

# 升级nV卫星

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## 简介

本文描述如何升级有最短故障时间的网络虚拟化(nV)卫星，当您升级有附加的卫星9000系列时的Cisco聚合服务的路由器(ASR9K)。特别注意事项是需要的为了减少所有可能的中断由于主机或卫星设备升级。

## 自动升级

在版本5.3.2，自动升级功能支持6.0.0和以后。在更早版本中，有三个图像传送方案：

- **不兼容的镜像**—这是从主机的自动强制升级到卫星。
- **不新的镜像**—关于版本不匹配的此日志显示的信息，但是它被留下给用户转接/激活。
- **新的镜像**—这允许用户选择强制升级/降级。

使用自动升级功能，您能自动化第二个选项，造成此操作正如第一个选项并且推送最新的镜像，当卫星重新连接时。卫星自动升级功能的最好的类比是那一现场可编程序的设备(FPD)自动升级。

使用为了启用自动升级功能的命令是**升级在连接**，配置在*nv卫星*[satellite ID]设置从属方式下：

```
nv
satellite 100
type asr901
upgrade on-connect
!
```

**注意：**在卫星设备的手工的升级的本文档的剩余部分重点。

## 单址的

在单址的方案中，卫星只连接对单个ASR9K，因此意味着两重新加载在卫星被看到。第一卫星重新加载来自在Cisco IOS XR升级期间，重新加载的主机，并且第二重新加载来自升级的卫星Cisco IOS软件。

对于此种升级，请完成在**卫星升级**部分的步骤。

## 双重归属

如果升级连接到两台ASR9K主机的卫星，解决一个单址的卫星形成的某些挑战，但是特别注意事项是需要的为了最小化所有数据流损耗。

根据假设两台ASR9K主机是将更新和首先卫星为时，甚至以后，请采取这些步骤为了最小化所有中断：

1. 检查哪台主机每个卫星看到作为激活。
2. 验证卫星控制层面主机2。
3. 交换卫星主机2。
4. 验证控制和数据层面。
5. 升级主机1's XR软件。
6. 验证升级主机1。
7. 验证卫星控制层面主机1。
8. 交换所有卫星主机1。
9. 当前验证控制和数据层面卫星的在主机1。
10. 升级主机2's XR软件。
11. 验证控制层面主机2
12. 如所需要交换卫星。
13. 升级从任一主机的卫星。
14. 验证卫星升级。
15. 验证控制和数据层面卫星的。

这是这些步骤的详细信息与省略的重复性部分。

## 连接检查

### 验证卫星状态

此示例有主机三个卫星的环(100 , 101 , 102)用卫星100和102激活1 (9001-G)和卫星101激活主机 2 (9001-H)。

```
RP/0/RSP0/CPU0:ASR9001-G#show nv satellite status
```

```
Fri Aug 15 21:32:03.274 UTC
```

#### Satellite 100

```
-----  
Status: Connected (Stable)  
Redundancy: Active (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.1de4  
IPv4 address: 10.0.100.1 (auto)  
Serial Number: CAT1722U21S  
Remote version: Compatible (not latest version)  
  ROMMON: 2.1 (Latest)  
  FPGA: N/A  
  IOS: 1402.20 (Available: 1406.12)  
Configured satellite fabric links:  
  GigabitEthernet0/0/0/0  
-----  
  Status: Satellite Ready  
  Remote ports: GigabitEthernet0/0/0-9
```

#### Satellite 101

```
-----  
Status: Connected (Stable)  
Redundancy: Standby (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.2e24  
IPv4 address: 10.0.101.1 (auto)  
Serial Number: CAT1723U02B  
Remote version: Compatible (not latest version)  
  ROMMON: 2.1 (Latest)  
  FPGA: N/A  
  IOS: 1402.20 (Available: 1406.12)  
Configured satellite fabric links:  
  GigabitEthernet0/0/0/0  
-----  
  Status: Satellite Ready  
  Remote ports: GigabitEthernet0/0/0-9
```

#### Satellite 102

```
-----  
Status: Connected (Stable)  
Redundancy: Active (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.2ec4  
IPv4 address: 10.0.102.1 (auto)  
Serial Number: CAT1723U015  
Remote version: Compatible (not latest version)  
  ROMMON: 2.1 (Latest)  
  FPGA: N/A  
  IOS: 1402.20 (Available: 1406.12)  
Configured satellite fabric links:  
  GigabitEthernet0/0/0/0
```

```
-----  
Status: Satellite Ready  
Remote ports: GigabitEthernet0/0/0-9
```

## 检查配置

如果这些检查显示所有卫星如连接，则配置应该正确。如果任何卫星不在任一个ASR9Ks的CONNECTED状态，则其他故障排除也许是需要。

此配置是什么使用在本文中。

```
RP/0/RSP0/CPU0:ASR9001-G#show nv satellite status  
Fri Aug 15 21:32:03.274 UTC  
Satellite 100
```

```
-----  
Status: Connected (Stable)  
Redundancy: Active (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.1de4  
IPv4 address: 10.0.100.1 (auto)  
Serial Number: CAT1722U21S  
Remote version: Compatible (not latest version)  
ROMMON: 2.1 (Latest)  
FPGA: N/A  
IOS: 1402.20 (Available: 1406.12)  
Configured satellite fabric links:  
GigabitEthernet0/0/0/0  
-----
```

```
Status: Satellite Ready  
Remote ports: GigabitEthernet0/0/0-9
```

### Satellite 101

```
-----  
Status: Connected (Stable)  
Redundancy: Standby (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.2e24  
IPv4 address: 10.0.101.1 (auto)  
Serial Number: CAT1723U02B  
Remote version: Compatible (not latest version)  
ROMMON: 2.1 (Latest)  
FPGA: N/A  
IOS: 1402.20 (Available: 1406.12)  
Configured satellite fabric links:  
GigabitEthernet0/0/0/0  
-----
```

```
Status: Satellite Ready  
Remote ports: GigabitEthernet0/0/0-9
```

### Satellite 102

```
-----  
Status: Connected (Stable)  
Redundancy: Active (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.2ec4  
IPv4 address: 10.0.102.1 (auto)  
Serial Number: CAT1723U015  
Remote version: Compatible (not latest version)  
ROMMON: 2.1 (Latest)  
FPGA: N/A  
IOS: 1402.20 (Available: 1406.12)
```

```
Configured satellite fabric links:
GigabitEthernet0/0/0/0
-----
Status: Satellite Ready
Remote ports: GigabitEthernet0/0/0-9
```

## 验证卫星状态(摘要)

```
RP/0/RSP0/CPU0:ASR9001-H#show nv satellite status brief
```

```
Fri Aug 15 13:39:56.271 UTC
```

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Stby)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Act)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Stby)

如果一压缩的输出希望，则显示nv卫星状态摘要命令在两台主机可以使用。CONNECTED状态表明控制通道是可操作的，而操作和暂挂指示数据层面的状况每个卫星的每台主机。

## 主机优先级崔凡吉莱

### 崔凡吉莱主机优先级

对故障切换的简便的方法对另一台ASR9K主机的一个卫星是更改主机优先级在配置里。在本例中，主机优先级设置为最高值(最低优先级)，以便在环交换机的所有卫星主机2。

```
RP/0/RSP0/CPU0:ASR9001-G#config t
Fri Aug 15 21:39:50.909 UTC
RP/0/RSP0/CPU0:ASR9001-G(config)#nv
RP/0/RSP0/CPU0:ASR9001-G(config-nV)#satellite 100
RP/0/RSP0/CPU0:ASR9001-G(config-satellite)#redundancy
RP/0/RSP0/CPU0:ASR9001-G(config-nV-red)#host-priority 255
RP/0/RSP0/CPU0:ASR9001-G(config-nV-red)#exit
RP/0/RSP0/CPU0:ASR9001-G(config-satellite)#exit
RP/0/RSP0/CPU0:ASR9001-G(config-nV)#satellite 102
RP/0/RSP0/CPU0:ASR9001-G(config-satellite)#redundancy
RP/0/RSP0/CPU0:ASR9001-G(config-nV-red)#host-priority 255
RP/0/RSP0/CPU0:ASR9001-G(config-nV-red)#end
Uncommitted changes found, commit them before exiting(yes/no/cancel)? [cancel]:y
```

### 验证主机优先级崔凡吉莱

为了验证此更改，可以使用显示nv卫星状态摘要命令。

```
RP/0/RSP0/CPU0:ASR9001-G#show nv satellite status brief
```

```
Fri Aug 15 21:40:35.876 UTC
```

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Stby)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Stby)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Stby)

```
RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri
```

```
Fri Aug 15 13:42:15.847 UTC
```

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Act)

```
101    asr901    10.0.101.1    4c00.8287.2e24    Connected (Act)
102    asr901    10.0.102.1    4c00.8287.2ec4    Connected (Act)
```

## 主机升级

1. 在主机看到所有卫星的您验证后，当，并且主机看到一样暂挂所有的卫星的激活，请遵从正常升级程序象[描述](#)在Cisco在线连接(CCO)，或者根据所有测试的方法步骤(MOP)，在所有卫星暂挂的主机。
2. 在第一台主机升级后，并且所有安装POST检查被确认，请跟随[连接检查](#)部分为了验证卫星连接到两台主机。一旦连接验证，请跟随[主机优先级崔凡吉莱](#)部分为了换成卫星升级的主机通过降低优先级。
3. 一旦所有卫星连接作为待机主机2，升级此主机和根据CCO升级指南或MOP执行所有安装验证步骤和所有卫星检查根据[连接检查](#)。
4. 最后，请继续对卫星升级。

## 卫星升级

新的卫星(9000v和901)镜像在asr9k-9000v-nV-px-<release>and asr9k-901-nV-px-<release>包恭敬地包含。一旦这些包在主机激活，卫星也许升级。

为了下载和激活在卫星的软件镜像，请使用[安装nv卫星](#)in命令EXEC模式。

```
install nv satellite { satellite id / all } { transfer | activate }
```

### 语法说明

卫星id 指定镜像必须转接卫星的唯一标识符。

所有 执行在已经不在目标版本的所有当前活跃的卫星的操作。

转移 下载从主机的镜像到卫星设备。

激活 执行在卫星的安装操作。

**注意：**关于如何升级先进的拓扑的详情例如简单环，请参阅[提示和窍门](#)部分。

## 验证卫星升级

在您发出[安装nv卫星](#)命令和卫星重新加载后，输出显示nv卫星状态应该显示ROMMON、现场可编程门阵列(FPGA)和Cisco IOS版本最晚。如果其中每一个不说新，则其他故障排除是需要的为了确定镜像为什么未升级。

**注意：**在您与Cisco技术支持中心(TAC)联系前，请检查[卫星镜像和已知问题](#)部分。

```
RP/0/RSP0/CPU0:ASR9001-H#show nv satellite status
Fri Aug 15 19:54:26.429 UTC
Satellite 100
-----
Status: Connected (Stable)
Redundancy: Active (Group: 1)
Type: asr901
MAC address: 4c00.8287.1de4
IPv4 address: 10.0.100.1 (auto)
Serial Number: CAT1722U21S
```

```
Remote version: Compatible (not latest version)
ROMMON: 2.1 (Latest)
FPGA: N/A
IOS: 1402.20 (Available: 1406.12)
Configured satellite fabric links:
GigabitEthernet0/0/0/0
-----
Status: Satellite Ready
Remote ports: GigabitEthernet0/0/0-9
```

```
Satellite 101
-----
Status: Connected (Stable)
Redundancy: Active (Group: 1)
Type: asr901
MAC address: 4c00.8287.2e24
IPv4 address: 10.0.101.1 (auto)
Serial Number: CAT1723U02B
Remote version: Compatible (latest version)
ROMMON: 2.1 (Latest)
FPGA: N/A
IOS: 1406.12 (Latest)
Configured satellite fabric links:
GigabitEthernet0/0/0/0
-----
Status: Satellite Ready
Remote ports: GigabitEthernet0/0/0-9
```

## [附录](#)

### 提示和窍门

#### 升级多个卫星

多个卫星可以为**安装nv卫星**命令选择是否由逗号使用一个范围，例如100-110，或者，例如100,105,115。

**注意：**请使用**转移**选项平行转换所有镜像，跟随由**激活**关键字为了激活卫星按或并行顺序。

#### 升级卫星环

当在环的一个卫星迅速时能(典型地少于一秒钟)请转换到备份主机，若可能它是最佳实践避免此和使用主机优先级功能一个用户调用的切换而不是一个事件触发的切换。

就此而论，如果升级一个卫星(在本例中的SAT101)在环，并且另一个卫星的活动数据路径通过此卫星(SAT102)，然后将有活动数据路径的切换SAT102的，当SAT101使用新的镜像和第二个切换的重新启动SAT102在SAT101以后回来联机。

为了说明此，在这些示例此拓扑与所有卫星一起使用活动对9001H和待机对9001G。

```
RP/0/RSP0/CPU0:ASR9001-H#show nv satellite status
```

Fri Aug 15 19:54:26.429 UTC  
Satellite 100

-----  
Status: Connected (Stable)  
Redundancy: Active (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.1de4  
IPv4 address: 10.0.100.1 (auto)  
Serial Number: CAT1722U21S  
**Remote version: Compatible (not latest version)**  
**ROMMON: 2.1 (Latest)**  
**FPGA: N/A**  
**IOS: 1402.20 (Available: 1406.12)**

Configured satellite fabric links:  
GigabitEthernet0/0/0/0  
-----  
Status: Satellite Ready  
Remote ports: GigabitEthernet0/0/0-9

Satellite 101

-----  
Status: Connected (Stable)  
Redundancy: Active (Group: 1)  
Type: asr901  
MAC address: 4c00.8287.2e24  
IPv4 address: 10.0.101.1 (auto)  
Serial Number: CAT1723U02B  
**Remote version: Compatible (latest version)**  
**ROMMON: 2.1 (Latest)**  
**FPGA: N/A**  
**IOS: 1406.12 (Latest)**

Configured satellite fabric links:  
GigabitEthernet0/0/0/0  
-----  
Status: Satellite Ready  
Remote ports: GigabitEthernet0/0/0-9

### 示例：错误的方式升级

问：当SAT101从9001H时，升级什么发生？

回答:当卫星101重新加载，卫星100丢失其控制链路对9001H并且转换到9001G。卫星102丢失其对9001G的连接，但是数据层面不交换。一旦卫星101恢复，并且在9001H和卫星100之间的控制通道重新建立，此卫星再交换并且开始使用9001H，当其主要数据再飞行路径。

这验证每个卫星的数据层面状态，有9001G一样暂挂和9001H的象激活。

```
RP/0/RSP0/CPU0:ASR9001-G#show nv satellite status brief
```

Fri Aug 15 21:40:35.876 UTC

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Stby)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Stby)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Stby)

这是从主机9001H升级的示例卫星101。

**注意：哪台主机启动升级不是重要。**

```
RP/0/RSP0/CPU0:ASR9001-H#install nv satellite 101 activate
```



Fri Aug 15 18:05:27.899 UTC

The operation will cause an image to be transferred, and then activated on the requested satellite.

WARNING: This will take the requested satellite out of service.

Do you wish to continue? [confirm(y/n)] y

Install Op 1: activate: 101

1 configured satellite has been specified for activate.

1 satellite has successfully initiated activate.

当使用其新的镜像的卫星101重新加载以下如在下面的输出中看到发生：

1. 卫星100丢失其对9001H的控制和数据层面连接
2. 卫星100将开始使用9001G其活动数据路径
3. 卫星102丢失其对9001G的控制连接

RP/0/RSP0/CPU0:ASR9001-G#show nv satellite status brief

Sat Aug 16 02:15:44.148 UTC

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Act)
101	asr901	10.0.101.1	0000.0000.0000	Discovery Stalled; Conflict: no Identification received yet
102	asr901	10.0.102.1	0000.0000.0000	Discovery Stalled; Conflict: no Identification received yet

一旦卫星101恢复，并且对卫星100的控制连接被重建对9001H，所有卫星再是暂挂对9001G和激活对9001H。这意味着卫星100执行第二个切换。

RP/0/RSP0/CPU0:ASR9001-G#show nv satellite status brief

Sat Aug 16 02:15:44.148 UTC

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Act)
101	asr901	10.0.101.1	0000.0000.0000	Discovery Stalled; Conflict: no Identification received yet
102	asr901	10.0.102.1	0000.0000.0000	Discovery Stalled; Conflict: no Identification received yet

一旦卫星升级，您应该看到卫星状态和以前一样。

RP/0/RSP0/CPU0:ASR9001-H#show nv satellite status brief

Fri Aug 15 18:20:59.515 UTC

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Act)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Act)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Act)

### 示例：正确方式升级

使用拓扑和前一个示例和开始用需要升级的所有卫星一样，此示例显示正确方式升级环。

**注意：**转移平行被执行，但是一些转移比其他也许采取长完成。推荐首先转换镜像到所有卫星系统地然后启动安装的激活部分为了节省时间和防止卫星的多余的重新加载。

**注意：**此示例作为参考每次显示一个卫星的激活，但是所有卫星可以立即激活如被看到的以后在此部分。

检查卫星的状态从两台主机的然后转换镜像到所有卫星。

```
RP/0/RSP0/CPU0:ASR9001-G#show nv sat stat bri
```

```
Fri Aug 22 20:15:59.830 UTC
```

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Stby)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Stby)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Stby)

```
RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri
```

```
Fri Aug 22 12:17:20.811 UTC
```

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Act)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Act)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Act)

```
RP/0/RSP0/CPU0:ASR9001-H#install nv satellite 100-102 transfer
```

```
Fri Aug 22 12:17:51.647 UTC
```

```
Install Op 1: transfer: 100-102
```

```
3 configured satellites have been specified for transfer.
```

```
3 satellites have successfully initiated transfer.
```

```
RP/0/RSP0/CPU0:ASR9001-H#RP/0/RSP0/CPU0:Aug 22 12:23:16.238 : icpe_satmgr[1168]:
```

```
%PKT_INFRA-ICPE_GCO-6-TRANSFER_DONE : Image transfer completed on Satellite 100
```

```
RP/0/RSP0/CPU0:Aug 22 12:27:55.990 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-TRANSFER_DONE : Image transfer completed on Satellite 101
```

```
RP/0/RSP0/CPU0:Aug 22 12:28:01.876 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-TRANSFER_DONE : Image transfer completed on Satellite 102
```

在此以后，因为所有卫星是活跃的对9001H，首先请激活卫星100。由于此，9001G丢失对所有卫星的控制连接在环。

```
RP/0/RSP0/CPU0:ASR9001-H#install nv satellite 100 activate
```

```
Fri Aug 22 12:30:13.088 UTC
```

```
WARNING: This will take the requested satellite out of service.
```

```
Do you wish to continue? [confirm(y/n)] y
```

```
Install Op 2: activate: 100
```

```
1 configured satellite has been specified for activate.
```

```
1 satellite has successfully initiated activate.
```

```
RP/0/RSP0/CPU0:ASR9001-H#
```

```
RP/0/RSP0/CPU0:ASR9001-H#RP/0/RSP0/CPU0:Aug 22 12:30:45.639 : icpe_satmgr[1168]:
```

```
%PKT_INFRA-ICPE_GCO-5-SATELLITE_STATUS : Satellite 100 one or more links may be down - traffic may be impacted
```

```
RP/0/RSP0/CPU0:Aug 22 12:30:45.639 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-INSTALL_DONE : Image install completed on Satellite 100
```

```
RP/0/RSP0/CPU0:Aug 22 12:30:45.658 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR: Node 100 removed
```

```
RP/0/RSP0/CPU0:Aug 22 12:33:28.059 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-SATELLITE_STATUS : Satellite 100 up
```

```
RP/0/RSP0/CPU0:Aug 22 12:33:30.446 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR: Node 100/ inserted
```

```
RP/0/RSP0/CPU0:Aug 22 12:33:30.449 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR: Node 100/ inserted
```

```
LC/0/0/CPU0:Aug 22 12:33:30.495 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface GigabitEthernet100/0/0/0, changed state to Up
```

```
LC/0/0/CPU0:Aug 22 12:33:30.497 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line protocol on Interface GigabitEthernet100/0/0/0, changed state to Up
```

```
LC/0/0/CPU0:Aug 22 12:33:43.498 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface GigabitEthernet100/0/0/0, changed state to Down
```

```
LC/0/0/CPU0:Aug 22 12:33:43.498 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line protocol on Interface GigabitEthernet100/0/0/0, changed state to Down
```

```
LC/0/0/CPU0:Aug 22 12:33:45.487 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface GigabitEthernet100/0/0/0, changed state to Up
```

```

LC/0/0/CPU0:Aug 22 12:33:45.490 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet100/0/0/0, changed state to Up
RP/0/RSP0/CPU0:Aug 22 12:33:48.549 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR: Node
inserted
RP/0/RSP0/CPU0:Aug 22 12:33:53.557 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR: Node
inserted
RP/0/RSP0/CPU0:Aug 22 12:33:53.560 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR: Node
inserted
RP/0/RSP0/CPU0:Aug 22 12:33:53.563 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR: Node
inserted
RP/0/RSP0/CPU0:Aug 22 12:33:53.568 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR: Node
inserted
LC/0/0/CPU0:Aug 22 12:33:57.750 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface
GigabitEthernet100/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 12:33:57.750 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet100/0/0/0, changed state to Down
RP/0/RSP0/CPU0:Aug 22 12:34:06.111 : invmgr[254]: %PLATFORM-INV-6-IF_OIRIN : xFP OIR:
SAT100/0/0 GigabitEthernet port_num: 0 is inserted, state: 1
RP/0/RSP0/CPU0:Aug 22 12:34:06.113 : invmgr[254]: %PLATFORM-INV-6-IF_OIROUT : xFP OIR:
SAT100/0/0 GigabitEthernet port_num: 0 is removed, state: 0
RP/0/RSP0/CPU0:Aug 22 12:34:06.118 : invmgr[254]: %PLATFORM-INV-6-IF_OIRIN : xFP OIR:
SAT100/0/0 GigabitEthernet port_num: 4 is inserted, state: 1

```

```
RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri
```

```
Fri Aug 22 12:34:13.401 UTC
```

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Act)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Act; Transferred)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Act; Transferred)

一旦卫星100恢复，请换成其活动数据路径9001G并且继续与升级的升级进程到卫星101和终于卫星102。

**注意：**当卫星重新加载，您可以也更改主机优先级配置和因而防止所有切换时。

```
RP/0/RSP0/CPU0:ASR9001-G#show run nv satellite 100
```

```
Fri Aug 22 20:35:59.435 UTC
```

```

nv
 satellite 100
 type asr901
 redundancy
  host-priority 255
 !
 serial-number CAT1722U21S
 !
 !

```

```
RP/0/RSP0/CPU0:ASR9001-G#config t
```

```
Fri Aug 22 20:36:03.839 UTC
```

```

RP/0/RSP0/CPU0:ASR9001-G(config)#nv sat 100
RP/0/RSP0/CPU0:ASR9001-G(config-satellite)#redundancy
RP/0/RSP0/CPU0:ASR9001-G(config-nV-red)#host-priority 50
RP/0/RSP0/CPU0:ASR9001-G(config-nV-red)#end
Uncommitted changes found, commit them before exiting(yes/no/cancel)? [cancel]:y

```

```

RP/0/RSP0/CPU0:Aug 22 20:36:18.401 : config[65867]: %MGBL-CONFIG-6-DB_COMMIT :
Configuration committed by user 'lab'. Use 'show configuration commit changes
1000000053' to view the changes.

```

```

RP/0/RSP0/CPU0:Aug 22 20:36:18.429 : config[65867]: %MGBL-SYS-5-CONFIG_I :
Configured from console by lab on vty0 (64.102.157.220)

```

```

RP/0/RSP0/CPU0:ASR9001-G#LC/0/0/CPU0:Aug 22 20:36:20.291 : ifmgr[208]:
%PKT_INFRA-LINK-3-UPDOWN : Interface GigabitEthernet100/0/0/0, changed state to Up

```

LC/0/0/CPU0:Aug 22 20:36:20.293 : ifmgr[208]: %PKT\_INFRA-LINEPROTO-5-UPDOWN :  
Line protocol on Interface GigabitEthernet100/0/0/0, changed state to Up

RP/0/RSP0/CPU0:ASR9001-G#show nv sat stat bri

Fri Aug 22 20:37:19.041 UTC

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Act)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Stby)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Stby)

RP/0/RSP0/CPU0:ASR9001-G#RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri

Fri Aug 22 12:40:26.728 UTC

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Stby)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Act; Transferred)
102	asr901	10.0.102.1	4c00.8287.2ec4	Connected (Act; Transferred)

RP/0/RSP0/CPU0:ASR9001-H#install nv satellite 101 activate

Fri Aug 22 12:40:39.496 UTC

WARNING: This will take the requested satellite out of service.

Do you wish to continue? [confirm(y/n)] y

Install Op 3: activate: 101

1 configured satellite has been specified for activate.

1 satellite has successfully initiated activate.

RP/0/RSP0/CPU0:ASR9001-H#RP/0/RSP0/CPU0:Aug 22 12:41:11.108 : icpe\_satmgr[1168]:  
%PKT\_INFRA-ICPE\_GCO-5-SATELLITE\_STATUS : Satellite 100 one or more links may be  
down - traffic may be impacted

RP/0/RSP0/CPU0:Aug 22 12:41:11.108 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 101 one or more links may be down - traffic may  
be impacted

RP/0/RSP0/CPU0:Aug 22 12:41:11.108 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-6-  
INSTALL\_DONE : Image install completed on Satellite 101

RP/0/RSP0/CPU0:Aug 22 12:41:11.125 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:  
Node 100 removed

RP/0/RSP0/CPU0:Aug 22 12:41:11.134 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:  
Node 101 removed

LC/0/0/CPU0:Aug 22 12:41:11.150 : ifmgr[208]: %PKT\_INFRA-LINK-3-UPDOWN : Interface  
GigabitEthernet100/0/0/0, changed state to Down

LC/0/0/CPU0:Aug 22 12:41:11.150 : ifmgr[208]: %PKT\_INFRA-LINEPROTO-5-UPDOWN : Line  
protocol on Interface GigabitEthernet100/0/0/0, changed state to Down

RP/0/RSP0/CPU0:Aug 22 12:44:08.154 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 101 up

RP/0/RSP0/CPU0:Aug 22 12:44:10.598 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR:  
Node 101/ inserted

RP/0/RSP0/CPU0:Aug 22 12:44:14.031 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 100 up

由于卫星101激活，这发生，当重新加载：

- 是的SAT 100暂挂对9001H丢失其对9001G的备用控制飞机连接。
- SAT 101丢失其数据层面和控制层面对两hostss
- 是的SAT 102暂挂对9001G丢失其对9001G的备用控制飞机连接。
- 在SAT 100和102的数据层面没有影响和切换。

RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri

Fri Aug 22 12:40:26.728 UTC

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	4c00.8287.1de4	Connected (Stby)
101	asr901	10.0.101.1	4c00.8287.2e24	Connected (Act; Transferred)

102 asr901 10.0.102.1 4c00.8287.2ec4 Connected (Act; Transferred)

RP/0/RSP0/CPU0:ASR9001-H#**install nv satellite 101 activate**

Fri Aug 22 12:40:39.496 UTC

WARNING: This will take the requested satellite out of service.

Do you wish to continue? [confirm(y/n)] y

Install Op 3: activate: 101

1 configured satellite has been specified for activate.

1 satellite has successfully initiated activate.

RP/0/RSP0/CPU0:ASR9001-H#RP/0/RSP0/CPU0:Aug 22 12:41:11.108 : icpe\_satmgr[1168]:  
%PKT\_INFRA-ICPE\_GCO-5-SATELLITE\_STATUS : Satellite 100 one or more links may be  
down - traffic may be impacted

RP/0/RSP0/CPU0:Aug 22 12:41:11.108 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 101 one or more links may be down - traffic may  
be impacted

RP/0/RSP0/CPU0:Aug 22 12:41:11.108 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-6-  
INSTALL\_DONE : Image install completed on Satellite 101

RP/0/RSP0/CPU0:Aug 22 12:41:11.125 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:  
Node 100 removed

RP/0/RSP0/CPU0:Aug 22 12:41:11.134 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:  
Node 101 removed

LC/0/0/CPU0:Aug 22 12:41:11.150 : ifmgr[208]: %PKT\_INFRA-LINK-3-UPDOWN : Interface  
GigabitEthernet100/0/0/0, changed state to Down

LC/0/0/CPU0:Aug 22 12:41:11.150 : ifmgr[208]: %PKT\_INFRA-LINEPROTO-5-UPDOWN : Line  
protocol on Interface GigabitEthernet100/0/0/0, changed state to Down

RP/0/RSP0/CPU0:Aug 22 12:44:08.154 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 101 up

RP/0/RSP0/CPU0:Aug 22 12:44:10.598 : invmgr[254]: %PLATFORM-INV-6-OIRIN : OIR:  
Node 101/ inserted

RP/0/RSP0/CPU0:Aug 22 12:44:14.031 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 100 up

## 升级多个卫星立即

您能指定多个卫星而不是每次激活一个卫星。

**注意：**这没有为环状拓扑推荐。

RP/0/RSP0/CPU0:ASR9001-H#**install nv satellite 100-102 activate**

Fri Aug 22 13:04:35.604 UTC

The operation will cause an image to be transferred where required, and then  
activate new versions on the requested satellites.

WARNING: This will take the requested satellites out of service.

Do you wish to continue? [confirm(y/n)] y

Install Op 5: activate: 100-102

3 configured satellites have been specified for activate.

3 satellites have successfully initiated activate.

RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 100 one or more links may be down - traffic may  
be impacted

RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-5-  
SATELLITE\_STATUS : Satellite 101 one or more links may be down - traffic may  
be impacted

RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-6-  
INSTALL\_DONE : Image install completed on Satellite 100

RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe\_satmgr[1168]: %PKT\_INFRA-ICPE\_GCO-6-  
INSTALL\_DONE : Image install completed on Satellite 101

RP/0/RSP0/CPU0:Aug 22 13:05:07.630 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:  
Node 100 removed

```

RP/0/RSP0/CPU0:Aug 22 13:05:07.640 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 101 removed
LC/0/0/CPU0:Aug 22 13:05:07.653 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface
GigabitEthernet100/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.653 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet100/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.912 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface
GigabitEthernet0/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.912 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet0/0/0/0, changed state to Down
RP/0/RSP0/CPU0:Aug 22 13:05:07.916 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-
SATELLITE_STATUS : Satellite 102 one or more links may be down - traffic may
be impacted
RP/0/RSP0/CPU0:Aug 22 13:05:07.916 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-
INSTALL_DONE : Image install completed on Satellite 102
RP/0/RSP0/CPU0:Aug 22 13:05:07.934 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 102 removed

```

```

RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri
Fri Aug 22 13:06:12.255 UTC
Sat-ID   Type      IP Address      MAC address      Status
-----
100      asr901    10.0.100.1     0000.0000.0000  Discovery Stalled; Conflict:
interface is down
101      asr901    10.0.101.1     0000.0000.0000  Discovery Stalled; Conflict:
interface is down
102      asr901    10.0.102.1     0000.0000.0000  Discovery Stalled; Conflict:
interface is down

```

## 示例：卫星的自动升级

此部分提供升级的示例给一个最新卫星代码和自动升级功能触发。

```

RP/0/RSP0/CPU0:ASR9001-H#install nv satellite 100-102 activate
Fri Aug 22 13:04:35.604 UTC
The operation will cause an image to be transferred where required, and then
activate new versions on the requested satellites.
WARNING: This will take the requested satellites out of service.
Do you wish to continue? [confirm(y/n)] y
Install Op 5: activate: 100-102
3 configured satellites have been specified for activate.
3 satellites have successfully initiated activate.

RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-
SATELLITE_STATUS : Satellite 100 one or more links may be down - traffic may
be impacted
RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-
SATELLITE_STATUS : Satellite 101 one or more links may be down - traffic may
be impacted
RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-
INSTALL_DONE : Image install completed on Satellite 100
RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-
INSTALL_DONE : Image install completed on Satellite 101
RP/0/RSP0/CPU0:Aug 22 13:05:07.630 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 100 removed
RP/0/RSP0/CPU0:Aug 22 13:05:07.640 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 101 removed
LC/0/0/CPU0:Aug 22 13:05:07.653 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface
GigabitEthernet100/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.653 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet100/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.912 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface

```

```
GigabitEthernet0/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.912 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet0/0/0/0, changed state to Down
RP/0/RSP0/CPU0:Aug 22 13:05:07.916 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-
SATELLITE_STATUS : Satellite 102 one or more links may be down - traffic may
be impacted
RP/0/RSP0/CPU0:Aug 22 13:05:07.916 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-
INSTALL_DONE : Image install completed on Satellite 102
RP/0/RSP0/CPU0:Aug 22 13:05:07.934 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 102 removed
```

```
RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri
Fri Aug 22 13:06:12.255 UTC
Sat-ID   Type      IP Address      MAC address      Status
-----
100      asr901    10.0.100.1      0000.0000.0000  Discovery Stalled; Conflict:
interface is down
101      asr901    10.0.101.1      0000.0000.0000  Discovery Stalled; Conflict:
interface is down
102      asr901    10.0.102.1      0000.0000.0000  Discovery Stalled; Conflict:
interface is down
```

## 卫星镜像

这是预计版本化列表卫星的。

### 9000v

XR版本	第一批发 货 (FCS)或 软件维护 升级 (SMU)	镜像类型	镜像版本	备注
4.2.1	FCS	Cisco IOS/内核	202.0 (151- 3.SVA)	202- 209.9
		ROMMO N	125	
		FPGA	1.13	
4.2.3	FCS	Cisco IOS/内核	210 (151- 3.SVB)	210- 219.9
		ROMMO N	125	
		FPGA	1.13	
	<a href="#">CSCuc5 9715</a>	Cisco IOS/内核	211	
		ROMMO N	125	
		FPGA	1.13	
	<a href="#">CSCty86 900</a>	Cisco IOS/内核	212	
		ROMMO N	125	

		FPGA	1.13	
	<a href="#">CSCuI0 9549</a>	Cisco IOS/内核	213	
		ROMMO N	125	
		FPGA	1.13	
4.3.0	FCS	Cisco IOS/内核	252 (151- 3.SVC)	250- 259.9
		ROMMO N	125	
		FPGA	1.13	
4.3.1	FCS	Cisco IOS/内核	276 (151- 3.SVD)	
		ROMMO N	125	
		FPGA	1.13	
	<a href="#">CSCuj9 7259</a>	Cisco IOS/内核	277	
		ROMMO N	125	
		FPGA	1.13	
	<a href="#">CSCui7 7863</a>	Cisco IOS/内核	278	
		ROMMO N	125	
		FPGA	1.13	
	<a href="#">CSCuj9 7259</a>	Cisco IOS/内核	279	
		ROMMO N	125	
		FPGA	1.13	
4.3.2		Cisco IOS/内核	285 (151-3.SVF)	
		ROMMO N	125	
		FPGA	1.13	
4.3.4		Cisco IOS/内核	287 (151- 3.SVFa)	它也许说 285联机 ,这是错 误的。
		ROMMO N	125	
		FPGA	1.13	
5.1.0		Cisco IOS/内核	292 (151-3.SVE)	
		ROMMO N	125	
		FPGA	1.13	
5.1.1		Cisco IOS/内核	322.6 (151- 3.SVG)	
		ROMMO	126	为了使用



高级特性  
，卫星必  
须运行此  
版本。

N

5.1.2	FPGA	1.13	
	Cisco		
	IOS/内核	327 (151-3.SVG2)	
	ROMMO		
	N	127	
	FPGA	1.13	
5.1.3	Cisco	338.1	
	IOS/内核	(151-3.SVI)	
	ROMMO		
	N	127	
	FPGA	1.13	
5.2.0	Cisco	353 (151-3.SVH)	
	IOS/内核		
	ROMMO		
	N	127	
	FPGA	1.13	
5.2.1	Cisco	353 (151-3.SVH)	
	IOS/内核		
	ROMMO		
	N	127	
	FPGA	1.13	
5.2.2	Cisco	378 (151-3.SVH2)	
	IOS/内核		
	ROMMO		
	N	127	
	FPGA	1.13	
5.3.0	Cisco	530.101 (151-3.SVI)	
	IOS/内核		
	ROMMO		
	N	127.0	
	FPGA	1.13	
5.3.1	Cisco	531.101	
	IOS/内核		
	ROMMO		
	N	127.0	
	FPGA	1.13	
5.3.2	Cisco	532.101	
	IOS/内核		
	ROMMO		
	N	127.0	
	FPGA	1.13	

901

XR版本	FCS或SMU	镜像类型	镜像版本	备注
4.3.0	FCS	Cisco IOS/内核	1212.1	
		ROMMON	2.1	

		FPGA	n/a
4.3.1	FCS	Cisco IOS/内核	1304.23
		ROMMON	2.1
		FPGA	n/a
4.3.2	FCS	Cisco IOS/内核	1308.18
		ROMMON	2.1
		FPGA	n/a
4.3.4	FCS	Cisco IOS/内核	1312.06
		ROMMON	2.1
		FPGA	n/a
5.1.0	FCS	Cisco IOS/内核	1308.18
		ROMMON	2.1
		FPGA	n/a
5.1.1	FCS	Cisco IOS/内核	1401.13
		ROMMON	2.1
		FPGA	n/a
5.1.2	FCS	Cisco IOS/内核	1404.11
		ROMMON	2.1
		FPGA	n/a
5.1.3	FCS	Cisco IOS/内核	1408.01
		ROMMON	2.1
		FPGA	n/a
5.2.0	FCS	Cisco IOS/内核	1406.12
		ROMMON	2.1
		FPGA	n/a
5.2.1	FCS	Cisco IOS/内核	1406.12
		ROMMON	2.1
		FPGA	n/a
5.2.2	FCS	Cisco IOS/内核	1409.29
		ROMMON	2.1
		FPGA	n/a
5.3.0	FCS	Cisco IOS/内核	1409.29
		ROMMON	2.1
		FPGA	n/a

## 已知问题

### 图像下载发生故障

```
RP/0/RSP0/CPU0:ASR9001-H#install nv satellite 100-102 activate
Fri Aug 22 13:04:35.604 UTC
The operation will cause an image to be transferred where required, and then
activate new versions on the requested satellites.
WARNING: This will take the requested satellites out of service.
Do you wish to continue? [confirm(y/n)] y
Install Op 5: activate: 100-102
3 configured satellites have been specified for activate.
3 satellites have successfully initiated activate.

RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-
SATELLITE_STATUS : Satellite 100 one or more links may be down - traffic may
be impacted
RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-
```

```

SATELLITE_STATUS : Satellite 101 one or more links may be down - traffic may
be impacted
RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-
INSTALL_DONE : Image install completed on Satellite 100
RP/0/RSP0/CPU0:Aug 22 13:05:07.612 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-
INSTALL_DONE : Image install completed on Satellite 101
RP/0/RSP0/CPU0:Aug 22 13:05:07.630 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 100 removed
RP/0/RSP0/CPU0:Aug 22 13:05:07.640 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 101 removed
LC/0/0/CPU0:Aug 22 13:05:07.653 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface
GigabitEthernet100/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.653 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet100/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.912 : ifmgr[208]: %PKT_INFRA-LINK-3-UPDOWN : Interface
GigabitEthernet0/0/0/0, changed state to Down
LC/0/0/CPU0:Aug 22 13:05:07.912 : ifmgr[208]: %PKT_INFRA-LINEPROTO-5-UPDOWN : Line
protocol on Interface GigabitEthernet0/0/0/0, changed state to Down
RP/0/RSP0/CPU0:Aug 22 13:05:07.916 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-5-
SATELLITE_STATUS : Satellite 102 one or more links may be down - traffic may
be impacted
RP/0/RSP0/CPU0:Aug 22 13:05:07.916 : icpe_satmgr[1168]: %PKT_INFRA-ICPE_GCO-6-
INSTALL_DONE : Image install completed on Satellite 102
RP/0/RSP0/CPU0:Aug 22 13:05:07.934 : invmgr[254]: %PLATFORM-INV-6-OIROUT : OIR:
Node 102 removed

```

```
RP/0/RSP0/CPU0:ASR9001-H#show nv sat stat bri
```

```
Fri Aug 22 13:06:12.255 UTC
```

Sat-ID	Type	IP Address	MAC address	Status
100	asr901	10.0.100.1	0000.0000.0000	Discovery Stalled; Conflict: interface is down
101	asr901	10.0.101.1	0000.0000.0000	Discovery Stalled; Conflict: interface is down
102	asr901	10.0.102.1	0000.0000.0000	Discovery Stalled; Conflict: interface is down

建议：检查管理层面保护(MPP)配置为了保证TFTP设置允许为机箱之间林克(ICL)端口。

## 图像下载不正确地说完成

在此方案中，接口控制飞机扩展器(ICPE)报道安装完成，但是，当您检查卫星时，它不运行新版本。

```

RP/0/RSP0/CPU0:asr9k#install nv satellite 101 transfer progress
Wed Dec 18 16:36:43.381 CST
1 configured satellite has been specified for transfer.
1 satellite has successfully initiated transfer.
| Working...RP/0/RSP0/CPU0:Dec 18 16:37:00.072 CST: icpe_gco[1148]:
%PKT_INFRA-ICPE_
GCO-6-TRANSFER_DONE : Image transfer completed on Satellite 101
Press Ctrl+C at any time to stop displaying the current progress.
Completed.
1 satellite has successfully completed the transfer operation: 101.

```

```

RP/0/RSP0/CPU0:asr9k#install nv satellite 101 activate progress
Wed Dec 18 16:37:26.943 CST
WARNING: This will take the requested satellite out of service.
Do you wish to continue? [confirm(y/n)] y
1 configured satellite has been specified for install.
1 satellite has successfully initiated install.

```

```
<snip>
RP/0/RSP0/CPU0:Dec 18 16:37:29.962 CST: icpe_gco[1148]:
%PKT_INFRA-ICPE_GCO-6-INSTALL_DONE :
Image install completed on Satellite 101
RP/0/RSP0/CPU0:Dec 18 16:37:29.968 CST: invmgr[262]:
%PLATFORM-INV-6-OIROUT : OIR: Node 101
removed
Completed.
1 satellite has successfully completed the install operation: 101.
```

```
RP/0/RSP0/CPU0:asr9k#show nv satellite status satellite 101
Wed Dec 18 16:39:09.258 CST
Satellite 101
```

```
-----
State: Connected (Stable)
Type: asr9000v
MAC address: 8478.ac05.8a14
IPv4 address: 101.101.101.101
Configured Serial Number: CAT1733U1K2
Received Serial Number: CAT1733U1K2
Remote version: Compatible (not latest version)
```

```
ROMMON: 125.0 (Latest)
FPGA: 1.13 (Latest)
IOS: 210.0 (Available: 292.0)
```

检查什么：

- MPP配置(请参阅前面部分)。
- 如果**进度**关键字用于安装CLI，请勿在版本5.1.2或5.2.0之前使用**进度**关键字。
- 保证TFTP homedir**没有**设置(例如，tftp VRF默认ipv4服务器homedir disk0 : )。
- 如果卫星是ASR901，安装也许发生故障由于空间限制。建议是删除非nv从901闪存的镜像和执行**squeeze flash**:为了可用空间。

**注意：**图像传送应该花费大约五分钟。

### 5.1.1双归属问题

有已知问题，当您从版本5.1.1升级到版本5.1.2时或，当也许造成升级出故障，在[Cisco Bug ID CSCuo41004](#)描述的您降级时。

```
RP/0/RSP0/CPU0:asr9k#install nv satellite 101 transfer progress
Wed Dec 18 16:36:43.381 CST
1 configured satellite has been specified for transfer.
1 satellite has successfully initiated transfer.
| Working...RP/0/RSP0/CPU0:Dec 18 16:37:00.072 CST: icpe_gco[1148]:
%PKT_INFRA-ICPE_
GCO-6-TRANSFER_DONE : Image transfer completed on Satellite 101
Press Ctrl+C at any time to stop displaying the current progress.
Completed.
1 satellite has successfully completed the transfer operation: 101.
```

```
RP/0/RSP0/CPU0:asr9k#install nv satellite 101 activate progress
Wed Dec 18 16:37:26.943 CST
WARNING: This will take the requested satellite out of service.
Do you wish to continue? [confirm(y/n)] y
1 configured satellite has been specified for install.
1 satellite has successfully initiated install.
<snip>
```

RP/0/RSP0/CPU0:Dec 18 16:37:29.962 CST: icpe\_gco[1148]:

%PKT\_INFRA-ICPE\_GCO-6-INSTALL\_DONE :

Image install completed on Satellite 101

RP/0/RSP0/CPU0:Dec 18 16:37:29.968 CST: invmgr[262]:

%PLATFORM-INV-6-OIROUT : OIR: Node 101

removed

Completed.

**1 satellite has successfully completed the install operation: 101.**

RP/0/RSP0/CPU0:asr9k#show nv satellite status satellite 101

Wed Dec 18 16:39:09.258 CST

Satellite 101

-----

State: Connected (Stable)

Type: asr9000v

MAC address: 8478.ac05.8a14

IPv4 address: 101.101.101.101

Configured Serial Number: CAT1733U1K2

Received Serial Number: CAT1733U1K2

**Remote version: Compatible (not latest version)**

ROMMON: 125.0 (Latest)

FPGA: 1.13 (Latest)

**IOS: 210.0 (Available: 292.0)**