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Cisco, sources reveal data center next steps

Nexus 3000 on tap, perhaps 'Jawbreaker' fabric line too. Is this a response to Juniper?

By Jim Duffy, Network World
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NEW ORLEANS -- Cisco apparently plans to soon unveil a   Sponsored by:
data center switch designed for high-frequency financial trading
markets, and may also be readying a switch fabric rollout similar
to Juniper's recent QFabric launch.

The Nexus 3000 is a low-latency, high-density 10 Gigabit
Ethernet switch specifically designed for market trading. The
one-rack-unit switch supports Layer 2/3 wire-rate switching
and implements "advanced unicast and multicast routing
protocol features," according to a short description on the
Cisco Web site.

IN PICTURES: 10 Gigabit data center switch shootout

A link to the Nexus 3000 on the Cisco site, however, leads
back to the main Cisco.com page and not to any further details
on the switch. John McCool, senior vice president and general manager of Cisco's Data Center, Switching and Services
Group, would not comment on the Nexus 3000 during an interview at this week's Cisco Partner Summit here.

But sources say it is a response to Juniper's QFX3500, the first in the company's QFabric line of nodes and
interconnects for flattening data center and cloud infrastructures. With the fabric, data center switches can be grouped
logically and treated as a single entity, like one big switch. QFabric is the result of Juniper's 4-year-old Stratus project.

One source says the Nexus 3000 is based on the same Broadcom Trident chipset used in the QFX3500. This would be
a departure for Cisco, which emphasizes internal development of its own ASICs to tie its products into an end-to-end
system architecture, to protect profit margins and to avoid commoditization (see "Cisco's call to arms").

But the 3000 is not part of a "fabric play" like the QFX3500. Cisco's fabric play is in development under the code name
"Jawbreaker," this source says.

Jawbreaker has two components, the source says: "Matrix," the fabric core, which is intended to compete with a forthcoming 40Gbps core from Juniper; and "Sentinel," a new switch with 48 ports of 10G, four 40G Ethernet uplinks, and based on Broadcom's soon-to-ship Trident+ chipset.

The Matrix and Sentinel systems are expected to ship in late 2012, the source says.

Cisco's McCool similarly declined to comment on Jawbreaker.

"We're not planning a response (to Juniper)," McCool says. "We've led this transition to fabric-based networking."

Cisco's Nexus product line, announced three years ago, boasts 10,000 customers and 7 million ports shipped, and the Nexus 7000 is on a $1 billion run rate, McCool and other Cisco officials say. Cisco also last year announced FabricPath, a network-flattening technique Cisco says scales to 160Tbps and is based on the IETF's TRILL specification.

"Given where we are in the market it's very important for us to focus on what we're delivering," McCool says. "We're very focused on delivering the (Nexus line) and the evolution of that roadmap. This is the mainstream fabric we're supporting."

In other data center matters, McCool says Catalyst 6500 users are trading in or redeploying the Catalyst 6500 for the Nexus 7000 as they build out 10G infrastructures. In redeployments, the Catalyst 6500 is being implemented as an edge access and aggregation switch; as a services node performing firewalling, load balancing, wireless services and application monitoring; and as a virtualized security gateway, McCool says.

He did not provide additional details or timelines for scaling the Nexus 7000 to 550Gbps per slot for 40/100G Ethernet support; or for adding Fibre Channel over Ethernet to the modular Nexus 7000 core switch.

FCoE on the core switch, along with FabricPath, would allow data center users to scale network and storage convergence beyond server access and throughout the data center network.

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