

Cisco Puts Server, Storage Networks on Single-Switch Path

The vendor says its Nexus 7000 switches can support all data center resources on one Ethernet fabric. If it works, it could help users reduce IT costs. **By Matt Hamblen and Stephen Lawson**

CISCO SYSTEMS INC. last week broadened its push to play a leading role in the data centers of the future, introducing the first of a planned line of switches for supporting computing, storage and IP networks on a single Ethernet fabric.

Cisco said the initial 10-slot chassis version of the Nexus 7000 switch family will ship in the second quarter and offer users total bandwidth of up to 8Tbit/sec. Blade and rack-mounted models will be added later, and the bandwidth capacity eventually will be increased to 15Tbit/sec., according to Cisco.

The networking giant already controls about 70% of the switch market worldwide through its Catalyst series of Ethernet switches and its MDS 9000 devices for storage-area networks.

At first, Cisco will market the Nexus 7000 line for use with separate server and storage networks, reflecting current data center realities. But in the future, it hopes to turn the new switches into a single connectivity platform that will provide common

I/O interfaces and support the emerging Fibre Channel over Ethernet standard.

Mark Drake, a network engineer at Health Management Associates Inc. (HMA) in Naples, Fla., said he's looking at the Nexus 7000 line as a possible way of "future-proofing" the health care provider's networks against demand from end users for more and more bandwidth.

HMA, which operates about 60 hospitals and clinics in 15 states, uses Catalyst switches that Drake said should be able to handle its connectivity needs for the next two years. But he added that with Nexus, "the capacity to grow is huge."

Drake said he also sees potential network management benefits from the new switches. HMA is trying to reduce IT staffing costs by consolidating systems from each hospital into two main data centers. A combined management interface for HMA's server and storage networks could further simplify administration, he said.

Ken Cooper, a senior technical consultant at EMC Corp. who is president of the Dallas-Fort Worth Cisco

Users Group, was also impressed by the Nexus 7000's promised throughput capacity. "That's a pretty serious switch," he said.

In addition, the new line's support for virtualizing switches could help reduce floor-space needs as well as the number of switch hardware failures within data centers, Cooper said.

The Nexus 7000s will include a new operating system called NX-OS that has built-in virtualization capabilities, said Jayshree Ullal, senior vice president of Cisco's data center, switching and services unit.

That, she added, will enable users to partition the devices into multiple logical switches that can run different processes and be managed by separate administrators while sharing the same power supplies and other components.

The Nexus line's management interfaces will also be compatible with Cisco's VFrame Data Center, a tool announced last July for pooling computing, networking and storage resources into a set of virtualized services, Ullal said.

Zeus Kerravala, an analyst at Yankee Group Research Inc., said that the Nexus 7000 "sets a new bar" for data center switches. The new line can meet existing needs while also making it possible for IT managers "to implement a larger virtualization vision," he said.

In addition, Cisco is the only vendor with a product offering that can fully handle the role of being an "orchestrator" within data centers, Kerravala said.

But he noted that although many IT managers say they want to virtualize their data centers as much as possible, most of them aren't ready to do so yet.

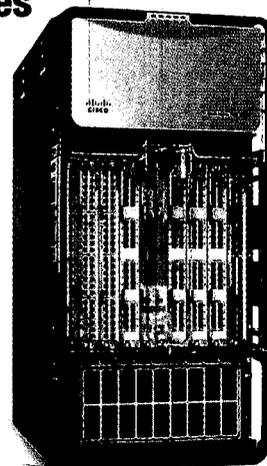
"We're just entering the very early stages of the virtual data center," Kerravala said, adding that widespread adoption by users "is probably at least two years away." ■

Lawson writes for the *IDG News Service*.

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