

Troubleshoot BootFlash cleanup on the IR1101

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Introduction

This document describes the steps to identify and mitigate the software upgrade issue on Cisco IR1101 routers operating in Autonomous mode.

Problem Description

This article aligns with the Field Notice FN74237 for the IR1101 upgrade issues.

IR 1101 Routers ordered and shipped before December 15, 2024, operating in autonomous mode and running 17.9.x version and later, might be affected by a reduced flash space to perform software upgrade. The affected routers contain both .bin and .pkg files loaded into the flash.

Output from the CLI of IR1101

Output snippet showing .bin and .pkg files on the flash.

IR1101-2# dir bootflash:

62602-rw-63697069 Aug 8 2023 12:44:50-05:00 ir1101-rpboot.17.09.01.SPA.pkg

62605-rw-674161724 Jul 31 2022 16:33:58-05:00 ir1101-mono universalk9_iot.17.09.01.SPA.pkg

62611-rw-675136809 Aug 8 2023 12:37:22-05:00 ir1101-universalk9.17.09.01.SPA.bin

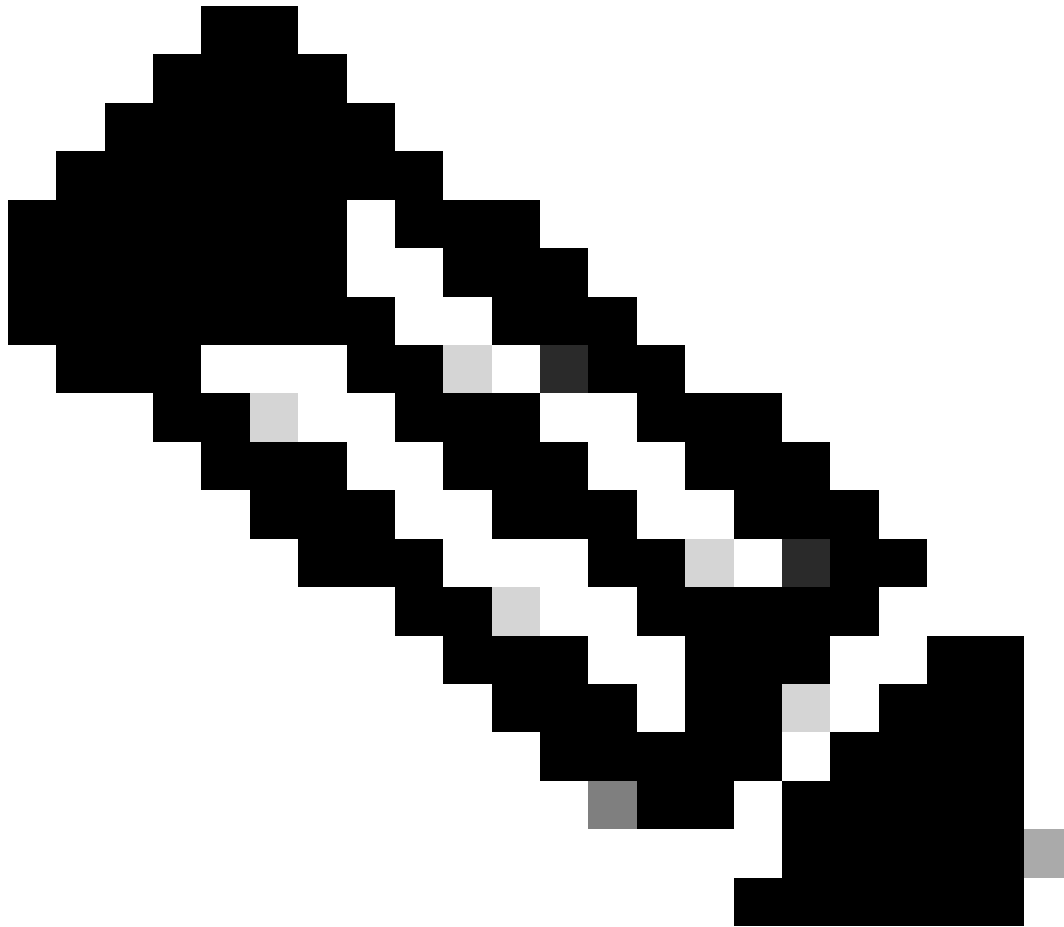
Scenario

Routers running in autonomous mode, whether in bundle or install mode, may face upgrade restrictions in certain scenarios, particularly when the bootflash is full due to accumulated logs and crash files. Before proceeding with the upgrade, it is necessary to clean the bootflash by removing unnecessary files and folders.

Workaround

Delete unused images, .conf and .pkg files from the flash.

Alternatively, for an automated method use an EEM/Python script to clean up the files. This link has detailed steps and instructions.



Note: Please check the “read me” instructions file before you execute the scripts.

The “*install remove inactive*” command is the safest and most efficient method for cleaning up unused software packages on devices booted in Install Mode. This command removes old, inactive software images and packages from bootflash, freeing up space without impacting the running system, ensuring that only the active software remains.

These commands can be used as well to remove files to facilitate a successful upgrade.

```
delete /force /recursive bootflash:/install_repo
```

```
delete /force /recursive bootflash:/staging
```

```
delete /force /recursive bootflash:/core
```

```
delete /force /recursive bootflash:/admintech
```

```
delete /force /recursive bootflash:/tracelogs
delete /force /recursive bootflash:/syslog
delete /force /recursive bootflash:/crashinfo_*
delete /force /recursive bootflash:/rollback_timer*
delete /force /recursive bootflash:/license_evlog/.log
delete /force /recursive bootflash:/collated_log
delete /force /recursive bootflash:/lost+found
delete /force /recursive bootflash:/admintech_trace
```

If the router is operating in bundle mode, do not delete the .bin file. However, it is safe to delete the .pkg and .conf files. Use this example command to verify the currently running image, and remove any .bin files that are not being used.

Example:

```
Router#show version | include System image
```

```
System image file is "bootflash:ir1101-universalk9.17.11.01a.SPA.bin"
```

```
Router#
```

```
Router#dir bootflash: | include .bin (Delete older images which aren't in use one by one as below)
```

```
delete /force /recursive bootflash:/img*.bin
```