



# **Guidelines for upgrading controllers with ARL**

## **ONTAP Systems**

Paula Carrigan, Barb Einarsen, Amanda Stroman  
May 10, 2021

This PDF was generated from [https://docs.netapp.com/us-en/ontap-systems/upgrade-arl-auto-app/guidelines\\_for\\_upgrading\\_controllers\\_with\\_arl.html](https://docs.netapp.com/us-en/ontap-systems/upgrade-arl-auto-app/guidelines_for_upgrading_controllers_with_arl.html) on May 12, 2021. Always check docs.netapp.com for the latest.

# Table of Contents

Guidelines for upgrading controllers with ARL ..... 1

# Guidelines for upgrading controllers with ARL

To understand whether you can use ARL to upgrade a pair of controllers running ONTAP 9.8 depends on the platform and the configuration of both the original and replacement controllers.

## Supported upgrades for ARL

When you upgrade a pair of nodes using this ARL procedure for ONTAP 9.8, you must verify that ARL can be performed on the original and replacement controllers.

You should check the size of all defined aggregates and number of disks supported by the original system. You must then compare the aggregate sizes and number of disks supported to the aggregate size and number of disks supported by the new system. This information is available in the [Hardware Universe](#). The aggregate size and the number of disks supported by the new system must be equal to or greater than the aggregate size and number of disks supported by the original system.

You should validate in the cluster mixing rules whether new nodes can become part of the cluster with the existing nodes when the original controller is replaced. For more information about cluster mixing rules, see the [Hardware Universe](#).



If you are upgrading a system that supports internal drives (for example an FAS2700 or AFF A250) but does NOT have internal drives, use the procedure in *Using Aggregate Relocation to Manually Upgrade Controller Hardware*.

Controller upgrade using ARL is supported on systems configured with SnapLock Enterprise and SnapLock Compliance volumes.

## Two-node switchless clusters

If you are upgrading nodes in a two-node switchless cluster, you can leave the nodes in the switchless cluster while performing the upgrade. You do not need to convert them to a switched cluster.

## Upgrades not supported for ARL

You cannot perform the following upgrades:

- To replacement controllers that do not support the disk shelves connected to the original controllers

See the [Hardware Universe](#) for disk-support information.

- To entry level controllers with internal drives, for example: an FAS 2500.

If you want to upgrade entry level controllers with internal drives, see the procedure *Upgrading a pair of nodes running clustered Data ONTAP by moving volumes* in the [Controller Hardware Upgrade Express Guide](#).

## Troubleshooting

If any problems occur while upgrading the controllers, you can refer to the [Troubleshooting](#) section at the end of the procedure for more information and possible solutions.

If you do not find a solution to the problem you encountered, you should contact technical support.

## Copyright Information

Copyright © 2021 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.