



# Troubleshoot IOS XR Setup and Upgrade

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## Handle boot loops after an upgrade

After an upgrade using a customized GISO image containing updated SMUs and a base ISO image, you may encounter persistent boot loops on ASR 9000 line cards.

A software synchronization resolves the issue.

### Procedure

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Execute the **hw-module location <location> bootmedia network reload** command to enforce software synchronization.

#### Example:

```
Router# hw-module location all bootmedia network reload
Router# hw-module location 0/0/CPU0 bootmedia network reload
```

#### Note

Make sure that you enable the [fpd auto-upgrade](#) command for a successful software synchronization.

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