

Implantar/reimplantar UAME em caso de corrupção

Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Componentes Utilizados](#)

[Informações de Apoio](#)

[UAME](#)

[Problema](#)

[Procedimento para a reafecção](#)

[Para excluir](#)

Introduction

Este documento descreve o procedimento para implantar ou reimplantar o Ultra Automation and Monitoring Engine (UAME).

Prerequisites

Requirements

A Cisco recomenda que você tenha conhecimento destes tópicos:

- Componentes das soluções Cisco Ultra Virtual Packet Core
- UAME
- Openstack

Componentes Utilizados

As informações neste documento são baseadas nestas versões de software e hardware:

- USP 6.9.0
- UAME
- Nuvem - Openstack 13 (Queens)

Informações de Apoio

UAME

O UAME é um novo módulo de software Ultra Automation Services (UAS) introduzido em:

- Suportar a implantação integrada de VNFs (Virtualized Network Functions) 4G ou 5G e CNFs (Cloud-Native Network Functions) de 5G.
- Reduza o número de máquinas virtuais (VMs) normalmente exigidas pela USP e pelo UAS, substituindo os componentes UEM, AutoIT, AutoDeploy e AutoVNF.

O UAME fornece orquestração de implantação para:

1. 4GVNFs:

1.1. VNFs baseadas em CUPS: O UAME trabalha com o Virtual Network Function Manager (VNFM) para implantar VNFs de plano de controle (CP) baseado em SI do VPC e de plano do usuário (UP) para suportar a arquitetura de controle e separação do plano do usuário (CUPS).

1.2. VNFs não baseadas em CUPS: O UAME é compatível com versões anteriores, trabalhando com o VNFM para fornecer suporte de implantação para gateways 4G não-CUPS (baseados em VPC-DI) e a política 4G e a função de regras de cobrança (PCRF).

2. NFs de 5G:

2.1. NFs baseadas em VNF: O UAME trabalha com o VNFM para implantar as funções de rede (NFs) baseadas em VPC-SI.

2.2. NFs baseadas em nuvem nativa: O UAME interage com o VNFM para implantar a infraestrutura de microsserviços de assinante do Ultra Cloud Core (SMI). Em seguida, o SMI trabalha com o VNFM para implantar NFs em um cluster baseado em VM Kubernetes (também conhecido como K8s).

Problema

Uma ou ambas as VMs UAME estão corrompidas. Você não pode recuperar o UAME mesmo após reiniciar o servidor de computação de hospedagem do OpenStack.

nova start/nova reinicialização —**hard** também falha após definir o estado da VM ativa do OpenStack com esse comando.

estado de reinicialização nova — **ative** <UAME_Vm_NAME>.

Procedimento para a reafecção

1. Faça login no OpenStack Platform Diretor (OSPD) e verifique a configuração de montagem.

```
[stack@<POD-NAME>-ospd usp-images]$ df -h
Filesystem Size Used Avail Use% Mounted on
devtmpfs 189G 0 189G 0% /dev
```

```
tmpfs 189G 80K 189G 1% /dev/shm
tmpfs 189G 2.7M 189G 1% /run
tmpfs 189G 0 189G 0% /sys/fs/cgroup
/dev/sda2 1.1T 109G 930G 11% /
/dev/loop0 543M 543M 0 100% /mnt/ucs-c220m5-huu-4.1.1g
/dev/sda1 477M 102M 346M 23% /boot
tmpfs 38G 0 38G 0% /run/user/0
tmpfs 38G 0 38G 0% /run/user/1000
/dev/loop1 4.0G 4.0G 0 100% /home/stack/usp-6_9_8/usp-6_9_8-mount
```

2. Se a montagem não estiver disponível, você pode montá-la manualmente com estas etapas.

```
# cd /home/stack

# mkdir /home/stack/usp-6_9_8/usp-6_9_8-mount

# sudo mount -t iso9660 -o loop /home/stack/usp-6_9_8/usp-images/usp-6_9_8.iso /home/stack/usp-6_9_8/usp-6_9_8-mount
```

```
mount: /dev/loop0 is write-protected, mounting read-only
```

3. Verifique o conteúdo do arquivo ISO.

```
(undercloud) [stack@<POD-NAME>-ospd ~]$ ll /home/stack/usp-6_9_8/usp-6_9_8-mount/tools
total 22
-r--r--r--. 1 root root 8586 Sep 1 2020 cisco_openpgp_verify_release.py
-r-xr-xr-x. 1 root root 1955 Sep 1 2020 uas-certs.sh
-r-xr-xr-x. 1 root root 5534 Sep 1 2020 usp-csar-installer.sh
-r-xr-xr-x. 1 root root 2546 Sep 1 2020 usp-gpg-key.sh
-r-xr-xr-x. 1 root root 3354 Sep 1 2020 usp-uas-installer.sh
(undercloud) [stack@<POD-NAME>-ospd ~]$
```

4. Verifique se esses arquivos estão disponíveis.

```
(undercloud) [stack@<POD-NAME>-ospd ~]$ ll /opt/cisco/usp/uas-installer/images/
total 909544
-rw-r--r--. 1 root root 931367936 Aug 20 2020 usp-uas-6.9.0-9247.qcow2
```

```
(undercloud) [stack@<POD-NAME>-ospd ~]$ ll /opt/cisco/usp/uas-installer/scripts/
total 180
-rwxr-xr-x. 1 root root 806 Jun 24 18:28 auto-deploy-booting.sh
-rwxr-xr-x. 1 root root 5460 Jun 24 18:28 autoit-user.py
-rwxr-xr-x. 1 root root 811 Jun 24 18:28 auto-it-vnf-staging.sh
-r-xr-x---. 1 root root 102209 Jun 24 18:28 boot_uas.py
-rwxr-xr-x. 1 root root 4762 Jun 24 18:28 encrypt_account.sh
-rwxr-xr-x. 1 root root 3945 Jun 24 18:28 encrypt_credentials.sh
-rwxr-xr-x. 1 root root 16019 Jun 24 18:28 start-ultram-vm.py
-rwxr-xr-x. 1 root root 15315 Jun 24 18:28 uas-boot.py
-rwxr-xr-x. 1 root root 5384 Jun 24 18:28 uas-check.py
-rwxr-xr-x. 1 root root 11283 Jun 24 18:28 usp-tenant.py
(undercloud) [stack@<POD-NAME>-ospd ~]$
```

5. Caso contrário, inicie o script **usp-uas-installer.sh**. Ele extrairá e disponibilizará os arquivos mencionados anteriormente.

```
[stack@<POD-NAME>-ospd tools]$ sudo ./usp-uas-installer.sh
```

6. Liste a imagem **qcou2** e o script **boot_uas.py**.

```
[root@<POD-NAME>-ospd ~]# cd /opt/cisco/usp/bundles/uas-bundle
```

```
[root@<POD-NAME>-ospd uas-bundle]# ll
total 909572
drwxr-xr-x. 3 root root 4096 Jun 24 18:28 models
drwxr-xr-x. 2 root root 4096 Jun 24 18:28 tools
-rw-r--r--. 1 root root 649 Aug 20 2020 usp-build-info.json
-rw-r--r--. 1 root root 97 Aug 20 2020 usp-bundle-manifest.yml
-rw-r--r--. 1 root root 931367936 Aug 20 2020 usp-uas-6.9.0-9247.qcow2
-rw-r--r--. 1 root root 32 Aug 20 2020 usp-uas-6.9.0-9247.qcow2.md5
-rw-r--r--. 1 root root 40 Aug 20 2020 usp-uas-6.9.0-9247.qcow2.sha1
-rw-r--r--. 1 root root 128 Aug 20 2020 usp-uas-6.9.0-9247.qcow2.sha512
[root@<POD-NAME>-ospd uas-bundle]# cd tools/
[root@<POD-NAME>-ospd tools]# ll
total 100
-rwxr-xr-x. 1 root root 102209 Aug 20 2020 boot_uas.py
[root@<POD-NAME>-ospd tools]#
```

```
[root@<POD-NAME>-ospd tools]# ll /opt/cisco/usp/uas-installer/images/
total 909544
-rw-r--r--. 1 root root 931367936 Aug 20 2020 usp-uas-6.9.0-9247.qcow2
```

7. Extraia o pacote usp com o uso desta etapa se os arquivos mencionados anteriormente não estiverem disponíveis.

```
(undercloud) [stack@<POD-NAME>-ospd ~]$ sudo su -
Last login: Tue Sep 7 02:20:36 UTC 2021 from 10.255.143.5 on pts/0
[root@<POD-NAME>-ospd ~]# ll /home/stack/usp-6_9_8/usp-6_9_8-mount/repo/
total 4142608
-r--r--r--. 1 root root 623 Sep 1 2020 rel.gpg
-r--r--r--. 1 root root 87783720 Sep 1 2020 usp-auto-it-bundle-5.8.0-1.x86_64.rpm
-r--r--r--. 1 root root 1008975328 Sep 1 2020 usp-em-bundle-6.9.0-1.x86_64.rpm
-r--r--r--. 1 root root 1168 Sep 1 2020 USP_RPM_CODE_REL_KEY-CCO_RELEASE.cer
-r--r--r--. 1 root root 918264637 Sep 1 2020 usp-uas-bundle-6.9.0-1.x86_64.rpm
-r--r--r--. 1 root root 886391928 Sep 1 2020 usp-ugp-bundle-21.15.47-1.x86_64.rpm
-r--r--r--. 1 root root 1340535896 Sep 1 2020 usp-vnfm-bundle-4.5.0.112-1.x86_64.rpm
-r--r--r--. 1 root root 74725 Sep 1 2020 usp-yang-bundle-1.0.0-1.x86_64.rpm
[root@<POD-NAME>-ospd ~]#
```

```
[root@<POD-NAME>-ospd tools]# cd /
```

```
[root@<POD-NAME>-ospd /]# rpm2cpio /home/stack/usp-6_9_8/usp-6_9_8-mount/repo/usp-uas-bundle-6.9.0-1.x86_64.rpm | cpio -idmv
```

8. Exclua a implantação do UAME e reimplante

Para excluir

```
./boot_uas.py --autovnf --delete 1624559350-098061
```

The deployment ID will be available as mentioned highlighted above or in the file mentioned `"/home/stack/UAME_$(date +%Y%m%d-%H%M").log"`. Refer the latest file.

```
(undercloud) [stack@<POD-NAME>-ospd ~]$ cat UAME_0624Jun061624559462.log
2021-06-24 18:30:30,392 - Deployment: 1624559350-098061 instantiated successfully
```

1. Implante o UAME.

```
(undercloud) [stack@<POD-NAME>-ospd ~]$ sudo -s
[root@<POD-NAME>-ospd stack]# source *core
```

```
(<POD-NAME>) (<POD-NAME>) [root@<POD-NAME>-ospd stack]# cd /opt/cisco/usp/uas-installer/scripts
(<POD-NAME>) (<POD-NAME>) [root@<POD-NAME>-ospd scripts]# ./boot_uas.py --openstack --uame --
image /opt/cisco/usp/uas-installer/images/usp-uas-6.9.0-9247.qcow2 --flavor <PODNAME>-UAME-
FLAVOR --net <PODNAME>-MGMT-NW --net <PODNAME>-ORCH-NW --ha --hostname <PODNAME>-UAME --ha-net
<PODNAME>-MGMT-NW --password password --gateway 172.168.10.1 --floating-ip <floating ip of UAME>
--external-network <PODNAME>-EXTERNAL-MGMT --admin password--oper password --security password
```

Note: "password" has to be replaced with the UAME login password and "PODNAME" with the current POD. "floating-ip" should be obtained from the IP matrix

```
2021-06-24 18:28:52,225 - Uploading image '<POD-NAME>-UAME-usp-uas-6.9.0-9247' from
'/opt/cisco/usp/uas-installer/images/usp-uas-6.9.0-9247.qcow2'
2021-06-24 18:29:06,945 - Uploaded image '<POD-NAME>-UAME-usp-uas-6.9.0-9247' successfully
2021-06-24 18:29:09,987 - Creating Server Group to enforce anti-affinity
2021-06-24 18:29:10,098 - Deployment started with transaction id --- 1624559350-098061
2021-06-24 18:29:11,766 - Created HA VIP, IP: 172.168.20.40
2021-06-24 18:29:17,125 - Allocating/Associating floating-ip
2021-06-24 18:29:17,125 - Acquire Lock : floating_ip
2021-06-24 18:29:17,125 - Lock floating_ip acquired
2021-06-24 18:29:20,474 - Assigned floating IP '10.250.100.198' to IP '172.168.20.40'
2021-06-24 18:29:20,475 - Released lock: floating_ip
2021-06-24 18:29:26,206 - Server: <POD-NAME>-UAME instantiated, waiting for server to be active
2021-06-24 18:30:01,415 - Server: <POD-NAME>-UAME instantiated, waiting for server to be active
2021-06-24 18:30:30,392 - Deployment: 1624559350-098061 instantiated successfully
2021-06-24 18:30:30,393 -
```

```
+-----+
Deployment ID | Instances
-----+-----
1624559350-098061 | e71616e8-bf01-4561-bdd6-4e3bf3ed1d5e
VIP: 172.168.20.40 | eth0: 172.168.10.6/24
Floating IP: 10.250.100.198 | eth1: 172.168.11.23/24
|
| 3d956097-16b1-4909-b539-c6a90e01678c
| eth0: 172.168.10.18/24
| eth1: 172.168.11.8/24
+-----+
```

2. Salve a id de implantação manualmente no arquivo `/home/stack/uame_(date).log`.

```
grep -i "deployment:" /var/log/autovnf.log | tail -1 >> /home/stack/UAME_$(date +"%Y%m%d-%H%M").log
```

3. Verifique se o UAME está ativo e em execução.

```
(<POD-NAME>) [stack@<POD-NAME>-ospd ~]$ nova list | grep -i uame
| e71616e8-bf01-4561-bdd6-4e3bf3ed1d5e | <POD-NAME>-UAME-1 | ACTIVE | - | Running | <POD-NAME>-
MGMT-NW=172.168.10.6; <POD-NAME>-ORCH-NW=172.168.11.23 |
| 3d956097-16b1-4909-b539-c6a90e01678c | <POD-NAME>-UAME-2 | ACTIVE | - | Running | <POD-NAME>-
MGMT-NW=172.168.10.18; <POD-NAME>-ORCH-NW=172.168.11.8 |
```

4. Faça login no UAME e execute essas verificações.

```
[root@adi-tmo Downloads]# ssh ubuntu@10.250.100.198
ubuntu@10.250.100.198's password:
Welcome to Ubuntu 16.04.7 LTS (GNU/Linux 4.4.0-187-generic x86_64)
```

- * Documentation: <https://help.ubuntu.com>
- * Management: <https://landscape.canonical.com>
- * Support: <https://ubuntu.com/advantage>

Cisco Ultra Services Platform (USP)
Build Date: Thu Aug 20 09:11:07 EDT 2020
Description: UAS build assemble-uas#9247
sha1: 557151c

[ubuntu@](#)

```
ubuntu@<POD-NAME>-uame-1:~$ sudo su -  
root@<POD-NAME>-uame-1:~# confd_cli -u admin -C  
Enter Password for 'admin':  
elcome to the ConfD CLI  
admin connected from 127.0.0.1 using console on <POD-NAME>-uame-1  
<POD-NAME>-uame-1#
```

```
<POD-NAME>-uame-1#show uas  
uas version 6.9.0  
uas state active  
uas external-connection-point 172.168.20.40  
INSTANCE IP STATE ROLE  
-----  
172.168.10.6 alive CONFD-MASTER  
172.168.10.18 alive CONFD-SLAVE
```

```
NAME LAST HEARTBEAT  
-----
```

```
AutoVNF-MASTER 2021-09-07 05:11:03  
ESCHearBeatMonitor-<POD-NAME>-VNF-NEPCF300 2021-09-07 05:11:26  
ESCHearBeatMonitor-<POD-NAME>-VNF-NEPGW300 2021-09-07 05:11:22  
USPCFMWorker 2021-09-07 05:11:06  
USPCHEWorker 2021-09-07 05:11:06  
USPCWorker 2021-09-07 05:11:02
```

```
<POD-NAME>-uame-1#
```