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 old system • Accelerated performance of Oracle applications • Reduced data center file usage by 80 percent • Consumes less than half the power of 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 model. 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 journey to the private cloud, Cisco IT is systematically moving Oracle and SAP applications and databases from the HP-UX platforms to Cisco® UCS. Before the migration, Cisco IT had approximately 200 HP Superdome and mid-range 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 .

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 order processing from start to finish, including all the pricing and product configurations for every customer order. 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 over 2400 concurrent users.

Cisco IT replaced two HP Superdome servers with two Cisco UCS B440 servers for both U.S. and non-U.S. production Quote to Cash systems. See Table 1 for a comparison of 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 system, 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 legacy system. Cisco IT also moved the application to a higher data center tier for increased resiliency and operational continuity.

Table 1.   Quote to Cash Details Before and After Migration

	Source (HP)	Target (Cisco UCS)
Production server configuration for U.S. Order Management system	2 HP PA-RISC Superdomes	2 Cisco UCS B440
Operating system	HP UX Version 11.11	Redhat Enterprise Linux Version 5.5
CPU cores	80	64
Memory	160 GB	512 GB
Performance	Designed to handle current workload	Capable of handling 200 percent load
Oracle RAC version	9i	10g
Total systems including development/stage/disaster recovery/backup lifecycles	3PA SD, 7 rp8420, 2 rp7410	10 B440, 3 B200, 2 C210
Number of cables	106	62
Data center space	Close to 11 racks	Fewer than 2 racks
Data center power consumption	Approximately 50 kW	Approximately 24 kW

Cisco IT is saving on data center space, power, and cooling. The Cisco Unified Computing System occupies one-tenth the space of the HP Superdome system that it replaced, consumes less than one-third the power, and uses 40 percent fewer cables. Migration to the x86 platform and fewer CPU cores reduced the licensing cost by 40 percent. Support and maintenance costs are also lower on the x86 systems.

No application change was required for the platform migration. The migration was transparent to users.

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 fully redundant state much quicker than with the legacy system.

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

Cisco IT is in the process of migrating all applications to the defector standard UCS platform. Following are the examples of the critical systems that are migrated to the UCS platform todate.

- 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

This publication describes how Cisco has benefited from the deployment of its own products. Many factors may have contributed to the results and benefits described; Cisco does not guarantee comparable results elsewhere.

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