

Cisco uBR10K 3G SPA License Issue Modification History

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1. Background

Customer reports that 3G SPA (Cisco PIDs: SPA-UBR10-DS-HD) failed to boot up as its license flash cannot be programmed after PRE switchover. All SPA cards are confirmed to be built as 3G version (3G SPA) carrying Spansion flash chip as license flash. The FPGA version was 0.55 when they shipped out of factory, but on customer side, we found out that the version was 0.41 instead which doesn't support Spansion license flash chip hence caused the issue. You can find more information about this incompatibility issue per below Field Notice: http://www-tac.cisco.com/Support_Library/field_alerts/fn63952.html.

It's confirmed that an unexpected FPGA downgrade (from 0.55 down to 0.41) happened in the field.

2. Details

All those 3G SPA cards were shipped out of factory with 6G SPA FPGA firmware wrongly loaded. When it's being inserted into UBR10K running with Cisco IOS 12.2(33) SCHx IOS release, since SCHx IOS releases do not support 6G SPA FPGA firmware, the FPGA firmware will be automatically downgraded/replaced with the existing FPD image (version 0.41) bundled in the old FPD package. There would be no service impact after the downgrade. However, in the case of performing license flash write operations showed as below, the failure will probably occur and service will be impacted:

1. PRE5 switchover
2. 3G SPA card OIR/reload/reset
3. Add new licenses to SPA
4. Re-host licenses of SPA
5. Activate and use evaluation licenses

3. Recommendations

To resolve this kind of issue, we need to manually upgrade the 3G SPA FPGA firmware to correct version.

Cisco recommends the following procedure:

- Firstly, customer can use the show "show hw-module all fpd" command to check each SPA card firmware version.
- If the "Current Version" is "0.41", customer needs to upgrade its firmware to "0.55", if it's "0.55", no action needs to be taken.

```
I09-GEEK-10k#show hw-module all fpd
```

```
==== =====
=====
Required                               H/W   Field Programmable   Current   Min.
Slot Card Type                         Ver.   Device: "ID-Name"    Version   Version
==== =====
=====
1/0 SPA-UBR10-DS-HD                     2.1   1-WESTLAKE FPGA     0.41
0.41
```

Please follow the below steps to upgrade the 3G SPA FPGA firmware:

1. Load the FPD package with the latest firmware to the bootflash. Customer can download the latest FPD file from the CCO:
<https://software.cisco.com/download/release.html?mdfid=284357715&softwareid=280805682&release=12.2.33-SCI3&os=null&dwldImageGuid=BD03C3E28E976D60C33473ADC09E054F5AD20186&atcFlag=A&i=rs>.
2. Run the following command to perform the upgrade:
upgrade hw-module subslot <slot/bay> fpd file <URL> reload
Please note that the firmware upgrade will reload the 3G SPA card with service impact hence a maintenance window is recommended. After the upgrade, please use the “show hw-module all fpd” command to verify the new firmware version.
3. If the running IOS is not the Cisco IOS 12.2(33) SCI3 image, the new FPD package needs to be deleted after the upgrade is done and customer needs to revert back to previous FPD package.



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