



Cisco IOS Release 15.8(3)M0a – Release Notes for Cisco IR800 Industrial Integrated Services Routers and Cisco CGR1000 Series Connected Grid Routers

The following release notes support the Cisco IOS 15.8(3)M0a 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.

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Image Information and Supported Platforms

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

Cisco IOS Release 15.8(3)M0a includes the following Cisco IOS images:

IR8x9

- System Bundled Image: `ir800-universalk9-bundle.SPA.158-3.M0a`

This bundle contains the following components:

- IOS: `ir800-universalk9-mz.SPA.158-3.M0a`
- Guest Operating System: `ir800-ref-gos.img.1.7.3.1.gz`
- Hypervisor: `ir800-hv.srp.SPA.3.0.60`
- FPGA: 2.7.0
- BIOS: 21
- MCU Application: 33

Software Downloads

IR807

- IOS Image: ir800l-universalk9-mz.SPA.158-3.M0a

CGR1K

- System Bundled image: cgr1000-universalk9-bundle.SPA.158-3.M0a
 - IOS Version: cgr1000-universalk9-mz.SPA.158-3.M0a
 - Guest Operating System: cgr1000-ref-gos.img.1.6.4.1.gz
 - Hypervisor: cgr1000-hv.srp.SPA.3.0.30
 - FPGA: 2.9.0
 - BIOS: 15

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

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)

Software Downloads

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.

CGR1K Series

Note: The cgr1000-universalk9-mz.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 cgr1000-universalk9-mz.SPA.158-3.M.bin file can NOT be directly booted using the `boot system flash:/image_name.` Detailed instructions are found in the [CGR1000 documentation](#).

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

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

For details on the CGR1000 installation, please see:

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

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>
- All of the Cisco CGR 1000 Series Connected Grid Routers documentation can be found here:
<http://www.cisco.com/c/en/us/support/routers/1000-series-connected-grid-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/products-installation-and-configuration-guides-list.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](#).

Cisco IOS Release 15.8(3)M0a

The following sections list caveats for Cisco IOS Release 15.8(3)M0a:

Open Caveats

- **CSCvm46645 - IR8x9**

[IOX-SS] Change monitrc to allow for infinite tries to restart secure storage

Symptoms: IOx came up in recovery mode because secure storage service didn't come up.

Secure storage service log shows it failed to come up due to network connectivity to IOS. However, ping command went through fine when entered manually from Guest OS console.

Caveats

Conditions: This is timing related, triggered by the missing IOS configurations needed for Guest OS networking connectivity at device power up. Secure storage service tried to connect to the server on IOS side and gave up after 5 retries.

Workaround: Restart guest OS VM after the IOS configuration change by "guest-os 1 restart". Or, save the configuration, and reload the router.

- **CSCvm68386**

Ignition undervoltage millivolts is not persistent on reload

Symptoms: Ignition undervoltage threshold setting in millivolts is not persistent on reload. Volt value is intact, only the decimal value is not persistent.

Workaround: EEM to reconfigure millivolt threshold on device bootup:

```
#conf t
event manager applet ignition_uv_config
event syslog pattern "Process IR800 Test top-level routine exited"
action 1.0 cli command "conf t"
action 1.1 cli command "ignition undervoltage threshold 11 999"
```

Resolved Caveats

The following caveats are fixed with this release:

- **CSCvm09552- IR8x9**

On the IR800 series, occasionally the GPS status would get stuck in "GPS location cannot be acquired" and not able to recover by itself until an IOS reboot.

- **CSCvm07801 - all IoT Routers**

On the IR800 series, SMS triggers a Cellular modem crash.

Symptoms: Upon receiving certain format SMS messages, modem crashes immediately.

Issue was reported on an IR829GW-LTE-VZ-AK9 with the MC7350 modem running IOS version 15.8-3M. FW version:SWI9X15C_05.05.58.01. However, this issue applies to both the MC73xx and MC74xx modems on all platforms.

- **CSCvm12409 - all IoT Routers**

Modem crash action set to wrong value on modem side.

Symptoms: The value was always set to 0 on the modem side.

- **CSCvm19614 - all IoT Routers**

The **show cellular modem crash-action** command displays the opposite of what is configured under the controller.

Symptoms: When "lte modem crash-action boot-and-hold" is configured under controller, the **show cellular modem crash-action** command displays "reset" and vice-versa.

- **CSCvk50787- IR8x9 and CGR1K**

Controller doesn't show cellular modem USB-Net Driver version.

Symptoms: The 'Driver Version' under the 'show controller cellular <interface>' command shows '<unknown>'.

- **CSCvk32829 - IR807**

Caveats

Re-enable MPDN for the IR807 WP7601 sku and revert GobiUSBNet drivers to 2.50.

Symptoms: MPDN is not supported on the IR807 with the WP7601 modem running the 15.8(3)M release.

Workaround: Re-enable MPDN for the IR807 with the WP7601 modem and revert GobiUSBNet drivers to 2.50.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

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