

Economic Validation Report Summary

Refreshing Your FlexPod Today May Lower TCO

The Value of FlexPod Converged Infrastructure with Cisco UCS M5 Servers and NetApp AFF Storage

March 2020

ESG was recently commissioned by Cisco and NetApp to validate the latest generation FlexPod powered by UCS M5 compute and NetApp AFF storage arrays. We validated and documented the savings and benefits that refreshing to the latest generation FlexPod can provide organizations through improved density and reduction in operating expenses.

[Read the full ESG Economic Validation report](#)

The FlexPod Datacenter with NetApp All-Flash FAS system is a converged infrastructure platform that combines best-of-breed technologies from NetApp and Cisco into a powerful converged platform for enterprise applications. Like all FlexPod systems, the FlexPod Datacenter with NetApp All-Flash FAS comprises compute (database, virtualization, application, and unified management servers based on the Cisco UCS M5 platform), network (three-layer network and SAN technologies from Cisco), and storage (NetApp All-Flash FAS storage systems with NVMe). The latest generation FlexPods are available with denser compute, network, and storage components that allow for greater consolidation for both standard three-tier architectures (silos consisting of servers, networking, and storage components) and earlier generation converged architectures.

ESG's economic analysis revealed that the latest generation FlexPods powered by Cisco UCS M5 Servers and NetApp AFF storage arrays provided customers with significant savings and benefits in the following categories:

- **Infrastructure Savings** – Consolidating workloads and upgrading previous generation FlexPods to FlexPods with denser compute and storage systems helps to lower operational costs by reducing the number of system components that must be deployed, significantly reducing power-, cooling-, and floorspace-related costs.
- **Administration Savings** – Fewer components means fewer systems to manage, monitor, secure, and maintain. Significant man-hour savings can be achieved for larger deployments and savings are multiplied with single pane of glass management and automation capabilities with UCS Central and cloud-connected support with Intersight.
- **Improved Business Agility** – Faster deployment of systems, global insight, improved automation, and more compute and storage headroom to run next-generation workloads like AI/ML mean that IT organizations can better react to the needs of the business through quicker provisioning of resources for workloads, with fewer performance limitations.



23% Savings
by refreshing FlexPod to the latest generation Cisco UCS M5 compute and NetApp AFF storage arrays.
(based on modeled 3-year total cost of ownership model (TCO))

? Why This Matters

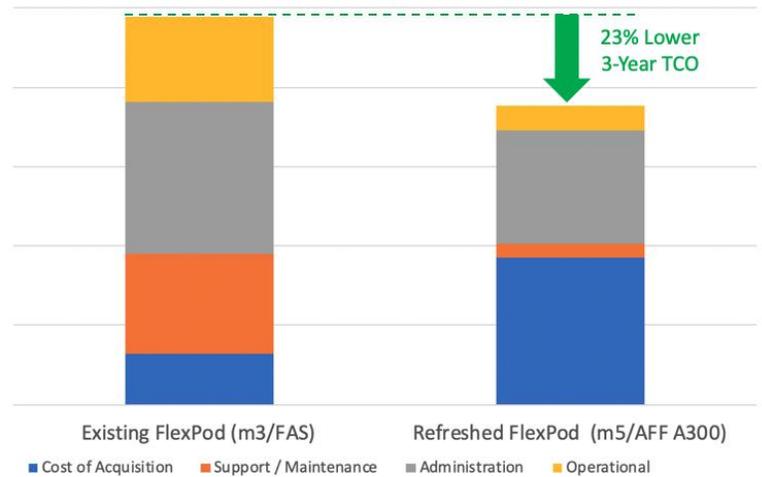
Organizations have realized years of significant operational savings as a result of first deploying their FlexPods, but there may be significant economic benefits to now upgrading these systems to the latest generation offerings.

It is important to perform a TCO analysis to see when a FlexPod refresh makes economic sense. ESG's analysis shows that, for those running UCS M3 servers with spinning disk FAS systems, now is a great time to consider a refresh.

ESG Economic Validation Highlights

ESG leveraged the information collected through vendor-provided material, public and industry knowledge of economics and technologies, and the results of customer interviews to create a three-year TCO/ROI model that compares the expected costs of continuing to operate a FlexPod based on Cisco UCS M3 Servers and a FAS storage array populated with HDDs with upgrading to a FlexPod built with powerful Cisco UCS M5 Servers and NetApp AFF storage. The model compared the costs and benefits that would be expected when deploying and/or operating each converged infrastructure configuration in a VDI environment with a goal of quantifying the expected TCO savings that are made possible through the improved density, performance, and administration capability of the latest generation FlexPod with UCS M5 servers and AFF storage.

- ESG’s model predicted that providing 800 Windows 10 Desktops after refreshing the VDI solution with the latest generation FlexPod would provide an expected total cost of ownership that is 23% lower than if the organization expanded the storage capacity and continued to operate the existing FlexPod solution deployed in 2014.
- By greatly reducing the storage footprint of the solution by nearly ten times, eliminating the need for cluster interconnect switches, and providing a denser compute platform that requires half of the number of blade servers, the expected cost of power, cooling, and floorspace is lowered by 70%.
- ESG’s models predicted a 24% lower cost of administration provided by a reduction in the number of components and the latest integration, automation, orchestration, and support capabilities of the refreshed solution.



The Bigger Truth

As organizations look to modernize their data center and applications, consolidating silos of servers, networking components, and storage into converged systems makes great sense. The business justification for consolidation into a converged architecture, such as FlexPod, that is simple to deploy, manage, maintain, refresh, repurpose, and grow is a relatively easy case to make. A converged system provides a faster time to value and helps to lower operational costs such as administration, maintenance, power, cooling, and floorspace.

Understanding when technology offers significant technological advantages or functionality that can help to lower operational expenses and positively affect the bottom line of the business is important. A credible total cost of ownership (TCO) analysis provides a solid understanding of the costs that will be incurred by continuing to operate your environment versus the costs that will be incurred if you choose to make a capital investment to consolidate the environment to more powerful FlexPods. ESG’s analysis showed that a refresh to the latest generation FlexPod leveraging Cisco UCS B200 M5 Servers and AFF storage from NetApp would result in an expected total cost of ownership that is 23% lower over the next three years than continuing to operate the existing FlexPod.

[Read the full ESG Economic Validation report](#)

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