



# **Change Log**

## **NetApp Solutions**

NetApp  
October 17, 2022

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# 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   |
|------------|----------------|---|
| 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  |

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|------------|-----------------------|--|
| 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   |

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|------------|------------------------|--|
| 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"  |

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|------------|------------------------|--|
| 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       |

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| 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   |
|------------|---------------|---|
| 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  |

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| 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  |
|------------|---------------|--|
| 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                     |

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