

OPNET's AppMapper Xpert Brings Real-time Perspectives to Application Ecosystem Performance and Optimization

Abstract

There are several core trends in application service performance and optimization management initiatives that may seem conflicting and even irreconcilable. One is the need for dynamic currency and real-time insights into end-to-end application interdependencies with an eye to user and business impact. The other is the need to create more effective modeling to support application services through change management, lifecycle asset control, and relate *physical* (infrastructure/applications) interdependencies to *logical* (service level, operational owners, consumers, etc.) interdependencies. Modeling initiatives, many of which are centered in CMDB and Configuration Management Systems (CMSs) have so far largely been weighed down by boil-the-ocean objectives and unfriendly software, and so for the most part have been anything but real-time. In fact, some in IT have concluded that these two worlds are just that – two separate worlds that cannot and will not ever come together meaningfully.

However, this is changing, and in some respects, the changes are verging on dramatic. Modeling isn't going away, in fact just the opposite – as innovators are beginning to push the bar to explore what the credible expressions of a truly dynamic service management system might look like.

OPNET's early 2011 introduction of AppMapper Xpert is not only the most recent, but arguably the most complete system for bringing true application-ecosystem currency, with its many software and infrastructure interdependencies, into a broader service management context. This impact analysis provides an assessment of AppMapper Xpert in industry context.

Event

On January 5, 2011, OPNET introduced AppMapper Xpert, a solution that can effectively discover and map, in near real-time, application ecosystems, including both application components and the underlying physical ecosystem. The new offering is currently available and is exclusively delivered as a Software-as-a-Service (SaaS) offering, although OPNET anticipates having an on-premise solution in the near to intermediate future. AppMapper Xpert can support performance monitoring and diagnostics, change management planning and validation for service impact, infrastructure optimization assessments in data center consolidation or the move to Cloud and virtualization.

OPNET Rebrands to Highlight Completeness of APM Suite

Relevant to this announcement, but separate from it, OPNET has rebranded its portfolio to reflect its more application-centric focus. OPNET's current *APM Xpert Suite* includes:

- **AppResponse Xpert** informs AppMapper Xpert with some of the industry's most advanced analytics for capturing distributed traffic flows across application components, including front-end Web pages, client/server relationships and application analysis via deep packet inspection. AppResponse Xpert also provides real-time insight into user experience through ongoing observed transaction analysis. AppResponse Xpert was formerly called "ACE Live".

- **AppInternals Xpert** is directly aimed at application component monitoring and analytics, including cross-tier transaction traces to establish application paths and their dependencies. This includes components such as JVM names, .NET application domains, and application process analysis. AppInternals Xpert also informs AppMapper Xpert. It was formerly called “OPNET Panorama”.

AppMapper also leverages data from the following domain solutions in OPNET’s APM Xpert Suite:

- AppTransaction Xpert – for in-depth analysis of individual transactions and traffic flows between their components leveraging deep packet analytics. AppTransaction Xpert was formerly called “ACE Analyst”.
- AppSQL Xpert – for passive database transaction monitoring to support performance management and transaction tracing.
- AppTelemetry Xpert – for agentless acquisition of infrastructure internal data.
- AppForensics Xpert – for centralized management of forensic data obtained through detailed tracing in other AppXpert solutions, with advanced search and correlation functions to assemble the complete picture of a transaction’s execution. AppForensics Xpert was formerly called “ACE Enterprise Management Server”.

A Closer Look at AppMapper Xpert

While OPNET’s core buyer set is in Operations, the company has branched out to support a growing constituency in application management, including a healthy number of professionals and managers in application development and test. AppMapper Xpert reflects this Operations-centricity; however, in impact and value it can natively support a broader range of professionals who are involved in cross-domain services and planning in infrastructure and applications outside of Operations.

Some additional technical highlights for AppMapper Xpert include:

- True run-time information – data feeds are provided by the instrumentation of the operational environment. The constituent component and relationship data is up-to-date and represents observed, run-time configuration and live application transactions.
- Leverages data from a combination of sources for a federated discovery model, since each solution creates distinct submodels that AppMapper Xpert is able to fuse together. Automatically infers dependencies based on this fusion of multiple perspectives.
- Easy to use, with intuitive interface for creating and tuning application maps, such as adding or deleting relationships.
- Agentless discovery that maps application flows over the network and discovers ports, protocols and URLs with minimal administrative overhead, as well as packet-based identification of application and component traffic with supplemental NetFlow support.
- For SOA environments, URLs that represent Web Services can be incorporated via AppInternals Xpert. SOA support is still exceedingly rare in application discovery solutions to date.
- Support for VMware VM-specific interdependencies in virtualized environments.
- Minimal administration given the SaaS delivery.
- Easy extensibility outreach for discovering applications through a single point of reference (e.g., a server name).

Some of the key benefits/use cases for AppMapper Xpert include:

- Support for troubleshooting across complex application ecosystems.
- Change and configuration management planning by assessing the impact of changes made to a server or network device before the changes are made.
- Change management validation by ensuring changes have been non-disruptive after they have been made.
- Planning and provisioning new applications.
- Planning and optimizing the move to Cloud and/or virtualization initiatives.
- Supporting data center consolidation by assessing impacts prior to changes made.

Currently AppMapper Xpert is triggered when requested – i.e., it does not self-activate based on changes in the environment. For outbound integration, such as to a CMDB/or CMS, OPNET is providing an open API.

EMA Perspective

OPNET is a mid-sized vendor in network and application performance with special strengths in government, defense, telecommunications, financial services, healthcare and a wide range of other verticals. It has an established set of partners including resellers and systems integrators designed to expand its international base.

In the EMA Radar Report, [*EMA Radar for Business Service Management: Service Impact Q3 2010*](#), OPNET led in the highest category, “Value Leader,” while also gaining an award for “Best Operational Business Service Management.” According to the report: “OPNET has evolved far beyond its original, network management roots to become a true service management vendor. OPNET has one of the most advanced set of management offerings in the industry for capturing application-and-infrastructure interdependencies from a performance impact perspective.”

OPNET’s capabilities in AppMapper Xpert, already nascent in its BSM evaluation, are indeed an impressive combination of practical, easily deployed options that deliver unique insights into real-time, application-to-application, and application-to-infrastructure interdependencies. Even though this is an initial offering, it is functionally rich and leverages proven capabilities in AppReponse Xpert and AppInternals Xpert.

As AppMapper Xpert evolves, EMA looks forward to added infrastructure insights from AppTelemetry Xpert, automated updates based on when changes are made (in addition to on-request), an on-premise solution to complement the SaaS option, and more established integrations outbound, in particular for providing real-time updates to CMDB and CMS deployments.

But AppMapper Xpert is a surprisingly mature technology for an initial Application Discovery and Dependency Mapping (ADDM) offering, largely because it exploits pre-existing strengths within OPNET’s established portfolio. EMA believes that the ADDM market will evolve out of necessity to support a wide variety of solutions with a growing focus on real-time or run-time currency, ease-of-deployment, richer service impact information, and more evolved support for virtualization and Cloud environments. OPNET’s AppMapper Xpert embodies all of these trends, and as such should provide increasing value to its customers, while serving as a catalyst for positive industry advancement.

About EMA

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