

SOLUTION BRIEF

FlashStack Delivers Software-defined, Intelligent Hybrid Cloud Infrastructure

Reimagined infrastructure, available as a service
for cloud-based scalability and economics.

Today's IT teams struggle to meet the fast-paced demands of a data-driven world. Complex, inflexible infrastructure can impede enterprises that are trying to modernize IT or adopt hybrid-cloud architectures. Additionally, management solutions do not usually encompass all layers of the infrastructure, leading to greater complexity and having to manage through multiple panes of glass. Finally, companies are increasingly looking to their IT departments to add business value, to become benefit centers instead of cost centers, and to deliver new insights, reduced costs, and value-add services.

IT teams like yours need greater simplicity, observability, and efficiency to support hybrid environments, cloud-native workloads, and IT as a utility—all of which make it easier than ever to drive digital transformation in your organization.

**Simplicity**

Easy to install,
deploy, and maintain.

**Flexibility**

The best foundation for
a hybrid-cloud strategy.

**Speed**

Driven by all-flash
performance, combined
with AI and automation.

Ease the Way for IT with a Modern Data Experience™

The new FlashStack has been re-architected from the ground up to deliver the simplicity, flexibility, and speed that enterprise organizations need to transform their experiences. Discretely scalable, holistically managed, and available as a service, FlashStack delivers always-on, future-proof infrastructure for your critical apps. It provides AI-based, software-defined, modern data infrastructure with flexible consumption economics, while integrating on-premises and multi-cloud landscapes. FlashStack is how you modernize your operational model and help protect and secure your applications and data, whether they're on premises, at the edge, or in the cloud. Put it all together, and it means your organization can enjoy a Modern Data Experience.

A Modern Data Experience is one that delivers outstanding performance on the most demanding workloads. It's about harnessing the full power of your data through a cloud-smart, hybrid-ready infrastructure: one that quickly and easily scales as your business changes. It's also about allowing non-disruptive upgrades in real time. A true Modern Data Experience lets IT organizations use AI and automation to simplify tasks and free valuable resources. It's enabled by an environment that protects your data from ransomware and cyberattacks, that makes it simple to back up across the multicloud, and that restores your data as fast as possible, so you are always protected.

How FlashStack Delivers on the promise of the Modern Data Experience

First, Top-to-Bottom Integration

FlashStack works as a single, integrated solution. Each layer—compute, network, and storage—can be provisioned selectively, discretely, and independently from one another. This means avoiding costly upgrades and overprovisioning, and never being constrained by insufficient resources during spikes in demand.

According to IDC,

"[With Intersight], Cisco has added cloud-based insights and management and made the solution incredibly simple to deploy, manage, and scale.

For that and that alone, **Cisco has managed to achieve something its competitors have not been able to.**"¹

Next, Holistic Visibility and Manageability

FlashStack is automated and application-aware. The entire stack shares Cisco Intersight™, an intelligent cloud operations platform. Intersight provides proactive management for your infrastructure by recognizing the status of each layer and taking proactive action to address any issues or new business requirements. Intersight becomes the single control center for both infrastructure operations and provisioning, a central requirement for a Modern Data Experience. In addition, FlashStack uses Cisco® AppDynamics® (AppD™) for best-in-class application performance monitoring and management. This capability lets you reduce IT resources and optimize performance by managing systems and apps together.

Plus, It's Truly Container-Ready

Portworx® Enterprise Storage Platform is the Kubernetes platform businesses trust to run mission-critical applications in containers in production. Only Portworx provides persistent storage, data protection and security, disaster recovery, cross-cloud and data migrations, and automated capacity management for applications running on Kubernetes. Portworx on FlashStack is even simpler with integrated Intersight management support.

An Unprecedented Full-stack Solution with Cisco and Pure Storage® Drives Performance and Rapid Insights

FlashStack delivers this integration, visibility, manageability, and container-readiness through world-class products from IT leaders, Cisco and Pure Storage.

Cisco UCS® X-Series Modular System, the new compute foundation for FlashStack, features up to 200 Gbps of connectivity per blade. Cisco UCS X-Fabric technology adds new compute-node capabilities and support for future graphics processing unit (GPU) accelerators that were once only available in rack servers. It also includes compute nodes with more memory, on-board expansion capabilities, and compatibility with Intel Optane persistent memory (PMem). NVM Express over Fabrics (NVMe-oF) capabilities also deliver extremely low-latency connectivity for Pure FlashArray™ and FlashBlade® solutions. All of this provides crucial support for the needs of modern applications and helps businesses improve operational efficiency and agility.

Pure Storage FlashArray and FlashBlade solutions provide the performance and scalability you need to tackle the demands of modern databases and business applications, in addition to the power to support the most challenging analytics and AI/ML workloads. FlashArray delivers latency as low as 150µs, which enables new levels of performance and extremely low latency for mission-critical business applications and databases. Think faster transactions and decisions and more immersive customer experiences. FlashBlade delivers fast file and object storage and massive throughput and parallelism with consistent multidimensional performance. Simply add blades to scale capacity and performance.

FlashStack Users Are Realizing Concrete Benefits

97% reduction
in unplanned downtime⁴

72% more efficient
IT infrastructure staff⁴

72% reduced
total cost of operations⁴

Even More Ways FlashStack Brings Value Across the Entire Stack

Simplify, manage, and protect your infrastructure, your applications, and most importantly, your crucial data.

1. **Cisco Secure Workload (Cisco Tetration®)**, is available to [protect any workload](#) across any cloud or application, anywhere. Automate and implement a secure zero-trust model for micro-segmentation based on [application behavior and telemetry](#), and proactively detect and remediate indicators of compromise to minimize the impact to your business.
2. **AppD** is available on FlashStack and supported by Intersight. AppD enables enterprises to monitor, analyze, and optimize complex environments at scale. AppD is the only application performance monitoring (APM) solution with Advanced Basic Application Programming (ABAP) code-level SAP visibility and business-transaction monitoring.
3. **DirectMemory™ cache (based on Intel Optane solid-state drives [SSDs])** is available to help minimize total cost of ownership (TCO) by reducing the need for more costly DRAM, and potentially reducing licensing costs for some in-memory workloads. DirectMemory cache also further reduces latency and improves the performance of demanding workloads such as SAP HANA, Oracle Database, OpenDB, and Epic.

4. **The SafeMode™ Snapshots feature** adds an extra layer of protection against cyber criminals and ransomware attacks by providing immutable backups. Even if your storage credentials are compromised by a hacker, they can't delete your backups.
5. **Cisco Validated Designs (CVDs)** offer pre-tested, validated reference architectures for common workloads that deliver faster time to solutions with significantly reduced risks. CVDs reduce risk when deploying and managing today's most popular workloads, and they work to ensure confidence in your applications.

Achieve Simplicity, Agility, and Economy by Consuming FlashStack as-a-Service

In addition to these value-add capabilities and features, you can reap further benefits when you consume FlashStack as-a-Service:

- It is easy to acquire and support, and you can effortlessly and selectively add capacity with continuous metering and monitoring—all under one subscription, with one bill for the entire stack.
- It is agile, with continuous right-scaling for on-premises and hybrid-cloud environments. The intelligent consumption model contains costs while offering flexible storage that aligns costs with usage. With non-disruptive upgrades, businesses can achieve 99.9999% availability.²
- It is economical, supporting transformation of IT assets from capital expenditures (CAPEX) to operational expenses (OPEX).³ This reduces balance-sheet impact, with low-risk terms and more flexibility than leasing.

FlashStack Is Cloud-smart Infrastructure on Your Road to Modernization

As you modernize, it's critical to address the challenges of rigid infrastructure and overly complex architectures. The maturing technology of software-defined infrastructures means you no longer need to worry about tradeoffs associated with converged infrastructure (CI), hyperconverged infrastructure (HCI), or do-it-yourself (DIY) approaches to a hybrid cloud model. This is where the new FlashStack shines. Groundbreaking in its simplicity, FlashStack overcomes obstacles to enable a transformative Modern Data Experience.

Want to See What It Can Do for You?

www.flashstack.com

1 IDC. "Cisco Bets Big on Hybrid Cloud, Introduces UCS X-Series Powered by Intersight." June 2021. IDC #US47846021. www.idc.com/getdoc.jsp?containerId=US47846021.

2 FlashArray only. Source: Pure Storage. "10 Essential Reasons to Modernize Your Infrastructure with FlashStack." 2018. www.purestorage.com/content/dam/pdf/en/infographics/ig-ten-essential-reasons-modernize-infrastructure-flashstack.pdf.

3 OPEX treatment is subject to customer's auditor review.

4 IDC. "FlashStack Delivers Business Value Through Simplicity, Flexibility, and Speed." Sponsored by Pure Storage and Cisco. March 2021. IDC #US47408621. www.purestorage.com/content/dam/flashstack/pdf/whitepaper/wp-flashstack-delivers-business-value.pdf.