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INSIGHT

Cisco Strengthens the Scope of UCS by Expanding its Datacenter Management Capabilities

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IDC OPINION

Cisco focuses on a wide array of technologies: unified communications, collaboration, mobility and video, networking hardware and services, security and mobility solutions, datacenter services (cloud and virtualization), and business transformation. The company has been leveraging its strength in the networking market for developing a converged technology with the Unified Computing System (UCS) platform and the Nexus product families. With both products as the cornerstone of the vendor's unified architecture, the company quickly increased its share of wallet and mind within the enterprise market in Europe in the last three years.

- The competitive landscape is consolidating with the commoditization of enterprise IT, and players that used to dominate a restricted domain are expanding into adjacent areas, partnering tightly or more often competing bitterly with server and storage suppliers. Cisco is a classic example of this paradigm shift as its grip on networking quickly evolved into a significant share of the converged offerings space after the introduction of the UCS, which was highly disruptive in the enterprise IT market particularly in the server landscape.

- IDC believes Cisco's drive to capitalize its networking technology to drive growth in the enterprise datacenter business has been a great success story. From the viewpoint of its converged technology, Cisco has grown a significant market share in the last two years in terms of server hardware penetration in EMEA, thanks to its UCS architecture — a blade system launched in 2009. Its latest update released in 2012 featured extended management.

- IDC believes that enhancing the management capabilities for its rack servers will increase Cisco's market opportunity. Additionally, targeting workloads associated with standalone physical deployment by designing UCS to target physical environments and not only virtualized environments should help Cisco compete in a broader spectrum of deals including business processing and data analytics.

- In EMEA, Cisco was the sixth largest server supplier, generating around $219.1 million in server revenue in 2011, up 227.1% annually. It was also among the largest providers of blades in the region after HP, IBM, and Dell after shipping around 22,500 blades in 2011, up 242.5% annually (IDC Server Tracker). In the first half of 2012, Cisco shipped around 12,809 blades in EMEA.

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IN THIS INSIGHT

This study focuses on Cisco's enterprise datacenter strategy and portfolio including UCS and Nexus technologies.

SITUATION OVERVIEW

Cisco was founded in 1984 and is based in San José, California. It operates in several enterprise segments including cloud and virtualization, networking hardware and services, and datacenter services. The company saw growth in its fiscal year 2012 (running to July 28, 2012) across all geographies including the U.S. (up 6%), EMEA (up 4%), and notably Asia/Pacific (APJAC, up 13%). In its most recent first quarter results (running to October 27, 2012), Cisco reported results that beat estimates, with revenue growing 5.5% annually. The vendor realigned its operating model in 2011 to simplify its business, reorganizing sales, services, and engineering organizations with a focus on five segments:

- Core business (routing, switching, and associated services) including security and mobility solutions
- Collaboration
- Datacenter virtualization and cloud (UCS)
- Video
- Architectures for business transformation

Converged Technology Portfolio

Cisco is well positioned to continue taking advantage of disruptive market transitions like it did with the transition toward intelligent networks as part of the convergence of networking, computing, storage, and software technologies in order to ride the wave of mainstream adoption of virtualization, scalable processing, cloud adoption, and cloud-based IT resource deployments.

Cisco's massive share in the networking market made it an early adopter of network virtualization with the launch of the Nexus 1000V Series in 2009, a virtualized switch with high penetration rates in enterprise production environments — a part of the business that has been crucial in pushing the unified computing architecture, which is based the converged systems ecosystem.

The company has launched several converged system offerings in the last three years either independently (UCS) or in partnerships (with VCE and EMC for the delivery of Vblock solutions, and with NetApp for the delivery of FlexPod platforms), in both first- and second-wave virtualization environments. Cisco also has a partnership with Hitachi and VMware for cloud network-ready, virtualized infrastructure solutions with storage by Hitachi, computing and networking components from Cisco, and virtualization from VMware.

Cisco has been very proactive in the time to market of its enterprise portfolio and services over the course of 2012. The company is therefore trying to offset competitive moves such as IBM's PureFlex systems and HP's CloudSystem/ Virtual System, which are directly positioned against UCS.

The latest update to the UCS not only included blade enhancements but also broadened some core UCS features to open additional market opportunities. Specifically, Cisco expanded UCS management features with rack servers and also included capabilities in order to address workloads running on bare-metal physical machines versus the historical target of virtualized workloads.

Several Cisco announcements during the last few months have been targeted at enhancing the competitiveness of Cisco's unified architecture business and included the following:

- On November 2, 2012, Cisco launched the UCS Central, a new UCS targeted at the market of distributed environments of up to 10,000 servers from a single pane of glass.
- On October 10, 2012, Cisco and NetApp launched the ExpressPod, a low-end solution bundled with UCS C-Series to address SMBs with small or nonexistent IT departments looking to consolidate and virtualize infrastructure.
- On September 12, 2012, Cisco released an update of the ASA security appliance, a high-end IPS solution, a virtualized ASA firewall for the Nexus 1000V switch, and updates to Cisco Security Manager (CSM) and AnyConnect.
- On July 30, 2012, Cisco and EMC unveiled VSPEX solutions built on UCS and integrating computing, networking, and storage, providing a unified datacenter framework for virtualized business applications.
- On June 13, 2012, the vendor unveiled the Cisco Open Network Environment (Cisco ONE) for networking as a platform. The vendor is targeting this at a broad set of enterprise and service providers.
- On April 12, 2012, EMC launched the VSPEX Proven Infrastructure, a reference architecture comprising storage, virtualization, server, and network technology from EMC alliance partners Brocade, Cisco, Citrix, Intel, Microsoft, and VMware.
- On April 10, 2012, Cisco and NetApp unveiled an update of their FlexPod converged system for virtualization and cloud, with an entry-level model for lower-end workloads designed for 500 to 1,000 users.
- On March 8, 2012, Cisco announced the third generation of the UCS based on Intel Xeon E5 processors (formerly codenamed Sandy Bridge) and with management extended to racks.

IDC believes that Cisco's strategy follows the overall drive of targeting a wider scope of clients. As an example, Cisco announced expansion of the UCS management features to UCS rack products, catering to large or medium-sized organizations that prefer that type of form factor.

UCS

UCS was a disruptive force in the server market when it was released in March 2009. Cisco's converged technology, integrated server, networking, and systems management was initially targeted at the virtualized workloads and private cloud computing markets and has now expanded its scope.

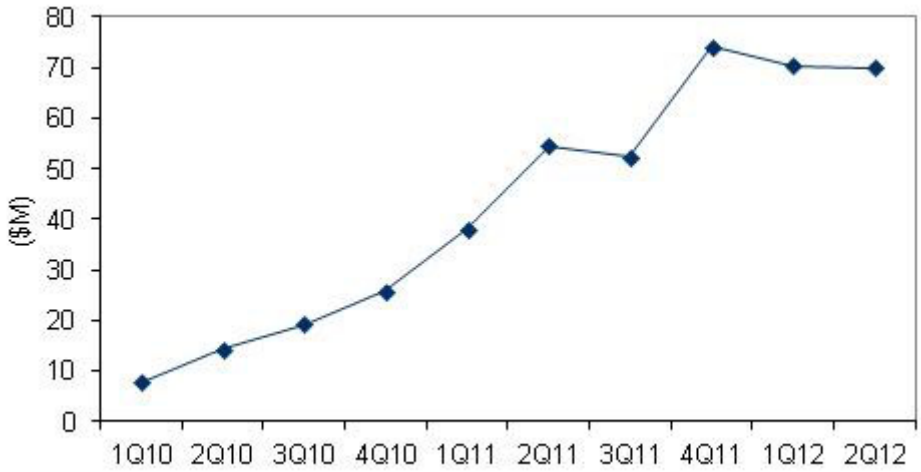
In EMEA, Cisco was the sixth largest server supplier in 2011. It was also among the largest providers of blades in the region alongside HP, IBM, and Dell. Key geographies are the U.K., Germany, France, and Italy, but Cisco also maintains an active customer base outside the major Western European economies. The vendor is active in emerging economies, with a strong focus on the Middle East.

Countries in CEMA such as Saudi Arabia, the United Arab Emirates, and Israel accounted for the largest share of Cisco's sales in 2012 as the vendor successfully delivered infrastructure to the region's growing number of greenfield datacenters. Moreover, in 2011, Cisco separated its business in four key segments by geography and set up Russia as a standalone geography within the business division outside other emerging markets of CEMA.

Cisco's growth in the EMEA server market in the last several quarters has been very significant as seen in Figure 1. UCS sales steadily progressed upward in EMEA, driven by demand for converged systems solutions.

FIGURE 1

Cisco EMEA Server Revenue by Quarter, 1Q10–2Q12



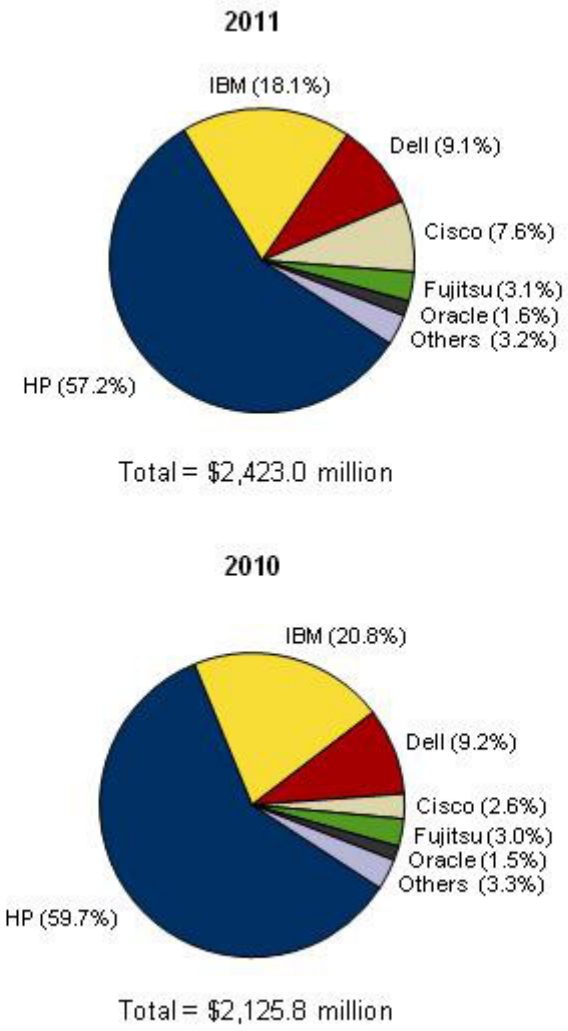
Source: IDC, 2012

As mentioned earlier, Cisco's server business is heavily reliant on x86 blades, a market where it was the third largest player in EMEA in 2Q12 for the first time. Sales of Cisco's UCS blades reached $54.2 million in 2Q12, and it has set itself a clear goal of becoming the second largest x86 blade supplier by revenue in the region by the end of the current fiscal year (mid-2013).

Figure 2 shows a comparison between 2010 and 2011 in terms of the x86 blade revenue share in EMEA by vendor. Cisco's rapid growth, thanks to UCS, can be clearly seen in the chart. Cisco grew around five percentage points more in 2011 than in 2010, seemingly at the expense of HP and IBM whose share of the blade market shrank by 2.5 percentage points and 2.7 percentage points in the same period, respectively.

FIGURE 2

EMEA x86 Blade Revenue by Vendor, 2010 and 2011



Source: IDC, 2012

Cisco UCS Central

Cisco UCS Manager provides system management and administration of UCS hardware elements, both in server and networking. The management platform creates resources pools from which computed resources can be provisioned and monitored.

An earlier update allowed UCS Manager to act as a single management platform across both blades and racks, an important differentiator to target a wider scope of customers as it creates more choice for customers to select the right form factor for their workloads. In addition, system maintenance was made more efficient for customers as management and changes were simplified with predefined and pre-provisioned server identities, and LAN/SAN settings.

IDC believes that bringing increased functionality to rack servers provides additional opportunity for Cisco as certain workloads, such as those that require higher amounts of internal storage, will run better on rack servers than on blade servers.

With UCS Central, users can now manage thousands of UCS servers, a significant increase from the initial number of systems when the unified systems architecture was first released in 2009.

The new update of the UCS Manager — UCS Central — allows users to manage a globally distributed UCS infrastructure comprising multiple domains, with the ability to ensure service and configure service profiles, ID pools, policies, and firmware. UCS Central also has an XML API for integration with third-party system management and cloud orchestration tools.

Cisco's earlier UCS Manager governed a single domain made up of UCS Manager and all the UCS server and network access components it manages. UCS Manager is required for local domain management while UCS Central provides tiered management for the global infrastructure.

UCS Central also aggregates server inventory, fault information, and notifications across multiple domains to facilitate service assurance of the UCS infrastructure. The Cisco Intelligent Automation application is used for creating global UCS service profile templates across datacenters.

FlexPod

Cisco and NetApp unveiled an update of their FlexPod converged system for virtualization and cloud, with an entry-level model for lower-end workloads designed for 500 to 1,000 users.

Announced in 2010, FlexPod is a reference architecture for server, storage, and networking components that are pretested and validated to work together as an integrated infrastructure stack. It was originally configured for user groups of between 1,000 and 2,000 people.

The original FlexPod came with a NetApp FAS3210 midrange array, Cisco's UCS blade server and a Nexus switch, and VMware's vSphere cloud platform and vCenter management console.

The new entry-level FlexPod is for business application workloads with 500 to 1,000 users. Like its predecessor, the new FlexPod series is built on scalable architecture that combines computing, networking, and storage products from Cisco and NetApp. Additionally, the two companies have validated several new management tools from third-party software vendors.

With FlexPod, users can consolidate, virtualize, and migrate physical machines and virtual machines to Hyper-V technology virtualization and cloud environments based on Hyper-V technology to reduce capex and opex, also improving the manageability of both virtual and physical environments by using the Microsoft System Center family of products.

The FlexPod with Microsoft Private Cloud solution integrates hardware and software in a solution codeveloped by Cisco, NetApp, and Microsoft, and provides a scalable platform for a variety of workloads in private cloud environments without the expense or risk organizations must take when designing their own custom solutions.

VCE Vblocks

When Vblocks were first released in 2009, Cisco was part of the VCE coalition (alongside storage provider EMC and virtualization software provider VMware) in order to present a common front and common solutions to address the needs of datacenter customers operating virtualized environments, while at the same time competing at par with large IT vendors such as HP, IBM, and Dell that can offer many — if not all — of the required components under a single brand.

However, since January 2011, VCE has been a separate entity formed by Cisco and EMC with investments from Intel and VMware, working independently from the founding corporations. VCE representatives reported that around 80%–90% of deals are generated via partners, ranging from large systems integrators to midsize VARs.

Over the last two years, VCE has grown into a reasonably sized company, employing more than 1,000 staff, half of whom are in the technical support and engineering divisions. The vendor recently said that it has reached a worldwide annual run rate of more than $800 million, with revenue of around $200 million in the most recent quarter.

Success for Vblocks in Europe will be guaranteed by a combination of stronger penetration in large service providers and enterprises, as well as by the ability to formulate a strategy to attract customers with fewer than 500 servers. Cisco reports to have gained a 150-strong customer base in EMEA through its VCE partnership, with strengths in the U.K., France, Germany, and the Nordics.

Distribution Channel

Cisco has excellent relationships with its distribution channel and on October 1, 2012, it rolled out a new process and portfolio for partners. The importance of partnerships to the continued success of the UCS platform cannot be understated, and IDC believes it is a notably positive move that since its announcement in 2009, Cisco has built an ecosystem of 8,000 UCS certified channel partners that are taking the Cisco solutions to clients.

At this time, there are 17,800 UCS customers worldwide, the majority of whom are supported by Cisco partners. Equally, the strong momentum with FlexPod — with 1,500 customers in 40 countries worldwide — is firmly supported by the distribution channel, and Cisco has stated in conversations with IDC that it is working on big initiatives for 2013 especially around FlexPod certification, increasing the number of premium partners.

Cisco recently strengthened its links with tier 1 distributors such as Tech Data in the datacenter space as well as working with large outsourcers and systems integrators. IDC believes the strength of the indirect channel will be a major factor in the competitive battles that are occurring in the converged systems segment.

In addition to resellers and systems integrators, Cisco has 44 ISVs that are writing applications to the UCS APIs. This support is another key component driving the success that Cisco is experiencing and will be essential for future growth.

The EMEA Cisco partner organization has four key strategies:

- **Partner satisfaction.** Cisco now offers its intellectual property directly to the partner community. This allows partners to create services offerings that are embedded with Cisco IP.
- **Partner differentiation.** Cisco has created a business architect certification, which allows partners to move away from the normal IT offerings discussion and toward a business CXO-level, solutions-led interaction.
- **Partner profitability.** Good incentives are driven by a move toward a more balanced approach by evolving their services offering, allowing partners to grow and thrive with the margin expectations that product alone cannot generate.
- **Partner led.** Emphasize the importance of services being a collaborative effort between Cisco and its partners. A key element to drive this relationship is educating partners on the overall Cisco services strategy.

FUTURE OUTLOOK

IDC believes that Cisco enjoys a strong position in terms of customer mindshare around convergence and must be credited for entering the market with an alternate platform approach to differentiate itself from competitors rather than simply building standalone x86 servers to sell alongside its networking gear.

The vendor's new announcements will help it continue its market momentum. Cisco cleverly continues to diversify its offerings. Enhancing the management capabilities for its rack servers will increase Cisco's market opportunity. Additionally, targeting workloads associated with standalone physical deployment by designing UCS to target physical environments and not only virtualized environments will help Cisco capture a broader spectrum of workloads including business processing and data analytics.

The new entry-level FlexPod is another example of Cisco and NetApp's willingness to diversify its offerings, as the new product — for business application workloads with 500 to 1,000 users — will be targeting a new audience. The new model is targeted at SMBs requiring a cloud solution in order to streamline IT management and is positioned against first-step virtualization environments including HP VirtualSystems, Dell vStart, VCE Vblocks, and IBM PureFlex Systems in basic configurations.

However, IDC believes that Cisco faces off very large, well-financed, and aggressive competitors that are bringing to market their own converged strategies. Competitors aim at increasing mindshare and market share in the networking and storage area with the use of converged systems products to increase their share of wallet.

Cisco has stated its interest in emerging markets with a growing GDP, and from the EMEA perspective, the company has a particular interest in Russia. The Russian market has a great potential as there is a large number of enterprises that need to outfit their business with IT infrastructures of varying sizes and complexity, providing new opportunities for equipment suppliers. For now, UCS footprint continues to be largest in Western Europe (approximately 80.7% of machines shipped in Western Europe as a percentage of EMEA in 2011 from the server perspective). In order to further penetrate the emerging market area, Cisco must continue taking proactive steps particularly in the area of its distribution channel.