Cisco Demonstrates Enterprise Application Leadership with World–Record–Setting SPECjEnterprise2010 Benchmark Results

Performance Brief
March 2011

Multi-tier application architectures power business organizations everywhere. Cisco's world-record-setting SPECjEnterprise®2010 benchmark results demonstrate how customers can optimize their performance with the Cisco Unified Computing System, Intel® Xeon® processors, Oracle software, and EMC® CLARiiON® storage.

The SPECjEnterprise2010 benchmark simulates a multi-tier architecture to demonstrate how well a solution powers enterprise applications and web services. Cisco has set a new world record of 17,301.86 SPECjEnterprise2010 EjOPS with a solution based on the Cisco Unified Computing System™ powered by two Cisco® UCS B440 M1 High-Performance Blade Servers and a Cisco UCS C460 M1 High-Performance Rack-Mount Server.

Open Systems Outperform RISC

What is particularly remarkable about this result is how Cisco's solution, based on industry-standard, x86-architecture servers, outperforms the fastest proprietary IBM Power 780 server–based solution, with results of 16,646.34 SPECjEnterprise2010 EjOPS (Table 1). Now customers can confidently leave behind the vendor lock-in associated with costly RISC processor–based servers, move to an open solution, and achieve increased performance.

Table 1. Comparison of x86 Versus RISC Performance

Application Server	Processors	Number of Cores	SPECjEnterprise2010 EjOPS	Publication Date
Cisco UCS B440 M1	8X Intel Xeon X7560 (x86)	64 @ 2.26 GHz	17,301.86	March 9, 2011
IBM Power 780	8X IBM Power7 (RISC)	64 @ 3.86 GHz	16,646.34	February 23, 2011

End-to-End Solution for the Entire Oracle Stack

The benchmark results demonstrate Cisco's ability to deliver an end-to-end solution with the server and networking product breadth and depth necessary to outperform the rest of the industry. These results in combination with Cisco's record-setting Oracle E-Business Suite benchmark results demonstrate how Cisco provides industry-leading performance for the entire Oracle software stack.

Benchmark Environment
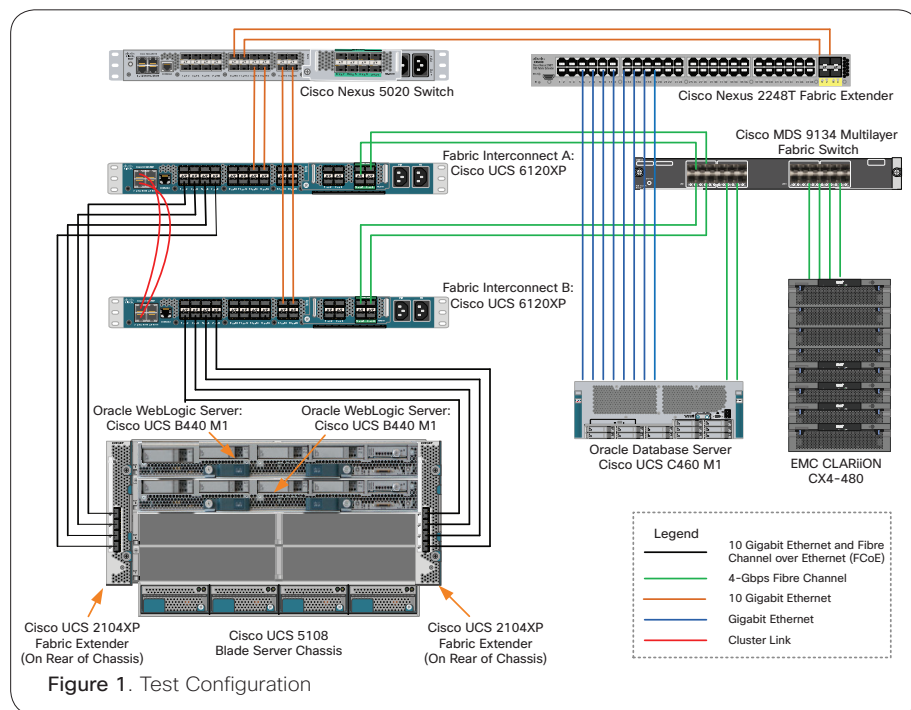
Application Servers

Cisco ran Oracle WebLogic Server 11g, a component of Oracle Fusion Middleware, on two Cisco UCS B440 M1 blade servers running Oracle Linux (Figure 1). Each server was equipped with 128 GB of main memory and four eight-core Intel Xeon X7560 processors running at 2.26 GHz, for a total of 32 cores. These blade servers were integrated into the Cisco Unified Computing System with a pair of Cisco UCS 6120XP 20-Port Fabric Interconnects.

Database Server

The database server was a single Cisco UCS C460 M1 rack-mount server running Oracle Database 11g Release 2. The server was equipped with 512 GB of main memory and four eight-core Intel Xeon X7560 processors running at 2.26 GHz, for a total of 32 cores. This server was connected to the application servers hosted in the Cisco Unified Computing System through a Cisco Nexus® 5020 Switch and a Cisco Nexus 2248T Fabric Extender

EMC CLARiiON Storage

Both the Cisco Unified Computing System and the database server were connected to an EMC CLARiiON CX4 model 480 storage system through a Cisco MDS 9134 Multilayer Fabric Switch. The EMC CLARiiON CX4-480 provides high-capacity networked storage for online transaction processing (OLTP) workloads.

Figure 1. Test Configuration

Conclusion

Cisco's end-to-end application server solution provides world-record-setting performance while further demonstrating how Cisco provides a superior platform for running the Oracle software stack. With performance that surpasses the best entry by a RISC processor–based solution, Cisco's results signal the availability of world-class performance on industry-standard, x86-architecture servers. While other vendors also have access to the same processor technologies, only Cisco delivers them in a single cohesive system: the Cisco Unified Computing System.

For More Information

Please visit:

· http://www.cisco.com/go/ucs
· http://www.cisco.com/go/oracle

You can also email ciscowithoracle@cisco.com.

Disclosure

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