



Configure storage system for disaster recovery

ONTAP tools for VMware vSphere 9.12

NetApp
June 11, 2024

Table of Contents

- Configure storage system for disaster recovery 1
- Configure Storage Replication Adapter for SAN environment 1
- Configure Storage Replication Adapter for highly scaled environment 2

Configure storage system for disaster recovery

Configure Storage Replication Adapter for SAN environment

You must set up the storage systems before running Storage Replication Adapter (SRA) for Site Recovery Manager (SRM).

ONTAP tools for VMware vSphere supports VMware's SRM Shared Recovery Site Configuration. For more information, see: [Site Recovery Manager in a Shared Recovery Site Configuration](#).

The [How to configure SRA in a SRM Shared Recovery Site](#) KB article details the procedure for setting up SRA to support SRM Shared Recovery Site Configuration.

What you will need

You must have installed the following programs on the protected site and the recovery site:

- SRM

Documentation about installing SRM is on the VMware site.

[VMware Site Recovery Manager Documentation](#)

- SRA

The adapter is installed either on SRM.

Steps

1. Verify that the primary ESXi hosts are connected to the LUNs in the primary storage system on the protected site.
2. Verify that the LUNS are in igroups that have the `ostype` option set to *VMware* on the primary storage system.
3. Verify that the ESXi hosts at the recovery site have appropriate FC or iSCSI connectivity to the storage virtual machine (SVM). The secondary site ESXi hosts should have access to the secondary site storage, similarly the primary site ESXi hosts should have access to the primary site storage.

You can do this either by verifying that the ESXi hosts have local LUNs connected on the SVM or by using the `fcv show initiators` command or the `iscsi show initiators` command on the SVMs. Check the LUN access for the mapped LUNs in the ESXi to verify FC and iSCSI connectivity.

Configure Storage Replication Adapter for NAS environment

What you will need

You must have installed the following programs on the protected site and the recovery site:

- SRM

Documentation about installing SRM can be found on the VMware site.

- SRA

The adapter is installed on SRM and the SRA server.

Steps

1. Verify that the datastores at the protected site contain virtual machines that are registered with vCenter Server.
2. Verify that the ESXi hosts at the protected site have mounted the NFS exports volumes from the storage virtual machine (SVM).
3. Verify that valid addresses such as the IP address, host name, or FQDN on which the NFS exports are present are specified in the **NFS Addresses** field when using the Array Manager wizard to add arrays to SRM.
4. Use the `ping` command on each ESXi host at the recovery site to verify that the host has a VMkernel port that can access the IP addresses that are used to serve NFS exports from the SVM.

NetApp Support

Configure Storage Replication Adapter for highly scaled environment

You must configure the storage timeout intervals per the recommended settings for Storage Replication Adapter (SRA) to perform optimally in highly scaled environments.

Storage Provider settings

You should set the following timeout values on SRM for scaled environment:

Advanced settings	Timeout values
<code>StorageProvider.resignatureTimeout</code>	Increase the value of the setting from 900 seconds to 12000 seconds.
<code>storageProvider.hostRescanDelaySec</code>	60
<code>storageProvider.hostRescanRepeatCnt</code>	20
<code>storageProvider.hostRescanTimeoutSec</code>	Set a high value(For example: 99999)

You should also enable the `StorageProvider.autoResignatureMode` option.

See VMware documentation for more information on modifying Storage Provider settings.

[VMware vSphere Documentation: Change Storage Provider Settings](#)

Storage settings

You must set the value of the `storage.commandTimeout` and `storage.maxConcurrentCommandCnt` timeout interval for highly scaled environments to 99,999 seconds.



The timeout interval specified is the maximum value. You do not need to wait for the maximum timeout to be reached. Most commands finish within the set maximum timeout interval.

You should also set the maximum time for SRA to perform a single operation in the `vvol.properties` file:
`offtap.operation.timeout.period.seconds=86400`.

[NetApp Knowledgebase Answer 1001111: NetApp Storage Replication Adapter 4.0/7.X for ONTAP Sizing Guide](#)

VMware documentation on modifying SAN Provider settings has more information.

[VMware Site Recovery Manager Documentation: Change Storage Settings](#)

Copyright information

Copyright © 2024 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.