DATA CENTER

Taking the giant leap

IT infrastructure has been evolving every day. Advancements on compute, storage and networking fronts have been beneficial for users but challenging to manage for the IT staff. Companies like Cisco are addressing such challenges by enabling simplicity of operations and ensuring computing aesthetics in existing IT infrastructures.

The data center is critical to the way that IT generates and delivers value to the business. A variety of business and technology factors that include demands for uptime and serviceability coupled with technology advancements and protocols, are driving changes in the data center while also making the data center environment complex and challenging.

Preparing the data center to be more cost-effective and efficiently deliver the new services that users demand while also supporting new operating models is essential. Creation of a unified data center can help redefine the economics of the data center, so that more resources can be spent delivering value and innovation to the business.

Hitting the nail on its head

Historically, infrastructure has been built independently for each business application, resulting in costly redundancies in hardware, software, staff, and processes that fail to achieve economies of scale. By designing data centers to handle peak-level workloads, many costly resources are left underutilized during normal operations.

The diverse platforms used to deliver IT services prevent managers from accurately predicting how long new developments will take to implement and the associated costs. Also way too often, IT departments spend valuable resources attempting to create compatibility between different data center technologies. These efforts add significant costs and delays to new deployments.

According to Ashok Shenoy, VP, Data Center & Virtualization,Cisco, India and SAARC "The basic problem with legacy IT infrastructure is that they adversely affect efficiency and business agility. The need of the hour is for a comprehensive platform that integrates computing, networking, security, virtualization, and management solutions on to a single, highly efficient, and simplified architecture which is easy to scale."

Cisco 's unified approach to creating datacenter and virtualization solutions introduces automation and helps facilitate solutions that are less complex which can dramatically increase data center efficiency, productivity, and agility. This includes the capability to manage deployment and operations across both physical and virtual resources. Less complexity means faster time to value, a significant advantage over other data center architectures.

Here are the four guiding principles that help identify a good datacenter solution from a bad one:

Simplicity of use

Technology must be an efficient enabler of business. Clients around the world seek technologically advanced solutions which are agile, scalable and guarantee 'simplicity of use'. As Ashok Shenoy, says, "Being effective and simple are the two key attributes that define a good solution. Complex installation, maintenance and interface can easily undermine the positive benefits of a solution."

Scalability

Modern businesses demand a dynamic IT infrastructure. Solutions like Cisco's Unified Computing System have the specs to deliver on business needs to scale with growth. Cisco UCS (Unified Computing System) gives IT managers a wire-once platform for providing highly elastic and agile pools of virtualized resources.

Cisco UCS scales to hundreds of blades and thousands of virtual machines, all with a single point of connectivity and management thereby enabling business to become more efficient. More importantly this process of scaling up is expedited with minimum downtime, further adding to customer delight.

Flexibility

Integration with existing/legacy systems is a critical attribute for any infrastructure modernization or addition. Putting storage, compute and network together in sync across physical and virtualized environments can bring several operational and cost advantages for an enterprise.

Cisco's Unified Computing solutions offer seamless integration of storage, compute and network resources thereby unlocking significant capital and operating expenditure savings for Cisco's clients. This flexibility in the form of pervasive virtualization, high application performance and high availability combined with Cisco's Unified Management enable fast, flexible, and cost-effective deployment of IT infrastructure.

Management and Security

Delivering maximum uptime while struggling with multiple environments, networking layers and geographically dispersed resources is a challenge for IT managers. Such complex architectures not only demand extensive manpower deployment for management but also security and efficiency outages. As Ashok Shenoy, says, "Datacenters are the backbone of most businesses. Their maintenance and management cannot be left to chance. At Cisco, we offer self-service, open platform for centrally managing all data center resources across physical and virtual environments thereby reducing the manpower required to maintain data centers."

Unified management helps enterprises to not only improve uptime and efficiency of IT resources but also preempt and predict performance or security threats better. Cisco Unified Network Services allow the enterprise to maintain complete visibility, security, and control of the virtualized environment in the same way as in a physical environment.

Excerpts from a conversation with Ashok Shenoy, VP, Data Center & Virtualization, Cisco, India & SAARC about the emerging trends in the evolution of enterprise IT infrastructure.

Ashok Shenoy
VP, Data Center & Virtualization
Cisco, India & SAARC

What are the defining evolving trends in IT infrastructure today?

Cloud computing is fast emerging as a benchmark for enterprise IT infrastructure. Virtualization is another front-runner alongside. On an enterprise level, there is an increasing sensitivity with respect to agility, scalability and reliability of solutions that our clients want to incorporate. And I see massive growth opportunities for solutions that are able to deliver these features. Apart from cloud, BYOD, mobility are some of the major trends and from a DC perspective I feel consolidation, growth, availability, and operational efficiency are some of the top trends.

What are the primary benefits of choosing a Cisco DC&V solution from a customer stand point?

We need to understand that behind the glossed up presentations, seamless email delivery and the always-up ERP, there are massive servers tied under multiple layers of networking and storage. We at Cisco, are changing this concept through our Datacenter and Virtualization solutions. Our DC&V solutions provide our customers the ability to maintain and scale up massive compute and storage infrastructure while also ensuring agility and reliability. Cisco's Data Center and Virtualization portfolio brings together networking, computing, storage, management, and security resources into a unified platform that provides the core infrastructure for an enterprise or service provider. It is based on three innovative technology pillars: Cisco Unified Fabric, Unified Computing, and Unified Management.

Cisco's blade server market share has grown significantly over the last few quarters, what are the primary reasons for that?

Today, Cisco Unified Computing System (UCS) has over 13,000 customers globally and achieved top tier ranking. This rapid growth indicates two points; first, that the data center industry was crying out for real technology innovation, which Cisco has delivered. And second, that the industry is in a transition away from the rigid, inflexible platforms and is moving toward more flexible, integrated, and virtualized environments that Cisco UCS offers.

CASE STUDY

Financial Technologies (India) Ltd. (FTIL), the flagship company of the Financial Technologies Group, is a global leader in offering technology IP (Intellectual Property) and domain expertise to create and trade on transparent, and efficient next generation financial markets across multiple asset classes and geographies. FTIL has a market share of over 80% in the electronic trading solutions space in India.

FTIL operates one of the largest network of exchanges in the emerging economies from Africa to Middle East and Asia including India. These are complemented by its ecosystem ventures operating in warehousing and collateral management, digital transactions, information dissemination, and knowledge training.

Enhancing operational efficiency

As FTIL operates predominantly in the financial market space, deployment of next generation technology across functions becomes essential. Hence, we were looking for a robust, scalable, reliable, agile and proven platform to enable FTIL to cost effectively deliver its internal business processes and external services for its group companies such as Tickerplant, atom and National Bulk Handling Corporation (NBHC). Further, we had to ensure that the solution accommodated the future growth/requirements of the business. We evaluated a number of server technology providers before finalizing Cisco's Unified Computing System (UCS).

Paras Ajmera
Director-Operations
Financial Technologies (India) Ltd.

The Technology Solution

Cisco's UCS simplifies traditional architectures and reduces the number of devices that must be purchased, cabled, configured, powered, cooled, and secured. The solution delivers end-to-end optimization for virtualized environments while supporting traditional OS and application stacks in physical environments. Cisco thus, helps FTIL live up to its vision of implementing green technologies to the maximum possible extent. The Cisco UCS is scalable in terms of processing capacities and accommodating future technological innovations: a great business advantage for FTIL. Cisco UCS is capable of automating element management tasks through the use of service profiles that enable quick allocation of computing resources proportional to the workload requirements. This augments FTIL's ability to supply compute environments to resource hungry operations such as information dissemination and online transactions through group companies such as atom and Tickerplant. Further, FTIL has also tested its flagship product, ODIN™, on Cisco UCS platform thereby allowing its customers to seamlessly run ODIN™ on Cisco UCS.

Results

By leveraging Cisco technology, FTIL has built a resilient network and infrastructure thereby facilitating its business and group companies to seamlessly offer services and products to its clients from the FTIL Datacenter. The technology enables FTIL to scale its operations to match its fast-growing clientele and adapt to future technologies while also enabling it to augment the reach of its group companies such as NBHC across India. Expressing his views on Cisco's Unified Computing System, Paras Ajmera, Director-Operations, FTIL said "The nature of our business demands real-time connectivity and resilience. By deploying Cisco UCS, we have enabled businesses using efficient, virtualized, scalable, robust and green technologies that help us achieve quick return on investment. This has been validated through our certifications such as ISO 9001:2008, ISO/IEC 27001:2005 and ISO/IEC 20000:2005".

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