2020-21 ENTERPRISE ALL-FLASH ARRAY BUYER'S GUIDE

The Insider's Guide to Evaluating Enterprise All-Flash Arrays

RECOMMENDED
2020-21
DCIG
BUYER'S
GUIDE
ENTERPRISE
ALL-FLASH ARRAY

The Enterprise All-Flash Array Opportunity

Enterprises replacing their legacy storage systems have a transformational data center and business opportunity. The data storage landscape has changed dramatically over the last several years. For any business looking to refresh its storage infrastructure, these changes have created a whole new world of possibilities.

The current generation of enterprise all-flash arrays can deliver orders of magnitude improvements over legacy storage across multiple vectors, including latency, capacity, and density. Beyond performance claims, storage vendors are transforming the storage ownership experience along several vectors. These include:

- Sophisticated storage analytics and proactive technical support maximize availability and application performance
- New acquisition and deployment options, including storage-as-a-service on-premises and in the public cloud, create flexibility and optionality
- Automation features enhance agility and reduce administrative overhead

Pure Storage FlashArray//X Series (//X90R2)

The Pure Storage FlashArray//X Series of all-NVMe arrays exemplifies all three of the above characteristics.
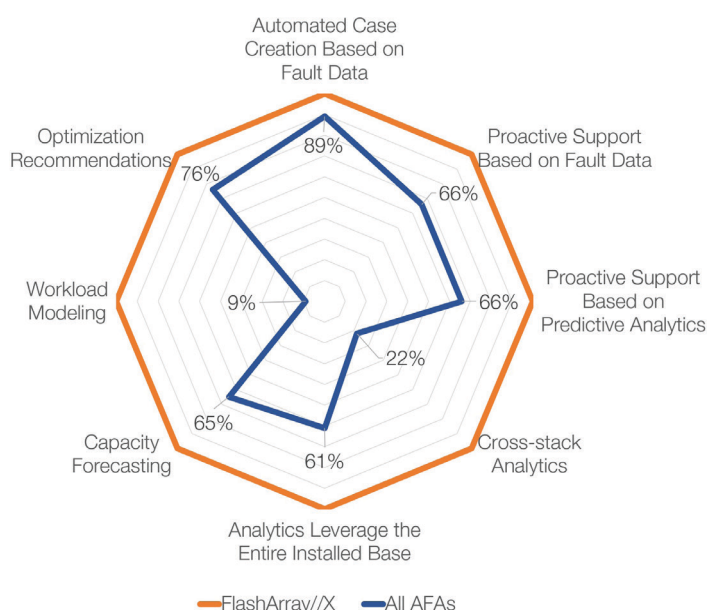
FlashArray's chassis allows for non-disruptive modular expansion and upgrades across multiple controller generations. Top-end models now support storage-class memory (SCM) in the form of Optane SSDs.

Predictive Analytics & Proactive Support

Pure's proactive support and predictive analytics capabilities are more comprehensive than those of most of its competitors. Pure Storage built its proactive technical support around telemetry data. It initially focused on fault data, using the data to help customers avoid more than 500 Severity 1 outages. Pure1 META applies AI and machine learning to the collected telemetry data to predict and avert problems.

FlashArray//X is one of the few solutions to provide cross-stack analytics and workload modeling. These tools accelerate root cause analysis and simplify capacity planning.

Predictive Analytics & Proactive Support

Radar chart comparing FlashArray//X and All AFAs across: Automated Case Creation Based on Fault Data 89%, Proactive Support Based on Fault Data 66%, Proactive Support Based on Predictive Analytics 66%, Cross-stack Analytics 22%, Analytics Leverage the Entire Installed Base 61%, Capacity Forecasting 65%, Workload Modeling 9%, Optimization Recommendations 76%.
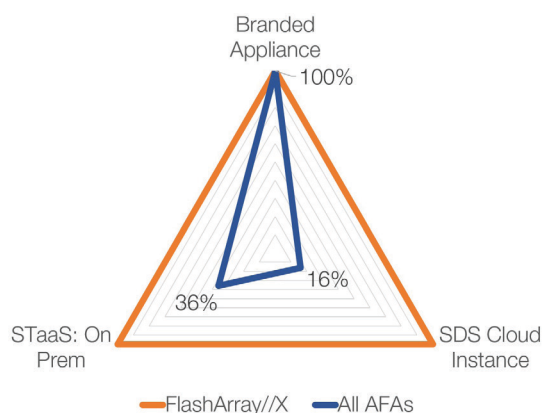
Acquisition & Deployment Options

Pure offers the FlashArray as a branded appliance and as software-defined-storage running natively in the AWS cloud. For on-premises deployments, Pure Storage's Evergreen Storage provides upgraded controllers with each 3-year maintenance and support renewal.

Pure offers the solution in the cloud and as-a-Service on-premises, billed based on actual consumption. These acquisition and deployment options provide all the benefits of FlashArray storage wherever it is needed—whether on-premises or in the cloud.

Acquisition & Deployment Options

Radar chart comparing FlashArray//X and All AFAs across: Branded Appliance 100%, SDS Cloud Instance 16%, STaaS: On Prem 36%.
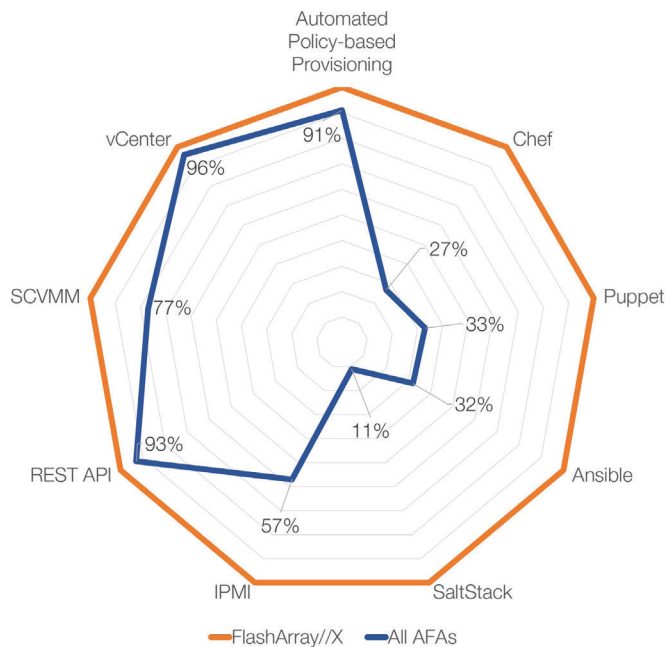
Automated Provisioning & Management Integrations

The FlashArray is one of two products that supports all automated provisioning and management integrations that DCIG measured. Pure's automated provisioning features and prebuilt support for automation frameworks enables enterprises to integrate the FlashArray into existing automation workflows quickly.

FlashArray's vCenter and SCVMM plugins empower virtual infrastructure administrators to monitor and manage many storage functions from within the VMware and Microsoft management consoles. These integrations enhance agility and reduce administrative overhead.

Automated Provisioning & Management Integrations

Pure Storage Company and Product Background

Pure Storage was founded in 2009 by a management team with extensive executive and technical leadership experience at technology companies from A-to-Z, including Akamai, NetApp, Quantum, Veritas, Xiotech, and Zimbra. The PureStorage team has expertise in flash memory, file systems, data structures, I/O optimization, and in building successful products and companies. Pure Storage created its all-flash FlashArray to replace legacy HDD-based enterprise storage arrays.

Pure Storage remains true to its founding focus on transforming the enterprise storage ownership experience. This focus has taken Pure Storage well beyond storage performance:

- FlashArray's chassis-based design enables non-disruptive expansion and upgrades.
- Pure's proactive support based on storage analytics reduces management overhead and increases system availability and performance.
- Pure's Evergreen Storage "subscription to innovation" keeps the storage environment up-to-date and increasing in performance over time to keep pace with enterprise requirements.
- Pure as-a-Service further simplifies the ownership experience by delivering on-premises storage-as-a-service (STaaS) based on a pay-per-use per used GB with a minimum contract term of just twelve months.

DCIG View of the AFA Marketplace and Pure Storage

Any organization that has yet to adopt an all-flash storage infrastructure for all active workloads is operating at a competitive disadvantage. Deploying a current generation enterprise all-flash array:

- Helps organizations move faster
- Makes existing applications run faster even as data sets grow
- Accelerates application development
- Enables IT departments to say, "Yes" to new workloads and quickly get those new workloads into production
- Increases the performance density of data centers
- Drives down data center operating costs

The Pure Storage FlashArray//X product line exemplifies these attributes and enables all of these benefits. Beyond the technology, Pure's proactive support, plus its flexible acquisition and deployment options, demonstrates that the company continues to listen to their enterprise customers and then deliver solutions that meet their changing needs.

Note: The data for "All AFAs" is based on DCIG's independent research into enterprise storage arrays and includes the 99 arrays that satisfy DCIG's criteria for Enterprise All-Flash Arrays. ∎