

## Optimize Microsoft Environments With Cisco UCS Mini

A Unified Computing System Solution for Smaller or Medium Sized Business or Edge Scale Computing



Are you looking for a unified computing solution for your small or medium-sized business? Or perhaps you are supporting remote or branch office Microsoft oriented IT environments. Cisco UCS® Mini is a total computing solution that delivers enterprise capabilities in a small, efficient form factor for Microsoft Windows Server based applications and workloads.

With Cisco UCS Mini, the Cisco Unified Computing System™ (Cisco UCS), originally designed for the data center, is now optimized for branch-office and remote-office (ROBO), point-of-sale, and smaller IT environments – a perfect fit for supporting your Microsoft workload needs. Cisco UCS Mini delivers servers, storage, and 10 Gigabit networking in an easy-to-deploy, compact form factor. Expandable to 15 servers, Cisco UCS Mini provides a scalable solution with the proven management simplicity of the Microsoft Tech Ed award-winning Cisco UCS Manager. If you have more than one site, Cisco UCS Central Software provides multisite remote management, helping ensure server consistency across every site: updating 100 sites is as easy as updating one site.

A highly manageable compute and networking platform, Cisco UCS Mini provides the optimal infrastructure for deploying and managing a Microsoft based I.T. environment from Active Directory to a Hyper-V based Private Cloud deployment.

### Making Your IT Infrastructure Simpler

The IT needs of business come in all sizes, just as companies come in all sizes. In a 2012 survey<sup>1</sup> of SMB organizations, 72% of respondents said that “IT Vendors should simplify technology...” Cisco has done just that with Cisco UCS. Originally designed for the data center, Cisco UCS unites computing, network, storage

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<sup>1</sup> Techaisle, July 2012 (<http://www.techaisle.com/pr-smb-technology-business-pain-points.html>)

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access, and management into a single cohesive system - a radical simplification compared to traditional, existing systems.

Now companies of any size can reap the benefits of Cisco UCS with Cisco UCS Mini: a solution for deployments of 2 to 15 servers. Cisco UCS Mini simplifies Cisco UCS even further by moving the fabric interconnect inside the chassis, reducing power and cooling needs and shrinking the solution footprint.

Another challenge for any business is keeping up with upgrades and maintenance needed to keep servers running at peak efficiency. Cisco UCS helps simplify the maintenance process by providing a one-click upgrade for the infrastructure and servers. For remote offices, those tasks can be managed from Cisco UCS Central Software. This capability helps reduce the costs associated with IT.

### **Cisco UCS Mini Solution Components**

#### **Cisco UCS B200 M3 Blade Server**

Delivering performance, versatility, and density without compromise, the Cisco UCS B200 M3 Blade Server addresses a broad set of workloads, from IT and web infrastructure through distributed database, ERP, and CRM applications. The Cisco UCS B200 M3 server harnesses the power of the Intel® Xeon® processor E5-2600 v2 product family, up to 768 GB of RAM, two hard drives, and 10 Gigabit Ethernet to deliver exceptional levels of performance, memory expandability, and I/O throughput for the majority of all applications.

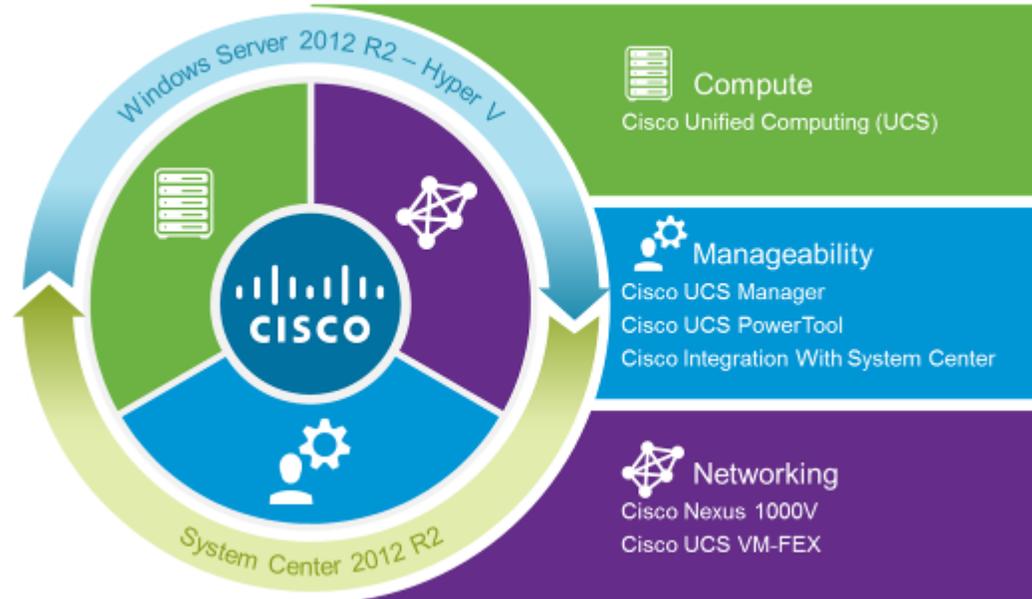
#### **Cisco UCS 5108 Blade Server Chassis**

The blade server chassis for the Cisco UCS Mini can accommodate up to eight half-width Cisco UCS B200 M3 Blade Servers. The 6RU chassis can mount in an industry-standard 19-inch rack such as the Cisco® R Series Racks or be placed on any sturdy surface. Dual-voltage AC (100-120V and 200-240V) DC power supplies make Cisco UCS Mini ready for global deployment.

#### **Cisco UCS 6324 Fabric Interconnect**

The Cisco UCS 6324 Fabric Interconnect extends the Cisco UCS architecture into environments that require smaller domains. Providing the same unified server and networking capabilities as the top-of-rack Cisco UCS 6200 Series Fabric Interconnects, the Cisco UCS 6324 Fabric Interconnect embeds the connectivity within the Cisco UCS 5108 Blade Server Chassis to provide a smaller domain of up to 15 servers: 8 blade servers and up to 7 direct-connect rack servers.

## KEY ELEMENTS - CISCO UCS MINI AND MICROSOFT ORIENTED ENVIRONMENTS



### Compute

#### UTILIZE INTELLIGENT INFRASTRUCTURE OPTIMIZED FOR VIRTUALIZATION AND THE CLOUD

Cisco UCS Mini is an intelligent fabric-based computing infrastructure that simplifies operations and speeds applications in cloud computing environments.

UCS unified fabric increases performance, security, and manageability by extending fabric directly to servers and virtual machines, simplifying operations across your physical, virtual, and cloud infrastructure. UCS servers are 100% stateless, delivering a dynamic and highly flexible server environment. Server definitions are stored in software templates, enabling on-demand provisioning from shared pools of infrastructure resources across both physical and virtual environments.

### Manageability

#### MANAGE YOUR INFRASTRUCTURE WITH HIGHLY FLEXIBLE CISCO AND MICROSOFT TOOLS

Automation and visibility are critical to managing your computing resource. Cisco and Microsoft combine to provide integrated physical and virtual management for both your hardware components and your software stack.

#### Microsoft System Center 2012 R2 Integration

Together, Cisco and Microsoft provide an integrated management experience for physical and virtual workloads. Cisco UCS Manager provides unified and embedded management of UCS infrastructure through a comprehensive, open XML API that works with and extends the System Center 2012 R2 suite of tools.

Free Cisco integration and management packs along with Microsoft tools make it easy to:

- Proactively manage and monitor your Cisco UCS Mini hardware with System Center 2012 R2 Operations Manager
- Automate, standardize and extend Cisco UCS Mini deployment and management with Microsoft System Center 2012 R2 Orchestrator
- View and manage Cisco UCS Mini infrastructure directly from SCVMM with the UI Extension Add-in for System Center 2012 R2 Virtual Machine Manager

### **Scale your Cisco UCS domains across global data centers**

Cisco UCS Central extends the Cisco UCS Manager feature set across multiple UCS domains, simplifying operations at scale while ensuring global policy compliance.

### **Automate your data center with Microsoft PowerShell integration**

Reduce your administrative and operational overhead while decreasing your automation time with Cisco UCS PowerTool. It's an easy to use, extensive PowerShell library of purpose-built cmdlets to automate provisioning and configuration tasks for, Cisco UCS and Nexus 1000V.



## **SIMPLIFY AND SCALE VIRTUAL NETWORKING**

Cisco virtual networking solutions reduce the operational complexities associated with virtual machine-to-virtual machine networking and thus help customers gain more of the benefits of server virtualization technology and cloud.

### **Maintain networking resiliency across your physical and virtual environments as you move to the cloud with Cisco Nexus 1000V**

Protect your investment by future-proofing your network design with a flexible virtual networking platform. Recognized with the 2013 Best of Tech Ed award in the Virtualization category, Nexus 1000V extends comprehensive networking capabilities to your Hyper-V environment. A distributed virtual switching platform with advanced networking features and integrated virtual services, Nexus 1000V delivers consistency across your physical, virtual and cloud environments.

Using a consistent operational model designed to accelerate server virtualization and cloud deployments securely and transparently, Cisco Nexus 1000V supports Microsoft private and hybrid cloud deployments with a:

- Consistent operating model across physical and virtual environments
- Tight integration with System Center 2012 R2 Virtual Machine Manager and PowerShell
- Scale out architecture design with a strong network services ecosystem

### **Extend the physical network directly to the virtual machine with Cisco UCS VM-FEX**

For Cisco UCS customers who want a simpler management model and near bare-metal performance for their virtualized workloads, UCS VM-FEX comes ready out of the box.

An extension of the fabric extender technology pioneered by Cisco, VM-FEX utilizes the Hyper-V SR-IOV functionality to extend the UCS unified fabric all the way to the virtual machines. Each virtual machine can be configured, managed, monitored, and debugged just like it's attached to a physical port.

## SPEED YOUR TRANSITION TO A PRIVATE CLOUD WITH MICROSOFT FAST TRACK SOLUTIONS

If you want to get to the cloud and get there fast, Cisco offers validated designs (CVDs) with storage partners EMC® and NetApp. These best of breed technologies from industry leaders in computing, storage, networking, and server virtualization offer a central pool of computing resources with storage networking and servers all in one package. Integrated components enable you to centrally manage your infrastructure pools with enhanced functionality and automation tailored to your needs for supporting Microsoft applications on the private cloud.



These Microsoft fast track certified solutions are:

- Cost effective and simple to manage
- Easy to scale up for greater performance and capacity
- Flexible and easily scaled out as your business grows
- Less risky to deploy with end-to-end deployment guidance with reference architectures

### FlexPod with Cisco and NetApp

A turnkey platform built on a defined set of hardware and software for IaaS environments based on Microsoft platforms. This solution features management, automation and orchestration capabilities integrated with Microsoft System Center 2012 and PowerShell for the efficient and accelerated deployment of services and applications.

### VSPEX™ with Cisco and EMC®

VSPEX™ Solution for Microsoft Private Cloud Fast Track 3.0 offers a simple, fully integrated, rapidly deployable Microsoft-based private cloud upon which customers can easily manage the applications that run their businesses.

## WHY MICROSOFT ON CISCO?

We recognize that the intersection of computing, networking, virtualization, and software is at the center of a new era of innovation. The Microsoft and Cisco alliance extends the value of the Cisco Unified Data Center, including unified fabric, Cisco UCS and unified management. A partnership achieved through the integration of the operating system, native hypervisor, application, and management stacks into manageable and scalable solutions. Together, Microsoft and Cisco offer service and support to accelerate time-to-value and ROI. Our partner ecosystem, including value-added resellers and global systems integrators, benefits Microsoft partners and Cisco partners and customers alike.



Get Started Today

### THIS IS YOUR OPPORTUNITY

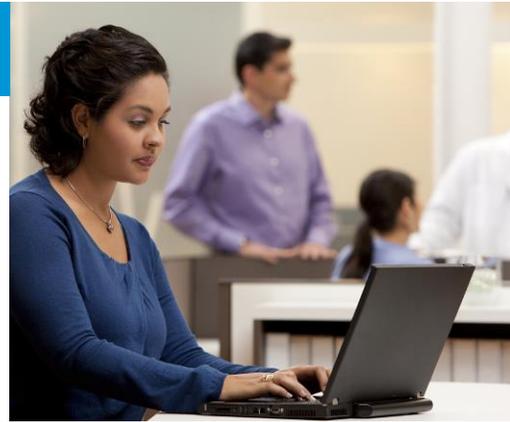
Take advantage of an ultimate unified computing and network infrastructure for your Microsoft environment. Together, Cisco UCS Mini, Nexus 1000V and Microsoft Windows Server 2012 Hyper-V create a comprehensive solution that can be automated with PowerShell and managed through System Center.

### LEARN MORE

For more information, contact your Cisco or Microsoft representative, or visit:

[www.cisco.com/go/ucsmi](http://www.cisco.com/go/ucsmi)

[www.cisco.com/go/microsoft](http://www.cisco.com/go/microsoft)



Cisco UCS



Cisco UCS Manger



Cisco Nexus 1000V



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