Sample Project Plan for a Flash Appliance System

This document is a starting point for customers wanting to implement a Flash Appliance System (FAS). It consists of a wish list of customer requirements accumulated from various FA customers.

Please use or delete any features or requirements you wish; this is only a template for generating ideas about requirements.

XYZ Corporation

Flash Appliance Project

Prepared by
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Overview

XYZ organization wishes to take advantage of Flash solution based storage for use in its current, and future, computing environment. The purpose of this document is to establish a key set of requirements that will be used to reach a decision on the Flash solution vendor. This document does not necessarily weight or rank the importance of each feature, it simply lists potential criteria that we will use to measure a vendors' offer. Responding to and completing this document does not constitute any commitment on our part to purchase a specific Flash solution in the future.

Project Goals

- Improve performance for existing applications by introducing Flash solution technology with little or no operational downtime
- Reduce data management expenses
- Improve End-User customer service with increased performance of applications

Business Features

The Flash solution vendor must have a solid presence in the Storage industry and be recognized as a viable, long-term supplier.

The Flash solution vendor must have a sufficient support/channel organization to provide support services.

The Flash solution vendor must provide integrated and automatic functions for volume management, virtualization, backup and recovery and data replication.

All pricing proposals should include three years of support/maintenance.

Technical Features

The Flash solution must be capable of being implemented with no downtime for existing applications. We do not want to have to reboot our servers or install hardware to implement the solution.

The Flash solution must have a shared architecture that provides performance benefits across 2 or more physical servers at the same time. We want to be able to provision the Flash solution to new servers being added and decommission Flash from older machines non-intrusively.

The Flash solution must support “storage in motion” tools so we can rebalance applications and their associated performance levels as needed. We do not want to be in a situation where we can’t take advantage of all available server resources at all times.

The Flash solution’s performance must scale as additional units are added. We do not want to be restricted by the controllers and network connections as we add capacity.

The Flash solution must provide the ability for unit-to-unit replication to provide full redundancy with no single point of failure.

The Flash solution must allow multiple generations of hardware to work at the same time. We do not want to be forced into a “forklift” upgrade to replace older equipment that is in good working order simply to take advantage of newer technology that may be available in the future (higher capacity SSDs, etc.).

The Flash solution should be designed to augment our existing storage infrastructure, not necessarily replace it. We expect to incrementally add Flash equipment over time to our existing Hard-Disk based architecture, not “rip and replace”.

Although not a hard requirement, we are looking for innovative solutions that maximize performance. Using unsupported, commodity or open-source tools that are susceptible to security risks will not be our first choice.

Potential Flash Supplier Questionnaire

Please tell us about your company's history as it relates to Flash technology.

Please describe your support infrastructure.

Please describe the five-year support costs associated with your products.

Please explain if the installation of your proposed solution would cause server downtime. We prefer not to reboot our servers for this project.

Please describe how we can share the performance and capacity benefits of your solution among virtual and physical servers. Can we add new machines to the shared pool without disruption?

Please describe how your solution supports "storage in motion" tools. We do not want to be in a situation where we can't take advantage of all available server resources at all times.

Please describe how the Flash solution's performance will scale as additional units are added. We do not want to be restricted by the controllers and network connections as we add capacity.

Please describe how the Flash solution can be made "Fault Tolerant". What options are available to ensure 99.999% availability?

Please describe how newer Flash solution units can be added to an existing environment. We do not want to be forced into a "forklift" upgrade to replace older equipment that is in good working order simply to take advantage of new technology that may be available in the future (higher capacity SSDs, etc.).

Please explain your specific innovative contribution to the Flash market. Does your solution depend on unsupported, commodity or open-source tools that may be susceptible to security threats?

Please explain how your Flash solution separates Flash I/O traffic from other non-data related traffic (unit management, user traffic, etc.) being handled by the native CPU. We don't want to impact I/O performance by mixing traffic types.