

BMC BladeLogic with the Cisco Unified Computing System

Q. How do the Cisco Unified Computing System™ and BMC help solve the management challenges in today's data centers?

- A.** There has been a remarkable shift in spending from capital expenditures (CapEx) to management costs. In the past, people skills were cheap, and computers were expensive. Today, computers are cheap, and people skills are expensive IDC has estimated that the CapEx portion of annual server spending has shifted from approximately 50 percent in 2000 to less than 25 percent in 2010.

The rapid expansion of large-scale server virtualization has contributed greatly to this shift. While fewer physical servers are needed, causing CapEx to remain largely flat, the additional management complexity has led to significant increases in operating expenses (OpEx), as well as to IT performance challenges due to misconfiguration, policy noncompliance, and difficulty in meeting service-level agreements (SLAs).

BMC BladeLogic works with the Cisco Unified Computing System to automate IT operations and help ensure service delivery across the data center. BMC BladeLogic integrates with the Cisco Unified Computing System through Cisco® UCS Manager's open XML API to provision and configure the OS and application stack and the Cisco UCS infrastructure through an integrated set of policies spanning hardware and software components.

Q. What is Cisco's overall partnering strategy for the Cisco Unified Computing System management?

- A.** Cisco UCS Manager's unified management interface facilitates deep integration with users' existing system management tools. Cisco collaborates with a broad set of independent software vendors (ISVs) to qualify their software products on the Cisco Unified Computing System and integrate unique Cisco UCS capabilities into their native functions and user interfaces. Cisco UCS Manager integration efforts focus on three systems management product categories:

- **Discovery and remote access:** The evolutionary nature of IT has often resulted in resource sprawl without full knowledge or control over what has already been deployed. IT discovery tools help system administrators better understand their environment. Remote access tools help system administrators manage resources to which they may not have direct physical access.

Cisco UCS Manager directly enables these necessary IT functions with an open API that simplifies discovery and remote-access tasks. The Cisco Unified Computing System integrates with discovery and remote access tools both from a pure-play perspective and through automation tools, including BMC Atrium and BladeLogic Network Shell.

- **Deployment and configuration:** IT often turns to data center automation tools, including provisioning, orchestration, and configuration management software, to improve responsiveness and reduce operating costs by more rapidly deploying services and pushing OS and application updates to the infrastructure.

The Cisco Unified Computing System directly supports IT productivity initiatives with capabilities that include service profiles, pools, and virtual switch management and integrates with leading data center automation tools, such as BMC BladeLogic Server and Network Automation to enable system administrators to take advantage of native capabilities directly within the tools' user interfaces.

- **Monitoring and analysis:** IT must be able to measure the ongoing health of business services, proactively avoid service degradation, and quickly respond to any infrastructure or application faults.

The Cisco Unified Computing System directly supports these needs at the infrastructure level and supports higher-level requirements by closely integrating with leading and emerging monitoring tools, including BMC PATROL, in BMC ProactiveNet Performance Management.

Q. How does Cisco partner with leading systems management vendors?

- A.** Cisco has worked with leading management vendors to offer a comprehensive portfolio of management options to our joint customers. These partners include:

- BMC
- CA
- EMC
- HP
- IBM
- Microsoft
- Symantec
- Zenoss

(See <http://www.cisco.com/en/US/netsol/ns955/index.html> for details.)

There are varying degrees of integration with each of these vendors' various tools, ranging from validated interoperability, to specific feature extensions for the Cisco Unified Computing System, to unique Cisco Unified Computing System capabilities visible in the partner user interface.

In addition to these integration efforts, Cisco has created a software development kit (SDK) for Cisco UCS Manager, which Cisco partners and customers can use to write interfaces for custom, open source, or other third-party tools.

Q. Why do customers need BMC? Are these capabilities not provided in Cisco UCS Manager?

- A.** Cisco UCS Manager is primarily a device manager for the Cisco Unified Computing System. It can provide the administrator with extensive controls for managing all aspects of the Cisco Unified Computing System. The Cisco UCS service profiles allow users to define hardware configurations in software and allocate resources through an open API. This approach facilitates integration with a higher-level systems management solution such as BMC's, which is needed for cross-system support, especially in heterogeneous environments, and for effective performance monitoring of the OS and higher layers of the application stack.

BMC unites configuration automation with compliance assurance to provide service automation. With the Cisco Unified Computing System and BMC BladeLogic integrated solution, customers can quickly and dynamically, assign and reassign computing resources as their application needs change. The joint solution reduces the time required to deliver new virtualized services simply, reliably, and securely, and also reduces ongoing operating costs and effort.

Q. What are the unique features and benefits of integration of the Cisco Unified Computing System and BMC?

- A.** Table 1 summarizes the features and benefits.

Table 1. Features and Benefits

BMC Product	Unique Integration Features	Customer Benefits
BMC BladeLogic Server Automation	<ul style="list-style-type: none"> • Natively define Cisco UCS service profile templates with server and networking properties within Server Automation. 	<ul style="list-style-type: none"> • Create unified hardware and software deployment policies in less time through a single user interface.
	<ul style="list-style-type: none"> • Recover Cisco UCS pool IDs when blades are decommissioned. 	<ul style="list-style-type: none"> • Automatically recycle available hardware to increase resource utilization.
	<ul style="list-style-type: none"> • Control Cisco UCS local and SAN boot options. 	<ul style="list-style-type: none"> • Enforce consistent OS and application configurations and system boot behavior to avoid manual errors.
	<ul style="list-style-type: none"> • Provision service profile, OS image, software packages, and configuration rules with a single action 	<ul style="list-style-type: none"> • Automated end-to-end application deployment reduces deployment time.



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