

Configure Boot from Local Storage in Intersight Manage Mode (IMM)

Contents

[Introduction](#)

[Prerequisites](#)

[Requirements](#)

[Components used](#)

[Configure](#)

[Local Storage MRAID - HDD](#)

[Local Storage M.2 Controller](#)

[Verify](#)

Introduction

This document describes the configuration to boot from local storage with **MRAID/HDD and M.2 Controller** on **Intersight Managed Mode (IMM)** servers.

Contributed by Javier Garcia and Luis Uribe Rojas, Cisco TAC Engineers.

Prerequisites

Requirements

Cisco recommends knowledge of these topics:

- Intersight
- Local Boot
- Local Storage Devices (HDD/SSD and M.2 Drives)
- Knowledge of **Redundant Array of Independent Disks (RAID)** configuration

Components used

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

- Cisco UCS 6454 Fabric Interconnect, firmware 4.2(1e)
- UCSB-B200-M5 blade server, firmware 4.2(1a)
- Intersight software as a service (SaaS)
- Storage Controllers MRAID, MSTOR-RAID

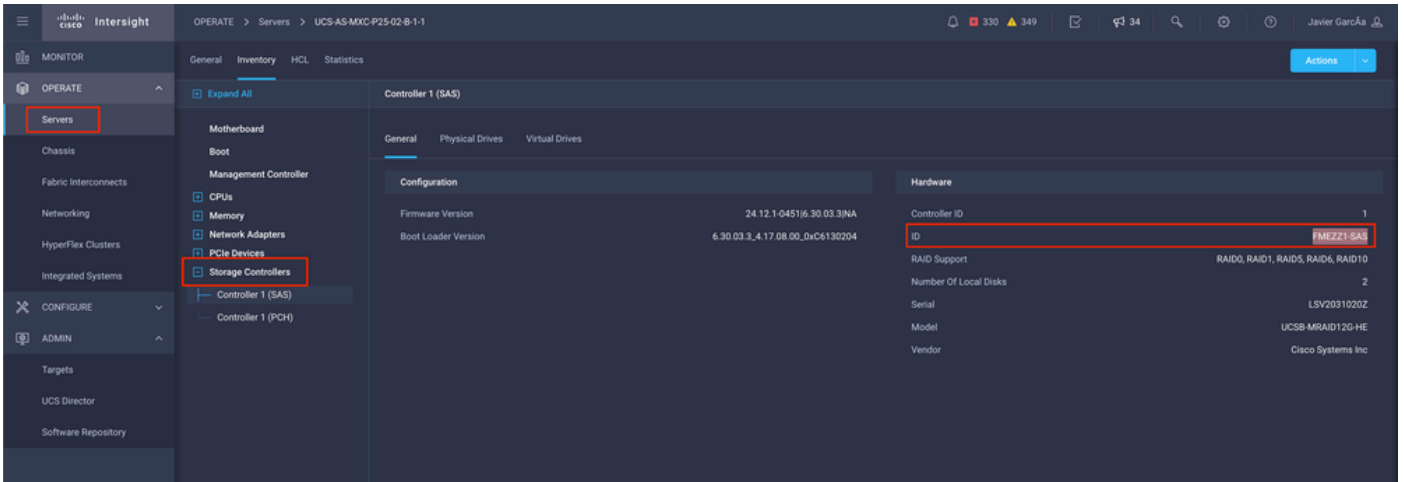
The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Configure

Local Storage MRAID - HDD

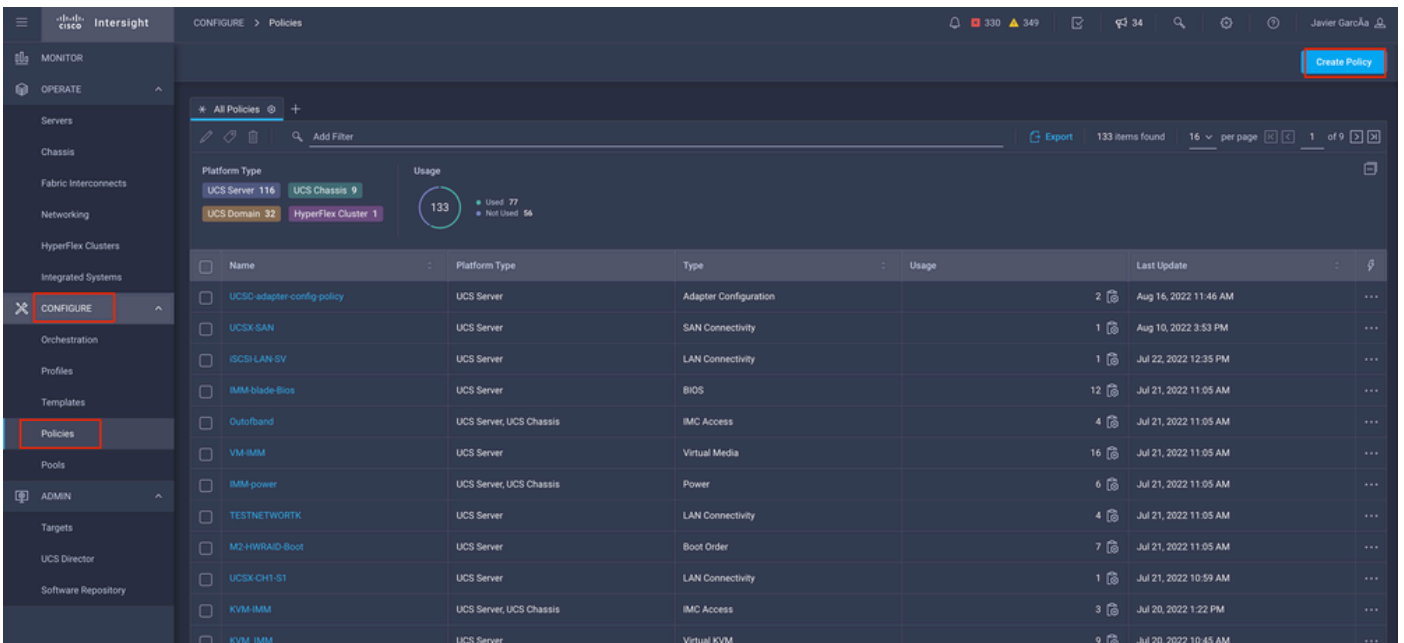
Step 1. Identify the controller installed in the Server and slot ID.

Navigate to **Servers > [server name] > Inventory > Storage Controllers**. Take note of the ID.

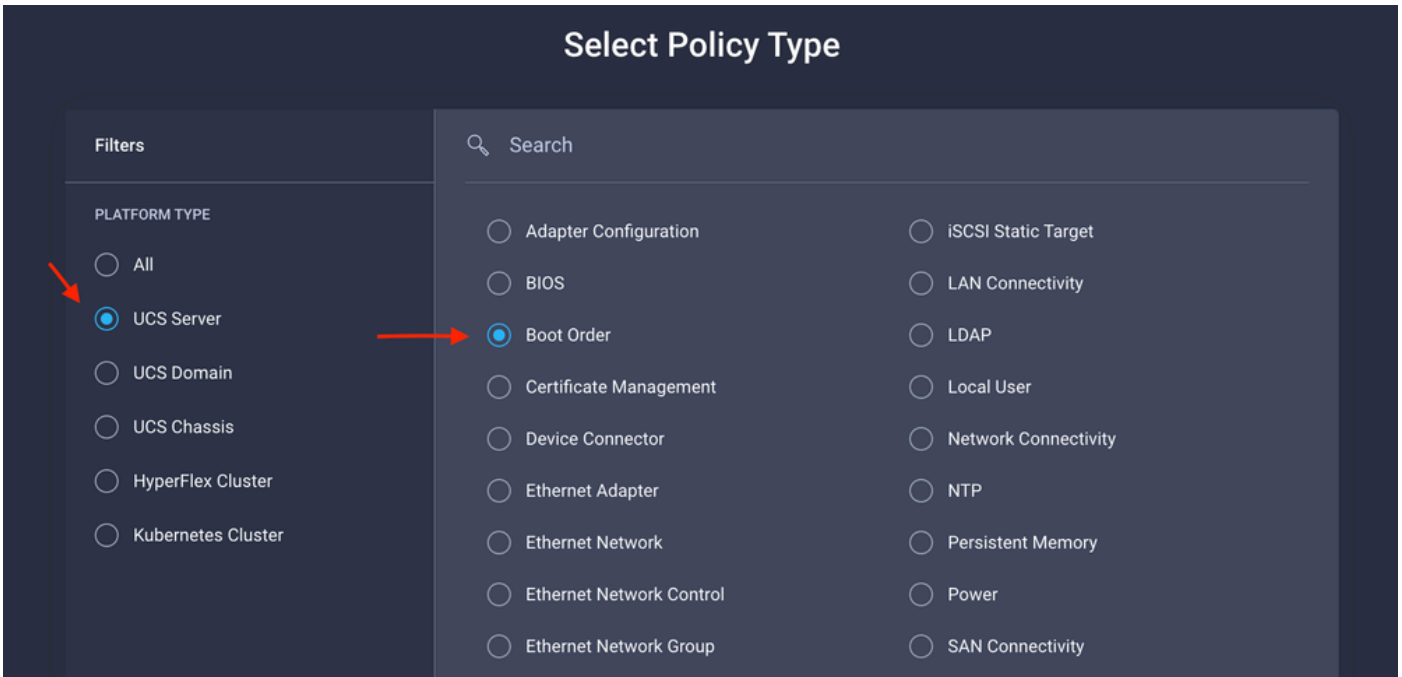


Step 2. Create Boot Order Policy:

Navigate to **Policies > Create Policy > UCS Server > Boot Order**

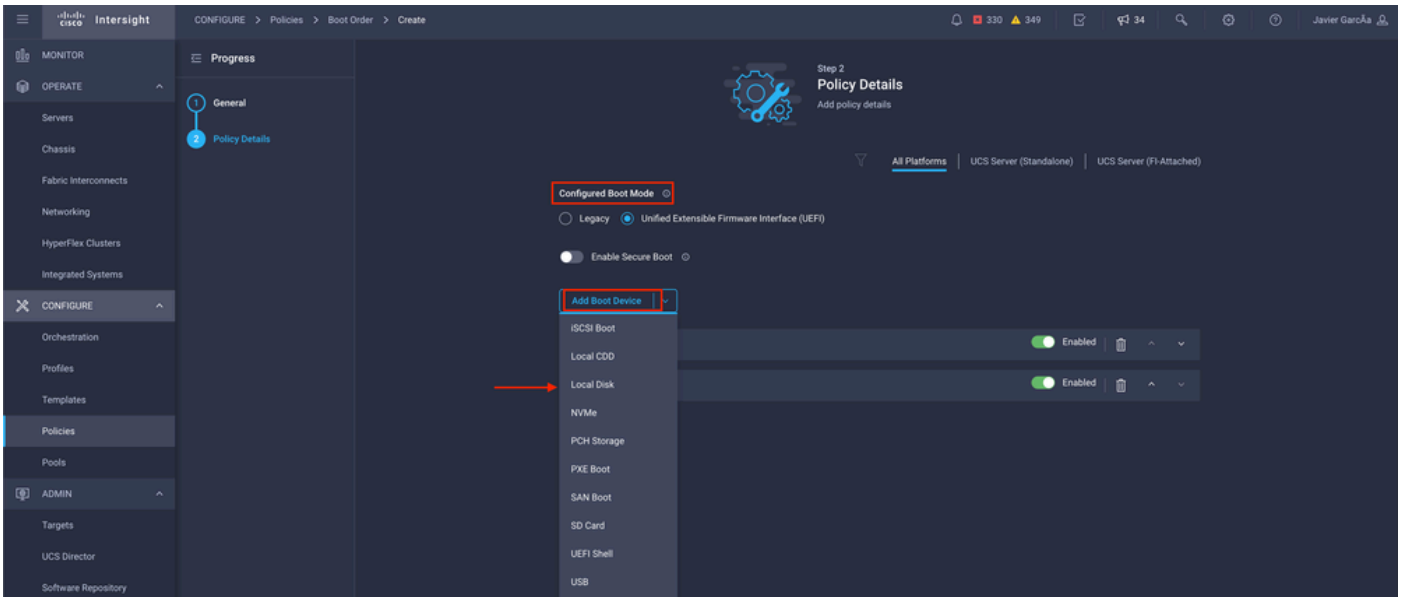


Select UCS server and Boot order



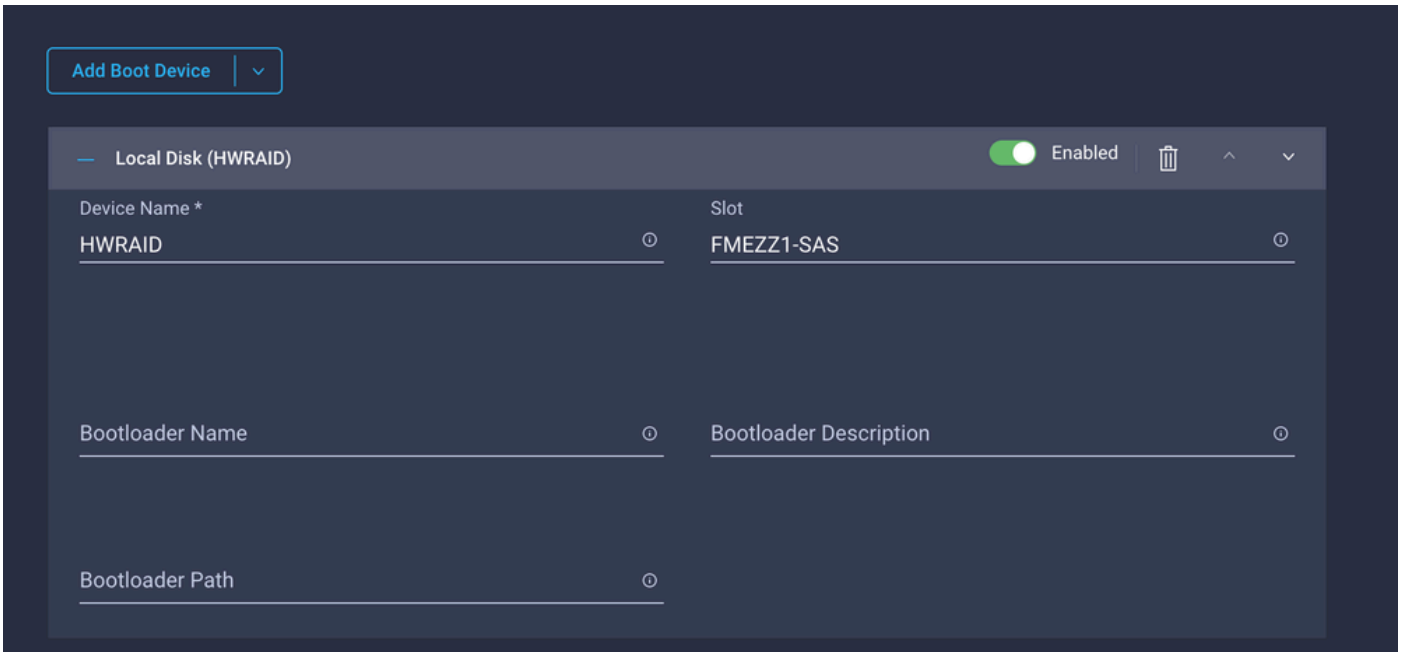
Configure **Policy Organization, Name, and Description.**

Add **local Disk boot option**, select **Legacy** or **Unified Extensible Firmware Interface (UEFI)**.

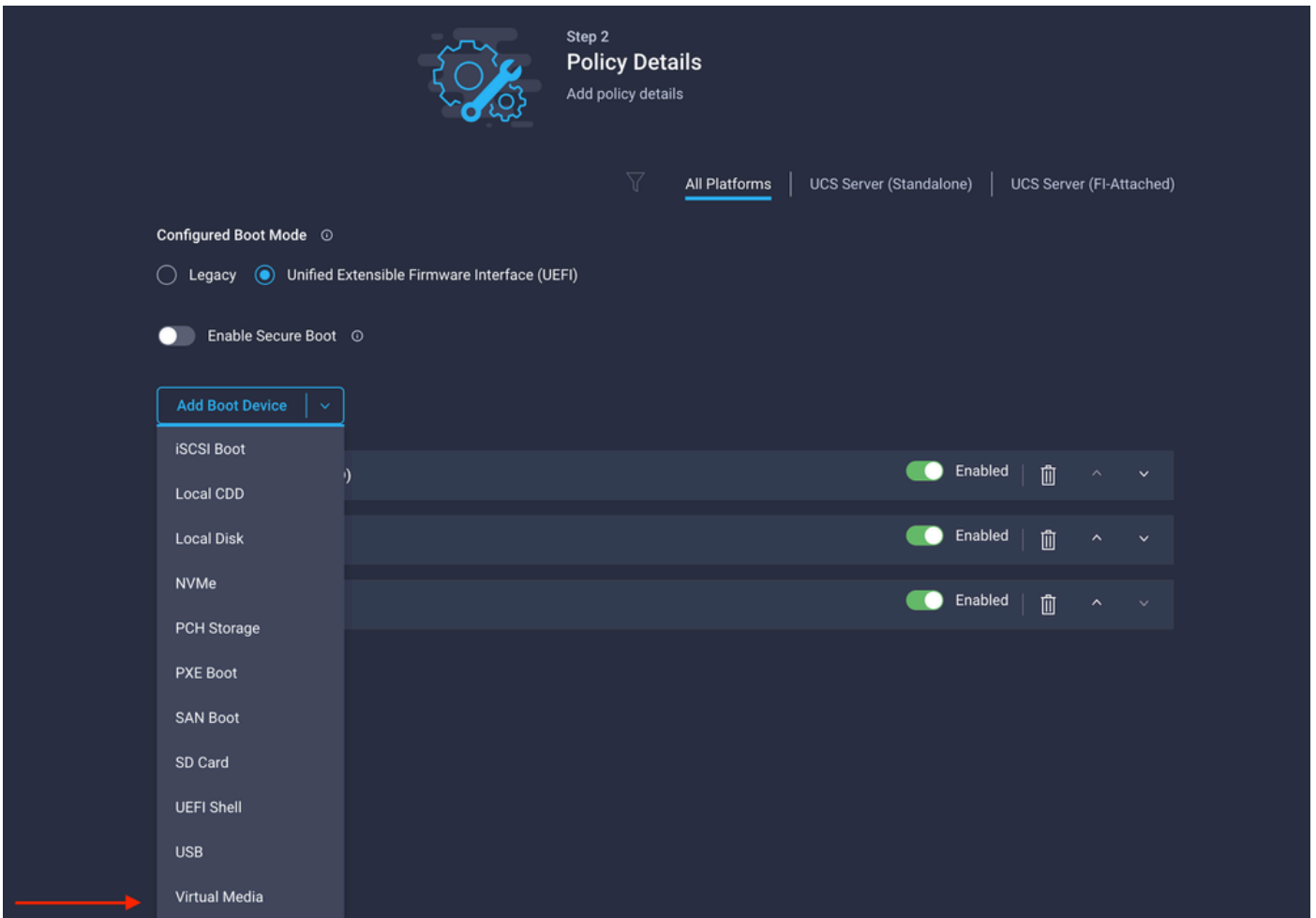


Configure the **Device Details**:

- **Device Name** is the name for reference on the Policy.
- **Slot** is the ID saved from **Step 1**.
- **Bootloader** fields (optional).



Add **Virtual Media** option to install the .iso image.



Configure **Device Name** and **Type**.



Step 2 Policy Details

Add policy details



All Platforms

UCS Server (Standalone)

UCS Server (FI-Attached)

Configured Boot Mode ⓘ

Legacy Unified Extensible Firmware Interface (UEFI)

Enable Secure Boot ⓘ

Add Boot Device ▾

Virtual Media (DVD)

Enabled



Device Name *

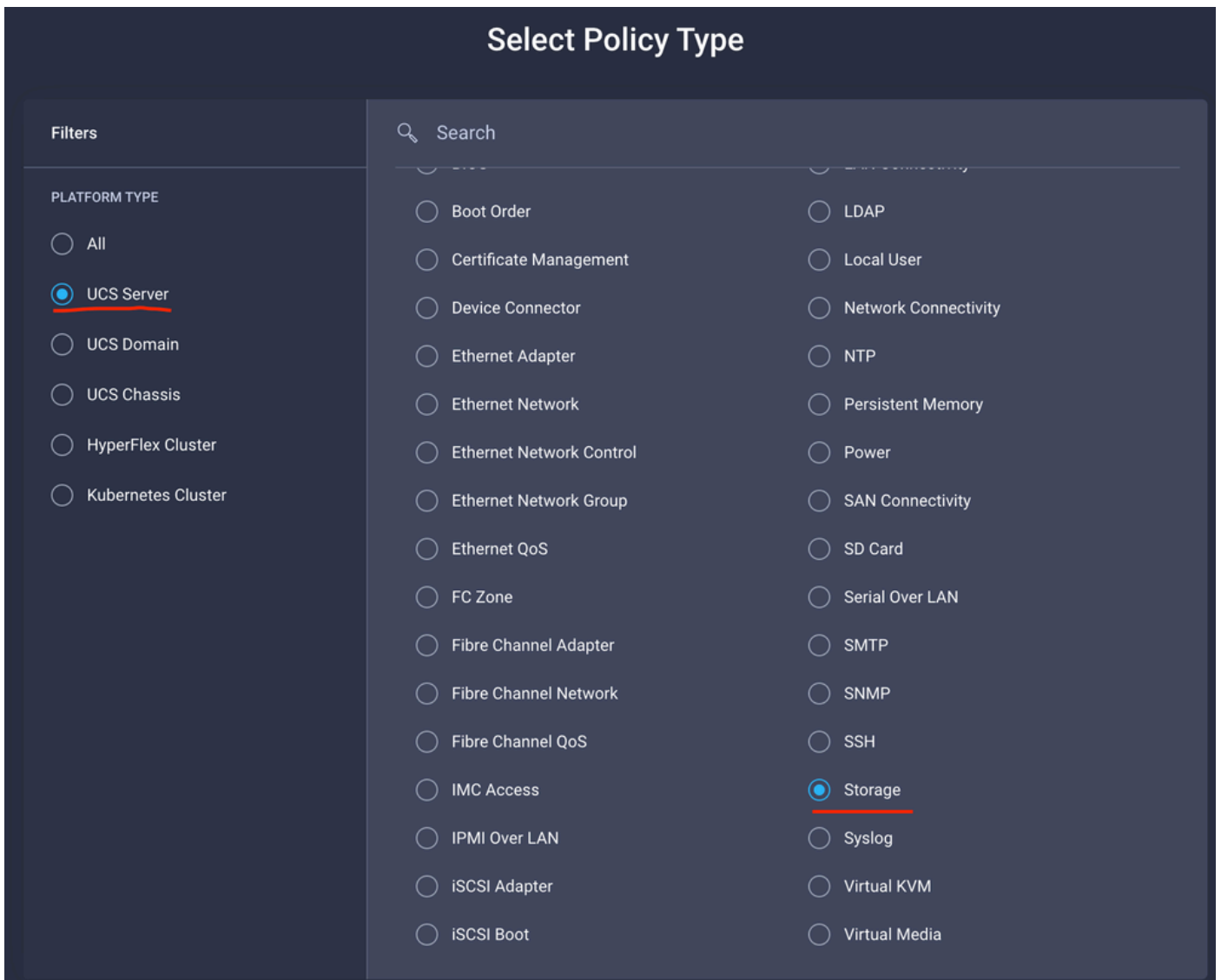
DVD ⓘ

Sub-Type

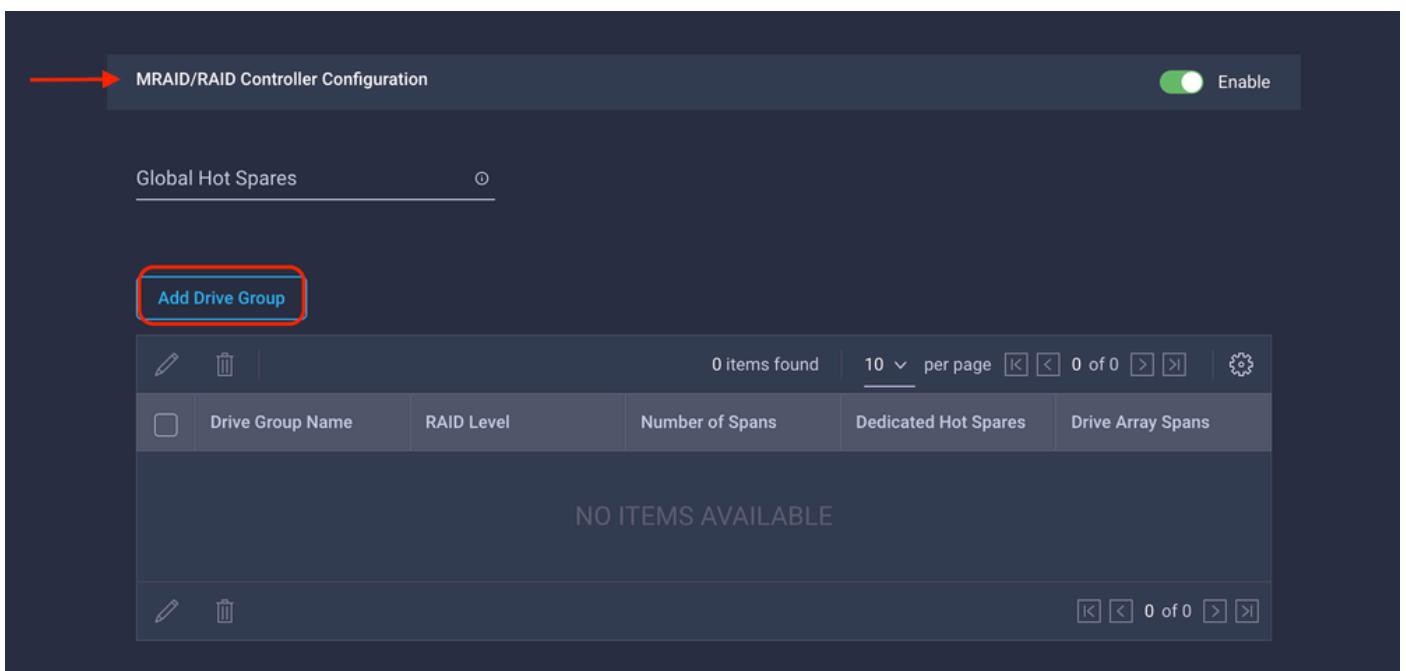
KVM MAPPED DVD ▾ ⓘ


Step 3. Create Storage Policy

Name the Storage Policy and enable the MRAID/RAID Controller Configuration.

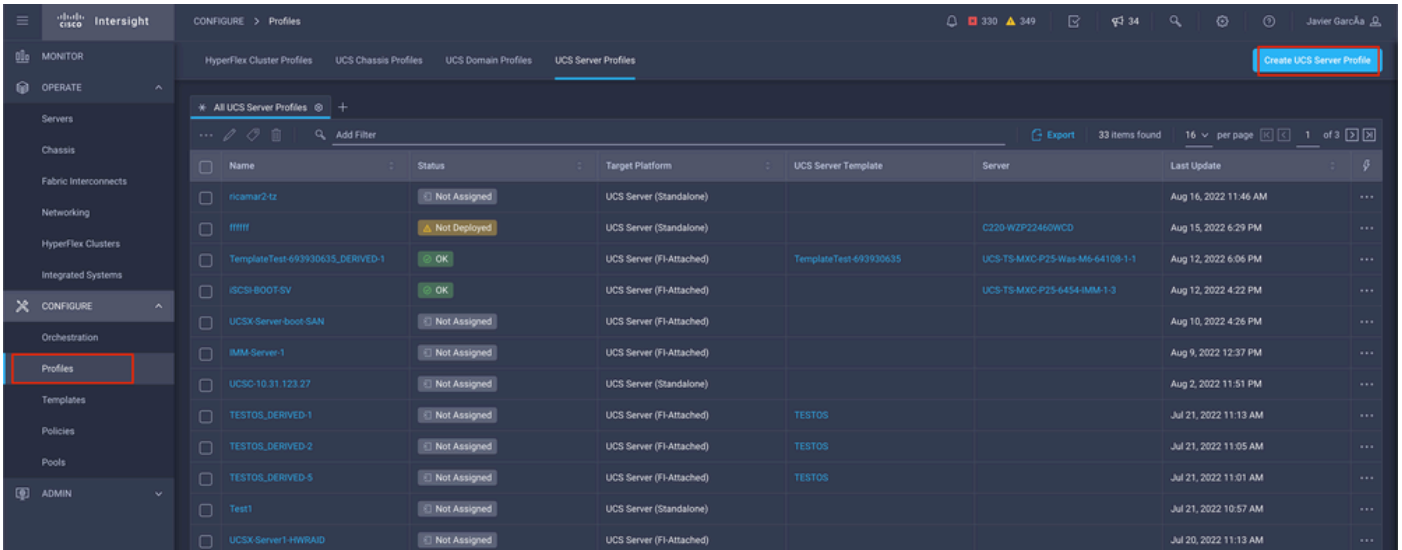


Configure **Drive Group** and **Virtual Drive**.



 **Note:** To avoid the addition of a virtual drive, use single drive RAID0 creation.

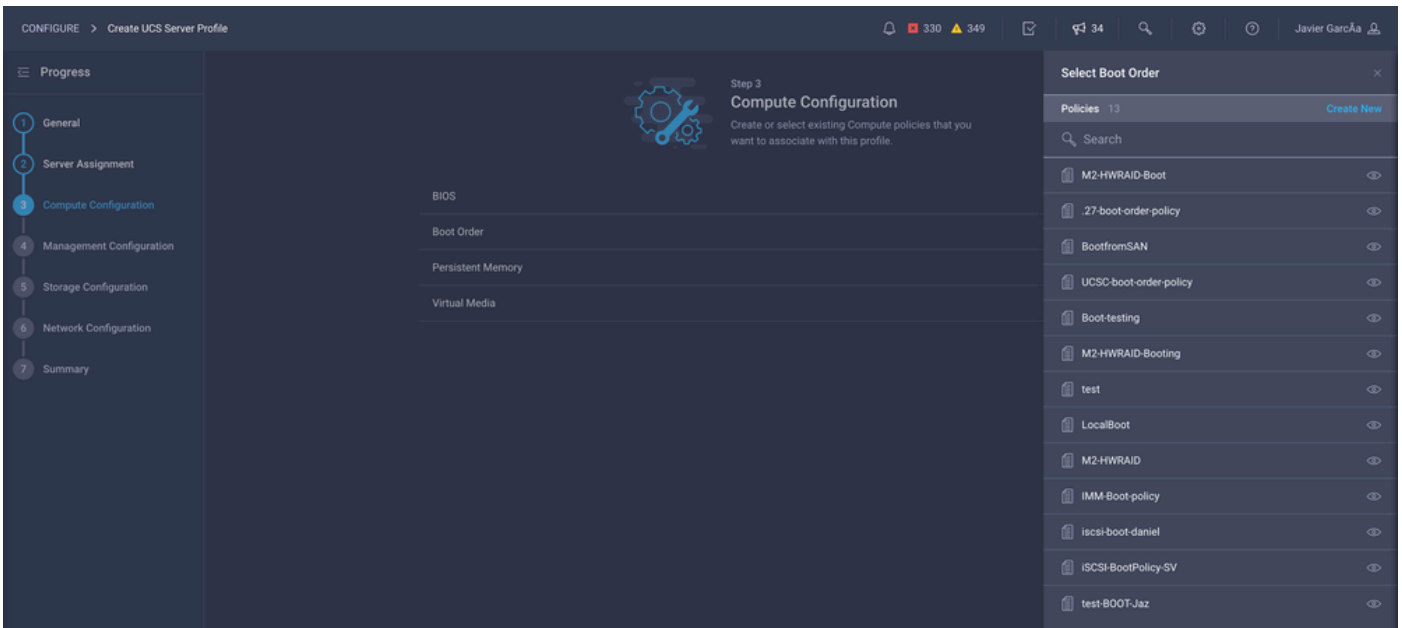
Step 4. Deploy Server profile.




The screenshot shows the Cisco Intersight interface with the 'Profiles' section selected. A table lists various UCS Server Profiles with their status, target platform, template, and server details.

Name	Status	Target Platform	UCS Server Template	Server	Last Update
ricamar2-tz	Not Assigned	UCS Server (Standalone)			Aug 16, 2022 11:46 AM
fffff	Not Deployed	UCS Server (Standalone)		C220-WZP22460WCD	Aug 15, 2022 6:29 PM
TemplateTest-693930635_DERIVED-1	OK	UCS Server (FI-Attached)	TemplateTest-693930635	UCS-TS-MXC-P25-Was-M6-64108-1-1	Aug 12, 2022 6:06 PM
iSCSI-BOOT-SV	OK	UCS Server (FI-Attached)		UCS-TS-MXC-P25-6454-IMM-1-3	Aug 12, 2022 4:22 PM
UCSX-Server-boot-SAN	Not Assigned	UCS Server (FI-Attached)			Aug 10, 2022 4:26 PM
IMM-Server-1	Not Assigned	UCS Server (FI-Attached)			Aug 9, 2022 12:37 PM
UCSC-10.31.123.27	Not Assigned	UCS Server (Standalone)			Aug 2, 2022 11:51 PM
TESTOS_DERIVED-1	Not Assigned	UCS Server (FI-Attached)	TESTOS		Jul 21, 2022 11:13 AM
TESTOS_DERIVED-2	Not Assigned	UCS Server (FI-Attached)	TESTOS		Jul 21, 2022 11:05 AM
TESTOS_DERIVED-5	Not Assigned	UCS Server (FI-Attached)	TESTOS		Jul 21, 2022 11:01 AM
Test1	Not Assigned	UCS Server (Standalone)			Jul 21, 2022 10:57 AM
UCSX-Server1-HWRAID	Not Assigned	UCS Server (FI-Attached)			Jul 20, 2022 11:13 AM

Step 4.1 Apply the created policies.



The screenshot shows the 'Create UCS Server Profile' wizard in Step 3, 'Compute Configuration'. The left sidebar shows the progress steps: 1. General, 2. Server Assignment, 3. Compute Configuration (selected), 4. Management Configuration, 5. Storage Configuration, 6. Network Configuration, 7. Summary. The main area displays configuration options for BIOS, Boot Order, Persistent Memory, and Virtual Media. A 'Select Boot Order' panel on the right lists 13 policies, including M2-HWRAID-Boot, 27-boot-order-policy, BootfromSAN, UCSC-boot-order-policy, Boot-testing, M2-HWRAID-Bootting, test, LocalBoot, M2-HWRAID, IMM-Boot-policy, iscsi-boot-daniel, iSCSI-BootPolicy-SV, and test-BOOT-Jaz.

 **Note:** Other policies can be added if required. This article explains only the policies required to boot from local storage. Other policies can be added if required.

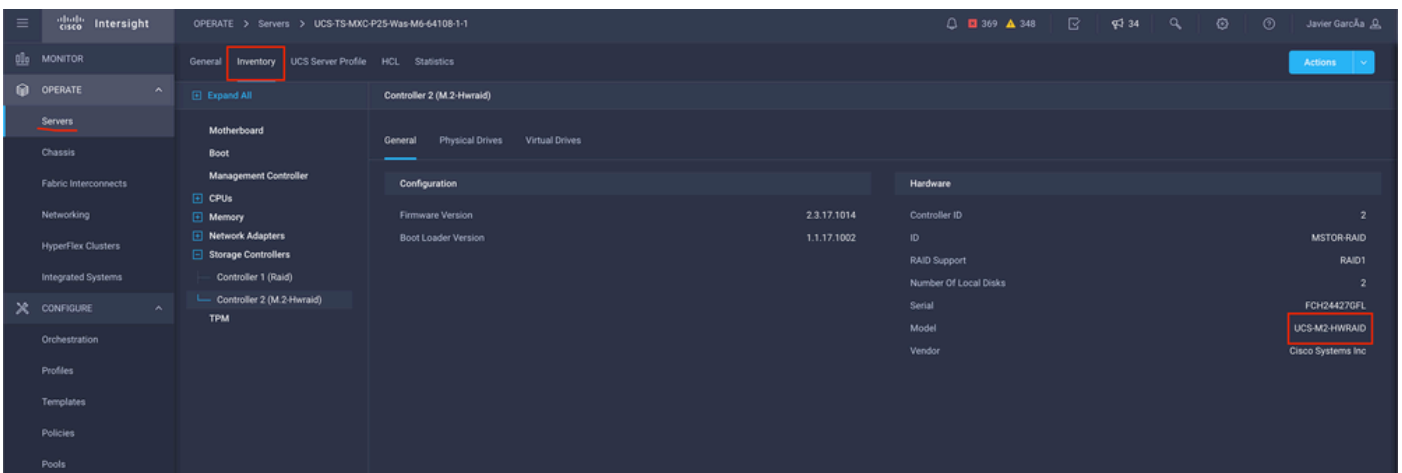
Step 5. Install the OS through the KVM.



Local Storage M.2 Controller

STEP 1. Identify the controller installed in the Server and slot ID.

Navigate to **Servers > [server name] > Inventory > Storage Controllers**. Take note of the ID.



Step 2. Create **Boot Order Policy**:

Navigate to **Policies > Create Policy > UCS Server > Boot Order**

(Configure Policy, Organization, Name, and Description).

Add local Disk boot option, select **Legacy** or **Unified Extensible Firmware Interface (UEFI)**.

Device Name is the name for reference on the Policy.


Slot is the ID saved from **Step 1**.

Bootloader fields (optional).

Add **Virtual Media** option to install the .iso image.

Step 3. Create **Storage Policy**

Name the **Storage Policy** and enable the **M.2 RAID Controller Configuration**.



Step 2
Policy Details
Add policy details

[All Platforms](#) | [UCS Server \(Standalone\)](#) | [UCS Server \(FI-Attached\)](#)

General Configuration

Use JBOD drives for Virtual Drive creation ⓘ

Unused Disks State
No Change ▼ ⓘ

M.2 RAID Configuration

Enable

Slot of the M.2 RAID controller for virtual drive creation
MSTOR-RAID-1,MSTOR-RAID-2 ▼ ⓘ


MRAID/RAID Controller Configuration

Enable

MRAID/RAID Single Drive RAID0 Configuration

Enable

Step 4. Deploy Server profile

 **Note:** This article explains only the policies required to boot from local storage. Other policies can be added if required.

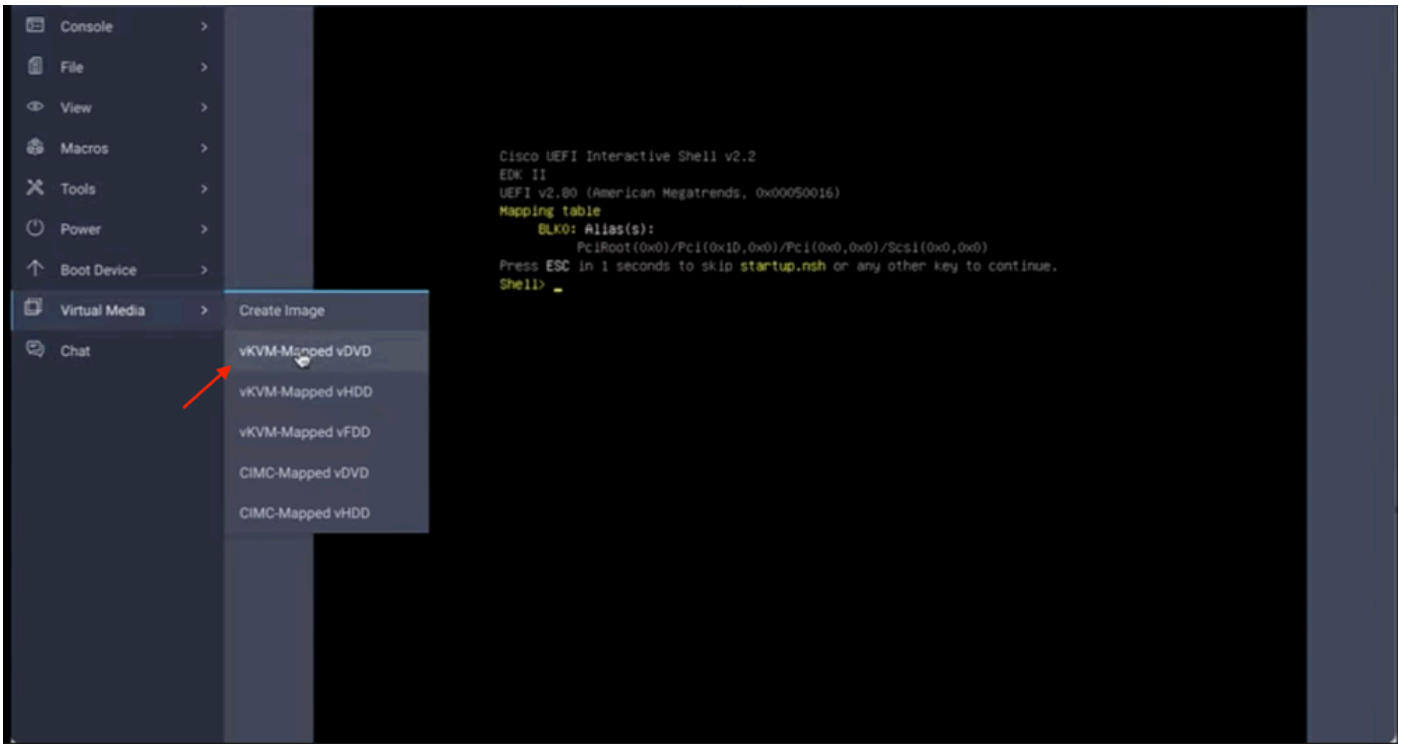
Step 4.1 Apply the created policies.

Step 5. Install the OS through the KVM.

Verify

Use this section in order to confirm that your configuration works properly.

Launch the **vKVM-Mapped vDVD**.



Verify **RAID** is displayed through OS installation.

