

Troubleshoot UCS Central Globalization Blocker Issue and Orphaned LUNs Due to Storage Profile

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Introduction

This document describes two scenarios that could occur when you globalize a service profile in Cisco Unified Computing System (UCS) Central. The two issues you can see are a globalization blocker issue due to an associated storage profile and orphaned Logical Unit Numbers (LUNs). This document covers the reasons these issues can surface and how to resolve them.

Prerequisites

Requirements

This document assumes that you have knowledge of these topics:

- Cisco Unified Computing System Manager (UCSM)
- Cisco UCS Central
- Cisco UCS B-Series and C-Series servers

Components Used

- UCS 6454 Fabric Interconnect (FI)
- UCSM Version 4.1(1c)
- Cisco UCS Central Version 2.0(1m)

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, ensure that you understand the potential impact of any command.

Background Information

- Any issue that cannot be resolved through Cisco UCS Central's globalization operation is considered a blocker. These blockers must all be resolved in the Cisco UCS domain or Cisco UCS Central before globalization can complete.
- Cisco UCS Central supports storage profiles in general, however, it does not allow storage profile globalization. Storage profiles and their policies would need to be created in Cisco UCS Central to be used with any service profiles that were globalized.
- A storage profile can be configured with specific policies that dictate the physical disk usage. Storage profiles are then attached to a service profile for automatic LUN creation and deployment.
- An orphaned LUN is when the service profile that contained the virtual drive has been deleted or the service profile is no longer associated with a storage profile. The LUN's data is preserved but needs to be claimed to be usable.
- The sidebar in Cisco UCS Central is on the left of the Graphical User Interface (GUI), it has quick access to icons such as profiles, policies, globalization tasks, and so forth.

Problem: Storage Profile Causes a UCS Central Blocker, When the Blocker is Fixed LUNs are Orphaned

Cisco UCS Central encounters a blocker and will fail evaluation anytime the service profile used for globalization has an associated storage profile. If the storage profile also contains LUNs they become orphaned when the storage profile is removed to clear the blocker. The LUNs remain orphaned in shared storage with their content preserved until they are reclaimed in Cisco UCS Central.

Solution

Remove the Storage Profile and Claim the Orphaned LUNs in UCS Central

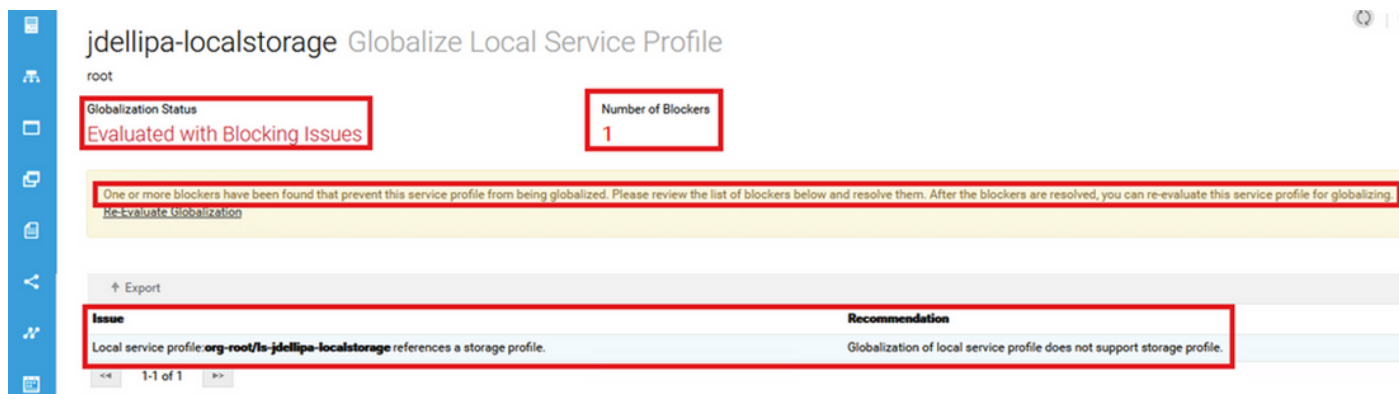
Removal of the storage profile from the service profile in UCSM clears this specific blocker, described in Scenario 1. If the storage profile also contained LUNs they can be reclaimed by the creation of the proper configuration and policies in Cisco UCS Central, described in Scenario 2.

Scenario 1: Globalization Blocker Issue When a Storage Profile is Attached to the Service Profile

Fix: Launch Cisco UCSM and remove the storage profile from the service profile that has failed globalization and then re-evaluate globalization in UCS Central.

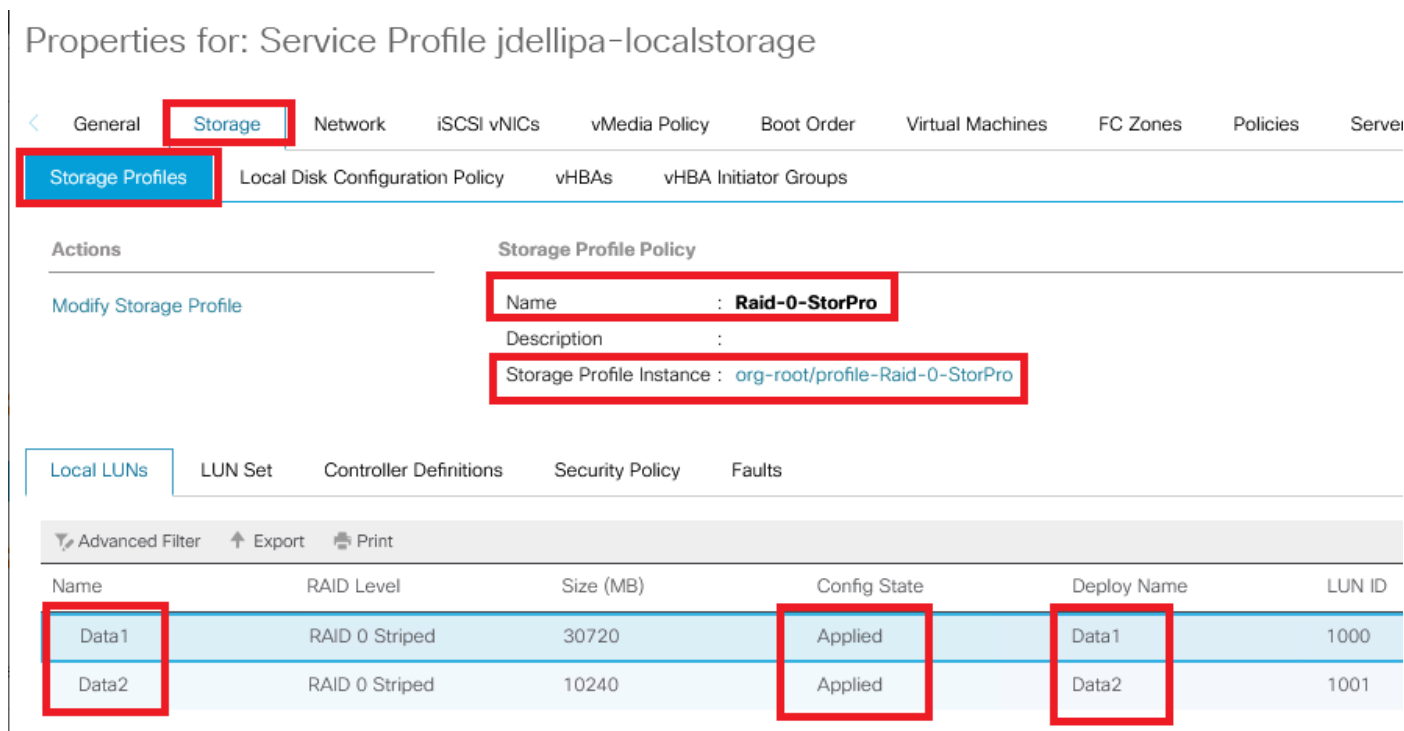
Explanation: If an attempt is made to globalize a local service profile with an associated storage profile, evaluation fails due to a blocker issue. The blocker is a storage profile associated with the service profile in UCSM, which is in the progress of globalization in Cisco UCS Central.

A Globalization task in Cisco UCS Central encounters blockers when an attempt is made to globalize a service profile with a storage profile associated, as shown in this image.



Procedure for Scenario 1

Step 1. Launch UCS Manager and click on **Servers**. Locate and click on the service profile used for globalization. Navigate to **Storage > Storage Profiles** as shown in this image.



Step 2. Navigate to **Modify Storage Profile > Storage Profile Policy** and click the **Storage Profile** drop-down menu and select **No Storage Profile** and click **OK**.

Properties for: Service Profile jdelipia-localstorage

Modify Storage Profile

Specific Storage Profile: **Storage Profile Policy**

Storage Profile: **Raid-0-StorPro**

Select Storage Profile to use

- No Storage Profile
- RAID1-Boot
- Raid-0-StorPro**
- LUN-TESTING

Local LUNs

Name	RAID Level	Size (MB)	Order	Fractional Size (%)
Data1	RAID 0 Striped	30720	Not Applicable	0
Data2	RAID 0 Striped	10240	Not Applicable	0

OK

Note: Any previously deployed LUNs Configuration State is now Orphaned, instead of Applied and Online.

Equipment / Chassis / Chassis 1 / Servers / Server 3

General **Inventory** Virtual Machines Installed Firmware CIMC Sessions SEL Logs VIF Paths Health Diagnostics

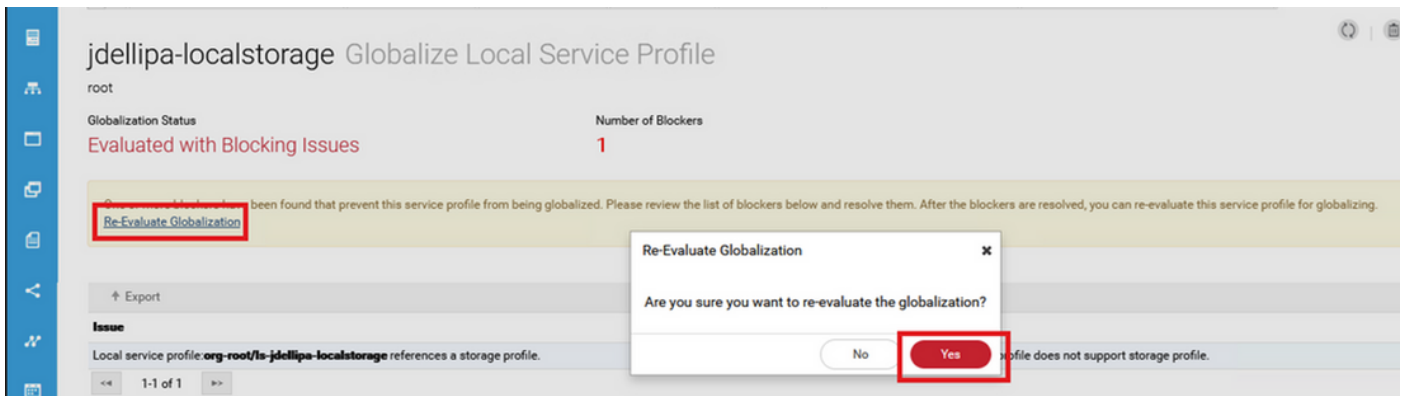
Motherboard CIMC CPUs GPUs Memory Adapters HBAs NICs iSCSI vNICs Security **Storage** Persistence

Controller **LUNs** Disks

Name	Size (MB)	Raid Type	Config State	Deploy Action	Operability
Storage Controller ...					
Virtual Drive Data1	30720	RAID 0 Striped	Orphaned	No Action	Operable
Virtual Drive Data2	10240	RAID 0 Striped	Orphaned	No Action	Operable

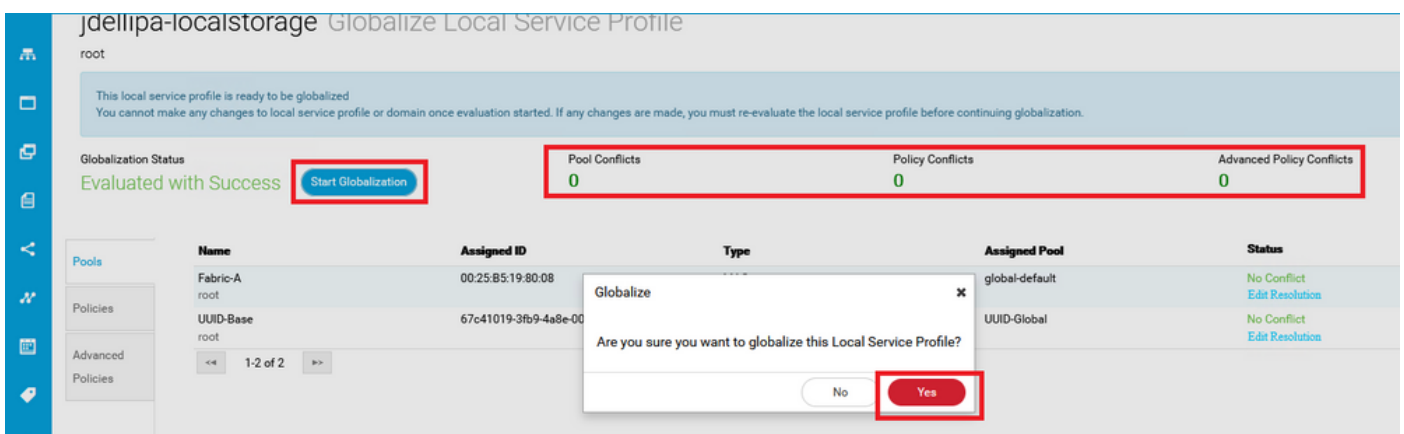
Step 3. Launch Cisco UCS Central and from the sidebar, click on **Globalization Tasks**. Double-click the proper globalization task name and click **Re-Evaluate Globalization > Yes**.

Note: If the storage profile was the only blocker, evaluation succeeds. If there are any other blockers besides the storage profile, they have to be resolved for a successful evaluation.



Step 4. Select **Start Globalization** in Cisco UCS Central and click **Yes** as shown in this image.

Note: If there are any Pool, Policy, or Advanced Policy Conflicts, they need to be resolved before you Start Globalization.

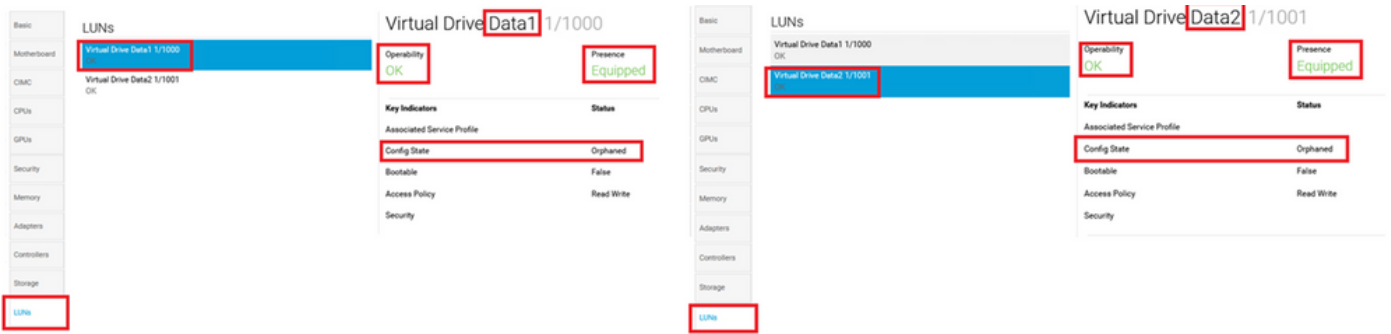


Scenario 2: Claim Orphaned LUNs in UCS Central After a Successful Service Profile Globalization

Fix: Create a storage profile and local LUNs in Cisco UCS Central and associate the storage profile with the service profile. Create and claim each LUN individually, and match the original LUN names from UCSM with the newly created claim LUN names in UCS Central.

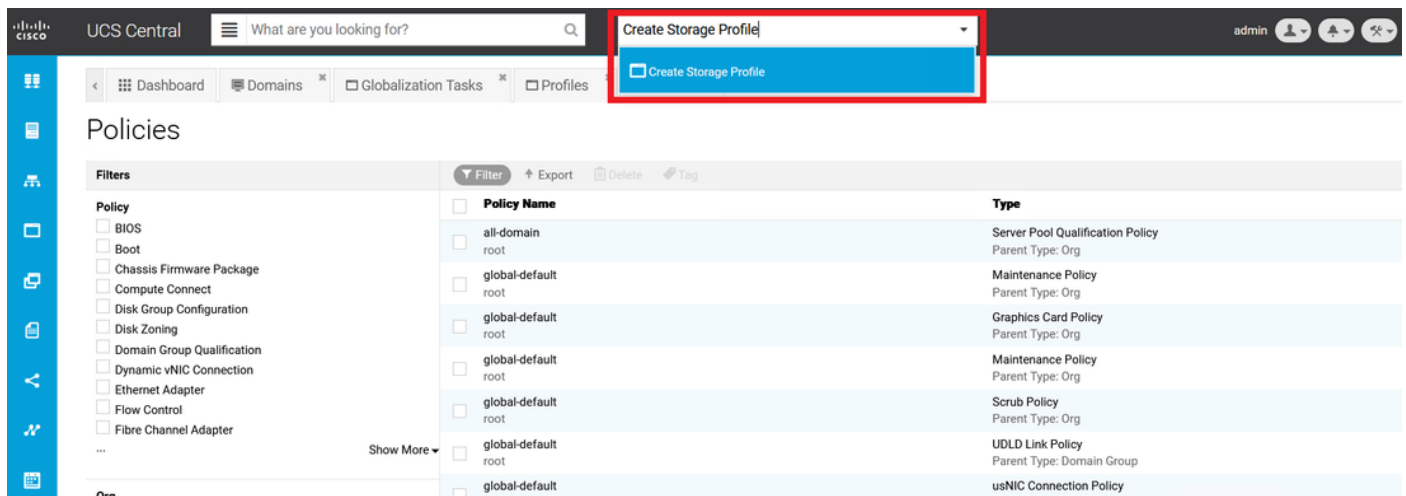
Explanation: If a storage profile is deleted or removed from its service profile, LUNs become orphaned. If any storage profile with LUNs is associated with a service profile that is used for globalization you can encounter orphaned LUNs. This happens because the storage profile must be removed from the service profile in UCSM for a successful evaluation and globalization in UCS Central.

The configuration state of any LUNs from the server(s) in UCS Central that has had its service profile globalized is now orphaned. This server previously had its LUNs created in UCSM, and now displays orphaned, as shown in this image.



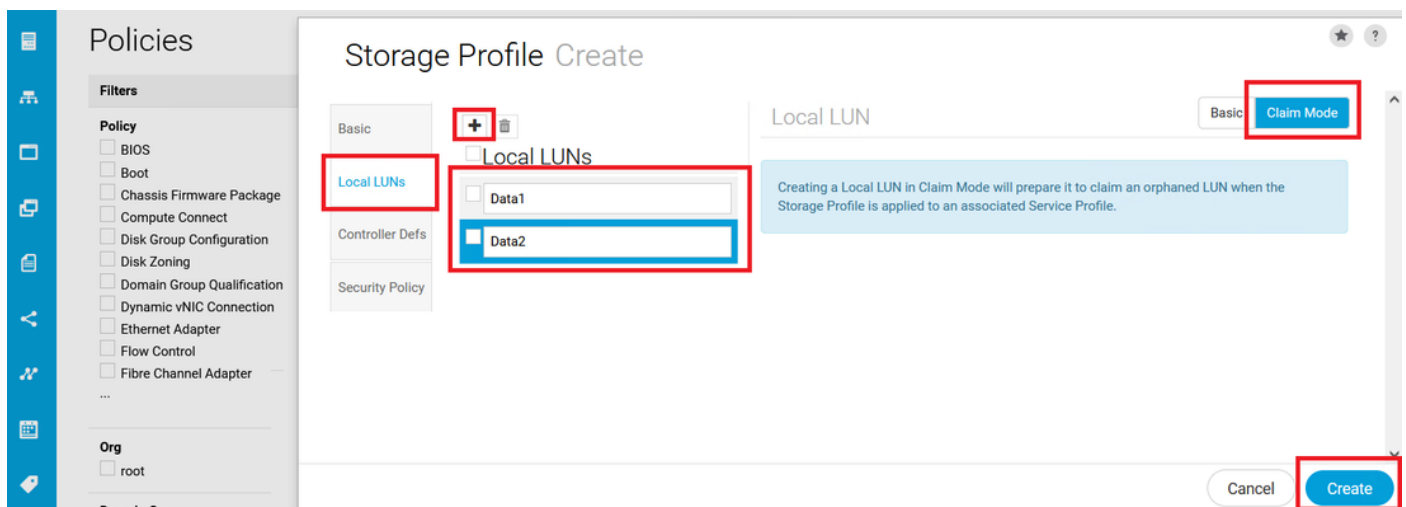
Procedure for Scenario 2

Step 1. Launch Cisco UCS Central, click on the **Actions** bar, type **Create Storage Profile**, and press **Enter**.



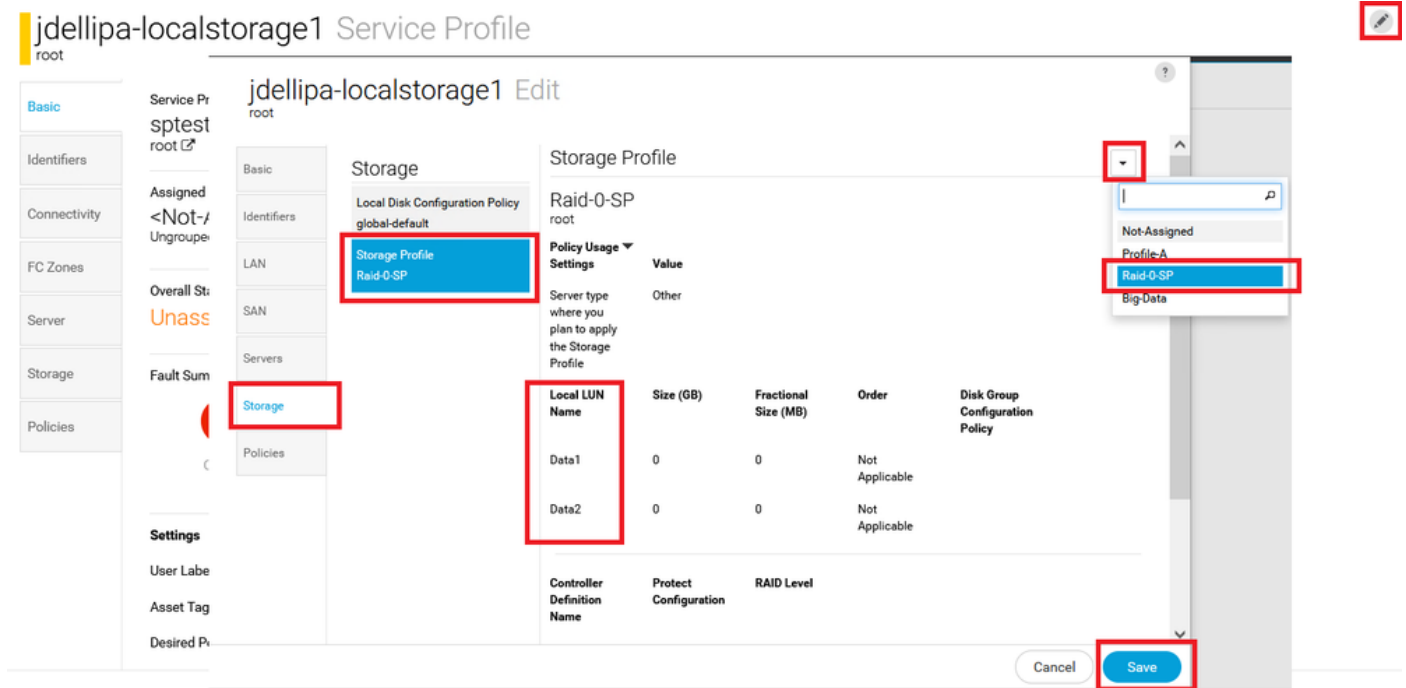
Step 2. Navigate to **Local LUNs > Add** (Add is the plus button near Local LUNs). Type in the original LUN name(s) and click **Claim Mode > Create** as shown in the image.

Note: Add a new Local LUN with claim mode on for every LUN that has been orphaned. It is recommended to match the original LUN names from UCSM in our Cisco UCS Central storage profile.

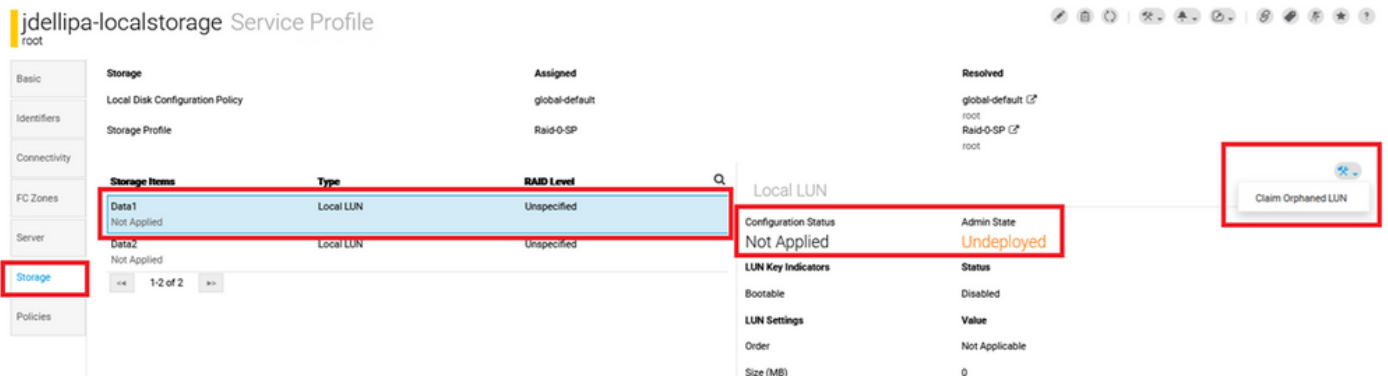


Step 3. Select **Profiles** from the sidebar, locate and double-click on the proper service profile and click **Edit** on the top right (Pencil icon). Navigate to **Storage > Storage Profile** and click the edit

drop-down, choose the proper storage profile name, and click **Save**.



Step 4. Select **Profiles** from the sidebar, locate, and double-click on the proper service profile. Navigate to **Storage** and click on the local LUN under **Storage Items**. Click on the **System Tools Icon > Claim Orphaned LUN** as shown in this image.



Step 4.1. Select the **LUN** box that matches the name the claim LUN is set for and click **Claim Orphaned LUN** as shown in this image.

jdellipa-localstorage Claim Orphaned LUN

root/jdellipa-localstorage/1011

Do not select an Orphaned LUN with Deploy Action set to Delete.

LUN	ID	Size (MB)	RAID Type	Deploy Action	Configuration Status
<input type="checkbox"/> Data2	1001	10240	Stripe	No-Action	Orphaned
<input checked="" type="checkbox"/> Data1	1000	30720	Stripe	No-Action	Orphaned

Cancel

Claim Orphaned LUN

Step 5. Select **Profiles** from the sidebar, locate, and double-click on the proper service profile. Navigate to **Storage** and confirm all of the LUNs under **Storage Items** are now applied and online.

jdellipa-localstorage Service Profile

Basic Identifiers Connectivity FC Zones Server **Storage** Policies

Storage

Storage	Assigned	Resolved
Local Disk Configuration Policy	global-default	global-default ↗ root
Storage Profile	Raid-0-SP	Raid-0-SP ↗ root

Storage Items	Type	RAID Level
Data1 Applied	Local LUN	Stripe
Data2 Applied	Local LUN	Stripe

Search: Data1 Local LUN

Configuration Status	Admin State
Applied	Online

LUN Key Indicators

Bootable	Status
Disabled	Disabled

LUN Settings

Value
Value

Related information

- [Cisco UCS Central Getting Started Guide](#)
- [Cisco UCS Central Server Management Guide](#)
- [Cisco UCS Central Storage Management Guide](#)
- [Release Notes for Cisco UCS Central, Release 2.0](#)
- Cisco bug ID [CSCvu87668](#) - Globalization of a Local Service Profile (LSP) can fail even though no Storage Profile is attached to the Service Profile.
- [Technical Support & Documentation - Cisco Systems](#)