Use Our Optics, or Else! - December 5, 2003

by Craig Matsumoto, Senior Editor, Light Reading

Cisco Systems Inc. and Extreme Networks Inc. have discovered a new revenue source that's got some customers steamed, and a grass-roots effort is attempting to intercept the trend before it spreads to other equipment vendors, Light Reading has learned.

It has to do with optical modules, the doodads that connect a line card to an optical fiber. These are frequently purchased from the equipment vendor, and they conform to multiservice agreements (MSAs) that dictate size, shape, and function. In other words, they're supposed to be interchangeable.

Sometime in the past year, Cisco equipment started rejecting Gigabit Ethernet small-form pluggable (SFP) modules that came from other vendors, say sources. This forces the customer to buy SFPs from Cisco at a hefty markup. Extreme reportedly has followed suit, and other vendors reportedly are considering similar policies.

Cisco and Extreme failed to respond to requests for comment. But Cisco has stated in company literature that the new policy was meant to protect customers. The company refers to its SFP-blocking feature as the *"Cisco quality ID"*, according to a policy document obtained by Light Reading. The document says the quality ID *"protects customers against mistaken use of non-qualified GBICs and SFPs (including counterfeit products) and ensures a fully qualified network configuration"*.

How could this pose problems? Consider the tale of one Cisco customer who has asked to remain unnamed. Last spring, the customer was replacing another vendor's equipment with Cisco's and planned to reuse the SFPs from the old equipment - only to be told that Cisco's IOS software would disable every port that used the old SFPs.

The only alternative was to buy SFPs from Cisco directly. The tab: more than $300,000.

Shaw Communications Inc. likewise encountered the issue earlier this year. *"We always were mixing and matching GBICs [the predecessors to SFPs] with customers' equipment, because it worked"*, says Dave Wodelet, chief network architect. Wodelet would not specifically name the vendor but described it as a major public Ethernet switch vendor. One day, the vendor's box started reporting errors for every foreign SFP. *"When we approached the vendor, they said they'd had trouble with third-party SFPs, and customers asked them to do this"*.

Network operators like to swap SFPs around because it saves money. That's a long-held benefit of standards. Different SFPs handle different distances, for example, so a port can be upgraded to a longer reach by adding a new SFP.

The new policy seems to have snuck up on customers. According to sources, it only affects newer products.

Wodelet decided to see if other carriers were as irked as he was. He presented the issue at last October's *North American Network Operators' Group* (Nanog) meeting, and he's been invited to give a similar talk at the *Optical Fiber Communication Conference* (OFC) in March.

"What this has done is put a dividing line in the sand, and the companies who were thinking of doing it are waiting to see what happens", Wodelet says. *"I'm sure if Cisco and Extreme got away with it, others would follow suit"*.

What really annoys Wodelet is that the equipment vendors don't even make SFPs. They all buy from the same small pool of suppliers - *Finisar Corp.* and *Agilent Technologies Inc.*, mostly - then store their own IDs and serial numbers on a memory chip included on the SFP.

This means that a rejected SFP could have come from the same manufacturer as a *"Cisco"* SFP; the only way Cisco knows the difference is by looking at the serial number. Wodelet says he's verified with Finisar that they send the same SFPs to everybody. In other words, a switch that rejects certain SFPs is like a flashlight that works with only one brand of batteries.

This type of practice isn't new. It's a common technique in consumer electronics, where manufacturers will use proprietary connectors, forcing customers to buy expensive replacements if, say, the power adapter to a portable CD player breaks *(not that anyone's bitter about this)*.

Cisco hasn't turned a deaf ear to the complaints. *"They said there has been a commitment to make a decision in January. They'll decide once and for all whether they'll stand by the current policy"*, says the Cisco customer.

This source estimates it would take at least six months to update IOS should Cisco rescind the policy, so it's not likely to change quickly. Meanwhile, Wodelet will continue speaking about it, trying to make users aware of the complications they might face.

Could Cisco sales be hurt by the quality ID flap? Not necessarily, but its pride and profits could get bruised. Upon learning that the Cisco equipment would require new SFPs, the unnamed source demanded they be thrown in for free, and Cisco's sales team - which had already made concessions just to win the upgrade - agreed. Problem solved. For now.

"As we expand our network and need more connections, we'll have to buy Cisco optics like everybody else", the source says.