



# Release Notes for Cisco Embedded Service 6300 Series Router – Release 17.1.1

Revised June 4, 2020

The following release notes support the Cisco ESR6300 router. These release notes are updated to describe new features, limitations, troubleshooting, recommended configurations, caveats, and provide information on how to obtain support and documentation.

Note: More on the PC/104 standard can be found on the PC/104 Consortium website at <https://pc104.org/>

Table 1 provides the hardware product IDs and brief descriptions for the boards.

**Table 1 Cisco ESR 6300 SKUs**

SKU	Description	Ports/Module Interfaces
ESR-6300-NCP-K9	Embedded Router Board without a cooling plate. (NCP = No Cooling Plate)	4 GE LAN ports 2 combo GE WAN ports 1 USB 3.0 port 1 mSATA module interface
ESR-6300-CON-K9	Embedded Router Board with cooling plate. (CON = Conduction cooled).	4 GE LAN ports 2 combo GE WAN ports 1 USB 3.0 port 1 mSATA module interface

## Contents

This publication consists of the following sections:

- [General Description, page 14](#)
- [Image Information and Supported Platforms, page 14](#)
- [Interface Naming Conventions, page 15](#)
- [Related Documentation, page 16](#)
- [Caveats, page 16](#)

## General Description

The ESR6300 is a compact form factor embedded router module with a board size of 3.0" x 3.775" (76.2mm x 95.885mm). This module *may* fit in an enclosure that was *originally designed* for PC/104 modules with some additional adaptation. The more compact design simplifies integration and offers system integrators the ability to use the Cisco ESR 6300 in a wide variety of embedded applications. The ESR card is available with a Cisco-designed cooling plate customized to the ESR, as well as without the cooling plate for system integrators who want to design their own custom thermal solution.

## Image Information and Supported Platforms

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

## Cisco IOS-XE Release Schedule

Cisco IOS-XE releases generally follow the schedule as follows:

- Standard Maintenance (SM) Release - Defect fixes for 6 months.
- Extended Maintenance (EM) Release - Defect fixes for 24 months.

There are typically 3 major releases each year:

- End of March - Standard Maintenance
- End of July - Extended Maintenance
- End of November - Standard Maintenance

## Cisco IOS-XE Release 17.1.1

Cisco IOS-XE Release 17.1.1 includes the following Cisco image:

- c6300-universalk9.17.01.01.SPA.bin

The latest software downloads for the ESR6300 can be found at:

<https://software.cisco.com/download/specialrelease/179a9f8ddc27f34e8c84d1e6692c3b51>

Click on the ESR6300 link to take you to the specific software you are looking for.

## Interface Naming Conventions

The following table shows the naming conventions.

**Table 2 Hardware Interface Naming Convention**

Port	Naming Convention
Gigabit Ethernet combo port WAN/Layer3	gigabitEthernet 0/0/0
	gigabitEthernet 0/0/1
Gigabit Ethernet LAN/Layer 2 ports	gigabitEthernet 0/1/0
	gigabitEthernet 0/1/1
	gigabitEthernet 0/1/2
	gigabitEthernet 0/1/3
USB Port	usbflash0: (IOS and rommon)
Console Port	Line console 0

## Known Limitations

The following features are not supported on the ESR6300 with software release 17.1.1:

- No support for MacSec or DLEP in this release. (MQC: modular quality of service command line).
- Layer 2 COS to DSCP mapping does not work due to no ASIC chipset support for the feature.
- Copper FE SFPs are not supported on the ESR6300.
- Copper GE SFPs are only supported in config terminal > service internal > service unsupported-transceiver mode.
- Cisco does not claim IP Mobility for Ethernet support on the ESR6300.
- Auto-negotiation for 10Mbps, 100Mbps, 1000Mbps in full-duplex mode is supported. For half duplex, support is only on 10Mbps and 100Mbps.
- IOx Application access to serial port or USB-serial is not supported.
- Booting the golden configuration from a USB is **NOT** supported in this release.
- Refer to the Cisco Approved Vendor List (AVL) for Cisco USBs. Kingston USB 3.0 works as well. Ensure the USB has a single partition and ext2, Fat16, or Fat32 format only.
- Cellular functionality is not supported.
- Radio Aware Routing is not supported.
- There is no WebUI support for Day 0 or Day 1 configuration
- For Security: No support for TLS, TrustSec, MacSec , CWS [Cloud Web Security], IDS/IPS.

## This release has the following limitations or deviations for expected behavior:

- The WebUI Licensing Page is unsupported for release 17.1.1. For all licensing configuration, please use CLI mode or CSSM.
- In the Web User Interface (WebUI), there are two known issues where erroneous information is displayed. In both of these cases, the information is present in the WebUI even though the functionality is **NOT** supported on the ESR6300.
  - Under **Configuration > Security > Threat Defense > snort** there is a RAM and DISK size prerequisite check that fails.
  - Under **Configuration > Security >** there is a category for Trustsec.

These are both cosmetic issues due to the features being unavailable in the 17.1.1 release.

- The IOS boot system setting allows users to specify any flash-based storage URL for IOS image booting.

The rommon on the ESR6300 does not expose the non-IOX msata partition, therefore auto-booting from mSATA will not work even if it is configured in IOS.

**Example:** Users must not configure a boot system setting as follows:

```
(config)#boot system flash msata:ios-image
```

- Receive a message 'unable to open bootflash:golden.bin (14)' during bootup.

Example: Pushing the reset button displays the unable to open message.

```
ESR-6300-CON-K9 platform with 4194304 Kbytes of main memory
```

```
MCU Version - Bootloader: 4, App: 10
```

```
MCU is in application mode.
```

```
Reset button push detected
```

```
unable to open bootflash:golden.bin (14)
```

This message is intended by design to inform the user they have not setup a golden.bin config file.

## Related Documentation

The following documentation is available:

- All of the Cisco ESR6300 documentation can be found here:

<https://www.cisco.com/c/en/us/support/routers/6300-series-embedded-service-routers/tsd-products-support-series-home.html>

## 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](#).

## Caveats

### Open Caveats

#### ■ CSCvu75971

Benign bootup warning messages appear on the console.

**Symptom:** The following messages are seen during bootup:

```
WARNING: Loaded FDT at random address 0xB87D2000.  
WARNING: There is a risk of accidental overwriting by other code/data.
```

**Workaround:** Ignore these messages. They are not indicating any problem, and will be removed in a future release.

#### ■ CSCvr92850

IOT-17.1.1 WebUI dhcp pool is still present even after reload.

**Symptoms:** The WebUI dhcp pool is saved in the startup-config along with the configuration that has been pushed from WebUI. Once the device is reloaded after pushing the configuration, the device will still have the day0 webui-dhcp pool created by PNP.

**Cause:** WebUI saves the configuration before the PNP cleans up the day0 webui-dhcp pool created by PNP code.

**Workaround:** Once the configuration is pushed from the WebUI, wait for 2 minutes and then explicitly issue a **write memory** command by entering console to save the configuration. This will allow PNP to clear the day0 WebUI configuration that was created by PNP and save the configuration just pushed through WebUI.

### Resolved Caveats

Since this is the initial release of this product, there are no resolved caveats.

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.

Model Driven Telemetry - gRPC Dial-Out: Expands existing Model Driven Telemetry capabilities with the addition of gRPC protocol support and Dial-Out (configured) telemetry subscriptions.

YANG Data Models: For the list of Cisco IOS XE YANG models available with this release, navigate to:

<https://github.com/YangModels/yang/tree/master/vendor/cisco/xe>

Revision statements embedded in the YANG files indicate if there has been a model revision. The README.md file in the same GitHub location highlights changes that have been made in the release.

© 2019-2020 Cisco Systems, Inc. All rights reserved.