2004 Survey of Carrier Attitudes Toward IP/MPLS Backbones and VPNs

EXECUTIVE SUMMARY

Everybody knows what equipment vendors think about VPNs and MPLS and their role in enabling carriers to move toward offering multiple services over “converged backbones,” but what do service providers really think?

Up until now, that’s been a matter of conjecture. There’s been no shortage of carriers announcing VPN services, but there has also been general confusion over what they’re actually doing, what services are they’re really planning to offer, how they will offer them, whether they are just playing with the technology or making serious commitments, and so on.

Now, at last, we know the answers to these and many more questions, thanks to the biggest ever survey of carrier attitudes of this topic ever undertaken. More than 400 service provider employees took part in the 2004 Survey of Carrier Attitudes Toward IP/MPLS Backbones and VPNs representing more than 200 different service providers worldwide – including most of the world’s largest and most influential carriers.

The survey mines carrier attitudes concerning two new service types – Ethernet services and Layer 3 IP VPNs – and two legacy service types – private lines and Frame Relay. In each case, respondents rate the various attractions and deterrents of offering these services over an MPLS backbone, and then indicate their overall attitude by predicting what proportion of their company’s revenues will come from these services in 2004 and 2005.

Other issues covered in the survey include how far carriers have already gone with deployment of technologies to enable widespread deployment of Layer 3 IP VPNs and their stance on working with other carriers to jointly offer VPNs.

All of this equates to essential reading not just for vendors wanting to know about carrier investment plans, but also for carriers needing to know what the competition is doing and their customers, enterprise users, wanting to take advantage of new services as they become available.

Key findings from the survey include the following:

Service providers clearly believe that service deployment over MPLS backbones is a commercial reality. Across all categories covered by the survey – using IP/MPLS technology to deliver the Ethernet equivalent of private line service (PWE3), running Frame Relay service over IP/MPLS backbones, delivering IP/MPLS-based Ethernet virtual private LAN service (VPLS) to
enterprises, and offering Layer 3 IP/MPLS virtual private networks to users – respondents clearly and consistently saw potential rewards as being greater than the potential drawbacks.

Many carriers are now counting on IP/MPLS to start deliver revenue-generating services this year. Survey results strongly suggest that carriers will be moving aggressively toward deploying IP/MPLS technology in their network points of presence over the next 12 to 24 months. Vendors that have anticipated this trend obviously are in the best position to capitalize on it.

Carriers want to run both new and legacy services over a converged infrastructure and are especially interested in using IP/MPLS technology to replace private circuits and Frame Relay. Revenue expectations for IP/MPLS-based services are optimistic across the board. In weighing the potential benefits and drawbacks of using IP/MPLS technology for different types of services, respondents actually saw the greatest benefits coming from the use of PWE3 to replace private circuits in their service portfolios.

Carriers in Asia/Pacific and Europe are moving slightly faster than North American carriers in deploying IP/MPLS services. Given the larger base of legacy equipment and services in North America, it isn't surprising that carriers in this region expect to move at a slightly slower pace in making the transition to IP/MPLS. The deployment gap is already evident in the number of carrier points of presence (POPs) now equipped to handle IP/MPLS. However, even North America's incumbent service providers expect to offer revenue-generating IP/MPLS-based services in the next 12 to 24 months.

REPORT STRUCTURE

Heavy Reading's 2004 Survey of Carrier Attitudes Toward IP/MPLS Backbones and VPNs includes access to a searchable database for further analysis of survey data by a wide range of criteria and from a range of perspectives, including the following:

- Geographic region
- Company/organization type
- Respondent job category

The database allows for further analysis of all survey results for specific purposes, such as:

- **Equipment vendors**: Do carrier perceptions and expectations for IP/MPLS technology rollouts match your projected marketing timetables? Which market segments are moving fastest to deploy IP/MPLS in their networks? Which sectors still need more convincing?

- **Financial analysts and investors**: Which types of carriers are moving most aggressively to migrate their infrastructures to a converged backbone? When can equipment makers expect a surge in carrier demand for IP/MPLS products, and how significant will that surge be?

- **Carriers**: How do your migration plans match up with those of your potential competitors? Are your plans to deliver IP/MPLS-based services too aggressive or – possibly worse – too cautious?

- **Enterprise users**: What services are backed by authentic carrier commitment? When will they become widely available? What do carriers consider to be the key attractions and the potential drawbacks of those services?

Heavy Reading's 2004 Survey of Carrier Attitudes Toward IP/MPLS Backbones and VPNs offers answers to these and other pressing questions regarding carrier migration to converged backbones, including the following:
• Which services do carriers expect to deliver over a converged infrastructure – legacy offerings such as private lines and Frame Relay, or new services such as Ethernet-based products and Layer 3 IP VPNs?

• How do carriers perceive the potential rewards and risks of providing services over IP/MPLS backbones?

• What are service providers' expectations regarding enterprise customer demands for new services? Do they believe enterprise users want Layer 3 IP VPN services, or would most of them prefer to buy Layer 2 Ethernet VPN services and retain control of their own router networks?

• How widespread is current deployment of Layer 3 VPN technology? How many carriers are actually in a position to offer new services now? When do other carriers expect to have the necessary technology in place?

• How concerned are carriers about cannibalizing their legacy services with new offerings such as Ethernet services and Layer 3 IP VPNs?

• When will it become feasible for carriers to jointly provide VPNs? Do carriers even see the need to jointly offer VPNs?

• How much interest do carriers have in service interworking – providing VPNs that link together sites using different technologies, such as Frame Relay and Ethernet?

• What are carrier expectations regarding revenues from services running over converged IP/MPLS backbones?

• What do carriers perceive as the biggest factors that will influence the migration to IP/MPLS-based services?

The 2004 Survey of Carrier Attitudes Toward IP/MPLS Backbones and VPNs, available in PDF format, offers full analysis for each question asked in the survey, backed by quantitative data derived from survey results. It is essential reading for any carrier, supplier, or investor with a stake in the future of global telecommunications data networks.