

**cDOT 9.1Px Upgrade from 8.2.3P7**

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**Document Version:** V0.3

**Date:** June 2017

Status: Draft

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# Introduction

## Management Summary

This document details the process used to upgrade cDOT from 8.3.2P7 to 9.1Px.

## Change History

|  |  |  |  |
| --- | --- | --- | --- |
| **Ver** | **Date** | **Author** | **Key Changes** |
| 0.1 | June 2017 | Ian Daniel | Initial Version |
| 0.2 | June 2017 | Ian Daniel | Modified after feedback |
| 0.3 | June 2017 | Ian Daniel | Modified after feedback |
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## Distribution List

|  |  |
| --- | --- |
| **Name** | **Role** |
| Storage Engineering | Reviewer |
| Storage Delivery | Reviewer |
| Storage Architecture | Reviewer |

## Glossary

|  |  |
| --- | --- |
| **Term** | **Definition** |
| cDOT | clustered Data ONTAP |
| Vserver | A logical storage virtual server, also known as a Storage Virtual Machine (SVM), which contains LIFs, Volumes, and configuration information such as access control details. |
| LIF | Logical Interface – a cDOT logical network interface with an IP address, assigned to a single Vserver. |
| CIFS | Short for Common Internet File System, a protocol that defines a standard for remote file access using millions of computers at a time. With CIFS, users with different platforms and computers can share files without having to install new software. |
| SMB | Short for Server Message Block, a message format used by DOS and Windows to share files, directories and devices. |
| NFS | A distributed file system protocol originally developed by Sun Microsystems in 1984, allowing a user on a client computer to access files over a computer network much like local storage is accessed. |

# Pre-Upgrade Process

## Description

Prior to upgrading a cluster to 9.1Px you first need to perform a number of tasks in order to ensure the upgrade goes smoothly.

## Tasks

The following tasks are carried out pre-upgrade.

### ****Obtain The Correct ONTAP Version And Make It Available Via HTTP****

The version of ONTAP being used for upgrades is 9.1P3 and is available here:

<http://mysupport.netapp.com/NOW/download/software/ontap/9.1P3/download.cgi>

### ****Check For ISCSI****

At this time ISCSI is not released for cDOT 8.3.2Px or 9.1Px and so if the cluster has ISCSI on it you **MUST NOT** under any circumstances upgrade it to either release. To check for ISCSI on a cluster do the following.

eg-cps-clsp-e01::> lun show -vserver \*

There are no entries matching your query.

If there are LUNs present you will see output like this.

eg-si-clsn-e01::> lun show -vserver \*

Vserver Path State Mapped Type Size

--------- ------------------------------- ------- -------- -------- --------

ciststjms-e0001

/vol/iscsitest01/lun/testlun01 online unmapped windows 20.00GB

orprod-iscsi-01

/vol/cb0000\_wi\_15142\_05\_info\_snap/luns/snapinfo

online mapped windows 10.00GB

orprod-iscsi-01

/vol/cb0000\_wi\_15142\_05\_tsys\_nosnap/luns/sysdb

online mapped windows 20.00GB

### ****Check For Any Failover Group Issues****

To successfully upgrade a cDOT cluster to 9.1P3 we need to ensure that all failover groups and interface configurations are correct. **This MUST be done ahead of the upgrade**, if not then you will have issues with the upgrade process or end up with a configuration that is not as expected. **This could cause an outage in terms of data access.**

### ****Check For Hardware Issues****

Check for disk failures, shelf issues etc.

::\*> env sensors show

(system node environment sensors show)

Node Sensor State Value/Units Crit-Low Warn-Low Warn-Hi Crit-Hi

---- --------------------- ------ ----------- -------- -------- ------- -------

eg-si-clsn-e01-h01

Fan1 normal

GOOD

Fan2 normal

GOOD

Fan3 normal

GOOD

PSU1 normal

GOOD

PSU2 normal

GOOD

CPU0 Temp Margin normal

-63 C - - -5 0

In Flow Temp normal

28 C 0 10 50 56

Out Flow Temp normal

42 C 0 10 64 71

PCI Riser\_R Temp normal

31 C 0 10 49 57

Smart Bat Temp normal

36 C 0 10 58 65

CPU0 Error normal

NORMAL

CPU0 Therm Trip normal

NORMAL

CPU0 Hot normal

NORMAL

Memory0 Hot normal

NORMAL

PCH Hot normal

NORMAL

P5V STBY normal

5002 mV 4245 4343 5660 5807

P3.3V STBY normal

3312 mV 2960 3040 3568 3664

P1.8V STBY normal

1794 mV 1629 1658 1949 1969

P1.2V STBY normal

1193 mV 1086 1105 1299 1319

P0.9V STBY normal

882 mV 805 853 950 999

P5V normal

5026 mV 4245 4343 5660 5807

P3.3V normal

3280 mV 2960 3040 3568 3664

Press <space> to page down, <return> for next line, or 'q' to quit...

::\*> environment show

(system health controller environment show)

Node FRU Name State

------------------ ------------------------------ -----------

eg-si-clsn-e01-h01 Fan1 GOOD

eg-si-clsn-e01-h01 Fan2 GOOD

eg-si-clsn-e01-h01 Fan3 GOOD

eg-si-clsn-e01-h01 PSU1 GOOD

eg-si-clsn-e01-h01 PSU2 GOOD

eg-si-clsn-e01-h02 Fan1 GOOD

eg-si-clsn-e01-h02 Fan3 GOOD

eg-si-clsn-e01-h02 Fan2 GOOD

eg-si-clsn-e01-h02 PSU1 GOOD

eg-si-clsn-e01-h02 PSU2 GOOD

eg-si-clsn-e01-l03 PSU1 GOOD

eg-si-clsn-e01-l03 PSU2 GOOD

eg-si-clsn-e01-l03 Fan1 GOOD

eg-si-clsn-e01-l03 Fan3 GOOD

eg-si-clsn-e01-l03 Fan2 GOOD

eg-si-clsn-e01-l04 PSU1 GOOD

eg-si-clsn-e01-l04 PSU2 GOOD

eg-si-clsn-e01-l04 Fan3 GOOD

eg-si-clsn-e01-l04 Fan2 GOOD

eg-si-clsn-e01-l04 Fan1 GOOD

20 entries were displayed.

::\*> disk show -broken

Original Owner: eg-si-clsn-e01-h02

Checksum Compatibility: block

Usable Physical

Disk Outage Reason HA Shelf Bay Chan Pool Type RPM Size Size

--------------- ------------- ------------ ---- ------ ----- ------ -------- --------

eg-si-clsn-e01-h02:0c.20.4

not responding

0c 20 4 B FAILED SAS 10000 546.9GB 558.9GB

### ****Check DNS Servers****

All vservers must have DNS configured and be able to contact those DNS servers prior to upgrade.

### ****Generate An Upgrade Advisor****

Upgrade advisors are based off ASUP data so once all issues are resolved with failover groups and interfaces please generate a new ASUP.

**Example**

::> autosupport invoke -node \* -type all -message "UA SnapShot"

After an hour connect to the NetApp Support website and create an upgrade advisor. Download the resulting documents and keep in a safe place.

### ****Check Upgrade Advisor****

Read through Upgrade Advisor and check/remediate any issues that are flagged. Example plan shown below.



# Upgrade Process

## ****Description****

The upgrade process used in SI was ANDU, which forces a rolling upgrade.

## ****Tasks****

### Download Code Onto All Nodes

orf-lab2554::> cluster image package get -url http://10.220.179.83:8080/ONTAP/91P3\_q\_image.tgz

Software get http://10.220.179.83:8080/ONTAP/91P3\_q\_image.tgz started on node orf-lab2554-01

Downloading package. This may take up to 10 minutes.

96% downloaded

There is no update/install in progress

Status of most recent operation:

Run Status: Working

Exit Status: Success

Phase: Download

Exit Message:

Processing Package.....

Process package completed.

orf-lab2554::> cluster image package show-repository

Package Version Package Build Time

---------------- ------------------

9.1P3 4/18/2017 11:12:45

9.1P4 5/2/2017 10:31:04

2 entries were displayed

### Check Auto Revert Settings

This command check the auto-revert setting and can be performed at any time. The setting is not altered if the lif is migrated. Make a note of the auto-revert settings prior to upgrade.

::> net int show -vserver \* -lif \* -fields auto-revert

### Enable Auto Revert

::> net int modify -vserver \* -lif \* -auto-revert true

### Check All Aggregates Are Online

The following shows how to check for aggregates that are not online. Any aggregates returned **MUST** be dealt with before an upgrade is attempted.

::\*> agg show -state !online

(aggr)

There are no entries matching your query.

### Check All Volumes Are Online

The following shows how to check for volumes that are not online. Any volumes returned will have a status of offline or restricted and must be dealt with before an upgrade is attempted.

::\*> vol show -state !online

(volume show)

Vserver Volume Aggregate State Type Size Available Used%

--------- ------------ ------------ ---------- ---- ---------- ---------- -----

cisesx-e0001

volume\_post\_test1

aggr1\_data\_h02

offline RW 1GB - -

ciststjms-e0001

test01 aggr1\_data\_h01

offline RW 100GB - -

mtt\_test\_vserver

InfDev00113 aggr1\_data\_h01

offline RW 200.5GB - -

orprod-iscsi-01

cb0000\_wi\_15142\_07\_info\_snap\_old

aggr1\_data\_h01

offline RW 25GB - -

si-8040-test-01

Image1 aggr1\_data\_l03

offline RW 10GB - -

si-8040-test-01

si\_tst\_nfs01\_snap

aggr1\_data\_l04

offline RW 250GB - -

svm012abc cb0000\_dme\_msil\_rename

aggr1\_data\_h01

offline RW 1GB - -

svm012abc jon\_test\_renamesuccess

aggr1\_data\_h01

restricted RW 25GB - -

svm789xyz dme\_cDOT\_mig\_tstd2

aggr1\_data\_h02

restricted DP 1GB - -

svm789xyz dme\_mig\_cDOT\_dst

aggr1\_data\_h02

restricted DP 1GB - -

svm789xyz ico\_cdot\_allocation\_test\_vol001

aggr1\_data\_h02

offline RW 1GB - -

svm789xyz ico\_cdot\_allocation\_test\_vol501

aggr1\_data\_h02

offline RW 18.75GB - -

12 entries were displayed.

### Check All Volumes Have Enough Space

Any volumes using more than 95% space should be adjusted to be below that threshold prior to upgrade.

**The volumes below are an example of this which would require remediation by adding more space prior to upgrading.**

::\*> vol show -percent-used > 95

(volume show)

Vserver Volume Aggregate State Type Size Available Used%

--------- ------------ ------------ ---------- ---- ---------- ---------- -----

orprod-iscsi-01

cb0000\_wi\_15142\_05\_usr\_snap

aggr1\_data\_h01

online RW 160GB 4.68GB 97%

orprod-iscsi-02

cb0000\_wi\_or\_tsys\_nosnap

aggr1\_data\_h01

online RW 68.26GB 1.99GB 97%

orprod-iscsi-02

cb0000\_wi\_or\_usr\_snap

aggr1\_data\_h01

online RW 634.5GB 993.2MB 99%

orprod-iscsi-03

cb0001\_wi\_winapp\_usr\_snap

aggr1\_data\_h01

online RW 152.6GB 1009MB 99%

orprod-iscsi-04

cb0000\_wi\_prj11504\_usr\_snap

aggr1\_data\_h02

online RW 152.6GB 1009MB 99%

si-8040-test-01

dng\_test2 aggr1\_data\_l03

online RW 1GB 760KB 99%

6 entries were displayed.

### Check For Running Jobs

Check for running volume, aggregate or snapshot jobs.

::\*> job show -state running\|queued -name !efficiency-DeDupe

Delete any jobs

::\*> job delete -id *JOB\_ID*

### Quiesce SnapMirrors

::\*> snapmirror quiesce -destination-path \*

Operation succeeded: snapmirror quiesce for destination "sicifs-e0001:test\_bip".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:c\_mode\_dest".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:test\_bip".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_07\_cb0000\_infra\_virtual\_saesxi\_snap07".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_infra\_virtual\_saesxi\_snap14".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_c\_info\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_c\_usr\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_a\_info\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_a\_usr\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_d\_info\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_d\_usr\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_b\_info\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_b\_usr\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-mysql-01:sv\_14\_cb0000\_si\_mysqllab12d\_s01mysql1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-mysql-01:sv\_14\_cb0000\_si\_mysqllab13d\_s01mysql1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-mysql-01:sv\_7\_cb0000\_si\_mysqllab1d\_s01mysql1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-mysql-01:sv\_7\_cb0000\_si\_mysqllab2d\_s01mysql1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab14d\_s01ora1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab14d\_s01oraadm1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab15d\_s01ora1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab15d\_s01oraadm1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test\_s01ora1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test\_s01oraadm1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test2\_s01ora1\_snap".

Operation succeeded: snapmirror quiesce for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test2\_s01oraadm1\_snap".

25 entries were acted on.

::\*> snapmirror show -status !Quiesced

There are no entries matching your query.

### Send ASUPs Prior To Upgrade

::> autosupport invoke -node \* -type all -message "pre-upgrade to 9.1P3"

### Disable Case Generation Prior To Upgrade For 4 Hours

autosupport invoke -node \* -type all -message "MAINT=4h Starting\_NDU"

### Check auto-giveback is disabled

::\*> storage failover show -node \* -fields auto-giveback

node auto-giveback

-------------- -------------

node-01 false

node-02 false

2 entries were displayed.

### Validate Upgrade Package

orf-lab2554::> cluster image validate -version 9.1P3

It can take several minutes to complete validation...

WARNING: There are additional manual upgrade validation checks that must be performed after these automated validation checks have completed successfully.

Refer to the Upgrade Advisor Plan or "Performing manual checks before an automated cluster upgrade" section in the "Clustered Data ONTAP Upgrade Express Guide" for the remaining manual validation checks that need to be performed before update.

Failing to do so can result in an update failure or an I/O disruption.

Pre-update Check Status Error-Action

--------------------- ---------- --------------------------------------------

Aggregate plex OK

resync status

Aggregate status OK

Autoboot Status OK

Broadcast Domain OK

status

CIFS status OK

CPU Utilization OK

Status

Cluster health status OK

Cluster quorum status OK

Data ONTAP Version OK

Status

Disk status OK

High Availability OK

status

Jobs Status OK

LIF failover OK

LIF load balancing OK

LIFs not hosted OK

LIFs on home node OK

status

Manual checks Warning Warning: Manual validation checks need to

be performed. Refer to the Upgrade Advisor

Plan or "Performing manual checks before an

automated cluster upgrade" section in the

"Clustered Data ONTAP Upgrade Express

Guide" for the remaining validation checks

that need to be performed before update.

Failing to do so can result in an update

failure or an I/O disruption.

Action: Refer to the Upgrade Advisor Plan

or "Performing manual checks before an

automated cluster upgrade" section in the

"Clustered Data ONTAP Upgrade Express

Guide" for the remaining validation checks

that need to be performed before update.

MetroCluster OK

configuration status

NDMP status OK

NFS netgroup check OK

Platform status OK

Pre-update Check Status Error-Action

--------------------- ---------- --------------------------------------------

Previous Upgrade OK

Status

SAN LIF status OK

SAN status OK

Security Config OK

SSLv3 check

SnapMirror status Warning Warning: DP SnapMirror relationships

detected.

Action: For intra-cluster DP SnapMirror

relationships, you may lose protection for

the duration of the upgrade.

Snapshot copy count OK

check

Volume move status OK

Volume status OK

Overall Status Warning

30 entries were displayed.

### Estimate Upgrade Time

orf-lab2554::> cluster image update -version 9.1P3 -estimate-only

Starting validation for this update. Please wait..

It can take several minutes to complete validation...

WARNING: There are additional manual upgrade validation checks that must be performed after these automated validation checks have completed successfully.

Refer to the Upgrade Advisor Plan or "Performing manual checks before an automated cluster upgrade" section in the "Clustered Data ONTAP Upgrade Express Guide" for the remaining manual validation checks that need to be performed before update.

Failing to do so can result in an update failure or an I/O disruption.

Pre-update Check Status Error-Action

--------------------- ---------- --------------------------------------------

Aggregate plex OK

resync status

Aggregate status OK

Autoboot Status OK

Broadcast Domain OK

status

CIFS status OK

CPU Utilization OK

Status

Cluster health status OK

Cluster quorum status OK

Data ONTAP Version OK

Status

Disk status OK

High Availability OK

status

Jobs Status OK

LIF failover OK

LIF load balancing OK

LIFs not hosted OK

LIFs on home node OK

status

Manual checks Warning Warning: Manual validation checks need to

be performed. Refer to the Upgrade Advisor

Plan or "Performing manual checks before an

automated cluster upgrade" section in the

"Clustered Data ONTAP Upgrade Express

Guide" for the remaining validation checks

that need to be performed before update.

Failing to do so can result in an update

failure or an I/O disruption.

Action: Refer to the Upgrade Advisor Plan

or "Performing manual checks before an

automated cluster upgrade" section in the

"Clustered Data ONTAP Upgrade Express

Guide" for the remaining validation checks

that need to be performed before update.

MetroCluster OK

configuration status

NDMP status OK

NFS netgroup check OK

Platform status OK

Previous Upgrade OK

Status

SAN LIF status OK

SAN status OK

Security Config OK

SSLv3 check

SnapMirror status Warning Warning: DP SnapMirror relationships

detected.

Action: For intra-cluster DP SnapMirror

relationships, you may lose protection for

the duration of the upgrade.

Snapshot copy count OK

check

Volume move status OK

Volume status OK

Overall Status Warning

30 entries were displayed.

Cluster Items Requiring

Component Updates Estimated Duration

--------------------- ----------------- -----------------------------------

Node Updates 2 77 minutes

Component Component ID Current Version Updated Version Estimated Duration

--------- ------------ --------------- --------------- ------------------

Node orf-lab2554- 8.3.2P7 9.1P3 31 minutes

01

Node orf-lab2554- 8.3.2P7 9.1P3 31 minutes

02

2 entries were displayed.

### Perform Upgrade

orf-lab2554::> cluster image update -version 9.1P3

Starting validation for this update. Please wait..

It can take several minutes to complete validation...

WARNING: There are additional manual upgrade validation checks that must be performed after these automated validation checks have completed successfully.

Refer to the Upgrade Advisor Plan or "Performing manual checks before an automated cluster upgrade" section in the "Clustered Data ONTAP Upgrade Express Guide" for the remaining manual validation checks that need to be performed before update.

Failing to do so can result in an update failure or an I/O disruption.

Pre-update Check Status Error-Action

--------------------- ---------- --------------------------------------------

Aggregate plex OK

resync status

Aggregate status OK

Autoboot Status OK

Broadcast Domain OK

status

CIFS status OK

CPU Utilization OK

Status

Cluster health status OK

Cluster quorum status OK

Data ONTAP Version OK

Status

Disk status OK

High Availability OK

status

Jobs Status OK

LIF failover OK

LIF load balancing OK

LIFs not hosted OK

LIFs on home node OK

status

Manual checks Warning Warning: Manual validation checks need to

be performed. Refer to the Upgrade Advisor

Plan or "Performing manual checks before an

automated cluster upgrade" section in the

"Clustered Data ONTAP Upgrade Express

Guide" for the remaining validation checks

that need to be performed before update.

Failing to do so can result in an update

failure or an I/O disruption.

Action: Refer to the Upgrade Advisor Plan

or "Performing manual checks before an

automated cluster upgrade" section in the

"Clustered Data ONTAP Upgrade Express

Guide" for the remaining validation checks

that need to be performed before update.

MetroCluster OK

configuration status

NDMP status OK

NFS netgroup check OK

Platform status OK

Previous Upgrade OK

Status

SAN LIF status OK

SAN status OK

Security Config OK

SSLv3 check

SnapMirror status Warning Warning: DP SnapMirror relationships

detected.

Action: For intra-cluster DP SnapMirror

relationships, you may lose protection for

the duration of the upgrade.

Snapshot copy count OK

check

Volume move status OK

Volume status OK

Overall Status Warning

30 entries were displayed.

Warning: Validation has reported warnings.

Do you want to continue? {y|n}: y

Starting update...

### Checking Upgrade Progress

The following commands show the various output you can see when checking progress as the upgrade works in the background.

orf-lab2554::> cluster image show-update-progress

Estimated Elapsed

Update Phase Status Duration Duration

-------------------- ----------------- --------------- ---------------

Pre-update checks completed 00:10:00 00:00:03

Data ONTAP updates in-progress 01:17:00 00:00:26

Details:

Node name Status Status Description

-------------------- ----------------- --------------------------------------

orf-lab2554-01 in-progress Installing Data ONTAP software image.

orf-lab2554-02 in-progress Installing Data ONTAP software image.

4 entries were displayed.

orf-lab2554::> cluster image show-update-progress

Estimated Elapsed

Update Phase Status Duration Duration

-------------------- ----------------- --------------- ---------------

Pre-update checks completed 00:10:00 00:00:03

Data ONTAP updates completed 01:17:00 00:44:54

Post-update checks completed 00:10:00 00:00:00

3 entries were displayed.

Updated nodes: orf-lab2554-01, orf-lab2554-02.

orf-lab2554::> cluster image show-update-history

Package Start Completion Previous Updated

Status Version Time Time Component ID Version Version

---------- --------- ---------- ---------- ------------ --------- ---------

successful 9.1P3 6/12/2017 6/12/2017 orf-lab2554- 8.3.2P7 9.1P3

15:04:41 15:27:46 01

successful 9.1P3 6/12/2017 6/12/2017 orf-lab2554- 8.3.2P7 9.1P3

15:04:41 15:49:35 02

2 entries were displayed.

# Post-Upgrade Process

## Description

After the upgrades are completed and all nodes are on ONTAP 9.1P3 we need to modify some of the configuration created by the upgrade process.

### Resume SnapMirror

::> snapmirror resume -destination-path \*

Operation succeeded: snapmirror resume for destination "sicifs-e0001:test\_bip".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:c\_mode\_dest".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:test\_bip".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_07\_cb0000\_infra\_virtual\_saesxi\_snap07".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_infra\_virtual\_saesxi\_snap14".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_c\_info\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_c\_usr\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_a\_info\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_a\_usr\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_d\_info\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_si\_wi\_fas2552\_d\_usr\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_b\_info\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-iscsi-01:sv\_14\_cb0000\_wi\_si\_fas2552\_b\_usr\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-mysql-01:sv\_14\_cb0000\_si\_mysqllab12d\_s01mysql1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-mysql-01:sv\_14\_cb0000\_si\_mysqllab13d\_s01mysql1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-mysql-01:sv\_7\_cb0000\_si\_mysqllab1d\_s01mysql1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-mysql-01:sv\_7\_cb0000\_si\_mysqllab2d\_s01mysql1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab14d\_s01ora1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab14d\_s01oraadm1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab15d\_s01ora1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_si\_oralab15d\_s01oraadm1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test\_s01ora1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test\_s01oraadm1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test2\_s01ora1\_snap".

Operation succeeded: snapmirror resume for destination "silab-clbk-e01:sv\_14\_cb0000\_orf\_2552\_test2\_s01oraadm1\_snap".

25 entries were acted on.

### Ensure Auto-Giveback Is Disabled

orf-lab2554::> storage failover show -fields auto-giveback

node auto-giveback

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orf-lab2554-01 false

orf-lab2554-02 false

2 entries were displayed.

### Disable Auto-Giveback If Required

orf-lab2554::> storage failover modify -auto-giveback false -node orf-lab2554-0\*

Warning: Disabling auto-giveback under cluster HA configuration will prevent

the management cluster services from automatically going online under

alternating-failure scenarios. Do you want to disable auto-giveback?

{y|n}: y

2 entries were modified.

### Disable Auto-Giveback If Required

Ensure all LIFs are on their home node post-upgrade.