"State of the Path"

Based on a survey of network heroes
June 2009

Apparent Networks recently surveyed hundreds of network managers to learn more about the challenges they face every day. This white paper is a summary of the findings from the survey.

Apparent Networks is especially interested in these findings. The company recently introduced PathView as a streamlined, yet powerful way for network managers to evaluate the performance of their networks. Information about PathView, as well as a free trial download, is available at http://www.apparenttools.com.

General Demographics

An invitation to participate in the Apparent Networks survey was sent to approximately 1,500 networking professionals across a variety of industries.

Survey Findings

- First, the network often gets in the way of next-generation IT technologies. More than 36 percent of network managers have delayed application deployments because of network performance concerns, according to the Apparent Networks survey.

A variety of vendors are developing and marketing what we call "next-generation" data center technologies that bring significant return in terms of cost savings. Voice over IP (VoIP), for example, uses the Internet and other shared networks, rather than proprietary phone networks, to route phone calls, dramatically reducing costs, especially for long-distance calls. As a second and even more recent example, hosted services and applications remove the burden from a company's own network. Backing up corporate data offsite for disaster recovery is one such service that has proven popular.

The problem is that these services have bandwidth requirements, and concerns about bandwidth and network performance in general are delaying their deployment.

- Second, bandwidth issues outside of a corporate network are often the roadblock. More than 34 percent of respondents cited bandwidth issues at a third-party ISP or application provider as presenting the most issues with next-generation applications, such as VoIP, video, unified communications, etc.

IT departments are clearly frustrated. The benefits of the next-generation applications are not in question, but the roadblock to deployment is often network performance *outside* of a company's firewall.

Next generation applications often rely on network bandwidth that is beyond a given IT person's control. For VoIP and video applications to work, data must traverse networks beyond a corporate firewall, and the bandwidth and performance of public or shared networks can affect application performance. One often says, "well that information is out 'in the ether,'" meaning one's own network is working fine and the rest is up to someone else. Given the mission-critical nature of the data in question, such ambiguity is scary to network managers.

The results are even more striking when looking at those respondents who delayed next-generation application deployments (e.g. responded 'yes' to the question outlined in the first result). Of these respondents, **61-precent say issues outside their own network present the most issues with these deployments.**

Numerous network management products on the market today take a device-specific view of performance. This allows the administrator to shine the spotlight at a specific device on their network. Moreover, due to the design of these solutions, they cannot look at the performance of devices beyond the corporate firewall.

Given the nature of today's distributed applications, Apparent Networks notes the need to look at the performance of the application "path," or the route the application must travel from its origin to the end user. The company's PathView solution can monitor and manage the entire application path, unlike the other solutions. Given the high number of network managers who are being blamed for network performance that is outside of their control, such functionality is key to today's enterprise IT.

- Third, a surprising percentage of network managers cannot validate the service-level agreements (SLAs) of their outsourced providers. Twenty-six percent of respondents do not have the capability to validate SLAs, and only 42 percent said they "regularly validate" their SLAs.

Given that more than a third of respondents have problems with the bandwidth provided by their ISP, it is somewhat surprising that a relatively low percentage of respondents regularly validate that the they are receiving the agreed upon level of service from their third-party provider.

Apparent Networks' solutions provide complete, unbroken visibility of every hop along a path from the source of the application traffic to its destination, even through segments that pass through service provider and carrier networks. Without requiring probes or devices in these networks, the technology measures service level performance characteristics like bandwidth, jitter and latency. The company's solutions alert users in real time when SLA's are being violated so that problems can be quickly resolved. Clear, easy-to-understand reports provide comprehensive information on SLA compliance.

- Finally, VoIP deployments are delayed most commonly but video and unified communications applications are not far behind. Nearly 61 percent of respondents to this question said they had delayed a VoIP roll-out due to network performance concerns. Thirty-five percent had delayed a video application, and just over a quarter (26 percent) had delayed a unified communications application (participants could select more than one answer).

The survey investigated the specific applications that network managers delayed due to network performance issues. Among the options the survey listed were financial trading, unified communications, video over the network and VoIP, as well as a general catch-all other category (which prompted the respondent to manually type in an answer).

Survey participants completed this question only if they noted that application deployments had been delayed due to network performance (they answered yes to question with results outlined in the previous section).

Given the high percentage of VoIP deployments delayed, Apparent Networks is developing a special VoIP pre-deployment approach. In the coming weeks, the company will provide simple instructions—including video—to show network managers how PathView can perform a rapid pre-deployment check ahead of VoIP deployments. This will provide certainty that a VoIP deployment will succeed, and it will show the administrator in advance which parts of the network will be problematic.

About Apparent Networks PathView

Apparent Networks recently introduced PathView, a revolutionary network management solution. PathView provides specific approaches to assess network performance, troubleshoot as to what parts of the network are causing problems, monitor internal and external networks that affect the performance of next-generation applications, and report on this performance.

PathView is based on Apparent Networks technology that has been deployed to numerous enterprises and application service providers. It was built to provide this technology in a package that is easy for network managers to try, acquire and deploy.

For a free trial of PathView, visit http://www.apparenttools.com/.

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