

# Robustel GoRugged R2000 Release Notes

## NOTES

This release note will show details of the latest upgraded firmware compared with the previous one. Firmware upgrade information about all versions is accumulated in this release note, so you can check history here.

This release note is applicable to R2000 serial products, including R2000, R2000 Lite and R2000 Dual.

## VERSION V3.0.9

Release Date: Dec. 7, 2018

Version Inherited: V3.0.8

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Remove the "Encrypt Secret Data" option in the page profile and encrypt the password in the export profile by default.
2	Added mandatory ppp dialing options (ME909 series, MU709 series, MU609 series, ME3630, EC25)
3	Remove hardware flow control options from the serial port application
4	Added support for iptables netmap configuration in Firewall custom rules
5	GPS and serial data forwarding support domain name
6	R3000lite adds flash write verification to avoid possible flash write protection problems
7	Firewall newly adds controls the VPN NAT traversal enable button (using this function, the lan port cannot be configured as a class A address)
8	Added support for Quectel BG96 module
9	When the OpenVpn client's certificate does not have a password, the 'Private Key Password' configuration is left blank. You can enter no characters.

## BUG FIXED

Bug#	Descriptions
1	Fixed the network registration problem of HL7588

2	Fixed the registration network problems caused by EHS6 module dual card switch link
3	Fixed the verification problem of the aaa authenticate local account
4	Fixed the problem where the ipsec gateway could not run as a server when it was empty or 0.0.0.0.
5	Fixed the defect of clish command line to view the information of user management
6	Fixed the problem of snmp cannot get the board type oid
7	Fixed the problem where PPPoE connections could not be established due to special characters in the username

## KNOWN BUGS & LIMITATIONS

Bug#	Descriptions
1	App which cannot be compatible with V2.X.X, only can use App above V3.0.0
2	The local subnet of the IPSec tunnel is set to 0.0.0.0/0. The subnets on both ends of the IPSec tunnel cannot communicate.

## OTHERS

Index#	Descriptions
1	UBOOT version: above 3.0.0
2	Platform version: Robustlink V2.0.3and above
3	To ensure that the R2000ent/dual upgrade is successful, you can close the application that uses large memory before upgrading, and then reboot (e.g.: wifi, dmvpn, dynamic, route, etc.).

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## VERSION V3.0.8

Release Date: Sept. 29, 2018

Version Inherited: V3.0.7

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Added the matching to APN of Tele2 operator in automatic APN mode
2	Added the special handling of the information sent by the HL7539 module for receiving Japanese phone numbers.
3	Remove the RobustLink option from Serial Application Data Forwarding.
4	Optimized help message on the WEB page.
5	Added EC25 module support for Band4 band.

## BUG FIXED

Bug#	Descriptions
1	Fixed the communication exception in in EC25 voice module.
2	Fixed the bug that multiple wlan ports will appears when the web page adds static router under the WiFi client mode.
3	Fixed the problem that the storage run out caused by the continuous connection error when the mode of Serial Application Data Forwarding. is tcp server.
4	Fixed the problem that the configuration parity is invalid in the serial port application
5	Fix the problem that the R2000 failed to send a fax.
6	Fixed an issue where pinging could not be performed when GRE VPN was established.
7	Fixed the problem that the modem process restarts when the long message needs to be received in segments.
8	Fixed the problem that TFTP failed to upload files continuously.

## KNOWN BUGS & LIMITATIONS

Bug#	Descriptions
1	App which cannot be compatible with V2.X.X, only can use App above V3.0.0

## OTHERS

Index#	Descriptions
1	UBOOT version: above 3.0.0

2	Platform version: Robustlink V2.0.3and above
3	To ensure that the R2000ent/dual upgrade is successful, you can close the application that uses large memory before upgrading, and then reboot (e.g.: wifi, dmvpn, dynamic, route, etc.).

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## VERSION V3.0.7

Release Date: Jul. 10, 2018

Version Inherited: V3.0.6

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Added EC25-E module voice function to R2000_ENT device on the basis of version3.0.6.
2	Revised the function that the call record can be recorded in Telephone only after the phone in EC25 module voice function was connected.

## BUG FIXED

Bug#	Descriptions
N/A	

## KNOWN BUGS & LIMITATIONS

Bug#	Descriptions
1	App which cannot be compatible with V2.X.X, only can use App above V3.0.0

## OTHERS

Index#	Descriptions
1	UBOOT version: above 3.0.0
2	Platform version: Robustlink V2.0.3and above

## VERSION V3.0.6

Release Date: Mar. 5, 2018

Version Inherited: V3.0.5

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	IPSec adds aes192 encryption algorithm option.
2	Increase the number of VPN (IPSec/GRE/OpenVPN) tunnels to a maximum of 6.
3	Firewall Remote IP Forwarding opens by default.
4	Link pipe increase support mask is 255.255.255.255 (required module cooperation; only supports Huawei module temporarily.)
5	USB upgrades automatically, supports the upgrade of configuration files with different file names, and increases the firmware version before upgrade. If the version number is the same, it will not be upgraded.
6	Automatically restart the device when memory is exhausted.
7	Improve the handling of cellular extra AT command transmission, support the sending of lowercase commands before registration, send the uppercase commands after registration, and fix the commands that contain at cannot be handled properly.
8	Serial port transparent transmission accepts new client access in TCP Server mode.
9	EC25 module adds function of supporting AT over Telnet.
10	The AT Command debugging time-out time is increased to 3 minutes, and supports AT+COPS=? Command query.
11	U disk upgrades firmware compatible with bin format and ruf format firmware

## BUG FIXED

Bug#	Descriptions
1	Fixed the problem that the time cannot be synchronized when the repair system time is later than the actual time
2	Perfect LP41 module: fixed the problem that parts of modules unable to start.
3	Fixed the problem that the default state of the RS232 serial port flow control is incorrect.

4	Fixed the problem of abnormal SMS receiving after dialing the EHS6 module.
5	Fixed the problem that HL serial modules sometimes unable to read SIM card.

## KNOWN BUGS & LIMITATIONS

Bug#	Descriptions
1	Not compatible with App version V2.X.X, only V3.0.0 and above apps.

## OTHERS

Index#	Descriptions
1	UBOOT version: M1200-uboot-1.0.1.bin
2	Platform version: Robustlink V2.0.3and above

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## VERSION V3.0.5

Release Date: Dec 26, 2017

Version Inherited: V3.0.4

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Extended the max configurable entry of firewall configuration to 50, including Whitelist Rules, Filtering Rules, Port Mapping and Custom Rules.
2	Updated dnsmasq to version 2.78, supporting min-cache-ttl configuration options. Modules which may be affected are DNS agent and DHCP service.
3	Compatible with UC20 module; support dial up, SMS, frequency selection of locking network, and AT over Telnet features.
4	Added band, RSRP and RSRQ display of Cellular. This new feature is only applied to HUAWEI serial modules, Sierra HL7549/HL7539 and ME3630 modules. (support Band status only)
5	User management parameters can be exported. The data can be found in configuration parameter XML exported.
6	Private parameters are enciphered by default when export parameters.
7	When serial data forwarding is as TCP server, support 3 client ends to connect

	with it simultaneously. When the fourth is to connect, the daily record will prompt max connections is reached. So you need to disconnect the first 3 connections.
8	HE910D supports AT over Telnet feature.
9	Supported new character “!” on the user management page.
10	Supported new character “!” in the password of RobustLink App.

## BUG FIXED

Bug#	Descriptions
1	Fixed the bug that CLI couldn't configure filtering rule of firewall.
2	Fixed the bug that R2000 Dual couldn't support LGA interface module.
3	Fixed the bug that Sierra HL7xxx series failed to dial up in some countries.
4	Support display of SSID name with blanks in WLAN scanning result.
5	Fixed the bug that DHCP sometimes failed to gain IP when fix MC7544 module.
6	Fixed the bug that interval would not increase when RobustLink App was reconnected.

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## VERSION V3.0.4

Release Date: Nov 13, 2017

Version Inherited: V3.0.3

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Support emergency call and AT command after registration failure.
2	Fixed the bug that EHS6 module failed to dial via private network APN.
3	Optimized hot plug process to solve EHS6's occasional dial-up failure.

## BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V3.0.3

Release Date: Oct. 19, 2017

Version Inherited: V3.0.2

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Fixed the bug that ME3630 module couldn't lock the network.
2	Optimized module's initial process to solve slow dialup problem of some modules.
3	Optimized the dialup process of HL7XXX family modules.
4	Compatible with MC7455 module.
5	Added whitelist in the firewall.
6	Fixed the locking frequency problem of EHS6.
7	After registration fails, AT command can be sent.
8	Fixed WiFi WPA2 KRACK bug.
9	Fixed dislocation of Chrome browser's navigation bar.
10	Integrated Json-c into ROS system.

## BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V3.0.2

Release Date: Sept. 14, 2017

Version Inherited: V3.0.1

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Added ROS patch compatible with R2000 Dual coprocessor firmware, fixing the problem that 3.0 firmware could be upgraded on R2000 Dual 2.0.x.
2	Added ovpn_cert_get command for CLI, which enables Openvpn certificate to be downloaded by URL. URL supports FTP, HTTP and HTTPS.
3	Optimized Openvpn and IPSec's x509 certificate import method, thus, users do not need to modify the name of the certificate before importing.
4	Optimized DHCP request policy, improving its speed to get IP address.
5	Fixed the problem that the user name of Super user could not be changed.
6	Added custom contents DI alarm triggered and DI alarm recovered.
7	The help that PPPoE's MTU automatically minus 8 is displayed.
8	Authentication is required when import new configuration file.
9	Improved TAP function of Openvpn, adding the bridge feature between Tap and lan 0. Optimize WAN Up/Down event handing to avoid frequent up/down occurrence when the network is disconnected.
10	Added custom firewall rules, close option of console and firewall status display.
11	Open root permission.
12	Optimized ELS61-E dial-up, changing mode from PPP to DHCP.
13	Serial port supports Modbus ASCII gateway.
14	Optimized packet listening mechanism to fix the problem that CPU was largely occupied in the rdd process when throughput was high.
15	Upgraded IPSec open source components to the latest version and supported IKEv2 authentication method.
16	Upgraded encryption algorithm of user name's password to SHA512.

## BUG FIXED

Bug#	Descriptions
1	Special character "-" was invalid in the password set for user name.
2	Emergency call was unavailable when there was no SIM card in R2000Ent.

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## VERSION V3.0.1

Release Date: July 19, 2017

Version Inherited: V3.0.0

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Add the function of supporting IPSec IKEv2.

## BUG FIXED

Bug#	Descriptions

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## VERSION V3.0.0

Release Date: June 9, 2017

Version Inherited: V2.0.12

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	C library replacement. Replace uClibc for glibc.
2	Compatible with such new modules as EC25, ME3630, HL7539, HL7549, HL7588, HL8548, EHS6, ELS61-E.
3	Improve WiFi functions, adding WPA-enterprise authentication method in the authentication method.
4	Develop DDNS from an independent App to a function of firmware.
5	Support custom default parameter function, with any running parameters copied as default parameters.
6	Support parameter rollback function.
7	Support private data encryption for profile newly created, enabling profile exporting XML to encipher private data.
8	All special characters are supported to be set into router.
9	Add memory usage status on Home page.
10	Support TLS encryption transfer for Email notification.
11	PING detection and dual-card backup is enabled by default.

12	Support automatic upgrade via USB.
13	Optimize link switch strategy. Even if both of the two links are unavailable, switch will continue to detect whether the link recovers.
14	Optimize link control strategy. Link switch is prior to link redial in all backup modes.
15	Delete modem reboot parameter and set as enabled fixedly.
16	Add new applications: Transaslink and TtansasVPN.
17	Support telephone function with call recording (R2000 Ent) .
18	Support DI function (R2000 Dual).
19	Update Goahead Web-Server version to 3.6.3

## BUG FIXED

Bug#	Descriptions
1059	RVPN app connects to RVPN platform. When the current RVPN platform is uninstalled with a new one installed, the device can't automatically connect. The device can't connect after changing platform port, either.
1084	When AP is disabled, WLAN disconnects. The status data in the Interface->WLAN are not cleaned up.
1077	Enable flow statistics of the link. Data among Link Manager->status->WWAN Data Usage Statistics are displayed. They can't be cleaned up after resetting factory data.
	Deal with the problem that the coprocessor can' be upgraded via Web.

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## VERSION V2.0.12

Release Date: May 12, 2017

Version Inherited: V2.0.11

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Add TCP MSS support in Linux Kernel

## BUG FIXED

Bug#	Descriptions
1	Optimize MTU configuration of PPPoE, solving PPPoE dialup

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## VERSION V2.0.11

Release Date: Feb.16, 2017

Version Inherited: V2.0.9

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
1	Compatible with new modules ME906s
2	Compatible with new modules ME3620
3	Fix HL7539's dialup problem in Japan
4	Solve problems of LP41 dialup failure sometimes

## BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V2.0.9

Release Date: Feb. 16, 2017

Version Inherited: V2.0.8

## IMPROVEMENT & NEW FEATURES

Ref#	Descriptions
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1	Support to configure APN before registration, and solve problems related to failure of certain 4G network registration.
2	Improve the process of PING detection and control

## BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V2.0.8

Release Date: 24<sup>th</sup> Nov. 2016

Version Inherited: V2.0.7

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Compatible with EC25 module
YFXQD161229-01	Support input special characters parameter in APN.

## BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V2.0.7

Release Date: 24<sup>th</sup> Nov. 2016

Version Inherited: V2.0.6

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Add R2000 Lite supported
2	Compatible with HL7549 module
3	Modify the RobustVPN feature so that the router's system will be restarted when it was the first time to connect to RobustVPN platform or after obtaining the new subnet information from RobustVPN platform

## BUG FIXED

Bug#	Descriptions
933	Fix the problem that the user LED light is off when set the User LED Type as NET in R2000SM
935	Fix the problem that it occurred multi WWAN1 and WWAN2 options in the interface of Static Route
944	Fix the problem that when connect R2000 Lite with HL7549 module to a PC directly via the LAN port and enable the IP Passthrough, but the PC fail to access the internet in this case.
1	Fix problem that IP Passthrough feature is not available of the LP41 module
2	Fix an issue of IP Passthrough so that the router will let the device below to try to obtain the IP address again after redialing

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## VERSION V2.0.6

Release Date: 2<sup>nd</sup> Nov. 2016

Version Inherited: V2.0.5

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Fix the V2.0.5 firmware upgrade failed problem
2	Fix the ICMP detecting problem of IP Passthrough
3	Fix the problem with the link disconnected after IP Passthrough redialing
4	Fix the problem with ICMP detecting failure when router switched back to primary

	link under warm backup mode
5	NAT control can be used in WWAN
6	Improve the modem initialization procedure, adapt to some SIM cards which don't support the CS domain

## BUG FIXED

Bug#	Descriptions
927	Fix the V2.0.5 firmware upgrade failed problem
1	Fix the problem with router cannot connect to RobustVPN when the platform configuration file lacks of remote parameter.

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## VERSION V2.0.5

Release Date: 24<sup>th</sup> Oct. 2016

Version Inherited: V2.0.4

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
YFXQD161018-01	Set "WWAN1" as primary link and "WWAN2" as backup link. When WWAN1 is unavailable and had switched to WWAN2, router will try to switch back to WWAN1 after a specify interval.

## BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V2.0.4

Release Date: 13<sup>th</sup> Oct. 2016

Version Inherited: V2.0.3

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Support FTP feature of active mode
2	Improve the LP41 module dial up process, and support customize APN

## BUG FIXED

Bug#	Descriptions
1	Fix problems with MC7430 disconnected immediately after dialing
2	Fixed problem with Wi-Fi failed to enable occasionally when using the MC7430 module
3	Fix problems with LP41 module querying abnormal operators information

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## VERSION V2.0.3

Release Date: 13<sup>th</sup> Oct. 2016

Version Inherited: V2.0.3

### ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
YFXQD161008-01	Enable FTP option of Kernel conntrack

### BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V2.0.2

Release Date: 22<sup>nd</sup> Aug. 2016

Version Inherited: V2.0.0

### ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
N/A	

### BUG FIXED

Bug#	Descriptions
1	Fix the bug of failing to switch SIM card under single module
2	Fix the bug that SN code and MAC address couldn't be read immediately after

	importing configuration file in RTest
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## VERSION V2.0.1

Release Date: 17<sup>th</sup> Aug. 2016

Version Inherited: V2.0.0

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Add IPtracker feature
2	Support upload syslog to robustlink
3	Add remote IP option in Port Mapping, and support access via VPN tunnel
4	Support switch back to the available primary link immediately under warm backup mode
5	NAT feature in Link management can be closed optionally
6	Login Protect feature can be closed by uploading configuration file
7	Fix the bug that SN code and MAC couldn't be read when importing configuration file in RTest
8	Compatible with new modules: MC7430、 ME3620、 ME3630
9	Add MAC/IP binding option in DHCP

## BUG FIXED

Bug#	Descriptions
1	Fix the bug that NAT feature in the second link is not opened under load balancing backup mode
2	Fix the authentication problem of IPsec certificate

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## VERSION V2.0.0

Release Date: 12<sup>th</sup> Jun. 2016

Version Inherited: V1.2.1 (R2000S)

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Support double module, add load balancing backup mode
2	Add SIM card PIN unlocking feature
3	Add new APPs: l2tp, pptp, dmvpn and Captive_portal
4	Add 1 WAN and 4 LAN multi Ethernet ports configuration, and the LAN port support POE feature
5	Each of DDNS, QoS, VRRP feature was modified to as a separate APP
6	Add Event output via Email feature
7	Add OEM package importing feature
8	Improve Rtest process, support auxiliary devices trigger test
9	Eth0 is used as WAN, Wi-Fi mode and other parameters combine with the common parameters, no need reboot to make configuration change effective
10	Improve AT over Telnet feature, parameter configuration position was moved to Cellular page

## BUG FIXED

Bug#	Descriptions
1	When there is blank in the mobile network operator name, the analyze of cellular network access technology is not correct
2	Diagnose information couldn't be generated when saving Syslog to NVM
3	The MTU uploaded to Robustlink is incorrect
4	The static route of OpenVPN tunnel is inactive occasionally

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## VERSION V1.2.1

Release Date: 25<sup>th</sup> Apr. 2016

Version Inherited: V1.2.0

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Modify the "Emergency Reboot" of Link Manager default to enable

## BUG FIXED

Bug#	Descriptions
1	Fix the bug that some kinds of cellular module using SIM2 fail to complete the test in automatic production test feature

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## VERSION V1.2.0

Release Date: 7<sup>th</sup> Dec. 2015

Version Inherited: V1.1.0

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
1	Support Wi-Fi, improve the related parameters of Link Manager and LAN
2	Support dual SIM card links mutual backup, support IPSec, support OpenVPN

## BUG FIXED

Bug#	Descriptions
N/A	

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## VERSION V1.1.0

Release Date: 1<sup>st</sup> Sept. 2015

Version Inherited: V1.0.0

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
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1	Each of WAN, GRE, SNMP, Robustlink was modified as a separate App
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## BUG FIXED

Bug#	Descriptions
1	Traffic statistic

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## VERSION V1.0.0

Release Date: 10<sup>th</sup> Feb. 2015

## ENHANCEMENT & NEW FEATURES

Ref#	Descriptions
N/A	

## BUG FIXED

Bug#	Descriptions
1	Traffic statistic