

UltraM : Récupération de VM après expiration de la nouvelle tentative ESC

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Introduction

Ce document décrit comment récupérer une machine virtuelle (VM) de Virtual Packet Core (VPC) dans Cisco Ultra Services Platform (UltraM) une fois que la machine virtuelle est inaccessible depuis un certain temps et que Cisco Elastic Services Controller (ESC) tente de la récupérer.

Problème

Le noeud de calcul est supprimé (ou inaccessible) dans la configuration UltraM. Lorsque l'ESC tente de récupérer le noeud, mais il ne peut pas le faire car le noeud était inaccessible. Ce scénario peut être simulé lorsque vous laissez des câbles d'alimentation à partir d'un noeud de calcul. Une façon de simuler ce scénario consiste à retirer les câbles d'alimentation de la lame Unified Computing System (UCS). Une fois que l'ESC ne parvient pas à récupérer la machine virtuelle, elle passe à l'état « ERROR » sous OpenStack et reste “ amorçage ”.

Dans l'exemple, la carte SF 5 se trouve sur vnfd1-Deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c :

```
[local]rcdn-ulram-lab# show card table
```

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

[stack@ultram-ospd ~]\$ nova list

```
+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+
-----+
| ID | Name | Status | Task State | Power State |
Networks
|
+-----+-----+-----+-----+-----+
-----+-----+-----+-----+-----+
-----+
| beab0296-8cfa-4b63-8a05-a800637199f5 | Testcompanion | ACTIVE | - | Running | testcomp- |
gn=10.10.11.8; mgmt=172.16.181.18, 10.201.206.46; testcomp-sig=10.10.13.5; testcomp- |
gi=10.10.12.7 |
| 235f5591-9502-4ba3-a003-b254494d258b | auto-deploy-ISO-590-uas- | ACTIVE | - | Running | mgmt=172.16.181.11, |
0 | 10.201.206.44 |
| 9450cb19-f073-476b-a750-9336b26e3c6a | auto-it-vnf-ISO-590-uas-0 | ACTIVE | - | Running | mgmt=172.16.181.8, |
10.201.206.43 |
| d0d91636-951d-49db-a92b-b2a639f5db9d | autovnf1-uas-0 | ACTIVE | - | Running | orchestr=172.16.180.14; |
mgmt=172.16.181.13 |
| 901f30e2-e96e-4658-9e1e-39a45b5859c7 | autovnf1-uas-1 | ACTIVE | - | Running | orchestr=172.16.180.5; |
mgmt=172.16.181.12 |
| 9edb3a8d-a69b-4912-86f6-9d0b05d6210d | autovnf1-uas-2 | ACTIVE | - | Running | orchestr=172.16.180.16; |
mgmt=172.16.181.5 |
| 56ce362c-3494-4106-98e3-ba06e56ee4ed | ultram-vnfm1-ESC-0 | ACTIVE | - | Running | orchestr=172.16.180.9; mgmt=172.16.181.6, |
10.201.206.55 |
| bb687399-e1f9-44b2-a258-cfa29dcf178e | ultram-vnfm1-ESC- | ACTIVE | - | Running | |
1 | orchestr=172.16.180.15; |
mgmt=172.16.181.7 |
| bfc4096c-4ff7-4b30-af3f-5bc3810b30e3 | ultram-vnfm1-em_ultram_0_9b5ccf05-c340-44da-9bca- | ACTIVE | - | Running | orchestr=172.16.180.7; |
f5af4689ea42 | mgmt=172.16.181.14 |
| cf7ddc9e-5e6d-4e38-a606-9dc9d31c559d | ultram-vnfm1-em_ultram_0_c2533edd-8756-44fb-a8bf- | ACTIVE | - | Running | orchestr=172.16.180.8; |
98b9c10bfacd | mgmt=172.16.181.15 |
| 592b5b3f-0b0b-4bc6-81e7-a8cc9a609594 | ultram-vnfm1-em_ultram_0_ce0c37a0-509e-45d1-9d00- | ACTIVE | - | Running | orchestr=172.16.180.6; |
464988e02730 | mgmt=172.16.181.10 |
| 143baf4f-024a-47f1-969a-d4d79d89be14 | vnfd1-deployment_c1_0_84c5bc9e-9d80-4628-b88a- | ACTIVE | - | Running | orchestr=172.16.180.26; ultram-vnfm1-di- |
f8a0011b5d4b | mgmt=192.168.1.13; mgmt=172.16.181.25 |
internall=192.168.1.13; mgmt=172.16.181.25 |
```


20b7df6d083651eb04f1f014e8a4958ddf9c1654cb3ad9057adc7e73

15:11:04,618 11-Aug-2017 WARN Host Name: ultram-rcdnlab-compute-4.localdomain
15:11:04,618 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
15:11:04,618 11-Aug-2017 WARN ===== SEND NOTIFICATION ENDS =====
15:16:38,019 11-Aug-2017 WARN
15:16:38,020 11-Aug-2017 WARN ===== SEND NOTIFICATION STARTS =====
15:16:38,020 11-Aug-2017 WARN Type: VM_RECOVERY_REBOOT
15:16:38,020 11-Aug-2017 WARN Status: FAILURE
15:16:38,020 11-Aug-2017 WARN Status Code: 500
15:16:38,020 11-Aug-2017 WARN Status Msg: VM [vnfd1-deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c] failed to be rebooted.
15:16:38,020 11-Aug-2017 WARN Tenant: core
15:16:38,020 11-Aug-2017 WARN Service ID: NULL
15:16:38,020 11-Aug-2017 WARN Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
15:16:38,020 11-Aug-2017 WARN Deployment name: vnfd1-deployment-1.0.0-1
15:16:38,020 11-Aug-2017 WARN VM group name: s6
15:16:38,021 11-Aug-2017 WARN VM Source:
15:16:38,021 11-Aug-2017 WARN VM ID: 4d6b1b6f-6137-4e8e-b61c-66d5fb59ba0d
15:16:38,021 11-Aug-2017 WARN Host ID:
20b7df6d083651eb04f1f014e8a4958ddf9c1654cb3ad9057adc7e73
15:16:38,021 11-Aug-2017 WARN Host Name: ultram-rcdnlab-compute-4.localdomain
15:16:38,021 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
15:16:38,021 11-Aug-2017 WARN ===== SEND NOTIFICATION ENDS =====
15:16:48,286 11-Aug-2017 WARN
15:16:48,286 11-Aug-2017 WARN ===== SEND NOTIFICATION STARTS =====
15:16:48,286 11-Aug-2017 WARN Type: VM_RECOVERY_UNDEPLOYED
15:16:48,286 11-Aug-2017 WARN Status: SUCCESS
15:16:48,286 11-Aug-2017 WARN Status Code: 204
15:16:48,286 11-Aug-2017 WARN Status Msg: VM [vnfd1-deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c] has been undeployed.
15:16:48,286 11-Aug-2017 WARN Tenant: core
15:16:48,286 11-Aug-2017 WARN Service ID: NULL
15:16:48,286 11-Aug-2017 WARN Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
15:16:48,286 11-Aug-2017 WARN Deployment name: vnfd1-deployment-1.0.0-1

```
15:16:48,286 11-Aug-2017 WARN VM group name: s6
15:16:48,286 11-Aug-2017 WARN VM Source:
15:16:48,286 11-Aug-2017 WARN VM ID: 4d6b1b6f-6137-4e8e-b61c-66d5fb59ba0d
15:16:48,286 11-Aug-2017 WARN Host ID:
20b7df6d083651eb04f1f014e8a4958ddf9c1654cb3ad9057adc7e73
15:16:48,286 11-Aug-2017 WARN Host Name: ultram-rcdnlab-compute-4.localdomain
15:16:48,287 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
15:16:48,287 11-Aug-2017 WARN ===== SEND NOTIFICATION ENDS =====
15:18:04,418 11-Aug-2017 WARN
15:18:04,418 11-Aug-2017 WARN ===== SEND NOTIFICATION STARTS =====
15:18:04,418 11-Aug-2017 WARN Type: VM_RECOVERY_COMPLETE
15:18:04,418 11-Aug-2017 WARN Status: FAILURE
15:18:04,418 11-Aug-2017 WARN Status Code: 500
15:18:04,418 11-Aug-2017 WARN Status Msg: Error deploying VM [vnfd1-deployment_s6_0_e03f87f5-
63b6-4053-8d0f-0c9df963162c] as part of recovery workflow. VIM Driver: VM booted in ERROR state
in Openstack: No valid host was found. There are not enough hosts available.
15:18:04,418 11-Aug-2017 WARN Tenant: core
15:18:04,418 11-Aug-2017 WARN Service ID: NULL
15:18:04,418 11-Aug-2017 WARN Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
15:18:04,418 11-Aug-2017 WARN Deployment name: vnfd1-deployment-1.0.0-1
15:18:04,418 11-Aug-2017 WARN VM group name: s6
15:18:04,418 11-Aug-2017 WARN VM Source:
15:18:04,418 11-Aug-2017 WARN VM ID: 4d6b1b6f-6137-4e8e-b61c-66d5fb59ba0d
15:18:04,418 11-Aug-2017 WARN Host ID:
20b7df6d083651eb04f1f014e8a4958ddf9c1654cb3ad9057adc7e73
15:18:04,418 11-Aug-2017 WARN Host Name: ultram-rcdnlab-compute-4.localdomain
15:18:04,418 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
15:18:04,418 11-Aug-2017 WARN ===== SEND NOTIFICATION ENDS =====
```

Solution

1. Mettez l'ordinateur sous tension avec le bouton de mise sous tension et attendez que l'hyperviseur s'affiche :

```
[root@ultram-ospd ~]# su - stack
```

```
[stack@ultram-ospd ~]$ source stackrc
```

```
[stack@ultram-ospd ~]$ nova hypervisor-list
```

```
+-----+-----+-----+-----+
| ID | Hypervisor hostname          | State | Status |
+-----+-----+-----+-----+
| 3  | ultram-rcdnlab-compute-10.localdomain | up    | enabled |
| 6  | ultram-rcdnlab-compute-5.localdomain  | up    | enabled |
| 9  | ultram-rcdnlab-compute-6.localdomain  | up    | enabled |
| 12 | ultram-rcdnlab-compute-3.localdomain  | up    | enabled |
| 15 | ultram-rcdnlab-compute-9.localdomain  | up    | enabled |
| 18 | ultram-rcdnlab-compute-1.localdomain  | up    | enabled |
| 21 | ultram-rcdnlab-compute-8.localdomain  | up    | enabled |
| 24 | ultram-rcdnlab-compute-4.localdomain  | down  | enabled |
| 27 | ultram-rcdnlab-compute-7.localdomain  | up    | enabled |
| 30 | ultram-rcdnlab-compute-2.localdomain  | up    | enabled |
| 33 | ultram-rcdnlab-compute-0.localdomain  | up    | enabled |
+-----+-----+-----+-----+
```

```
[stack@ultram-ospd ~]$ nova hypervisor-list
```

```
+-----+-----+-----+-----+
| ID | Hypervisor hostname          | State | Status |
+-----+-----+-----+-----+
| 3  | ultram-rcdnlab-compute-10.localdomain | up    | enabled |
| 6  | ultram-rcdnlab-compute-5.localdomain  | up    | enabled |
| 9  | ultram-rcdnlab-compute-6.localdomain  | up    | enabled |
| 12 | ultram-rcdnlab-compute-3.localdomain  | up    | enabled |
| 15 | ultram-rcdnlab-compute-9.localdomain  | up    | enabled |
| 18 | ultram-rcdnlab-compute-1.localdomain  | up    | enabled |
| 21 | ultram-rcdnlab-compute-8.localdomain  | up    | enabled |
| 24 | ultram-rcdnlab-compute-4.localdomain  | up    | enabled |
| 27 | ultram-rcdnlab-compute-7.localdomain  | up    | enabled |
| 30 | ultram-rcdnlab-compute-2.localdomain  | up    | enabled |
+-----+-----+-----+-----+
```

```
| 33 | ultram-rcdnlab-compute-0.localdomain | up | enabled |
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

2. Identifier l'ID d'instance dans la liste Nova :

```
[root@ultram-ospd ~]# su - stack
[stack@ultram-ospd ~]$ source corerc
```

```
[stack@ultram-ospd ~]$ nova list | grep ERROR
```

```
| 085baf6a-02bf-4190-ac38-bbb33350b941 | vnfd1-deployment_s6_0_e03f87f5-63b6-4053-8d0f-
0c9df963162c | ERROR | - | NOSTATE |
```

3. Lancer la récupération manuelle sur ESC avec l'interface de ligne de commande et l'ID d'instance de l'étape précédente :

```
[admin@ultram-vnfm1-esc-0 ~]$ cd /opt/cisco/esc/esc-confd/esc-cli
```

```
[admin@ultram-vnfm1-esc-0 esc-cli]$ ./esc_nc_cli recovery-vm-action DO vnfd1-
deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c
```

Recovery VM Action

```
/opt/cisco/esc/confd/bin/netconf-console --port=830 --host=127.0.0.1 --user=admin --
privKeyFile=/home/admin/.ssh/confd_id_dsa --privKeyType=dsa --rpc=/tmp/esc_nc_cli.hZsdLQ2Mle
```

```
<?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>
```

4. Vérifiez les journaux, OpenStack Horizon pour confirmer que l'instance a été restaurée :

```
[admin@ultram-vnfm1-esc-0 ~]$ tail -f /var/log/esc/yangesc.log
```

```
16:41:54,445 11-Aug-2017 INFO ===== RECOVERY VM ACTION REQUEST RECEIVED =====
16:41:54,445 11-Aug-2017 INFO Type: DO
16:41:54,445 11-Aug-2017 INFO Recovery VM name: vnfd1-deployment_s6_0_e03f87f5-63b6-4053-8d0f-
0c9df963162c
16:41:58,092 11-Aug-2017 INFO ===== RECOVERY VM ACTION REQUEST ACCEPTED =====
16:41:58,673 11-Aug-2017 WARN
16:41:58,673 11-Aug-2017 WARN ===== SEND NOTIFICATION STARTS =====
16:41:58,674 11-Aug-2017 WARN Type: VM_RECOVERY_INIT
16:41:58,674 11-Aug-2017 WARN Status: SUCCESS
16:41:58,674 11-Aug-2017 WARN Status Code: 200
16:41:58,674 11-Aug-2017 WARN Status Msg: Recovery event for VM [vnfd1-
deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c] triggered.
16:41:58,674 11-Aug-2017 WARN Tenant: core
16:41:58,674 11-Aug-2017 WARN Service ID: NULL
16:41:58,674 11-Aug-2017 WARN Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
```

16:41:58,674 11-Aug-2017 WARN Deployment name: vnfd1-deployment-1.0.0-1
16:41:58,674 11-Aug-2017 WARN VM group name: s6
16:41:58,674 11-Aug-2017 WARN VM Source:
16:41:58,674 11-Aug-2017 WARN VM ID: 085baf6a-02bf-4190-ac38-bbb33350b941
16:41:58,674 11-Aug-2017 WARN Host ID:
16:41:58,674 11-Aug-2017 WARN Host Name:
16:41:58,674 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
16:41:58,674 11-Aug-2017 WARN ===== SEND NOTIFICATION ENDS =====
16:42:19,794 11-Aug-2017 WARN ===== SEND NOTIFICATION STARTS =====
16:42:19,794 11-Aug-2017 WARN Type: VM_RECOVERY_REBOOT
16:42:19,794 11-Aug-2017 WARN Status: FAILURE
16:42:19,794 11-Aug-2017 WARN Status Code: 500
16:42:19,794 11-Aug-2017 WARN Status Msg: VM [vnfd1-deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c] failed to be rebooted.
16:42:19,794 11-Aug-2017 WARN Tenant: core
16:42:19,795 11-Aug-2017 WARN Service ID: NULL
16:42:19,795 11-Aug-2017 WARN Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
16:42:19,795 11-Aug-2017 WARN Deployment name: vnfd1-deployment-1.0.0-1
16:42:19,795 11-Aug-2017 WARN VM group name: s6
16:42:19,795 11-Aug-2017 WARN VM Source:
16:42:19,795 11-Aug-2017 WARN VM ID: 085baf6a-02bf-4190-ac38-bbb33350b941
16:42:19,795 11-Aug-2017 WARN Host ID:
16:42:19,795 11-Aug-2017 WARN Host Name:
16:42:19,795 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
16:42:19,795 11-Aug-2017 WARN ===== SEND NOTIFICATION ENDS =====
16:42:32,013 11-Aug-2017 WARN ===== SEND NOTIFICATION STARTS =====
16:42:32,013 11-Aug-2017 WARN Type: VM_RECOVERY_UNDEPLOYED
16:42:32,013 11-Aug-2017 WARN Status: SUCCESS
16:42:32,013 11-Aug-2017 WARN Status Code: 204
16:42:32,013 11-Aug-2017 WARN Status Msg: VM [vnfd1-deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c] has been undeployed.
16:42:32,013 11-Aug-2017 WARN Tenant: core
16:42:32,014 11-Aug-2017 WARN Service ID: NULL
16:42:32,014 11-Aug-2017 WARN Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
16:42:32,014 11-Aug-2017 WARN Deployment name: vnfd1-deployment-1.0.0-1
16:42:32,014 11-Aug-2017 WARN VM group name: s6
16:42:32,014 11-Aug-2017 WARN VM Source:
16:42:32,014 11-Aug-2017 WARN VM ID: 085baf6a-02bf-4190-ac38-bbb33350b941
16:42:32,014 11-Aug-2017 WARN Host ID:
16:42:32,014 11-Aug-2017 WARN Host Name:
16:42:32,014 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
16:42:32,014 11-Aug-2017 WARN ===== SEND NOTIFICATION ENDS =====
16:43:13,643 11-Aug-2017 WARN ===== SEND NOTIFICATION STARTS =====
16:43:13,643 11-Aug-2017 WARN Type: VM_RECOVERY_DEPLOYED
16:43:13,643 11-Aug-2017 WARN Status: SUCCESS
16:43:13,643 11-Aug-2017 WARN Status Code: 200
16:43:13,643 11-Aug-2017 WARN Status Msg: VM [vnfd1-deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c] has been deployed as part of recovery.
16:43:13,643 11-Aug-2017 WARN Tenant: core
16:43:13,643 11-Aug-2017 WARN Service ID: NULL
16:43:13,643 11-Aug-2017 WARN Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
16:43:13,643 11-Aug-2017 WARN Deployment name: vnfd1-deployment-1.0.0-1
16:43:13,643 11-Aug-2017 WARN VM group name: s6
16:43:13,643 11-Aug-2017 WARN VM Source:
16:43:13,643 11-Aug-2017 WARN VM ID: 085baf6a-02bf-4190-ac38-bbb33350b941
16:43:13,643 11-Aug-2017 WARN Host ID:
16:43:13,643 11-Aug-2017 WARN Host Name:
16:43:13,643 11-Aug-2017 WARN [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
16:43:13,643 11-Aug-2017 WARN VM Target:
16:43:13,644 11-Aug-2017 WARN VM ID: a313e8dc-3b0f-4b41-8648-f9b9419bc826
16:43:13,644 11-Aug-2017 WARN Host ID:


```

20b7df6d083651eb04f1f014e8a4958ddf9c1654cb3ad9057adc7e73
16:43:13,644 11-Aug-2017 WARN      Host Name: ultram-rcdnlab-compute-4.localdomain
16:43:13,644 11-Aug-2017 WARN      [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
16:43:13,644 11-Aug-2017 WARN      ===== SEND NOTIFICATION ENDS =====
16:43:33,827 11-Aug-2017 WARN      ===== SEND NOTIFICATION STARTS =====
16:43:33,827 11-Aug-2017 WARN      Type: VM_RECOVERY_COMPLETE
16:43:33,827 11-Aug-2017 WARN      Status: SUCCESS
16:43:33,827 11-Aug-2017 WARN      Status Code: 200
16:43:33,827 11-Aug-2017 WARN      Status Msg: Recovery: Successfully recovered VM [vnfd1-
deployment_s6_0_e03f87f5-63b6-4053-8d0f-0c9df963162c].
16:43:33,827 11-Aug-2017 WARN      Tenant: core
16:43:33,827 11-Aug-2017 WARN      Service ID: NULL
16:43:33,828 11-Aug-2017 WARN      Deployment ID: b41ad0ec-bc74-4bb3-85b6-7ef430074187
16:43:33,828 11-Aug-2017 WARN      Deployment name: vnfd1-deployment-1.0.0-1
16:43:33,828 11-Aug-2017 WARN      VM group name: s6
16:43:33,828 11-Aug-2017 WARN      VM Source:
16:43:33,828 11-Aug-2017 WARN      VM ID: 085baf6a-02bf-4190-ac38-bbb33350b941
16:43:33,828 11-Aug-2017 WARN      Host ID:
16:43:33,828 11-Aug-2017 WARN      Host Name:
16:43:33,828 11-Aug-2017 WARN      [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
16:43:33,828 11-Aug-2017 WARN      VM Target:
16:43:33,828 11-Aug-2017 WARN      VM ID: a313e8dc-3b0f-4b41-8648-f9b9419bc826
16:43:33,828 11-Aug-2017 WARN      Host ID:
20b7df6d083651eb04f1f014e8a4958ddf9c1654cb3ad9057adc7e73
16:43:33,828 11-Aug-2017 WARN      Host Name: ultram-rcdnlab-compute-4.localdomain
16:43:33,828 11-Aug-2017 WARN      [DEBUG-ONLY] VM IP: 10.10.10.9; 172.16.180.22; 192.168.1.12;
16:43:33,828 11-Aug-2017 WARN      ===== SEND NOTIFICATION ENDS =====

```

```
[local]rcdn-ulram-lab# show card table
```

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

```
[local]rcdn-ulram-lab#
```