



Configure ESXi settings

ONTAP tools for VMware vSphere 9.8

NetApp
June 20, 2025

This PDF was generated from https://docs.netapp.com/us-en/ontap-tools-vmware-vsphere-98/configure/task_configure_esx_server_multipathing_and_timeout_settings.html on June 20, 2025. Always check docs.netapp.com for the latest.

Table of Contents

- Configure ESXi settings 1
 - Configure ESXi server multipathing and timeout settings 1
 - ESXi host values set using ONTAP tools 1
 - ESXi advanced configuration 2
 - NFS settings 2
 - FC/FCoE settings 2
 - iSCSI settings 3

Configure ESXi settings

Configure ESXi server multipathing and timeout settings

ONTAP tools for VMware vSphere checks and sets the ESXi host multipath settings and HBA timeout settings that work best with NetApp storage systems.

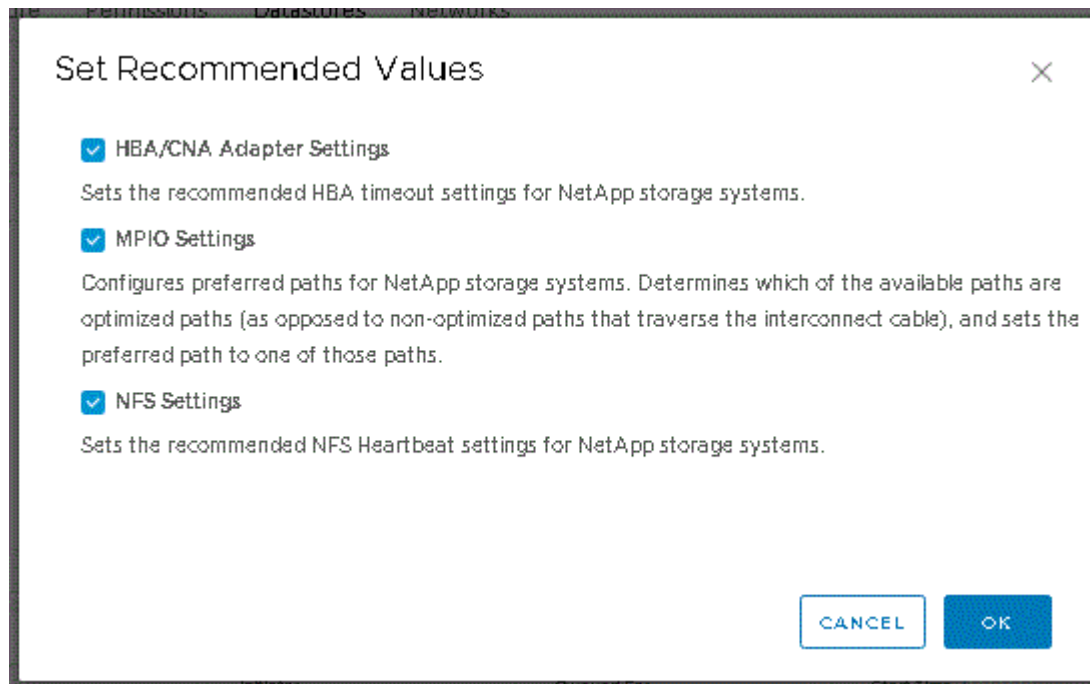
About this task

This process might take a long time, depending on your configuration and system load. The task progress is displayed in the Recent Tasks panel. As the tasks are completed, the host status Alert icon is replaced by the Normal icon or the Pending Reboot icon.

Steps

1. From the VMware vSphere Web Client Home page, click **vCenter > Hosts**.
2. Right-click a host, and then select **Actions > NetApp VSC > Set Recommended Values**.
3. In the NetApp Recommended Settings dialog box, select the values that work best with your system.

The standard, recommended values are set by default.



4. Click **OK**.

ESXi host values set using ONTAP tools

You can set timeouts and other values on the ESXi hosts using ONTAP® tools for VMware vSphere to ensure best performance and successful failover. The values that Virtual Storage Console (VSC) sets are based on internal NetApp testing.

You can set the following values on an ESXi host:

ESXi advanced configuration

- **VMFS3.HardwareAcceleratedLocking**

You should set this value to 1.

- **VMFS3.EnableBlockDelete**

You should set this value to 0.

NFS settings

- **Net.TcpipHeapSize**

If you are using vSphere 6.0 or later, you should set this value to 32.

- **Net.TcpipHeapMax**

If you are using vSphere 6.0 or later, you should set this value to 1536.

- **NFS.MaxVolumes**

If you are using vSphere 6.0 or later, you should set this value to 256.

- **NFS41.MaxVolumes**

If you are using vSphere 6.0 or later, you should set this value to 256.

- **NFS.MaxQueueDepth**

If you are using the vSphere 6.0 or later version of ESXi host, then you should set this value to 128 or higher to avoid queuing bottlenecks.

For vSphere versions prior to 6.0, you should set this value to 64.

- **NFS.HeartbeatMaxFailures**

You should set this value to 10 for all NFS configurations.

- **NFS.HeartbeatFrequency**

You should set this value to 12 for all NFS configurations.

- **NFS.HeartbeatTimeout**

You should set this value to 5 for all NFS configurations.

FC/FCoE settings

- **Path selection policy**

You should set this value to “RR” (round robin) when FC paths with ALUA are used.

You should set this value to “FIXED” for all other configurations.

Setting this value to “RR” helps to provide load balancing across all of the active/optimized paths. The value “FIXED” is used for older, non-ALUA configurations and helps to prevent proxy I/O.

- **Disk.QFullSampleSize**

You should set this value to 32 for all configurations. Setting this value helps to prevent I/O errors.

- **Disk.QFullThreshold**

You should set this value to 8 for all configurations. Setting this value helps prevent I/O errors.

- **Emulex FC HBA timeouts**

Use the default value.

- **QLogic FC HBA timeouts**

Use the default value.

iSCSI settings

- **Path selection policy**

You should set this value to “RR” for all iSCSI paths.

Setting this value to “RR” helps to provide load balancing across all of the active/optimized paths.

- **Disk.QFullSampleSize**

You should set this value to 32 for all configurations. Setting this value helps to prevent I/O errors.

- **Disk.QFullThreshold**

You should set this value to 8 for all configurations. Setting this value helps prevent I/O errors.

Copyright information

Copyright © 2025 NetApp, Inc. All Rights Reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system—without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP “AS IS” AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

LIMITED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (b)(3) of the Rights in Technical Data -Noncommercial Items at DFARS 252.227-7013 (FEB 2014) and FAR 52.227-19 (DEC 2007).

Data contained herein pertains to a commercial product and/or commercial service (as defined in FAR 2.101) and is proprietary to NetApp, Inc. All NetApp technical data and computer software provided under this Agreement is commercial in nature and developed solely at private expense. The U.S. Government has a non-exclusive, non-transferrable, nonsublicensable, worldwide, limited irrevocable license to use the Data only in connection with and in support of the U.S. Government contract under which the Data was delivered. Except as provided herein, the Data may not be used, disclosed, reproduced, modified, performed, or displayed without the prior written approval of NetApp, Inc. United States Government license rights for the Department of Defense are limited to those rights identified in DFARS clause 252.227-7015(b) (FEB 2014).

Trademark information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.