# Cisco UCS C-Series Rack Servers for Microsoft SQL Server and Consolidation

Solution Brief February 2013 cisco.

Excellent Support for Standalone Deployments or Part of Cisco UCS

## Highlights

#### Solutions for Small and Medium-Sized Businesses

- The Cisco UCS® C-Series Rack Servers solution for Microsoft SQL Server provides standalone server platforms for small and medium-sized businesses, with Cisco® SmartPlay bundles optimized for low cost and rapid deployment.
- Organizations wanting the benefits of centralized management and automated deployment can integrate the infrastructure with Cisco Unified Computing System™ (Cisco UCS).

#### **High-Performance Solution**

 Cisco servers are based on Intel® Xeon® processors that deliver excellent performance for Microsoft SQL Server environments.

### Easy to Order and Deploy

• Simplified Cisco SmartPlay bundles make ordering fast and and the solution easy to deploy.

#### **Reduced Risk**

 All solutions are built to best support cost-effective, feature-rich, highperformance Microsoft SQL Server software. The Cisco Unified Computing System<sup>™</sup> (Cisco UCS<sup>®</sup>) provides the predictable performance needed for enterprises to meet a wide range of Microsoft SQL Server workload demands while also reducing risk and offering scalability options.

Cisco provides small and medium-sized businesses with three excellent configurations for supporting Microsoft SQL Server (Table 1).

## **Small Standalone Solution**

The low-cost, entry-level solution using the Cisco UCS C220 M3 Rack Server is a self-contained solution that is excellent for a small-sized company using Microsoft SQL Server and requiring less than 2.4 terabytes (TB) of storage capacity The server is equipped with 64 GB of main memory, and two Intel® Xeon® processors E5-2643 with 4 cores per socket for a total of 8 cores.

### Medium-Sized Standalone Solution

The medium-sized solution, using the Cisco UCS C240 M3 Rack Server, provides balanced computing power, memory, and access to internal storage. It is powered by two Intel Xeon processors E5-2680, each with eight cores and equipped with 96 GB of memory. This system offers 4.8 TB of internal storage using 16 internal disks with an option of 8 additional disks for increased capacity and I/O bandwidth. This configuration delivers an excellent standalone online transaction processing (OLTP) server or decision-support platform at a significantly lower price.

#### Integrated Cisco UCS Solution

The integrated solution delivers even greater capacity while achieving the benefits of integrating Microsoft SQL Server with Cisco UCS, including high-bandwidth, low-latency unified fabric and intelligent infrastructure with integrated management across all Cisco UCS servers. The solution uses four Cisco UCS C240 M3 servers, two Cisco UCS 6248UP fabric Interconnects, and two Cisco Nexus® 2232PP fabric extenders to support multiple Microsoft SQL Server instances, high availability and consolidation of multiple Microsoft applications .

# **Solution Benefits**

Cisco UCS C240 M3 servers are excellent platforms for Microsoft SQL Sever 2010 and deliver many additional benefits as well:

Integrated support for virtualization: Every Cisco UCS C-Series Rack Server is

Solution	Small Standalone Solution	Medium-Sized Standalone Solution	Integrated Cisco UCS Solution
Computing	<ol> <li>Cisco UCS C220 M3 Rack Server with:</li> <li>2 Intel Xeon processors E5-2643 at 3.3 GHz (4 cores per processor)</li> <li>64 GB of memory or more with expansion paks</li> <li>Redundant power supplies</li> <li>Cisco UCS Virtual Interface Card (VIC) 1225 (available separately)</li> <li>LSI MegaRAID 9266CV-8i PCIe card</li> </ol>	<ol> <li>Cisco UCS C240 M3 Rack Server with:</li> <li>2 Intel Xeon processors E5-2680 at 2.7 GHz (8 cores per processor)</li> <li>96 GB of memory or more with expansion paks</li> <li>Redundant power supplies</li> <li>Cisco UCS VIC 1225 (available separately)</li> <li>LSI MegaRAID 9266CV-8i PCle card</li> </ol>	<ul> <li>4 Cisco UCS C220 M3 Servers with:</li> <li>2 Intel Xeon processors E5-2643 at 3.3 GHz (4 cores per processor)</li> <li>64 GB of memory or more with memory expansion paks</li> <li>Redundant power supplies</li> <li>Cisco UCS VIC 1225</li> <li>LSI MegaRAID 9266CV-8i PCle card</li> </ul>
Storage	Internal disk storage: • 8 300-GB 15K SAS drives	Internal disk storage: • 16 300-GB 15K SAS drives (up to 24 with optional expansion paks)	<ul> <li>Internal disk expansion pak:</li> <li>2 600-GB 10K SAS drives for booting. Broad external storage array support available from industry-leading vendors.</li> </ul>
Networking			<ul> <li>2 Cisco UCS 6248UP 48-Port Fabric Interconnects</li> <li>2 Cisco Nexus 2232PP 10GE Fabric Extenders</li> </ul>

Table 1. The Cisco UCS C-Series Solutions Can Be Ordered with a Combination of Cisco SmartPlay Bundles and Expansion Paks

optimized for virtualization, with close integration with VMware vSphere and Microsoft Hyper-V hypervisors.

- Easy ongoing management and maintenance: Many small businesses find that managing servers initially as standalone systems meets their immediate needs; this solution provides that capability while also offering the unique capability to integrate into Cisco UCS, with its unified management, at a later time.
- Excellent performance, scalability, and flexibility: The solution provides excellent support for Microsoft SQL Server, enabling IT departments to start small and easily scale to meet changing needs.

# Easy Ordering

Cisco UCS for Microsoft SQL Server is available through the Cisco® SmartPlay program (see Table 1). With only a single part number to order, the program makes it easy to quickly deploy a powerful database environment in your enterprise without the expense or risk entailed in designing and building your own custom solution.

## For More Information

For more information about the Cisco SmartPlay program, please visit <u>http://</u> www.cisco.com/go/smartplay.

For more information about Cisco UCS solutions for Microsoft products, please visit <u>http://www.cisco.com/go/</u><u>Microsoft</u>.

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