

替换在ULTRAM UCS 240M4服务器的主板-vEPC

Contents

[Introduction](#)

[背景信息](#)

[简称](#)

[Mop的工作流](#)

[在ULTRAM设置的主板更换](#)

[在估计节点的主板更换](#)

[识别在估计节点主机的VMs](#)

[优美停电](#)

[案例仅1.估计节点主机SF VM](#)

[案例2.估计节点主机CF/ESC/EM/UAS](#)

[替换主板](#)

[恢复VMs](#)

[案例仅1.估计节点主机SF VM](#)

[案例2.估计节点主机UAS、ESC、EM和CF](#)

[在OSD估计节点的主板更换](#)

[放置Ceph在维护模式](#)

[识别在OSD估计节点主机的VMs](#)

[优美停电](#)

[案例1. OSD估计节点主机CF/ESC/EM/UAS](#)

[案例2. OSD估计节点主机自动配置/自动It/EM/UAS](#)

[备份CDB自动配置](#)

[备份从自动IT的System.cfg](#)

[替换主板](#)

[移动Ceph在维护模式外面](#)

[恢复VMs](#)

[案例1. OSD估计节点主机CF、ESC、EM和UAS](#)

[案例2. OSD估计节点主机自动它，自动配置，EM和UAS](#)

[恢复自动IT VM](#)

[替换在控制器节点的主板](#)

[验证控制器状态并且放置簇在维护模式下](#)

[替换主板](#)

[恢复簇状态](#)

Introduction

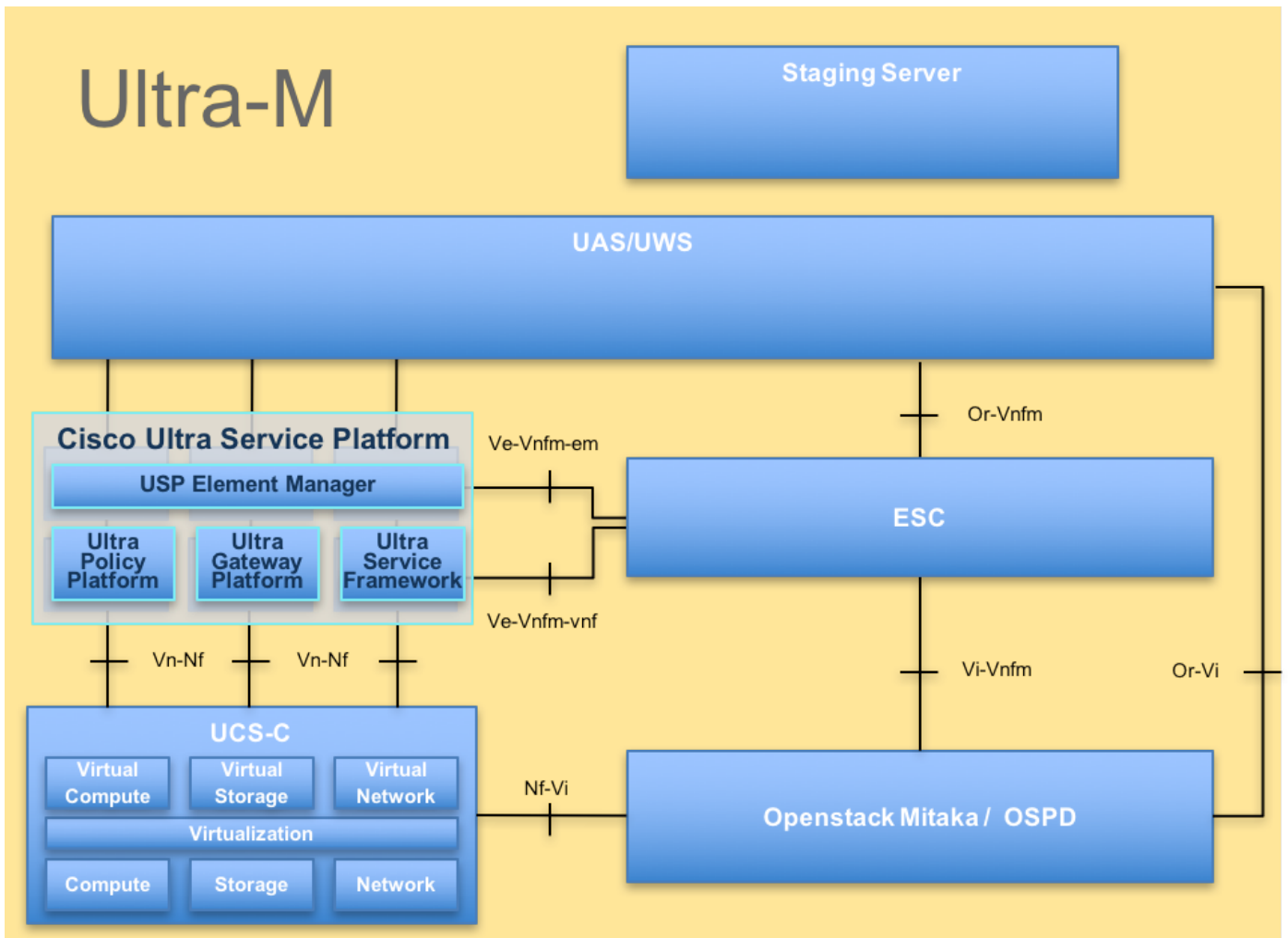
本文描述要求的步骤为了替换服务器的有故障的主板在设置的ULTRAM的主机StarOS虚拟网络作用(VNFs)。

背景信息

ULTRAM是设计为了简化VNFs的配置的一个被预先包装的和被验证的虚拟化的便携信息包核心解决方案。OpenStack是虚拟化的基础设施管理器(精力) ULTRAM的并且包括这些节点类型：

- 估计
- 对象存储磁盘-估计(OSD -估计)
- 控制器
- OpenStack平台-导向器(OSPD)

ULTRAM高级体系结构和介入的组件在此镜像表示：



UltraM体系结构

本文供熟悉Cisco ULTRAM平台的Cisco人员使用，并且选派要求被执行在OpenStack和StarOS VNF级别在服务器的主板更换时的步骤。

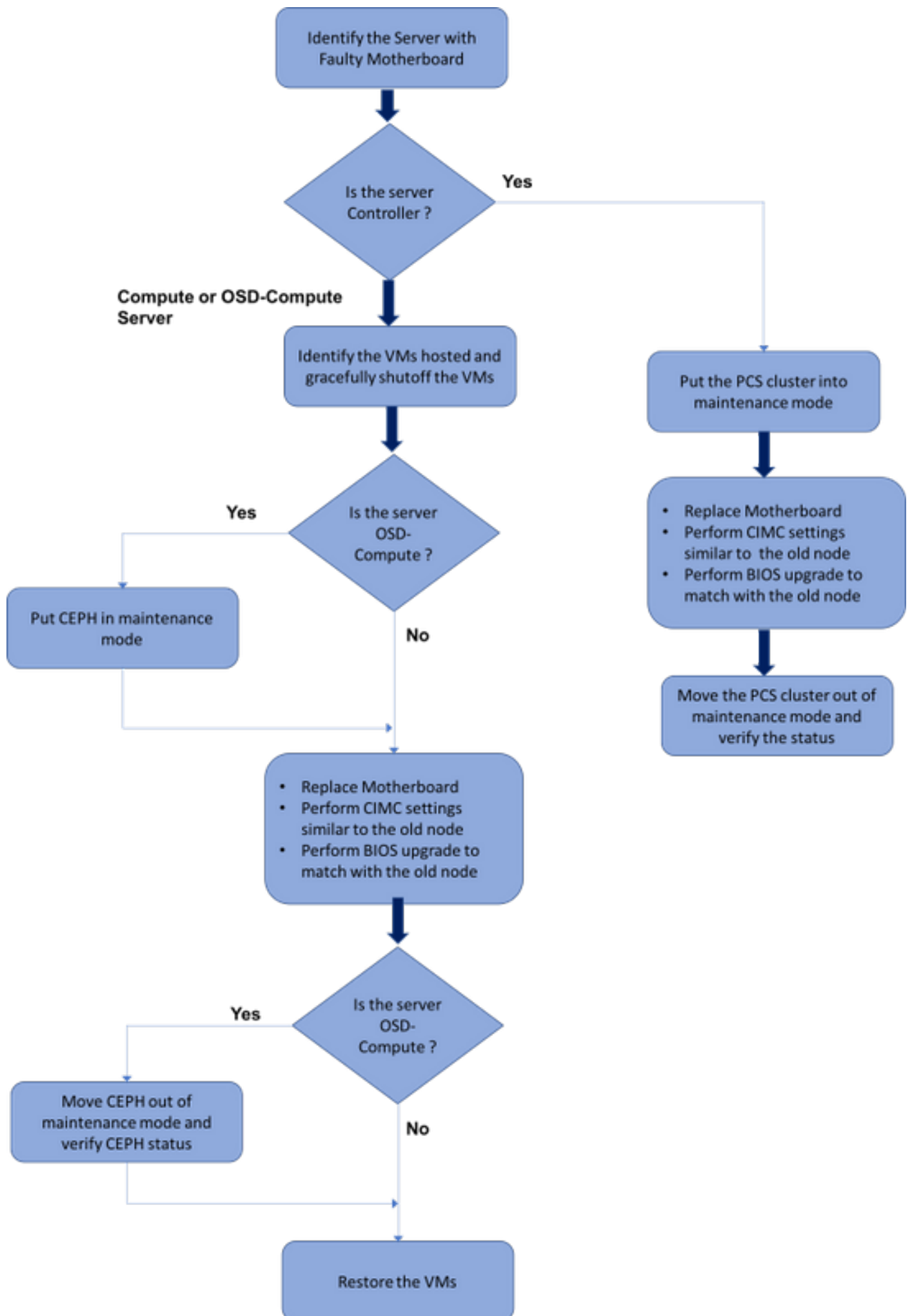
Note:超M 5.1.x版本考虑为了定义在本文的程序。

简称

VNF 虚拟网络功能
CF 控制功能

SF	服务功能
ESC	有弹性服务控制器
MOP	程序方法
OSD	对象存储磁盘
HDD	硬盘驱动器
SSD	固体驱动
精力	虚拟基础设施管理器
VM	虚拟机
EM	网元管理
UAS	超自动化服务
UUID	通用唯一标识符

Mop的工作流



在ULTRAM设置的主板更换

在ULTRAM设置，可以有主板更换在这些服务器类型需要的方案：估计、OSD估计和控制器。

Note:在主板更换发生后，与OpenStack安装的引导盘被替换。因此，没有需求添加节点回到乌云密布。一旦服务器在更换活动以后供给动力，将登记自己回到乌云密布堆栈。

在估计节点的主板更换

在活动前，在估计节点主机的VMs温文地是切断。一旦主板被替换了，恢复VMs。

识别在估计节点主机的VMs

识别在估计服务器主机的VMs。可以有两种可能性：

估计服务器包含仅SF VM：

```
[stack@director ~]$ nova list --field name,host | grep compute-10
| 49ac5f22-469e-4b84-badc-031083db0533 | VNF2-DEPLOYM_s9_0_8bc6cc60-15d6-4ead-8b6a-
10e75d0e134d |
pod1-compute-10.localdomain |
```

估计服务器包含VMs的CF/ESC/EM/UAS组合：

```
[stack@director ~]$ nova list --field name,host | grep compute-8
| 507d67c2-1d00-4321-b9d1-da879af524f8 | VNF2-DEPLOYM_xxxx_0_c8d98f0f-d874-45d0-af75-
88a2d6fa82ea | pod1-compute-8.localdomain |
| f9c0763a-4a4f-4bbd-af51-bc7545774be2 | VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-
3812653ee229 | pod1-compute-8.localdomain |
| 75528898-ef4b-4d68-b05d-882014708694 | VNF2-ESC-ESC-
0 | pod1-compute-8.localdomain |
| f5bd7b9c-476a-4679-83e5-303f0aae9309 | VNF2-UAS-uas-
0 | pod1-compute-8.localdomain |
```

Note:在显示的输出中这里，第一列对应于UUID，第二列是VM名字，并且第三列是主机名-VM存在的地方。从此输出的参数用于随后部分。

优美停电

案例仅1.估计节点主机SF VM

登陆对StarOS VNF并且识别对应于SF VM的卡。请使用从部分识别的SF VM的UUID识别在估计节点主机的VMs，并且识别对应于UUID的卡：

```
[local]VNF2# show card hardware
```

Tuesday night 08 16:49:42 UTC 2018

<snip>

Card 8:

```

Card Type           : 4-Port Service Function Virtual Card
CPU Packages        : 26 [#0, #1, #2, #3, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14,
#15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25]
CPU Nodes           : 2
CPU Cores/Threads   : 26
Memory              : 98304M (qvpc-di-large)
UUID/Serial Number  : 49AC5F22-469E-4B84-BADC-031083DB0533

```

<snip>

检查卡的状态：

[local]VNF2# show card table

Tuesday night 08 16:52:53 UTC 2018

Slot	Card Type	Oper State	SPOF	Attach
1: CFC	Control Function Virtual Card	Active	No	
2: CFC	Control Function Virtual Card	Standby	-	
3: FC	4-Port Service Function Virtual Card	Active	No	
4: FC	4-Port Service Function Virtual Card	Active	No	
5: FC	4-Port Service Function Virtual Card	Active	No	
6: FC	4-Port Service Function Virtual Card	Active	No	
7: FC	4-Port Service Function Virtual Card	Active	No	
8: FC	4-Port Service Function Virtual Card	Active	No	
9: FC	4-Port Service Function Virtual Card	Active	No	
10: FC	4-Port Service Function Virtual Card	Standby	-	

如果卡在激活状态，请迁移卡向备用状态：

[local]VNF2# show card table

Tuesday night 08 16:52:53 UTC 2018

Slot	Card Type	Oper State	SPOF	Attach
1: CFC	Control Function Virtual Card	Active	No	
2: CFC	Control Function Virtual Card	Standby	-	
3: FC	4-Port Service Function Virtual Card	Active	No	
4: FC	4-Port Service Function Virtual Card	Active	No	
5: FC	4-Port Service Function Virtual Card	Active	No	
6: FC	4-Port Service Function Virtual Card	Active	No	
7: FC	4-Port Service Function Virtual Card	Active	No	
8: FC	4-Port Service Function Virtual Card	Active	No	
9: FC	4-Port Service Function Virtual Card	Active	No	
10: FC	4-Port Service Function Virtual Card	Standby	-	

登陆对对应于VNF的ESC节点并且检查SF VM的状态：

```

[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name> VNF2-DEPLOYM_s9_0_8bc6cc60-15d6-4ead-8b6a-10e75d0e134d</vm_name>
  <state>VM_ALIVE_STATE</state>

```

<snip>

终止与使用的SF VM其VM名字。(VM命名要注意从部分识别在估计节点主机的VMs)：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name> VNF2-DEPLOYM_s9_0_8bc6cc60-15d6-4ead-8b6a-10e75d0e134d</vm_name>
  <state>VM_ALIVE_STATE</state>
</snip>
```

一旦它被终止，VM必须进入**切断**状态：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_s9_0_8bc6cc60-15d6-4ead-8b6a-10e75d0e134d</vm_name>
  <state>VM_SHUTOFF_STATE</state>
</snip>
```

案例2.估计节点主机CF/ESC/EM/UAS

登陆对StarOS VNF并且识别对应于CF VM的卡。请使用从部分识别的CF VM的UUID识别在估计节点主机的VMs，并且查找对应于UUID的卡：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_s9_0_8bc6cc60-15d6-4ead-8b6a-10e75d0e134d</vm_name>
  <state>VM_SHUTOFF_STATE</state>
</snip>
```

检查卡的状态：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_s9_0_8bc6cc60-15d6-4ead-8b6a-10e75d0e134d</vm_name>
  <state>VM_SHUTOFF_STATE</state>
</snip>
```

如果卡在激活状态，请迁移卡向备用状态：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_s9_0_8bc6cc60-15d6-4ead-8b6a-10e75d0e134d</vm_name>
  <state>VM_SHUTOFF_STATE</state>
</snip>
```

登陆对对应于VNF的ESC节点并且检查VMs的状态：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
  <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
  <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
  <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
  <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
  <state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
  <state>VM_ALIVE_STATE</state>
</snip>
```

逐个终止CF和EM VM与使用其VM名字。(VM命名要注意从部分识别在估计节点主机的VMs)：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
  <state>VM_ALIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
  <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
  <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
  <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
  <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
  <state>SERVICE_ACTIVE_STATE</state>
  <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
  <state>VM_ALIVE_STATE</state>
</snip>
```

在它终止后，VMs必须进入切断状态：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
```



```

<snip>
<state>SERVICE_ACTIVE_STATE</state>
    <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
    <state>VM_SHUTOFF_STATE</state>
    <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
    <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
    <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
    <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
    <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
    <state>SERVICE_ACTIVE_STATE</state>
    <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
    <state>VM_SHUTOFF_STATE</state>

```

<snip>

登陆对在估计节点主机的ESC并且检查是否在重要的状态。如果是，请换成ESC备用方式：

```

[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
    <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
    <state>VM_SHUTOFF_STATE</state>
    <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
    <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
    <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
    <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
    <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
    <state>SERVICE_ACTIVE_STATE</state>
    <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
    <state>VM_SHUTOFF_STATE</state>

```

<snip>

替换主板

步骤为了替换在UCS C240 M4服务器的主板可以参考从：[Cisco UCS C240 M4服务器安装和服务指南](#)

服务器的洛金有使用的CIMC IP。

如果固件不是根据以前，使用的推荐的版本请执行BIOS升级。测量得BIOS升级的步骤这里：[Cisco UCS C系列机架装置服务器BIOS升级指南](#)

恢复VMs

案例仅1.估计节点主机SF VM

SF VM在新星列表的错误状态：

```

[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
    <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
    <state>VM_SHUTOFF_STATE</state>

```

```

        <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
        <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
        <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
        <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
        <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
        <state>SERVICE_ACTIVE_STATE</state>
        <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
        <state>VM_SHUTOFF_STATE</state>
<snip>

```

从ESC恢复SF VM :

```

[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
        <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
        <state>VM_SHUTOFF_STATE</state>
        <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
        <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
        <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
        <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
        <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
        <state>SERVICE_ACTIVE_STATE</state>
        <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
        <state>VM_SHUTOFF_STATE</state>
<snip>

```

监控yangesc.log :

```

[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
        <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
        <state>VM_SHUTOFF_STATE</state>
        <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
        <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
        <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
        <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
        <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
        <state>SERVICE_ACTIVE_STATE</state>
        <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
        <state>VM_SHUTOFF_STATE</state>
<snip>

```

保证SF卡过来作为在VNF的暂挂SF。

案例2.估计节点主机UAS、ESC、EM和CF

UAS VM恢复

检查UAS VM的状态在新星列表的并且删除它：

```
[admin@VNF2-esc-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
[admin@VNF2-esc-esc-0 esc-cli]$ ./esc_nc_cli get esc_datamodel | egrep --color
"<state>|<vm_name>|<vm_id>|<deployment_name>"
<snip>
<state>SERVICE_ACTIVE_STATE</state>
    <vm_name>VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229</vm_name>
    <state>VM_SHUTOFF_STATE</state>
    <vm_name>VNF2-DEPLOYM_c3_0_3e0db133-c13b-4e3d-ac14-
    <state>VM_ALIVE_STATE</state>
<deployment_name>VNF2-DEPLOYMENT-em</deployment_name>
    <vm_id>507d67c2-1d00-4321-b9d1-da879af524f8</vm_id>
    <vm_id>dc168a6a-4aeb-4e81-abd9-91d7568b5f7c</vm_id>
    <vm_id>9ffec58b-4b9d-4072-b944-5413bf7fcf07</vm_id>
    <state>SERVICE_ACTIVE_STATE</state>
    <vm_name>VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea</vm_name>
    <state>VM_SHUTOFF_STATE</state>
<snip>
```

为了恢复AutoVNF UAS VM，请运行UAS检查脚本检查状态。它必须报告错误。然后再请运行以--修正选项为了再创缺少UAS VM：

```
[stack@director ~]$ cd /opt/cisco/usp/uas-installer/scripts/
[stack@director scripts]$ ./uas-check.py auto-vnf VNF2-UAS
2017-12-08 12:38:05,446 - INFO: Check of AutoVNF cluster started
2017-12-08 12:38:07,925 - INFO: Instance 'vnf1-UAS-uas-0' status is 'ERROR'
2017-12-08 12:38:07,925 - INFO: Check completed, AutoVNF cluster has recoverable errors

[stack@director scripts]$ ./uas-check.py auto-vnf VNF2-UAS --fix
2017-11-22 14:01:07,215 - INFO: Check of AutoVNF cluster started
2017-11-22 14:01:09,575 - INFO: Instance VNF2-UAS-uas-0' status is 'ERROR'
2017-11-22 14:01:09,575 - INFO: Check completed, AutoVNF cluster has recoverable errors
2017-11-22 14:01:09,778 - INFO: Removing instance VNF2-UAS-uas-0'
2017-11-22 14:01:13,568 - INFO: Removed instance VNF2-UAS-uas-0'
2017-11-22 14:01:13,568 - INFO: Creating instance VNF2-UAS-uas-0' and attaching volume 'VNF2-
UAS-uas-vol-0'
2017-11-22 14:01:49,525 - INFO: Created instance 'VNF2-UAS-uas-0'
登陆对AutoVNF UAS。等待几分钟您然后看到UAS回到好状态：
```

```
[stack@director ~]$ cd /opt/cisco/usp/uas-installer/scripts/
[stack@director scripts]$ ./uas-check.py auto-vnf VNF2-UAS
2017-12-08 12:38:05,446 - INFO: Check of AutoVNF cluster started
2017-12-08 12:38:07,925 - INFO: Instance 'vnf1-UAS-uas-0' status is 'ERROR'
2017-12-08 12:38:07,925 - INFO: Check completed, AutoVNF cluster has recoverable errors

[stack@director scripts]$ ./uas-check.py auto-vnf VNF2-UAS --fix
2017-11-22 14:01:07,215 - INFO: Check of AutoVNF cluster started
2017-11-22 14:01:09,575 - INFO: Instance VNF2-UAS-uas-0' status is 'ERROR'
2017-11-22 14:01:09,575 - INFO: Check completed, AutoVNF cluster has recoverable errors
2017-11-22 14:01:09,778 - INFO: Removing instance VNF2-UAS-uas-0'
2017-11-22 14:01:13,568 - INFO: Removed instance VNF2-UAS-uas-0'
2017-11-22 14:01:13,568 - INFO: Creating instance VNF2-UAS-uas-0' and attaching volume 'VNF2-
UAS-uas-vol-0'
2017-11-22 14:01:49,525 - INFO: Created instance 'VNF2-UAS-uas-0'
```

ESC VM恢复

检查ESC VM的状态从新星列表的并且删除它：

```
[stack@director ~]$ cd /opt/cisco/usp/uas-installer/scripts/
[stack@director scripts]$ ./uas-check.py auto-vnf VNF2-UAS
2017-12-08 12:38:05,446 - INFO: Check of AutoVNF cluster started
2017-12-08 12:38:07,925 - INFO: Instance 'vnf1-UAS-uas-0' status is 'ERROR'
2017-12-08 12:38:07,925 - INFO: Check completed, AutoVNF cluster has recoverable errors

[stack@director scripts]$ ./uas-check.py auto-vnf VNF2-UAS --fix
2017-11-22 14:01:07,215 - INFO: Check of AutoVNF cluster started
2017-11-22 14:01:09,575 - INFO: Instance VNF2-UAS-uas-0' status is 'ERROR'
2017-11-22 14:01:09,575 - INFO: Check completed, AutoVNF cluster has recoverable errors
2017-11-22 14:01:09,778 - INFO: Removing instance VNF2-UAS-uas-0'
2017-11-22 14:01:13,568 - INFO: Removed instance VNF2-UAS-uas-0'
2017-11-22 14:01:13,568 - INFO: Creating instance VNF2-UAS-uas-0' and attaching volume 'VNF2-
UAS-uas-vol-0'
2017-11-22 14:01:49,525 - INFO: Created instance 'VNF2-UAS-uas-0'
```

从AutoVNF UAS，请查找ESC配置处理和处理的日志，查找boot_vm.py line命令为了创建ESC实例：

```
ubuntu@VNF2-uas-uas-0:~$ sudo -i
root@VNF2-uas-uas-0:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on VNF2-uas-uas-0
VNF2-uas-uas-0#show transaction
TX ID                                TX TYPE                                DEPLOYMENT ID
TIMESTAMP                            STATUS
-----
-----
35eefc4a-d4a9-11e7-bb72-fa163ef8df2b  vnf-deployment                        VNF2-DEPLOYMENT  2017-11-
29T02:01:27.750692-00:00  deployment-success
73d9c540-d4a8-11e7-bb72-fa163ef8df2b  vnf-deployment                        VNF2-ESC         2017-11-
29T01:56:02.133663-00:00  deployment-success

VNF2-uas-uas-0#show logs 73d9c540-d4a8-11e7-bb72-fa163ef8df2b | display xml
<config xmlns="http://tail-f.com/ns/config/1.0">
  <logs xmlns="http://www.cisco.com/usp/nfv/usp-autovnf-oper">
    <tx-id>73d9c540-d4a8-11e7-bb72-fa163ef8df2b</tx-id>
    <log>2017-11-29 01:56:02,142 - VNF Deployment RPC triggered for deployment: VNF2-ESC,
deactivate: 0
2017-11-29 01:56:02,179 - Notify deployment
..
2017-11-29 01:57:30,385 - Creating VNF 'VNF2-ESC-ESC-1' with [python //opt/cisco/vnf-
staging/bootvm.py VNF2-ESC-ESC-1 --flavor VNF2-ESC-ESC-flavor --image 3fe6b197-961b-4651-af22-
dfd910436689 --net VNF2-UAS-uas-management --gateway_ip 172.168.10.1 --net VNF2-UAS-uas-
orchestration --os_auth_url http://10.1.2.5:5000/v2.0 --os_tenant_name core --os_username *****
--os_password ***** --bs_os_auth_url http://10.1.2.5:5000/v2.0 --bs_os_tenant_name core --
bs_os_username ***** --bs_os_password ***** --esc_ui_startup false --esc_params_file
/tmp/esc_params.cfg --encrypt_key ***** --user_pass ***** --user_confid_pass ***** --kad_vif
eth0 --kad_vip 172.168.10.7 --ipaddr 172.168.10.6 dhcp --ha_node_list 172.168.10.3 172.168.10.6
--file root:0755:/opt/cisco/esc/esc-
scripts/esc_volume_em_staging.sh:/opt/cisco/usp/uas/autovnf/vnfms/esc-
scripts/esc_volume_em_staging.sh --file root:0755:/opt/cisco/esc/esc-
scripts/esc_vpc_chassis_id.py:/opt/cisco/usp/uas/autovnf/vnfms/esc-scripts/esc_vpc_chassis_id.py
--file root:0755:/opt/cisco/esc/esc-scripts/esc-vpc-di-internal-
keys.sh:/opt/cisco/usp/uas/autovnf/vnfms/esc-scripts/esc-vpc-di-internal-keys.sh
保存boot_vm.py线路对shell script程序文件(esc.sh)并且更新与正确的信息的所有用户名*****和密码
*****线路(典型地core/<PASSWORD >)。您需要去除--encrypt_key选项。对于user_pass和
```

user_confid_pass , 您需要使用格式-用户名 : 密码(示例- admin : <PASSWORD>)。

查找URL对从running-config的bootvm.py并且有bootvm.pyfile AutoVNFUAS VM。 在这种情况下 , 10.1.2.3是AutoIT VM的IP :

```
root@VNF2-uas-uas-0:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on VNF2-uas-uas-0
VNF2-uas-uas-0#show running-config autovnf-vnfm:vnfm
...
configs bootvm
  value http:// 10.1.2.3:80/bundles/5.1.7-2007/vnfm-bundle/bootvm-2_3_2_155.py
!
```

```
root@VNF2-uas-uas-0:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on VNF2-uas-uas-0
VNF2-uas-uas-0#show running-config autovnf-vnfm:vnfm
...
configs bootvm
  value http:// 10.1.2.3:80/bundles/5.1.7-2007/vnfm-bundle/bootvm-2_3_2_155.py
!
```

创建一个/tmp/esc_params.cfg文件 :

```
root@VNF2-uas-uas-0:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on VNF2-uas-uas-0
VNF2-uas-uas-0#show running-config autovnf-vnfm:vnfm
...
configs bootvm
  value http:// 10.1.2.3:80/bundles/5.1.7-2007/vnfm-bundle/bootvm-2_3_2_155.py
!
```

执行shell script程序为了配置从UAS节点的ESC :

```
root@VNF2-uas-uas-0:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on VNF2-uas-uas-0
VNF2-uas-uas-0#show running-config autovnf-vnfm:vnfm
...
configs bootvm
  value http:// 10.1.2.3:80/bundles/5.1.7-2007/vnfm-bundle/bootvm-2_3_2_155.py
!
```

登陆对新的ESC并且验证备份的状态 :

```
root@VNF2-uas-uas-0:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on VNF2-uas-uas-0
VNF2-uas-uas-0#show running-config autovnf-vnfm:vnfm
...
configs bootvm
  value http:// 10.1.2.3:80/bundles/5.1.7-2007/vnfm-bundle/bootvm-2_3_2_155.py
!
```

从ESC恢复CF和EM VMs

检查CF和EM从新星列表的VMs的状态。他们必须在错误状态：

```
root@VNF2-uas-uas-0:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on VNF2-uas-uas-0
VNF2-uas-uas-0#show running-config autovnf-vnfm:vnfm
...
configs bootvm
  value http:// 10.1.2.3:80/bundles/5.1.7-2007/vnfm-bundle/bootvm-2_3_2_155.py
!
```

登陆对ESC主设备，运行每个被影响的EM和CF VM的恢复VM动作。耐心。ESC安排恢复动作，并且也许几分钟不发生。监控yangesc.log：

```
sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO <VM-Name>
```

```
[admin@VNF2-esc-esc-0 ~]$ sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO
VNF2-DEPLOYMENT-_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8
[sudo] password for admin:
```

Recovery VM Action

```
/opt/cisco/esc/confd/bin/netconf-console --port=830 --host=127.0.0.1 --user=admin --
privKeyFile=/root/.ssh/confd_id_dsa --privKeyType=dsa --rpc=/tmp/esc_nc_cli.ZpRCGiieuW
<?xml version="1.0" encoding="UTF-8"?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
  <ok/>
</rpc-reply>
```

```
[admin@VNF2-esc-esc-0 ~]$ tail -f /var/log/esc/yangesc.log
```

```
...
14:59:50,112 07-Nov-2017 WARN Type: VM_RECOVERY_COMPLETE
14:59:50,112 07-Nov-2017 WARN Status: SUCCESS
14:59:50,112 07-Nov-2017 WARN Status Code: 200
14:59:50,112 07-Nov-2017 WARN Status Msg: Recovery: Successfully recovered VM [VNF2-DEPLOYMENT-
_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8]
```

登陆对新的EM并且验证EM状态是UP：

```
sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO <VM-Name>
```

```
[admin@VNF2-esc-esc-0 ~]$ sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO
VNF2-DEPLOYMENT-_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8
[sudo] password for admin:
```

Recovery VM Action

```
/opt/cisco/esc/confd/bin/netconf-console --port=830 --host=127.0.0.1 --user=admin --
privKeyFile=/root/.ssh/confd_id_dsa --privKeyType=dsa --rpc=/tmp/esc_nc_cli.ZpRCGiieuW
<?xml version="1.0" encoding="UTF-8"?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
  <ok/>
</rpc-reply>
```

```
[admin@VNF2-esc-esc-0 ~]$ tail -f /var/log/esc/yangesc.log
```

```
...
14:59:50,112 07-Nov-2017 WARN Type: VM_RECOVERY_COMPLETE
14:59:50,112 07-Nov-2017 WARN Status: SUCCESS
14:59:50,112 07-Nov-2017 WARN Status Code: 200
14:59:50,112 07-Nov-2017 WARN Status Msg: Recovery: Successfully recovered VM [VNF2-DEPLOYMENT-
```

_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8]

登陆对StarOS VNF并且验证CF卡在备用状态。

处理ESC恢复故障

在ESC不能开始VM由于一个意外的状态处，通过重新启动主设备ESC推荐执行ESC切换。ESC切换花费一分钟。运行在新的主设备ESC的脚本health.sh为了检查状态是否是UP。掌握ESC开始VM和修理VM状态。此恢复任务花费5分钟完成。

您能监控/var/log/esc/yangesc.log和/var/log/esc/escmanager.log。如果看不到VM获得恢复在5-7分钟之后，用户需要去执行被影响的VM的手工的恢复。

在OSD估计节点的主板更换

在活动前，在估计节点主机的VMs温文地是切断，并且Ceph被放到维护模式。一旦主板被替换了，恢复VMs，并且Ceph搬出维护模式。

放置Ceph在维护模式

验证ceph osd树状态是UP在服务器。

```
sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO <VM-Name>
```

```
[admin@VNF2-esc-esc-0 ~]$ sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO
VNF2-DEPLOYMENT-_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8
[sudo] password for admin:
```

Recovery VM Action

```
/opt/cisco/esc/confd/bin/netconf-console --port=830 --host=127.0.0.1 --user=admin --
privKeyFile=/root/.ssh/confd_id_dsa --privKeyType=dsa --rpc=/tmp/esc_nc_cli.ZpRCG1ieuW
<?xml version="1.0" encoding="UTF-8"?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
  <ok/>
</rpc-reply>
```

```
[admin@VNF2-esc-esc-0 ~]$ tail -f /var/log/esc/yangesc.log
```

...

```
14:59:50,112 07-Nov-2017 WARN Type: VM_RECOVERY_COMPLETE
14:59:50,112 07-Nov-2017 WARN Status: SUCCESS
14:59:50,112 07-Nov-2017 WARN Status Code: 200
14:59:50,112 07-Nov-2017 WARN Status Msg: Recovery: Successfully recovered VM [VNF2-DEPLOYMENT-
_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8]
```

日志到OSD估计节点里和放置的Ceph在维护模式下。

```
sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO <VM-Name>
```

```
[admin@VNF2-esc-esc-0 ~]$ sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO
VNF2-DEPLOYMENT-_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8
[sudo] password for admin:
```

Recovery VM Action

```
/opt/cisco/esc/confd/bin/netconf-console --port=830 --host=127.0.0.1 --user=admin --
```

```
privKeyFile=/root/.ssh/confd_id_dsa --privKeyType=dsa --rpc=/tmp/esc_nc_cli.ZpRCGiieuW
<?xml version="1.0" encoding="UTF-8"?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
  <ok/>
</rpc-reply>

[admin@VNF2-esc-esc-0 ~]$ tail -f /var/log/esc/yangesc.log
...
14:59:50,112 07-Nov-2017 WARN Type: VM_RECOVERY_COMPLETE
14:59:50,112 07-Nov-2017 WARN Status: SUCCESS
14:59:50,112 07-Nov-2017 WARN Status Code: 200
14:59:50,112 07-Nov-2017 WARN Status Msg: Recovery: Successfully recovered VM [VNF2-DEPLOYMENT-
_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8]
```

Note:当去除时Ceph，VNF HD RAID进入降低的状态，但是HDD一定仍然是可访问的。

识别在OSD估计节点主机的VMs

识别在OSD估计服务器主机的VMs。可以有两种可能性：

OSD估计服务器包含网元管理(EM) VMs的/UAS/Auto Deploy/Auto IT组合：

```
sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO <VM-Name>
```

```
[admin@VNF2-esc-esc-0 ~]$ sudo /opt/cisco/esc/esc-confd/esc-cli/esc_nc_cli recovery-vm-action DO
VNF2-DEPLOYMENT-_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8
[sudo] password for admin:
```

Recovery VM Action

```
/opt/cisco/esc/confd/bin/netconf-console --port=830 --host=127.0.0.1 --user=admin --
privKeyFile=/root/.ssh/confd_id_dsa --privKeyType=dsa --rpc=/tmp/esc_nc_cli.ZpRCGiieuW
<?xml version="1.0" encoding="UTF-8"?>
<rpc-reply xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" message-id="1">
  <ok/>
</rpc-reply>
```

```
[admin@VNF2-esc-esc-0 ~]$ tail -f /var/log/esc/yangesc.log
...
14:59:50,112 07-Nov-2017 WARN Type: VM_RECOVERY_COMPLETE
14:59:50,112 07-Nov-2017 WARN Status: SUCCESS
14:59:50,112 07-Nov-2017 WARN Status Code: 200
14:59:50,112 07-Nov-2017 WARN Status Msg: Recovery: Successfully recovered VM [VNF2-DEPLOYMENT-
_VNF2-D_0_a6843886-77b4-4f38-b941-74eb527113a8]
```

估计服务器包含控制功能(CF) /Elastic服务控制器(ESC) /Element管理器(EM)/(VMs的UAS)组合：

```
[stack@director ~]$ nova list --field name,host | grep osd-compute-1
| 507d67c2-1d00-4321-b9d1-da879af524f8 | VNF2-DEPLOYM_XXXX_0_c8d98f0f-d874-45d0-af75-88a2d6fa82ea | pod1-compute-8.localdomain |
| f9c0763a-4a4f-4bbd-af51-bc7545774be2 | VNF2-DEPLOYM_c1_0_df4be88d-b4bf-4456-945a-3812653ee229 | pod1-compute-8.localdomain |
| 75528898-ef4b-4d68-b05d-882014708694 | VNF2-ESC-ESC-0 | pod1-compute-8.localdomain |
| f5bd7b9c-476a-4679-83e5-303f0aae9309 | VNF2-UAS-uas-0 | pod1-compute-8.localdomain |
```

Note:在显示的输出中这里，第一列对应于UUID，第二列是VM名字，并且第三列是主机名-

VM存在的地方。从此输出的参数用于随后部分。

优美停电

案例1. OSD估计节点主机CF/ESC/EM/UAS

CF/ESC/EM/UAS VMs的程序温文地功率是同样不考虑VMs是否在估计或OSD估计节点主机。遵从从主板更换的步骤在估计节点温文地停电VMs。

案例2. OSD估计节点主机自动配置/自动It/EM/UAS

备份CDB自动配置

备份autodeploy confd cdb数据周期地或在每启动/去活以后并且保存文件到备份服务器。Autodeploy不冗余，并且，如果此数据丢失，您不能温文地撤销配置。

登陆对AutoDeploy VM和备份的confd cdb目录。

```
ubuntu@auto-deploy-iso-2007-uas-0:~ $sudo -i

root@auto-deploy-iso-2007-uas-0:~#service uas-confd stop
uas-confd stop/waiting

root@auto-deploy-iso-2007-uas-0:~# cd /opt/cisco/usp/uas/confd-6.3.1/var/confd
root@auto-deploy-iso-2007-uas-0:/opt/cisco/usp/uas/confd-6.3.1/var/confd#tar cvf
autodeploy_cdb_backup.tar cdb/
cdb/
cdb/O.cdb
cdb/C.cdb
cdb/aaa_init.xml
cdb/A.cdb

root@auto-deploy-iso-2007-uas-0:~# service uas-confd start
uas-confd start/running, process 13852
```

Note: opy autodeploy_cdb_backup.tar为了备份服务器。

从自动IT的备份System.cfg

使用system.cfg文件备份备份服务器：

```
ubuntu@auto-deploy-iso-2007-uas-0:~ $sudo -i

root@auto-deploy-iso-2007-uas-0:~#service uas-confd stop
uas-confd stop/waiting

root@auto-deploy-iso-2007-uas-0:~# cd /opt/cisco/usp/uas/confd-6.3.1/var/confd
root@auto-deploy-iso-2007-uas-0:/opt/cisco/usp/uas/confd-6.3.1/var/confd#tar cvf
autodeploy_cdb_backup.tar cdb/
cdb/
cdb/O.cdb
cdb/C.cdb
cdb/aaa_init.xml
```

```
cdb/A.cdb
```

```
root@auto-deploy-iso-2007-uas-0:~# service uas-confd start
uas-confd start/running, process 13852
```

Note:EM/UAS VMs的程序温文地功率是同样不考虑VMs是否在估计或OSD估计节点主机。

遵从从主板更换的步骤在估计节点为了温文地停电这些VMs。

替换主板

步骤为了替换在UCS C240 M4服务器的主板可以参考从：[Cisco UCS C240 M4服务器安装和服务指南](#)

服务器的洛金有使用的CIMC IP。

如果固件不是根据以前，使用的推荐的版本请执行BIOS升级。测量得BIOS升级的步骤这里：[Cisco UCS C系列机架装置服务器BIOS升级指南](#)

移动Ceph在维护模式外面

日志到OSD估计节点和移动在维护模式外面的Ceph里。

```
ubuntu@auto-deploy-iso-2007-uas-0:~ $sudo -i
```

```
root@auto-deploy-iso-2007-uas-0:~#service uas-confd stop
uas-confd stop/waiting
```

```
root@auto-deploy-iso-2007-uas-0:~# cd /opt/cisco/usp/uas/confd-6.3.1/var/confd
root@auto-deploy-iso-2007-uas-0:/opt/cisco/usp/uas/confd-6.3.1/var/confd#tar cvf
autodeploy_cdb_backup.tar cdb/
cdb/
cdb/O.cdb
cdb/C.cdb
cdb/aaa_init.xml
cdb/A.cdb
```

```
root@auto-deploy-iso-2007-uas-0:~# service uas-confd start
uas-confd start/running, process 13852
```

恢复VMs

案例1. OSD估计节点主机CF、ESC、EM和UAS

恢复的程序CF/ESC/EM/UAS VMs是同样不考虑VMs是否在估计或OSD估计节点主机。遵从从**案例2.估计节点主机CF/ESC/EM/UAS的步骤恢复VMs。**

案例2. OSD估计节点主机自动它，自动配置，EM和UAS

恢复自动配置VM

从OSPD，如果请自动配置VM被影响了，但是仍然显示ACTIVE/Running，您将需要首先删除它。如果请自动配置未被影响，跳过对恢复自动它VM：

```
[stack@director ~]$ nova list |grep auto-deploy
| 9b55270a-2dcd-4ac1-aba3-bf041733a0c9 | auto-deploy-ISO-2007-uas-
0 | ACTIVE | - | Running | mgmt=172.16.181.12,
10.1.2.7 [stack@director ~]$ cd /opt/cisco/usp/uas-installer/scripts
```

```
[stack@director ~]$ ./auto-deploy-booting.sh --floating-ip 10.1.2.7 --delete
一旦请自动配置再被删除，用同样floatingip地址创建它：
```

```
[stack@director ~]$ cd /opt/cisco/usp/uas-installer/scripts
```

```
[stack@director scripts]$ ./auto-deploy-booting.sh --floating-ip 10.1.2.7
```

```
2017-11-17 07:05:03,038 - INFO: Creating AutoDeploy deployment (1 instance(s)) on
'http://10.84.123.4:5000/v2.0' tenant 'core' user 'core', ISO 'default'
2017-11-17 07:05:03,039 - INFO: Loading image 'auto-deploy-ISO-5-1-7-2007-usp-uas-1.0.1-
1504.qcow2' from '/opt/cisco/usp/uas-installer/images/usp-uas-1.0.1-1504.qcow2'
2017-11-17 07:05:14,603 - INFO: Loaded image 'auto-deploy-ISO-5-1-7-2007-usp-uas-1.0.1-
1504.qcow2'
2017-11-17 07:05:15,787 - INFO: Assigned floating IP '10.1.2.7' to IP '172.16.181.7'
2017-11-17 07:05:15,788 - INFO: Creating instance 'auto-deploy-ISO-5-1-7-2007-uas-0'
2017-11-17 07:05:42,759 - INFO: Created instance 'auto-deploy-ISO-5-1-7-2007-uas-0'
2017-11-17 07:05:42,759 - INFO: Request completed, floating IP: 10.1.2.7
```

从您的备份服务器复制Autodeploy.cfg文件、ISO和confd_backup TAR文件到autodeploy VM和恢复confdcdb文件从TAR文件：

```
ubuntu@auto-deploy-iso-2007-uas-0:~# sudo -i
```

```
ubuntu@auto-deploy-iso-2007-uas-0:~# service uas-confd stop
uas-confd stop/waiting
```

```
root@auto-deploy-iso-2007-uas-0:~# cd /opt/cisco/usp/uas/confd-6.3.1/var/confd
root@auto-deploy-iso-2007-uas-0:/opt/cisco/usp/uas/confd-6.3.1/var/confd# tar xvf
/home/ubuntu/ad_cdb_backup.tar
```

```
cdb/
cdb/O.cdb
cdb/C.cdb
cdb/aaa_init.xml
cdb/A.cdb
```

```
root@auto-deploy-iso-2007-uas-0:~# service uas-confd start
uas-confd start/running, process 2036
```

验证confd通过检查更早的处理适当地装载。更新与新的OSD估计名字的autodeploy.cfg。请参阅部分FinalStep：更新AutoDeploy配置。

```
root@auto-deploy-iso-2007-uas-0:~# confd_cli -u admin -C
```

```
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on auto-deploy-iso-2007-uas-0
```

```
auto-deploy-iso-2007-uas-0#show transaction
```

```

                SERVICE
SITE
                DEPLOYMENT
SITE TX      AUTOVNF  VNF  AUTOVNF
TX ID      TX TYPE      ID      DATE AND TIME
STATUS      ID  ID  ID      ID  TX ID
-----
1512571978613  service-deployment  tb5bxb      2017-12-06T14:52:59.412+00:00  deployment-success
auto-deploy-iso-2007-uas-0# exit

```

恢复自动IT VM

从OSPD，如果自动它VM被影响了，但是仍然显示作为ACTIVE/Running，您需要删除它。如果自动它未被影响，请跳过对下：

```

[stack@director ~]$ nova list |grep auto-it
| 580faf80-1d8c-463b-9354-781ea0c0b352 | auto-it-vnf-ISO-2007-uas-
0 | ACTIVE | - | Running | mgmt=172.16.181.3,
10.1.2.8 [stack@director ~]$ cd /opt/cisco/usp/uas-installer/scripts

```

```

[stack@director ~]$ ./ auto-it-vnf-staging.sh --floating-ip 10.1.2.8 --delete

```

通过运行自动ITVNF试运行脚本再创自动IT：

```

[stack@director ~]$ cd /opt/cisco/usp/uas-installer/scripts

```

```

[stack@director scripts]$ ./auto-it-vnf-staging.sh --floating-ip 10.1.2.8

```

```

2017-11-16 12:54:31,381 - INFO: Creating StagingServer deployment (1 instance(s)) on
'http://10.84.123.4:5000/v2.0' tenant 'core' user 'core', ISO 'default'
2017-11-16 12:54:31,382 - INFO: Loading image 'auto-it-vnf-ISO-5-1-7-2007-usp-uas-1.0.1-
1504.qcow2' from '/opt/cisco/usp/uas-installer/images/usp-uas-1.0.1-1504.qcow2'
2017-11-16 12:54:51,961 - INFO: Loaded image 'auto-it-vnf-ISO-5-1-7-2007-usp-uas-1.0.1-
1504.qcow2'
2017-11-16 12:54:53,217 - INFO: Assigned floating IP '10.1.2.8' to IP '172.16.181.9'
2017-11-16 12:54:53,217 - INFO: Creating instance 'auto-it-vnf-ISO-5-1-7-2007-uas-0'
2017-11-16 12:55:20,929 - INFO: Created instance 'auto-it-vnf-ISO-5-1-7-2007-uas-0'
2017-11-16 12:55:20,930 - INFO: Request completed, floating IP: 10.1.2.8

```

重新载入ISO镜像。在这种情况下，自动IT IP地址是10.1.2.8。这将花费几分钟装载：

```

[stack@director ~]$ cd images/5_1_7-2007/isos

```

```

[stack@director isos]$ curl -F file=@usp-5_1_7-2007.iso http://10.1.2.8:5001/isos
{
  "iso-id": "5.1.7-2007"
}

```

to check the ISO image:

```

[stack@director isos]$ curl http://10.1.2.8:5001/isos

```

```

{
  "isos": [
    {
      "iso-id": "5.1.7-2007"
    }
  ]
}

```

```
}  
]  
}
```

从OSPD复制VNF system.cfg文件自动配置目录对自动IT VM :

```
[stack@director ~]$ cd images/5_1_7-2007/isos
```

```
[stack@director isos]$ curl -F file=@usp-5_1_7-2007.iso http://10.1.2.8:5001/isos  
{  
  "iso-id": "5.1.7-2007"  
}
```

to check the ISO image:

```
[stack@director isos]$ curl http://10.1.2.8:5001/isos
```

```
{  
  "isos": [  
    {  
      "iso-id": "5.1.7-2007"  
    }  
  ]  
}
```

Note:EM恢复流程和UAS VM是同样不考虑VM是否在估计或OSD估计主机。遵从从替换的步骤在估计节点的主板为了温文地停电这些VMs。

替换在控制器节点的主板

验证控制器状态并且放置簇在维护模式下

从OSPD，请登陆到控制器并且验证个人计算机是在一好州全部三个控制器联机，并且加莱拉角显示全部三个控制器作为主设备。

```
[stack@director ~]$ cd images/5_1_7-2007/isos
```

```
[stack@director isos]$ curl -F file=@usp-5_1_7-2007.iso http://10.1.2.8:5001/isos  
{  
  "iso-id": "5.1.7-2007"  
}
```

to check the ISO image:

```
[stack@director isos]$ curl http://10.1.2.8:5001/isos
```

```
{  
  "isos": [  
    {  
      "iso-id": "5.1.7-2007"  
    }  
  ]  
}
```

放置簇在维护模式：

```
[stack@director ~]$ cd images/5_1_7-2007/isos
```

```
[stack@director isos]$ curl -F file=@usp-5_1_7-2007.iso http://10.1.2.8:5001/isos
{
  "iso-id": "5.1.7-2007"
}
```

to check the ISO image:

```
[stack@director isos]$ curl http://10.1.2.8:5001/isos
{
  "isos": [
    {
      "iso-id": "5.1.7-2007"
    }
  ]
}
```

```
[heat-admin@pod1-controller-0 ~]$ sudo pcs status
Cluster name: tripleo_cluster
Stack: corosync
Current DC: pod1-controller-2 (version 1.1.15-11.e17_3.4-e174ec8) - partition with quorum
Last updated: Mon Dec 4 00:48:24 2017 Last change: Mon Dec 4 00:48:18 2017 by root via
crm_attribute on pod1-controller-0
```

3 nodes and 22 resources configured

Node pod1-controller-0: standby

Online: [pod1-controller-1 pod1-controller-2]

Full list of resources:

```
ip-11.118.0.42 (ocf::heartbeat:IPaddr2): Started pod1-controller-1
ip-11.119.0.47 (ocf::heartbeat:IPaddr2): Started pod1-controller-2
ip-11.120.0.49 (ocf::heartbeat:IPaddr2): Started pod1-controller-1
ip-192.200.0.102 (ocf::heartbeat:IPaddr2): Started pod1-controller-2
Clone Set: haproxy-clone [haproxy]
Started: [ pod1-controller-1 pod1-controller-2 ]
Stopped: [ pod1-controller-0 ]
Master/Slave Set: galera-master [galera]
Masters: [ pod1-controller-1 pod1-controller-2 ]
Slaves: [ pod1-controller-0 ]
ip-11.120.0.47 (ocf::heartbeat:IPaddr2): Started pod1-controller-2
Clone Set: rabbitmq-clone [rabbitmq]
Started: [ pod1-controller-0 pod1-controller-1 pod1-controller-2 ]
Master/Slave Set: redis-master [redis]
Masters: [ pod1-controller-2 ]
Slaves: [ pod1-controller-1 ]
Stopped: [ pod1-controller-0 ]
ip-10.84.123.35 (ocf::heartbeat:IPaddr2): Started pod1-controller-1

openstack-cinder-volume (systemd:openstack-cinder-volume): Started pod1-controller-2
my-ipmilan-for-controller-0 (stonith:fence_ipmilan): Started pod1-controller-1
my-ipmilan-for-controller-1 (stonith:fence_ipmilan): Started pod1-controller-1
my-ipmilan-for-controller-2 (stonith:fence_ipmilan): Started pod1-controller-2
```

替换主板

步骤为了替换在UCS C240 M4服务器的主板可以参考从：[Cisco UCS C240 M4服务器安装和服务指南](#)

服务器的洛金有使用的CIMC IP。

如果固件不是根据以前，使用的推荐的版本请执行BIOS升级。测量得BIOS升级的步骤这里：[Cisco UCS C系列机架装置服务器BIOS升级指南](#)

恢复簇状态

被影响了的控制器的洛金，通过设置去除备用方式unstandby。验证控制器是否来联机与簇，并且加莱拉角显示全部三个控制器作为主设备。这也许花费几分钟。

```
[heat-admin@pod1-controller-0 ~]$ sudo pcs status
Cluster name: tripleo_cluster
Stack: corosync
Current DC: pod1-controller-2 (version 1.1.15-11.e17_3.4-e174ec8) - partition with quorum
Last updated: Mon Dec 4 00:48:24 2017 Last change: Mon Dec 4 00:48:18 2017 by root via
crm_attribute on pod1-controller-0
```

3 nodes and 22 resources configured

Node pod1-controller-0: standby

Online: [pod1-controller-1 pod1-controller-2]

Full list of resources:

```
ip-11.118.0.42 (ocf::heartbeat:IPaddr2): Started pod1-controller-1
ip-11.119.0.47 (ocf::heartbeat:IPaddr2): Started pod1-controller-2
ip-11.120.0.49 (ocf::heartbeat:IPaddr2): Started pod1-controller-1
ip-192.200.0.102 (ocf::heartbeat:IPaddr2): Started pod1-controller-2
Clone Set: haproxy-clone [haproxy]
Started: [ pod1-controller-1 pod1-controller-2 ]
Stopped: [ pod1-controller-0 ]
Master/Slave Set: galera-master [galera]
Masters: [ pod1-controller-1 pod1-controller-2 ]
Slaves: [ pod1-controller-0 ]
ip-11.120.0.47 (ocf::heartbeat:IPaddr2): Started pod1-controller-2
Clone Set: rabbitmq-clone [rabbitmq]
Started: [ pod1-controller-0 pod1-controller-1 pod1-controller-2 ]
Master/Slave Set: redis-master [redis]
Masters: [ pod1-controller-2 ]
Slaves: [ pod1-controller-1 ]
Stopped: [ pod1-controller-0 ]
ip-10.84.123.35 (ocf::heartbeat:IPaddr2): Started pod1-controller-1

openstack-cinder-volume (systemd:openstack-cinder-volume): Started pod1-controller-2
my-ipmilan-for-controller-0 (stonith:fence_ipmilan): Started pod1-controller-1
my-ipmilan-for-controller-1 (stonith:fence_ipmilan): Started pod1-controller-1
my-ipmilan-for-controller-2 (stonith:fence_ipmilan): Started pod1-controller-2
```

```
[heat-admin@pod1-controller-0 ~]$ sudo pcs status
Cluster name: tripleo_cluster
Stack: corosync
Current DC: pod1-controller-2 (version 1.1.15-11.e17_3.4-e174ec8) - partition with quorum
Last updated: Mon Dec 4 01:08:10 2017 Last change: Mon Dec 4 01:04:21 2017 by root via
crm_attribute on pod1-controller-0
```

3 nodes and 22 resources configured

Online: [pod1-controller-0 pod1-controller-1 pod1-controller-2]

Full list of resources:

```
ip-11.118.0.42 (ocf::heartbeat:IPaddr2): Started pod1-controller-1
```

```
ip-11.119.0.47 (ocf::heartbeat:IPAddr2): Started pod1-controller-2
ip-11.120.0.49 (ocf::heartbeat:IPAddr2): Started pod1-controller-1
ip-192.200.0.102 (ocf::heartbeat:IPAddr2): Started pod1-controller-2
Clone Set: haproxy-clone [haproxy]
Started: [ pod1-controller-0 pod1-controller-1 pod1-controller-2 ]
Master/Slave Set: galera-master [galera]
Masters: [ pod1-controller-0 pod1-controller-1 pod1-controller-2 ]
ip-11.120.0.47 (ocf::heartbeat:IPAddr2): Started pod1-controller-2
Clone Set: rabbitmq-clone [rabbitmq]
Started: [ pod1-controller-0 pod1-controller-1 pod1-controller-2 ]
Master/Slave Set: redis-master [redis]
Masters: [ pod1-controller-2 ]
Slaves: [ pod1-controller-0 pod1-controller-1 ]
ip-10.84.123.35 (ocf::heartbeat:IPAddr2): Started pod1-controller-1
openstack-cinder-volume (systemd:openstack-cinder-volume): Started pod1-controller-2
my-ipmilan-for-controller-0 (stonith:fence_ipmilan): Started pod1-controller-1
my-ipmilan-for-controller-1 (stonith:fence_ipmilan): Started pod1-controller-1
my-ipmilan-for-controller-2 (stonith:fence_ipmilan): Started pod1-controller-2
```

Daemon Status:

```
corosync: active/enabled
pacemaker: active/enabled
pcsd: active/enabled
```