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CSS Corp Leverages FlexPod from NetApp and Cisco to Provide Managed IT Services

CSS CORP
ICT Services • Technology Adoption

Key Highlights

Industry
IT Services

Challenge
Consolidate storage and server infrastructure to meet growing business needs

Solution
Deployed an architecture based on FlexPod from NetApp and Cisco

Benefits
- 49% improvement in storage utilization
- 61% improvement in storage efficiency
- Ease of management of IT infrastructure
- Improved scalability
- Lower TCO

CUSTOMER PROFILE

CSS Corp is a leading technology company supporting enterprise and consumer products, managing IT infrastructure (stand-alone, Cloud-or Mobile-enabled) and deploying networks. We partner with many of the Fortune 1000 companies to help realize their strategic business outcomes and be future-ready. Our expertise and in-depth understanding of the enterprise & consumer product space, along with proven pedigree in Infrastructure Management, help customers increase revenues, optimize costs, enhance IT availability and business efficiency, to more than 100+ customers worldwide. Our R&D arm, CSS Corp Innovation Labs designs and develops products and IP, creates platforms and solutions to accelerate IT transformation and enable faster go-to-market for customers.

Technology support is in our DNA. With over 5,500 technology professionals across 13 locations globally, we have a rich heritage of 14+ years in managing large and complex support ecosystems. From home devices, whether it's enterprise or consumer, data centers, applications and desktops to services, we have built our reputation on delivering stellar customer experiences. Because we chart the right support strategy, deploy the right processes and technology to enable it, and then execute impeccably – every day and every interaction. Because we are wired to support.

CHALLENGE

Consolidate storage for better performance, flexibility, and scalability

CSS Corp offers tech support to enterprise and consumer products and helps its customers manage their IT infrastructure but it stumbled over some roadblocks in delivering these services. CSS Corp realized that its own existing aging infrastructure presented a number of issues and was due for replacement.

As most of their business relied on virtualized environments running enterprise or consumer applications, critical applications, desktops and home devices, the heavy workload gave rise to read/write latency issues degrading system performance. Methods to improve the I/O performance, such as 'leveling', only took a considerable time each time a disk was changed, which delayed other storage related activities. As their existing storage ran out of capacity and was not scalable, CSS Corp was faced with the only option of a forklift upgrade. They also faced a number of limitations with their existing storage that had reached end-of-life, such as:

- Firmware updates were tedious and complex because their IT resources were not centralized

> "We evaluated leading storage vendors and conducted an analysis based on the cost of operation, ability to customize and integrate with our existing backup solution, ease of provisioning, and multiprotocol support. We found that NetApp offered significantly more features, and completely satisfied all our requirements."

Suresh Guntuka
Vice President – IT, CSS Corp Pvt. Ltd.

- Proactive support was not efficient

- Modern technologies, such as thin provisioning, deduplication were not supported

- Frequent performance issue and outages

- Rising IT costs

CSS Corp, wanted to implement a reliable consolidated storage platform that would support virtualization, ensure high availability and scalability, and integrate with their existing IT setup, while lowering TCO and improving ROI.

SOLUTION

Innovative storage solutions with NetApp and Cisco

CSS Corp engaged partners Veeras Infotek, and explained its requirements for a highly available and scalable platform. Together, they evaluated various storage vendors but eventually chose NetApp to consolidate storage. "We evaluated leading storage vendors and did an analysis based on the cost of operation, ability to customize and integrate with our existing backup solution, ease of provisioning, and multiprotocol support. We found that NetApp offered significantly more features, and completely satisfied all our requirements," says, Suresh Guntuka, Associate Vice President – IT. Some of the key reasons that led CSS Corp to partner with NetApp over other competing solutions were

excellent integration between NetApp, Cisco, and the virtualization layer. NetApp's storage solutions are easily scalable, back-up and data-recovery is simple, and it provides enhanced input/output operations per second (IOPS). NetApp storage products fitted seamlessly into CSS Corp's existing Infrastructure.

Veeras Infotek architected a Cisco, NetApp, and virtualization hypervisor solution that delivered flexibility and agility to their infrastructure. CSS Corp's new IT infrastructure includes a FlexPod solution—that combines NetApp storage, Cisco Nexus switches, and Cisco Unified Computing System (Cisco UCS) server components into a single, flexible platform. The entire virtualization has been consolidated on NetApp storage, with support for all three technologies, VMware, Citrix XenApp, and Hyper-V, which can be interchangeably used, with the same throughput and unified platform. They leveraged NetApp's ability to support multiple protocols NFS, iSCSI, and FC within a heterogeneous platform.

CSS Corp used SnapMirror for replicating data between primary and disaster recovery sites, thus ensuring high availability of critical data. FlexClone helped provide for multiple duplicate copies in product development environment, which reduces the storage capacity and reduces the time-to-market. CSS Corp consolidated its cloud computing platforms from Microsoft and VMware as well as other applications, such as Microsoft Exchange,

Microsoft SQL Server, and Microsoft Share-Point onto the NetApp storage.

NetApp unified storage with important features, such as thin provisioning and deduplication made their storage more efficient and they could plan storage for future expansion. CSS Corp was able to plan for seamless upgrades at the backend without the affecting users. "With deduplication in place, we are able to effectively and efficiently use the available storage space with a lot of storage space savings. With NFS in place, we are now able to provide NFS exports for all our servers from a central point without the need of servers," says Suresh Guntuka.

BUSINESS BENEFITS

CSS Corp achieved tremendous success with their new cloud computing environment running on the FlexPod platform.

Improved storage utilization and efficiency

NetApp unified storage helped CSS Corp improve storage efficiency, increase storage utilization, regain capacity, and improve IT performance. They have achieved a 49% improvement in storage utilization and 61% improvement in storage efficiency using NetApp technologies- thin provisioning and deduplication. This has also led to savings in rack space which ultimately led to savings in IT budget.

> "The combination of NetApp and Cisco is a winning combination because it delivers long-term scalability and flexibility which no other solution can deliver. NetApp storage system and performance monitoring should be enabled by default for all customers without the customer requesting for it."

Suresh Guntuka
Associate Vice President – IT, CSS Corp Pvt. Ltd.

Improved system performance

CSS Corp's earlier storage gave rise to read/write latency issues and degraded the performance of their virtual environment. NetApp unified storage and sufficient number of disks along with 2 x 512 GB Flash Cache modules helped in reducing the latencies. This was achieved because NetApp storage being application aware could cater to both high IOPS as well as low IOPS applications with the same Flash Pool / Flash cache distribution. NetApp Flash Pool automated storage tiering for read intensive /write intensive applications with greater efficiency, thus improving system performance. "The most evident benefit of using a combination of NetApp Flash Cache for front-end read intensive operations, and NetApp Flash Pool for read and write operations was a visible increase in the throughput", says Suresh Guntuka.

Simplified management and greater proactive support

CSS Corp is satisfied with NetApp's My AutoSupport Fitness Dashboard which gives detailed information on Health Summary with risks and Best Practice Gaps along with Storage Efficiency and Performance reports.

Step-by-step firmware update guides specific to their installed systems make it easier to perform firmware updates.

Improved scalability, flexibility, and lower TCO

In-place upgrade options using the same management tools and scale-out architecture of NetApp storage helped CSS Corp accelerate their business and lower TCO. They could reduce the storage capacity utilization and improve long term ROI through proven storage efficiency. "The combination of NetApp and Cisco is a winning combination because it delivers long-term scalability and flexibility which no other solution can deliver. NetApp storage system and performance monitoring should be enabled by default for all customers without the customer requesting for it," concludes Suresh Guntuka.

Round-the clock availability of applications

The joint NetApp, Cisco, and virtualization solution delivers high resilience, reliability, high availability, and data protection. As a result, CSS Corp is able to provide to their customers managed IT services with nearly zero-chance-of-failure.

Solution Components

NetApp products
2 x NetApp FAS3220 with dual controllers, 1xNetApp E5500 with dual controllers
SnapMirror, SnapRestore, FlexClone and FlashCache

Protocols
NFS, FC, iSCSI

Third Party products
- Microsoft Exchange, Microsoft SharePoint, Microsoft SQL
- Microsoft System Center Suite including Hyper-V, DPM, Orchestrator, SCCM, SCOM and Windows Azure Pack
- VMware vSphere, vCenter and vCloud Suite
- Commvault Backup
- Citrix XenApp

FlexPod Components
- Cisco UCS Blade servers
- NetApp FAS3220

NetApp™
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NetApp is a world leader in unified storage solutions for today's dataintensive enterprise. Since its inception in 1992, NetApp has delivered technology, product, and partner firsts that simplify data management.