

Cisco Blade Server with Integrated BMC Management Shakes up Market

Abstract

The earth is shaking under the feet of big blade server vendors as cash-rich and market-savvy Cisco rumbles onto the scene with its “Unified Computing System” (UCS), an innovative technology that combines networking, computing, virtualization, and device management into a space-saving blade chassis.

The Cisco/BMC offering comes at a time when the recession is creating a large inventory of surplus servers as companies contract or go out of business.

To manage the UCS, Cisco’s integration of BMC’s BladeLogic solutions shows a deep and well-planned partnership with BMC. This partnership lends credibility to the UCS blade offering and offers the synergy of complimentary datacenter penetration.

The Cisco/BMC offering comes at a time when the recession is creating a large inventory of surplus servers as companies contract or go out of business. As a result, server revenues are declining for all major vendors. Despite the

bad timing, Cisco, with its renowned marketing, pervasive datacenter penetration, and almost \$30 billion in cash, seems poised to grab a share of the blade server market. BMC brings BladeLogic to this partnership but gains leverage from Cisco’s Fortune 1000 presence, thereby countering the long-held advantage that rivals IBM and HP held as vendors of both hardware and management software.

BMC to Manage New Cisco Blades

On March 16, 2009, Cisco launched the “Unified Computing System” (UCS), a blade system that combines computing resources and a switched fabric into a flexible solution. To manage this hardware offering, Cisco has teamed with BMC Software by bundling BladeLogic management software into the UCS solution. The BMC partnership enables image management, automated provisioning, policy management, and integration with a broad and deep set of BMC service management products.

This combination of hardware and management software clearly targets Cisco’s traditional partners HP, IBM, Sun, Dell, and Fujitsu with intriguing implications for the future of the blade and network landscape.

UCS initially supports Windows Server (2003 R2 & 2008), Red Hat RHEL 5.3, and Novell SLES 11. Additionally, database workloads targeted at launch include Oracle and SQL Server. There is extensive integration with VMware and Microsoft’s Hyper-V while support is planned for Red Hat KVM, Oracle OVM, and Citrix XenServer. For blade connectivity for Ethernet and Storage traffic, UCS offers two converged network adapters (CNA’s) from Emulex and QLogic plus Intel’s 10 GbE adapter. Cisco will also offer its own virtualized adapter. Cisco also certifies EMC and NetApp storage with plans for HDS, IBM, HP, and Sun.

UCS comes on the heels of a series of enabling Cisco product introductions, including the Nexus 2000 Fabric Extender, Nexus 1000v VN-Link, and the Nexus 5000 Unified Fabric. Together with UCS, these products create a simplified and adaptive network inside and outside the blade chassis.

Context

Founded in 1980, BMC Software is one of the “Big Four” Business Service Management (BSM) vendors (\$1.86 billion in 2008 revenue) and a leader in systems management solutions such as configuration, discovery, process orchestration, performance management, provisioning, and knowledge management. Despite an impressive suite of BSM software, BMC has struggled to maintain market share against HP and IBM where hardware dominance feeds the software marketing channel. In 2008, BMC improved its competitive stance by acquiring BladeLogic, a leader in provisioning.

In routing and switching, Cisco, a company with \$39.5 billion in 2008 revenue, holds a larger share of the router market than all of its competitors combined.

Cisco enters a blade server market dominated by HP (55% market share based upon revenue) and IBM. In the past year, each of these vendors has seen a decline in server revenue of 10% to 15%, though HP continues to gain ground in overall market share for blades. In the midst of intense competition, one can only assume that HP and IBM, traditional Cisco partners, have adjourned to their war rooms to map a counter-attack. To succeed in this intense blade server market, it should come as no surprise that Cisco turned to BMC to boost the credibility of its bold foray into blade computing.

Blades increase server density, reduce power consumption, and simplify cabling. Cisco’s UCS takes these benefits to another level by combining, under a common management platform, the resources for networking, computing, and virtualization. With UCS, each blade server exposes a consistent presentation of network and compute resources independent of whether the workload is physical or virtualized. Communication does not have to travel outside the blade chassis but even outside, Cisco’s Fabric Extenders reduce complexity.

BMC has contributed “BladeLogic for Cisco UCS” – a customized management software component that is OEMed as part of the UCS offering, *enabling automated provisioning as well as management of both policies and images*. While BladeLogic for Cisco UCS will be a standard recommended component for any UCS sale, coming as a “pre-checked box” on the configuration, it is not an absolute requirement. Cisco and BMC will join forces to sell and support the joint solution. This will provide a tremendous opportunity for BMC to gain a beachhead into many new accounts and gives them the opportunity to up-sell those accounts to additional BMC products.

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In an environment of shrinking IT budgets (63% flat or shrinking in 2009 as per EMA research¹), energy management and automated provisioning are among the few innovations that can reduce costs without sacrificing efficiency. UCS, with its smaller hardware footprint (fewer switches, communication blades, management modules), promises to reduce energy consumption

¹ For more information on improving IT services, see the EMA Research Report, “[Data Center Automation: Delivering Fast, Efficient, and Reliable IT Services.](#)”

Key Ramifications

Despite the unfortunate economic timing, UCS seems destined to capture a large enough share of the blade server market to cause all of its competitors considerable pain. The value proposition is compelling. Given the combined presence of BMC and Cisco in major data centers, the issue of marketing channels seems moot. EMA expects a displacement of one or more of the top five within a few years.

Cisco and BMC have several powerful messages:

- **Energy Savings** – The reduced hardware profile consumes less energy and requires less cooling. Though figures are not available, this advantage is unique among blade server vendors. One might expect further developments in energy management to exploit this advantage.
- **Auto Provisioning** – Cisco's UCS and Fabric Extenders simplify the network topology both inside and outside the blade chassis, enabling BMC's BladeLogic to more dynamically provision applications.
- **Ease of Administration** – With a streamlined network, reduced hardware profile, and fewer cables, administration of the data center and network requires less effort.
- **Broad Third Party Integration** – Through Cisco's partnership with BMC, EMC, Microsoft, Scalent, and others, UCS adopts an open profile for best-of-breed integration.

Cisco has entered direct competition with HP and IBM, two companies with strong technical leadership, effective marketing, and brilliant architectural vision. This seems certain to have repercussions for future cooperation with shock waves that might extend into the IP routing market.

EMA Perspective

The power of the Cisco/BMC alliance, though diluted by current economic conditions, seems undeniable. Vendors typically leapfrog one another in function, performance, and capacity but UCS offers a blade server architecture that unifies computing with network switching. This type of advantage has deeper impact because, by simplifying the blade infrastructure for computing, networking, and virtualization, UCS reduces administrative effort for network administrators, server administrators, and others.

IBM and HP, with a combined \$24 billion in cash but \$54 billion in debt, may not respond as forcefully as one might expect in order to preserve liquidity. Cisco introduces a major product line that could reduce its overall profit margin in the near term. At first glance, this may seem poor timing given current economic turmoil. One might wonder how many IT managers are willing to introduce yet another blade system onto their data center floors. However, in some ways, the timing could not be better. Among blade center vendors,

Cisco has a bigger war chest than IBM and HP combined. Cisco has strong marketing channels made more powerful by the partnership with BMC. Finally, IT management will find the UCS value proposition too attractive to ignore. If Cisco, with its history of marketing success, is willing to bet billions that UCS can win head-to-head against other blade servers, one must concede the likelihood that the blade server market is due for a shake-up.

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BMC Software seems to be a winner in almost any scenario. As Cisco gains market share, BMC gains both revenue and the opportunity for cross-selling. Atrium CMDB and Remedy are pervasive. BMC's Atrium Orchestrator (from RealOps) is robust, scalable, and well-suited to network workflows. These and other BMC building blocks can transport companies to another level of automation for provisioning, workloads, events, and processes. EMA anticipates further collaboration between BMC and Cisco, starting with BMC's Atrium and extending to other parts of the BMC portfolio. This partnership seems more strategic than tactical.

On a more speculative note, Cisco's CEO, John Chambers, has frequently expressed concern about the company's efforts at network management. BMC, with its systems management framework solutions, would compliment Cisco's network management toolset. This partnership has intriguing prospects.

The UCS/BMC offering seems very well-suited for internal clouds and Managed Service Providers. These could provide growth opportunities even during recessions. These areas could also give BMC's BSM suite a stronger position in very complex environments where abstracted infrastructure management will be essential for future success. It is ironic that HP and IBM have such strong architectures for abstracted infrastructure management while Cisco has the blade server that might best enable those architectures to succeed. Once again, the synergy of Cisco/BMC seems strategic.

The battle for blade supremacy just got a lot more interesting.