Cisco IOS Release 15.8(3)M2a – Release Notes for Cisco IR829 and IR809 Industrial Integrated Services Routers

The following release notes support the Cisco IOS 15.8(3)M2a release. These release notes are updated to describe new features, limitations, troubleshooting, recommended configurations, caveats, and provide information on how to obtain support and documentation.

Revised: July 30, 2021

Note: DOWNGRADE to previous releases is **NOT RECOMMENDED OR SUPPORTED** by Cisco.

Note: Throughout this document you will see IR800. In this reference, it is meant as IR809 and IR829.

Contents

This publication consists of the following sections:

Image Information and Supported Platforms

Note: You must have a Cisco.com account to download the software.

Cisco IOS Release 15.8(3)M2a includes the following Cisco IOS images:

IR800

- System Bundled Image: ir800-universalk9-bundle.SPA.158-3.M2a

    This bundle contains the following components:

    - Native IOS: ir800-universalk9-mz.SPA.158-3.M2a

    - Guest Operating System: ir800-ref-gos.img.1.8.4.2.gz

Cisco Systems, Inc.   www.cisco.com

- Hypervisor: ir800-hv.srp.SPA.3.0.77

- FPGA: 2.9.0

- BIOS: 24

- MCU Application: 33

Software Downloads

IR800 Series

The latest image files for the IR800 product family can be found here:

https://software.cisco.com/download/navigator.html?mdfid=286287045&flowid=75322

Click on the 809 or 829 link to take you to the specific software you are looking for.

IIR809

The IR809 link shows the following entries:

- IOS Software

  - ir800-universalk9-bundle.*<version>*.bin

  - ir800-universalk9_npe-bundle.*<version>*.bin

- IOx Cartridges

  - Yocto 1.7.2 Base Rootfs (ir800_yocto-1.7.2.tar)

  - Python 2.7.3 Language Runtime (ir800_yocto-1.7.2_python-2.7.3.tar)

  - Azul Java 1.7 EJRE (ir800_yocto-1.7.2_zre1.7.0_65.7.6.0.7.tar)

  - Azul Java 1.8 Compact Profile 3 (ir800_yocto-1.7.2_zre1.8.0_65.8.10.0.1.tar)

IR829

The IR829 link shows the following entries:

Software on Chassis

- IOS Software

  - ir800-universalk9-bundle.*<version>*.bin

  - ir800-universalk9_npe-bundle.*<version>*.bin

- IOx Cartridges

  - Yocto 1.7.2 Base Rootfs (ir800_yocto-1.7.2.tar)

  - Python 2.7.3 Language Runtime (ir800_yocto-1.7.2_python-2.7.3.tar)

  - Azul Java 1.7 EJRE (ir800_yocto-1.7.2_zre1.7.0_65.7.6.0.7.tar)

  - Azul Java 1.8 Compact Profile 3 (ir800_yocto-1.7.2_zre1.8.0_65.8.10.0.1.tar)

AP803 Access Point Module

- Autonomous AP IOS Software

  - WIRELESS LAN (ap1g3-k9w7-tar.153-3.JH1.tar)

- Lightweight AP IOS Software

  - WIRELESS LAN (ap1g3-k9w8-tar.153-3.JH1.tar)

  - WIRELESS LAN LWAPP RECOVERY (ap1g3-rcvk9w8-tar.153-3.JH1.tar)

Note: On the IR8x9 devices, the ir800-universalk9-bundle.SPA.158-3.M bundle can be copied via Trivial File Transfer Protocol (TFTP) or SCP to the IR800, and then installed using the `bundle install flash:<image name>` command. The ir800-universalk9-bundle.SPA.158-3.M.bin file can NOT be directly booted using the `boot system flash:/image_name`. Detailed instructions are found in the Cisco IR800 Integrated Services Router Software Configuration Guide.

Note: On the IR8x9 devices, the cipher **dhe-aes-256-cbc-sha** (which is used with the commands **ip http client secure-ciphersuite** and **ip http secure-ciphersuite**) is no longer available in IOS 15.6(3)M and later as part of the weak cipher removal process. This cipher was flagged as a security vulnerability.

Warning about Installing the Image

Note: The bundle can be copied via Trivial File Transfer Protocol (TFTP) or SCP to the device, and then installed using the `bundle install flash:<image name>` command. The bin file can NOT be directly booted using the `boot system flash:/image_name`.

Known Limitations

This release has the following limitations or deviations from expected behavior:

- Please ensure there is a minimum 30MB additional space in the flash: file system before attempting an upgrade or downgrade between releases. Otherwise, the FPGA/BIOS will not have enough space to store files and perform the upgrade. In these current releases, the bundle installation will not display a warning, but future releases from September 2019 going forward will have a warning.

- SSH access to GuestOS:

  From 15.8(3)M2, SSH to the Guest-OS (IOx) shell is disabled by default.

  The ssh access can be enabled using a hidden script for PRIV15 users by following command:

  ```
  Router#iox host exec enablesshaccess IR800-GOS-1
  ```

  To again disable ssh access to highest privilege user again, run following command:

  ```
  Router#iox host exec disablesshaccess IR800-GOS-1
  ```

Major Enhancements

This section provides details on new features and functionality available in this release. Each new feature is proceeded by the platform which it applies to.

IMPORTANT NOTE:
FPGA and BIOS have been signed and updated to versions 2.9.0 and 24 respectively.

Going forward, for the 15.8 Release Train, this image (15.8-3.M2a) is considered as the baseline. Downgrade is unsupported. If the user downgrades, the FPGA/BIOS will not downgrade and continue to remain as 2.9.0 and 24 respectively. Functionality-wise, everything remains exactly the same.

Note: After upgrading to this release, make sure to delete any old image files that may still be in flash:. This will prevent an **unintended** IOS downgrade.

Related Documentation

The following documentation is available:

- Cisco IOS 15.8M cross-platform release notes:

  https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/15-8m/release/notes/15-8-3-m-rel-notes.html

- All of the Cisco IR800 Industrial Integrated Services Router documentation can be found here:

  http://www.cisco.com/c/en/us/support/routers/800-series-industrial-routers/tsd-products-support-series-home.html

- IoT Field Network Director

  https://www.cisco.com/c/en/us/support/cloud-systems-management/iot-field-network-director/tsd-products-support-series-home.html

- Cisco IOx Documentation is found here:

  https://www.cisco.com/c/en/us/support/cloud-systems-management/iox/tsd-products-support-series-home.html

- Cisco IOx Developer information is found here:

  https://developer.cisco.com/docs/iox/

Caveats

Caveats describe unexpected behavior in Cisco IOS releases. Caveats listed as open in a prior release are carried forward to the next release as either open or resolved.

Note: You must have a Cisco.com account to log in and access the Cisco Bug Search Tool. If you do not have one, you can register for an account.

For more information about the Cisco Bug Search Tool, see the Bug Search Tool Help & FAQ.

Open Caveats

- CSCvq30243

  Firmware Upgrade failed with error message: Failed to install Hypervisor image.

  Symptoms: Corner case which only happened intermittently.

  Workaround: When the device was manually reloaded and hypervisor was installed manually, the issue resolved

Resolved Caveats

None

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/en/US/docs/general/whatsnew/whatsnew.html.

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