



## HP's Strategic Partnership with Packet Design Signals a Landmark in Network Troubleshooting

### Abstract

It's not often that an announcement signifies a landmark in the evolution of an industry. From the perspective of how network management professionals do troubleshooting, however, HP's strategic partnership with Packet Design might just qualify. In this case, the landmark is primarily technical and process oriented—bringing IP or route analytics together with more traditional root cause. Both in itself, and as a door opener to new ways of thinking about combining innovative analytics, HP's plans to OEM Route Explorer should bode well not only for HP and Packet Design, but for the industry as a whole.

### Issues

While there have been tremendous advances in analytics for fault management across the networked infrastructure, effective and deployable solutions that address complex networked interdependencies are, to say the least, hard to find. In all fairness, this is not only because of seemingly slow progress from management software developers—it's also because the requirements bar has been raised. Element or domain-centric approaches that are entrusted to highly trained engineers are no longer acceptable as mainstream answers. For one, they are no longer cost effective from an operations (skills and process) perspective. But perhaps even more importantly, they can't do the job of isolating problems that align with business priorities. They bore deeply, but not broadly enough to capture most infrastructure dynamics relevant to business service efficiencies.

As a result, the industry has been making an investment over the last ten years in broader, more strategic analytic engines. In the area of network fault management, this has chiefly been in the area of root cause analysis. And root cause analytics is still an important area for innovation as solutions become more effective “out of the box,” more easily extensible to incorporate localized expertise and business policy, and more capable of addressing cross-domain (network/systems/applications/business service) interdependencies.

However, the day-to-day business of troubleshooting in most IT organizations remains largely cumbersome and inefficient, with a hodgepodge of tool sets, poorly

deployed and often overly complex solutions, and limitations that still isolate the network manager from the application manager. This is exacerbated by the increasingly dynamic nature of most networked services, so that policies and solutions that are not adaptive become obstacles rather than bridges to effective problem resolution.

### A New Market

Within this context, new sub-markets are evolving to provide solutions that cluster management insights in non-traditional ways. One of the most important of these is focused on Layer 3 visibility and nominally called “route analytics” or “traffic flow analytics.” Dominated by only two vendors to date, Packet Design and Ipsum, this sub-market holds tremendous potential value for not only network managers, but application and service managers as well.

Route analytics supplements SNMP management data (layer-2 topology, SNMP traps, intelligent polling, and performance data) with layer-3 logical topology, event and analysis. Route analytics solutions engage with the network virtually as a router and “listen” as the routers talk to each other, without polling. Analytical investments enable them to capture the changing network topology, and they determine routing changes as routers do in real time. As a result they are also scalable, and not limited by firewalls—as technologies such as trace routing are. They potentially can support multiple protocols—Packet Design's Route Explorer supports OSPF, IS-IS, and BGP.

Route analytics capture information that can immediately alert when a service becomes vulnerable because alternate, back-up routes are taken—a problem that will go unnoticed by most other analytics today. And these solutions can capture routing-specific problems, such as route flapping. Finally, because they have visibility into the IP service path (and through pairing ports can potentially identify application-specific conversations) they can help to streamline and focus the broader process of network troubleshooting according to the factors most likely to impact a given service experience. Enterprise Management Associates (EMA) dialog in the field has confirmed these values as being real rather than theoretical.

## OpenView Integration

HP will be bringing on Route Explorer as an OpenView-branded option for Network Node Manager (NNM). Pricing and packaging will be disclosed closer to product availability in Spring, 2004. Packet Design's route analytics technology folds into HP OpenView's "Intelligent Diagnostics for Networks Architecture" by augmenting NNM's layer-3 logical network discovery, through real-time layer-3 monitoring and analysis from within the network. This significantly enhances OpenView's capability to monitor and manage dynamic and redundant networks.

Many of the technical parameters are, however, defined today. HP is targeting data-level integration for Phase One, so that Route Explorer can provide ongoing, real-time alerts as service path routes become modified, or problems are detected related to routing protocols. These will trigger fully-integrated alerts on the OpenView console, or else trigger more polling and examination examination through Active Problem Analyzer (APA) for more effective root cause analysis. This means that HP will be building data models for NNM specific to Route Explorer-driven events.

In EMA's view, this is a laudably robust level of Phase One integration. In short, it means that the native ability of route analytics to orchestrate greater efficiencies across the broader troubleshooting process will be engaged from Day One. Future enhancements will target integration with Performance Insight, since routing-related problems are natively as germane to performance management as they are to availability management. And HP is well aware of the relevance of routing "up the stack" to impact application and business services. In other words—look, over time, for resonance from this partnership to impact HP's service management strategy across the broader OpenView portfolio.

## EMA's Perspective

Any potential negatives to this announcement surround various unknowns. These are execution, pricing, and broader field/cultural awareness of the value of this capability across HP's sales and services organizations. To the degree that HP can price, package, and deliver this new capability as a broad restatement of network troubleshooting for complex networked environments, rather than as an elite option for early adopters, HP and its customers will be the winners.

Overall, EMA believes that the HP/Packet Design partnership holds the potential to become a landmark announcement for network troubleshooting—and in many respects for service assurance across the broader infrastructure. HP has taken a bold step in incorporating a highly innovative, "new" technology with clear technical insight and a firm sense of market relevance. It is visionary—but this is an announcement that should also very quickly bear near-term, pragmatic benefits. The fruit of this partnership may also become a dominant factor in reasserting Network Node Manager as a technology leader, as well as a market leader, in the network management marketplace. And over time, it should expand that leadership more broadly across the larger OpenView portfolio.



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