B+B SmartWorx®

+ CONEL CELLULAR ROUTERS

List of Firmware 5.1.0 Changes

Compared to Firmware 5.0.0

ENABLING CONNECTED INTELLIGENCE

This document was issued on the 16th of March 2015

All Routers

Added parameter "Protocol/Port" to IPsec tunnel configuration

Parameter Remote *Protocol/Port* and *Local Protocol/Port* can be set to specify the protocol/port of the opposite side of the tunnel. The format is <protocol number>/<port number>.

Added parameter "Inactivity Timeout" and "Reject Connection" to expansion port configuration and USB configuration

You may set up the timeout for the expansion port TCP/UDP connection. If there is no traffic during the specified time period the connection is terminated. If "Reject Connection" is enabled, the first connection is allowed. Additional connections are denied.

Added locking mechanism to avoid multiple starts of firmware updates

When updating the firmware, a lock file is created to prevent multiple instances of the firmware from running at the same time.

Added mechanism to recover from the loss of configuration files

When the configuration files are missing (deleted accidentally, crashed, etc.), the factory default configuration files will be used.

Fixed 5-bits and 6-bits mode on serial line

There was a bug at the data bits option on the serial line (port): 5-bits and 6-bits mode performed as 8-bits mode. This is fixed now and the those options are working properly.

All Routers Except for ER75i and UR5

Added support of SHA256 and SHA512 in IPsec tunnels

It is now possible to use the HMAC-SHA-256 and HMAC-SHA-512 cryptographic algorithms for integrity protection and authenticity in IPsec tunnels with Spectre Routers.

Added support of IPsec BEET mode into kernel

Bound End-to-End Tunnel (BEET) mode for IPsec ESP provides limited tunnel mode semantics leading to header length savings. The mode makes it easier to work with NATS, mobility and multi-homing.

Upgraded OpenSSL to version 1.0.2

OpenSSL upgraded because of the security reason: CVE threat reported for the previous versions (related to the "FREAK" issue).

All v2 and v3 Routers

Added selective flush of conntrack table after switching backup route

There was a problem with invalid records remaining in the conntrack table for backup routes when switching to another cellular module. It is fixed now. The invalid records are deleted when switching to different cellular module and the backup routes system is working properly with two cellular modules.

Upgraded glibc to version 2.21

Glibc – the basic Unix-like operating system C library upgraded to the latest stable version. Glibc defines the system calls and other basic facilities such as open, malloc, printf, exit, etc.

All Cellular Routers

All routers except for XR5i, XR5i v2, Spectre RT, XR5i v2E, Spectre v3 ERT

Added support of reading CSQ via SNMP protocol

It is now possible to read relative signal quality via SNMP protocol.

All Cellular Routers Except for CDMA

All routers except for XR5i, XR5i v2, CR10 v2, Spectre RT, XR5i v2E, Spectre v3 CDMA, Spectre v3 ERT

Added support of reading ICCID via SNMP protocol

It is now possible to read the Integrated Circuit Card Identifier (ICCID) number of SIM card via SNMP protocol. This is the international and unique identifier of a SIM card.

All v2 Routers

Added library libstdc++.so

The GNU standard C++ library added to all v2 routers.

Upgrade iproute2 to version 3.5.0

Iproute2 – the collection of utilities for controlling TCP / IP networking and for traffic control in Linux – has been upgraded to version 3.5.0.

All v2 Bivias Routers

Bivias v2HC, Bivias v2LC, Bivias v2LL, Bivias v2LH, Bivias v2HH

Suppressed switching off the first module if GPS is active

There was an issue in communication with memory (incorrect DMA channel ID). It is fixed now.

Some LTE Routers

LR77 v2, LR77 v2L, Spectre v3 LTE

Added support of firmware 2.011 in Cinterion PLS8

It is possible to use the 2.011 firmware in Cinterion PLS8 cellular module in the routers with the 5.1.0 firmware.

Some LTE v2 Routers

LR77 v2, Bivias v2HC, Bivias v2LC, Bivias v2LL, Bivias v2LH

Added support of Cellient MPL200 modules

It is possible to use these routers with Cellient MPL200 cellular modules. This was done for the LTE 450 MHz network in Scandinavia.

All v3 Routers

Fixed issue with flushing multicast entries

There was a problem with Ethernet ports behavior related to multicast. It is fixed now.

Enabled configuration of channel bandwidth in WiFi STA mode

This fixed the high throughput mode for 802.11n at WiFi station mode. The parameter BW 40 MHz in the WiFi configuration enables wider bandwith (2 channels) and thus higher transfer speed. The parameter has to be enabled in both WiFi AP mode and WiFI STA mode.

Removed support of VRRP protocol

Due to hardware issues with the processor (a bug caused by the hardware manufacturer) the VRRP protocol is not supported in v3 routers.

UR5i and XR5i Routers

Added command "ip" which was accidentally dropped in the last version

The *ip* command used to configure a network interface or show the current configuration was returned.

Spectre LTE-VZ Only

Removed automatic APN detection based on SIM card IMSI code

The automatic APN "vzwinternet" was used when no APN was filled out. This is removed now due to problems with APN in the private networks.

Spectre 3G Only

Fixed bug that caused disconnecting of Gobi 3000 module after 10 minutes

The problem with disconnecting the cellular module Gobi 3000 was fixed.