Release Notes for Cisco 910 Industrial Routers, Release 1.2.1 RB2

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These release notes include important information about Cisco 910 Industrial Router Software Release 1.2.1 RB2 and the limitations, restrictions, and caveats, if any, that apply to this release.

Contents

Introduction

The Cisco 910 Industrial Router is programmable Internet of Things (IoT) gateway which connects an IP network and a wireless sensor network (WSN). It offers an open platform on software and hardware so that it can host partner application and sensor communication cards. The Cisco 910 Industrial Router handles local WSN management, raw data collection, caching, processing, and forwarding information to data centers in the cloud through a WAN IP interface. It also complies with Cisco Fog Computing architecture, executes distributed data processing at the edge of an IP network, and allows you to host partner applications.

System Requirements

Hardware Supported

Table 1   Cisco 910 Industrial Router Supported Hardware

Model No.	Description
IR910-K9	Cisco 910 Industrial Router (Ethernet only)
IR910G-K9 IR910G-NA-K9	Cisco 910 Industrial Router (3G and Ethernet)
IR910W-K9	Cisco 910 Industrial Router (WiFi and Ethernet)

Cisco Systems, Inc.   www.cisco.com

Software Images

Filename	Description
IR910_3g-switchover_1.2.1rb2.patch	Patch to fix 3G and Ethernet switch over issue
firmware_P2MB_1.2.1rb2.zip	Cisco 910 Industrial Router OS firmware
U-boot_1.2.1rb2.bin	Cisco 910 Industrial Router OS bootloader

Upgrading to a New Software Release

Follow these steps to install a new software image:

1. Log in to the IR910 system with terminal through SSH or Console, using the **system** account.

2. Use the **scp** command to copy the image file from your host to the `/mnt/apps/` folder on the IR910.

3. Execute the following command from CLI:

   ```
   Router# archive download-sw firmware_P2MB_1.2.1rb2.zip
   ```

4. Reload the system:

   ```
   Router# reload
   ```

5. After system reboot, check the version using the **show version** command. The software version information is displayed, which is similar to the following output:

   ```
   IR910 Software, Version 1.2.1rb2, RELEASE SOFTWARE
   Technical Support: http://www.cisco.com/techsupport
   Copyright (c) 2012-2013 by Cisco Systems, Inc.
   Compiled Mon 25-May-15 07:40 by prod_rel_team
   ```

Patch Installation

Follow these steps to install a new software patch:

1. Log in to the IR910 system with terminal through SSH or Console, using the **system** account.

2. Use the **scp** command to copy the patch file from your host to the /mnt/apps/ folder on IR910:

   ```
   localhost# scp IR910_3g-switchover_1.2.1rb2.patch system@IR910-IP:/mnt/apps/
   ```

3. If you use SSH to log in to IR910, execute command **clish** to enter the CLI mode, and then execute the following command to install the patch:

   ```
   Router# patch install IR910_3g-switchover_1.2.1rb2.patch
   ```

4. If the patch is installed successfully, the following messages will be printed on the screen:

   ```
   ! ! ! ! ! !
   Copy 234799 bytes took 00:00:01 [hh:mm:ss]
   Verifying archive integrity. . . All good.
   Uncompressing IR910 patches. . . .
   Stop the running services. . .
   Restart the services. . .
   Router#
   ```

5. Use the **show patch installed** command to check the patch status:

   ```
   Router# show patch installed
   3g-switchover  - Fix 3G and Ethernet switch over issue.
   ```

```
Router#
```

Recovering from a Software Failure

For recovery procedures, see the "Troubleshooting" chapter in the *Cisco 910 Industrial Router Software Configuration Guide.*

New and Changed Information

This section contains new and changed information for this release.

New Software Features in Release 1.2.1

Release 1.2.1 introduces the following new software features:

- 2G function is disabled by default on IR910G-K9, but is enabled by default on IR910G-NA-K9.

New Software Features in Release 1.2

Release 1.2 introduces the following new software features:

- Account activation commands—Supports account activation that used at 3G no SIM mode.
- Fixed wakeup issue from LPM—Supports NAI and Profile backup.
- Log backup command—Supports to back up logs on demand for diagnostic purpose.
- SSH service port command—Supports to change SSH service port (default is 22).
- Supports LoRaWAN cards.

Open Caveats

Release 1.2

- CSCul28589

    Gi0/1 error counter does not increase when receiving packets less than 64 byte.

    There is no workaround. This is a chip related issue.

- CSCum27407

    IR-910 shows lldp neighbor twice after connected to SPA525G2. After 180 seconds, SPA525G2 without IP address will expire and only one SPA525G2 lldp neighbor shown in IR-910.

    The workaround is to wait for 180 seconds.

- CSCum32109

    Notice message should print out when FQDN cannot be resolved.

    The workaround is to connect to the console of IR-910 and enter the following commands:

```
Router# ping ip www.ddd.wwqwq.qq (non-exist domain name)
```

No message will be displayed, but the command is executed and returns nothing, so that other commands will not be blocked.

- CSCum62256

  snmpModules subtree SilverCreek snmpv1 conformance 1.1.10 failure.

  There is no workaround.

- CSCum62377

  IR-910 fails the SilverCreek snmpv2 conformance test.

  There is no workaround.

- CSCum78257

  DUT fails in SilverCreek MIBII test suite. IR-910 SNMP does not support some features in the SilverCreek MIB II test.

  There is no workaround.

- CSCun12103

  SNMP daemon is dead after snmpwalk stress.

  The workaround is to reboot the system or do not execute snmpwalk stress (snmpwalk all MIB node) for two days.

- CSCun17767

  Atheros STA (AR5BXB-0092DA, 9.2.0.499) ping failed.

  There is no workaround.

- CSCun38893

  Cannot find 802.11 action packets in the STA mode.

  There is no workaround.

- CSCun44850

  GE port statistics keep increasing after interface is administratively down.

  There is no workaround. This is a chip related issue.

- CSCun64915

  Upgrade image failed on specific OS and browser.

  The workaround is not to use the OS, Simplified Chinese version of Windows 2003 Server, and not to use the browser, Simplified Chinese version of IE8 version 8.0.6001.18702, to upgrade the image on the web.

- CSCun85831

  The warning message pops up again when upgrade process is canceled.

  The workaround is to complete the whole firmware upgrade procedure (download and upgrade) for once.

- CSCun96046

  Empty LLDP neighbors shown in CLI output when there are too many LLDP neighbors.

  The workaround is to execute the **show lldp neighbor** command again.

- CSCuo32086

  The 3G network is not displayed on the console after PLMNs search.

  The workaround is to shut down all the current 3G transmissions (TX and RX) and then search PLMNs again. Due to API limitation, IR910 is not able to search available PLMNs when there is data traffic.

- CSCuo33968

  When DUT upgrade is successful and is auto-rebooted normally, Web GUI is not auto-refreshed. Auto refresh should implement after upgrade image on web.

  The workaround is to close the web browser and reconnect the Web GUI manually.

- CSCuo39945

  Memory leak happened when performing snmpwalk stress.

  The workaround is not to perform snmpwalk on entity MIB and IP-Forwarding MIB too many times.

- CSCuq26248

  L2TP has timeout mechanism but after a while the system will try to recreate connection. DUT should not have timeout mechanism.

  There is no workaround.

Resolved Caveats

Release 1.2.1 RB2 Patch 1

- CSCuv53599

  3G/GE switch over fails at 3G idle mode when GE port is down.

- CSCuw04873

  Configure VLAN on lxcbr0 to avoid crashing on ppp256.

Release 1.2.1 RB2

- CSCut37289

  Port forwarding still works after disabling it.

- CSCut46085

  March 2015 OpenSSL vulnerabilities.

- CSCut50195

  L2TP/PPTP/L2TPoverIPSec connect config not saved in running-config.

- CSCut78846

  April 2015 NTP Security Vulnerabilities from ntp.org.

■ CSCuu13925

Release 1.2.1 image patch build script for 3G module firmware upgrade.

Release 1.2.1

■ CSCut66394

Disable 2G function.

Release 1.2

■ CSCuu07703

1.2 image patch build script for 3G NA firmware upgrade.

Related Documentation

These documents provide detailed information about the Cisco 910 Industrial Router device and are available at:

http://www.cisco.com/go/ir900

■ *Cisco 910 Industrial Router Software Configuration Guide*

■ *Cisco 910 Industrial Router Hardware Installation Guide*

■ *Quick Start Guide for the Cisco 910 Industrial Router*

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at:
http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html.

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