group-exchange-sha256 into the SSH server. [SAROS-2140]
10. Added support for "nand" utility commands. [SAROS-2154]

#### BUG FIXES

1. Fixed performance problems with the 802.11ac support. [SAROS-2096]
2. Fixed a problem where IO exceptions would occur if multiple python scripts attempted to write to FLASH files at the same time. [SAROS-1769]
3. Fixed a problem where Wi-Fi clients would not reconnect after being disconnected using the 'Disconnect' button on the web GUI. [SAROS-1810]
4. Fixed a problem where the incorrect data limit values were getting submitted to the device if the original values were in the MB or GB range. [SAROS-1859]
5. Changed the default hotspot page so that the logo image link points to "logo.png". [SAROS-1873]
6. Made a change so that RCI descriptors support 10 ASY ports rather than 9. [SAROS-1876]
7. Made a change to the way general purpose sockets are displayed on remote Manager. [SAROS-2006]
8. Made a change so that after powerup the GPIO pullup values displayed using the "gpio diopullup" command reflect the actual pullup states (pullups enabled). [SAROS-2039]
9. Made some changes to improve TCP sequence number manipulation of FTP control socket streams when NAT is performed on the stream and when TCP retransmissions occur. [SAROS-2100]
10. Fixed a problem in the bootloader where it would allow files to be created where the filename length exceeded the limit. The bootloader will now return with an error in that case. [SAROS-2102]
11. Made some changes to fix potential buffer overruns if long filenames are specified in 'xmodem' commands. Made a change so that an ERROR response is returned if the xmodem file fails to open. [SAROS-2103]
12. Added SHA256 and DH group 14 into the IKE, IKEv2 and eroute RCI parameters. This was done to fix a problem where these properties could not be changed via RCI. [SAROS-2150]
13. Fixed a problem on WR44v2 devices with .ac radios installed where data transfer would break in clients 'n' mode connections. [SAROS-2152]
14. Fixed a problem where a Remote Manager refresh operation would fail if an eroute [x] dhgroup parameter was set to 5. [SAROS-2153]
15. Fixed a problem on WR44v2 devices with .ac radio installed. There was a problem when configured as a Wi-Fi client with intermittent slow handover when under load. [SAROS-2159]
16. Fixed a problem on WR44v2 devices where packets with non-matching destination MAC addresses would sometimes get forwarded up the stack. [SAROS-2166]



17. Fixed a problem where the analyser trace wouldn't decode certain Wi-Fi frames if they contained an LLC/SNAP header. [SAROS-2172]
18. CWE files added to MC7354 .all files. [SAROS-2185]
19. Fixed a problem where the FTP client would fail to download
20. Fixed a problem with the MPN200 cellular regularly disconnecting from the USB bus (SAROS-2235)

### **5.2.17.10 (Bootloader 7.59) – January 2017**

#### **ENHANCEMENTS**

1. Modified RCI support so that 'e' passwords may be set using profile manager. [SAROS-1749]
2. Added events into the eventlog when files are uploaded or downloaded using Remote Manager. [SAROS-1695]
3. Added support for SHA256 and Diffie Hellman group 14 into Ipsec. [SAROS-1996]
4. Made a change to the web server and RADIUS client so that it will send a "cmd\*" AVP to the RADIUS server when authenticating HTTP requests, allowing the device to work with Cisco ACS servers. [SAROS-1886]
5. Added support for SHA256 into the SSH server. [SAROS-1894]
6. Added support for SHA256 into the SSH client. [SAROS-2029]
7. Added support for 802.11ac Wi-Fi on the WR44 and WR44RR. [SAROS-1910]

#### **BUG FIXES**

1. Fixed a problem where some status menu items were not displaying on the Device Cloud menu. [SAROS-1752]
2. Fixed a problem where the cloud connector code would not always honor the reconnect wait time before establishing a connection to Device Cloud. [SAROS-2028]
3. Fixed a problem where the WR31 would crash when updating the firmware using a .all file loaded onto a USB FLASH stick. [SAROS-2000]
4. Fixed a problem in the EHCI USB driver which could result in a crash during firmware update of the Telit DE901D cellular module. [SAROS-2030]
5. Fixed a problem in the Getting Started wizard where the user would be prompted for a WPA password after configuring the device to use Enterprise mode authentication. [SAROS-2053]

### **5.2.16.8 (Bootloader 7.58) – December, 2016**

#### **ENHANCEMENTS**

1. Updated OpenSSL code to version 1.0.2h. This includes adding support for TLS1.1 and TLS1.2 [SAROS-1787]
2. Improved entropy gathering on platforms with HRNG [SAROS-1505]
3. SSL/TLS session renegotiation has been disabled [SAROS-1663]
4. Added support for the IPv4 address ID type into IKEv2 [SAROS-1669]
5. Made a change so that the device will spend up to 5 minutes after power up to get the time from the time server via SNTP. After that, the SNTP client will return to normal [SAROS-1760]
6. Made a change to the Getting Started wizard so that the user is prompted to save the configuration if there is an error during the cellular setup phase. The user will also be prompted to reboot the device (to restore previous settings) if they choose not to save the configuration [SAROS-1843]
7. Removed the tiles that display real time information from the device from the web login page [SAROS-1854]

8. Made a change so that port forwarding on an interface will work if the interface's NAT setting is set to NAT or NAPT. Previously, the setting needed to be set to NAPT for port forwarding to work [SAROS-1969]
9. A number of insecure ciphers and authentication algorithms have been removed [SAROS-1575]
10. Increased the maximum number of DHCP static lease reservations to 128 [SAROS-1616]
11. The device will now reboot if the USB memory heap is depleted. Added a new power up reason that indicates if the device rebooted due to a USB memory shortage. Added The "busb mem" command to debug.txt [SAROS-1666]
12. Added an option to the Backup/Restore web page to include debug.txt in the backup zip file [SAROS-1713]
13. Added support for SHA256 into SCEP certificate request signatures. It is now possible to generate keys up to 3072 bits [SAROS-1895]
14. The build date embedded into firmware images is now included as a candidate for the initial time setting on devices that don't have a RTC installed [SAROS-1959]
15. Added support for the Sierra Wireless MC7455 cellular module [SAROS-1913]
16. Support for the obsolete Sierra Wireless 3G cellular modules has been removed [SAROS-1965]

#### **BUG FIXES**

1. Fixed an issue where the 'Connect' button displayed after doing a Wi-Fi network scan on the WEB GUI wouldn't work unless the AP security was set to 'None' [SAROS-1598]
2. Fixed an issue where the Device Cloud health metrics timestamps were incorrect due to the local time offset not being taken into account [SAROS-1625]
3. Fixed an issue where it was not possible to insert or edit firewall rules via the WEB GUI when using Firefox browsers [SAROS-1659]
4. Fixed an issue where the web GUI was displaying the incorrect text in the menu header link when the Configuration → Telemetry menu item was clicked [SAROS-1748]
5. Fixed an issue where a configuration import via the Device Cloud would fail with WR41v2 devices [SAROS-1754]
6. Fixed an issue where the Getting Started wizard would fail if using a SIM with PIN [SAROS-1761]
7. Fixed an issue where the firewall hit counters displayed on the web GUI were not refreshing [SAROS-1833]
8. Made a change so that both HTTP GET and POST requests check the CSRF token. Previously, the CSRF token was only checked on POST requests [SAROS-1839]
9. Fixed an issue where setting various 'metrics' parameter values would cause memory corruption [SAROS-1850]
10. Changed the thermal protection temperature threshold values for the ME909-501 cellular module to +85C (warning) and +100C (cut-off) [SAROS-1851]
11. Changed the thermal protection temperature threshold values for the Gobi 3K cellular module to +70C (warning) and +85C (cut-off) [SAROS-1624]
12. Changed the Getting Started wizard so that configuration changes are applied before the cellular interface connection is established so that the interface's 'nocfg' parameter value is applied [SAROS-1852]
13. Fixed some SNMP issues relating to the display of some cellular MIB variables [SAROS-1889]
14. Fix an issue where RIP advertised routes were not appearing in the routing table after an interface returns from the OOS state [SAROS-1905]
15. Fixed an issue where the Getting Started wizard would fail on devices with a MC7455 cellular module installed because the device would fail to detect the SIM [SAROS-1984]

16. Fixed an issue where devices with an MC7455 cellular module installed would fail to connect after updating the Verizon firmware [SAROS-1986]
17. The position of the 'Socket ID' field on the MultiTX configuration web page has been moved so that it is below the 'Send socket ID' field [SAROS-1738]
18. The MAC bridge configuration web page has been altered so that it will accept hostnames rather than just IP addresses [SAROS-1797]
19. Fixed problem where the Transport device would reboot due to a USB memory shortage when transmitting large volumes of data over the cellular interface (SAROS-2005)
20. Fixed a problem where HTTPS wasn't working (SAROS-2041)

### **5.2.15.6 (Bootloader 7.56) – July, 2016**

#### **BUG FIXES**

1. With the 5.2.14.5 release, the firmware update on the WR41v2 via Remote Manager is hanging at 99% and does not complete. The firmware update can be cancelled and no files will have been updated. Firmware update on the WR41v2 using the Web GUI is working. The firmware update on all other TransPort WR platforms is working via Remote Manager and the Web GUI. [SAROS-1856].

### **5.2.15.4 (Bootloader 7.56) – June 28, 2016**

#### **ENHANCEMENTS**

1. Added support for the MC7330 cellular modem [SAROS-1874]
2. Update Digi Remote Manager server URL and timeserver URL [SAROS-1778]
3. Various SNMP and MIB enhancements [SAROS-1740]
4. Create RSRP and RSRQ values as part of the CLI at \mibs=gprs.0.stats [SAROS-1808]

#### **BUG FIXES**

1. Fixed an issue that resulted in the Sprint PRL update to fail on the Telit DE910-DUAL modem [SAROS-1822]
2. Fixed an issue where the WR11 DE910-DUAL downloads the wrong firmware from the Digi ftp-site [SAROS-1867]
3. Fixed an issue that resulted in the Telit HE910-D modem update to fail [SAROS-1739]
4. Fixed an issue where MC7354 with static VZW SIM fails for 3G PSYS [SAROS-1862]
5. Fixed a cosmetic text issue in IPsec Advanced area of web interface [SAROS-1812]
6. Fixed an issue where DynDNS has no interface set by default [SAROS-1813]
7. Fixed an issue where SSH was not be able to disabled from Web UI [SAROS-1842]
8. Fixed "Invalid XML response" when SNTP enabled on services web page [SAROS-1849]
9. Fixed an issue where the firmware update on the WR44V2 does not work via Device Cloud [SAROS-1869]
10. Fixed an issue where the Getting Started Wizard was always displayed [SAROS-1864]

### **5.2.14.5 (Bootloader 7.56) – May 09, 2016**

#### **ENHANCEMENTS**

None

#### **BUG FIXES**

1. The Getting Started Wizard has been updated to fix a problem when attempting to bring up a connection using a SIM with SIM PIN. (SAROS-1841)
2. ADDP has been disabled by default in the factory default configuration as having ADDP enabled is considered a security risk. (SAROS-1838)

3. A bug with the management access control over Ethernet, Cellular (PPP) and Wi-Fi interfaces has been resolved. (SAROS-1837)
4. The CLI commands “memget” and “memset” have been removed the CLI. (SAROS-1836)
5. The Remote Manager support has been updated so that the device can authenticate the Device Cloud server certificate. To do this, the public Device Cloud CA certificate should be loaded onto the device and the SSL certification validation enabled using the CLI command “sslicli 0 verify 10”. The CA certificate is included in the 5.2.14.5 update ZIP file. As \*.pem files are have now allowed in firmware update files up to this release, the firmware update will need to be done twice to get the CA certificate file (cadc.pem) onto the TransPort device. (SAROS-1832)
6. An issue with the Web server authentication has been resolved. (SAROS-1832)
7. An issue with the Web server authentication has been resolved. (SAROS-1831)
8. An issue when using TCP over IPsec tunnels with an interface MTU set to below 1500 could result in an invalid MSS value has been resolved. (SAROS-1802)
9. The OpenVPN support has been updated to resolve an issue when running TCP mode could sometimes result in a crash. (SAROS-1794)

### **5.2.14.3 (Bootloader 7.56) – Mar 23, 2016**

#### **ENHANCEMENTS**

1. The WR31 GPIO support have been enhanced as follows:
  - a. The analog and digital GPIO can be configured via the Web page “Configuration > Telemetry > GPIO”.
  - b. The analog and digital GPIO can be configured and saved using a new CLI command called “wr31gpio”.
  - c. The analog and digital GPIO status is available on the Web GUI via the Web page “Management > Telemetry > GPIO”.
  - d. The analog and digital GPIO status is available on the Web GUI home page by selecting the GPIO tile.
  - e. The analog and digital GPIO status can be forwarded to up to two IP hosts at a configurable interval.
  - f. (SAROS-1765, SAROS-1766, SAROS-1767)
2. The Remote Manager server has been updated to be “my.devicecloud.com”. (SAROS-1778)
3. The Getting Started Wizard has been updated to allow the user to enable or disable the Health Metrics on the Remote Manager page. The Health Metrics are enabled by default. (SAROS-1688)
4. The Web GUI look and feel has been updated to use darker colors on the menu items and to non-Google fonts. (SAROS-1762)
5. The DHCP server support has been updated to remove some unnecessary padding to reduce the size of the DHCP packets. (SAROS-1745)

#### **BUG FIXES**

1. An issue with self-signed certificates being incorrectly accepted has been resolved. A copy of the self-signed certificates needs to be loaded onto the device before it will be accepted now. (SAROS-1785)
2. The Wi-Fi probing support when in client mode has been updated to prevent corruption on the serial ports. (SAROS-1771)
3. An issue with IKEv2 not negotiating Dead Peer Detection (DPD) has been resolved. (SAROS-1548)

4. An issue where the APN configured in the factory default configuration file (config.fac) not being used when factory defaulting a unit has been resolved. This bug was introduced in the 5.2.10.7 release. (SAROS-1683)
5. An issue with firewall NAT support that was introduced in the 5.2.13.4 release has been resolved. (SAROS- 1798)
6. The network services configuration has been added to the Remote Manager support. (SAROS-1796)
7. The Ethernet driver has been updated to remove an extra byte padding for packets that were an odd length. (SAROS-1795)
8. An issue with initialising the Remote Manager support in the Getting Started Wizard has been resolved. (SAROS-1791)
9. An issue with the DHCP server where the configured custom options were not being sent has been resolved. (SAROS-1789)
10. An issue with Python digihw.wr31\_dio\_get\_value function not working correctly has been resolved. (SAROS-1788)
11. The Web GUI has been updated to include the timeband configuration. (SAROS-1784)
12. An issue with the IKE Nat-Traversal configuration on the Remote Manager has been resolved. (SAROS-1758)
13. The SNMP Traps MIB has been updated to match the current event list. Also a SNMP Notification MIB has also been created. (SAROS-1746)
14. An issue with the SMS messages being sent using the MC7354 module not using IMS when connected to an LTE network has been resolved. (SAROS-1737)
15. An issue with the Web GUI home page interface tile not indicating the cellular interface is up when using the Telit DE910 and Cellient CDMA 450MHz modules has been resolved. (SAROS-1735)
16. An issue with the “Disconnect” button on the Wi-Fi status web page not disconnecting users have been resolved. (SAROS-1717)
17. The modemstat command has been updated to fix a problem with the “Preferred System” status which was always displaying “Auto”. (SAROS-1704)
18. The support for the MC7354 cellular module has been updated to fix an issue with locking a particular the radio technology. (SAROS-1680)
19. The “cellular module reboot” event has been updated to make it less confusing with a device reboot event. (SAROS-1799)

### **5.2.13.4 (Bootloader 7.56) – Nov 25, 2015**

#### **ENHANCEMENTS**

1. Support for the new TransPort 31 platform has been added.
2. The TransPort Web GUI and Getting Started Wizard have been rebranded using the new Digi logo, colour scheme and fonts. (SAROS-1700)
3. The default SNTP / NTP timer has been changed to time.digi.com. (SAROS-1728)
4. The max length of the DYNDNS password has been increased from 32 characters to 40. (SAROS-1692)
5. The following objects have been added to the gprs group in the TransPort (Sarian) Monitor MIB (SAROS-1686)
  - a. Cellular Module IMEI
  - b. Cellular Module ICCID
  - c. Cellular Module IMSI
  - d. Cellular Network
  - e. LTE RSRP

- f. LTE RSRQ
  - g. LTE SINR
  - h. Model Name
  - i. Serial Number
  - j. Firmware Version
  - k. Total Memory
  - l. Free Memory
6. The number of system messages on the WR44v2 has been increased to 5000 to help deal with increased messages during dual Wi-Fi initialisation. (SAROS-1733)

#### **BUG FIXES**

1. A firewall issue with source and destination NAT not working with multiple streams of UDP traffic has been resolved. (SAROS-1646)
2. The PPP auto-ping recovery using the firewall has been fixed. (SAROS-1654)
3. An issue where a cellular connection using NDIS mode could come into service before the connection is fully up which could result in packets from being lost has been resolved. (SAROS-1662)
4. The firewall has been fixed to ensure the #DNS configuration is cleared when the firewall is reparsed. Beforehand, the firewall could run out of DNS entries if the firewall was reparsed a number of times. (SAROS-1722)
5. The Modbus support has been updated to fix a problem with the function code 6 operation. (SAROS-1674)
6. The server parameter has been removed from the Remote Manager Configuration page on the Web GUI as there is now only one Remote Manager server. The remotemanager-uk.digi.com server is no longer supported. (SAROS-1726)
7. The WR21 Ethernet configuration has been fixed where very specific configurations could result in the Ethernet interface not being configured. (SAROS-1729)
8. The IPsec Web GUI page has been fixed where the configured security option was not being displayed when the page was loaded. (SAROS-1730)
9. The Remote Manager parameter labels for the Alarm SMS triggers have been corrected which had been swapped around. (SAROS-1741)

### **5.2.12.5 (Bootloader 7.56) – Nov 12, 2015**

#### **ENHANCEMENTS**

1. The number of stateful firewall rules have been increased to 8000. (SAROS-1702)

#### **BUG FIXES**

1. The firewall issue where the # character being escaped to &#x23 has been resolved. (SAROS-1711)
2. An issue with the firewall that was incorrectly blocking packets has been resolved. (SAROS-1724)

### **5.2.12.4 (Bootloader 7.56) – Oct 16, 2015**

#### **ENHANCEMENTS**

1. The dual SIM wizard has been updated so that the mode where SIM2 takes priority over SIM1 can now be selected. (SAROS-1673)
2. The number of firewall rules supported on the WR21 and WR44v2 has been increased to 1500. (SAROS-1627)

3. New firmware versions for the MC7354 (L5) module are available. The firmware images are available from the Digi Support site ([http://ftp1.digi.com/support/firmware/transport/MC7354\\_carrier\\_firmware](http://ftp1.digi.com/support/firmware/transport/MC7354_carrier_firmware)). The cwe and nvu files should be downloaded to your device and the “carrier” CLI command run to program the module. (SAROS-1576, SAROS-1577)

## BUG FIXES

1. The Web GUI has been updated to prevent XSS attacks where script code could be entered in a configuration text box and would be run when the web page is applied. (SAROS-1580, SAROS-1581)
2. A USB buffer leak has been resolved which could cause issues which could break the Wi-Fi support on the WR41v2 and also affect cellular support on all platforms. (SAROS-1658)
3. A problem with the MC7354 cellular module unexpectedly disconnecting from the USB bus is resolved with the latest firmware release for the module. The firmware images are available from the Digi Support site ([http://ftp1.digi.com/support/firmware/transport/MC7354\\_carrier\\_firmware](http://ftp1.digi.com/support/firmware/transport/MC7354_carrier_firmware)). The cwe and nvu files should be downloaded to your device and the “carrier” CLI command run to program the module. (SAROS-1535)
4. The “Disable Management” support for Wi-Fi interfaces has been fixed. If hotspot mode was configured, it would still be possible to configure the device using the Wi-Fi interface even though the “Disable Management” feature was enabled. (SAROS-1640)
5. The PPP data limit support has been fixed so that the interfaces will come back up at the start of the configured period or when the “at\mibclr=ppp.<x>.dlim” command is issued.
6. A new command has been added “pppdclr <x>” which will clear the current PPP data limit counters and reset the interface so that it will come back up immediately if configured.
7. If the “at\mibclr=ppp.<x>.dlim” command is issued, a “ppp <x> act\_rq” is required to bring the interface back up. (SAROS-1696)
8. The SSLv3 option has been removed the SSL configuration web page for the server configuration as this option is no longer supported due to security issues with SSLv3 (SAROS-1697)
9. The Serial configuration Web GUI page has been fixed so that the correct response is displayed when the “Apply and Save Changes to Profile” button is clicked. (SAROS-1691)
10. The cellular signal LEDs levels have been updated for LTE networks so that the RSRP value is used with the following thresholds (SAROS-1682):
 

3 LEDs	> -90dBm	Excellent
2 LEDs	-90dBm to -105dBm	Good
1 LED	-106dBm to -120 dBm	Fair
0 LEDs	< -120dBm	Poor
11. An issue with the HE910-D module has been fixed where it would disconnect from the network and the eventlog would be filled up with “(CMD 5 ERROR)” events. (SAROS-1671)
12. The DSL statistics have been updated to correctly display the CRC counts. (SAROS-1668)
13. Support for the Digi ESP with the TransPort devices has been fixed. (SAROS-1665)
14. The Remote Manager descriptors for the WR44v2 have been updated to display the correct number of RADIUS configurations. (SAROS-1622)
15. The Getting Started Wizard has been updated to support the GOBI 3000 module with Verizon and Sprint. (SAROS-1515)

## 5.2.11.7 (Bootloader 7.42 ) – July 29,2015

### ENHANCEMENTS

None

#### **BUG FIXES**

1. A fix for the CSRF attack that could allow unauthenticated users access to a device. (SAROS-1579)
2. The support for the Cinterion MC75i E1 cellular modules on the WR44v2 has been fixed. Support for these modules on the WR44v2 was broken in 5.2.10.x and 5.2.11.4 releases. (SAROS-1590)
3. An issue with the Remote Manager Universal Profile Manager (UPM) support has been resolved. The UPM would fail to create a profile if the device had a USB flash stick with a volume configured was plugged into the USB port. (SAROS-1629)
4. A fix for the PPTP support which would send invalid data packets when MPPE was enabled. (SAROS-1607)
5. The support for the Digi ESP for Python which was broken in the 5269 release has been fixed. (SAROS-1435)
6. The Web GUI was updated to allow users with Read-Only access to view the DHCP static reservations configuration. (SAROS-1628)
7. The Remote Manager support has been updated to allow a static configured GPS position to be displayed on the Remote Manager map. (SAROS-1621)
8. The Remote Manager support was been updated to display the entire NTP configuration. (SAROS-1602)
9. The Remote Manager support has been updated to resolve a problem when running the “sendsms” via the “Execute a Command” page. (SAROS-1587)
10. A fix for the X.42 support to resolve an issue when failing over from the PPP1 interface. (SAROS-1565)

### **5.2.11.4 (Bootloader 7.42) – June 15, 2015**

#### **ENHANCEMENTS**

1. Support for the WeTelecom WPD-600 module has been added. The WPD-600 module is an LTE 450MHz module. (SAROS-1426)
2. Support for GPS has been added for the Huawei ME909u-521 module. Note that existing device with the ME909u-521 (L1) module cannot be updated to use GPS as they do not contain the necessary hardware. Currently only a WR21 is being offered with GPS support using this module. (SAROS-1540)
3. A DSL tile has been added to the Home page for the WR44v2 with DSL support. Also the LEDs tile has been updated to support the DSL LED for WR44v2 with DSL support. (SAROS-1145)
4. Support for a configurable HTTPS has been added. The default is 443 so existing configurations should not be affected. The CLI command is “sockopt 0 https\_port”. It is configurable via the Web GUI on the Configuration > Network > Advanced Network Settings page. (SAROS-1513)
5. The firmware update has been updated to include the FPGA image for the WR44v2. Please note that on the first update to 5.2.11.x, you will see that the FPGA image in the update file is ignored. This is expected as the firmware version currently running does not recognise the FPGA image. (SAROS-1539)
6. Successful administrative logins are now logged in the event log along with the remote IP address used in the connection. (SAROS-1502)
7. The number of VLANs supported on the WR41v2 has been increased to 20. (SAROS-1489)

#### **BUG FIXES**

1. A fix for NTP where the device would not get the time after boot up if the current time is in the future. (SAROS-1582)



2. The Getting Started Wizard Remote Manager page has been updated so that the Remote Manager connection to configured to use SSL. (SAROS-1529)
3. A fix for the WR44 SIM LEDs which would not work when the device is fitted with the Telit LE910-SVG module. (SAROS-1561)
4. A problem with the “`modemstat ?`” that would continually timeout on a WR44v2 fitted with a Sierra Wireless MC7710 module. (SAROS-1545)
5. A problem with QoS that was not working correctly then the traffic was being sent through an IPsec tunnel has been fixed. (SAROS-1544)
6. On LTE, device, the signal strength LEDs is now being calculated using the RSRP value rather than the RSSI value. (SAROS-1532)
  - a. On the WR11, the Signal LED now has the following functionality
    - i. LED Off RSRP < -100dBm
    - ii. LED Yellow -100dBm <= RSRP < -80dBm
    - iii. LED Green RSRP >= -80dBm
  - b. On the WR21, WR41 and WR44
    - i. No LEDs RSRP < -110dBm
    - ii. 1 LED -110dBm <= RSRP < -90dBm
    - iii. 2 LEDs -90dBm <= RSRP < -80dBm
    - iv. 3 LEDs RSRP >= -80dBm
7. The OTA DM APN push has been fixed with the Telit LE910-SVG module has be resolved. (SAROS-1531)
8. The WR11 config.fac has been updated to include the OTA configuration data. (SAROS-1530)
9. The Serial Configuration Wizard has been updated to resolve an issue when configuring the TCP socket profile. (SAROS-1526, SAROS-1207)
10. The support for the TransPort MIB where it could not handle the semantic firmware version numbers (e.g. 5.2.9.13) has been resolved. (SAROS-1522)
11. The Telit HE910D module update via the Web GUI has been resolved. (SAROS-1443)
12. A fix for a problem where the SIM MDN was not being reported in a MIB walk for the MC7710 when in DIP mode. (SAROS-1428)
13. The Cellular indicator on the Home page Interfaces tile has been updated so that (SAROS-1415)
  - a. Grey = Cellular not configured
  - b. Red= Module not attached to the network
  - c. Yellow = PPP connection is down
  - d. Green = Cellular Interface is fully up
14. A problem with the WR44v2 fitted the DSL interface where the unit could crash if data was sent to it during boot up has been resolved. (SAROS-1357)

### 5.2.10.9 (Bootloader 7.38) – May 18, 2015

#### ENHANCEMENTS

None

#### BUG FIXES

1. A fix for the WR44 FPGA image that was incorrect in the 5.2.10.7 release has been fixed. (SAROS-1533)

### 5.2.10.8 (Bootloader 7.38) – May 7, 2015 (WR21 only)

#### ENHANCEMENTS

Xmodem access

The support for uploading firmware using Xmodem has been disabled if the Security option is enabled. Also support for invalidating flash directory has been disabled if the security option is enabled. (SAROS-1519)

#### **BUG FIXES**

None

### **5.2.10.7 (Bootloader 7.38) – April 20, 2015**

#### **ENHANCEMENTS**

1. A new Getting Started Wizard has been developed to help guide the user through the initial configuration of getting the cellular interface connected, Remote Manager connected, a Wi-Fi Access Point running and to secure the TransPort device by allowing the user to select which services they want to run. The Getting Started Wizard runs automatically on a factory-defaulted device. Once the Getting Started Wizard has run, the user is taken to the Web GUI. It is possible to skip the Getting Started Wizard and go straight to the Web GUI. (SAROS-473)
2. It is now possible to monitor the temperature of some of the components on the TransPort WR11, WR21, WR41v2 and WR44v2 devices in real time. The temperature can be monitored using the health metrics via Remote Manager. Also thresholds can be configured that will result in parts of the TransPort being shutdown to reduce the operating temperature. For more information on this, please refer to Quick Note 46. (SAROS-1275).
3. Cellular Preferred System Lists: The cellular preferred system support has been updated to allow a list of different technologies to be configured rather than just a single technology. For example, the “`modemcc 0 psys`” command will now take a string such “4G3G2G” which means the module will attempt to connect using 4G, then 3G and finally 2G if the previous attempts fail. The possible values are as follows
  - a. auto (Uses default setting, may be set by the carrier in the SIM)
  - b. 2G
  - c. 3G
  - d. 4G
  - e. 4G3G2G
  - f. 4G3G
  - g. 4G2G3G
  - h. 4G2G
  - i. 3G4G2G
  - j. 3G4G
  - k. 3G2G4G
  - l. 3G2G
  - m. 2G4G3G
  - n. 2G4G
  - o. 2G3G4G
  - p. 2G3G

This feature is currently only supported on the following cellular modules

- q. Huawei ME909u-521 (L1)
- r. Sierra Wireless MC7354
- s. Sierra Wireless MC7710
- t. Telit LE910

Please note that not all combinations are available on all modules. (SAROS-1402)

4. Support for Firmware Over The Air (FOTA) has been added for the MC7354 module when connected to the Sprint network. This allows firmware updates to be pushed to the cellular module from the Sprint network. (SAROS-1034)
5. Support for FOTA has been added for the HE910-D to allow it be updated over the air. (SAROS-1421)
6. Support has been added to help prevent brute force attacks on the management interfaces. When a failed login attempt is detected, the device will delay before allowing another attempt with the delay getting longer after each failure. The backoff intervals are 1, 2, 4, 8, 16 and 32 seconds. When there have been no failed login attempts for 30 seconds, the backoff timer is reset back to 0 seconds. (SAROS-1021)
7. Zing is a proprietary Digi protocol that allows for a device to be discovered and managed if it is no IP configuration. Up to now, it has been enabled by default. Support to allow it to be explicitly disabled has been added. The new CLI command is `services 0 zing <on|off>`. It can also be enabled or disabled via the Configuration > Network > Network Services Web page. It can also be enabled or disabled in the new Getting Started Wizard. (SAROS-1416)
8. The cellular reset time on the WR44v2 has been changed from a 30 second timeout to a 1 second timeout. This will improve the connection times after a module has been reset (for example when switching SIMs). (SAROS-1267)
9. A new command (`modemprofiles`) has been added to display the profiles on a cellular module. (SAROS-1491)
10. The Remote Manager tile has been updated to indicate when Remote Manager is disabled rather than just saying is it is disconnected. (SAROS-1128)

## BUG FIXES

1. The WR11 LE910-EUG support has been updated to resolve an issue where it would not connect to the German T-Mobile network. (SAROS-1141)
2. A problem with the Cellular network scan feature that was not working on some cellular modules has been resolved. (SAROS-1493)
3. Updated cert01.pem and privrsa.pem files have been included in the Flashwriter files. These resolve an issue when using the Firefox browser with HTTPS connections. The new certificates can be downloaded from the Digi support FTP site [ftp://ftp1.digi.com/support/firmware/transport/standard\\_configs/Common%20Files%20%28load%20for%20all%20products%29/](ftp://ftp1.digi.com/support/firmware/transport/standard_configs/Common%20Files%20%28load%20for%20all%20products%29/)
4. (SAROS-1410)
5. A problem with logging into the TransPort device using SSH and authenticating using RADIUS and TACACS+ due to the password being truncated has been resolved. Passwords of up to 120 characters are now supported. (SAROS-1485)
6. A problem with corrupted event log messages regarding the cellular signal strength has been resolved. (SAROS-1478)
7. The health profile support has been updated to resolve a problem where the reported CPU utilization did not match the actual value. The reported CPU utilization was too high. (SAROS-1458)
8. A fix for a problem with the WR21 when using the low power mode which could reset the device when the CPU frequency was reduced to the lower frequency. (SAROS-1456)
9. A fix for the licensing support where the device would continually reset when trying to process a license file. (SAROS-1453)
10. The HE910 firmware update process has been updated to resolve a couple of issues. The first is that it would not work when initiated via the Web GUI. The second is the link and stat

retries configuration was being overwritten being the update process. (SAROS-1331, SAROS-1443)

11. A problem with the WR41 fitted with the MC7354 module where the module could reest and not re-appear on the USB bus when an USB flash device is plugged into the USB port has been fixed. (SAROS-1440)
12. A problem when doing a RCI request from Remote Manager for the dhcpclisat group would fail has been resolved. (SAROS-1404)
13. The RCI over HTTP support has been updated to resolve a couple of problems where the device could reboot with particular RCI requests. Also re-added the RCI over HTTP to the Web GUI Network Services page. (SAROS-1371, SAROS-1403, SAROS-1409, SAROS-1436, SAROS-1470)
14. A problem with the DHCP server where Wi-Fi clients were not being issued IP addresses if the 'Wi-Fi only' configuration had been set. (SAROS-1399)
15. The ME909u-521 cellular (L1) module support has been updated to resolve a couple of issues related to the preferred system configuration. Firstly, the module would not connect to the network if the preferred system is set (modemcc 0 psys) until the TransPort device had been reset and secondly the module would not use it's default settings when the preferred system is set to Auto (0). (SAROS-1305, SAROS-1389)
16. A problem with the firewall has been resolved where the firewall was treating any word that was not a wildcard option as 'any' in either the 'to' or 'from' section of a firewall rule. (SAROS-1388)
17. A fix has been made to remove spurious "Power Fail" events that were being logged in the event log during power up. (SAROS-1386)
18. A problem with the Remote Manager Import / Export feature where importing a configuration that had had the cellular serial port modified would fail has been resolved. As the cellular serial ports are in constant use, it is not possible to update the cellular serial port configuration with Remote Manager. (SAROS-1381)
19. The HE910 cellular module support has been updated to resolve a couple of issues where the module's firmware version was not being displayed in the modem status when using SIM 2 and the country and carrier codes were not being displayed. (SAROS-1200, SAROS-1378)
20. A problem with the FTP relay feature where the configured directory could be truncated has been resolved. (SAROS-1375)
21. The Remote Manager support has been updated to allow the SCEP configuration to be accessed using Remote Manager. (SAROS-1373)
22. A problem with the WR41 Wi-Fi when fitted with the 507N module was not working in dual client and Access Points modes when encryption was enabled. (SAROS-1372)
23. A problem has been fixed with the logical Ethernet interface which would become unreachable when a VRF ID is assigned. (SAROS-1345)
24. The Health metrics configuration has been updated so that the report and sample rates can be a maximum of 30 days (40320 minutes). (SAROS-1324)
25. The SNTP server support has been updated to resolve an issue where the server would not sync up after a reboot unless it is reconfigured. (SAROS-1303)
26. A fix has been made to the factory default mechanism to ensure the APN is reset in the cellular module. (SAROS-1302)
27. The PPPoE support has been updated to resolve an issue where it would only work on physical Ethernet interfaces 0 and 1. (SAROS-1253)
28. A problem with the MC7354 module when connected to the AT&T network which report a SMS send error even though the SMS was successfully sent has been resolved.(SAROS-1136)
29. A problem with the WR11 displaying an invalid message when doing a factory default or a profile update of the DE910 module or (SAROS-1103, SAROS-1482)

30. The MC7710 module support has been updated to solve a problem where the module would take a long time to connect to the network when in QMI mode. (SAROS-1101)
31. A problem when using Flashwriter with the WR11 when fitted with DE910 module has been resolved. (SAROS-520)

### 5.2.9.13 (Bootloader 7.33) – March 9, 2015

#### ENHANCEMENTS

1. Password encryption support has been updated so that it can be enabled or disabled. If password encryption is disabled, passwords will be stored in the existing obfuscated format and they can be copied from one device to another. If password encryption is enabled, passwords will be stored in an encrypted format using a device specific key and cannot be copied onto another TransPort device. It is disabled by default which means existing units will be unaffected.
2. There is a new CLI command “cmd 0 encpasswords <on|off>” and the “Configuration > Security > System” web page has been updated. (SAROS-1398)
3. Backup Images: the Web GUI and Remote Manager firmware update has been updated to copy the image file to image4 once it has been validated so that the backup image is always up to date. (SAROS-1384)

#### BUG FIXES

None

### 5.2.9.12 (Bootloader 7.33) – February 23, 2015

#### ENHANCEMENTS

1. The TransPort version numbering has changed to a standard semantic version numbering scheme. (SAROS-1048)
2. Device Cloud for TransPort has been rebranded to Remote Manager 2.0. (SAROS-1245)  
The URLs for the Remote Manager servers are  
remotemanager.digi.com (previously login.etherios.com)  
remotemanager-uk.digi.com (previously login.etherios.co.uk)
3. From the 5.2.9.12 release, the backup “Thin” image has been removed from the release. Instead, the TransPort units will ship to two copies of the main image where one acts as a backup in case the main image becomes corrupted. When a firmware update is down via the Web GUI or Remote Manager, only the main image is updated.
4. TransPort devices will now store new or modified passwords in an encrypted format in the pwds.da0 file. The encryption key is specific to each individual device which means it is not possible to just copy the pwds.da0 file from one device to another. In order to do, the passwords must first be decrypted in pwds.da0. This can be done using the CLI command “passwd {secure | rel}” and then save the configuration. (SAROS-305)

e.g.

To allow the pwds.da0 to be shared with another device

```
passwd rel
config 0 save
```

To encrypt the passwords in pwds.da0

```
passwd secure
config 0 save
```

5. A new command option “status” has been added to the “pwrctrl” CLI command to allow you to see the power control profile that is currently active.(SAROS-1062)

e.g.  
pwrctrl status  
current power control profile: 0  
OK

6. Configuration for the Health metrics feature has been added to the Web GUI under the Remote Management > Remote Manager menu. (SAROS-756)
7. The file management support via Remote Manager has been updated to improve the performance of downloading from the device to Remote Manager. Also the issues accessing files in the /user directory has been resolved.
8. (SAROS-1165, SAROS-1239)
9. Support has been added for the DNS-O-Matic (dnsomatic.com) dynamic DNS service.
10. In order to use the DNS-O-Matic service, you should enter the provider hostname in the Service Provider Hostname entry box. (SAROS-1007)
11. The cellular modem status has been enhanced so that a partial modem status is displayed whilst the modem is still initializing. (SAROS-940)
12. IKE has been enhanced to check the supplied ID against multiple subjectAltName fields in a certificate. (SAROS-751)
13. Support for Syslog over TCP has been added to the TransPort WR platforms. (SAROS-1001)
14. Support has been added to allow format specifier %s in the modemcc 0 init strings so that the modem strings can be general with a generic configuration containing site specific values. (SAROS-1266)

## BUG FIXES

1. The Remote Manager Device Health Monitoring support has been updated to resolve issues with the configuration. (SAROS-928, SAROS-1030, SAROS-1252)
2. A fix for Remote Manager which would drop the connection after 5 minutes if there was no activity. (SAROS-1248)
3. A fix for the configuration of the Remote Manager Proxy Server settings which were not working correctly in the Web GUI. (SAROS-1220)
4. A fix for SNMPv3 to support the MG-Soft SNMP agent. (SAROS-1176)
5. A fix for the Remote Manager support to resolve issues with missing device descriptors for GPS statistics and Wi-Fi configuration. (SAROS-1157)
6. The WR11 LTE support for Verizon has been updated to resolve an issue with static IP SIM cards where the WR11 would never get an IP address. (SAROS-1175)
7. The WR11 LTE support for AT&T has been updated to resolve a dual SIM failover issue. (SAROS-1173)
8. The cellular status page on the Web GUI has been updated to correct invalid data sent and received statistics. (SAROS-1142)
9. A fix for the RSSI and EC/IO which was incorrect for the MC7354 module with the Verizon network. (SAROS-1139)
10. A fix for the WR44v2 Wi-Fi support where the Access Point mode was not working correctly when used simultaneously with client mode and security is configured. (SAROS-1172)
11. A fix for the WR21 with the MC7354 module where it would fail to send a reply to a Remote Manager SMS reboot command. (SAROS-1178)
12. The Remote Manager support have been updated to resolve a problem when launching a Python script from Remote Manager would cause all future RCI requests to fail. (SAROS-1191)
13. The WEB GUI has been updated so that the first section on a page is not automatically opened. (SAROS-1166)
14. CDMA backoff events are not being logged to the event log. (SAROS-1241)

15. The DSL commands has been added to the debug.txt file for the WR44v2 DSL platforms (SAROS-1078)
16. The fix for the Remote Manager Opt-In flag which was not being cleared when a TransPort device was factory defaulted. (SAROS-358)
17. The support for the WR41/WR44 DialServ daughtercard has been updated to resolve an issue where the DialServ card would only send a CR character to the device. (SAROS-1354)
18. The SNTP time zone setting on Remote Manager has been updated so that the time zone is correctly set. (SAROS-1192)
19. A fix for a file management issue where issuing the following commands would result in the device crashing. (SAROS-1112)

```
>dir p*.*  
>type fw.txt
```

20. A fix for the SMS command handling when SMS messages intended for a Python script was being processed. (SAROS-1119)
21. A fix for PPPoE which could sometimes use a PPP instance that does not exist. (SAROS-1251)
22. A fix for the Remote Manager support where event log messages were getting truncated. (SAROS-1126)
23. The WR21 LTE support for AT&T has been updated to resolve an issue where the preferred system can get stuck in GSM/WCDMA and cannot be changed. (SAROS-1123)
24. A fix for the WR41v2 Web GUI to remove references to the 'N' modes when only a 'B/G' module is fitted. (SAROS-438)
25. The Remote Manager support has been updated to report more accurate error messages when uploading files to the device. (SAROS-1214)
26. A fix for the Dual SIM failover with the MC7354 module which could lock up if an inactive SIM or a SIM is not fitted. (SAROS-1152)
27. A fix for the firewall/NAT support where the firewall is send a RST packet in response to a SYN/ACK instead of creating a new TCP connection. (SAROS-1085)
28. A fix for the Web GUI GPS configuration page to allow up to 64 characters to be entered for the IP host parameters so that a hostname can be entered. Previously it had only been allow up to a maximum of 15 characters for an IP address. (SAROS-1260)
29. A fix for the WR44v2 Ethernet rate limiting which was not being initialised correctly. (SAROS-1257)
30. A typo error on the IP Passthrough Web GUI page has been fixed. (SAROS-1294)
31. A fix for cellular network scanning with the ME909u-521 module which was preventing it from returning the details on the available networks. (SAROS-1218)
32. The support for the ME909u-521 has been updated to resolve an issue where the USIM and EF-LCOI files (SAROS-1193)
33. The Carrier CLI command has been updated so that it will not send out a "qdl 0 fw 0" command to the MC7354 module which resulted in error messages being posted to the event log. (SAROS-1230)
34. The modemstat command has been updated to fix an issue with the temperature reporting of the MC7354 module where negative values were not be displayed correctly. (SAROS-1228)
35. A fix for a Wi-Fi network scan issue where the encryption details for an Access Point where not being displayed which would prevent the TransPort device from connecting to it. (SAROS-1353)
36. When upgrading your Transport device using Device Cloud/Remote Manager, the ZIP file that gets uploaded to the device cannot have any '.' characters in the body of name. For example, wr44v2-5.2.9.6.zip should be renamed to wr44v2-5296.zip. This is only an issue if

upgrading from an older firmware that does not have the "." Characters in the body of the name For example wr44-5284.zip. [SAROS-1301]

## **5282 (Bootloader 7.29) – January 21, 2015**

### **ENHANCEMENTS**

None

### **BUG FIXES**

1. An update to the WR44RR USB support to resolve an issue seen with the MC7354 module where it would stop responding on the USB bus. (SAROS-1187)

## **5281 (Bootloader 7.29) – December 30, 2014**

### **ENHANCEMENTS**

1. The Wi-Fi support has been updated to be compliant with the ETSI EN300328 v1.8 and EN301893 v1.7.1 standards for Wi-Fi that come into effect in 2015. (SAROS-1029, SAROS-1144)
2. Support for XML for RCI over HTTP has been re-added. This support had been removed in the 5269 release. Support has also been re-added for the Python RCI module. (SAROS-1036)
3. The Enhanced Services for TransPort support has been updated to work with a minimum sample rate of 1 minute to allow for a higher granularity of the health metrics. (SAROS-1035)
4. Support has been added to allow the TransPort device to connect to Device Cloud via a Web Proxy. The CLI commands to configure this support are  
cloud 0 use\_proxy <on | off>  
cloud 0 proxy\_url <ip\_addr | FQDN>  
cloud 0 proxy\_port <port>
5. The Web GUI "Configuration > Remote Management > Device Cloud > Advanced" page has also been updated. (SAROS-456, SAROS-1002, SAROS-1037)
6. A position page has been added to Device Cloud to allow the position of a connected TransPort device to be monitored. (SAROS-343)
7. Support for IPsec replay detection has been added . A new IPsec parameter has been added  
eroute <n> replaywin <0..32>
8. When set to 0 (default), the replay detection is disabled. (SAROS-1133)
9. A new command "partnum" has been added that allows the user to configure the Digi part number for the device. (SAROS-1146)  
e.g. partnum WR44-U800-NE1-SW
10. HTTPS and Telnet over SSL have been added to the list of services that are blocked by the "nocfg" command which can be used to block configuration over certain interfaces. (SAROS-468)
11. A new option has been added to the IKE "natt" parameter to allow NAT-T to do forced for IKE negotiations. (SAROS-690) To use the option, the CLI command is  
ike <n> natt 2

### **BUG FIXES**

1. There have been some updates to the Enhanced Services for TransPort support to resolve some issues with the interface Rx and Tx statistics and the timestamp. (SAROS-824, SAROS-878)
2. The Mobile status page on Device Cloud has been updated to more closely match the Web GUI. (SAROS-451)



3. The support for the MC7710 cellular module has been updated to correctly read the temperature from the module. (SAROS-650)
4. The Web GUI has been updated to fix an issue where the DHCP settings for a logical Ethernet interface would not be displayed when the logical interface is not associated with a physical interface. (SAROS-461)
5. A fix for OpenVPN when configured to go over an Ethernet interface and a PPP interface as back up. If the Ethernet link goes down, the PPP interface would never come up. (SAROS-955)
6. The displaying of the Digi part number of the TransPort device has been updated to better auto-generate the part number. The actual part number can now be programmed into the device using the “partnum” command (rather than having the device to attempt to auto-generate it). (SAROS-757)
7. The Python idigidata module has been updated to add the “append” keyword to the send\_to\_idigi function. (SAROS-828)
8. The Web GUI Mobile status page has been updated to fix an issue where the “Mobile Connection” section is displayed as “Not available” even though the connection is up. (SAROS-1066)
9. The Web GUI Ethernet configuration page have been update to indent the “Override parameters” section and “Use the MAC address ...” parameter to improve the readability. (SAROS-1067)
10. A fix for an issue with the MC7354 on the Verizon network where a SMS message from Device Cloud was not being received. (SAROS-1134)
11. The setting of the LTE preferred network type via Device Cloud has been fixed. (SAROS-1122)
12. The Device Cloud support has been updated to add the configuration of the SIM 2 parameters. (SAROS-1121)
13. The Device Cloud support for querying the Serial configuration has been updated for the brk\_tx\_esc RCI element to return the ASCII value. (SAROS-1113)
14. The Device Cloud support has been updated to resolve an issue where not all of the Ethernet interfaces pages and the DNS status page were not being displayed in the Management > Network Status section. (SAROS-910, SAROS-946)
15. The Web GUI has been updated to resolve an issue where the “Data Limit” feature on the PPP interfaces was not being set correctly. (SAROS-945)
16. A fix for copying large files using SCP on the WR44v2 which was taking a very long time. (SAROS-647)
17. A fix for Wi-Fi on the WR41v2 when configured with multiple Access Points, clients would not be able to connect to AP configured on wifinode 2. (SAROS-1013)
18. Support for WiMAX has been removed. (SAROS-771)

## **5277 (Bootloader 7.28) – December 9, 2014 (WR44v2/WR44RR only)**

### **ENHANCEMENTS**

There are no enhancements related to this release.

### **BUG FIXES**

1. A fix to resolve an issue with the WR44RR using the MC7354 with Telus. (SAROS-1063)

## 5276 (Bootloader 7.28) – December 5, 2014

### ENHANCEMENTS

1. Support has been added for the Sprint network using the Sierra Wireless MC7354 LTE module. (SAROS-992, SAROS-993)

### BUG FIXES

1. Support for SSLv3 has been removed as part of combating the SSLv3 POODLE vulnerability. (SAROS-1054)
2. The Device Cloud support has been updated to return an error when the Device Cloud attempts to save a parameter that is not supported on that particular device due to a different HW or SW configuration. Previously the device would quietly ignore the request. (SAROS-1014)
3. The support for the MC7354 module has been updated to resolve an issue where the device could disconnect from the Verizon network and fail to reconnect. (SAROS-969)
4. A fix a WR44v2 issue where the Serial LED would flash to display the current cellular connection technology. (SAROS-1039)
5. The Device Cloud file upload support has been updated to resolve a timeout issue. (SAROS-1023)
6. The sockets support has been updated to allow more than one queued network connection per listening socket. (SAROS-958)
7. The IPsec support has been updated on the WR44v1 to resolve a problem where the IPsec responder could reset. (SAROS-994)
8. The WR11 has been updated to allow it to run at 454MHz. (SAROS-669)
9. The support for the Telit HE910 firmware update mechanism has been added to the WR44v2 platform. (SAROS-976)
10. A fix for the temperature logging which was causing an invalid entry in the templog file. (SAROS-927)
11. The Web GUI was updated to correct the PCAP links on the Analyser page. (SAROS-1040, SAROS-1041)
12. A fix for Wi-Fi on the WR44v2 where the Access Point would not work if “Disable Management” was selected for the Wi-Fi interfaces. (SAROS-1022)
13. A new event has been added for Ethernet interface physical connect/disconnects. Link up and down events are now not reported for virtual Ethernet interfaces if a cable is disconnected and reconnected when the “eth x linkdeact” parameter is set to 0 (which is the default value). (SAROS-1011)

## 5271 (Bootloader 7.24) – November 5, 2014

### ENHANCEMENTS

1. Support for the Telit LE910-EUG has been added to the WR11 (SAROS-1006, SAROS-1058)

### BUG FIXES

1. A fix to the cellular module support where the module could be rebooted after 61 seconds if it has not registered with the network. (SAROS-1046)

## 5269 (Bootloader 7.24) – October 15, 2014

### ENHANCEMENTS

1. Health Monitoring is a new feature for Device Cloud by Etherios that allows the TransPort Ethernet and Mobile interfaces and the system “health” to be monitored via Device Cloud. The monitoring can be enabled via Device Cloud in the Configuration > Remote Management > Device Cloud > Health Metrics Reporting page. The Ethernet, Mobile and System metrics can be sampled at different rates (with a one minute granularity). The samples are then sent to Device Cloud at the configured report rate (also with a one minute granularity). The default sample and report rates are 60 minutes. (SAROS-585)
2. Support for Wi-Fi MIMO with Frame aggregation on the WR44v2 has been added. This improves the overall performance of Wi-Fi on the platform. (SAROS-176)
3. Support for NTP authentication has been added. The TransPort devices can be configured to use MD5 authentication when interacting with a NTP server. There are 2 new parameters for each NTP server supported.

```
ntp 0 auth_keyid
ntp 0 auth_str
ntp 0 auth_keyid2
ntp 0 auth_str2
ntp 0 auth_keyid3
ntp 0 auth_str3
ntp 0 auth_keyid4
ntp 0 auth_str4
```

auth\_keyid is set to 0 to disable authentication other it should be configured to match the NTP servers key ID. auth\_keystr defines the authentication key. These parameters can also be configured via the Configuration > System > Date and Time page. (SAROS-286)

4. Support for enabling and disabling the TCP Server on the Serial ports has been added. There is a new parameter “asytcp” to the “services” command that can be used to configure it.

e.g. services 0 asytcp <on|off> (SAROS-737)

5. A software option has been added that will allow the 5GHz support to disabled on the WR41v2 platform. (SAROS-820)
6. The interface failover support has been enhanced to allow for quicker failover from a Wi-Fi interface to a PPP interface when the Wi-Fi signal is lost. There are 6 new parameters in the “route” and “def\_route” commands.

oos_deact_ent	- Interface deactivated when the route goes “OOS”
oos_deact_add	- Interface number
oss_deact_dly	- Delay in seconds before deactivating the interface
oos_deact_ent2	- Second interface that can be deactivated.
oos_deact_add2	- Second interface number.
oss_deact_dly2	- Delay in second before deactivating the second interface.

This functionality can also be configured through the Web GUI. (SAROS-665)

7. The maximum length of a TACACS+ password has been increased to 60 characters. (SAROS-538)
8. The hostname name of the router is now displayed in the title bar of the Web GUI. (SAROS-624)

## **BUG FIXES**

1. A fix to the PPP support where PPP will disconnect immediately after failed over from PPP 1 to PPP 2. (SAROS-677)
2. The Mobile Network Scan support has been fixed for the Mc7354 module running on the AT&T network. (SAROS-739)
3. An update has been made to the Web GUI so that the new home page released in the 5246 release is quicker to load up over cellular or proxy servers. (SAROS-710)
4. An update has been made to the Web GUI home page so that data does not overflow outside of the tile. (SAROS-638)
5. The WR44 Wi-Fi support has been updated to resolve issue where the unit would not connect to a Cisco Access Point due to a difference in the EAPOL version being used. The EAPOL version on the TransPort routers has been changed from 2 to 1 to resolve this. (SAROS-706)
6. The WR41v2 Wi-Fi support has been updated to improve the range (SAROS-400)
7. A fix for the WR44v2 Wi-Fi support where the unit could suffer a Watchdog reset (SAROS-660)
8. A fix for the WR11 DE910 where the signal LED could be stuck on Green and Yellow. (SAROS-728)
9. A for the WR11 firmware update via the Web GUI which could fail resulting in a corrupted Web file (SAROS-355)
10. The WR41v2 Wi-Fi support has been updated so that you can bridge from Wi-Fi to two different Ethernet interfaces which are on different IP subnets (SAROS-445)
11. A fix for the Device Cloud support where the Wi-Fi status would always display channel 1 even though the device is using a different channel. (SAROS-470)
12. A fix for the Device Cloud support where changes to user passwords were not taking effect (SAROS-612)
13. An update has been made to the CLI support via SMS so that the device will no longer send an error response if it receives "OK" or "ERROR" via SMS. This is because it was possible for two TransPort devices to get into an endless loop of sending SMS messages to each other. (SAROS-484)
14. A fix for the SMTP client which could use the wrong source IP address. (SAROS-397)
15. The Python digisms module has been updated to resolve a problem with sending SMS messages. (SAROS-510)
16. The "more" link in the System Tile on the Web GUI Home page has been fixed so that the browser history is correctly updated. (SAROS-549)

17. The IKEv2 support has been fixed so that multiple traffic selector pairs are supported. (SAROS-571)
18. The DMNR support has been updated so that the correct HA address is sent if the non-default value is used. (SAROS-628)
19. A fix to the Mobile statistics where the IMSI could be displayed with extra characters at the end. (SAROS-712)
20. The DHCP client support has been updated so that it will check the validity of the IP address it receives from the server. (SAROS-717)

## **5248 (Bootloader 7.21) – October 7, 2014 (WR41v2 only)**

### **ENHANCEMENTS**

1. Support has been added for the Telit HE910-D module on the WR41v2. (SAROS-585)

### **BUG FIXES**

1. A fix for Wi-Fi on the WR41v2 to allow the Wi-Fi nodes other than 0 to run in client mode. (SAROS-753)
2. An update to the WR41v2 Wi-Fi on the way the RSSI is reported during the manufacturing test. (WR41-40)

## **5246 (Bootloader 7.21) – August 21, 2014**

### **ENHANCEMENTS**

1. The Login and Home pages of the Web GUI have been redesigned. The Home page shows a set of six tiles that are user configurable. The Login page can also display 2 tiles giving system and interface information. The tiles on the Login page can be disabled using the CLI command "web 0 prelogin\_info <on|off>" or via the Web GUI Configuration > System > General page. (SAROS-537, SAROS-543, SAROS-584)
2. Support has been added for the Sierra Wireless MC7354 LTE module on the WR21, WR41v2, WR44v2 and WR44RR platforms. This module is available in North America. The module supports AT&T, Verizon, Sprint, Rogers and Telus with different firmware images. The module is configured for Verizon by default and other carriers can be configured by using the new Carrier Switching wizard or the "carrier" CLI command. For more information, see Quick Note XX which is available on the Digi Support site. (SAROS-379, SAROS-479, SAROS-480, SAROS-519, SAROS-565, SAROS-634)
3. Support has been added for the Telit LE910 module on the WR11, WR21 and WR44v2 platforms. (SAROS-460, SAROS-505, SAROS-524, SAROS-528, SAROS-611, SAROS-654)
4. There are has been a number of changes made that have increased the LTE cellular performance. (SAROS-406, SAROS-407, SAROS-499, SAROS-517)
5. Support for the standard and enterprise modes has been added to the WR41v2 platform. (SAROS-462)

6. It is now possible to enable or disable the following services with a single command.

- Telnet
- Telnet over SSL
- HTTP
- HTTPS
- SSH
- FTP

The new CLI command is “services 0 <service> <on|off>”. The Configuration > Network > Network Services page has been updated. (SAROS-455)

7. Support for the SSH client has been added to the WR41v2. (SAROS-458)
8. The Network technology is now reported for the MC7710 module. (SAROS-641)
9. When a TransPort platform fitted with the Telit HE910 module is being reset, the HE910 module is now cleanly shutdown to reduce the risk of flash corruption. (SAROS-367)
10. The eventlog.txt file has been removed from the information that is sent to Device Cloud as part of a normal refresh. This has reduced the refresh time by 1 – 3 seconds. The eventlog.txt file can still be retrieved via the File Management menu. (SAROS-530)

#### **BUG FIXES**

1. A fix for IPsec where SAs were being removed on a Cisco ASA concentrator but not being removed on the TransPort device. (SAROS-552)
2. A fix for when uploading a zero-length file using Device Cloud which would cause the file system to lock up. (SAROS-491)
3. A fix for Web GUI support to prevent the login password from being saved by the browser. (SAROS-465)
4. A fix for the WR21 where the unit could reboot under a high load of small packets. (SAROS-483)
5. A fix to the Web GUI when using the Chrome Web browser (version 36.0.1985.125.m) where the event log could not be refreshed or cleared. (SAROS-644)
6. A fix for when using firewall link failure detection with recovery, the device was not sending a packet with a VLAN tag. (SAROS-583)
7. A fix for the licensing on the WR41v2 which would not handle WR-SW-xxx and WR41-SW-xxx options. (SAROS-582)
8. A fix for the Device Cloud support where an XML response could be returned where the specific parameter types were not being handled correctly. (SAROS-563)
9. A fix for the WR11 where the Python time.time() function was not reporting the correct time in seconds (SAROS-536)
10. A fix for the PPP password setting when embedding the module’s IMEI value (SAROS-533)
11. Support has been added for PPP RADIUS which was missing on the WR44v1 and WR44v2. (SAROS-522)
12. A fix for the PAD feature to disable buffering (SAROS-516)
13. A fix for the Device Cloud support reporting an invalid GPS latitude. (SAROS-512)
14. A fix for the Wi-Fi on the WR41v2 when it would not connect to an Access Point (SAROS-482)

15. A fix for the FTP server against “FTP Bounce” attacks that allow a FTP client to instruct the FTP to make an outbound data connect to any IP address and port, rather than restricting outbound connections back to the client’s IP address only. (SAROS-454)
16. A fix for the WR11 with the Telit HE910 module which was reporting the wrong radio technology. (SAROS-444)
17. A fix for PPP where the interface state was not being updated to disconnected when the cellular link goes down (SAROS-463)
18. A fix for the Device Cloud file system support where an error message was not being returned when attempting to upload a file to a non-existing path (SAROS-420)
19. A fix for the Web GUI which was reporting an invalid signal strength for the GOBI 3000 module in 1xRTT mode. (SAROS-417)
20. A fix for WR44v2 Wi-Fi where the device would crash when in client mode. (SAROS-395)
21. A fix for the WR11 Cellular interface which was not provisioning correctly on the Sprint Datalink network. (SAROS-378)
22. A fix for the MC7710 support where the device could not send a SMS message when in NDIS mode. (SAROS-255)

## **5236 (Bootloader 7.16) – June 16, 2014 (WR21 only)**

### **ENHANCEMENTS**

There are no enhancements related to this release.

### **BUG FIXES**

1. RS485 support has been updated to allow a 120 Ohm termination resistor to be enabled via configuration. To enable the termination resistor, set bit 3 of SREGs register S16 or via the Serial Interface configuration Web page. (WR21-63)

## **5235 (Bootloader 7.16) – May 28, 2014**

### **ENHANCEMENTS**

1. A new command has been added to allow non-AT commands that are mapped to AT commands to return AT responses instead of just “OK”. The new command is “cmd <n> cmdmapat <on | off>”. The default setting is “off”. The Configuration > Interfaces > Serial > Command Mapping Web GUI page has also been updated. (SAROS-441)

### **BUG FIXES**

1. A SIM to SIM failover issue that was introduced in the 5233 release has been resolved. The unit would switch over from PPP1 to PPP2 but would not switch back. (SAROS-487)
2. The Wi-Fi support has been updated to support a multiple Cisco Access Point environment each advertising the same multiple SSIDs with the same MAC addresses. (SAROS-443)

3. Update to the SCEP certificate re-enrolment support where some SCEP servers require that the TransPort device uses the same challenge password as used when first enrolling the certificate request. (SAROS-337)

## 5233 (Bootloader 7.16) – May 3, 2014

### ENHANCEMENTS

1. Support has been added for the Huawei ME909u-521 LTE module for non-North American markets. (SAROS-234)
2. SNTP is now enabled by default for factory defaulted units and uses the “time.etherios.com” NTP server (SAROS-321)
3. Support has been added for Time bands on Wi-Fi interfaces. This allows the user to control at what times of the day and week, clients can connect to the Wi-Fi Access Point (SAROS-317)
4. The maximum length of certificate request challenge password has been increased to 40 characters. (SAROS-394)
5. Support for VRF has been added and can be enabled via a license. VRF allows you to create multiple routing tables and to assign each interface to different VRF. (SAROS-287)
6. The Device Cloud support has been updated so that the device will only attempt to connect to Device Cloud if there an available route that is active. (SAROS-336)
7. The IPsec support has been updated so that a route to the remote subnet of an IPsec tunnel is automatically added to the routing table. (SAROS-346)
8. The IPsec support has been updated so that a blank IPsec Peer ID is considered the same as a \* which means it will match against any Peer ID of a remote device during the negotiation. (SAROS-374)
9. The RADIUS support has been updated so that the RADIUS parameter can be configured using a FQDN or an IP address via the WQeb GUI. (SAROS-338)
10. A new parameter has been added to control whether serial data is cached prior to a PAD connection. The new parameter is “pad 0 prebuffer <on|off>” which defaults to “on” which means it will behave as per previous firmware versions. When it is switched off, data will not be cached. (SAROS-396)
11. The timeout for which the unit will wait for replies when acting as a Modbus master has been made configure. It had been previously fixed at 700msec which is not long enough in some situations. The new CLI parameter is “modbus 0 response\_to <n>”. The default value is 700msec so it should behave as per previous firmware versions. (SAROS-435)
12. The behaviour of the WR44 Wi-Fi LED when in client mode has been changed. It is now as follows:

Off	Not Connected
On	Connected
Flashing	Transferring Data

(SAROS-359)
13. It is now possible to extract a block of random data so that it can check for its randomness. To extract the data, you can FTP a file from the device with the name “rand#<k|m>.bin where # is a number and k = kilobytes and m = megabytes.  
e.g. To extract 100KB of data, the filename would be rand100k.bin (SAROS-274)



## BUG FIXES

1. The WR41 Wi-Fi support has been updated to fix a lock up problem where the device would stop transmitting Wi-Fi packets until the Wi-Fi interface restarted. (SAROS-399)
2. The WR44 Wi-Fi support has been updated to fix a problem where the device could crash when connecting to an Access Point (SAROS-395)
3. The Novatel E362 Verizon LTE support has been updated to resolve an issue where the device would disconnect from the LTE networks approximately every five minutes. (SAROS-303)
4. The SNMPv3 support has been updated to prevent access using a username of an user who has a password configured but it is not used in the SNMP request. (SAROS-419)
5. The CLI command "ikestat" has been added to help diagnose problems with IKE negotiations. This is the CLI equivalent of the Web GUI page that displays the IKE SAs. (SAROS-393)
6. The SCEP certificate re-enrolment has been updated to fix a problem where the SCEP client was not using the expiring certificate and key to sign its request. Instead it has been creating a self-signed certificate which wasn't working with some server configurations. The certificate request is now displayed on the debug port to help with diagnosing SCEP issues. (SAROS-337, SAROS-392)
7. The Wi-Fi support has been updated to resolve a problem when connecting to a Cisco Access Point which is running to virtual Access Points with different security settings. (SAROS-380)
8. A fix for Realport where it was incorrectly reporting the initial status or carrier state. (SAROS-376)
9. The TransPort Enterprise MIB that can be downloaded from the device can now be successfully compiled with the MG-Soft MIB browser. (SAROS-365)
10. The Serial interface support has been updated to resolve a problem where changing the Escape character has not effect. (SAROS-357)
11. The PPP support has been updated to resolve an issue which meant that although the ACCM negotiation indicated that no characters less than 32 should be escaped / stuffed, all the characters of the characters were being stuffed. This was having an effort on the cellular performance of some modules. (SAROS-333, SAROS-352)
12. A fix for the Python os.listdir function for a problem which resulted in the listdir and help functions would not work correctly. (SAROS-350)
13. A fix for the Telit HE910 support where the Preferred System Mode configuration was not being displayed in the Web GUI. (SAROS-347)
14. A fix for the Device Cloud support where the "Max CLI response" field was not being populated correctly. (SAROS-344)
15. A fix for the HTTPS Web Support which would not work if an USB stick was inserted into the front of a device. (SAROS-339)
16. The SNMP User and Alarm Event configuration parameters have been added to the TransPort Enterprise MIB. (SAROS-320)
17. The Network Selection mode has been added to the Mobile Status Web GUI page for the Telit HE910 module. (SAROS-312)

18. The WR11 Service LED behaviour has been updated so that it displays orange whilst a PPP connection is being established and then it flashes green to indicate the service type once the PPP connection is up. (SAROS-311)
19. The support for the Ericson F5521gw module has been updated to help improve the SIM to SIM failover connection times which can take 3 – 5 minutes due to the module taking up a long time to bring up a connection. (SAROS-261)
20. The support for the Sierra Wireless MC7710 module has been updated to resolve a problem with the Network Scan function not showing any results. (SAROS-240)
21. The amount of free memory being reported in the DR64 Web GUI was incorrect. (SAROS-364)

## **5223 (Bootloader 7.13) – Mar 12, 2014**

### **ENHANCEMENTS**

1. The WR44R supports a second Wi-Fi interface which is completely independent of the existing Wi-Fi interface. Each Wi-Fi interface can support multiple nodes where each node can be configured as an Access Point, a Client or in Rogue Detect mode.  
Both Wi-Fi interfaces can be configured with different channels and modes (802.11a/b/g/n). They share the same country configuration. (SAROS-235)
2. Support has been added to the WR44 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 WR44 can switch between them as needed. (SAROS-78)
3. Support has been added for 1522 byte Ethernet frames when the Ethernet interface is configured for VLANs. This means the MTU for the Ethernet interfaces can remain at 1500 bytes for interfaces with VLAN enabled instead of 1496 bytes. (SAROS-297)
4. Support for the Python IO module has been added. (SAROS-235)
5. The Device Cloud configuration has been updated so that the server parameter defaults to "login.etherios.com". The Web GUI has also been updated so that the server parameter is configured with a drop down menu with gives the options "login,etherios.com" and "login.etherios.co.uk".  
Alternative servers can be configured via the CLI command ("cloud 0 server <server name>") although these will not be displayed on the Web GUI. (SAROS-323)
6. The firewall has been updated to support the address specifier "addrcfg-ovpn" which takes the address as configured in "ovpn x ipaddr". (SAROS-217)
7. The number of firewall rules supported by the VC7400 has been increased to 1000. (SAROS-298)
8. Support for mGRE/NHRP has been added to the WR44v2. (SAROS-300)
9. The mobile status Web GUI page and CLI have been updated to include the interface mode (NDIS or PPP) being used. (SAROS-238)
10. Support for a login banner has been added to SSH sessions. Previously it was only supported on Telnet sessions (SAROS-325)

11. The Web GUI login page has been updated with the correct legal name for Digi International Inc. (SAROS-291)
12. The DNS server has been updated so that DNS requests can be blocked on Ethernet, WAN and Tunnel interfaces to prevent it from responding to DNS requests from other networks.

The new parameters are

```
eth <n> block_dns <on|off>
ppp <n> block_dns <on|off>
tun <n> block_dns <on|off>
```

(SAROS-318)

## **BUG FIXES**

1. The Web GUI has been updated to prevent unauthenticated access to the device by devices sitting behind the same NAT device as a device that is already authenticated. (SAROS-264)
2. The Device Cloud SMS code has been changed from 32075 to 43444. (SAROS-319, SAROS-349)
3. The Java Applet that is used to display the device front panel and LEDs on the Web GUI home page has now been signed so that it is not blocked by Java. In order to run the applet, you may need to clear your browser and Java caches. (SAROS-322)
4. The Telit HE910 module power sequence has been altered on the WR41v2 platform to support the HE910-D variant of the module. (SAROS-270)
5. The Random Number Generator (RNG) has been updated to use the Fortuna CS RNG algorithm. (SAROS-271)
6. The Sierra Wireless MC7710 support has been updated to allow SMS messages to be sent when in NDIS mode. (SAROS-255)
7. The Serial Port Wizard has been updated so that it reliably runs on the WR21. (SAROS-282)
8. The Web GUI has been updated to correctly display the Telnet/SSH pre-login banner configuration. (SAROS-313)
9. The GPS support has been updated to enable the ZDA message which was disabled by default by the GPS device. (SAROS-258)
10. A fix for the part numbers being displayed in the Web GUI and the CLI which were incorrect for the Sierra Wireless MC7710 module as L8 was being displayed instead of L4. (SAROS-256)
11. The Web GUI has been updated to include to the Remote Management Access configuration on the PPP interfaces. (SAROS-310)
12. A fix for the Remote Management Access configuration on the PPP interfaces which was blocking traffic on VPN interfaces (SAROS-301)
13. A fix for the WR11 Web GUI where the signal status LED was not working for the Verizon variants. (SAROS-276)
14. The support for Preferred System selection for the Sierra Wireless MC7710 module has been fixed to be more reliable. (SAROS-244)
15. The Serial Wizard has been removed from the WR11 as there are no physical Serial ports on the device. (SAROS-284)
16. The IPsec support has been updated to fix a problem where the IPsec lifetime configuration was being used in the IKE negotiation. (SAROS-278)
17. The IPsec support has been updated so that the TransPort router will send a Delete message to remove old Security Associations (SAs) to its IPsec peer when re-keying. (SAROS-293)

18. The IPsec support has been updated so that when the TransPort device is acting as an Initiator, it will ensure the ID supplied by the remote peer matches the ID configured in the eroute's peerid parameter. (SAROS-327)
19. The Firewall has been updated so that recovery sockets source IP address will be taken from the addr-x specifier if present in the rule. If the rule performs source address translation using the addr-x keyword, the recovery source IP will use the interface's IP address, otherwise it will use the source IP address from the packet matching the rule. (SAROS-302)
20. A fix to the Cinterion MC75i EDGE module support where switching between SIM1 and SIM2 could cause a "Message Shortage" reboot. (SAROS-285)
21. The Device Cloud SMS override settings have been added to the Device Cloud configuration. (SAROS-280)
22. A fix for the Device Cloud "Execute a Command" functionality to limit the number of buffers used for the response message to 20 system buffers (approx. 30KB). This is because it is possible to cause a "Buffer Shortage" reboot when the response data is very large. (SAROS-229)
23. A fix for the Modbus support where the device could stop adding the CRC to the end of the Modbus RTU frames when a configuration change was made to the Serial port. (SAROS-251)
24. A fix for the Ethernet Hub mode configuration which could be unreliable when switching from Port Isolate mode into Hub mode. (SAROS-266)
25. A fix for the NDIS mode support so that the DAT and SERVICE LEDs are correctly supported. (SAROS-219)
26. Fixed a typo on the Device Cloud PPP configuration page where "consecutive" was spelt incorrectly. (SAROS-334)
27. Added the Web GUI Wi-Fi "Advanced" page for the WR41. (SAROS-330)
28. Support for 2 instances of MultiTx has been added to the DR64 platform. (SAROS-326)
29. The FTP server has been updated to accept a non RFC compliant "Passive mode OK" response to the "PASV" command. (SAROS-342)

## **5218 (Bootloader 7.03) – Jan 28, 2014 (WR21 only)**

### **ENHANCEMENTS**

There are no enhancements related to this release.

### **BUG FIXES**

1. A fix for the Telit HE910-D module which was not enumerating properly on the WR21 USB bus. (SAROS-296)

## **5217 (Bootloader 7.03) – Jan 10, 2014 (WR11 only)**

### **ENHANCEMENTS**

1. The default value for ppp 1 cdma\_backoff has been set to OFF for the Sprint and Verizon variants of the WR11.

The default values for modemcc 0 link\_retries, modemcc 0 link\_retries\_2 and modemcc 1 link\_retries have been set to 7200 for the Sprint and Verizon variants of the WR11 module. (SAROS-290)

## BUG FIXES

There are no bug fixes related to this release.

## 5215 (Bootloader 7.03) – Dec 31, 2013 (WR11 only)

### ENHANCEMENTS

1. An update has been made to the Sprint Provisioning Web GUI page to include three buttons
  - Update Profile
  - Update PRL
  - Update Firmware

(SAROS-281)

## BUG FIXES

1. A fix to the CDMA provisioning Python script that was sometimes failing as it could not open the serial port to the Cellular module. (SAROS-283)

## 5212 (Bootloader 7.03) – Dec 12, 2013

### ENHANCEMENTS

1. Support has been added for the new TransPort WR11 platform. (SAROS-232, SAROS-237, SAROS-245, SAROS-246)
2. Support for DMNR (Dynamic Mobile Network Routing) on the Verizon Wireless network has been added. (SAROS-69)
3. Support for the Triorail TRM-5 GSM-R cellular module has been added. (SAROS-77)
4. Support has been added to allow the Wi-Fi antennas to be swapped on the WR44v2. The new command is

```
wifi 0 antenna <0 | 1>
```

The Configuration > Network > Interfaces > Wi-Fi > Global Wi-Fi settings Web GUI page has also been updated. (SAROS-225)

5. The event logging has been enhanced so that obfuscated passwords and passwords changed using Device Cloud are no longer displayed in the Event Log. (SAROS-215)
6. A new IPsec option has been added to allow an IPsec SA to be removed if the IPsec tunnel is using an Ethernet interface and the Ethernet interface goes Out of Service (OOS). (SAROS-220)
7. The VRRP advertisement interval and master down delay timer have been made configurable.

The commands are

```
eth <n> vadvertint <secs>  
eth <n> vmastdownsecs <secs>
```

The default values are 1 second for the advertisement interval and 3 seconds for the master down delay timer. The Ethernet interface configuration Web GUI page has also been updated. (SAROS-213)

8. The number of IP hosts that GPS data can be forwarded to has been increased from 2 to 8. (SAROS-209)
9. Support has been added to use the GPS functionality of the Huawei EM680 (GOBI3000) module. The GPS init string should be configured with `$GPS_START` (e.g. `gps 0 init_str $GPS_START`). The `GPS asy_add` parameter should be set to 3. (SAROS-205)
10. The number of NAT entries supported on the WR44v2 has been increased to 4000. (SAROS-184)
11. The Wi-Fi connection show commands (`wificonn show`) has been updated to now display the connection mode and TX and RX rates. (SAROS-179)
12. Two new Python modules, `dcloudconnect` and `idigiconnect`, have been added to provide an interface to allow Python applications to connect, disconnect, and get the status of the Device Cloud connection. (SAROS-178)
13. The mobile modem status Web GUI page and command will now display the RSRP and RSRQ values for the Novatel E362 and E371 modules. (SAROS-177)
14. A new Python module, `owner`, has been added that allows a Python to determine who the owner of the script is.

```
import owner
owner, owner_add = owner.get_owner()
```

(SAROS-146)

15. Two new Wi-Fi parameters have been added to allow the EAP timeouts to be configured. The new parameters are

```
wifi 0 eapto <seconds>
wifi 0 eapidreqto <seconds>
```

Both default to 30 seconds which is what the timeouts were hardcoded to before the change. The new parameters have been added to the Configuration > Network > Interfaces > WiFi > WiFi Global settings web page under the Advanced menu. (SAROS-253)

16. The IKE/IKEv2 certificate authentication has been updated has been updated to check that the supplied ID is present in the certificate supplied by the remote peer if the certificate is used to perform authentication. (SAROS-169)

## BUG FIXES

1. A fix for the GOBI2000 module support which was broken in the 5202 firmware release. (SAROS-202)
2. A fix for Wi-Fi when configured with multiple nodes where the Inactivity timer for `wifinode 0` was being used for all nodes. (SAROS-122)
3. A fix for IP Passthrough support when NDIS mode is enabled which was preventing PPP from obtaining an IP address. (SAROS-224)

4. A fix for the WR11 and WR21 Ethernet where the link could fail to come up after a power on (SAROS-247)
5. A fix for Wi-Fi Hotspot mode where Wi-Fi clients were not being redirected to the Terms and Conditions page which would happen if the client sent an IPv6 packet first after connecting to the Wi-Fi access point. (SAROS-222)
6. A fix for Wi-Fi Dual Access Point mode which was broken in the 5203 firmware release when Dual Client mode was added. (SAROS-216)
7. A fix for the Mobile status web page where the data received statistic could be displayed as a negative number (SAROS-250)
8. A fix for the Device Cloud Factory Default command with the 'Revert' option which would fail with an Internal Error. (SAROS-248)
9. A fix for Device Cloud File Upload which could fail with an "Out of Memory" error. (SAROS-226)
10. A fix for the Wi-Fi PEAP support when running in client mode which had been broken in a previous release. (SAROS-230)
11. An update to prevent the device from being rebooted using the Device Discovery tool (using Digi ADDP) without a password check. (SAROS-214)
12. An update to the modemstat command to include the Network Technology status field which not included in the NDIS mode support. (SAROS-212)
13. A fix for copying the debug.txt file to a USB flash stick (using the "copy debug.txt u:" command) which would lock up the device. (SAROS-207)
14. A fix for the Web GUI where the browser tab would be incorrect after logging in. (SAROS-203)
15. A fix for the DR64 with a GOBI2000 module where it continually reboot on a 60 second boundary depending on the traffic on the cellular modules QMI interface. (SAROS-190)
16. A fix for the Privsplit command which would fail for 2048 key files. (SAROS-199)
17. A fix for the Sierra Wireless 7710 support where the module needed to be put into LTE mode before NDIS mode would work. The firmware will now automatically update the module when the cellular module counter is set to "SIERRA\_LTE". (SAROS-198).
18. An update to the "modemcc 0 ipprot" command which needs to default to "ip" for the Novatel E362 module. (SAROS-195)
19. A fix for the Wi-Fi WEP support when using it with the WR44v2 in client mode. (SAROS-194)
20. A fix for Ethernet logical interfaces that were not assigned to a physical Ethernet interface but the Web GUI was showing it assigned to the Eth 0 interface. (SAROS-188)
21. A fix for a problem with the Configuration > Network > Interface > Wi-Fi > Wi-Fi node Web GUI page when using the Chrome browser which would display both Access Point and Client options together regardless of the mode selected. (SAROS-187)
22. A fix for the Novatel LTE modules to correct the preferred domain to PS + CS. (SAROS-186)
23. An update to the feature licensing support to allow the options to take effect without requiring the user to save the configuration and reboot the device (SAROS-180)
24. A fix for WR21 RS485 Half Duplex (2 wire) mode where the device would communicate incorrectly. There is a new parameter "Enable level inverting" on the Configuration > Network > Interfaces > Serial > Advanced Web GUI page. The parameter can also be set on the CLI using the command

```
at\port=<n>
ats16=4
```

where <n> is the serial interface. (SAROS-173)

25. A fix for the wificonn command on the WR44v2 which would display the wrong mode when in client mode. (SAROS-171)
26. A fix in the PAD/TPAD support in which NUAIP settings wouldn't change the output interface to UDP. (SAROS-223)
27. An update to the IP Connections Web GUI page where the Device Cloud connection still displayed the owner as iDigi. (SAROS-227)

## **5203 (Bootloader 6.98) – Nov 6, 2013 (WR44v2 only)**

### **ENHANCEMENTS**

1. Support has been added to allow two Wi-Fi clients to simultaneously connected to different Access Points. Each client can have different security configuration (e.g. AES, TKIP) as well as different shared keys. Each Wi-Fi client should be bridged to a separate Ethernet interface and the IP address configuration (either static IP address or DHCP) of the Ethernet interface will be used. (SAROS-183)

### **BUG FIXES**

There are no bug fixes related to this release.

## **5202 (Bootloader 6.98) – Oct 4, 2013**

### **ENHANCEMENTS**

1. Support has been added to allow the TransPort devices to use the NDIS interface to the Cellular modules rather than the PPP interface. The NDIS interface provides a more efficient communication path for network data which should result in a higher cellular network performance. Support for the NDIS mode is enabled by default but can be disabled using the CLI command "ppp 1 ndis off" or through the "Request Packet data connection" checkbox on the PPP Web page. If the cellular module in the unit does not support NDIS, it should automatically drop back to PPP mode.

For devices using the Novatel E362 cellular module, the module needs to be running Novatel firmware version 4.08.02 in order to support NDIS mode. There is currently an issue with the E362 module when connecting to Verizon Wireless Networks in that IP protocol field in the module needs to be set to "ip" or "ipv4v6" depending on the location of the TransPort device. The IP protocol field can be configured using the CLI command "modemcc 0 ipprot <ip | ipv4v6>" or through the Advanced Mobile Interface configuration Web GUI page. The default value of this parameter is "ipv4v6". (SAROS-143)

2. Support has been added for Password Protected Private key files. When the files are downloaded to the device through the Web page, a password must be provided. The file is then decrypted and stored in the device's flash file system. (SAROS-161)



3. The status information reported for CDMA 450MHz Rev B networks has been updated to include carrier information and the reporting of the registration status has been corrected. (WR21-27, WR21-28)
4. Support has been added to allow the TransPort device to act as a SSH client and initiate SSH connections to a remote device. The CLI command to configure the SSH client mode is "sshcli". Alternatively, it can be configured through the Web GUI. (SAROS-70)
5. The WR41 now supports the configuration of full and half duplex modes on the Ethernet interfaces. The CLI command is "eth <n> fulldup <on|off>". (WR41-9)
6. Support had been added for the Python os.statvfs module. (SAROS-160)
7. The description on the IP Passthrough Web GUI page has been updated to be less confusing. (SAROS-148)
8. Support has been added to allow the user to select a preferred system for the Sierra Wireless MC7710 module through the "modemcc 0 psys" and "modemcc 0 psys\_2" commands. The valid options are
  - Automatic
  - GSM 2G Only
  - Automatic (3G preferred)
  - Automatic (2G preferred)
  - GSM and UMTS Only
  - LTE Only
  - GSM, UMTS, LTE
 (SAROS-109)

## BUG FIXES

1. As part of the NDIS support (see Enhancements), there has been a number of issues resolved related to the Novatel E362 module.
  - The unit would fail to switch from LTE to 3G mode when the LTE network is lost. It is now functional although you may experience a disconnection from the network of up to a minute. (SAROS-87, SAROS-124)
  - Permanent disconnect from the LTE network. (SAROS-89)
  - Random disconnects from the LTE network. (SAROS-174)

Please note that the Novatel E362 must be running firmware revision 4.04 in order to work in NDIS mode.

2. A fix the WR44 that would reboot when a Wi-Fi network scan is performed. (WR44-78)
3. A fix for a Wi-Fi Hotspot issue where the splashpage would fail to load. (WR44-72)
4. A fix for the WR21 with the Huawei EM680 (GOBI 3000) module where it would stop transmitting data over the cellular network. (SAROS-189)
5. An update to the IP passthrough support so that allows 10 ports to be entered as advertised. (SAROS-182)
6. A fix to the TCP socket timeout configuration parameter where valid values would be truncated. For example, a value of 300000 would be truncated to 37856. (SAROS-181)

7. An update the TransPort firmware to prevent users with Read-Only access from running the Save configuration command and File Deletion command which would result in "Cmd Error" events in the event log. (SAROS-166)
8. A fix for the Device Cloud Import configuration function which would fail on WR41 and WR44 platforms. (SAROS-165)
9. An update to the Novatel E362 support to prevent the user from selecting GSM or WCDMA for the preferred system which if selected would prevent the unit from connecting to the cellular network. (SAROS-164)
10. An update to the NTP support to resolve an issue where the NTP client was never achieving NTP nirvana (steady state) which resulted in the unit continually sending NTP traffic every 8 seconds. (SAROS-127)
11. A fix for a DNS server issue where it would stop working in a VRF configuration. (SAROS-112)

## **5191 (Bootloader 6.97) – Sept 3, 2013**

### **ENHANCEMENTS**

1. 802.11N support has been enabled on the WR44v2 platform. This can be enabled using the "wifi 0 chanmode" command or through the Configuration > Network > Interfaces > Wi-Fi > Global Wi-Fi Settings Web GUI page. (WR44-55)
2. Rogue Access Point scanning has been added to the WR41 and WR44 platforms. This allows the user to scan for Wi-Fi Access Points and to create an event if an unrecognised Access Point is discovered. (WR44-35)
3. The configuration of a static position is now supported. This information can be pushed up to Device Cloud to allow the position of the device to be mapped.

This can be configured on the Configuration > Network > Position Web GUI page. (SAROS-152)

4. Support for renewing certificate using SCEP has been added. (SAROS-134, SAROS-135)
5. The WR21 CPU temperature can now be monitored via the Event Log and Device Cloud. If the CPU temperature exceeds 105°C, an event will be generated from which an alarm can be sent. (SAROS-126)
6. The firewall functionality has been extended to include the following keywords
  - addr-route
  - mask-route
  - addr-tun
  - addr-ovpn

These are used to pull the IP address and mask from a static route, GRE or OpenVPN tunnel. (SAROS-115)

7. The DSL support on the WR44v2 has been upgraded to support the BT 21<sup>st</sup> Century network. (WR44-54)
8. Device Cloud support has been updated to support the optimized keepalives that reduce the amount of data been sent over the Device Cloud connection. (SAROS-129)

## BUG FIXES

1. A fix for VRRP where it could get stuck in the Initial state on the WR44 when configured in Hub mode. (WR44-71)
2. An issue with the Wi-Fi receiver sensitivity on the WR44v2 platform has been fixed (WR44-52)
3. A fix for the WR44v2 platform which could crash during bootup if characters are sent to the device on the serial interface. (WR44-67)
4. A fix for the WR44v2 platform when Wi-Fi client mode is enabled for an Ethernet interface, it could stop data being sent or received on a different Ethernet interface. (WR44-64)
5. A buffer leak on the WR21 has been fixed. This was causing the Ethernet interface to stop transmitting and receiving packets when the number of free buffers went below 192. Eventually the unit would reboot due to a buffer shortage.(WR21-32)
6. A fix for the Novatel LTE module, where it was failing to connect to the network with the given APN. The APN would have to be manually configured in the module in order for it to connect. (SAROS-138, SAROS-139)
7. A fix for the USB security where the flash key mechanism was not working correctly. (SAROS-157)
8. A fix for the Cellular interface which would not display roaming status when connected to the Bell LTE "Bilateral" network. (SAROS-151)
9. A fix for the SNTP client where it would send NTP requests to IP address 0.0.0.0 (SAROS-149)
10. A fix for the Python digi hw method "wr44\_gpio\_get\_value" which did not work on the WR44v2 platform. (WR44-70)
11. A fix for the SSL server support where AES128-SHA and AES256-SHA were being treated as the same in the cipher list. (SAROS-155)
12. A fix for the MultiTx when trying to set an invalid Socket ID parameter via the Web GUI. The invalid value would take effect. (SAROS-145)
13. The mobile status has been updated to not display an Ec/Io status when using the GOBI 3000 cellular module in EVDO mode as the module does not report the Ec/Io in EVDO mode. (SAROS-133)
14. A fix for the Serial wizard when attempting to configure a serial interface for TCP, UDP or TCPPerm modes. (SAROS-130)
15. An update to the Device Cloud support so that the socket idle timer is automatically adjusted to be a few seconds longer than the Device Cloud keepalive timeout. (SAROS-128)
16. A fix for the Device Cloud support where the static routes were not being displayed correctly (WR21-37)
17. A fix has been added for the "epcs write" command on the WR44v1 platform where it would sometimes report "verify failed at addr ..." even though the FPGA programming was successful. (WR44-68)
18. The Surelink wizard has been updated to remove some duplicated text. (SAROS-158)
19. The Sarian Monitor MIB has been updated so that it is successfully validated by SMIV2 syntax checkers. (SAROS-118)
20. A fix to IKEv2 where an incorrect ID for the HMAC-SHA1 authentication algorithm was being used. (SAROS-111)
21. A fix for the Python to allow scripts to bind to UDP port 0. (SAROS-147)

## **5184 (Bootloader 6.97) – July 26, 2013 - (WR41 only)**

### **ENHANCEMENTS**

1. Improvements have been made to the support for the ISDN-U / Bell-103 Modem daughtercard on the WR41 to improve the production test yield. (WR41-7)

### **BUG FIXES**

There are no bug fixes related to this release.

## **5181 (Bootloader 6.97) – June 26, 2013**

### **ENHANCEMENTS**

1. Support for the ISDN-U / Bell-103 Modem daughtercard has been added to the WR41v2. (WR41-7)

### **BUG FIXES**

There are no bug fixes related to this release.

## **5180 (Bootloader 6.97) – June 20, 2013**

### **ENHANCEMENTS**

1. A new Ethernet parameter has been added to configure a “settling” period after the interface is connected and before VRRP

The new parameter is “eth <n> vsettledly <secs>”. (SAROS-116)

2. A Ping response parameter has been added to the Ethernet interface. This defines the timeout period for Pings sent from the Ethernet interface.

The new parameter is “eth <n> pingresp <secs>”. (SAROS-105)

### **BUG FIXES**

1. The WR44 Wi-Fi code has been updated to improve the receive sensitivity (WR44-49)
2. An update to the firmware to report a “USB-WWAN unexpected disconnect” for the GOBI and Ericsson module on the WR44 and WR44RR platforms. (WR44-48)
3. The DSL firmware has been updated so that the WR44 will now connect to the BT 21<sup>st</sup> Century network. (WR44-28)
4. The DSL firmware has been updated to fix the issue where the router would not train up with the DSLAM with the VDSL2 Profile 17A. (SAROS-3)
5. A fix to the Ethernet auto-negotiation on the WR44v2 (WR44-45)
6. The number of GP sockets from 32 to 64 has been increased on the WR21 to support more SSH sessions. (WR21-25)
7. A fix to the DHCP client on the WR21 in Port Isolate mode when the other Ethernet interface is configured with an IP address on the same subnet as offered in a DHCP offer, results in the DHCP Offer being discarded. (WR21-24)

8. A fix for Telit HE910 module support on the WR21 where it could fail to power up (WR21-21)
9. The factory default functionality has been updated so that a cellular module is unlocked from a specific carrier network. (WR21-18)
10. The cellular network scan with the GOBI 3000 module has been fixed. (WR21-15)
11. The PRL update on the Sprint network with the GOBI 3000 module has been fixed. (WR21-2, SAROS-106)
12. A fix to display the correct Wi-Fi channel on the Web GUI status page when the router is configured as a Wi-Fi client and connected to an Access Point. (SAROS-125)
13. A fix to the Mobile advanced settings page on the Web GUI to ensure a scroll bar is displayed when using the IE10 browser. (SAROS-123)
14. A fix to the Device Cloud support so that during an import configuration operation, the router will ignore any RCI groups and parameters that do not exist in the current configuration. (SAROS-117)
15. A fix for IKEv2 when the negotiation would fail due to the router sending an incorrect ID for the authentication algorithm. The router was sending the value 3 when value 2 is correct for HMAC-SHA1. (SAROS-111)
16. An update to the firewall code had been made to the ping recovery so that if the original ping monitored by the firewall is one of the routers IP addresses, then this is remembered and used in the recovery. (SAROS-104)
17. The Serial Wizard has been updated to a fix a problem with the MultiTx profile. (SAROS-103)
18. Added support for a maximum packet size from SSL to fix an issue during OpenVPN negotiations when client sends encapsulated packets from SSL that are too large for the server to deal with. OpenVPN sets this value to 1450 bytes (not configurable) which results in an encapsulated packet size of 1454 bytes, which should be small enough for servers to deal with. (SAROS-97)
19. An update to the Wi-Fi code to fix a problem where the router could reset when disconnecting clients using the Web GUI page. (SAROS-90)
20. An update to the Wi-Fi code so that Wi-Fi clients are cleanly disconnected when the Access Point mode is disabled or a configuration change is made. (SAROS-82)
21. The "cmd 0 ent\_name" and "cmd 0 ent\_nb" parameters now default to "Digi" and "16378" respectively. (SAROS-49)
22. A fix for the Mobile settings page on the Web GUI to correct the Confirm Password setting when using the Chrome browser. (SAROS-45)

## **5176 (Bootloader 6.97) – May 10, 2013**

### **ENHANCEMENTS**

1. Support for has been added for CDMA 450MHz Rev B. The TransPort devices use the Cellient MPN200 cellular module. (SAROS-76)
2. Support for the Compex WLE200NX Wi-Fi module has been added to the WR44v2. (WR44-26)
3. The iDigi Device Cloud has been rebranded to Device Cloud by Etherios. (SAROS-88, SAROS-96, SAROS-100)
4. A new wizard has been added to simplify the configuration of Serial interfaces. (SAROS-7)

5. The TransPort device will now send its GPS position to Device Cloud by Etherios. This allows the position of the TransPort device to be displayed on a map by Device Cloud. This functionality is dependent on the TransPort device having the necessary GPS hardware. (SAROS-47)
6. Support for NTP has been added to the TransPort WR21 and WR41. (SAROS-75)
7. The APN being used by the Novatel E362 and E371 modules is now reported in the Mobile Status Web GUI page and with the modemstat command. (SAROS-86)
8. A source port can be used to allow remote hosts to send data back to the TransPort device when using UDP. (SAROS-59)
9. The Python quiet mode has been added. This prevents the TransPort device from sending CR/LF/OK when quiet mode is used. To use quiet mode, the `-q` flag should be used with the Python command. E.g. `python -q test.py` (SAROS-71)
10. The WEB GUI File directory page has been enhanced to allow for easier file deletion. (SAROS-6)

#### **BUG FIXES**

1. A fix to the Ericsson F5521 cellular module support to resolve an issue where the module appears to lock up. The issue was due to a buffer shortage in the TransPort firmware. (WR44-24)
2. An update to the PPPoE jumbo frame support has been made to resolve the TransPort device was not responding to the MRU verification due to the echo response being too long. (SAROS-19)
3. An update to the TACACS+ accounting messages so that the TransPort device will work with a Cisco ACS device. (SAROS-38)
4. A fix for TransPort devices using the GOBI 3000 cellular module. If the cellular module was locked to a particular network, the "Unlock Network" button on the Web GUI failed. (WR21-16)
5. The Quick Start Wizard and GOBI Wizard has been updated to auto-detect the PPP instance being used for the Mobile interface rather than assuming it is PPP 1. (WR44-37)
6. A fix to the Mobile web page so that the correct APN is displayed when the Novatel E362/371 cellular module is being used. (SAROS-44)
7. A fix has been added to allow a TransPort device to import a configuration from Device Cloud when it is fitted with the Novatel E362/E371 LTE module. (SAROS-52)
8. A fix to the Ethernet status Web page to display the correct MAC address. (SAROS-53)
9. A fix to the CLI to display the "dhcp" and "dhcpcli" commands when "?" is entered. (SAROS-54)
10. An update to the Web GUI to remove the configuration of the Device Cloud SMS when the TransPort device is fitted with the Novatel E362/E371 LTE modules which do not support SMS. (SAROS-55)
11. A fix to the DR64 which would run out of memory when configured for 200 IPsec tunnels. (SAROS-56)
12. A fix to the IPsec tunnel ifvrrpmaster functionality to support multiple Ethernet interfaces being configured to operate in VRRP mode. (SAROS-57)

13. A fix to the Device Cloud file transfer support where attempts to upload a file to the TransPort device would fail. (SAROS-61)
14. A fix to the Device Cloud file transfer support via SCI requests when attempting to upload a file with a size of at least 10,000 bytes. (SAROS-81)
15. A fix to the Python support when an User file is created within a Python script, it would be present in the root directory rather than the user directory. (SAROS-62)
16. A fix to the power up event logging where the wrong reason for a reboot could be logged. For example, it will give "reboot command" instead of "power fail". (SAROS-63)
17. A fix for the IPsec tunnel requireno functionality which was broken in the 5154 release. (SAROS-64)
18. A fix to SNMP when using the TransPort Enterprise MIB and attempting to set some configuration. The wrong OID was being set. (SAROS-73)
19. A fix for Syslog where syslog messages could be lost at power up. The fix will buffer the messages for 5 seconds before sending them. (SAROS-85)
20. A fix to SNMP where OIDs that contained a sub-OID of greater than 255 would fail. (SAROS-93)
21. A fix for Device Cloud support where the initial fetch of the device descriptors would fail when the TransPort device connects. (SAROS-94, SAROS-98)
22. A fix for the WR21 where a X.509 certificate could go invalid if the clock does not have a valid time. This can occur after the WR21 has been powered down for a while and the clock would revert to year 2000. (WR21-1)
23. An update to the WR21 Power Management feature to ensure the "pwrctrl 0 cpuspeed" command will only accept 0 or 1. (WR21-11)
24. A fix for the Cellular support where the SIM PIN code would not be reset back to factory default with the rest of the configuration. (WR21-17)
25. A fix on the WR21 where the WWAN LED did not work with the Huawei EM820 cellular module. (WR21-20)
26. A fix for the WR44v2 DSL where the DSL LED would not light up when unit is trained up in VDSL mode. (WR44-40)
27. An update to the WR44v2 to remove G.lite mode from the configuration as it is not supported the WR44v2 chipset. (WR44-41)
28. A fix in the USB driver to prevent buffers being allocated across a 4KB boundary which could cause a device to fail to enumerate on the USB bus. (SAROS-108)

## **5172 (Bootloader 6.91) – April 16, 2013 (WR21 only)**

### **ENHANCEMENTS**

1. This is a modification to the 5171 change. The thresholds have been changed to
  - 1 LED >= -109 dBm
  - 2 LEDs >= -96 dBm
  - 3 LEDs >= -80 dBm

2. This is a modification to the 5171 change, when the Huawei EM680 (GOBI 3000) module unexpectedly disconnected from the USB bus, the event log message is now "Poor WWAN signal quality".

#### **BUG FIXES**

There are no bug fixes related to this release.

### **5171 (Bootloader 6.91) – April 11, 2013 (WR21 only)**

#### **ENHANCEMENTS**

1. When using the Huawei EM680 (GOBI 3000) module, the signal strength LEDs can now be configured to indicate the signal strength based on the RSSI and EC/IO rather than just the RSSI. The thresholds are
  - 1 LED >= -109 dBm
  - 2 LEDs >= -90 dBm
  - 3 LEDs >= -80 dBm

To enable this functionality, the CLI command is "modemcc 0 ss\_ecio 1". The default configuration is for the signal strength LEDs to indicate the RSSI only.

2. When the Huawei EM680 (GOBI 3000) module unexpectedly disconnected from the USB bus, the event log message is now "WWAN sign quality error" instead of "USB-2 device 2 disconnected".

#### **BUG FIXES**

There are no bug fixes related to this release.

### **5170 (Bootloader 6.91) – March 25, 2013 (WR21 only)**

#### **ENHANCEMENTS**

1. 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.



## 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 are 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 were 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 autcmd 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 "sscli 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 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 to 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 routes 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 is 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 rcihhttp <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 where 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 [tech.support@digicom.com](mailto:tech.support@digicom.com)**