Cisco IOS Release 15.9(3)M10 - Release Notes for Cisco IR800 Industrial Integrated Services Routers and Cisco CGR1000 Series Connected Grid Routers

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Introduction

The following release notes support the Cisco IOS 15.9(3)M10 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.

Image Information and Supported Platforms

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

Cisco IOS Release 15.9(3)M10 includes the following Cisco IOS images:

IR8x9

System Bundled Image: ir800-universalk9-bundle.SPA.159-3.M10

This bundle contains the following components:

- IOS: ir800-universalk9-mz.SPA.159-3.M10
- Guest Operating System: ir800-ref-gos.img.1.15.0.8.gz
- Hypervisor: ir800-hv.srp.SPA.3.1.36
- FPGA: 2.B.0
- BIOS: 29
- MCU Application: 53

IR807

IOS Image: ir800l-universalk9-mz.SPA.159-3-M10

CGR1K

System Bundled image: cgr1000-universalk9-bundle.SPA.159-3-M10

This bundle contains the following components:

- IOS Version: cgr1000-universalk9-mz.SPA.159-3-M10
- Guest Operating System: cgr1000-ref-gos.img.1.8.2.22.gz
- Hypervisor: cgr1000-hv.srp.SPA.3.0.70
- FPGA: 2.E.0
- BIOS: 18

Important Note Regarding 159-3.M10

CG-OS to IOS Migration:

Note When migrating from CG-OS to IOS on the CGR1K, Cisco recommends to upgrading from the Golden image to the required IOS image. Refer to the following example:

CG-OS -> 15.8(3)M3b -> <latest version>

Software Downloads

This section contains the following:

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 807, 809 or 829 link to take you to the specific software you are looking for.

Important MANUAL [non-bundle] DOWNGRADE IS STRICTLY PROHIBITED. For newer releases with the PSIRT fix - while bundle downgrade to 158-3.M2a/157-3.M4b/156-3.M6b is supported, manual downgrade is unsupported.

Note On the IR8x9 devices, the IR800 bundle image 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 <image>.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.

IR807

The IR807 link shows the following entries:

- ir800l-universalk9-mz.SPA.<version> .bin
- ir800l-universalk9_npe-mz.SPA.<version> .bin

IR809

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)

CGR1K Series

The latest image file for the CGR 1000 Series Cisco IOS image is available here:

https://software.cisco.com/download/navigator.html?mdfid=284165761&flowid=75122

For details on the CGR1000 installation, please see the following:

http://www.cisco.com/c/en/us/td/docs/routers/connectedgrid/cgr1000/ios/release/notes/OL-31148-05.html#pgfId-9

Warning about Installing the Image

Note The bundle can be copied via Trivial File Transfer Protocol (TFTP), or Secure Copy Protocol (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.

Caution MANUAL [non-bundle] DOWNGRADE IS STRICTLY PROHIBITED.

Known Limitations

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

Space Limitation

The device requires a minimum 30MB additional space in the flash: file system before attempting an upgrade, or a 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.

CSCvq88011 - IR809, IR829

Bundle install should internally handle “firmware downgrade enable” check

Symptoms: If you manually downgrade hypervisor and IOS only from releases (159-3.M+, 158-3.M3+, 156-3.M7+, 157-3.M5+) to the releases (158-3.M2a, 157-3.M4b, 156-3.M6b), the router will be stuck in a boot loop.

Workaround: If you use the recommended 'bundle install' to downgrade, the process will run correctly.

CSCvs86301 - IR8x9

CSCvs86301 - Different DHCP client-identifiers are sent during and after PnP Discovery.

After the 159-3.M1 release, the format of DHCP client-identifier for the IR8x9 device may vary during the PNP onboarding process.

Workaround - Users must re-configure / add the newer client-identifier format on their DHCP server if it was configured with DHCP reservations using the older DHCP client-identifier format.

Example:

Older Format: 004a.4146.3136.3033.414e.5450

Newer Format: 0063.6973.636f.2d30.3032.322e.6264.6535.2e66.6636.322d.4769.322f.32

Major Enhancements

There are no Major Enhancements for the 15.9(3)M10 release.

Related Documentation

The following documentation is available:

- Cisco IOS 15.9M cross-platform release notes
- All of the Cisco IR800 Industrial Integrated Services Router documentation
- All of the Cisco CGR 1000 Series Connected Grid Routers documentation
- IoT Field Network Director
- Cisco IOx Documentation
- Cisco IOx Developer information

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.

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

Open Caveats

There are no Open Caveats for Cisco IOS Release 15.9(3)M10.

Resolved Caveats

To view the details of a resolved caveat Cisco IOS Release 15.9(3)M10, click on the identifier.

Identifier	Description	Platform
CSCwj71021	Porting SCADA fixes from IOS-XE to Classic IOS (IR8x9).	IR8x9
CSCwj79682	BBUs In CGR running 15.9(3)M5 showing 4 instead of 3 BBUs	CGR1000

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- To submit a service request, visit Cisco Support.
- To discover and browse secure, validated enterprise-class apps, products, solutions, and services, visit Cisco DevNet.
- To obtain general networking, training, and certification titles, visit Cisco Press.
- To find warranty information for a specific product or product family, access Cisco Warranty Finder.

Cisco Bug Search Tool

Cisco Bug Search Tool (BST) is a gateway to the Cisco bug-tracking system, which maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. The BST provides you with detailed defect information about your products and software.

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