FlexPod®

FlexPod with NetApp AFF A-Series Solution Brief

Secure, Smart, and Sustainable - FlexPod with NetApp AFF A-Series A70, A90, A1K

In an ever-changing industry, FlexPod remains a pillar in the hybrid cloud world. Cisco and NetApp have maintained a partnership over the last 14 years to offer the gold standard for enterprise workloads. While trends have come and gone over that time, FlexPod has adapted and evolved to embrace new technology and support evolving workloads.

NetApp AFF A-Series aligns perfectly with the FlexPod principles: Secure, Smart, and Sustainable. Its advanced security features safeguard critical data, while its intelligent systems streamline operations and analytics. Additionally, FlexPod's energy-efficient design supports a sustainable IT infrastructure, reducing the environmental impact and operational costs for forward-thinking enterprises.

The FlexPod team has been hard at work to validate NetApp AFF A-series as we reach this crucial juncture in tech with demanding enterprise and AI workloads. When integrated with FlexPod, NetApp AFF A-Series creates a solution that delivers unparalleled performance. This combination provides businesses with a resilient, high-performance, fully redundant, full-stack and scalable solution that can handle a wide range of workloads.

Best-in-class ransomware protection - Secure

NetApp AFF A-series protects valuable data from cyber threats with built-in, artificial intelligence and machine learning based real-time ransomware detection designed for industry-first 99%+ accuracy, and guaranteed recovery with end-to-end orchestration. The design is backed by NetApp's best-in-class Ransomware Recovery Guarantee.

FlexPod with NetApp AFF A-Series exemplifies a secure-by-design philosophy, as outlined by the Zero Trust Framework Design Guide, offering a comprehensive defense-in-depth strategy across its entire stack. From the initial best practices for FlexPod Infrastructure Hardening across the FlexPod stack - virtualization, Cisco UCS, Nexus, and ONTAP systems, to advanced ransomware protection and detection with Cloud Insights, and Reliable applications and VMware Recovery with NetApp SnapCenter, FlexPod ensures robust security. Additionally, its secure multi-tenancy capability allows for the coexistence of multiple tenants on the same infrastructure, with stringent logical data and application separation, providing peace of mind in a shared but secure environment.

Immutable data copies, snapshot-based recovery, multi-admin verification and multifactor authentication are designed to protect workloads from unwanted changes and

prevent stolen credentials from making said changes. Whether it's file or block, NetApp has your back.

Total cost of ownership savings starts on day 0 - Smart

With over 240+ full-stack reference architectures, FlexPod has been put through its paces across a range of scenarios, ensuring that no matter your workload, there's a proven blueprint for success.

From the outset, the NetApp AFF A-Series emerges as the prudent choice for FlexPod when addressing the needs of enterprise and AI workloads, initiating cost savings from day one. The AFF A-Series, powered by ONTAP One licensing, offers a comprehensive suite of features out-of-the-box, eliminating the complexity and additional expense of assembling a fragmented solution. This All-in-one ONTAP One license gives you ongoing access to the full capabilities of the AFF A-Series, dispensing with the need for extra purchases to unlock additional functionality.

NetApp AFF A-Series excels by offering:

Doubling Performance: Deliver up to 2x performance compared to previous generation systems, with latency as low as 100μs.

Broad Workload Support: Support any data type, any app workload, across hybrid cloud.

Reliable and Consistent Output: Provide consistent performance, adaptive quality of service, and proven 99.9999% data availability to safeguard SLAs even in multi-workload and multitenant environments.

Scalability Without Disruption: Scale non-disruptively to 702PB effective capacity in a cluster.

Enhanced Collaboration and Throughput: Improve the speed and productivity of collaborative teams across multiple locations and increase data throughput for read-intensive applications with NetApp FlexCache® software.

To simplify the deployment and management of NetApp AFF A-Series on FlexPod, NetApp [ONTAP Tools for VMware vSphere](#) enables one click configuration of path selection best practices, eliminating the need to manually configure multipathing settings for each host. ONTAP Tools provide dashboards to easily monitor storage usage, performance, latency, and proactively monitors for errors and misconfigurations to provide an optimal experience.

The combination of FlexPod with NetApp AFF A-Series provides customers and partners with a validated and tested solution for mission-critical applications. Like our other FlexPod reference architectures, FlexPod with AFF

A-Series features full stack redundancy.

Reduced infrastructure overhead - Sustainable

FlexPod with Cisco X-Series UCS servers and NetApp AFF A-series storage is at the forefront of sustainable IT infrastructure, offering a storage efficiency guarantee that can deliver a storage efficiency guarantee of up to [4:1 for SAN, 1.5:1 for NAS, 3:1 for VMware, KVM, Hyper-V on NAS,](#) through always-on deduplication and compression. This efficiency is matched by the Cisco UCS compute platform, which achieves [up to 4:1 compute density over previous generations of Cisco servers](#). The consolidation benefits of this solution lead to significant energy savings thanks to fewer nodes and reduced rack space, coupled with the inherent energy efficiency of the NetApp AFF A-Series, with its titanium power supplies at 95% efficiency rating and consumes up to [70% less energy](#) than traditional spinning disk arrays, owing to lower power requirements and diminished cooling demands. Moreover, the ability to scale compute and storage independently, both up and out, allows businesses to adapt to changing needs without compromising on sustainability goals.

FlexPod®   **CISCO**   **NetApp**