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Apparent Networks Sees Into the Cloud

By Ted Stevenson

Light-touch monitoring techniques let enterprises troubleshoot performance issues in devices and networks they don't control.

Increasingly, enterprise computing encompasses software-as-a-service (SaaS), communications-as-a-service, IT outsourcing, and other forms of what has come to be called "cloud computing," where the applications and service infrastructure for the most part reside—and are managed—"out there" in other people's networks.

By now, we're familiar with the advantages of this kind of offering: low—or no—capital expenditure, little or no management or maintenance overhead, automatic upgrades at the source, and the like.

But what happens when something goes wrong—"out there," on networks or devices you don't own, and over which you have no direct control? Typically, a lot of phone calls and a lot of finger pointing (accompanied by frustration and frayed tempers).

We recently talked with a company—Wellesly, Massachusetts-based [Apparent Networks](#)—that has a different solution, embodied in two "next-generation" network analysis and performance management products: AppCritical, which has been available for several years, and PathView, just launched this month.

While there are differences between the two—and we'll get to those in a bit—the two products share a core approach and are built around the same "intellectual property," as Apparent CMO Jim Melvin, put it to Enterprise Networking Planet.

Looking Beyond "Local"

In talking with potential customers, Apparent director of product marketing John Riley encounters a pervasive and deeply ingrained idea that network management is all about devices, and looking at *your* LAN. "We have to jackhammer that perception, because, more and more frequently, your performance characteristics are being impacted by things beyond your ownership and control," he said.

Whereas all other extant network management tools function only in networks under the enterprise's control, Apparent's tools can monitor or "see" the entire network path traversed by a particular application or service, and troubleshoot any performance issues they detect.

Moreover, unlike most monitoring tools, which either collect information from network devices—which in turn requires management access—or flood the network with traffic in order to find bottlenecks, Apparent's tools go about their business in a "light-weight" and totally transparent manner.

"Our approach is drastically different, in that you do not have to have management access and you do not have to put anything remote into the wire—and it is extremely light touch so it doesn't impact other applications," Melvin explained.

"What we do is put a device called a sequencer, generally near a service delivery point—and it sends very light-weight but specifically timed packet trains down the wire, out to any remote endpoint, and then back." (*Lightweight* means 7 to 10 packets per minute, according to Melvin.)

"We're very good at measuring the very specific timing and ordering of how the packets come back. And based upon that, we can then deliver very accurate key performance information, such as bandwidth, latency, jitter—essentially all the key elements that you'd be looking for in end-to-end performance information," Melvin went on.

If performance issues are detected, Apparent's software can provide further analysis, using the same techniques, to provide a hop-by-hop view of what's happening on the network path in question. "It would show you every hop along the way, every network device along the way, and what the performance is to that device."

A typical source of trouble would be a mis-configured router, Riley pointed out—relating a story about a customer that was troubleshooting a VoIP installation for a third party in Kenya. "Our software was able to determine that the third router from the end, in the carrier network, was stripping out the QoS [quality of service] bits, so from that point on, the voice quality was degrading significantly, because it was fighting for line share—or bandwidth share—in the pipe.

"So our customer called their customer and said 'Hey, call your carrier and let them know their router is mis-configured.' They did, and the problem was solved," Riley said.

"Problems like that are really hard to find. You're dealing with devices the customer doesn't own, so it can be really hard to track down," Riley said.

Melvin expanded on this theme: "We can provide automated diagnosis of common faults that may be occurring in the actual network path that's under use—something as mundane as a media error, or QoS bits being mis-set or stripped out, or a duplex mismatch, or simple congestion in the network."

Moreover, that diagnosis can be very precise. "Between hop 5 and hop 6—which happens to be on the other side of your MPLS cloud and within a carrier—a router is stripping out QoS bits. We can give you that level of automated diagnosis," Melvin said.

The customer base for the AppCritical product consists of large enterprises, managed service providers, and IT outsourcers. Dallas-based Affiliated Computer Systems (ACS), a top-tier IT outsourcer, for example, uses AppCritical to monitor its backbones and its networks, all the way out to its customers—some 30,000 network paths under continuous monitoring.

It's a large-scale tool for large-scale jobs. AppCritical deployments start at about \$100,000, and can go up to many millions of dollars, Melvin told Enterprise Networking Planet. Which means that many organizations that could benefit from its use simply can't afford to deploy it.

PathView

And that is at least part of the genesis of Apparent's new product, PathView. PathView uses the same core architecture and intellectual property as AppCritical, but it is being packaged and distributed as a personal tool, obtainable by download from the Web. "It can be downloaded right now for a 30-day free trial," Melvin was quick to point out.

"It's designed to be used in the same large enterprise account," Melvin said; "it's the same heavyweight technology that we've always built, but it's for an engineer."

Moreover, PathView is able to tackle exactly the same kinds of tasks as AppCritical. "We see people pre-assessing networks for pre-deployments of voice or video applications. We see people using it to troubleshoot carrier performance issues—distributed WAN or MPLS cloud issues for cloud-based services. They're solving the same problems as our big customers are, but they're using as a personal tool."

So how is PathView different? "It's the same core technology for real-time analysis, deep analysis of networks, and automated diagnosis. But as a single-user product, I can't deploy as many viewpoints into the network, I can't maintain the data for as long, I can't integrate with all the enterprise systems you might want to," Melvin explained.

"Think PC versus mainframe. Today I might be able to run the same application on both, but my ability to share data is dramatically different."

In keeping with the personal tool concept, Apparent has decided to keep the price of PathView low. "We went out and talked to engineers and said 'Well, if you're going to go out and buy a tool, what do you expect to pay? Where's your pain point when you have to go and get a signature?' And what we found is below \$3k, below \$5k, they can make the purchase," Melvin explained.

Accordingly, PathView pricing starts just under \$3,000. "Right now you couldn't spend more than \$5,000 [on a multi-seat instance of PathView] if you wanted to."

And Melvin really wants potential customers to understand—as he reminded Enterprise Networking Planet just before we finished our conversation—that you can try out PathView free for 30 days. Just download it and go.