Storage Implementation Services

OVERVIEW

Whether you’re installing new storage or upgrading an existing storage platform, OnX offers Storage Implementation services to assist with the implementation. This Solution Brief provides an overview of the OnX approach to storage implementation.

The sections below provide details of activities to be performed during each service.

ONX APPROACH

Storage Implementation

Pre-installation Consulting and Planning activities include:
- Hardware placement, power and cabling requirements
- LUN design
- Server Storage Presentation
- Storage software requirements

Physical installation including racking and cabling of the purchased storage array(s)

Power up storage equipment and upgrade firmware if needed

Review and upgrade existing SAN switch firmware if needed

Install and configure required storage management console

Configure storage for required RAID settings

Configure LUNS

Assist customer with zoning of existing SAN switches

Configure thin provisioning on supported arrays

Verify LUNS are seen by the required server

New SAN Implementation

SAN Fabric Design

Physical installation including racking and cabling of the purchased SAN switches

Configure IP address for each SAN switch

Confirm all switches within SAN fabric are compatible with latest firmware revisions

Install Gigabit Interface Converter (GBIC) above switches and connect fiber cables

Install Host Bus Adapters (HBA) in servers if required

Install and configure HBA device drivers and firmware updates

Perform switch zoning for new fabric and/or merge with an existing fabric

Verify LUNS are seen by the required server

Multi path Software Implementation

Install Multi Path software and appropriate updates on all required servers

Configure Multi Path for Preferred Path and Load Balancing as required

Perform path failover and failback to ensure multi pathing is configured correctly

Local Snapshot Implementation

Installation and setup of purchased snapshot software.

Upgrade to the latest release revisions of all appliance components (i.e., Operating System patches, Driver updates, and application updates) as necessary.

Create snapshots and demonstrate functionality for each OS in the customers environment

Create snapshot scripts to create and split volumes

Test installation and verify operation.
Remote Replication Implementation

- Conduct a planning meeting with the customer to determine data replication requirements
- Gather information on existing environment and review for compatibility with replication software
- Upgrade storage firmware, storage management console and switch firmware if required for compatibility with replication
- Design the replication solution
- Develop a test plan and review with the customer prior to implementing.
- Install replication software.
- Configure remote copy sets and perform initial replication.
- Perform Fail-over testing for the system using the Primary and Secondary servers.
  - Testing will consist of manually failing over the primary site to the target site and manually failing back to the original configuration.

Knowledge Transfer and Documentation (part of each service)

- Provide knowledge transfer throughout the engagement
- Conduct a final knowledge transfer session at the end of the engagement to review the configuration and documentation. The session may consist of an overview of the following topics depending on the services requested:
  - Overall SAN hardware description and installation as related to the installed Customer equipment
  - Storage console
  - Storage Array configuration
  - Fiber Channel Switches and zoning
  - Host Server System(s) configuration
  - Multi Path software purpose and configuration
- Provide as-built documentation specific to the configured environment

RELATED SERVICES

- Data Migration
- Operational Run Books
- Performance Analysis and Assessments for:
  - Storage / SAN
  - Backup / Recovery
  - Server
  - Network
- Backup and Recovery Implementation

PROJECT MANAGEMENT

OnX includes a project manager as part of all projects to manage the overall project team, create and maintain the project plan, communicate status on a recurring basis and facilitate escalations as needed. This will minimize risks and ensure timely and successful service delivery. The caliber of the Project Management team allows us to tackle the complexity of projects and ensure successful implementations for our clients.

Additionally, OnX maintains a knowledge base of “lessons learned” comprised of feedback from all service deliveries to help prevent unforeseen delays and other impacts on the project.
WHY ONX?

> **Our People**
  - Technical professionals with subject matter expertise in a deep breadth of industries and advanced solutions
  - Dedicated and responsive client account team
  - Talented OnDemand Residents to augment your staff and meet your precise technology needs

> **Our Experience**
  - 30+ years as a Solution Provider
  - Data Center and Managed Services heritage & expertise
  - Comprehensive portfolio of solutions
  - Successful delivery of 1,100+ projects annually

> **Our Client-Centric Approach**
  - Solutions built collaboratively to drive defined objectives
  - Formal PMO oversight to deliver consistent, predictable outcomes
  - Leverage our growing OnX knowledgebase from all proven service delivery successes to minimize client risk

> **Facilities/Client Experience Centers**
  - Client Briefing Centers for executive briefings, technical demos and proof of concepts
  - OnX Integration Center for testing, custom integration and turnkey staging
  - OnX Data Centers and Network Operations Center
  - Offices in major locations throughout U.S., Canada, and U.K.