



Is Your Network VoIP-Ready?

By Erik Linask, Associate Editor

Voice over IP (VoIP) is rapidly gaining momentum as enterprises, SMBs, service providers continue to realize the productivity enhancements and cost benefits of enhanced voice applications.

Often, however — too often, in fact — businesses roll out a new VoIP system, but find their call quality is less than they had expected or that calls are dropped too frequently. To the IT managers at those firms, the question to ask is, “Why didn’t you run a readiness assessment on your network? You could have identified trouble spots in your networks and fixed them ahead of deployment.”

The answer, more often than not, would be, “I didn’t know such an opportunity existed.”

Successful VoIP deployments depend on fast and effective network assessment, monitoring, and troubleshooting. For those people that have had negative VoIP experiences, and for anyone that is considering a VoIP deployment, Andover, MA-based Viola Networks has a solution. In fact, Viola is set to roll out the latest release of its NetAlly comprehensive VoIP management solution.

Viola makes software-based VoIP management solutions, which consists largely of agents that can be broadly deployed around an IP infrastructure for the purpose of VoIP management.

NetAlly Lifecycle Manager is a solution suite that combines several stand-alone products that Viola has marketed individually under the NetAlly brand in the past. The NetAlly name is not new, but the notion of a completely unified lifecycle management system is.

Viola executives say NetAlly Lifecycle Manager is the first fully integrated solution for pre-deployment readiness assessment — to ensure that your network is “ready for voice traffic and happy coexistence with data application traffic.” During deployment, Viola helps facilitate successful roll-out and, post-deployment, the product supports the network environment with monitoring, troubleshooting, reporting, capacity planning, and network optimization.

In most cases, claims Viola, customers’ networks simply are not built for carrying real-time traffic, especially VoIP traffic, and the data infrastructure cannot support the VoIP application that the customer wants to lay on top of it. But there are a few vendors — and more every day — that are requiring network readiness assessments prior to deployment of IP telephony equipment.

There are new metrics, in terms of voice call quality measurements and there are almost always network changes required — and it isn’t always about bandwidth, explained Viola’s VP of marketing Dave Zwicker to TMC. “Sometimes it’s about configuration and connectivity paths and understanding where the traffic patterns are from VoIP, so we help them figure all that out with some easy to use point and click software.”

With NetAlly Lifecycle Manager, Viola replicates real voice traffic environments with synthetic calls that can emulate, compressed and uncompressed, the sig-

naling of calls that will really take place when a production environment is up and running, so you’ve got a true reflection of what call traffic really looks like. This allows for a true assessment of where inhibitors to voice quality are in the system so they can be addressed prior to deployment.

Once the assessment has been performed, if there are any issues that have been identified, the output report from the software not only identifies areas of concern, but it can also suggest solutions.

During deployment, when things should be perfect and everything should be running the best way possible, Viola records a baseline measurement to use as a reference point to compare future service levels. That can identify potential service issues before the customer complains, so it allows the IT management staff to be proactive. They can see brownouts, slight degradations in service before it becomes enough for the user to complain, and they can take corrective action.

Post-deployment, Viola’s model is simply to put in place an ability to detect call quality degradation before it becomes user-impacting. One of the differentiators of NetAlly is its unique combination of active and passive testing. “It’s really leveraging the best of what passive monitoring and active testing have to offer,” Zwicker told TMC.

Once that system is in place, continued Zwicker, “We quickly can get a picture for our customers of what’s the footprint of an impending service outage or brownout, and then to isolate the root cause very quickly and confirm that service levels are back up to where they should be.”

Call quality measurement also let Viola ensure that its customers neither over- nor under-provision their networks, because it gives an accurate picture of how well performs under expected conditions. It also is a way to ensure SLA compliance.

Passive monitoring refers to the ability to see the call quality for every call on every IP phone for key IP PBX manufacturers — notably Cisco and Mitel in this release. Active testing, which entails emulation of VoIP traffic to determine network behavior, then gives a holistic level of control and visibility. To ensure active testing does not interfere with network performance, Viola has developed a new test that reduces the bandwidth required for a synthetic voice call by 90% while still providing accurate results.

In order to catch problems before they begin to affect live calls, a customer can, at 7am every morning, set the system to perform a series of tests before the staff gets in for business.

“If there are any problems — perhaps there was a software upgrade, configuration change, a power outage, a broken router interface in the network — you will realize there may be call quality problems, but you should catch them before they actually become live issues,” explained Viola’s VP of product management Eric Bear. “That’s one of the benefits of active testing.”

One of the unique elements of VoIP is that problems

that occur tend to be transient, so if they are not addressed immediately — or at least very shortly after they occur — it may be too late.

Bear explained that, “Our system can automatically kick off a barrage of automated tests when there is a threshold violation.” The cause of the problem can be quickly identified and the situation rectified.

The system also can be used for capacity planning. Before you see all VoIP calls not work and become completely unusable, you’re going to see small degradations in service quality and capacity going towards a max utilization. Our system can be used by comparing to that baseline to detect those issues.

One of the benefits of NetAlly Lifecycle Manager that is most attractive to customers is the ability to manage VoIP environments from anywhere. “You can attach to our central management system securely via the Web from remote locations, so it really lets you decouple the people from the management system from where the agents and data sources are,” Viola’s VP of Marketing Dave Zwicker told TMC. “There’s a lot of flexibility in terms of where our customers get visibility over their VoIP services and control over managing them.”

From that central system, customers can define when and where they want to synthetically generate VoIP calls to look at the behavior of the network environment based on simulated traffic, or they can allow Viola’s agents to perform ad hoc end-to-end testing to measure MOS, isolate network problems, and the like.

Viola’s NetAlly has been designed such that a customer can deploy a lower cost system, then scale it as its needs expand without difficulty.

There are certainly other network assessment vendors out there, but Viola claims none of them offer a pre- to post-deployment solution that combines as many different testing elements as NetAlly. Viola brings to the table a vendor-neutral solution, including integration, compliance and certification with products from Avaya (News - Alert), Cisco, Mitel, and Shore-Tel.

To date, NetAlly predecessors have been sold to some 200 customers around the world, including 12 of the largest global service providers, 5 leading network equipment manufacturers, and, this year, Viola has started a focused outreach into the enterprise segment with financial services companies, manufacturing, universities, and more.

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