

Optimal Unmap Granularity for Vmware / Esx When Hmo 114 Is Enabled

Content

Objective

This article provides details how to identify on ESX / VMware host, if HMO 114 = ON was discovered at host boot.

Environment

- Hitachi Virtual Storage Platform G series
- Hitachi Virtual Storage Platform F series
- Hitachi Virtual Storage Platform E series
- Storage Models supporting HMO 114 (HM800, HM850, HM900, R800, R900)

Procedure

1. Ask customer to collect a vm-support of ESX / VMware host: [Collecting Diagnostic Information for VMware ESXi Server Problems](#)
2. Once vm-support was provided by customer, download it and extract it.
3. Search for "localcli_storage-core-device-vaaI-delete-list.txt" or go to \commands\localcli_storage-core-device-vaaI-delete-list.txt and open the txt-file.

Device	Max LBA Count (in blocks)	Max Block Desc Count (in blocks)	UGA Valid	Granularity Alignment (in blocks)
naa.6005076802810244300000000000000038	N/A	N/A	N/A	N/A
naa.60060e8022ffff005041ffff00000000	4294967295			
1	512		False	N/A
naa.60060e8013eeee005020eeee00000300	4294967295			
1	86016		False	N/A
naa.514f0c5902200001	8192			
16	16		True	0
naa.514f0c50da000011	8192			
16	32		True	0
mpx.vmhba32:C0:T0:L0	N/A			
N/A	N/A		N/A	N/A
naa.60060e8022dddd005041dddd000000ff	4294967295			
1	512		False	N/A

naa.60060e8013cccc005020cccc00000310	4294967295		
1	86016	False	N/A

4. Verify "Optimal Granularity (in blocks)" parameter:
 - 512 blocks refers to 256KB => HMO 114 = ON at ESX host boot.
 - 86016 blocks refers to 42MB => HMO 114 = OFF at ESX host boot.

Additional Notes

The Automatic UNMAP function is enabled by default for VMFS-6 datastores.

Therefore you must ensure that HMO 114 is enabled before attaching LDEVs to ESX host or reboot all ESX hosts when HMO 114 was changed.

More details can be found in [Optimize Hitachi Storage and Compute Platforms in VMware vSphere Environments](#).

Employee Notes

"This option is used to change the value of OPTIMAL UNMAP GRANULARITY in Inquiry Page B0h Byte[28-31] as follows.

HMO114 = ON: Response of the field is 256 KB.

HMO 114 = OFF (default): Response of the field is 42 MB.

Note:

- (1) The option is applied to use Auto UNMAP with ESXi6.5 or later.
- (2) To enable the function, host mode option 63 must be set to ON.
- (3) After setting HMO114 to ON, make sure to perform an operation (such as a server reboot) leading to reissuing an Inquiry command from the host."

CXone Metadata

CXOne PageID: 101481

Tags: article:howto,pagetyp:knowledgearticle

Keywords

https://knowledge.hitachivantara.com/Knowledge/Storage/Optimal_Unmap_Granularity_for_Vmware_2F2F_Esx_When_Hmo_114_Is_Enabled

Solution ID

240403060101481

Last Modified Date

09/11/2024 10:44:08 AM

Attributes

Page Privacy and Permission Assignment

- Page Level Permissions: GSC; Service Partner; Customer; Employee; Knowledge Author; Knowledge Editor; Knowledge Draft; IT; eServices
- Page Privacy: Private
- Article: howto
- Pagetype: knowledgearticle

Taxonomy

- Storage > General
- Storage > VSP G130 G/F350 G/F370 G/F700 G/F900
- Storage > VSP E Series
- Storage > VSP Gx00/Fx00/N Series

Collections

- Customer
- Employee
- Support Center
- Service Partner

[Go to Original Solution](#)