NetApp Cloud Volumes ONTAP Deployment Service

■ NetApp

■ NetApp

The NetApp® Cloud Volumes ONTAP® Deployment Service delivers the deployment of a single or high-availability (HA) NetApp Cloud Volumes ONTAP storage system. The Deployment Service includes one of the predefined packages of implementation deliverables to prepare the system for operations and connect the system into the Customer's environment. If multiple systems are to be deployed, then a deployment package is required for each HA pair, node, or other unit of measure bounding the package.

This Service Description is by and between NetApp, Inc. ("NetApp") and the end Customer or NetApp Authorized Reseller ("Customer") identified in the NetApp quote.

Part Number
NetApp Part # PS-DEPLOY-CVO.

Cloud Volumes ONTAP Deployment Service
The NetApp Cloud Volumes ONTAP Deployment Service provides the virtual installation and implementation of NetApp Cloud Volumes ONTAP, including coordination to gather information required for the cloud environment and software configuration. When configuration is complete, the system is verified and tested for functionality.

Key Benefits
The flexibility, efficiency, and scale provided by NetApp Cloud Volumes ONTAP helps organizations to grow and meet their changing business needs. Avoiding missteps and optimizing the technology benefits requires careful planning, knowledge of best practices, and thorough testing before the system is deployed in a production environment.

With NetApp expert deployment, you can reduce risk while taking advantage of the many capabilities and benefits that NetApp technology offers.

The goal of the NetApp Cloud Volumes ONTAP Deployment Service is to deploy NetApp technology that is customized to meet your application requirements. Thanks to NetApp's best practices, you can reap the benefits of a consistent, high-quality deployment and advanced configuration from the start while minimizing risk and shortening implementation time. Our service professionals help eliminate missteps so your staff can stay focused on business-critical tasks.

Service Delivery
The objective of the NetApp CVO Deployment Service is to ensure the operational readiness of the NetApp virtual system. To ensure compatibility and ease of integration into the Customer's environment, the service starts with a review of all relevant components of the environment.

With the Cloud Volumes ONTAP Deployment Service, this review is performed as an online meeting-based interview and discussion with the service engineer and assigned project manager. This discovery phase produces, as a deliverable, a completed configuration Deployment Workbook, capturing all the required information for the deployment and implementation phases.

The deployment service is delivered in three phases:

• **Discovery and Design.** The NetApp services engineer engages in an online meeting with your designated contact person to jointly perform an environment readiness and deployment review. We apply a standard methodology and best practices while capturing requirements and planning your Cloud Volumes ONTAP deployment

• **Deployment.** We schedule and perform the deployment during normal business hours. Applying NetApp best practices, our consultants deploy one or more systems in a standalone or HA configuration, using specific environmental variables such as IP addresses, host names, and other parameters captured in the Cloud Volumes ONTAP Deployment Workbook, within the limits defined based on the Core and Use Case Package selected. Customers can choose either a Data Protection, Disaster Recovery, or Enterprise File and Block Use Case Package. The selection will be identified in the Cloud Volumes ONTAP Deployment Workbook.

- **Validation and Knowledge Transfer.** NetApp performs validation of features configured as part of the implementation options and Use Case package selected and tests read/write access from a representative set of connected hosts. If deployed with HA capability, NetApp also tests and verifies failover and giveback functionality. At this point, our service professionals transfer all necessary information to your team during a single Knowledge Transfer (KT)* session so that you can continue to support and maintain the new system in your environment.

* Knowledge Transfer ("KT") does not replace NetApp Learning Services training. The Customer must have all necessary staff available for the KT session, and the session must occur on or before the completion of the Cloud Volumes ONTAP Deployment Service.

Service Scope
The NetApp Cloud Volumes ONTAP Deployment Service includes the following four phases.

Discovery and Design
- Provide Cloud Volumes ONTAP technology overview to the Customer.
- Review the cloud environment and deployment prerequisites with the Customer.
- Begin work on capturing the Customer's preferences and parameters in the Cloud Volumes ONTAP Deployment Workbook.
- Determine performance and capacity requirements.
- Determine network requirements.
- Determine monitoring and additional security requirements.
- Determine Data Fabric Peering requirements (intracloud, on premises, cloud adjacent).
- Use the Cloud Volumes ONTAP Sizer tool to determine the instance configuration.
- Refine, revise, and finalize the Cloud Volumes ONTAP Deployment Workbook.
- Sign off on parameters to be used during the deployment and implementation process.
- Validate prerequisite configurations and make sure that the Customer's cloud environment is suitably prepared.
- Schedule implementation and configuration tasks for the engagement with the Customer.

Deployment
- Provide guidance to the Customer on configuring the cloud environment.
- Test connectivity between the cloud environment and the resources to be peered.
- If CIFS is used, validate Active Directory connectivity.
- Establish Cloud Manager Access.
- Deploy Cloud Manager Connector as needed.
- Deploy Cloud Volumes ONTAP via Cloud Manager.
- Configure core components:
  – Configure aggregates, SVMs, and NetApp Snapshot™ policies.
  – Create volumes, qtrees, and LUNs.
  – Create CIFS shares, NFS exports, and/or iSCSI mappings.
- Configure event management and email alerting.
- Configure Data Fabric Peering.
- If the optional package selected is Data Protection, configure NetApp SnapMirror® relationships. If the optional package selected is Disaster Recovery, configure SVM DR relationships.
- Make sure that the system is registered and is reporting to NetApp Active IQ®.

Validation and Testing

• Perform testing to ensure successful integration into the Customer's environment.

• Perform storage connectivity tests for CIFS, NFS, and iSCSI.

• If the system is deployed as an HA pair, perform failover/giveback test.

• Test SnapMirror and SVM DR as necessary.

Service Completion and Knowledge Transfer

• Conduct a Knowledge Transfer session—a single 3-hour briefing session about the implemented functions. The session includes instructions and tips to the operating staff for best practices in daily work, manageability, and monitoring.

• Prepare and deliver the following advanced configuration deliverables:

  – Cloud Volumes ONTAP Deployment Workbook

  – "As-built" documentation created by the NetAppDocs tool

  – Testing logs

• Review "as-built" documentation with the Customer.

• Give the Customer a quick tour of the NetApp Support site.

• Send a confirmation email upon completion of the Cloud Volumes ONTAP Deployment Service.

Note: NetApp tests the NetApp products to standard specifications. Completion of this testing is not a requirement of the product's acceptance, which is addressed under the product purchase agreement.

Service Prerequisites and Conditions
Customer's Responsibilities

• Any required licensing must be procured prior to commencement of services.

• Advise NetApp of the Customer's hyperscaler (e.g., AWS, Azure, or Google Cloud) prior to commencement of services. Any deployment or cloud environment configuration prerequisites must be completed.

• Provide all information necessary for the deployment on or before the commencement date of the service.

• Networking configuration within target cloud environment to support Cloud Volumes ONTAP deployment must be completed.

• Network connectivity within the deployment target cloud environment and between the cloud environment and any on-premises or cloud-adjacent networks hosting ONTAP systems that are to be peered with Cloud Volumes ONTAP must be completed.

• A Customer contact must be available for the duration of the service to clarify questions and provide information, access, and passwords as required.

• A Customer contact must be immediately available to work with the NetApp services team during the handover stage of the service.

• For scheduling any part of the service delivery, NetApp requires 2 weeks' notice to meet the requested scheduling date.

Shared Responsibilities
- Delivery of the entire Cloud Volumes ONTAP Deployment Service must be completed within 1 year of the purchase order date; otherwise the order automatically terminates and is deemed complete.
- NetApp sends the Customer a confirmation email upon completion of delivery, giving the Customer an opportunity to advise if the service was not delivered satisfactorily. If the Customer does not submit a written notification of a service performance issue within 5 business days from their receipt of the confirmation email, the work will be deemed accepted.

Exclusions
The following exclusions apply to the Cloud Volumes ONTAP Deployment Service:
- Design beyond the initial deployment defined in this Service Description
- Travel
- Work performed outside of standard business hours
- Any services not listed in this document, such as migration service; these services must be purchased separately

Other deviations from scope, such as activities performed outside of normal business hours, can usually be accommodated with the purchase of additional NetApp services.

Purchasing
Customers typically purchase deployment services at the time they purchase the software. Orders are assigned to NetApp's services team or certified NetApp services partners in accordance with local NetApp services management processes.

Fee Description and Payment
Prior to NetApp performance of any services, NetApp requires an approved purchase order from the Customer, acceptable to NetApp. NetApp invoices upon receipt of the approved purchase order. Payments are nonrefundable, with no right to refund or credit. If the Customer requires any additional time, a new NetApp sales quote and purchase order are required.

Additional Services
NetApp can assist in every phase of the NetApp system lifecycle. Whether you need help planning your next-generation solution, need an extra set of hands for a major deployment, or want to optimize your existing infrastructure, NetApp service personnel have the skills to help you start it right and keep it right. NetApp offers a complete portfolio of related services, including consulting, design, and implementation, as well as managed and support services.

Implementation Scopes
The Cloud Volumes ONTAP Deployment Service includes the core package* and 1 package from the Use Case Package selection list.

Core Implementation Package
- Up to 2 SVMs*
- Up to 2 aggregates
- Up to 6 volumes
- Up to 6 qtrees
- Up to 2 iSCSI LIFs
- Up to 4 NAS LIFs
- Up to 6 CIFS shares and/or NFS exports

- Up to 6 Snapshot policies
- Up to 4 LUNs mapped to up to 4 hosts
- Configure Data Fabric Peering to 1 other ONTAP system
- Create and test 1 SnapMirror relationship
- Full HA and network redundancy testing

Use Case Package Selection (Optional)**

The customer selects **one** of the following packages before scheduling delivery.

Data Protection Package

Create and initialize up to 25 SnapMirror relationships, including:
- Set up intercluster networking and peering to as many as 4 other Cloud Volumes ONTAP systems or on-premises ONTAP systems.
  - Create and initialize SnapMirror relationships, including schedule, policy, and destination volume.
  - Test-breaking a mirror relationship to make a data protection volume writable, validate accessibility, then reset and reestablish mirroring.

Disaster Recovery Package

Create SVM DR SnapMirror relationships for up to 4 SVMs*, including:
- Set up intercluster networking and peering to as many as 4 other Cloud Volumes ONTAP systems or on-premises ONTAP systems.
  - Create SVM DR SnapMirror relationships, including schedule, policy, and destination SVMs.
  - Exclude volumes, if necessary.
  - Initialize SVM SnapMirror relationships.
  - Configure destination networking and protocols for data access.
  - Test activation of SVM DR for 1 SVM, verify accessibility, then reestablish mirroring.

Enterprise File and Block Package

Includes all of the Core Implementation Package, plus up to an additional:
- 4 SVMs*
- 4 aggregates
- 24 volumes
- 24 qtrees
- 8 iSCSI LIFs
- 12 NAS LIFs
- 10 CIFS shares and/or NFS exports per volume
- 12 Snapshot policies
- 12 LUNs mapped to up to 6 hosts

*All Cloud Volumes ONTAP configurations support one data-serving storage VM and one destination storage VM used for disaster recovery. You can activate the destination storage VM for data access if there's an outage on the source storage VM. Cloud Volumes ONTAP 9.7 and 9.8 supports multiple storage VMs in AWS with certain configurations and an add-on license. Contact your account team to obtain an SVM add-on license.

**Customer's selection from the Core Package and Use Case Package selection options is documented in the NetApp configuration Cloud Volumes ONTAP Deployment Workbook.

Incorporated Terms

In the absence of an effective written agreement between the parties, expressly governing the Managed Services, this service is governed by the standard NetApp Professional Services terms, posted at www.netapp.com/us/how-to-buy/stc.html, as of the sales quotation date. The standard NetApp Professional Services terms are incorporated herein by reference. If the customer wants to negotiate any of the terms herein, a NetApp SOW is required.

About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. www.netapp.com

n NetApp