# **■** NetApp

# **Change Log**

NetApp Solutions

NetApp March 20, 2023

This PDF was generated from https://docs.netapp.com/us-en/netapp-solutions/change-log-display.html on March 20, 2023. Always check docs.netapp.com for the latest.

# **Table of Contents**

NetApp Solutions	Change Log	 	 

# **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
02/07/20 23	Hybrid Cloud	Added blog: Announcing general availability of NetApp Cloud Volumes Service datastore support for Google Cloud VMware Engine
02/07/20 23	Hybrid Cloud	Added TR-4955: Disaster Recovery with FSx for ONTAP and VMC (AWS VMware Cloud)
02/15/20 23	Database	Added PostgreSQL High Availability Deployment and Disaster Recovery in AWS FSx/EC2
01/24/20 23	Database	Added TR-4954: Oracle Database Deployment and Protection on Azure NetApp Files
01/12/20 23	Database	Added blog: Protect your SQL Server workloads using NetApp SnapCenter with Amazon FSx for NetApp ONTAP
12/15/20 22	Database	Added TR-4923: SQL Server on AWS EC2 using Amazon FSx for NetApp ONTAP
12/06/20 22	Database	Added 7 videos for Oracle database modernization in hybrid cloud with Amazon FSx storage
10/25/20 22	Hybrid Cloud	Added link to VMware docuemntation for FSx ONTAP as an NFS datastore
10/25/20 22	Hybrid Cloud	Added reference to blog for Configuring Hybrid Cloud with FSx ONTAP and VMC on AWS SDDC using VMware HCX
09/30/20 22	Hybrid Cloud	Added solution for Migrating Workloads to FSxN datastore using VMware HCX
09/29/20 22	Hybrid Cloud	Added solution for Migrating Workloads to ANF datastore using VMware HCX
09/14/20 22	Hybrid Cloud	Added links to TCO calculators and simulators for FSxN / VMC and ANF / AVS
09/14/20 22	Hybrid Cloud	Added supplemental NFS datastore option for AWS / VMC
08/25/20 22	Database	Added blog - Modernize your Oracle database operation in hybrid cloud with Amazon FSx storage
08/25/20 22	Al	New solution: NVIDIA AI Enterprise with NetApp and VMware
08/23/20 22	Hybrid Cloud	Updated the latest region availability for all supplemental NFS datastore options
08/05/20 22	Virtualization	Added "Reboot Required" information for recommended ESXi and ONTAP settings
07/28/20 22	Hybrid Cloud	Added DR solution with SnapCenter and Veeam for AWS/VMC (guest connected storage)
07/21/20 22	Hybrid Cloud	Added DR solution with CVO and JetStream for AVS (guest connected storage)

06/29/20 22	Database	Added WP-7357: Oracle Database Deployment on EC2/FSx Best Practices
06/16/20 22	AI	Added NVIDIA DGX SuperPOD with NetApp design guide
06/10/20 22	Hybrid Cloud	Added AVS with ANF native datastore overview and DR with JetStream
06/07/20 22	Hybrid Cloud	Updated AVS region support to match public preview announcement / support
06/07/20 22	Data Analytics	Added link to NetApp EF600 with Splunk Enterprise solution
06/02/20 22	Hybrid Cloud	Added list of region availability for NFS datastores for NetApp Hybrid Multicloud with VMware
05/20/20 22	AI	New BeeGFS Design and Deployment guides for SuperPOD
04/01/20 22	Hybrid Cloud	Organized content of Hybrid Multicloud with VMware solutions: landing pages for each hyperscaler and inclusion of available solution (use case) content
03/29/20 22	Containers	Added a new TR: DevOps with NetApp Astra
03/08/20 22	Containers	Added a new video demo: Accelerate Software Development with Astra Control and NetApp FlexClone Technology
03/01/20 22	Containers	Added new sections to NVA-1160: Installation of Astra Control Center via OperatorHub and Ansible
02/02/20 22	General	Created landing pages to better organize content for Al and Modern Data Analytics
01/22/20 22	Al	Added TR: Data movement with E-Series and BeeGFS for AI and analytics workflows
12/21/20 21	General	Created landing pages to better organize content for Virtualization and Hybrid Multicloud with VMware
12/21/20 21	Containers	Added a new video demo: Leverage NetApp Astra Control to Perform Post-mortem Analysis and Restore Your Application to NVA-1160
12/06/20 21	Hybrid Cloud	Creation of Hybrid Multicloud with VMware content for virtualization environment and guest connected storage options
11/15/20 21	Containers	Added a new video demo: Data Protection in CI/CD pipeline with Astra Control to NVA-1160
11/15/20 21	Modern Data Analytics	New content: Best Practices for Confluent Kafka
11/02/20 21	Automation	AWS Authentication Requirements for CVO and Connector Using NetApp Cloud Manager
10/29/20 21	Modern Data Analytics	New content: TR-4657 - NetApp hybrid cloud data solutions: Spark and Hadoop

10/29/20 21	Database	Automated Data Protection for Oracle Databases
10/26/20 21	Database	Added blog section for enterprise applications and database to NetApp solutions tile. Added two blogs to Database blogs.
10/18/20 21	Database	TR-4908 - Hybrid Cloud Database Solutions with SnapCenter
10/14/20 21	Virtualization	Added parts 1-4 of NetApp with VMware VCF blog series
10/04/20 21	Containers	Added a new video demo: Workload Migration using Astra Control Center to NVA-1160
09/23/20 21	Data Migration	New content: NetApp Best Practices for NetApp XCP
09/21/20 21	Virtualization	New content or ONTAP for VMware vSphere Administrators, VMware vSphere automation
09/09/20 21	Containers	Added F5 BIG-IP load balancer integration with OpenShift to NVA-1160
08/05/20 21	Containers	Added a new technology integration to NVA-1160 - NetApp Astra Control Center on Red Hat OpenShift
07/21/20 21	Database	Automated Deployment of Oracle19c for ONTAP on NFS
07/02/20 21	Database	TR-4897 - SQL Server on Azure NetApp Files: Real Deployment View
06/16/20 21	Containers	Added a new video demo, Installing OpenShift Virtualization: Red Hat OpenShift with NetApp
06/16/20 21	Containers	Added a new video demo, Deploying a Virtual Machine with OpenShift Virtualization: Red Hat OpenShift with NetAppp
06/14/20 21	Database	Added solution: Microsoft SQL Server on Azure NetApp Files
06/11/20 21	Containers	Added a new video demo: Workload Migration using Astra Trident and SnapMirror to NVA-1160
06/09/20 21	Containers	Added a new use-case to NVA-1160 - Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp
05/28/20 21	Containers	Added a new use-case to NVA-1160 - OpenShift Virtualization with NetApp ONTAP
05/27/20 21	Containers	Added a new use-case to NVA-1160- Multitenancy on OpenShift with NetApp ONTAP
05/26/20 21	Containers	Added NVA-1160 - Red Hat OpenShift with NetApp
05/25/20 21	Containers	Added blog: Installing NetApp Trident on Red Hat OpenShift – How to solve the Docker 'toomanyrequests' issue!
05/19/20 21	General	Added link to FlexPod solutions

05/19/20 21	Al	Converted AI Control Plane solution from PDF to HTML
05/17/20 21	General	Added Solution Feedback tile to main page
05/11/20 21	Database	Added automated deployment of Oracle 19c for ONTAP on NFS
05/10/20 21	Virtualization	New video: How to use vVols with NetApp and VMware Tanzu Basic, part 3
05/06/20 21	Oracle Database	Added link to Oracle 19c RAC Databases on FlexPod DataCenter with Cisco UCS and NetApp AFF A800 over FC
05/05/20 21	Oracle Database	Added FlexPod Oracle NVA (1155) and Automation video
05/03/20 21	Desktop Virtualization	Added link to FlexPod Desktop Virtualization solutions
04/30/20 21	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 2
04/26/20 21	Containers	Added blog: Using VMware Tanzu with ONTAP to accelerate your Kubernetes journey
04/06/20 21	General	Added "About this Repository"
03/31/20 21	Al	Added TR-4886 - Al Inferencing at the Edge: NetApp ONTAP with Lenovo ThinkSystem Solution Design
03/29/20 21	Modern Data Analytics	Added NVA-1157 - Apache Spark Workload with NetApp Storage Solution
03/23/20 21	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 1
03/09/20 21	General	Added E-Series content; categorized AI content
03/04/20 21	Automation	New content: getting started with NetApp solution automation
02/18/20 21	Virtualization	Added TR-4597 - VMware vSphere for ONTAP
02/16/20 21	Al	Added automated deployment steps for Al Edge Inferencing
02/03/20 21	SAP	Added landing page for all SAP and SAP HANA content
02/01/20 21	Desktop Virtualization	VDI with NetApp VDS, Added content for GPU nodes
01/06/20 21	Al	New solution: NetApp ONTAP AI with NVIDIA DGX A100 Systems and Mellanox Spectrum Ethernet Switches (Design and Deployment)
12/22/20 20	General	Initial release of NetApp Solutions repository

## Al / Data Analytics

Date	Solution Area	Description of change
08/25/20 22	Al	New solution: NVIDIA AI Enterprise with NetApp and VMware
06/16/20 22	Al	Added NVIDIA DGX SuperPOD with NetApp design guide
06/07/20 22	Data Analytics	Added link to NetApp EF600 with Splunk Enterprise solution
05/20/20 22	Al	New BeeGFS Design and Deployment guides for SuperPOD
02/02/20 22	General	Created landing pages to better organize content for AI and Modern Data Analytics
01/22/20 22	Al	Added TR: Data movement with E-Series and BeeGFS for AI and analytics workflows
11/15/20 21	Modern Data Analytics	New content: Best Practices for Confluent Kafka
10/29/20 21	Modern Data Analytics	New content: TR-4657 - NetApp hybrid cloud data solutions: Spark and Hadoop
05/19/20 21	Al	Converted AI Control Plane solution from PDF to HTML
03/31/20 21	Al	Added TR-4886 - Al Inferencing at the Edge: NetApp ONTAP with Lenovo ThinkSystem Solution Design
03/29/20 21	Modern Data Analytics	Added NVA-1157 - Apache Spark Workload with NetApp Storage Solution
02/16/20 21	Al	Added automated deployment steps for AI Edge Inferencing
01/06/20 21	Al	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
02/07/20 23	Hybrid Cloud	Added blog: Announcing general availability of NetApp Cloud Volumes Service datastore support for Google Cloud VMware Engine
02/07/20 23	Hybrid Cloud	Added TR-4955: Disaster Recovery with FSx for ONTAP and VMC (AWS VMware Cloud)
10/25/20 22	Hybrid Cloud	Added link to VMware docuemntation for FSx ONTAP as an NFS datastore
10/25/20 22	Hybrid Cloud	Added reference to blog for Configuring Hybrid Cloud with FSx ONTAP and VMC on AWS SDDC using VMware HCX
09/30/20 22	Hybrid Cloud	Added solution for Migrating Workloads to FSxN datastore using VMware HCX

09/29/20 22	Hybrid Cloud	Added solution for Migrating Workloads to ANF datastore using VMware HCX
09/14/20 22	Hybrid Cloud	Added links to TCO calculators and simulators for FSxN / VMC and ANF / AVS
09/14/20 22	Hybrid Cloud	Added supplemental NFS datastore option for AWS / VMC
08/23/20 22	Hybrid Cloud	Updated the latest region availability for all supplemental NFS datastore options
07/28/20 22	Hybrid Cloud	Added DR solution with SnapCenter and Veeam for AWS/VMC (guest connected storage)
07/21/20 22	Hybrid Cloud	Added DR solution with CVO and JetStream for AVS (guest connected storage)
06/10/20 22	Hybrid Cloud	Added AVS with ANF native datastore overview and DR with JetStream
06/07/20 22	Hybrid Cloud	Updated AVS region support to match public preview announcement / support
06/02/20 22	Hybrid Cloud	Added list of region availability for NFS datastores for NetApp Hybrid Multicloud with VMware
04/01/20 22	Hybrid Cloud	Organized content of Hybrid Multicloud with VMware solutions: landing pages for each hyperscaler and inclusion of available solution (use case) content
12/21/20 21	General	Created landing pages to better organize content for Virtualization and Hybrid Multicloud with VMware
12/06/20 21	Hybrid Cloud	Creation of Hybrid Multicloud with VMware content for virtualization environment and guest connected storage options

#### Virtualization

Date	Solution Area	Description of change
08/05/20 22	Virtualization	Added "Reboot Required" information for recommended ESXi and ONTAP settings
04/01/20 22	Hybrid Cloud	Organized content of Hybrid Multicloud with VMware solutions: landing pages for each hyperscaler and inclusion of available solution (use case) content
12/21/20 21	General	Created landing pages to better organize content for Virtualization and Hybrid Multicloud with VMware
10/14/20 21	Virtualization	Added parts 1-4 of NetApp with VMware VCF blog series
09/21/20 21	Virtualization	New content or ONTAP for VMware vSphere Administrators, VMware vSphere automation
05/10/20 21	Virtualization	New video: How to use vVols with NetApp and VMware Tanzu Basic, part 3
05/03/20 21	Desktop Virtualization	Added link to FlexPod Desktop Virtualization solutions

04/30/20 21	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 2
04/26/20 21	Containers	Added blog: Using VMware Tanzu with ONTAP to accelerate your Kubernetes journey
03/23/20 21	Virtualization	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 1
02/18/20 21	Virtualization	Added TR-4597 - VMware vSphere for ONTAP
02/01/20 21	Desktop Virtualization	VDI with NetApp VDS, Added content for GPU nodes

#### Containers

Date	Solution Area	Description of change
03/29/20 22	Containers	Added a new TR: DevOps with NetApp Astra
03/08/20 22	Containers	Added a new video demo: Accelerate Software Development with Astra Control and NetApp FlexClone Technology
03/01/20 22	Containers	Added new sections to NVA-1160: Installation of Astra Control Center via OperatorHub and Ansible
12/21/20 21	Containers	Added a new video demo: Leverage NetApp Astra Control to Perform Post-mortem Analysis and Restore Your Application to NVA-1160
11/15/20 21	Containers	Added a new video demo: Data Protection in CI/CD pipeline with Astra Control to NVA-1160
10/04/20 21	Containers	Added a new video demo: Workload Migration using Astra Control Center to NVA-1160
09/09/20 21	Containers	Added F5 BIG-IP load balancer integration with OpenShift to NVA-1160
08/05/20 21	Containers	Added a new technology integration to NVA-1160 - NetApp Astra Control Center on Red Hat OpenShift
06/16/20 21	Containers	Added a new video demo, Installing OpenShift Virtualization: Red Hat OpenShift with NetApp
06/16/20 21	Containers	Added a new video demo, Deploying a Virtual Machine with OpenShift Virtualization: Red Hat OpenShift with NetAppp
06/11/20 21	Containers	Added a new video demo: Workload Migration using Astra Trident and SnapMirror to NVA-1160
06/09/20 21	Containers	Added a new use-case to NVA-1160 - Advanced Cluster Management for Kubernetes on Red Hat OpenShift with NetApp
05/28/20 21	Containers	Added a new use-case to NVA-1160 - OpenShift Virtualization with NetApp ONTAP
05/27/20 21	Containers	Added a new use-case to NVA-1160- Multitenancy on OpenShift with NetApp ONTAP

05/26/20 21	Containers	Added NVA-1160 - Red Hat OpenShift with NetApp
05/25/20 21	Containers	Added blog: Installing NetApp Trident on Red Hat OpenShift – How to solve the Docker 'toomanyrequests' issue!
05/10/20 21	Virtualizatio n	New video: How to use vVols with NetApp and VMware Tanzu Basic, part 3
04/30/20 21	Virtualizatio n	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 2
04/26/20 21	Containers	Added blog: Using VMware Tanzu with ONTAP to accelerate your Kubernetes journey
03/23/20 21	Virtualizatio n	Video: How to use vVols with NetApp and VMware Tanzu Basic, part 1

### **Enterprise Apps and DB**

Date	Solution Area	Description of change	
02/15/20 23	Database	Added PostgreSQL High Availability Deployment and Disaster Recovery in AWS FSx/EC2	
01/24/20 23	Database	Added TR-4954: Oracle Database Deployment and Protection on Azure NetApp Files	
01/12/20 23	Database	Added blog: Protect your SQL Server workloads using NetApp SnapCenter with Amazon FSx for NetApp ONTAP	
12/15/20 22	Database	Added TR-4923: SQL Server on AWS EC2 using Amazon FSx for NetApp ONTAP	
12/06/20 22	Database	Added 7 videos for Oracle database modernization in hybrid cloud with Amazon FSx storage	
08/25/20 22	Database	Added blog - Modernize your Oracle database operation in hybrid cloud with Amazon FSx storage	
06/29/20 22	Database	Added WP-7357: Oracle Database Deployment on EC2/FSx Best Practices	
10/29/20 21	Database	Automated Data Protection for Oracle Databases	
10/26/20 21	Database	Added blog section for enterprise applications and database to NetApp solutions tile. Added two blogs to Database blogs.	
10/18/20 21	Database	TR-4908 - Hybrid Cloud Database Solutions with SnapCenter	
07/21/20 21	Database	Automated Deployment of Oracle19c for ONTAP on NFS	
07/02/20 21	Database	TR-4897 - SQL Server on Azure NetApp Files: Real Deployment View	
06/14/20 21	Database	Added solution: Microsoft SQL Server on Azure NetApp Files	

05/11/20 21	Database	Added automated deployment of Oracle 19c for ONTAP on NFS
05/06/20 21	Oracle Database	Added link to Oracle 19c RAC Databases on FlexPod DataCenter with Cisco UCS and NetApp AFF A800 over FC
05/05/20 21	Oracle Database	Added FlexPod Oracle NVA (1155) and Automation video
02/03/20 21	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	
11/02/202 1	Automation	AWS Authentication Requirements for CVO and Connector Using NetApp Cloud Manager	
10/29/202 1	Database	Automated Data Protection for Oracle Databases	
07/21/202 1	Database	Automated Deployment of Oracle19c for ONTAP on NFS	
05/11/202 1	Database	Added automated deployment of Oracle 19c for ONTAP on NFS	
03/04/202	Automation	New content: getting started with NetApp solution automation	

#### Copyright information

Copyright © 2023 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 <a href="http://www.netapp.com/TM">http://www.netapp.com/TM</a> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.