



## **RG-RSR20-X-28 Series Router Release Notes, RGOS 10.4 (3b84), Release(219972)**

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Release Date: Jan. 29, 2019

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## Basic Information

Table 1 lists the basic information of the current release.

**Table 1 Basic Information of the Current Release**

Current Release	RGOS 10.4(3b84),Release(219972)
Previous Release	RGOS 10_4_3b75_p1_ICBC,Release(213743)
Applicable Product	RSR20-X-28
Category	Official release

## Hardware Supported

Table 2 shows the hardware supported by the RGOS 10.4(3b84), Release(219972).

**Table 2 Hardware Models**

Hardware Model	Version	Description
RSR20-X-28	V1.0 or later	Host
HSIC-2E1/CE1	V1.0 or later	2-port E1/CE1 interface module
HSIC-2HS	V1.0 or later	2-port synchronous interface module
HSIC-4G-LTE	V1.0 or later	4G module



### Note

The hardware version number is rounded to the first decimal place. The numeral in the second decimal place does not change the supporting release.

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## New Features

Table 3 shows the new features based on RGOS 10\_4\_3b75\_p1\_ICBC,Release(213743).

**Table 3 New Features**

Functional Module	Description
SAS	Connection is established between the SAS module and client-side SAT.
Anti-Proxy	Anti-proxy is supported.
LACP	LACP is supported.
SSH-CLIENT	SSH clients are supported.
One-Arm-Echo BFD	One-arm-echo BFD is supported.

## Changes

Table 4 shows the changes based on RGOS 10\_4\_3b75\_p1\_ICBC,Release(213743).

**Table 4 Changes**

Module	Description
Web Authentication	The 2 <sup>nd</sup> generation Web authentication is supported.
SDG	Domain segmentation is supported.
Web Management	Web configuration is added to manage the segmented domains.

## Resolved Issues

Table 5 shows the fixed bugs based on RGOS 10\_4\_3b75\_p1\_ICBC,Release(213743).

**Table 5 Fixed Bugs**

Issue ID	Description
379165	L2 port information of an SVI is not displayed in output of the <b>show arp detail</b> command.
QC 8593	RSR10-02 has an SSH vulnerability.
379613	The router's link parsing protocol is optimized.
388846	User group switching of the whitelist function does not take effect by default.
388855	Web-based user group switching supports port modification.
QC 7234	The IP-based dialing of RSR20-14E is abnormal.
414445	[Market issue] After RSR30-X is upgraded, dialing using IPSec over L2TP on mobile phones fails.
413957	According to the RLDP fault handling method, a port on which a loop occurs is blocked. However, after a link error, the blocked port cannot automatically recover.
413889	An LLDP neighbor cannot be created for an LLDP routing interface.
410719	[QC 11522] Routes of 0.0.0.0/1 cannot be learned through OSPF.
407955	When an RSR10x series router performs NAT and APs connect to the AC through the router, some APs are dropped out of the network. The router's flow table shows that NAT is not performed for the faulty addresses,

	which may be caused by a port conflict.
407711	[Market issue] The router fails to negotiate the SM4 algorithm with H3C and Huawei devices.
404574	[DHCP] When a client ID is manually bound, the client ID cannot contain more than 62 bytes.
403995	Two optical interfaces of a standalone device using V1.x or V2.x optical modules are used for interconnection. After the optical interfaces are linked up and the optical fiber is removed, the optical interfaces cannot be linked up again and the interface indicators are off. This issue does not occur when V6.x or V7.x optical modules are used.
403778	After the IPFIX module modifies the flow table capacity, the flow table capacity cannot be sampled.
402608	[3B79p1] When the router serves as the LAC and binds two VP interfaces to the same VRF instance, both the VP interfaces can be assigned with IP addresses.
401797	Non-factory test programs enter the factory test mode at random.
400498	[QC 11410] The DHCP server cannot deliver addresses in some cases.
400279	Address leakage occurs because the PPP incorrectly calls the IP pool interface.
397441	[10.4(3b75)p3_X-28/RLDP] RLDP unidirectional link detection fails.
397440	[10.4(3b75)p3_X-28/RLDP] RLDP bidirectional link detection fails.
397113	[10.4(3b75)p3_X-28/MSTP] A spanning tree in MSTP mode and VLAN X are created. If a loop occurs in VLAN X, the loop cannot be removed.
397057	[10.4(3b75)p3_X-28/RLDP] RLDP loop detection fails.
397048	When the cable connected to an AG member port is removed, the connection is interrupted for 5 minutes.
396726	When the native VLAN of a trunk port in MSTP mode is removed, MSTP cannot properly calculate the topology.
395610	The CWMP CPE points to another host, and all socket space is occupied. As a result, SSH login to the router fails.
395144	LLDP does not take effect on the AG member port.
394848	[HSIC-4G-LTE] <b>Imei</b> and <b>Modem name</b> in the <b>show cell info</b> command output are null.
394455	By default, GVRP packets on X28 should be sent to the CPU instead of being forwarded.

## Related Documentation

- RG-RSR20-X-28 Router Hardware Installation and Reference Guide V1.09  
This manual introduces the functional and physical features of the RG-RSR20-X-28 router and provides the device installation steps, hardware troubleshooting, module technical specifications, and specifications and usage guidelines for cables and connectors.
- RG-RSR20-X-28 Router RGOS Configuration Guide, Release 10.4(3b84)  
This manual describes the various network protocols and their implementation principles for the RG-RSR20-X-28 with the detailed configuration examples.
- RG-RSR20-X-28 Router RGOS Command Reference, Release 10.4(3b84)  
This manual describes the configuration commands related to the various network protocols supported on the RG-RSR20-X-28 router RGOS 10.4(3b84) version in detail, including the command mode, parameter description, usage guide, and configuration examples.

**Note**

You can obtain the related documents at: <http://www.ruijienetworks.com/>.

## Upgrade Files

**Table 6 Latest Firmware**

Applicable Product	Upgrade Firmware	File Size	MD5
RSR20-X-28	RSR20-X-28_10.4(3b84)_R219972_install.bin	24,245,216 bytes	7fa8fed0b8856c943f82ee2b157fbca9

## Upgrade Tips

The following are some tips for upgrading the RG-RSR20-X-28 series router, RGOS10.4(3b84):

- Do not force an upgrade of the Boot file.
- During the upgrade, pay attention to the prompt messages. If failures occur, please save the log and contact us for technical assistance.
- During the upgrade, it is recommended you not power off or reset the system, or plug/unplug any module.
- Use the **show version** command to check the firmware after the upgrade

## Upgrade Procedure

1. Connect the Console port of the router and the Trunk port of the PC via a USB cable. Enable on the PC terminal programs, such as Hyper Terminal or SecureCRT on Windows and Minicom on Linux. Set Baud rate to 9,600, Data bits to 8, and Stop bits to 1.
2. Connect the first port of the router to the Ethernet port of the PC directly or indirectly via an Ethernet cable. Make sure the router and the PC are reachable to each other. Disable firewall before the upgrade.
3. Enable the TFTP server on the PC and place the to-be-sent Ruijie RGOS in the TFTP directory.
4. Power on the router. If Ruijie RGOS is available, you are suggested to operate upgrade via Ruijie RGOS (refer to Step 5 for details). If Ruijie RGOS is not available, it is recommended to upgrade the device via Boot Loader (refer to Step 6 for details).
5. Upgrade the router via Ruijie RGOS.

- 1) Run Ruijie RGOS, and run the TFTP command to load the installation package to the router.

Command explanation:

**copy tftp://IP address of the PC where the .bin file is installed /name of the .bin file flash:/rgos.bin**

```
copy tftp://130.1.1.246/ RSR20-X-28_10.4(3b84)_R217163_install.bin
flash:/rgos.bin
```

[illegible]

- 2) Restart the router and finish the upgrade.

```
Ruijie#reload
Proceed with reload? [no]y
Verify the image .....[ok]

*Nov  7 02:34:44: %SYS-5-RELOAD: The device is reloading due to the execution of
command reload.

System bootstrap ...

Boot Version: RGOS 10.4(3b84) Release(217163)
Nor Flash ID: 0x017E1000, SIZE: 8388608Bytes
```

```
Using 1000.000 MHz high precision timer.
CLOCK-3-HW_CAL_INVALID: Hardware Calendar (RTC) Error.
MTD_DRIVER-5-MTD_NAND_FOUND: 1 NAND chips(chip size : 268435456) detected
Press Ctrl+C to enter Boot .....
Verify the image .....[ok]
Master rgos.bin crc check: ok!
Loading main program ...
Loading main program 'rgos.bin'.
Load main program successfully.
Executing program, launch at: 0x04000000
```

```
CLOCK-3-HW_CAL_INVALID: Hardware Calendar (RTC) Error.
MTD DRIVER-5-MTD NAND FOUND: 1 NAND chips(chip size : 268435456) detected
```

Self decompressing the image:

```
#####  
#####  
#####  
#####  
#####  
##### [OK]  
Self decompressing the image succeed and will jump to 0x00010000...  
  
Ruijie General Operating System Software  
Release Software (tm), RGOS 10.4(3b84) Release(217163), Compiled Wed Oct 18 11:12:27  
CST 2017 by ngcf63  
  
Copyright (c) 1998-2017s by Ruijie Networks.  
All Rights Reserved.  
Neither Decompiling Nor Reverse Engineering Shall Be Allowed.  
  
Hardware Calendar (RTC) Error.  
*Nov 7 02:36:56: %MTD_DRIVER-5-MTD_NAND_FOUND: 1 NAND chips(chip size : 268435456)  
detected  
*Nov 7 02:37:54: %UPGRADE-5-EXTITEM_INSTALLED: File /web/ucs_gb.db has been  
installed in flash.  
*Nov 7 02:37:55: %UPGRADE-5-EXTITEM_INSTALLED: File /web/ucs_big5.db has been  
installed in flash.  
*Nov 7 02:37:55: %UPGRADE-5-EXTITEM_INSTALLED: File /web/update_list.txt has been  
installed in flash.  
*Nov 7 02:37:55: %UPGRADE-5-EXTITEM_INSTALLED: File /web/web_config.text has been  
installed in flash.  
*Nov 7 02:38:44: %DEVICE-5-CHANGED: Device RSR20-X-28 (1) changed state to up.  
*Nov 7 02:40:17: %SMART_M-6-READ_SCRIPT: Can't open smart_switch.txt  
*Nov 7 02:40:17: %SMART_M-6-READ_SCRIPT: Can't open smart_switch.txt  
*Nov 7 02:40:18: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback 0, changed  
state to up.  
*Nov 7 02:40:18: %LINEPROTO-5-UPDOWN: Line protocol on Interface Loopback 1, changed  
state to up.  
*Nov 7 02:40:18: %LINEPROTO-5-UPDOWN: Line protocol on Interface VLAN 10, changed  
state to up.  
*Nov 7 02:40:19: %LINK-3-UPDOWN: Interface Loopback 0, changed state to up.  
*Nov 7 02:40:19: %LINK-3-UPDOWN: Interface Loopback 1, changed state to up.  
*Nov 7 02:40:20: %OAM-5-POWER: Power supply in slot 0 is on.  
*Nov 7 02:40:20: %LINK-3-UPDOWN: Interface VLAN 10, changed state to up.  
*Nov 7 02:40:22: %LINK-3-UPDOWN: Interface GigabitEthernet 0/0, changed state to  
up.  
*Nov 7 02:40:22: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet  
0/0, changed state to up.  
*Nov 7 02:40:25: %SYS-5-WARMSTART: System warmstart.
```



3) Check the version information.

```
Ruijie#sh ver
System description      : Ruijie Router (RSR20-X-28) by Ruijie Networks
System start time       : 1970-11-07 2:50:55
System uptime          : 0:0:4:30
System hardware version : 1.00
System software version : RGOS 10.4(3b84) Release(219972)
System BOOT version     : 10.4(3b84) Release(219972)
System serial number    : RSR20X28V3B84
System cpld version     : 1.0.1.6
```

6. Upgrade the router via Boot Loader.

- 1) If Ruijie RGOS is not available, press Ctrl+C when the device starts, and enter Boot Loader to restore or upgrade softwares.

```
Hot Commands:
-----
F1. tftp 130.1.1.27 130.1.1.77 RSR20-X-28_10.4(3b84)_R216655_install.bin -main
F2. setmac -prod
```

- 2) Connect the first port of the router and the PC. Enable TFTP on the PC, and place Ruijie RGOS in its directory. Then, run the TFTP command to import the program into the router.

Command explanation:

```

tfip IP address of the router port IP address of the PC where the .bin file is stored name of the .bin file -
main

```

[illegible]

```
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!  
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!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!  
  
%Mission Completion. FILELEN = 24248640  
  
Tftp download OK, 24248640 bytes received!  
  
Verify the image .....[ok]  
  
CURRENT PRODUCT INFORMATION :  
  
    PRODUCT ID: 0x100D0300  
  
    PRODUCT DESCRIPTION: Ruijie Router (RSR20-X-28) by Ruijie Networks.  
  
SUCCESS: UPGRADING OK.
```

- 3) Restart the router and finish the upgrade.

[illegible]

```
#####
#####
#####
#####
#####
##### [OK]
Self decompressing the image succeed and will jump to 0x00010000...

Ruijie General Operating System Software
Release Software (tm), RGOS 10.4(3b84) Release(217163), Compiled Wed Oct 18 11:12:27
CST 2017 by ngcf63

Copyright (c) 1998-2014s by Ruijie Networks.
All Rights Reserved.
Neither Decompiling Nor Reverse Engineering Shall Be Allowed.

*Sep  6 18:01:35: %MTD_DRIVER-5-MTD_NAND_FOUND: 1 NAND chips(chip size : 134217728)
detected
*Sep  6 18:01:48: %AUTOUPD-3-INIT_FAILED: Auto update initialize failed.
*Sep  6 18:01:50: %UPGRADE-5-EXTITEM_INSTALLED: File /web/ucs_gb.db has been
installed in flash.
*Sep  6 18:01:51: %UPGRADE-5-EXTITEM_INSTALLED: File /web/ucs_big5.db has been
installed in flash.
*Sep  6 18:01:51: %UPGRADE-5-EXTITEM_INSTALLED: File /web/update_list.txt has been
installed in flash.
*Sep  6 18:01:51: %UPGRADE-5-EXTITEM_INSTALLED: File /web/web_config.text has been
installed in flash.
*Sep  6 18:02:00: %DEVICE-5-CHANGED: Device RSR20-X-28 (1) changed state to up.
*Sep  6 18:02:15: %LINEPROTO-5-UPDOWN: Line protocol on Interface VLAN 1, changed
state to up.
*Sep  6 18:02:17: %LINK-3-UPDOWN: Interface VLAN 1, changed state to up.
*Sep  6 18:02:19: %USB-5-MODEM_FOUND: Modem 4G in Cellular 0/0 found.
*Sep  6 18:02:20: %LINK-3-UPDOWN: Interface GigabitEthernet 1/0, changed state to
up.
*Sep  6 18:02:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet
1/0, changed state to up.
*Sep  6 18:02:20: %SYS-5-COLDSTART: System coldstart.
```

#### 4) Check the version information.

```
Ruijie#sh ver
System description      : Ruijie Router (RSR20-X-28) by Ruijie Networks
System start time       : 1970-11-07 2:36:55
System uptime          : 0:0:4:30
System hardware version : 1.00
System software version : RGOS 10.4(3b84) Release(219972)
```

```
System BOOT version      : 10.4(3b84) Release(219972)
System serial number     : RSR20X28V3B84
System cpld version      : 1.0.1.6
```