

# Procedimiento de reimplementación para Ultra-M AutoVNF

## Contenido

[Introducción](#)

[Comprobaciones previas](#)

[Copia de seguridad AutoVNF](#)

[Reimplementación de AutoVNF](#)

[Restauración de copias de seguridad](#)

[Comprobaciones posteriores](#)

## Introducción

Este documento describe los pasos necesarios para reimplementar un AutoVNF en un Ultra-M. El AutoVNF es responsable de activar Virtual Network Function Manager (VNFM) y Virtual Network Function (VNF) individuales.

## Comprobaciones previas

1. Inicie sesión en OpenStack Platform Director (OSPD) y verifique el estado de la máquina virtual (VM) en el informe de estado.

```
[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. Verifique el estado de AutoVNF.

```
[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. Inicie sesión en AutoIT y verifique los registros de latidos.

```
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
```

## Copia de seguridad AutoVNF

AutoVNF es responsable de activar VNFM y VNF individuales. AutoDeploy envía la configuración necesaria para crear instancias de VNFM y VNF a AutoVNF y AutoVNF realiza esta operación. Para activar VNFM,

AutoVNF habla directamente con VIM/openstack y, una vez que VNFM está activo, AutoVNF utiliza VNFM para activar VNF.

AutoVNF tiene redundancia 1:1 y en la configuración UltraM, 2 VM AutoVNF ejecutándose en modo HA.

Detalles de la copia de seguridad de AutoVNF:

- Configuración en ejecución

- Base de datos CDB de ConfD
- Registros AutoVNF (de cada instancia de AutoVNF)
- Configuración de Syslog

**Importante:** Las copias de seguridad deben realizarse antes de cualquier activación/desactivación en el POD/sitio dado y cargarse en el servidor de respaldo.

1. Establezca **ha\_debug** en **ON** tanto en AutoIT primario como secundario en **/opt/uas\_baseconfig.txt**.

**Nota:** El indicador **ha\_debug** es todo capital. Está **ACTIVADO** o **apagado**.

```
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. Detenga el servicio AutoIT en el AutoIT primario con estos comandos:

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

Esto es para evitar que AutoIT active la recuperación automática de los servicios de automatización (UAS) cuando se inicia el cierre en pasos posteriores.

```
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. Establezca **ha\_debug** en **ON** tanto en el AutoVNF primario como secundario (UAS) en el archivo **/opt/uas\_baseconfig.txt**.

```
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. Cierre UAS secundaria desde OSPD con comentarios.

```
. 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. Detenga uas-confd y autovnf services en UAS con estos comandos:

```
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. Realice una copia de seguridad de la base de datos de UAS conf y cópiela en un servidor de respaldo con estos comandos:

```
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# 11
```

```

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. Reinicie los servicios uas-confd y autovnf en UAS con estos comandos:

```

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. Reinicie UAS secundario desde OSPD con estos comandos:

```

. corerc ; openstack server start <VMName>

```

```

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

```

## 9. Verifique que UAS primario y secundario aparezcan como vivos en el comando **show uas**.

```

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. Cambie ha\_debug a **OFF** en AutoVNF primario y secundario (UAS) en el archivo **/opt/uas\_baseconfig.txt**.

```

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. Reinicie el servicio automático en Primary AutoIT con el comando **service autoit start**.

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

12. Verifique que los AutoIT primario y secundario aparezcan como vivos con el comando **show uas**.

```
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. Establezca **ha\_debug** en **OFF** tanto en el AutoIT primario como secundario en el archivo **/opt/uas\_baseconfig.txt**.

```
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. Recopile los registros de UAS y transfíeralos a un servidor de respaldo.

```
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. Inicie sesión en el AutoVNF secundario y repita el paso anterior para recopilar los registros y transferirlos al servidor de respaldo.

16. Realice una copia de seguridad de la configuración de syslog en las VM de AutoVNF primarias y secundarias y transfíralas al servidor de respaldo. Los archivos se encuentran en estos directorios:

```
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. Habilite el servicio automático con el comando **service autoit start** en Primary AutoIT.

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

18. Establezca el modo de indicador ha\_debug en OFF en /opt/uas\_baseconfig.txt en AutoVNF primario y AutoIT.

```
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: 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
```

19. Confirme los servicios uas-confd y autovnf que se ejecutan en UAS.

```
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
```

## Reimplementación de AutoVFN

## 1. Inicie sesión en AutoDeploy y observe la instancia de UAS.

```
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. Desactive AutoVNF de AutoDeploy con el comando **desactivar nsd-id <nsd-id> vnfd <vnfd-id>**.

```
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. Confirme el estado de la transacción.

```
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. Verifique los registros de la transacción. En este caso, labucs300-UAS transacciones: 1560431372-357328 and 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_osp_6_2_b8'
2019-06-13 13:09:53,359 - Updated path to URL 'http://172.16.181.14:5000/isos/labucs300-
UAS_osp_6_2_b8'
```

5. Espere hasta que se complete la transacción y confirme el estado.

```
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. Active AutoVNF VNFD desde AutoDeploy con el comando **activar nsd-id <nsd-id> vnfd <vnfd-id>**.

```
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. Verifique el estado de la transacción y recopile los registros de la transacción con estos comandos:

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

8. Espere hasta que se completen las transacciones. El comando **show Transaction** muestra el estado de las transacciones.

## Restauración de copias de seguridad

1. En el AutoIT primario, establezca el modo de indicador ha\_debug en ON en

## /opt/uas\_baseconfig.txt.

```
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. En el AutoIT primario, detenga la autenticación del servicio. Este paso es para evitar que AutoIT recupere automáticamente 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. En el UAS primario, establezca el modo de indicador ha\_debug en ON en /opt/uas\_baseconfig.txt.

```
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. En el UAS secundario, establezca el modo de indicador ha\_debug en ON en /opt/uas\_baseconfig.txt.

```
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. En OSPD, detenga el servidor UAS secundario con el comando OpenStack.

```
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. En el servicio UAS primario, detenga el servicio uas-confd.

```
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. En UAS principal, copie el archivo de copia de seguridad de CDB en el directorio **/opt/cisco/usp/uas/confd-latter/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. En UAS principal, elimine los archivos en el directorio CBD.

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

9. En UAS principal, extraiga archivos del archivo de copia de seguridad CDB.

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

10. En OSPD reinicie el UAS primario con los comandos OpenStack.

```
[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. Espere hasta que aparezca el UAS principal. Verifique el estado de UAS en UAS primario después del reinicio. El estado primario está vivo mientras que el secundario muestra el estado desconocido.

```
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. En OSPD, inicie el UAS secundario con el comando OpenStack.

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

13. En OSPD, verifique los estados de UAS primario y secundario que están activos.

```
[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. En el UAS primario, verifique que los estados del UAS primario y secundario estén activos.

```
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 CONFD-Secondary
192.0.2.17 alive CONFD-Primary
```

15. En el AutoIT principal, inicie el servicio automático.

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

16. Verifique que la sesión de Secure Shell (SSH) permanezca activa durante un par de minutos hasta UAS principal y secundaria.

17. En el UAS primario, establezca el modo de indicador ha\_debug en OFF en /opt/uas\_baseconfig.txt.

```
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. En el UAS secundario, establezca el modo de indicador ha\_debug en OFF en /opt/uas\_baseconfig.txt.

```
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. En el AutoIT primario, establezca el modo de indicador ha\_debug en OFF en

## **/opt/uas\_baseconfig.txt.**

```
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
```

20. En AutoVNF verifique los archivos **00-autovnf.conf** y **rsyslog.conf** y restaure los archivos de la copia de seguridad anterior.

```
ubuntu@autoit-tb1-autovnf1-core-avf-1:~#sudo su
root@autoit-tb1-autovnf1-core-avf-1:~#ls /etc/rsyslog.d/00-autovnf.conf
00-autovnf.conf

root@autoit-tb1-autovnf1-core-avf-1:~#ls /etc/rsyslog.conf
rsyslog.conf
```

## **Comprobaciones posteriores**

En OSPD verifique que ambos AutoVNF estén activos y verifique el informe de verificación de estado Ultra-M.

```
[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
```