

Configuration guide to migrate local service profile to Global in UCS central

Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components Used](#)

[Steps for Migration](#)

[Step 1. Document Pool IDs/Policies/VLANs/VSANs/Templates of Local SPs as highlighted below.](#)

[Step 2. Re-create all IDs/Policies/VLANs/VSANs/Templates and GLOBAL-SP in UCS Central.](#)

[Step 3. Register UCSM with UCS Central.](#)

[Step 4. Migrate Local profile to Global profile.](#)

[Step 5. Verify new global profile.](#)

[Step 6. Associate the GLOBAL-SP to the designated Server.](#)

[Step 7. Boot Server from SAN LUN after the new Global-SP assigned](#)

[Related Information](#)

Introduction

This document describes how to Migrate local service profile to Global or if domain unregistered accidentally from central

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco Unified Computing System
- UCS central
- Procedure to migrate Local to Global profile

Below procedure, assume the most challenging UseCase, Boot from SAN with Remote Storage Boot LUNs, that are already Zoned to Target Initiators (WWPN's) within each Service Profile. ID's must remain the same during migration.

Components Used

The information in this document is based on these software and hardware versions:

- Cisco Unified Computing System Manager (UCSM)
- Fabric Interconnect (FI)
- UCS central running on ESXi VM

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Steps for Migration

1. Document Pool IDs/Policies/VLANs/VSANs/Templates of Local SPs.
2. Re-create all IDs/Policies/VLANs/VSANs/Templates and GLOBAL-SPs in UCS Central.
3. Register UCSM with UCS Central.
4. Migrate Local profile to Global profile.
5. Verify IDs are the correct ones for the specific Zoned Server in the new GLOBAL-SP.
6. Associate the GLOBAL-SP to the designated Server.

7. Boot Server from SAN LUN.

Step 1. Document Pool IDs/Policies/VLANs/VSANs/Templates of Local SPs as highlighted below.

```
UCS-FI # scope org /
UCS-FI /org # show service-profile status
Service Profile Name Server Assignment Association Power State Op State
-----
SP01                1/3      Assigned  Associated    On           Ok

UCS-FI /org # scope service-profile SP01

UCS-FI /org/service-profile # show detail
Service Profile:
Service Profile Name: SP01
Boot Policy: LocalDisk
BIOS Policy: ESX_BIOS
Host f/w Policy: global-default
Local Disk Policy: LocalDisk
Maintenance Policy: UserAck
Power Policy: PowerCap
Stats Policy: TemThreshold
Scrub Policy: global-default

UCS-FI /org/service-profile # show identity
Service Profile Name: SP01
UUID Suffix Pool: P_1
Dynamic UUID: c9fe0fd0-d051-11e3-00ff-000000000101
VNIC FC Node:
WWNN Pool: P_N_1
Dynamic WWNN: 20:FF:00:25:B5:00:01:01

UCS-FI /org/service-profile # show vnic identity
vNIC:
Name      Type      Fabric ID Dynamic MAC Addr
-----
ESX_Dat_A1 Ether     A          00:25:B5:0A:04:01
```

```

ESX_Dat_A2 Ether A 00:25:B5:0A:04:02
ESX_Dat_A3 Ether A 00:25:B5:0A:04:03
ESX_Dat_A4 Ether A 00:25:B5:0A:04:04

```

vHBA:

```

Name      Type      Fabric ID Dynamic WWPN
-----

```

```

ESX_FCDat_A1 Fc      A      20:FF:00:25:B5:0A:04:01
ESX_FCDat_A2 Fc      A      20:FF:00:25:B5:0A:04:02
ESX_FCDat_B1 Fc      B      20:FF:00:25:B5:0B:04:01

```

```

UCS-FI /org/service-profile # show vnic ESX_Vcon detail

```

vNIC:

```

Adapter Policy: global-VMWare
QoS Policy: ESX_QoS
Network Control Policy: CDP_EN
Stats Policy: TemThreshold

```

```

UCS-FI /org/service-profile # show vhma ESX_SB_A1 detail

```

vHBA:

```

Adapter Policy: global-VMWare
Stats Policy: G-TemThreshold

```

Step 2. Re-create all IDs/Policies/VLANs/VSANs/Templates and GLOBAL-SP in UCS Central.

- Create Global Pools, Policies, VLANs, VSANS, vNIC Templates, vHBA Templates, LAN
- Connectivity Policies, SAN Connectivity Policies, Global Service Profile Templates, and Global Service Profiles.
- When creating Global VSANs that have the Same IDs as Locally defined VSANs in UCS Manager, make sure the Global Name is Unique, consider a "G-" in front of the VSAN Name, and also make sure that the FCoE VLAN ID on the newly created Global VSAN MATCHES Exactly the FCoE VLAN ID configured on the corresponding Local VSAN. If the VSAN ID is the same, and the FCoE ID is different, then a Fault will be raised upon Global Service Profile Association.
- Creation of the Global SP's will allocate new UUID, MACs, WWNN, and WWPNs from their respective Global ID Pools.
- Apply these new policies to the new global template.
- Deploy global service profile SP01_GP from template
- Set WWNN/WWPN/MAC to new Global profile SP01_GP to retain same ID's

Note: Creation of the Global SP's will allocate new UUID, MACs, WWNN, and WWPNs from their respective Global ID Pools.

Refer configuration guide about to how to assign ID's through CLI

```

UCS-CENTRAL# connect resource-mgr
UCS-CENTRAL(resource-mgr)# scope org /
UCS-CENTRAL(resource-mgr) /org # scope service-profile SP01_GP
UCS-CENTRAL(resource-mgr) /org/service-profile # set identity dynamic-wwnn
20:FF:00:25:B5:00:01:01
UCS-CENTRAL(resource-mgr) /org/service-profile* # commit-buffer
UCS-CENTRAL(resource-mgr) /org/service-profile # scope vnic ESX_Dat_A1
UCS-CENTRAL(resource-mgr) /org/service-profile/vnic # set identity dynamic-mac 00:25:B5:0A:04:01
UCS-CENTRAL(resource-mgr) /org/service-profile/vnic* # commit-buffer
UCS-CENTRAL((resource-mgr) /org/service-profile # scope vhma ESX_FCDat_A1
UCS-CENTRAL((resource-mgr) /org/service-profile/vhma #set identity dynamic-wwpn
20:FF:00:25:B5:0A:04:01

```

```
CODVQUCSCEN01(resource-mgr) /org/service-profile/vhba* # commit-buffer
```

Leverage simple UCS Central PowerTool script to **swap** or **assign** the original (Correctly Zoned) WWPNs and other IDs. These ID's are part of the created Global Pools, and ID Universe will reflect "In-Use" status once these IDs are properly assigned.

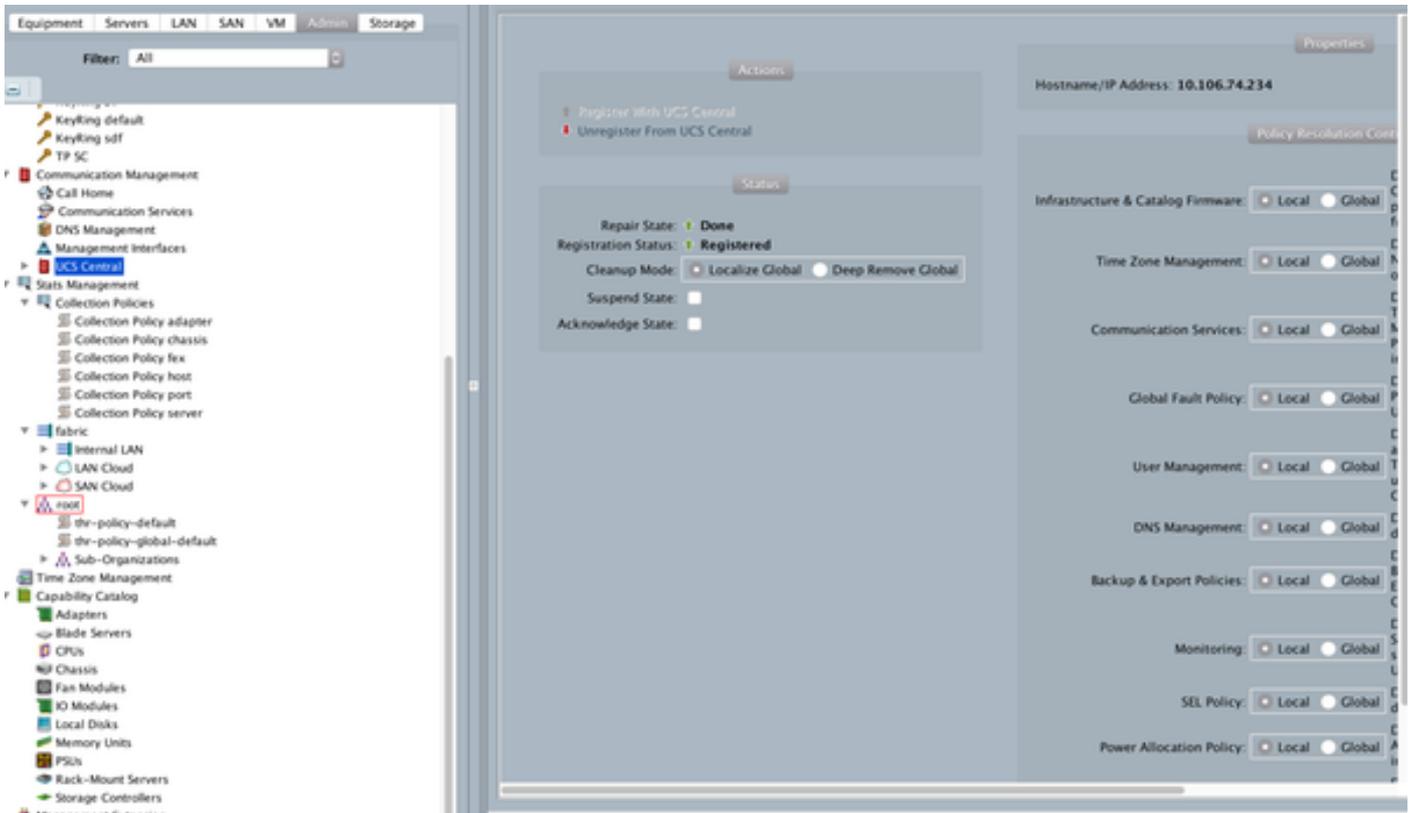
This is just an example of UCS Central PowerTools Script and is not an officially supported product of Cisco. Please use at your own risk, and test first in a lab before using in production. Please edit script according to your Global-SP setup, Orgs, IDs, Policies, etc.

Refer to the guide for more information

```
Change To (from Local SP) UUID: dc81c8de-3b00-11e5-0000-000000000025 Change To (from Local SP)
MAC for vnic0: 00:25:B5:00:00:25
Change To (from Local SP) MAC for vnic1: 00:25:B5:00:00:26
Change To (from Local SP) WWNN ID: 20:00:00:25:B5:00:00:25
Change To (from Local SP) WWPN for A Fabric: 20:00:00:25:B5:AA:00:25 Change To (from Local SP)
WWPN for B Fabric: 20:00:00:25:B5:BB:00:25 Start-UcsCentralTransaction
$mo = Get-UcsCentralOrg -Name root | Add-UcsCentralServiceProfile -Name "SP01_GP" -ModifyPresent
-Uuid "0909ac8a-2411-11e4-0000-181401000099"
$mo_1 = $mo | Add-UcsCentralVnic -ModifyPresent -Name "eth0" -Addr "00:25:B5:0A:04:01"
$mo_2 = $mo | Add-UcsCentralVnic -ModifyPresent -Name "eth1" -Addr "00:25:B5:0A:04:02"
$mo_3 = $mo | Add-UcsCentralVhba -ModifyPresent -Name "fc0" -Addr "20:FF:00:25:B5:0A:04:01"
$mo_4 = $mo | Add-UcsCentralVhba -ModifyPresent -Name "fc1" -Addr "20:FF:00:25:B5:0A:04:02"
$mo_5 = $mo | Add-UcsCentralVnicFcNode -ModifyPresent -Addr "20:01:00:25:B5:14:01:99" Complete-
UcsCentralTransaction Start-UcsCentralTransaction
$mo = Get-UcsCentralOrg -Name root | Add-UcsCentralServiceProfile -Name "SP01_GP" -ModifyPresent
-Uuid derived
$mo_1 = $mo | Add-UcsCentralVnic -ModifyPresent -Name "eth0" -Addr derived
$mo_2 = $mo | Add-UcsCentralVnic -ModifyPresent -Name "eth1" -Addr derived
$mo_3 = $mo | Add-UcsCentralvhba -ModifyPresent -Name "fc0" -Addr derived
$mo_4 = $mo | Add-UcsCentralvhba -ModifyPresent -Name "fc1" -Addr derived
$mo_5 = $mo | Add-UcsCentralVnicFcNode -ModifyPresent -Addr pool-derived
```

Repeat for every ID to assign manually

Step 3. Register UCSM with UCS Central.



Step 4. Migrate Local profile to Global profile.

- Gracefully Shut down Server with Local-SP
- Disassociate Local-SP
- Delete Local-SP ((restores allocated IDs back into pool with unused status)

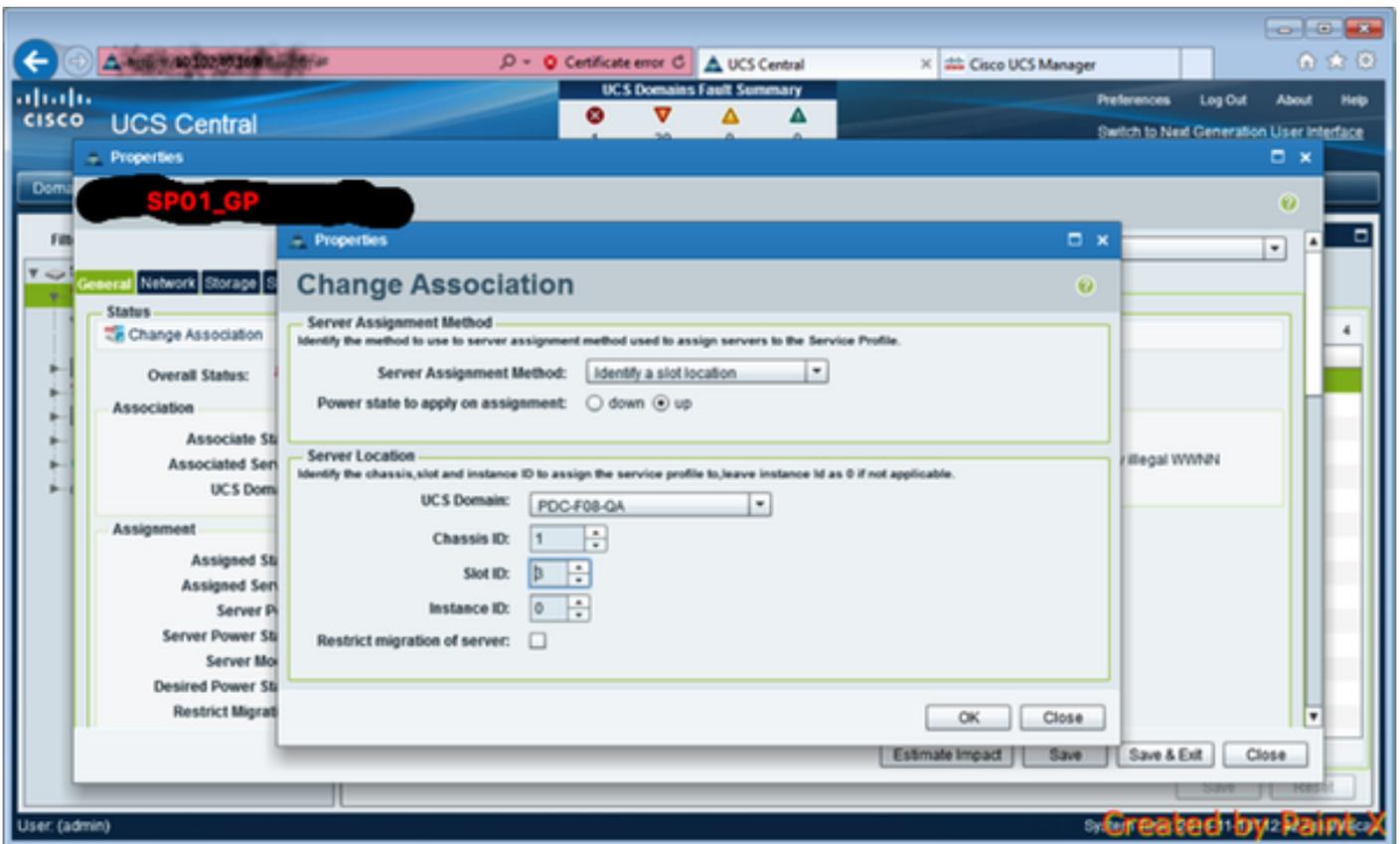
Refer configuration guide for further information about how to manage service profile in UCSM

Step 5. Verify new global profile.

```
UCS-FI /org # show service-profile status
Central(resource-mgr) /org/service-profile # show identity
```

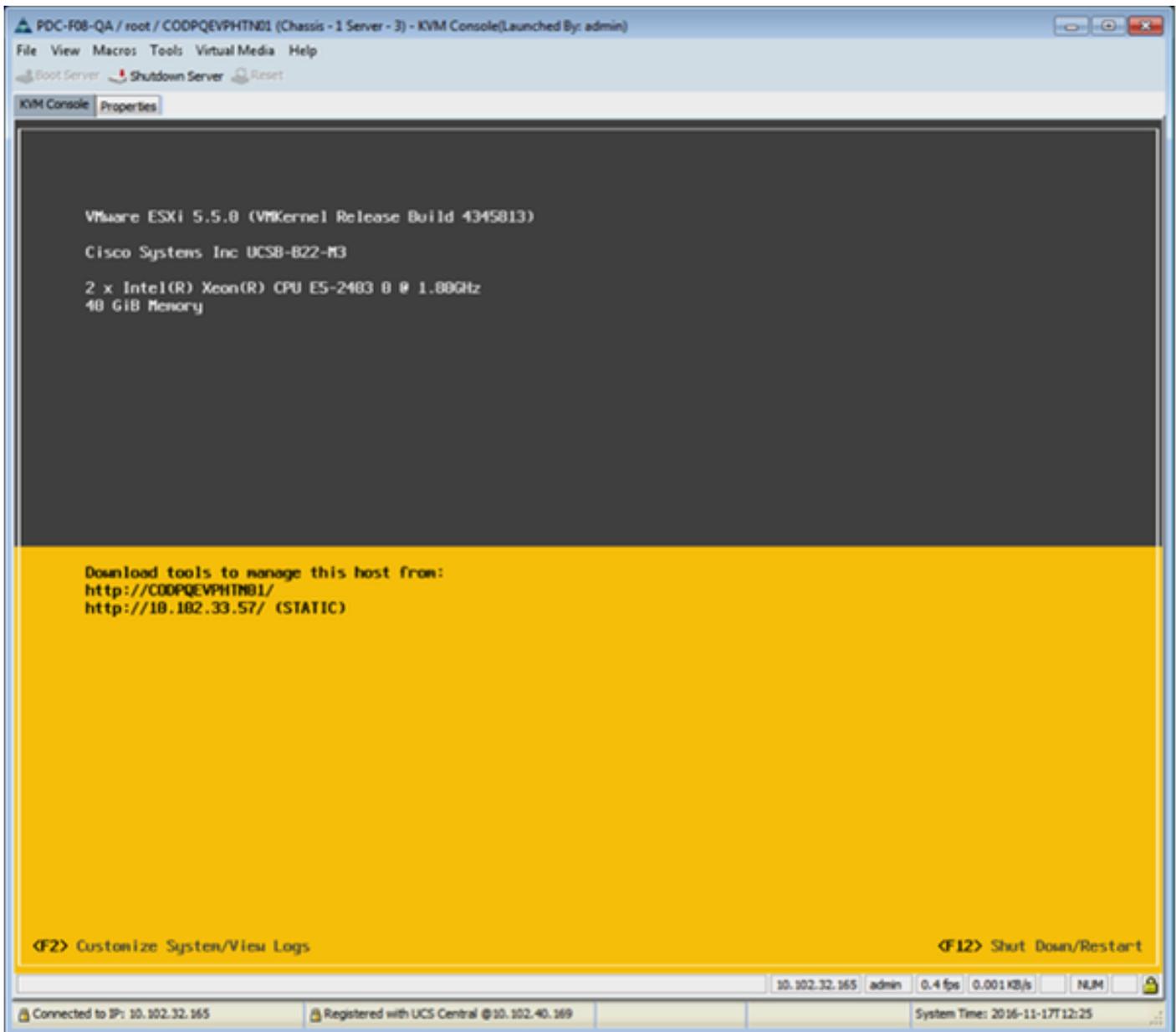
Step 6. Associate the GLOBAL-SP to the designated Server.

Refer to configuration guide how to associate the SP from central



Step 7. Boot Server from SAN LUN after the new Global-SP assigned

Check if the server is able to boot from SAN via the KVM console



Related Information

- UCSM configuration guide
<http://www.cisco.com/c/en/us/support/servers-unified-computing/ucs-central-software/products-installation-and-configuration-guides-list.html>
- Central best practices
<https://communities.cisco.com/servlet/JiveServlet/downloadBody/66619-102-3-120435/UCS%20Central%20Operations%20and%20Best%20Practice%20Guide.pdf>
- Central configuration guide
<http://www.cisco.com/c/en/us/support/servers-unified-computing/ucs-manager/products-installation-and-configuration-guides-list.html>
- PowerTools Suite
<https://communities.cisco.com/docs/DOC-37154>