

Cisco IT Migrates Mission-Critical Order Management System from HP Superdome to Cisco Unified Computing System

BUSINESS BENEFITS

- Capital cost reduction of more than 75 percent
- Capable of handling twice the load of legacy system
- Accelerated performance of Oracle applications
- Reduced data center rack space usage by more than 80 percent
- Consumes 65 percent less power compared to legacy system

“Moving the Oracle and SAP environments to the Cisco Unified Computing System has been transformative. Performance increased, total cost of ownership decreased, and the conversion has been extremely smooth.”

Jag Kahlon, IT Architect, Cisco

Cisco UCS platform reduces total cost of ownership, increases business agility, and improves resiliency.

To accommodate Cisco’s diverse business needs, marketplace opportunities, and business demands, Cisco’s global data center strategy focuses on providing optimized capacity, increased resiliency and transformation of IT as an internal service provider. The Global Data Center Program is migrating all applications, network, compute, and storage to a private cloud with the Cisco Unified Computing System™ and Cisco Nexus® Series Switches as the foundation.

To continue its transformational Journey, Cisco IT is systematically moving Oracle / SAP applications and databases from the HP-UX platforms to Cisco® UCS. Before the migration, Cisco IT had approximately 200 HP Superdome and midrange HP-UX servers in the United States and Europe, hosting Oracle

Real Application Clusters (RAC) and Oracle eBusiness Suite. In January 2011, Cisco IT completed migration of all business applications running on virtual machines from legacy hardware to the UCS platform.

100 percent of Cisco revenue flows through the Quote to Cash systems. In March 2011, Cisco IT migrated its Quote to Cash systems to the Cisco UCS platform. Quote to Cash is a mission-critical, core set of applications for Cisco, supporting more than US\$40 billion annual revenue.

For Quote to Cash, Cisco IT uses Oracle E-Business Suite 11i in specific Order Management and Accounts Receivables modules. The Oracle Order Management application supports all of Cisco’s order processing from start to finish, including the pricing and product configurations for customer orders. After an order is processed to be fulfilled and the product is shipped, the Oracle Accounts Receivable application handles the order discounting, customer billing, and tax management. Two databases, 9 TB and 7 TB in size, support these applications. They serve more than 2400 concurrent users.

Cisco IT replaced HP Superdome servers with Cisco UCS B440 servers for Quote to Cash systems. See Table 1 for a comparison of production system details before and after the migration from HP Superdome to Cisco UCS. The new system can handle twice the load compared to the HP systems, enabling future growth at no additional cost. Cost and time to deliver horizontal scaling are much lower with the Cisco UCS platform compared to the HP Superdome system. Cisco IT also moved the application to a higher data center tier for increased resiliency and operational continuity.

Table 1. Quote to Cash Production Systems Configuration Before and After Migration

	Source (HP)	Target (Cisco UCS)
Production server configuration	2 HP PA-RISC Superdomes + 2 HP RP8420	4 Cisco UCS B440
Operating system	HP-UX Version 11.11	Red Hat Enterprise Linux Version 5.5
CPU cores	144	128
Memory	288 GB	1024 GB
Performance	Capacity to handle current workload	Capable of handling 200 percent load
Oracle RAC version	9i	10g

Cisco IT is saving on data center space, power, and cooling. Table 2 shows comparison of all servers in production, development, stage, disaster recovery, and backup supporting the U.S. and non-U.S. Quote to Cash environment. The Cisco Unified Computing System occupies one-sixth the datacenter space of the HP systems that it replaced, consumes less than 65 percent power, and uses 40 percent fewer cables. Migration to the x86 platform and fewer CPU cores reduced the Oracle licensing cost by 35 percent. Hardware and software support and maintenance costs are also lower on the x86 systems.

Table 2. Data Center Usage Details Including All Supporting Systems

	Source (HP)	Target (Cisco UCS)
Total number of systems	12 HP-UX (Superdomes and midrange systems)	15 (B440s, B200s, C210s)
Number of cables	136	82
Data center space	12 rack space	Fewer than 2 rack space
Data center power consumption	Approximately 50 kW	Approximately 18 KW

No application change was required for the platform migration. End user experience improved, because of performance enhancement.

Cisco IT has improved resilience. Oracle RAC provides high availability in a horizontally scaled environment. In the event of blade failure, Cisco IT can rapidly provision a replacement server by applying a Cisco UCS Manager service profile to a different blade. This action helps in restoring the RAC cluster to the original state much quicker than the legacy system.

Cisco IT UCS migration process. For details on how Cisco IT migrated its Oracle and SAP environment from HP Superdome to Cisco UCS, see the Cisco on Cisco case study at http://www.cisco.com/web/about/ciscoit/work/data_center/ent_app_migration_to_ucs_web.html.

Cisco IT is in the process of migrating all applications to the de-facto standard UCS platform. Following are the examples of the critical systems that are migrated to the UCS platform to date:

- Cisco.com
- Lead to Order
- Territory Definition and Sales Commission System
- Partner CRM

- Manufacturing Supply Chain Portal
- Cisco University
- Human Resources Support Center
- Web Analytics
- Cisco MarketPlace
- Sharepoint
- Kinaxis – Supply Chain Management
- Large Deal Management application
- Oracle Identity Management
- Customer Registry

FOR MORE INFORMATION

To read the entire case study or additional Cisco IT case studies on a variety of business solutions, visit Cisco on Cisco: Inside Cisco IT www.cisco.com/go/ciscoit.

NOTE

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