ASR 9000 Fails to Join an nV Edge Cluster Due to an Incompatible Chassis Type

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Introduction

This document describes three scenarios when the 'Incompatible chassis types' error is displayed and provides a solution for each issue.

Problem

When an ASR 9000 Series Aggregation Services Router is booted up in an nV Edge (cluster) environment, this error message might be displayed and the boot process aborted.

```
mbi_val_process_packet: received repsonse (rack 1)
Received do not boot message: [min ver: 00.00] reason 6
Don't boot reason: Incompatible chassis types
MBI Validation aborted
```

There are three scenarios where you might see this 'Incompatible chassis types' error message. Solutions 1 and 2 ONLY apply to the ASR 9001−S, while solution 3 applies to any ASR 9000 chassis.

Solution 1. ASR 9001−S Cluster with 120 G License Installed

In this solution, there are two ASR 9001−S chassis which are clustered.

If one ASR 9001−S has been upgraded to 120 G, but the second ASR 9001−S only runs 60 G, then the incompatible chassis types error message is displayed when the second router is booted.

In order to fix the incompatibility, ensure that both routers are upgraded (120 G) or not upgraded (60 G).

The command ***show license log operational*** can be used in order to determine if the license is active.

In this example, the 120 G license is not operational.

```
RP/0/RSP0/CPU0:ASR9001#show license log operational
#ID     :SDR     :FeatureID       :NodeID    :Time:   Log
15      :Owner   :A9K-9001-120G-LIC:0/RSP0/CPU0:Wed Oct 16 05:44:35 2013:
license_acquire: opaque_string (null), result('License Manager' detected the
```

```
'warning' condition 'Licensed feature does not exist')
```

In this example, the 120 G license is operational.

```
RP/0/RSP0/CPU0:ASR9001#show license log operational
#ID     :SDR     :FeatureID       :NodeID    :Time:   Log
1       :Owner   :A9K-9001-120G-LIC:0/RSP0/CPU0:Sat Mar 15 00:22:09 2014:
license_acquire: opaque_string (null), result(No error)
```

Solution 2. ASR 9001−S IML Flag Incorrectly Set

In this solution, there are two ASR 9001−S chassis in a cluster and neither chassis has been upgraded to 120 G (see Solution 1 for verification).

The cause of this issue is that the Ironman License (IML) variable is incorrectly set to 1 in ROM Monitor (ROMMON). This variable should ONLY be set to 1 once the chassis is upgraded to 120 G.

In order to resolve this issue, set the IML variable to 0.

```
rommon B1 > IML=0
rommon B2 > sync
rommon B3 > boot
```

Solution 3. Two Different ASR 9000 Chassis Types in a Cluster

In this solution, two different chassis types are in a cluster.

ASR 9000 nV Edge does not allow different chassis to form a cluster. In the bootup phase, the system checks the chassis type for the purpose of clustering capabilities. Any different combination can hit this issue, such as ASR 9010 to ASR 9922 or ASR 9001 to ASR 9006.

In order to verify the chassis type, enter the command ***admin show diag chassis eeprom−info*** in XR or the ***bpcookie*** command in ROMMON.

This example shows the output for an ASR 9001 from XR.

```
RP/0/RSP0/CPU0:ASR9001#admin show diag chassis eeprom-info
Rack 0 − ASR−9001 Chassis
        Controller Family       : ef
        Controller Type         : 400
        PID                     : ASR-9001
```

This example shows the output for an ASR 9001 from ROMMON.

```
rommon B1 > bpcookie
bpcookie:
        Controller Family        : ef
        Controller Type          : 400
        Product Number           : ASR-9001
```

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