



## SOLUTION BRIEF

# FlashStack—Energize IT

### EVERYTHING YOU NEED IN A MODERN INFRASTRUCTURE PLATFORM

Today's digital business operations are delivered through a mix of traditional and modern applications. Infrastructure must support this digital experience, but most offerings are either too rigid or force IT teams to compromise on simplicity and resiliency to achieve cloud-like scale. You shouldn't have to compromise. Ease of use, flexible support for any workloads, rapid implementation, proactive maintenance and a cloud anywhere experience can all be achieved with the right platform. FlashStack™ combines the best of breed technologies from both Pure Storage® and Cisco® to accelerate your digital transformation, giving you a competitive edge.

#### **SIMPLICITY**

*Data centers are complex, but FlashStack enables simplicity and a true cloud like experience in your data center*

#### **FLEXIBILITY**

*Run any application with the ability to start small, scale fast, and upgrade non-disruptively*

#### **ULTRA-FAST SPEED**

*Fast data is agile data. FlashStack redefines fast with low latency, highest bandwidth, and powerful performance*

#### **SIMPLICITY: Easy Adoption, Maximum Productivity**

FlashStack™ combines cutting edge technology in compute, network and storage components into a single architecture that dramatically reduces time to deployment, lowers IT costs and minimizes deployment risks. FlashStack is easy to deploy and minimizes required operational resources up to 61% for a five year ROI<sup>1</sup> of 431%. It breaks technological silos allowing you to run multiple applications from a single technology stack. FlashStack's unique API-first approach underpins the extensive integration into Cisco and VMware platforms as well as multiple automation technologies such as Ansible, PowerShell, and more, making it easy to scale your investment from on-premise to hybrid cloud.





**THE CISCO ADVANTAGE:** The Cisco Advantage: FlashStack can be built using B-Series or C-Series UCS servers. Cisco UCS servers provide FlashStack with industry-leading stateless capabilities and an economical high performance solution. Cisco's diversified ecosystem makes both deployment, management and maintenance of your environment easy.

- **Cisco Intersight** provides a single management console and enables easy access to data from compute and storage greatly enhancing workload performance.
- **Cisco Workload Optimization Manager (CWOM)** makes resource scaling easy. CWOM analyzes workload consumption continuously and allocates resources in real-time, on premise and in the cloud.
- **AppDynamics: AppDynamics (aka: AppD)** offers application intelligence software that enables enterprises to monitor, analyze and optimize complex environments at scale. AppD is the only APM solution with ABAP code-level SAP visibility and business transaction monitoring.
- **Cisco Container Platform (CCP)** offers container management for a multi-cloud world. Everybody loves using containers. Nobody loves deploying, monitoring, and managing them- especially across multiple public and private clouds. There are simply too many tools and too little standardization. CCP automates the repetitive things and simplifies the complex ones so everyone can just go back to enjoying the magic of containers.
- **Cisco Application Centric Infrastructure (ACI)** automates deployment, orchestration and management. ACI allows application requirements to define the network (SDN). This architecture simplifies, optimizes and accelerates the entire application deployment life cycle.

**PURE STORAGE SIMPLICITY:** Simplicity is a foundational attribute of Pure Storage's product and support strategy, reducing complexity, administration, and maintenance.

- **Quick Deployment:** Storage and enterprise data services can be installed, configured and delivered in a few steps.
- **Super-Simplified Infrastructure Maintenance:** To simplify ongoing operations, Pure's Evergreen Storage™ subscription model delivers a fundamentally different experience. Customers receive a subscription to innovation that includes all array software, non-disruptive upgrades, controller upgrades, and trade-in opportunities. These, along with Pure1® proactive support and workload modeling capabilities, simplify infrastructure planning by eliminating planned downtime windows and budgetary requests to upgrade systems or add on important data services. The September 2019 Gartner Magic Quadrant for Primary Storage names Pure Storage as a Leader<sup>2</sup>.
- **World-class Support Model:** Multiple support options are available for FlashStack to best fit your individual business requirements. These range from collaborative support from Cisco, Pure, and VMware (leveraging TSA-net) to single call support for an entire FlashStack whether offered by Cisco or Authorized FlashStack Support Partners.





### **FLEXIBILITY: Scale Smart and Fast**

**YOUR APPLICATIONS, YOUR CHOICE:** Cisco UCS server options combined with FlashBlade® or FlashArray™, provides the customer with ultimate flexibility for their workloads and applications. Run virtualized, containerized and bare metal workloads from analytics, databases, VDI, AI to open software platforms with confidence. Minimize risk by using documented, tested Cisco validated optimized for your workloads (SAP, Oracle, VMware, Microsoft, OpenShift, VCloud Foundation, and more). Cisco Validated Designs brings together the results of world-class solutions engineering from Cisco and Pure teams with testing all the way up to the application level providing confidence that an application will run as stated.

**INDEPENDENT AND AGILE SCALING:** FlashStack is a disaggregated infrastructure that allows flexible growth of compute, network or storage depending on specific CPU, GPU, bandwidth and data scaling needs. Compute resources can scale to 160 servers in a single UCS domain or even further with multiple UCS domains including both blade and rack servers. Storage resources scale from 5.5TB to more than 1.5PB of capacity. And because on-premise resources can easily integrate to the cloud, your business is future ready.

**PURE AS-A-SERVICE:** Pure as-a-Service is a pay-as-you-go, 100% OpEx model for consuming block, file, object and cloud storage services from Pure. Scale up or down, you pay only for what you use, all with a simple subscription<sup>4</sup>. For customers launching a new service, expanding into a new geography, or simply looking to align revenues more precisely with costs, Pure as-a-Service offers a great option.

### **SPEED: Blazing Fast Performance for Your Mission-critical Workloads**

**COMPUTE THAT SUPPORTS INNOVATION:** Cisco UCS helps change the way IT organizations do business. It combines industry-standard, x86-architecture servers with networking and storage access into a single unified system. UCS brings increased productivity, reduced total cost of ownership, and scalability into your data center. Cisco Unified Computing System™ (Cisco UCS®) is an integrated computing infrastructure with intent-based management to automate and accelerate deployment of all your applications, including virtualization and cloud computing, scale-out and bare-metal workloads, and in-memory analytics and AI/ML using powerful GPUs, as well as edge computing that supports remote and branch locations and massive amounts of data from the Internet of Things (IoT).

**FUTURE READY STORAGE:** To ensure workloads meet SLA requirements today and tomorrow, it is critical to have scalable performance built on the most modern technology. FlashArray and FlashBlade delivery exactly that. Both platforms support end-to-end NVMe—now—ensuring low latency IOPS or high-speed streaming throughput without the need for an upgrade or complete controller swap. As you deploy more challenging workloads, including AI/ML pipelines, Pure Storage platforms can quickly scale throughput to support business units. And with Pure1 Meta, you can easily identify bottlenecks, model workload movement to other Pure platforms and migrate to maximize performance.





## FLASHSTACK LEADS THE INDUSTRY

FlashStack delivers everything you need in a modern infrastructure stack, from flexibility to simplicity and speed. Run any application with the ability to start small, scale fast, and upgrade non-disruptively. It increases resource and operational efficiency across your organization by removing silos, reducing complexity and providing a cloud-ready experience. So don't compromise your digital business operation—FlashStack is everything you need in a modern infrastructure platform.

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*"It's like a car and Secure-24 is constantly dropping in a new engine for us. Pure Storage allows Secure-24 to do this for us from a storage perspective."*

### RANDY RUCKER

Infrastructure Manager, Kraton Performance Polymers (Secure-24 customer)<sup>3</sup>

<sup>1</sup> IDC Whitepaper "FlashStack Delivers Business Value Through Efficiency, Improved Performance, and Scalability"

<sup>2</sup> "Pure Storage Named as a Leader in New Gartner Magic Quadrant for Primary Storage," Pure Storage, September 2019. (Gartner "Magic Quadrant for Primary Storage," Santosh Rao, et al, 17 September 2019. Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.)

<sup>3</sup> "Pure Storage and Secure-24 Case Study", Pure Storage, 2020.

<sup>4</sup> "OpEx treatment subject to customer's auditor review. Subscription is subject to a minimum commitment."

**FLASHSTACK@PURESTORAGE.COM**

**WWW.FLASHSTACK.COM**

**WWW.PURESTORAGE.COM/FLASHSTACK**

**WWW.CISCO.COM/GO/FLASHSTACK**

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