

Initiate Diagnostic Tool Embedded Within UCS Manager

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Introduction

This document describes how to initiate the Diagnostic Tool embedded in UCS Manager to perform memory diagnostics on servers.

Prerequisites

Requirements

Components Used

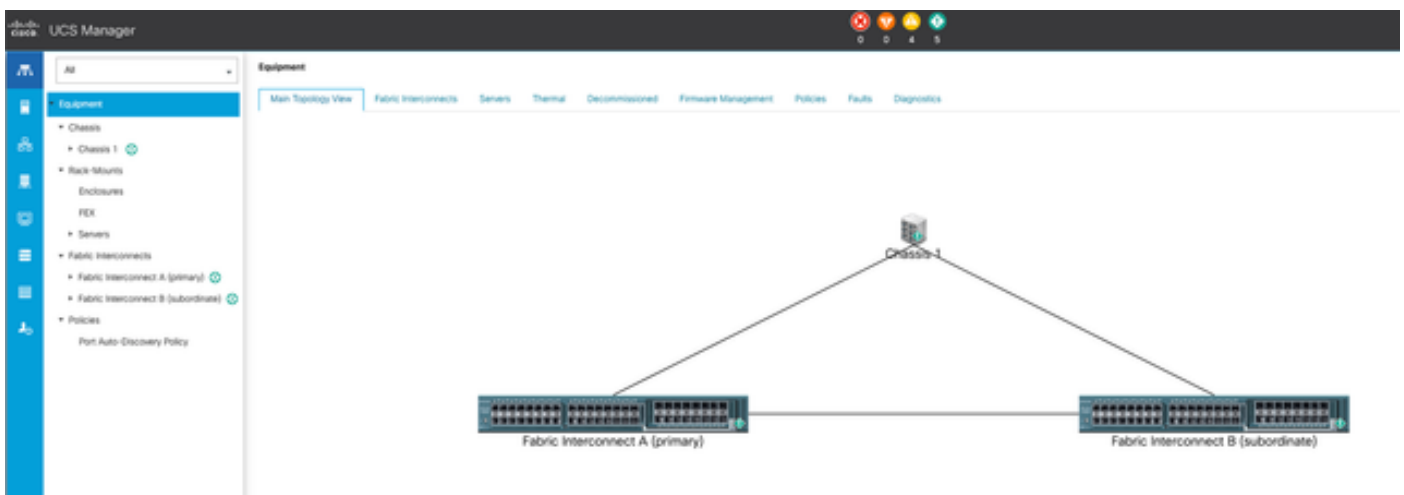
Diag Test is available in the UCS Manager 3.1

It is only available for the servers that are integrated into it (B-Series and C-Series).

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.

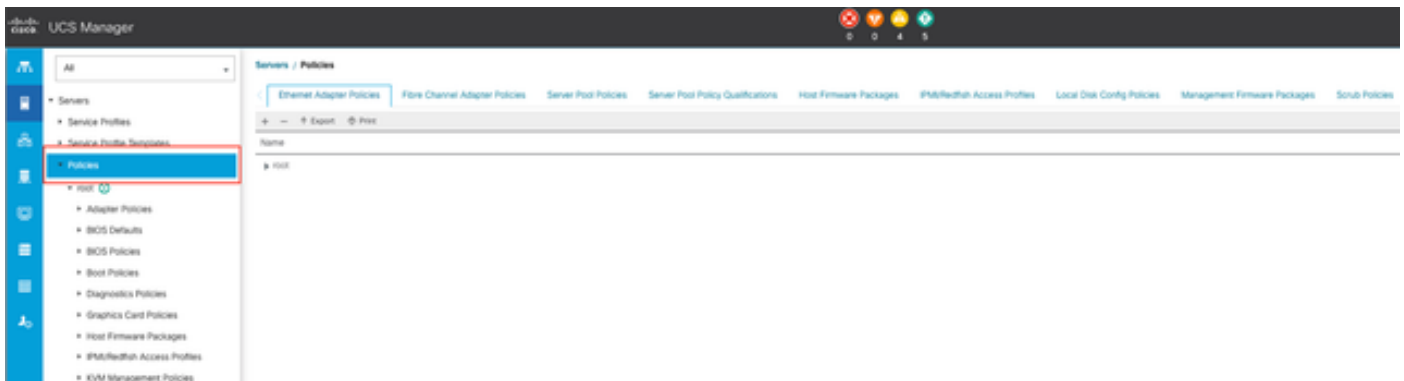
Procedure / Configure

Navigate to the **Servers** section.



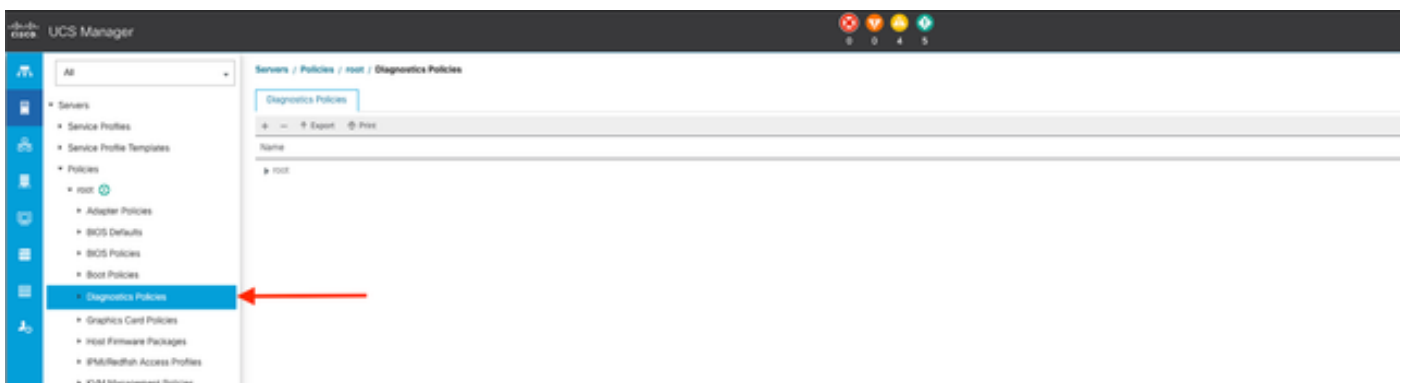
1 Main Topology

Select **Policies**.



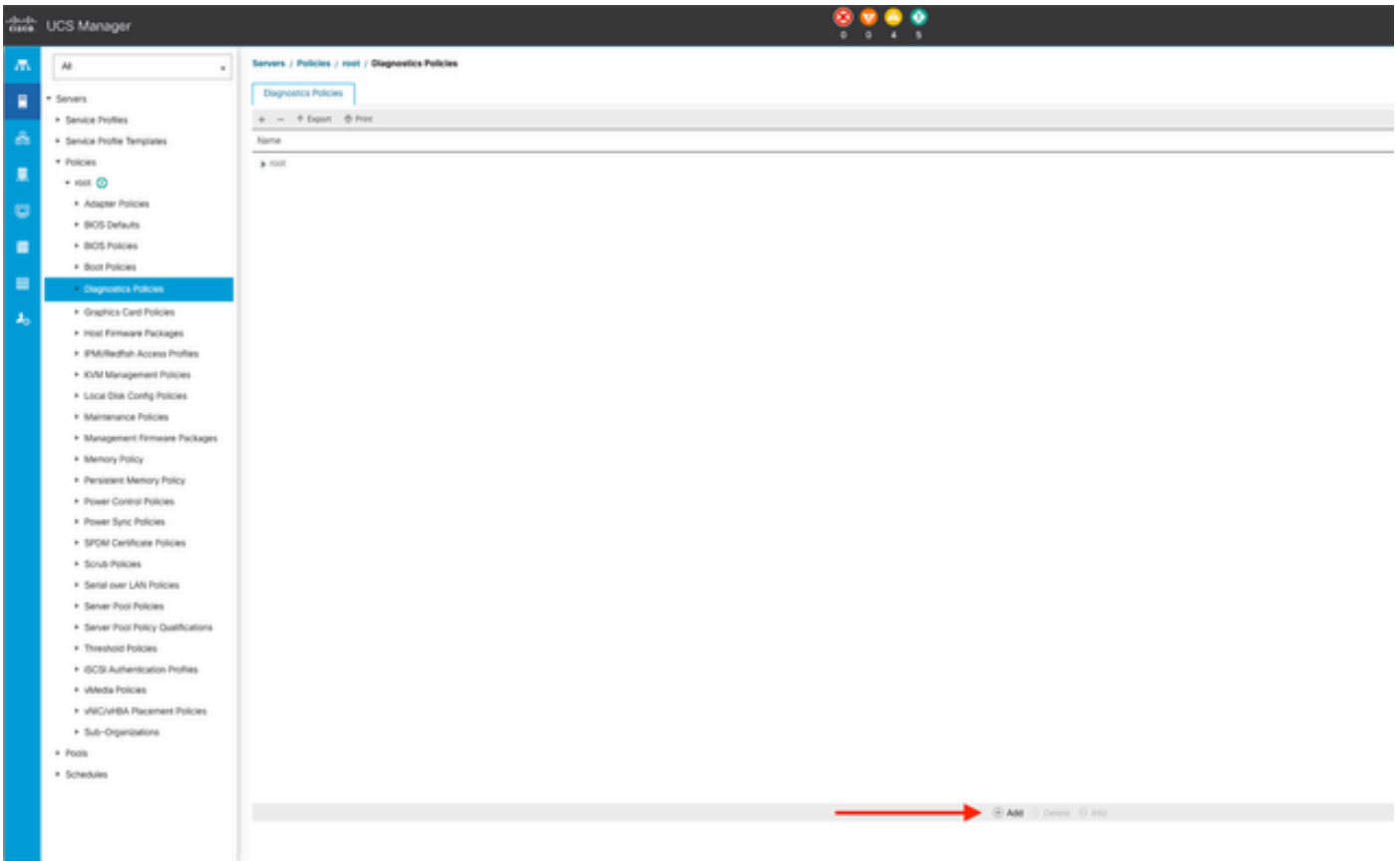
2 Policies

Within **Policies**, select and open **Diagnostics Policies**.



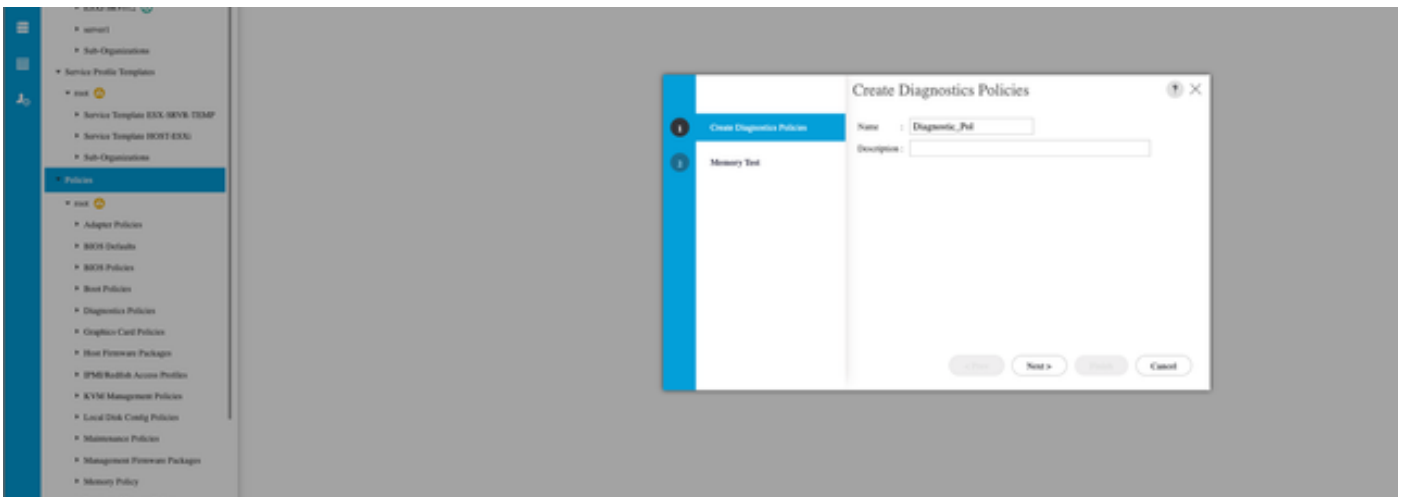
3 Diagnostics Policies

At the bottom, click **Add** to create a new diagnostic policy.



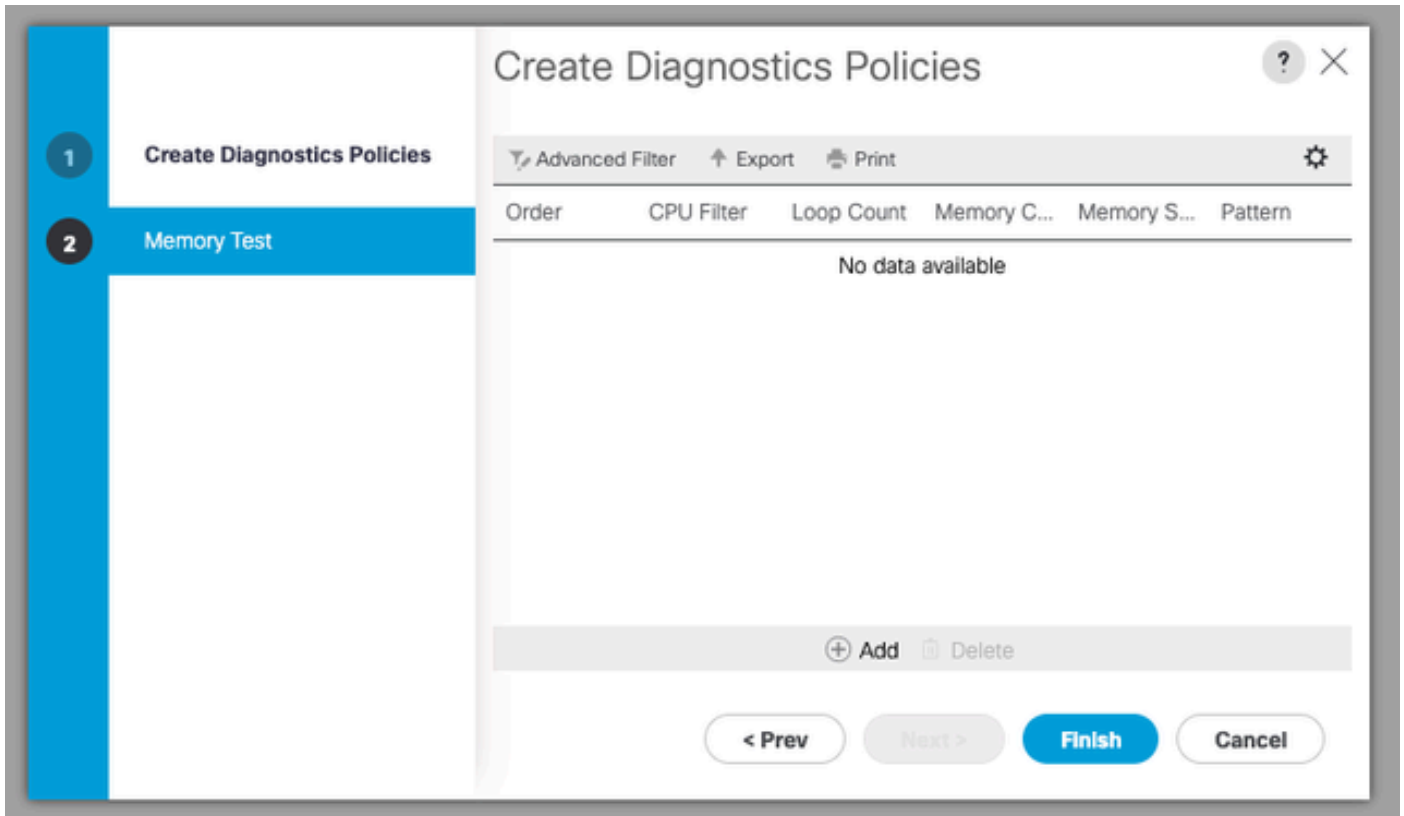
4 Add

In the new window, provide a name for the diagnostic policy. The **Description** field is optional.



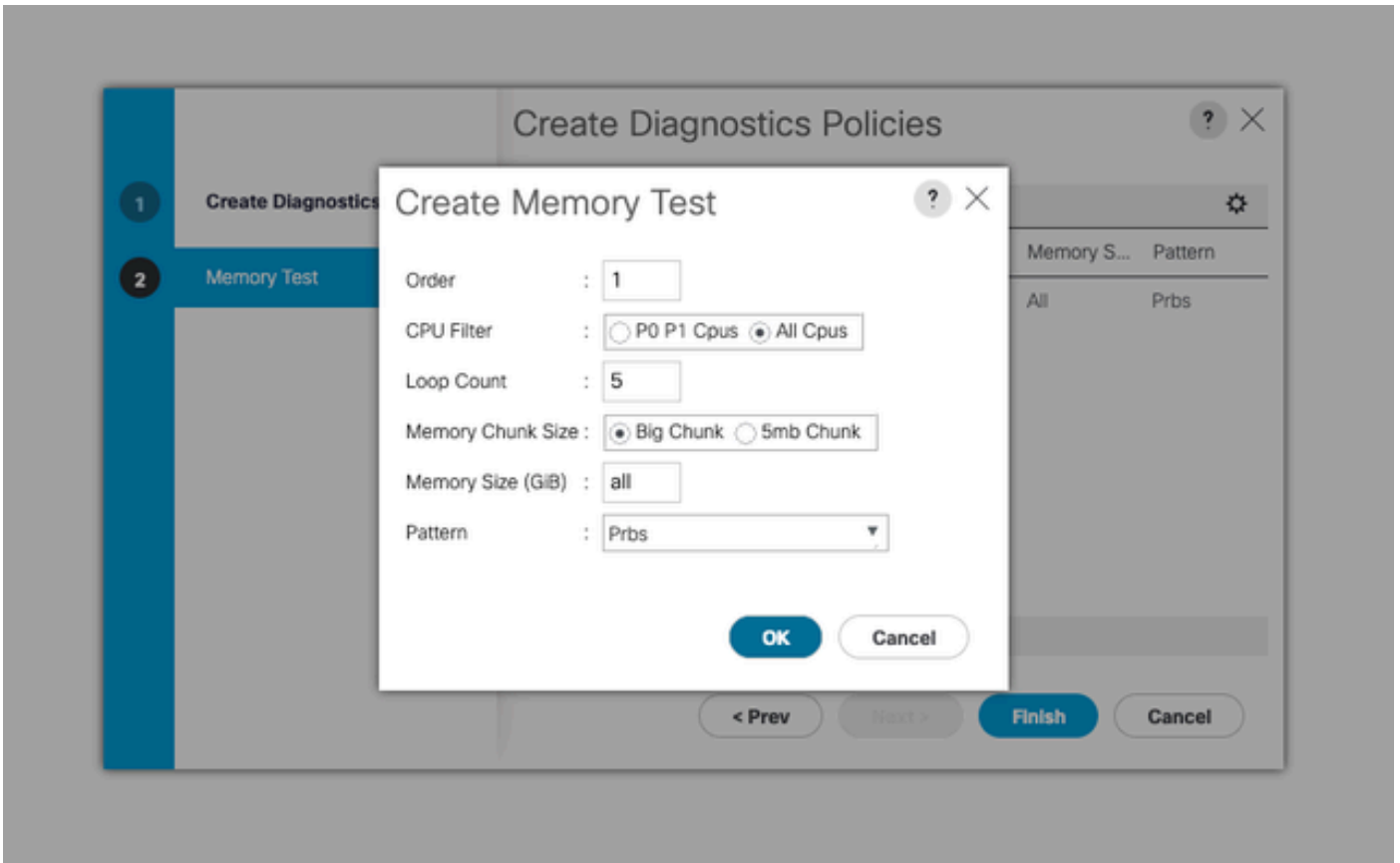
5 Create Diagnostics Policies

Configure the details of the memory test, then click **Add** at the bottom of the window.



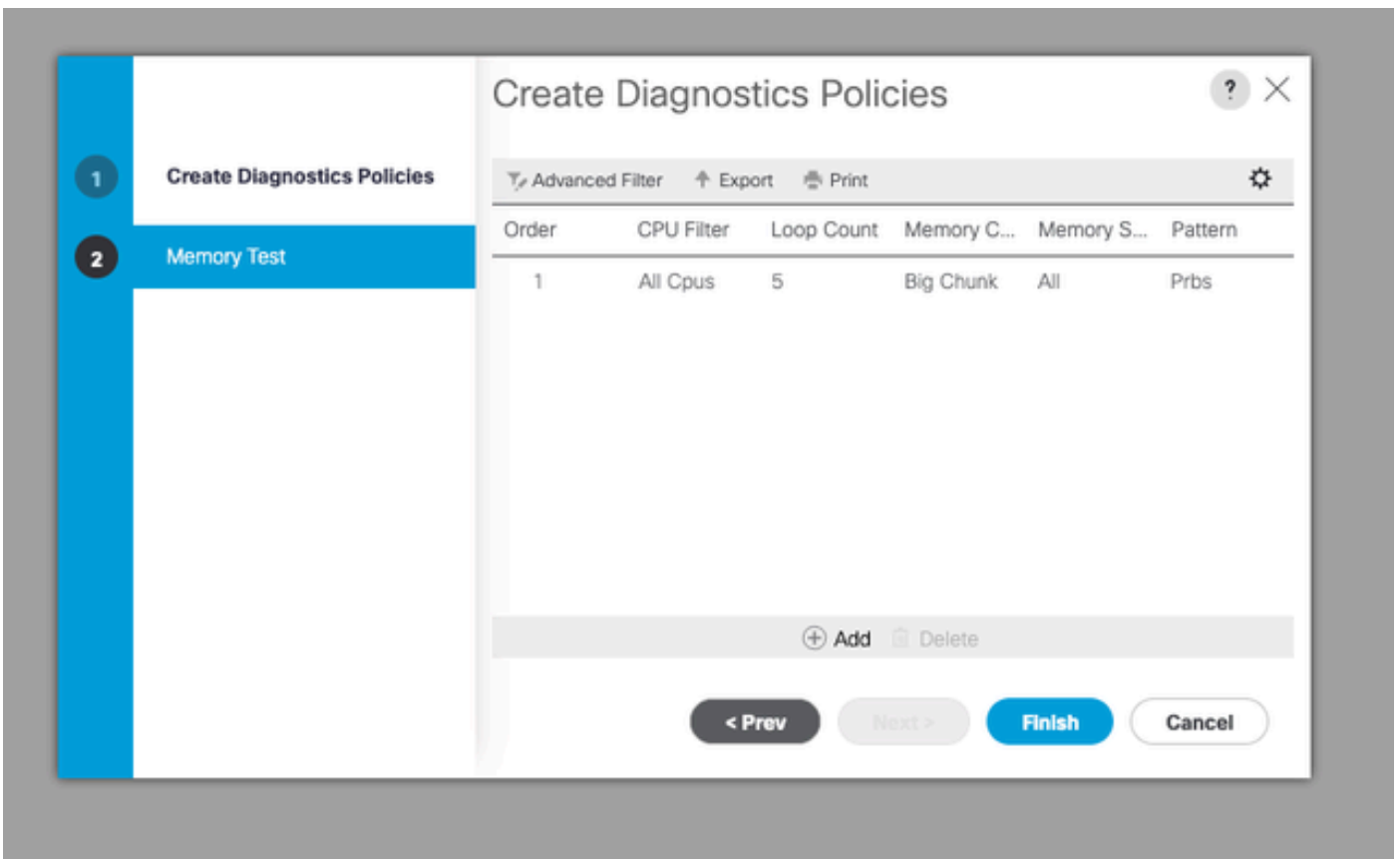
In the pop-up window, populate the fields according to your needs:

- **Order:** Defines the order of test execution.
- **CPU Filter:** Choose to configure for all CPUs or a specific CPU.
- **Loop Count:** Set the number of test iterations (minimum 1, maximum 1000).
- **Memory Chunk Size:** Set the memory chunk to 'big chunk' or '5mb-chunk.'
- **Memory Size:** Specify the tested memory size.
- **Pattern:** Choose from butterfly, killer, PRBS, PRBS-addr, or PRBS-killer tests.



7 Create Memory Test

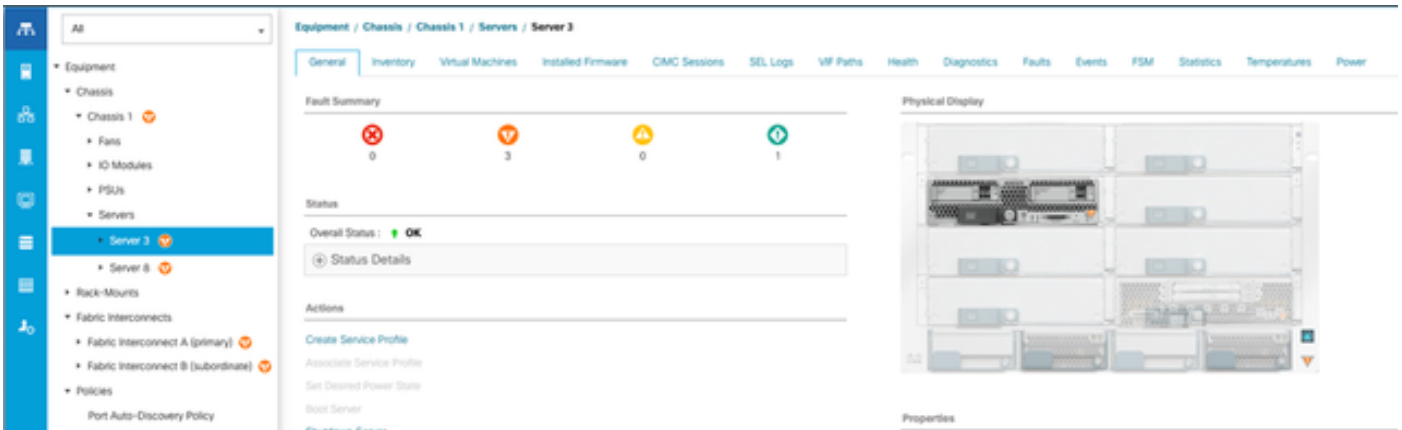
When all fields are entered, click **OK** and then **Finish**.



8 Finish Memory Test

After creating the Diagnostic Policy, assign it to a blade server, an integrated rack server, or all servers.

To assign the policy to a specific server, navigate to the desired server by accessing **Equipment** and then **Chassis**.



9 Status

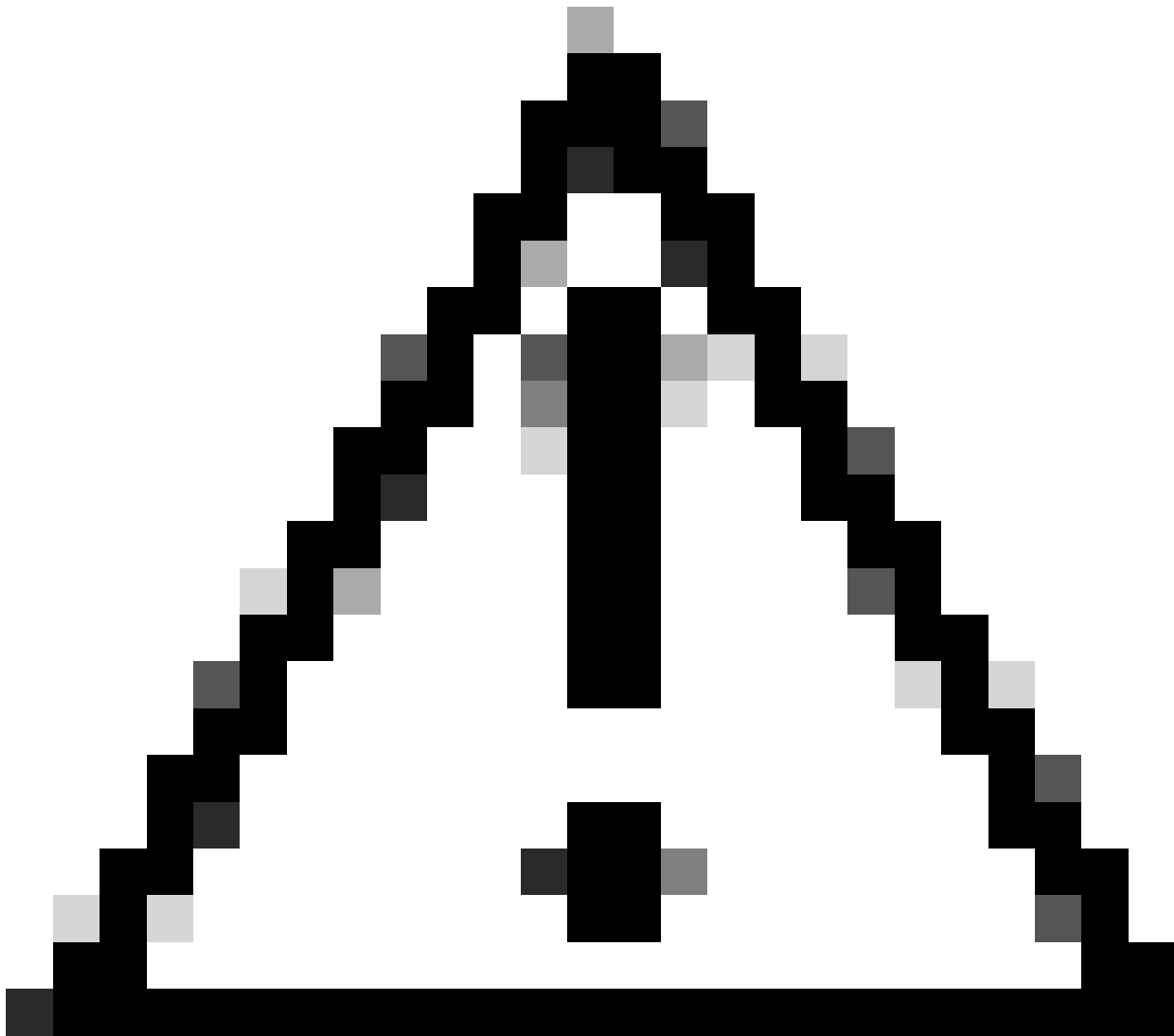
At the top of the screen, open the **Diagnostics** tab.

Go to **Diagnostic Policies**, and select the policy you created from the drop-down menu.



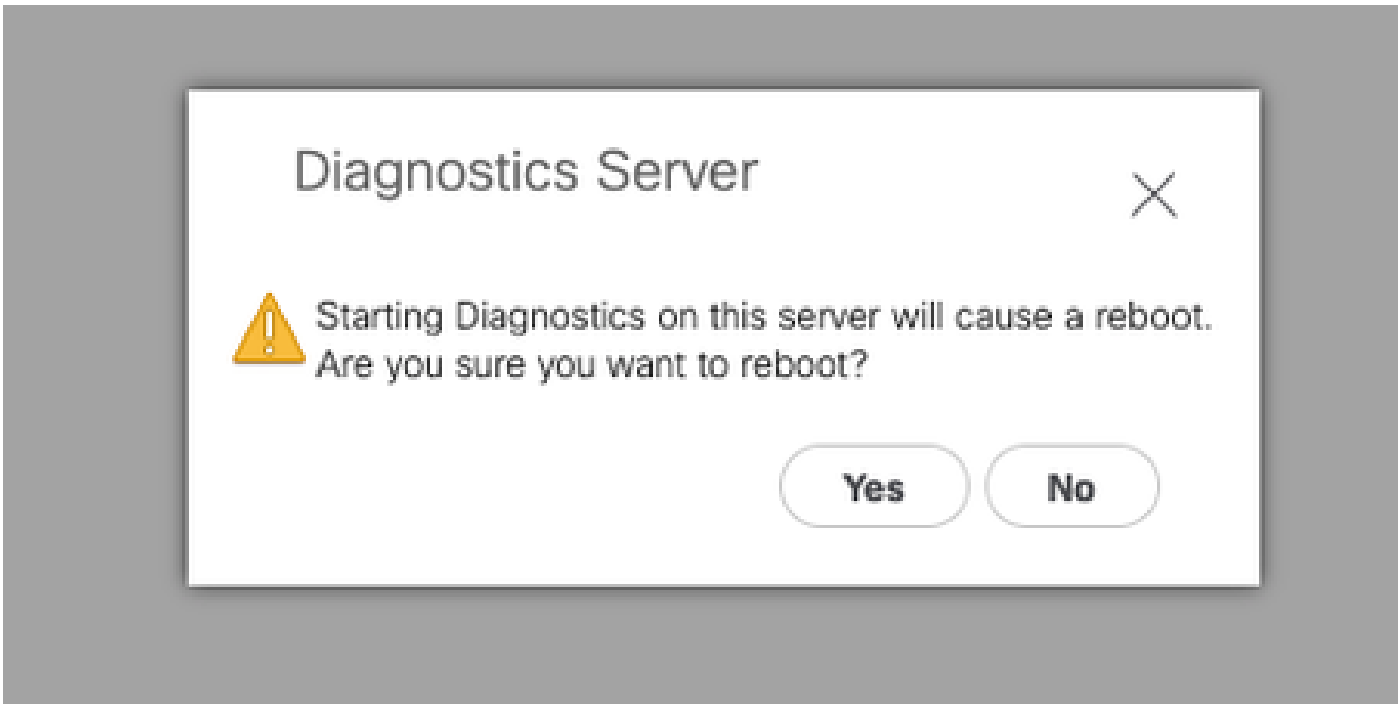
10 Diagnostic

To initiate the Diagnostic Test, click **Start** button. A pop-up alert informs you that this diagnostic causes a server reboot.



Caution: This activity is highly intrusive and must be performed during a maintenance window as it reboots all servers.

If ready, press **Yes** to continue, or **No** to cancel.



11 Reboot Alert

Under the **Start** and **Stop** buttons, a progress bar shows the current task description and overall progress.

To stop the diagnostic at any time, click **Stop**.



12 Progress bar

When the diagnostic is complete, the **Diagnostic Result** is displayed.

In this test, no memory issues were found. If the result returns **Fail**, generate the logs for the server and contact TAC for assistance.

Equipment / Chassis / Chassis 1 / Servers / Server 3

General Inventory Virtual Machines Installed Firmware CIM Sessions SEL Logs VF Paths Health **Diagnostics** Faults Events FSM Statistics Temperatures Power

Diagnostic Status

Diagnostic Policies: Diagnostic_Pol

Start Stop

Operation State: **Completed**

FSM Status Descr: **Not**

FSM Progress: 100%

Test Overall Progress: 100%

Error Description:

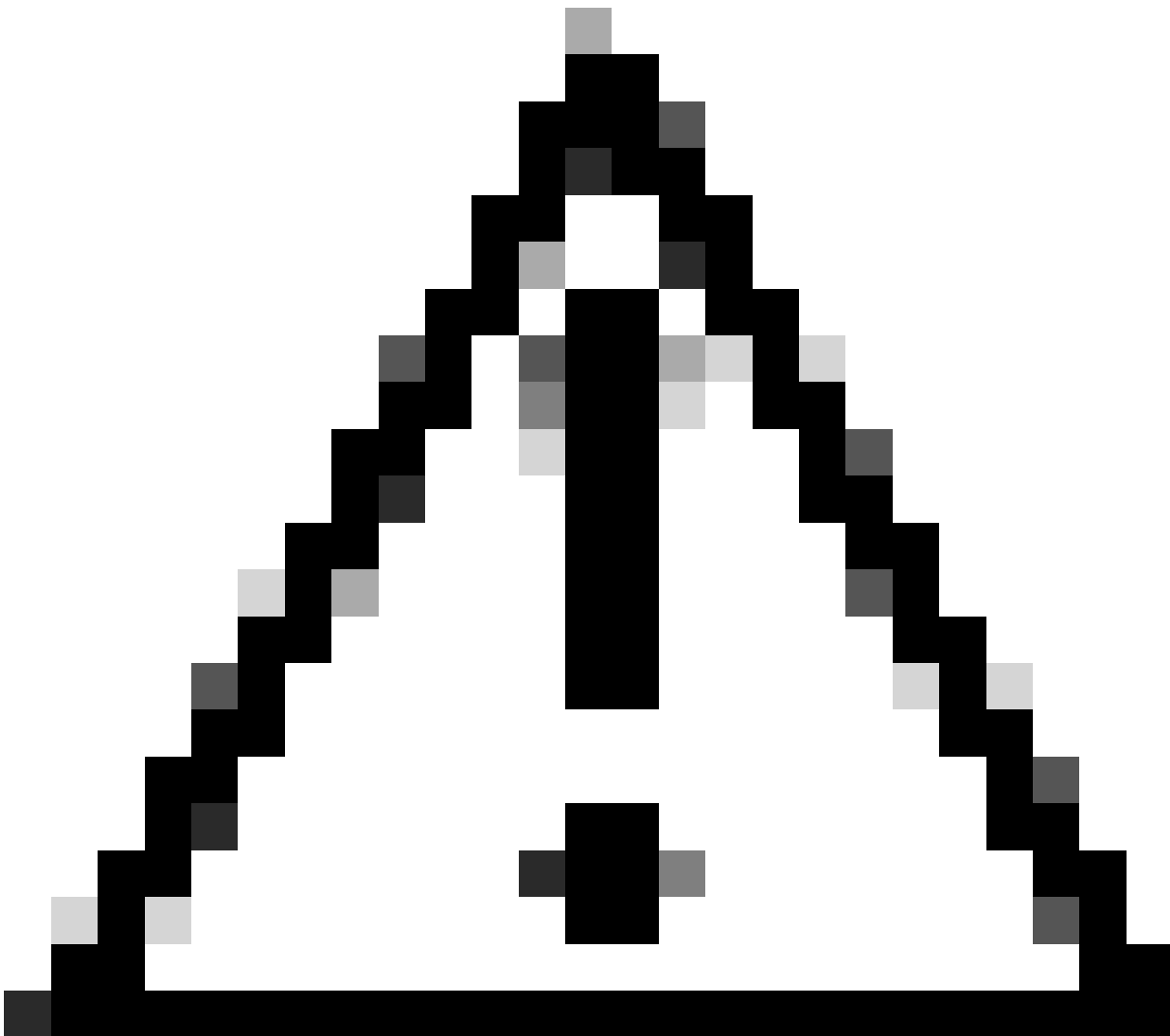
Diagnostic Result

Advanced Filter Export Print

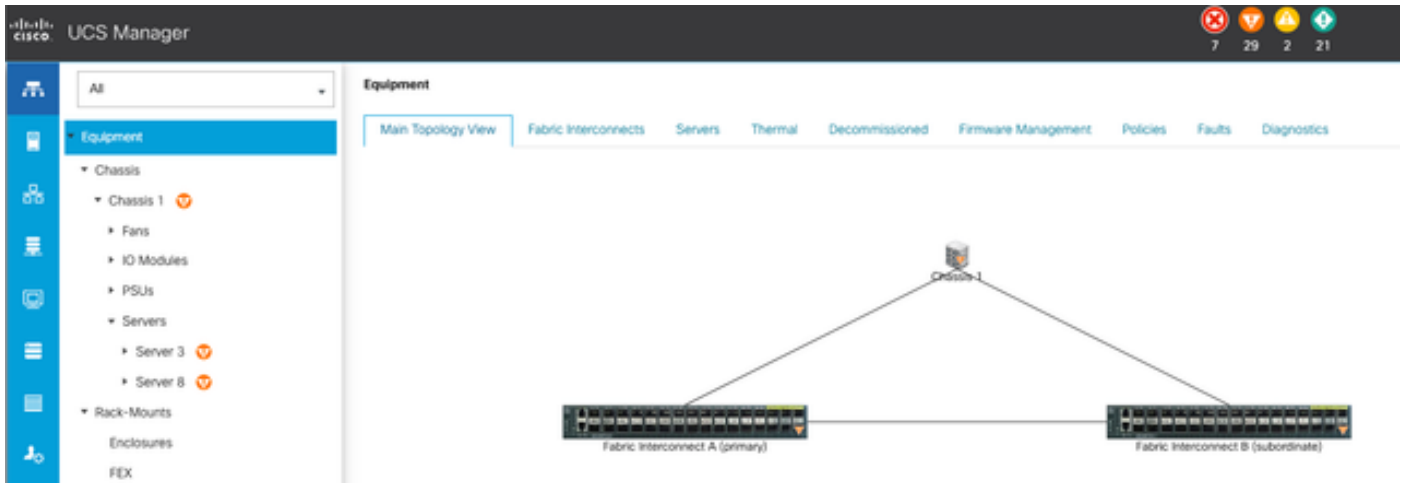
ID	Test Type	Status	Description	Result
1	Memory Test Pmem2	Completed	No memory errors detected	Pass

13 Overall Progress

To run diagnostics on all servers, access **Equipment** and click **Diagnostics** on the far right.



Caution: This activity is highly intrusive and must be performed during a maintenance window as it reboots all servers.



14 Main Topology

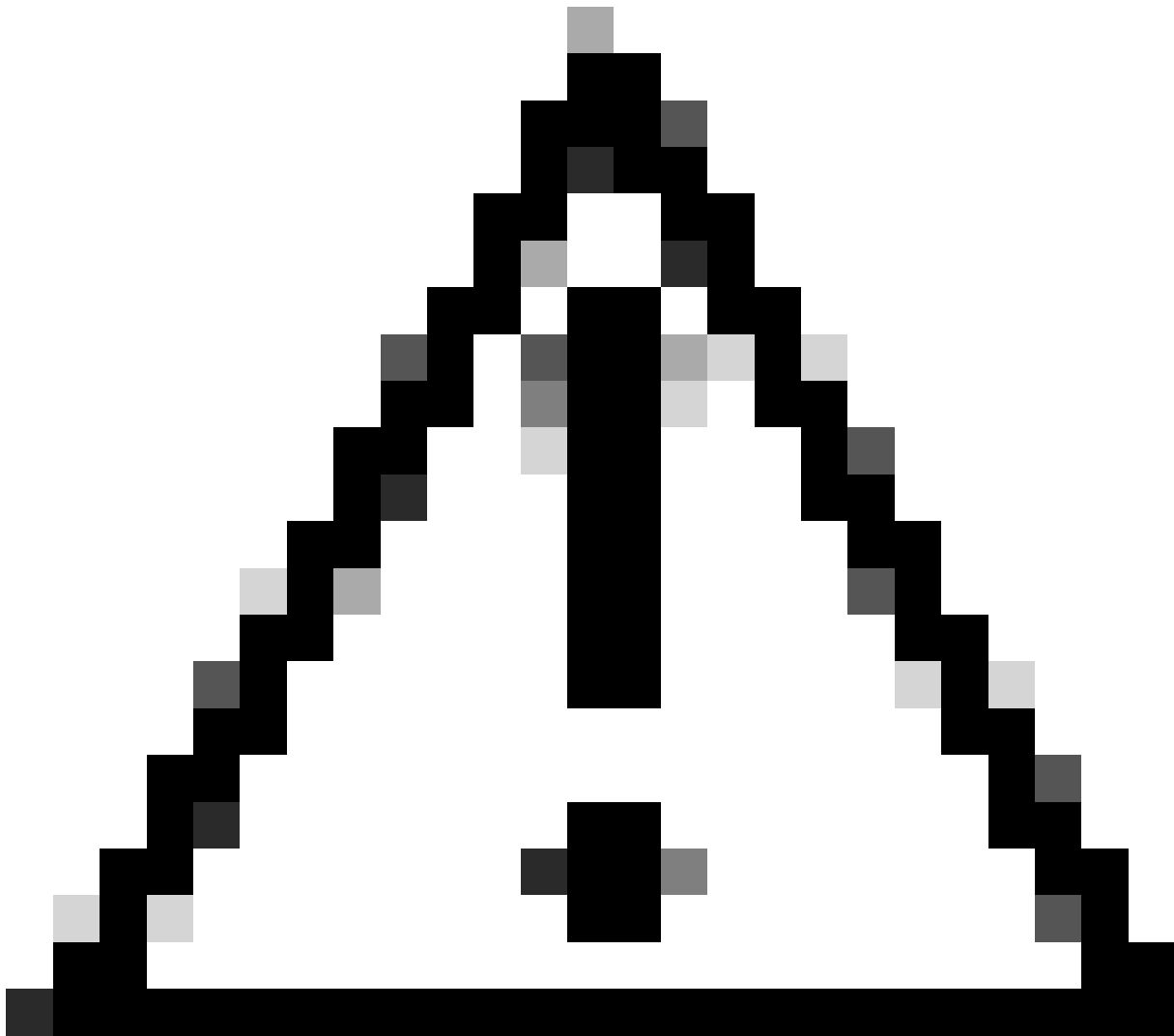
This opens a new screen where you can select to run diagnostics on **Blade Servers** or **Rack Servers**.

This process allows for simultaneous execution of multiple diagnostic tests on servers with different configurations.



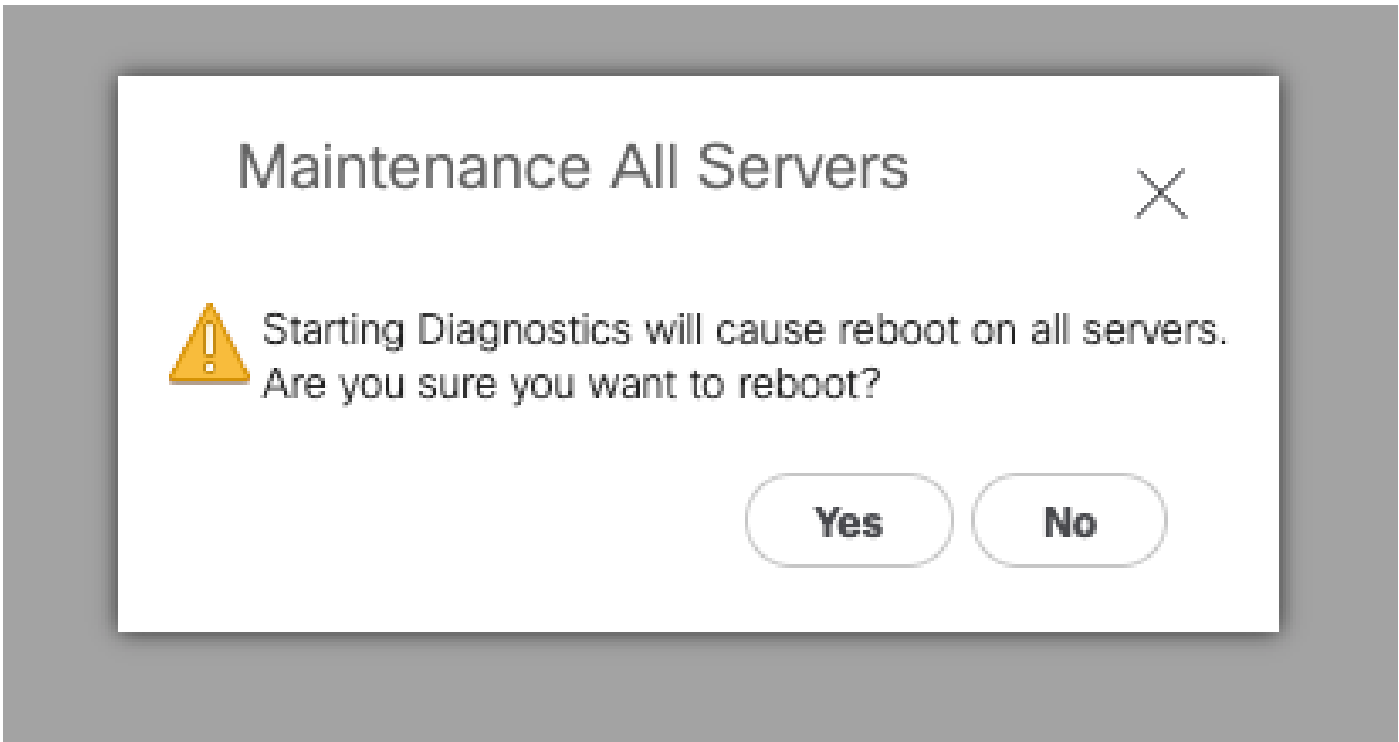
15 Blade Servers

By clicking **Start**, a pop-up alert appears informing you that the servers are going to be rebooted.



Caution: This activity is highly intrusive and must be performed during a maintenance window as it reboots all servers.

Choose **Yes** to proceed with the diagnostic test or **No** to cancel.



16 Maintenance alert

After confirming the diagnostic test, the progress for multiple servers is reflected in the **Operation State** column and the **Overall Progress Percentage** column, indicating the current test percentage.

Equipment

Main Topology View Fabric Interconnects Servers Thermal Decommissioned Firmware Management Policies Faults **Diagnostics**

Back Servers Back Servers

Actions

Start

Stop

Diagnostic Result

Name	Chassis ID	PID	Operation State	Overall Progress Percentage
Server 1	1	UCSB-8200-MS	In Progress	40
Server 2	1	UCSB-8200-MS	In Progress	100

17 Server Progress

Diagnostic Result

Name	Chassis ID	PID	Operation State	Overall Progress Percentage
Server 1	1	UCSB-8200-MS	Completed	100
Server 2	1	UCSB-8200-MS	Completed	100

18 Operation state

Double-click on any server to investigate further. This action opens the diagnostic result for that specific server.

Equipment / Chassis / Chassis 1 / Servers / Server 1

General Inventory Virtual Machines Installed Firmware CIMC Sessions SEL Logs VF Paths Health **Diagnostics** Faults Events FSM Statistics Temperatures Power

Diagnostic Status

Diagnostic Policies: Diagnostic_Pol

Start Stop

Operation State: **Completed**

FSM Status Descr: **None**

FSM Progress: 100%

Test Overall Progress: 100%

Error Description:

Diagnostic Result

ID	Test Type	Status	Description	Result	Progress Percentage
1	Memory Test PrimeM2	Completed	No memory errors detected	Pass	100

19 Completed

If the **Result** column reports **Fail** instead of **Pass** , please open a case with TAC.

Collect the server logs or, if you have Intersight available, collect the serial number of the server.

Include this information in the case to help our engineers start investigating the issue immediately.