



# Recovering the Deploy utility for a two-node cluster

## ONTAP Select

David Peterson  
November 24, 2019

This PDF was generated from [https://docs.netapp.com/us-en/ontap-select/task\\_cli\\_deploy\\_recover\\_two\\_node.html](https://docs.netapp.com/us-en/ontap-select/task_cli_deploy_recover_two_node.html) on November 11, 2020. Always check docs.netapp.com for the latest.

# Table of Contents

- Recovering the Deploy utility for a two-node cluster..... 1
  - Before you begin..... 1
  - Restoring a Deploy utility instance using a configuration backup..... 2
  - Reconfiguring and recovering a Deploy utility instance ..... 3

# Recovering the Deploy utility for a two-node cluster

If the ONTAP Select Deploy utility fails or becomes unavailable for some reason, you lose the ability to administer ONTAP Select nodes and clusters. In addition, all two-node clusters lose HA capability because the mediator service included with Deploy is unavailable. If an unrecoverable failure occurs, you must recover the Deploy utility instance to restore administrative and HA functionality.

## Before you begin

You should prepare before attempting to recover an instance of the Deploy utility to assure success.

### Required skills and information

You should be familiar with several administrative procedures and have the required information.

### Installing the Deploy virtual machine

You must be able to install a new instance of the ONTAP Select Deploy utility in your hypervisor environment.

### ONTAP command line interface

You must be able to sign in to the ONTAP CLI of the ONTAP Select cluster and use the shell interface.

### Availability of Deploy utility configuration backup

You must determine if you have a backup of the configuration data from the failed Deploy utility instance that contains the ONTAP Select two-node cluster. You might have a backup that does not contain the cluster.

### Restoring a backup of the Deploy configuration

You should be able to restore a backup of the Deploy configuration data, depending on the recovery procedure used.

### IP address of the original Deploy virtual machine

You must know the IP address of the original Deploy utility virtual machine that failed.

### Storage capacity licensing

You must determine whether capacity pools or capacity tiers licensing is used. If you use capacity pools licensing, you must reinstall each capacity pool license after recovering or restoring the Deploy

instance.

**Deciding which recovery procedure to use**

You must decided which procedure to use when recovering an instance of the ONTAP Select Deploy utility. Your decision is based on whether or not you have a backup of the configuration data from the original failed Deploy utility that contains the ONTAP Select two-node cluster.

Do you have a Deploy backup containing the two-node cluster?	Recovery procedure to use
Yes	Restoring a Deploy utility instance using a configuration backup
No	Reconfiguring and recovering a Deploy utility instance

# Restoring a Deploy utility instance using a configuration backup

If you have a backup of the failed Deploy utility instance containing the two-node cluster, you can restore the configuration data to the new Deploy virtual machine instance. You must then complete the recovery by performing additional configuration of the two nodes in the ONTAP Select cluster.

*Before you begin*

You must have a backup of the configuration data from the original failed Deploy virtual machine that contains the two-node cluster. You must be able to sign in to the ONTAP CLI of the two-node cluster and know the ONTAP names of the two nodes.

*About this task*

Because the configuration backup you restore contains the two-node cluster, the mediator iSCSI targets and mailboxes are recreated in the new Deploy utility virtual machine.

*Steps*

1. Prepare a new instance of the ONTAP Select Deploy utility:
  - a. Install a new Deploy utility virtual machine.
  - b. Restore the Deploy configuration from a previous backup to the new virtual machine.

Refer to the related tasks for more detailed information about the install and restore procedures.

2. Sign in to the ONTAP command line interface of the ONTAP Select two-node cluster.
3. Enter advanced privilege mode:

```
set adv
```

4. If the IP address of the new Deploy virtual machine is different than the original Deploy virtual

machine, you must remove the old mediator iSCSI targets and add new targets:

```
storage iscsi-initiator remove-target -node * -target-type mailbox

storage iscsi-initiator add-target -node <node1_name> -label mediator -target-type mailbox -target-portal <ip_address> -target-name <target>

storage iscsi-initiator add-target -node <node2_name> -label mediator -target-type mailbox -target-portal <ip_address> -target-name <target>
```

The `<ip_address>` parameter is the IP address of the new Deploy virtual machine.

These commands allow the ONTAP Select nodes to discover the mailbox disks on the new Deploy utility virtual machine.

5. Determine the names of the mediator disks:

```
disk show --container-type mediator
```

6. Assign the mailbox disks to the two nodes:

```
disk assign -disk <mediator-disk1-name> -owner <node1-name>
disk assign -disk <mediator-disk2-name> -owner <node2-name>
```

7. Verify that storage failover is enabled:

```
storage failover show
```

*After you finish*

If you use capacity pools licensing, you must reinstall each capacity pool license. See *Reinstalling a capacity pool license* for additional details.

## Reconfiguring and recovering a Deploy utility instance

If you do not have a backup of the failed Deploy utility instance containing the two-node cluster, you must configure the mediator iSCSI target and mailbox in the new Deploy virtual machine. You must then complete the recovery by performing additional configuration of the two nodes in the ONTAP Select cluster.

*Before you begin*

You must have the name of the mediator target for the new Deploy utility instance. You must be able to sign in to the ONTAP CLI of the two-node cluster and know the ONTAP names of the two nodes.

*About this task*

You can optionally restore a configuration backup to the new Deploy virtual machine even though it does not contain the two-node cluster. Because the two-node cluster is not recreated with the restore, you must manually add the mediator iSCSI target and mailbox to the new Deploy utility instance through the ONTAP Select online documentation web page at the Deploy. You must be able to sign in to the two-node cluster and know the ONTAP names of the two nodes.



The goal of the recovery procedure is to restore the two-node cluster to a healthy state, where normal HA takeover and giveback operations can be performed.

### Steps

1. Prepare a new instance of the ONTAP Select Deploy utility:
  - a. Install a new Deploy utility virtual machine.
  - b. Optionally restore the Deploy configuration from a previous backup to the new virtual machine.

If you restore a previous backup, the new Deploy instance will not contain the two-node cluster. Refer to the related information section for more detailed information about the install and restore procedures.

2. Sign in to the ONTAP command line interface of the ONTAP Select two-node cluster.
3. Enter advanced privileged mode:

```
set adv
```

4. Get the mediator iSCSI target name:

```
storage iscsi-initiator show -target-type mailbox
```

5. Access the online documentation web page at the new Deploy utility virtual machine and sign in using the admin account:

```
http://<ip_address>/api/ui
```

You must use the IP address of your Deploy virtual machine.

6. Click **Mediator** and then **GET /mediators**.
7. Click **Try it out!** to display a list of mediators maintained by Deploy.

Note the ID of the desired mediator instance.

8. Click **Mediator** and then **POST**.

9. Provide the value for mediator\_id.

10. Click the **Model** next to `iscsi_target` and complete the name value.

Use the target name for the `iqn_name` parameter.

11. Click **Try it out!** to create the mediator iSCSI target.

If the request is successful, you will receive HTTP status code 200.

12. If the IP address of the new Deploy virtual machine is different than the original Deploy virtual machine, you must use the ONTAP CLI to remove the old mediator iSCSI targets and add new targets:

```
storage iscsi-initiator remove-target -node * -target-type mailbox

storage iscsi-initiator add-target -node <node1_name> -label mediator -target-type mailbox -target-portal <ip_address> -target-name <target>

storage iscsi-initiator add-target -node <node2_name> -label mediator -target-type mailbox -target-portal <ip_address> -target-name <target>
```

The **<ip\_address>** parameter is the IP address of the new Deploy virtual machine.

These commands allow the ONTAP Select nodes to discover the mailbox disks on the new Deploy utility virtual machine.

1. Determine the names of the mediator disks:

```
disk show --container-type mediator
```

2. Assign the mailbox disks to the two nodes:

```
disk assign -disk <mediator-disk1-name> -owner <node1-name>

disk assign -disk <mediator-disk2-name> -owner <node2-name>
```

3. Verify that storage failover is enabled:

```
storage failover show
```

*After you finish*

If you use capacity pools licensing, you must reinstall each capacity pool license. See [Reinstalling a capacity pool license](#) for additional details.

*Related information*

[Installing ONTAP Select Deploy](#)

[Restoring the Deploy configuration data to the new virtual machine](#)

[Reinstalling a capacity pool license](#)

## Copyright Information

Copyright © 2020 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.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## 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.