



# **Change Log**

## **NetApp Solutions**

NetApp  
December 15, 2022

This PDF was generated from <https://docs.netapp.com/us-en/netapp-solutions/change-log-display.html> on December 15, 2022. Always check docs.netapp.com for the latest.

# Table of Contents

NetApp Solutions Change Log ..... 1

# NetApp Solutions Change Log

Recent changes to the NetApp Solutions collateral. The most recent changes are listed first.

## All Changes

Date	Solution Area	Description of change
12/15/2022	Database	Added TR-4923: SQL Server on AWS EC2 using Amazon FSx for NetApp ONTAP
12/06/2022	Database	Added 7 videos for Oracle database modernization in hybrid cloud with Amazon FSx storage
10/25/2022	Hybrid Cloud	Added link to VMware documentation for FSx ONTAP as an NFS datastore
10/25/2022	Hybrid Cloud	Added reference to blog for Configuring Hybrid Cloud with FSx ONTAP and VMC on AWS SDDC using VMware HCX
09/30/2022	Hybrid Cloud	Added solution for Migrating Workloads to FSxN datastore using VMware HCX
09/29/2022	Hybrid Cloud	Added solution for Migrating Workloads to ANF datastore using VMware HCX
09/14/2022	Hybrid Cloud	Added links to TCO calculators and simulators for FSxN / VMC and ANF / AVS
09/14/2022	Hybrid Cloud	Added supplemental NFS datastore option for AWS / VMC
08/25/2022	Database	Added blog - Modernize your Oracle database operation in hybrid cloud with Amazon FSx storage
08/25/2022	AI	New solution: NVIDIA AI Enterprise with NetApp and VMware
08/23/2022	Hybrid Cloud	Updated the latest region availability for all supplemental NFS datastore options
08/05/2022	Virtualization	Added "Reboot Required" information for recommended ESXi and ONTAP settings
07/28/2022	Hybrid Cloud	Added DR solution with SnapCenter and Veeam for AWS/VMC (guest connected storage)
07/21/2022	Hybrid Cloud	Added DR solution with CVO and JetStream for AVS (guest connected storage)
06/29/2022	Database	Added WP-7357: Oracle Database Deployment on EC2/FSx Best Practices
06/16/2022	AI	Added NVIDIA DGX SuperPOD with NetApp design guide
06/10/2022	Hybrid Cloud	Added AVS with ANF native datastore overview and DR with JetStream
06/07/2022	Hybrid Cloud	Updated AVS region support to match public preview announcement / support
06/07/2022	Data Analytics	Added link to NetApp EF600 with Splunk Enterprise solution

06/02/2022	Hybrid Cloud	Added list of region availability for NFS datastores for NetApp Hybrid Multicloud with VMware
05/20/2022	AI	New BeeGFS Design and Deployment guides for SuperPOD
04/01/2022	Hybrid Cloud	Organized content of Hybrid Multicloud with VMware solutions: landing pages for each hyperscaler and inclusion of available solution (use case) content
03/29/2022	Containers	Added a new TR: DevOps with NetApp Astra
03/08/2022	Containers	Added a new video demo: Accelerate Software Development with Astra Control and NetApp FlexClone Technology
03/01/2022	Containers	Added new sections to NVA-1160: Installation of Astra Control Center via OperatorHub and Ansible
02/02/2022	General	Created landing pages to better organize content for AI and Modern Data Analytics
01/22/2022	AI	Added TR: Data movement with E-Series and BeeGFS for AI and analytics workflows
12/21/2021	General	Created landing pages to better organize content for Virtualization and Hybrid Multicloud with VMware
12/21/2021	Containers	Added a new video demo: Leverage NetApp Astra Control to Perform Post-mortem Analysis and Restore Your Application to NVA-1160
12/06/2021	Hybrid Cloud	Creation of Hybrid Multicloud with VMware content for virtualization environment and guest connected storage options
11/15/2021	Containers	Added a new video demo: Data Protection in CI/CD pipeline with Astra Control to NVA-1160
11/15/2021	Modern Data Analytics	New content: Best Practices for Confluent Kafka
11/02/2021	Automation	AWS Authentication Requirements for CVO and Connector Using NetApp Cloud Manager
10/29/2021	Modern Data Analytics	New content: TR-4657 - NetApp hybrid cloud data solutions: Spark and Hadoop
10/29/2021	Database	Automated Data Protection for Oracle Databases
10/26/2021	Database	Added blog section for enterprise applications and database to NetApp solutions tile. Added two blogs to Database blogs.
10/18/2021	Database	TR-4908 - Hybrid Cloud Database Solutions with SnapCenter
10/14/2021	Virtualization	Added parts 1-4 of NetApp with VMware VCF blog series
10/04/2021	Containers	Added a new video demo: Workload Migration using Astra Control Center to NVA-1160

09/23/2021	Data Migration	New content: NetApp Best Practices for NetApp XCP
09/21/2021	Virtualization	New content or ONTAP for VMware vSphere Administrators, VMware vSphere automation
09/09/2021	Containers	Added F5 BIG-IP load balancer integration with OpenShift to NVA-1160
08/05/2021	Containers	Added a new technology integration to NVA-1160 - NetApp Astra Control Center on Red Hat OpenShift
07/21/2021	Database	Automated Deployment of Oracle19c for ONTAP on NFS
07/02/2021	Database	TR-4897 - SQL Server on Azure NetApp Files: Real Deployment View
06/16/2021	Containers	Added a new video demo, Installing OpenShift Virtualization: Red Hat OpenShift with NetApp
06/16/2021	Containers	Added a new video demo, Deploying a Virtual Machine with OpenShift Virtualization: Red Hat OpenShift with NetApp
06/14/2021	Database	Added solution: Microsoft SQL Server on Azure NetApp Files
06/11/2021	Containers	Added a new video demo: Workload Migration using Astra Trident and SnapMirror to NVA-1160
06/09/2021	Containers	Added a new use-case to NVA-1160 - Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp
05/28/2021	Containers	Added a new use-case to NVA-1160 - OpenShift Virtualization with NetApp ONTAP
05/27/2021	Containers	Added a new use-case to NVA-1160- Multitenancy on OpenShift with NetApp ONTAP
05/26/2021	Containers	Added NVA-1160 - Red Hat OpenShift with NetApp
05/25/2021	Containers	Added blog: Installing NetApp Trident on Red Hat OpenShift – How to solve the Docker 'toomanyrequests' issue!
05/19/2021	General	Added link to FlexPod solutions
05/19/2021	AI	Converted AI Control Plane solution from PDF to HTML
05/17/2021	General	Added Solution Feedback tile to main page
05/11/2021	Database	Added automated deployment of Oracle 19c for ONTAP on NFS
05/10/2021	Virtualization	New video: How to use vVols with NetApp and VMware Tanzu Basic, part 3
05/06/2021	Oracle Database	Added link to Oracle 19c RAC Databases on FlexPod DataCenter with Cisco UCS and NetApp AFF A800 over FC

05/05/2021	Oracle Database	Added FlexPod Oracle NVA (1155) and Automation video
05/03/2021	Desktop Virtualization	Added link to FlexPod Desktop Virtualization solutions
04/30/2021	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 2
04/26/2021	Containers	Added blog: Using VMware Tanzu with ONTAP to accelerate your Kubernetes journey
04/06/2021	General	Added "About this Repository"
03/31/2021	AI	Added TR-4886 - AI Inferencing at the Edge: NetApp ONTAP with Lenovo ThinkSystem Solution Design
03/29/2021	Modern Data Analytics	Added NVA-1157 - Apache Spark Workload with NetApp Storage Solution
03/23/2021	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 1
03/09/2021	General	Added E-Series content; categorized AI content
03/04/2021	Automation	New content: getting started with NetApp solution automation
02/18/2021	Virtualization	Added TR-4597 - VMware vSphere for ONTAP
02/16/2021	AI	Added automated deployment steps for AI Edge Inferencing
02/03/2021	SAP	Added landing page for all SAP and SAP HANA content
02/01/2021	Desktop Virtualization	VDI with NetApp VDS, Added content for GPU nodes
01/06/2021	AI	New solution: NetApp ONTAP AI with NVIDIA DGX A100 Systems and Mellanox Spectrum Ethernet Switches (Design and Deployment)
12/22/2020	General	Initial release of NetApp Solutions repository

#### AI / Data Analytics

Date	Solution Area	Description of change
08/25/2022	AI	New solution: NVIDIA AI Enterprise with NetApp and VMware
06/16/2022	AI	Added NVIDIA DGX SuperPOD with NetApp design guide
06/07/2022	Data Analytics	Added link to NetApp EF600 with Splunk Enterprise solution

05/20/2022	AI	New BeeGFS Design and Deployment guides for SuperPOD
02/02/2022	General	Created landing pages to better organize content for AI and Modern Data Analytics
01/22/2022	AI	Added TR: Data movement with E-Series and BeeGFS for AI and analytics workflows
11/15/2021	Modern Data Analytics	New content: Best Practices for Confluent Kafka
10/29/2021	Modern Data Analytics	New content: TR-4657 - NetApp hybrid cloud data solutions: Spark and Hadoop
05/19/2021	AI	Converted AI Control Plane solution from PDF to HTML
03/31/2021	AI	Added TR-4886 - AI Inferencing at the Edge: NetApp ONTAP with Lenovo ThinkSystem Solution Design
03/29/2021	Modern Data Analytics	Added NVA-1157 - Apache Spark Workload with NetApp Storage Solution
02/16/2021	AI	Added automated deployment steps for AI Edge Inferencing
01/06/2021	AI	New solution: NetApp ONTAP AI with NVIDIA DGX A100 Systems and Mellanox Spectrum Ethernet Switches (Design and Deployment)

#### Hybrid Multicloud

Date	Solution Area	Description of change
10/25/2022	Hybrid Cloud	Added link to VMware documentation for FSx ONTAP as an NFS datastore
10/25/2022	Hybrid Cloud	Added reference to blog for Configuring Hybrid Cloud with FSx ONTAP and VMC on AWS SDDC using VMware HCX
09/30/2022	Hybrid Cloud	Added solution for Migrating Workloads to FSxN datastore using VMware HCX
09/29/2022	Hybrid Cloud	Added solution for Migrating Workloads to ANF datastore using VMware HCX
09/14/2022	Hybrid Cloud	Added links to TCO calculators and simulators for FSxN / VMC and ANF / AVS
09/14/2022	Hybrid Cloud	Added supplemental NFS datastore option for AWS / VMC
08/23/2022	Hybrid Cloud	Updated the latest region availability for all supplemental NFS datastore options
07/28/2022	Hybrid Cloud	Added DR solution with SnapCenter and Veeam for AWS/VMC (guest connected storage)
07/21/2022	Hybrid Cloud	Added DR solution with CVO and JetStream for AVS (guest connected storage)



06/10/2022	Hybrid Cloud	Added AVS with ANF native datastore overview and DR with JetStream
06/07/2022	Hybrid Cloud	Updated AVS region support to match public preview announcement / support
06/02/2022	Hybrid Cloud	Added list of region availability for NFS datastores for NetApp Hybrid Multicloud with VMware
04/01/2022	Hybrid Cloud	Organized content of Hybrid Multicloud with VMware solutions: landing pages for each hyperscaler and inclusion of available solution (use case) content
12/21/2021	General	Created landing pages to better organize content for Virtualization and Hybrid Multicloud with VMware
12/06/2021	Hybrid Cloud	Creation of Hybrid Multicloud with VMware content for virtualization environment and guest connected storage options

### Virtualization

Date	Solution Area	Description of change
08/05/2022	Virtualization	Added "Reboot Required" information for recommended ESXi and ONTAP settings
04/01/2022	Hybrid Cloud	Organized content of Hybrid Multicloud with VMware solutions: landing pages for each hyperscaler and inclusion of available solution (use case) content
12/21/2021	General	Created landing pages to better organize content for Virtualization and Hybrid Multicloud with VMware
10/14/2021	Virtualization	Added parts 1-4 of NetApp with VMware VCF blog series
09/21/2021	Virtualization	New content on ONTAP for VMware vSphere Administrators, VMware vSphere automation
05/10/2021	Virtualization	New video: How to use vVols with NetApp and VMware Tanzu Basic, part 3
05/03/2021	Desktop Virtualization	Added link to FlexPod Desktop Virtualization solutions
04/30/2021	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 2
04/26/2021	Containers	Added blog: Using VMware Tanzu with ONTAP to accelerate your Kubernetes journey
03/23/2021	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 1
02/18/2021	Virtualization	Added TR-4597 - VMware vSphere for ONTAP
02/01/2021	Desktop Virtualization	VDI with NetApp VDS, Added content for GPU nodes

### Containers

Date	Solution Area	Description of change
03/29/2022	Containers	Added a new TR: DevOps with NetApp Astra
03/08/2022	Containers	Added a new video demo: Accelerate Software Development with Astra Control and NetApp FlexClone Technology
03/01/2022	Containers	Added new sections to NVA-1160: Installation of Astra Control Center via OperatorHub and Ansible
12/21/2021	Containers	Added a new video demo: Leverage NetApp Astra Control to Perform Post-mortem Analysis and Restore Your Application to NVA-1160
11/15/2021	Containers	Added a new video demo: Data Protection in CI/CD pipeline with Astra Control to NVA-1160
10/04/2021	Containers	Added a new video demo: Workload Migration using Astra Control Center to NVA-1160
09/09/2021	Containers	Added F5 BIG-IP load balancer integration with OpenShift to NVA-1160
08/05/2021	Containers	Added a new technology integration to NVA-1160 - NetApp Astra Control Center on Red Hat OpenShift
06/16/2021	Containers	Added a new video demo, Installing OpenShift Virtualization: Red Hat OpenShift with NetApp
06/16/2021	Containers	Added a new video demo, Deploying a Virtual Machine with OpenShift Virtualization: Red Hat OpenShift with NetApp
06/11/2021	Containers	Added a new video demo: Workload Migration using Astra Trident and SnapMirror to NVA-1160
06/09/2021	Containers	Added a new use-case to NVA-1160 - Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp
05/28/2021	Containers	Added a new use-case to NVA-1160 - OpenShift Virtualization with NetApp ONTAP
05/27/2021	Containers	Added a new use-case to NVA-1160- Multitenancy on OpenShift with NetApp ONTAP
05/26/2021	Containers	Added NVA-1160 - Red Hat OpenShift with NetApp
05/25/2021	Containers	Added blog: Installing NetApp Trident on Red Hat OpenShift – How to solve the Docker ‘toomanyrequests’ issue!
05/10/2021	Virtualization	New video: How to use vVols with NetApp and VMware Tanzu Basic, part 3
04/30/2021	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 2
04/26/2021	Containers	Added blog: Using VMware Tanzu with ONTAP to accelerate your Kubernetes journey
03/23/2021	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 1

## Enterprise Apps and DB

Date	Solution Area	Description of change
12/15/2022	Database	Added TR-4923: SQL Server on AWS EC2 using Amazon FSx for NetApp ONTAP
12/06/2022	Database	Added 7 videos for Oracle database modernization in hybrid cloud with Amazon FSx storage
08/25/2022	Database	Added blog - Modernize your Oracle database operation in hybrid cloud with Amazon FSx storage
06/29/2022	Database	Added WP-7357: Oracle Database Deployment on EC2/FSx Best Practices
10/29/2021	Database	Automated Data Protection for Oracle Databases
10/26/2021	Database	Added blog section for enterprise applications and database to NetApp solutions tile. Added two blogs to Database blogs.
10/18/2021	Database	TR-4908 - Hybrid Cloud Database Solutions with SnapCenter
07/21/2021	Database	Automated Deployment of Oracle19c for ONTAP on NFS
07/02/2021	Database	TR-4897 - SQL Server on Azure NetApp Files: Real Deployment View
06/14/2021	Database	Added solution: Microsoft SQL Server on Azure NetApp Files
05/11/2021	Database	Added automated deployment of Oracle 19c for ONTAP on NFS
05/06/2021	Oracle Database	Added link to Oracle 19c RAC Databases on FlexPod DataCenter with Cisco UCS and NetApp AFF A800 over FC
05/05/2021	Oracle Database	Added FlexPod Oracle NVA (1155) and Automation video
02/03/2021	SAP	Added landing page for all SAP and SAP HANA content



For more information on SAP and SAP HANA updates, refer to the "Update History" content present for each of the solutions in the [SAP Solutions Repository](#).

## Data Protection and Data Migration

Date	Solution Area	Description of change
10/29/2021	Database	Automated Data Protection for Oracle Databases
09/23/2021	Data Migration	New content: NetApp Best Practices for NetApp XCP

## Solution Automation

Date	Solution Area	Description of change
11/02/2021	Automation	AWS Authentication Requirements for CVO and Connector Using NetApp Cloud Manager
10/29/2021	Database	Automated Data Protection for Oracle Databases
07/21/2021	Database	Automated Deployment of Oracle19c for ONTAP on NFS
05/11/2021	Database	Added automated deployment of Oracle 19c for ONTAP on NFS
03/04/2021	Automation	New content: getting started with NetApp solution automation

## Copyright information

Copyright © 2022 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.