



## SERVICE DESCRIPTION

# NetApp System Advanced Deployment Service

The NetApp® System Advanced Deployment Service installs a single or dual-controller NetApp ONTAP® storage system. The Advanced Deployment Service includes one of the predefined implementation packages to prepare the system for operations, connect the system into the customer's environment, and image and deploy customer-specific details for the NetApp system management domain. If customers want to deploy multiple systems, a deployment package is required for each unit that defines the system—for example, each high-availability (HA) pair or each node.

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

### **Advanced Deployment Service**

With the Advanced Deployment Service, NetApp provides physical installation and implementation of NetApp technologies. NetApp gathers information about what is required in the physical and software configuration and prepares and configures the system according to a design developed by NetApp engineers on behalf of the customer's IT organization. After the system is configured, NetApp verifies that it is functional and ready to use.

### **Key Benefits**

The flexibility, efficiency, and scale provided by NetApp technologies help organizations grow and meet changing business needs. Improper installation or misconfiguration of new technology can cause the system to fail, wasting time, resources, and money. Avoiding missteps and optimizing efforts requires careful planning, knowledge of best practices, and thorough testing before deployment of the system in a production environment. Without expert help, customers can experience downtime and miss out on many of the capabilities and benefits that NetApp technology has to offer.

The goal of the NetApp Advanced Deployment Service is to provide a high-performance NetApp technology—whether it is a storage system, an appliance, software, or other technology—that is ready to meet the application requirements. In addition to installation, setup, implementation, and verification, NetApp optimizes the system so that customers can reap the benefits of a consistent, high-quality deployment from the start while minimizing risk and shortening deployment time. NetApp service professionals help eliminate missteps so that the customer's staff can stay focused on business-critical tasks.

### **Service Delivery**

To make sure that the system is compatible with the customer environment and can be easily integrated, the service starts with a review of all relevant parts of the environment. The Advanced Deployment Service interview is performed in person or virtually via telephone, WebEx, Zoom, or other online meeting service with the NetApp consultant. The result of this interview is a completed deployment questionnaire, noting all the required information for the installation and configuration phase.

The Advanced Deployment Service is delivered in six phases:

- **Service preparation.** NetApp engineers engage with designated customer personnel to perform a site preparation and deployment review. They apply standard methodology and best practices while planning the customer's system deployment.
- **Deployment.** NetApp usually schedules and performs the installation during normal business hours. Applying NetApp best practices, engineers install one or more systems in a standalone or HA configuration. They also minimally configure the operating system as required.
- **Service validation.** To validate that the customer's equipment is ready for use, NetApp performs a minimal test configuration and then tests it to determine that read/write access is available for up to two colocated hosts. If the customer has purchased an HA model, NetApp also tests and verifies failover and fallback capabilities. For NetApp FAS ONTAP systems, deployment also includes all necessary switches and cabling installation, as well as node configuration.
- **Implementation.** Based on environmental variables such as IP addresses, host names, and networking infrastructure designs, the NetApp technology is configured within the limits defined in the Advanced Deployment Service package selected.
- **Validation.** NetApp validates the features configured as part of the implementation packages selected.
- **Service completion and knowledge transfer.** Finally, NetApp service professionals provide all necessary information to your team during a single knowledge transfer (KT)\* session so that customers can continue to support and maintain the new system in their environment. NetApp's goal is to provide customers with a fully functional, working system so that the customer can deploy it into their data infrastructure, either with their own resources or using NetApp Services resources.

\* KT does not replace NetApp University 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 Advanced Deployment Service.

## Service Scope

Advanced Deployment includes the following services.

### Service Preparation

- Preparation of the site and installation review
- Validation that the customer environment is suitably prepared for the integration of the NetApp system solution
- Final sign-off of parameters to be used during the deployment and validation process
- Software and hardware inventory checks

### Deployment

- Installation of purchased products
- Firmware and software version validation and updates
- Connection of components:
  - Power
  - Controllers to storage shelves
  - Storage and client management network connection
- Verification of all purchased licenses
- Full system tests to make sure that the system is prepared for implementation of custom configuration
- Setup of the system:
  - Load system management software.
  - Enable cluster failover (if clustered).
  - Configure email and SNMP alerts (if applicable).
  - Deploy management node (if applicable).
  - Enable NetApp AutoSupport® (if applicable).

### Service Validation

- Perform internal testing for successful integration within the customer environment.
- Verify and test the system:
  - Verify the protocol and licensing (if applicable).
  - Create the management account and confirm client access on a test volume (if applicable).
  - Perform a connectivity test; connect up to two hosts.

### Implementation

- Configure the implementation scope (which varies by product).
- Integrate the system into the customer's network infrastructure.

## Validation

- Perform basic tests on features and system services included in the advanced configuration scope selected.
- Perform basic tests on high-availability failover (if purchased).
- Perform cluster-mode testing and operation (if purchased).

## Service Completion, Knowledge Transfer, and Administrative Details

- Conduct the KT session—a short briefing about the implemented functions. Give instructions and hints to the operating staff for best practice in daily work, manageability, and monitoring.
- Prepare and deliver the following:
  - Acceptance test procedure—testing all components, making implementation ready for service
  - Documentation for NetApp system as deployed
  - An “as-built” document with the deployment and configuration details
  - Base setup step-by-step documentation
  - Advanced setup step-by-step documentation
  - Testing logs and Config Advisor output
- Review “as-built” documentation with the customer contact.
- Provide the customer with a quick tour of the NetApp Support site (NSS).
- Perform system registration.
- Obtain customer sign-off and acceptance of the Advanced Deployment Service.

**Note:** NetApp tests its products to standard software or hardware 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

### NetApp Responsibilities

- Advanced configuration deliverables are available up to 3 months after the system setup and installation was completed.
- Advanced configuration deliverables will not exceed 5 days of delivery.

### Customer Responsibilities

- The new equipment must be available at the customer site before services begin.
- The data center must be prepared so that rack space and the necessary power and network connectors are available, to standard product specifications.
- The customer must provide access to the data center and required systems.
- The customer must provide all information necessary for the deployment on or before the date of the service.
- The customer must make sure that network connectivity and physical infrastructure (for example, electricity, facilities, and cabling) are available to product specifications.
- The customer must provide a contact who is available throughout the service to clarify questions and provide information, access, and passwords when needed.
- The customer contact must be immediately available to work with the NetApp consultant during the handover stage of the service.
- The customer must provide access to the contacts and facility as requested for up to 5 days for completion of Advanced Deployment Service.
- Customers must provide at least 2 weeks notice to schedule service delivery.
- To complete NetApp MetroCluster™ configuration, the customer must purchase the Advanced Deployment Service for both ends of the MetroCluster connection.

### Shared Responsibilities

- The entire Advanced Deployment Service must be completed within 1 year of the purchase order date. Otherwise, the order automatically terminates and is deemed complete.
- NetApp will send the customer a confirmation email when the service is complete, providing an opportunity for the customer 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 receipt of the confirmation email, the work will be deemed accepted.

## Exclusions

The following items are not included in the Advanced Deployment Service.

- Design
- Travel
- Repositioning of equipment beyond commercially reasonable distance
- Any services not listed earlier (for example, migration service); these services should be purchased separately

Other deviations from service scope can be accommodated with the purchase of additional NetApp services.

## Purchasing

Customers typically purchase deployment services when they purchase the system. Orders are assigned to NetApp's Services team or certified NetApp Services partners in accordance with local NetApp processes.

## Fee Description and Payment

Before NetApp performs any services, NetApp requires an approved purchase order from the customer, acceptable to NetApp. NetApp will invoice when it receives the approved purchase order. Payments are nonrefundable with no right to refund or credit. If the customer requires additional time, a new NetApp sales quote and purchase order will be required.

## Additional Services

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

## Implementation Scopes

### FAS/AFF Scope

The Advanced Deployment Service includes one package from Selection Group A and two additional packages, either from Selection Group A or Selection Group B. Customer selects all packages before scheduling delivery.

### Selection Group A

Customer must select at least **one** of the packages from Group A before scheduling delivery.

NAS IMPLEMENTATION PACKAGE	HYBRID IMPLEMENTATION PACKAGE	SAN IMPLEMENTATION PACKAGE
Up to 8 Storage Virtual Machines (SVMs)	Up to 8 SVMs	Up to 8 SVMs
Up to 8 aggregates	Up to 8 aggregates	Up to 8 aggregates
Up to 48 volumes	Up to 48 volumes	Up to 48 volumes
Up to 48 qtrees	Up to 24 qtrees	Up to 48 qtrees
Up to 1 CIFS-NFS server	Up to 4 SAN LIFs per SAN SVM (max 16)	Up to 24 SAN LIFs
Up to 24 LIFs	1 CIFS-NFS server	Up to 24 LUNs mapped to 10 SAN hosts
Up to 36 CIFS share-NFS exports per volume	Up to 12 LIFs	Up to 48 Snapshot policies
1 failover group per node management LIF, cluster management LIF, and data LIF (1 subnet for data traffic per SVM)	Up to 15 CIFS share-NFS exports per volume	1 NetApp SnapMirror® relationship per SVM
Up to 48 Snapshot policies	1 failover group per node management LIF, cluster management LIF, and data LIF (1 subnet for data traffic per SVM)	Full HA and network redundancy testing
	Up to 48 Snapshot policies	FC and IP SAN configuration
	Up to 12 LUNs mapped to 5 SAN hosts	Up to 4 switches (purchased from NetApp)
	Full HA and network redundancy testing	Up to 12 VLANs per switch
	FC and IP SAN configuration	
	Up to 2 switches (purchased from NetApp)	
	Up to 6 VLANs per switch	

## Selection Group B

STORAGE BACKUP PACKAGE	DISASTER RECOVERY PACKAGE	ADVANCED KNOWLEDGE TRANSFER
1 SnapMirror relationship per SVM	Up to 10 NetApp SnapVault® relationships (including schedule and destination volume)	At least 2 hours dedicated to explaining the system, how it was setup, and how to get the most out of the ONTAP and OFFTAP features
Full HA and network redundancy testing	Testing of the SnapVault relationship for backup and restore functionality	
Up to 10 SnapMirror relationships set up (including schedule and destination volume)		
1 intercluster LIF per node (if applicable)		
2 cluster peer relationship baseline transfers performed and updated (if time allows)		
Testing of SnapMirror failover and giveback		

### MetroCluster Configuration

The Advanced Deployment Service must be ordered for both systems that will form a MetroCluster configuration, and then the following deliverables are included:

- Gathering of MetroCluster specific requirements
- Planning meetings to verify prerequisites
  - Network connection/layer 2
  - IP addresses
- Configuration of MetroCluster features
- Validation testing to determine that MetroCluster connection is functioning properly
- Remediation to achieve successful MetroCluster configuration

### Incorporated Terms

In the absence of an effective written agreement between the parties, expressly governing these services, this service is governed by the standard NetApp Support and Professional Services terms, posted at [www.netapp.com/us/how-to-buy/stc.html](http://www.netapp.com/us/how-to-buy/stc.html) as of the sales quotation date, which are incorporated herein by reference.