

# Ultra-M AutoVNF的重新部署过程

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## 简介

本文档介绍在Ultra-M中重新部署AutoVNF所需的步骤。AutoVNF负责启用单个虚拟网络功能管理器(VNFM)和虚拟网络功能(VNF)。

## 预检

1.登录OpenStack平台导向器(OSPD), 并验证运行状况报告中虚拟机(VM)的状态。

```
[stack@labucs300-ospd ~]$ cat /var/log/cisco/ultram-health/*.report | grep -i xxx

[stack@labucs300-ospd ~]$ cat /var/log/cisco/ultram-health/ultram_health_uas.report
-----
----- VNF-ID/VNFD-ID | UAS Node | Status| Error Info, if any -----
-----
10.10.10.40/LABPGW300-UAS | autovnf | :- ) | LABPGW300-UAS:(alive) | | | labucs300-UAS-LABPGW300-
UAS-core-UAS2-2:(alive) | | | labucs300-UAS-LABPGW300-UAS-core-UAS2-1:(alive)
10.10.10.40/LABPCF300-UAS | autovnf | :- ) | LABPCF300-UAS:(alive) | | | labucs300-UAS-LABPCF300-
UAS-core-UAS1-2:(alive) | | | labucs300-UAS-LABPCF300-UAS-core-UAS1-1:(alive)
10.10.10.45/LABPCF300-UGP | vnf-em | :- ) | LABPCF300-UGP:(alive) | | | LABPCF300-LABPCF300-UGP-
core-EM1-3:(alive) | | | LABPCF300-LABPCF300-UGP-core-EM1-2:(alive) | | | LABPCF300-LABPCF300-
UGP-core-EM1-1:(alive) 10.10.10.45/LABPCF300-ESC | esc | :- ) | LABPCF300-ESC:(alive) | | |
LABPCF300-LABPCF300-ESC-core-ESC1-1:(alive) | | | LABPCF300-LABPCF300-ESC-core-ESC1-2:(alive)
10.10.10.45/LABPCF300-UGP | vnf | :- ) | LABPCF300-UGP:(alive) | | | LABPCF300-LABPCF300-UGP-
core-LABPCF300-CF-VDU-1:(alive) | | | LABPCF300-LABPCF300-UGP-core-LABPCF300-CF-VDU-0:(alive) |
| | LABPCF300-LABPCF300-UGP-core-LABPCF300-SF-VDU-3:(alive) | | | LABPCF300-LABPCF300-UGP-core-
LABPCF300-SF-VDU-2:(alive) | | | LABPCF300-LABPCF300-UGP-core-LABPCF300-SF-VDU-1:(alive) | | |
LABPCF300-LABPCF300-UGP-core-LABPCF300-SF-VDU-0:(alive) | | | LABPCF300-LABPCF300-UGP-core-
LABPCF300-SF-VDU-6:(alive) | | | LABPCF300-LABPCF300-UGP-core-LABPCF300-SF-VDU-5:(alive) | | |
LABPCF300-LABPCF300-UGP-core-LABPCF300-SF-VDU-4:(alive) 10.10.10.48/LABPGW300-UGP | vnf-em | :- )
| LABPGW300-UGP:(alive) | | | LABPGW300-LABPGW300-UGP-core-EM2-2:(alive) | | | LABPGW300-
LABPGW300-UGP-core-EM2-3:(alive) | | | LABPGW300-LABPGW300-UGP-core-EM2-1:(alive)
10.10.10.48/LABPGW300-ESC | esc | :- ) | LABPGW300-ESC:(alive) | | | LABPGW300-LABPGW300-ESC-
core-ESC2-1:(alive) | | | LABPGW300-LABPGW300-ESC-core-ESC2-2:(alive) 10.10.10.48/LABPGW300-UGP
| vnf | :- ) | LABPGW300-UGP:(alive) | | | LABPGW300-LABPGW300-UGP-core-LABPGW300-SF-VDU-
4:(alive) | | | LABPGW300-LABPGW300-UGP-core-LABPGW300-SF-VDU-5:(alive) | | | LABPGW300-
LABPGW300-UGP-core-LABPGW300-SF-VDU-6:(alive) | | | LABPGW300-LABPGW300-UGP-core-LABPGW300-SF-
VDU-0:(alive) | | | LABPGW300-LABPGW300-UGP-core-LABPGW300-SF-VDU-1:(alive) | | | LABPGW300-
LABPGW300-UGP-core-LABPGW300-SF-VDU-2:(alive) | | | LABPGW300-LABPGW300-UGP-core-LABPGW300-SF-
VDU-3:(alive) | | | LABPGW300-LABPGW300-UGP-core-LABPGW300-CF-VDU-0:(alive)
| | | LABPGW300-LABPGW300-UGP-core-LABPGW300-CF-VDU-1:(alive)
-----
```

## 2. 验证AutoVNF状态。

```
-----
[stack@labucs300-ospd ~]$ source *core
[stack@labucs300-ospd ~]$ nova list | grep LABPGW300-UAS-core-UAS2
| 8608fda4-b763-4753-95ff-2e07852098e3 | labucs300-UAS-LABPGW300-UAS-core-UAS2-1 | ACTIVE | - |
Running | labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.15; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.7
|
| 19f4496c-3907-4ea5-84c9-e5a6ef222392 | labucs300-UAS-LABPGW300-UAS-core-UAS2-2 | ACTIVE | - |
Running | labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.17; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.16

labucs300-UAS-LABPGW300-UAS-core-UAS2-2 -> VNF2-UAS-VIP Primary
labucs300-UAS-LABPGW300-UAS-core-UAS2-1 -> Secondary
```

## 3. 登录AutoIT并检查心跳日志。

```
ubuntu@labucs300-autoit-2:~$ grep "'restarting'" /var/log/cisco/uas/heartbeat.log
2021-02-22 01:41:42,808 - 192.0.2.15: Notify Event: {'action': 'restart', 'source': 'heartbeat',
'event': 'restarting', 'ip': '192.0.2.15'}
2021-02-22 01:45:42,251 - 192.0.2.15: Notify Event: {'action': 'restart', 'source': 'heartbeat',
'event': 'restarting', 'ip': '192.0.2.15'}
2021-02-23 01:43:36,013 - 192.0.2.15: Notify Event: {'action': 'restart', 'source': 'heartbeat',
'event': 'restarting', 'ip': '192.0.2.15'}
2021-02-23 01:45:55,785 - 192.0.2.15: Notify Event: {'action': 'restart', 'source': 'heartbeat',
'event': 'restarting', 'ip': '192.0.2.15'}
2021-02-24 01:45:19,680 - 192.0.2.15: Notify Event: {'action': 'restart', 'source': 'heartbeat',
'event': 'restarting', 'ip': '192.0.2.15'}
```

```
ubuntu@labucs300-autoit-2:~$ cd /var/log/cisco/uas
ubuntu@labucs300-autoit-2:/var/log/cisco/uas$ grep "Rebooting Instance" uas_USPCHBWorker.log
2019-06-26 18:26:13,088 - Rebooting Instance: 19f4496c-3907-4ea5-84c9-e5a6ef222392
2019-06-29 03:45:12,710 - Rebooting Instance: 19f4496c-3907-4ea5-84c9-e5a6ef222392
2020-07-17 00:46:25,800 - Rebooting Instance: 19f4496c-3907-4ea5-84c9-e5a6ef222392
2020-07-18 00:47:13,347 - Rebooting Instance: 19f4496c-3907-4ea5-84c9-e5a6ef222392
2020-07-18 05:11:11,133 - Rebooting Instance: 19f4496c-3907-4ea5-84c9-e5a6ef222392
2020-07-18 5:16:07,333 - Rebooting Instance: 19f4496c-3907-4ea5-84c9-e5a6ef222392
```

## AutoVNF备份

AutoVNF负责启用单个VNFM和VNF。AutoDeploy将实例化VNFM和VNF所需的配置发送到AutoVNF，AutoVNF执行此操作。为了提出VNFM，

AutoVNF直接与VIM/openstack对话，一旦VNFM启动，AutoVNF就使用VNFM来启动VNF。

AutoVNF具有1:1冗余，在UltraM设置中，2个AutoVNF VM在HA模式下运行。

AutoVNF备份详细信息：

- 运行配置
- ConfD CDB数据库
- AutoVNF日志（来自AutoVNF的每个实例）
- 系统日志配置

**重要信息：** 备份必须在给定POD/站点上激活/停用并上传到备份服务器之前执行。

1. 在/opt/uas\_baseconfig.txt中将主AutoIT和辅助AutoIT上的ha\_debug设置为“ON”（开）。

**注意：**ha\_debug标志是全部大写。它要么打开，要么关闭。

```
ubuntu@labucs300-autoit-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 172.16.181.7
ha-secret: f99d04acb84807c4c6c6c0eaad392b5c
orch-ips: 172.16.181.5,172.16.181.8
orch-intf: eth0
prov-ha-vip: 172.16.181.13
prov-intf: eth0
profile: AUTOIT
ha_debug: ON
```

```
ubuntu@labucs300-autoit-1:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 172.16.181.7
ha-secret: f99d04acb84807c4c6c6c0eaad392b5c
orch-ips: 172.16.181.5,172.16.181.8
orch-intf: eth0
prov-ha-vip: 172.16.181.13
prov-intf: eth0
profile: AUTOIT
ha_debug: ON
```

2.使用以下命令停止主AutoIT上的AutoIT服务：

```
ssh ubuntu@ < AutoIT Floating IP>
sudo -i
service autoit stop
```

这是为了防止AutoIT在后续步骤中启动关闭时触发自动恢复Ultra Automation Services(UAS)。

```
ubuntu@labucs300-autoit-2:~$ sudo -i
root@labucs300-autoit-2:~#
root@labucs300-autoit-2:~# service autoit status
autoit start/running, process 25001
root@labucs300-autoit-2:~# service autoit stop
```

3.在文件/opt/uas\_baseconfig.txt中，将主AutoVNF(UAS)和辅助AutoVNF(UAS)的ha\_debug设置为ON。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: ON
```

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ ssh ubuntu@192.0.2.15
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-1:~$ cat /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
```

ha\_debug: ON

#### 4.关闭OSPD的辅助UAS并赞扬。

```
. corerc ; openstack server stop <VMName>

labucs300-UAS-LABPGW300-UAS-core-UAS2-2 -> VNF2-UAS-VIP Primary
labucs300-UAS-LABPGW300-UAS-core-UAS2-1 -> Secondary

[stack@labucs300-ospd ~]$ nova list | grep LABPGW300-UAS-core-UAS2
| 8608fda4-b763-4753-95ff-2e07852098e3 | labucs300-UAS-LABPGW300-UAS-core-UAS2-1 | ACTIVE | - |
Running | labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.15; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.7
|
| 19f4496c-3907-4ea5-84c9-e5a6ef222392 | labucs300-UAS-LABPGW300-UAS-core-UAS2-2 | ACTIVE | - |
Running | labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.17; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.16

[stack@labucs300-ospd ~]$. corerc ; openstack server stop labucs300-UAS-LABPGW300-UAS-core-UAS2-1
```

#### 5.使用以下命令停止UAS上的uas-confd和autovnf服务：

```
service uas-confd stop
service autovnf stop

ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ sudo -i
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service uas-confd status
uas-confd start/running, process 1305
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service autovnf status
autovnf start/running, process 24208
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service uas-confd stop
uas-confd stop/waiting
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service autovnf stop
autovnf stop/waiting
```

#### 6.备份UAS conf数据库，并使用以下命令将其复制到备份服务器：

```
cd /opt/cisco/usp/uas/confd-latest/var/confd/
tar -cvf <pod>_<VNF>_UAS_cdb_backup.tar cdb/

root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# cd /opt/cisco/usp/uas/confd-latest/var/confd/
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# tar -cvf Autovnf_cdb_backup.tar cdb/
cdb/
cdb/O.cdb
cdb/C.cdb
cdb/aaa_init.xml
cdb/A.cdb
root@labucs300-uas-LABPGW300-uas-core-uas2-2:/opt/cisco/usp/uas/confd-latest/var/confd# ll
Autovnf_cdb_backup_cdb_backup.tar
total 1612
drwxr-xr-x 3 root root 4096 Jan 24 2017 ..
drwxr-xr-x 2 root root 4096 Jan 24 2017 log
drwxr-xr-x 8 root root 4096 Oct 11 11:30 webui
drwxr-xr-x 2 root root 4096 Oct 19 19:18 candidate
drwxr-xr-x 2 root root 4096 Oct 23 13:00 rollback
drwxr-xr-x 2 root root 4096 Oct 28 17:00 cdb
drwxr-xr-x 3 root root 4096 Oct 28 17:00 state
drwxr-xr-x 8 root root 4096 Oct 31 18:00 .
-rw-r--r-- 1 root root 1617920 Oct 31 18:00 Autovnf_cdb_backup.tar
```

#### 7.使用以下命令在UAS上重新启动uas-confd和autovnf服务：

```
service uas-confd start
service autovnf start
```

```
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service uas-confd start
uas-confd start/running, process 13852
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service autovnf start
autovnf start/running, process 13853
```

## 8.使用以下命令从OSPD重新启动辅助UAS:

```
. corerc ; openstack server start <VMName>
```

```
[stack@labucs300-ospd ~]$. corerc ; openstack server start labucs300-UAS-LABPGW300-UAS-core-UAS2-1
```

## 9.验证主UAS和辅助UAS在show uas命令中均显示为活动。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ sudo -i
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on labucs300-uas-LABPGW300-uas-core-uas2-2
labucs300-uas-LABPGW300-uas-core-uas2-2#show uas
uas version 6.2.0
uas state active
uas external-connection-point 192.0.2.8
INSTANCE IP STATE ROLE
-----
0.0.0.0 error CONFID-Secondary
192.0.2.15 alive CONFID-Secondary
192.0.2.17 alive CONFID-Primary
```

## 10.将/opt/uas\_baseconfig.txt文件中主AutoVNF(UAS)和辅助AutoVNF(UAS)的ha\_debug更改为OFF ( 关闭 )。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: OFF
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ ssh ubuntu@192.0.2.15
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-1:~$ cat /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: OFF
```

## 11.使用service autoit start命令在主AutoIT上重新启动自动服务。

```
ubuntu@labucs300-autoit-2:~$ sudo -i
root@labucs300-autoit-2:~# service autoit start
```

## 12.使用show uas命令验证主AutoIT和辅助AutoIT是否都显示为活动。

```

ubuntu@labucs300-autoit-2:~$ sudo -i
root@labucs300-autoit-2:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on labucs300-autoit-2
labucs300-autoit-2#show uas
uas version 6.2.0
uas state active
uas external-connection-point 172.16.181.7
INSTANCE IP STATE ROLE
-----
172.16.181.5 alive CONFID-Secondary
172.16.181.8 alive CONFID-Primary

```

13.在文件/opt/uas\_baseconfig.txt中，将主AutoIT和辅助AutoIT的ha\_debug设置为“关闭”(OFF)。

```

ubuntu@labucs300-autoit-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 172.16.181.7
ha-secret: f99d04acb84807c4c6c6c0eaaad392b5c
orch-ips: 172.16.181.5,172.16.181.8
orch-intf: eth0
prov-ha-vip: 172.16.181.13
prov-intf: eth0
profile: AUTOIT
ha_debug: OFF

```

```

ubuntu@labucs300-autoit-1:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 172.16.181.7
ha-secret: f99d04acb84807c4c6c6c0eaaad392b5c
orch-ips: 172.16.181.5,172.16.181.8
orch-intf: eth0
prov-ha-vip: 172.16.181.13
prov-intf: eth0
profile: AUTOIT
ha_debug: OFF

```

14.从UAS收集日志并将其传输到备份服务器。

```

root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# cd /opt/cisco/usp/uas/confd-latest/var/confd/
root@labucs300-uas-LABPGW300-uas-core-uas2-2:/opt/cisco/usp/uas/confd-latest/var/confd# cd
/opt/cisco/usp/uas/scripts/
root@labucs300-uas-LABPGW300-uas-core-uas2-2:/opt/cisco/usp/uas/scripts# sudo ./collect-uas-
logs.sh
Dumping output for show transaction in file /tmp/uas-logs/transactions.txt
Dumping output for show log in file /tmp/uas-logs/transactions.txt
Dumping output for show running-config in file /tmp/uas-logs/confd_output.txt
Dumping output for show uas in file /tmp/uas-logs/confd_output.txt
Dumping output for show usp in file /tmp/uas-logs/confd_output.txt
.....

```

15.登录辅助AutoVNF并重复上一步，以收集日志并将其传输到备份服务器。

16.备份主AutoVNF虚拟机和辅助AutoVNF虚拟机上的系统日志配置，并将其传输到备份服务器。文件位于以下目录中：

```

root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# ls /etc/rsyslog.d/00-autovnf.conf

```

```
/etc/rsyslog.d/00-autovnf.conf
```

```
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# ls /etc/rsyslog.conf
```

```
/etc/rsyslog.conf
```

17.在主AutoIT上使用service autoit **start**命令启用自动服务。

```
ubuntu@labucs300-autoit-2:~$ sudo -i
root@labucs300-autoit-2:~#
root@labucs300-autoit-2:~# service autoit start
autoit start/running, process 25001
```

18.在主AutoVNF和AutoIT上的/opt/uas\_baseconfig.txt中，将ha\_debug标志模式设置为OFF。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: OFF
```

```
ubuntu@labucs300-autoit-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 172.16.181.7
ha-secret: f99d04acb84807c4c6c6c0eaad392b5c
orch-ips: 172.16.181.5,172.16.181.8
orch-intf: eth0
prov-ha-vip: 172.16.181.13
prov-intf: eth0
profile: AUTOIT
ha_debug: OFF
```

19.确认UAS上运行的uas-confd和autovnf服务。

```
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service uas-confd status
uas-confd start/running, process 1305
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service autovnf status
autovnf start/running, process 24208
```

## AutoVFN重新部署

1.登录AutoDeploy并记录UAS实例。

```
ubuntu@labucs300-autodeploy-2:~$ sudo su
root@labucs300-autodeploy-2:/home/ubuntu# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on labucs300-autodeploy-2
labucs300-autodeploy-2#show nsr
nsr LABSGW300-instance
nsd LABSGW300
vnfr [ LABPCF300-LABPCF300-ESC LABPCF300-LABPCF300-UGP ]
vnf-package [ usp_6_2_b8 ]
vim-artifact vim_art_rack
nsr LABPGW300-instance
nsd LABPGW300
vnfr [ LABPGW300-LABPGW300-ESC LABPGW300-LABPGW300-UGP ]
vnf-package [ usp_6_2_b8 ]
vim-artifact vim_art_rack
```

```
nsr labucs300-UAS-instance
nsd          labucs300-UAS
vnfr         [ labucs300-UAS-LABPCF300-UAS labucs300-UAS-LABPGW300-UAS ]
vnf-package [ usp_6_2_b8 ]
vim-artifact vim_art_rack
```

## 2.使用deactivate nsd-id <nsd-id> vnfd <vnfd-id>命令从AutoDeploy停用AutoVNF。

```
ubuntu@labucs300-autodeploy-2:~$ /opt/cisco/usp/uas/confd-6.3.1/bin/confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 10.10.10.10 using ssh on labucs300-autodeploy-2
labucs300-autodeploy-2#nsd:deactivate nsd-id labucs300-UAS vnfd [LABPGW300-UAS]
transaction-id 1560431372-357328
```

## 3.确认事务处理的状态。

```
labucs300-autodeploy-2#show transaction
DEPLOYMENT STATUS
TX ID TX TYPE ID TIMESTAMP STATUS DETAIL
-----
1560431372-357328 activate-ns-deployment labucs300-UAS 2019-06-13T13:09:32.357355-00:00 in-
progress -
1560431372-357328/1560431373-102024 activate-ns-deployment labucs300-UAS 2019-06-
13T13:09:33.102041-00:00 in-progress -
```

## 4.检查事务日志。在本例中，名为s300-UAS事务：1560431372-357328 和 1560431372-357328/1560431373-102024。

```
labucs300-autodeploy-2#show log 1560431372-357328 | display xml
<config xmlns="http://tail-f.com/ns/config/1.0">
<log xmlns="http://www.cisco.com/usp/nfv/usp-transaction">
<tx-id>1560431372-357328</tx-id>
<log>
2019-06-13 13:09:33,367 - Send Deployment notification for: labucs300-UAS-instance
2019-06-13 13:09:33,375 - Deployment activate-ns-deployment: labucs300-UAS started
2019-06-13 13:09:33,378 - Adding NSR: labucs300-UAS-instance
2019-06-13 13:09:33,385 - Start pipeline of 1 tasks
2019-06-13 13:09:33,390 - Scheduling Task: labucs300-UAS
2019-06-13 13:09:33,400 - Waiting for all workers to finish the transactions
2019-06-13 13:15:00,006 - Deployment activate-ns-deployment: labucs300-UAS succeeded
2019-06-13 13:15:00,020 - Send Deployment notification for: labucs300-UAS-instance
2019-06-13 13:09:33,437 - Send Deployment notification for: labucs300-UAS-instance-deploy
2019-06-13 13:09:33,441 - Deployment activate-ns-deployment: labucs300-UAS started
.....
labucs300-autodeploy-2#show log 1560431372-357328/1560431373-102024 | display xml
<config xmlns="http://tail-f.com/ns/config/1.0">
<log xmlns="http://www.cisco.com/usp/nfv/usp-transaction">
<tx-id>1560431372-357328/1560431373-102024</tx-id>
<log>
2019-06-13 13:09:33,437 - Send Deployment notification for: labucs300-UAS-instance-deploy
2019-06-13 13:09:33,441 - Deployment activate-ns-deployment: labucs300-UAS started
2019-06-13 13:09:33,446 - Adding NSR: labucs300-UAS-instance, VNFR: labucs300-UAS-LABPCF300-UAS,
vlrs: None
2019-06-13 13:09:33,453 - Adding NSR: labucs300-UAS-instance, VNFR: labucs300-UAS-LABPGW300-UAS,
vlrs: None
2019-06-13 13:09:33,463 - VNF deployment pre-check success(all-not-present)
2019-06-13 13:09:33,472 - VNF-Package deployment pre-check success(all-not-present)
2019-06-13 13:09:33,481 - VIM-Artifact deployment pre-check success
2019-06-13 13:09:33,487 - Skipping VIM-Orch pre-deployment, since VIM-Orch is not defined
```



```
2019-06-13 13:09:33,496 - Skipping VIM pre-deployment, since VIM is not defined
2019-06-13 13:09:33,499 - NS pre-check success
2019-06-13 13:09:33,503 - Copying '/home/ubuntu/usp-6_2_b8.iso' to '/var/cisco/isos/labucs300-UAS_usp_6_2_b8'
2019-06-13 13:09:53,359 - Updated path to URL 'http://172.16.181.14:5000/isos/labucs300-UAS_usp_6_2_b8'
```

## 5.等待事务完成并确认状态。

```
labucs300-autodeploy-2#show transaction
DEPLOYMENT STATUS
TX ID TX TYPE ID TIMESTAMP STATUS DETAIL
-----
-----
1560431372-357328 activate-ns-deployment labucs300-UAS 2019-06-13T13:09:32.357355-00:00 success
-
1560431372-357328/1560431373-102024 activate-ns-deployment labucs300-UAS 2019-06-13T13:09:33.102041-00:00 success -
```

## 6.使用activate nsd-id <nsd-id> vnfd <vnfd-id>命令从AutoDeploy激活AutoVNF VNFD。

```
ubuntu@labucs300-autodeploy-2:~$ /opt/cisco/usp/uas/confd-6.3.1/bin/confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 10.253.110.47 using ssh on labucs300-autodeploy-2
labucs300-autodeploy-2#nsd:activate nsd-id labucs300-UAS vnfd [LABPGW300-UAS]
transaction-id 1560431371-357330
```

## 7.使用以下命令检查事务状态并从事务中收集日志：

```
show transaction
show log <transaction-id> | display xml
show log <transaction-id> | display xml
```

## 8.等待事务完成。show transaction命令显示事务的状态。

# 备份恢复

## 1.在主AutoIT上，在/opt/uas\_baseconfig.txt中将ha\_debug标志模式设置为ON（打开）。

```
ubuntu@labucs300-autoit-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 172.16.181.7
ha-secret: f99d04acb84807c4c6c6c0eaad392b5c
orch-ips: 172.16.181.5,172.16.181.8
orch-intf: eth0
prov-ha-vip: 172.16.181.13
prov-intf: eth0
profile: AUTOIT
ha_debug: ON
```

## 2.在主AutoIT上停止服务自动。此步骤是防止AutoIT自动恢复UAS。

```
ubuntu@labucs300-autoit-2:~$ sudo -i
root@labucs300-autoit-2:~#
root@labucs300-autoit-2:~# service autoit status
autoit start/running, process 25001
root@labucs300-autoit-2:~# service autoit stop
```

## 3.在主UAS上，将/opt/uas\_baseconfig.txt中的ha\_debug标志模式设置为ON。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: ON
```

4.在辅助UAS上，将/opt/uas\_baseconfig.txt中的ha\_debug标志模式设置为ON。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-1:~$ cat /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: ON
```

5.在OSPD上，使用OpenStack命令停止辅助UAS服务器。

```
labucs300-UAS-LABPGW300-UAS-core-UAS2-2 -> VNF2-UAS-VIP Primary
labucs300-UAS-LABPGW300-UAS-core-UAS2-1 -> Secondary
```

```
[stack@labucs300-ospd ~]$ . corerc ; openstack server stop labucs300-UAS-LABPGW300-UAS-core-UAS2-1
```

6.在主UAS上停止uas-confd服务。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ sudo -i
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service uas-confd status
uas-confd start/running, process 1305
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# service uas-confd stop
uas-confd stop/waiting
```

7.在主UAS上，将CDB的备份存档复制到目录/opt/cisco/usp/uas/confd-latest/var/confd/。

```
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# cp Autovnf_cdb_backup.tar to
/opt/cisco/usp/uas/confd-latest/var/confd/
```

8.在主UAS上，删除CBD目录下的文件。

```
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# cd /opt/cisco/usp/uas/confd-latest/var/confd/ ;
rm cdb/*
```

9.在主UAS上，从CDB备份文件提取文件。

```
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# cd /opt/cisco/usp/uas/confd-latest/var/confd/ ;
tar -xvf <archive_backup_tar_file>
```

10.在OSPD上，使用OpenStack命令重新启动主UAS。

```
[stack@labucs300-ospd ~]$ source *core
```

```
[stack@labucs300-ospd ~]$ nova list | grep LABPGW300-UAS-core-UAS2
| 8608fda4-b763-4753-95ff-2e07852098e3 | labucs300-UAS-LABPGW300-UAS-core-UAS2-1 | ACTIVE | - |
Running | labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.15; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.7
|
| 19f4496c-3907-4ea5-84c9-e5a6ef222392 | labucs300-UAS-LABPGW300-UAS-core-UAS2-2 | ACTIVE | - |
Running | labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.17; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.16

labucs300-UAS-LABPGW300-UAS-core-UAS2-2 -> VNF2-UAS-VIP Primary
labucs300-UAS-LABPGW300-UAS-core-UAS2-1 -> Secondary
```

```
[stack@labucs300-ospd ~]$ nova reboot --hard 19f4496c-3907-4ea5-84c9-e5a6ef222392
Request to reboot server <Server: auto-testautovnf1-uas-2> has been accepted.
```

11.等到主UAS启动。重新启动后，检查主UAS上的UAS状态。主UAS处于活动状态，辅助UAS显示状态未知。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ sudo -i
root@labucs300-uas-LABPGW300-uas-core-uas2-2:~# confd_cli -u admin -C
Welcome to the ConfD CLI
admin connected from 127.0.0.1 using console on labucs300-uas-LABPGW300-uas-core-uas2-2
labucs300-uas-LABPGW300-uas-core-uas2-2#show uas
uas version 6.2.0
uas state active
uas external-connection-point 192.0.2.8
INSTANCE IP STATE ROLE
-----
192.0.2.15 unknown CONFID-Secondary
192.0.2.17 alive CONFID-Primary
```

12.在OSPD上，使用OpenStack命令启动辅助UAS。

```
[stack@labucs300-ospd ~]$. corerc ; openstack server start labucs300-UAS-LABPGW300-UAS-core-UAS2-1
```

13.在OSPD上，验证主UAS和辅助UAS的状态是否处于活动状态。

```
[stack@labucs300-ospd ~]$ openstack server list | grep labucs300-UAS-LABPGW300
| 19f4496c-3907-4ea5-84c9-e5a6ef222392 | labucs300-UAS-LABPGW300-UAS-core-UAS2-2 | ACTIVE |
labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.17; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.16 |
labucs300-UAS-usp_6_2_b8-core-uas |
| 8608fda4-b763-4753-95ff-2e07852098e3 | labucs300-UAS-LABPGW300-UAS-core-UAS2-1 | ACTIVE |
labucs300-UAS-LABPGW300-ORCH-NW=192.0.2.15; labucs300-UAS-LABPGW300-MGMT-NW=192.0.2.7 |
labucs300-UAS-usp_6_2_b8-core-uas |
```

14.在主UAS上，验证主UAS和辅助UAS的状态是否处于活动状态。

```
labucs300-uas-LABPGW300-uas-core-uas2-2#show uas
uas version 6.2.0
uas state active
uas external-connection-point 192.0.2.8
INSTANCE IP STATE ROLE
-----
192.0.2.15 alive CONFID-Secondary
192.0.2.17 alive CONFID-Primary
```

15.在主AutoIT上启动自动服务。

```
ubuntu@labucs300-autoit-2:~$ sudo -i
root@labucs300-autoit-2:~# service autoit start
```

16.验证安全外壳(SSH)会话在主UAS和辅助UAS之间保持正常运行几分钟。

17.在主UAS上，将/opt/uas\_baseconfig.txt中的ha\_debug标志模式设置为OFF。。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: OFF
```

18. 在辅助UAS上，将/opt/uas\_baseconfig.txt中的ha\_debug标志模式设置为OFF。

```
ubuntu@labucs300-uas-LABPGW300-uas-core-uas2-1:~$ cat /opt/uas_baseconfig.txt
ha: true
ha-vip: 192.0.2.8
ha-secret: d5a9fee60ddae4fe357677dcf1320e51
orch-ips: 192.0.2.15,192.0.2.17
orch-intf: eth0
profile: AUTOVNF
ha_debug: OFF
```

19.在主AutoIT上，在/opt/uas\_baseconfig.txt中将ha\_debug标志模式设置为OFF（关闭）。

```
ubuntu@labucs300-autoit-2:~$ vi /opt/uas_baseconfig.txt
ha: true
ha-vip: 172.16.181.7
ha-secret: f99d04acb84807c4c6c6c0eaaad392b5c
orch-ips: 172.16.181.5,172.16.181.8
orch-intf: eth0
prov-ha-vip: 172.16.181.13
prov-intf: eth0
profile: AUTOIT
ha_debug: OFF
```

20.在AutoVNF上，检查00-autovnf.conf和rsyslog.conf文件，并从以前的备份中恢复它们。

```
ubuntu@autoit-tbl-autovnf1-core-avf-1:~#sudo su
root@autoit-tbl-autovnf1-core-avf-1:~#ls /etc/rsyslog.d/00-autovnf.conf
00-autovnf.conf
```

```
root@autoit-tbl-autovnf1-core-avf-1:~#/home/ubuntu#ls /etc/rsyslog.conf
rsyslog.conf
```

## 支票后

在OSPD上，验证两个AutoVNF都处于活动状态，并检查Ultra-M运行状况检查报告。

```
[stack@labucs300-ospd ~]$ cat /var/log/cisco/ultram-health/*.report | grep -i xxx
```

```
[stack@labucs300-ospd ~]$ cat /var/log/cisco/ultram-health/ultram_health_uas.report
```