

# Cisco UCS Mini: Edge-Scale Solution for Microsoft Applications



## Cisco UCS Mini: Full-Power Cisco UCS in an All-in-One Package

This Cisco Unified Computing System™ (Cisco UCS®) solution is ideal for Microsoft-oriented small or medium-sized businesses (SMBs) or for the edge of your large IT environments.

Cisco UCS Mini is a total computing solution that delivers enterprise capabilities in a small, efficient form factor for Windows Server and Microsoft workloads such as Active Directory, Microsoft SQLServer, SharePoint, Exchange, and Private Clouds.

## The Cisco and Microsoft Alliance

Cisco Data Center solutions unify compute, networking, storage, and management into a single platform. Architectural flexibility and operational simplicity are essential for virtualization and cloud computing.

The Microsoft and Cisco alliance, taking advantage of the technical innovation at both companies, integrates the operating system, native hypervisor, applications, and management software into virtualization solutions.

These solutions take full advantage of a unified infrastructure and enable IT as a Service. Cisco UCS software-based solutions automate and simplify deployment, orchestration, and management across server, network, and cloud, allowing customers to:

- Respond rapidly to changing business needs
- Scale the data center while avoiding complexity
- Accelerate your transition to private cloud and hybrid cloud environments

## Solution Overview: Cisco UCS Mini for Microsoft

- Computing and storage integration:
  - Six-rack-unit (6RU) rack-mount chassis
  - Up to eight blade servers and seven rack servers
- Integrated networking:
  - Small Form-Factor Pluggable Plus (SFP+) for 1- or 10-Gbps connectivity
  - Hassle-free connectivity with end-host mode
- High availability:
  - Hot pluggable redundant power (N + N, N + 1, and N support) 100 to 120V, 200 to 240V, -48V support
  - Redundant network connectivity and redundant fans
- Management:
  - Systems management capabilities with full-featured Cisco UCS Manager
  - Cisco UCS Central Software for remote management
  - Microsoft System Center 2012 integration
  - Extensive Microsoft and Cisco UCS Director PowerShell Agent integration
- Storage: Cisco USC Mini supports Cisco UCS Director EMC VNX, NetApp FAS, Nimble, Small Computer System Interface over IP (iSCSI) and Fibre Channel—with storage area network (SAN), LAN, or direct attached storage (DAS) connection. Customers

may also choose to run their storage on Cisco UCS C240 rack servers directly attached to the Cisco UCS Mini using software-defined storage solutions such as StorMagic or Storage Services in Windows Server 2012 R2.



## Key Benefits

- Unites compute, networking, storage access, and management resources in a single platform
- Simplifies infrastructure management
- Enhances application performance and scalability
- Accelerates IT delivery to the business
- Offers an affordable solution for Windows Server 2003 migrations in remote and branch offices
- Provides a flexible and scalable entry point for moving to the Microsoft Hyper-V or VMware private or hybrid clouds



## Microsoft Community Recognition

Cisco awards for Cisco UCS, Cisco Nexus® switches, Cisco UCS Manager, and FlexPod for the Microsoft Private Cloud are shown in Figure 2.

Figure 2. Cisco Awards



## Components

- **Cisco UCS B200 M3 Blade Server:** Delivering performance, versatility, and density without compromise, this blade server addresses a broad set of workloads, from IT and web infrastructure through distributed-database, enterprise-resource-planning (ERP), and customer-relationship-management (CRM) applications. The Cisco UCS B200 M3 Blade 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 nearly 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 (100–120V3 and 200–240V) and 48-VDC power supplies make Cisco UCS Mini ready for global deployment.

- **Cisco UCS 6324 Fabric Interconnect:** This 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.

## Why Cisco for Microsoft?

- **Scales to meet business dynamics:** Align IT delivery capabilities with the needs of your business and unleash the full potential of virtualization with a high-performance, highly available, secure, and automated platform for Microsoft software and technologies.
- **Lowers operating costs:** Reduce total-cost-of-ownership (TCO) at the platform, site, and organization levels with a network and server infrastructure designed for virtualization and cloud computing. Consolidate SQL, SharePoint, and Exchange workloads; reduce power, cooling, and cabling needs; and protect your infrastructure investments.
- **Modernizes the data center server upgrades:** Take advantage of Cisco UCS Mini as you migrate to Windows Server 2012 R2 or SQL Server 2014.
- **Simplifies management:** Use Microsoft System Center and PowerShell along with Cisco UCS Manager to holistically manage and orchestrate Cisco

server and networking infrastructure the same way you manage your Microsoft server and application software.

- **Delivers world-class performance:** In the 5 years since its introduction, Cisco UCS powered by Intel Xeon processors captured 100 world record-setting performance benchmarks, with results that were either first to market or exceeded those set by vendors of existing systems.

## For More Information

For more information, please visit: [www.cisco.com/go/ucsmi](http://www.cisco.com/go/ucsmi) or [www.cisco.com/go/microsoft](http://www.cisco.com/go/microsoft).

