

# EMA Vendor to Watch: ThousandEyes Determines “Who to Call” for Complex Cloud Performance Issues

## Corporate Information

“ThousandEyes provides IT performance management for the cloud era. The company’s solution provides detailed visibility beyond the corporate network perimeter, identifies the root cause of performance problems with cloud applications and enables distributed collaboration to resolve problems quickly. ThousandEyes is backed by Sequoia Capital and headquartered in San Francisco, CA. ThousandEyes’ customers include members of the Fortune 500, Equinix, Evernote, Priceline, Twitter, Zendesk and Zynga.”<sup>1</sup>

## The Challenge of (Hybrid) Cloud

EMA analysts have researched the impact of public Cloud hosting, and particularly hybrid on-premise/public Cloud, on Application Performance Management (APM in multiple studies over the past five years). The following excerpt from one such report illustrates the unique difficulties that hinder troubleshooting and root cause analysis for complex Cloud transactions:

“As applications move into the public Cloud, technical metrics required to conduct performance analyses and root cause determination are missing at some layers. This is primarily due to instrumentation and access restrictions. The external execution platform becomes a ‘black box,’ limiting enterprise IT’s ability to troubleshoot performance and availability problems ... Particularly when it comes to SaaS and PaaS, IT has no real visibility to the performance of the platform UNLESS it is delivered by the provider via APIs OR integrations with enterprise management solutions. For applications leveraging SaaS and PaaS to be enterprise-ready, IT organizations must find ways to troubleshoot multiple hops across on-premise, public Cloud, and private Cloud. Today, many companies lack the tools and processes to do this effectively.”<sup>2</sup>

Multiple vendors have delivered “transaction tracing” tools that chart the path of a transaction across the data center. Some have also delivered a level of visibility into transport performance external to the data center. Once the transaction hits the Internet, however, few existing products can track a transaction beyond the first hop. This is the gap which ThousandEyes intends to fill.

## Why ThousandEyes is Noteworthy

ThousandEyes is a new and distinctive take on managing applications from the network layer. A unique combination of features positions the product in the forefront of hybrid Cloud management solutions. These features include:

- In the early stages of product development, product designers understood that to deliver maximum value to Cloud customers, they needed to partner with and educate Cloud hosting vendors about how to interpret ThousandEyes information provided by the consumers of their service. Via deep analysis of Internet interactions, ThousandEyes can actually “see” performance at each supported Cloud tier. ThousandEyes makes maximum use of these capabilities via multiple partnerships with public Cloud vendors.

<sup>1</sup> ThousandEyes Structure 2013 Press Release

<sup>2</sup> *End-to-End Application Management in the Age of Cloud Computing*, published April 2011. Available at:

<http://www.enterprisemanagement.com/research/asset.php/2067/End-to-End-Application-Management-in-the-Age-of-Cloud-Computing>

EMA analysts have elaborated on this theme in multiple papers and webinars on Hybrid Cloud, available at [www.enterprisemanagement.com](http://www.enterprisemanagement.com).



**VENDOR TO WATCH**

*ThousandEyes – January 2014*

### HIGHLIGHTS

Vendor name: ThousandEyes

Product function: Performance management for on-premise and Internet-delivered apps

Contact: [www.thousandeyes.com/contact](http://www.thousandeyes.com/contact)

15 day trial: [www.thousandeyes.com/signup](http://www.thousandeyes.com/signup)

- The product designers also understood that monitoring Internet paths required a presence “in the Internet.” So in addition to public Cloud instrumentation, ThousandEyes also monitors Internet performance via its own points of presence.
- Finally, since many companies contract with multiple WAN providers, ThousandEyes also maintains internal data enabling the product to identify the network operator for a given hop of the external transaction path. This enables customers to determine whether the problem is with Level 3 or Cable and Wireless, for example, which again facilitates fast problem resolution.

Core elements of the platform include:

1. **X-Layer:** Correlates application performance with underlying infrastructure.
2. **Deep Path Analysis:** Creates a detailed, “hop by hop” view of the path(s) between client and server. These paths can be complex (see Figure 1), particularly once the transaction exits the data center.
3. **Interactive Sharing:** “Snapshot” capability enabling customers to record and share live data with partners or service providers for troubleshooting purposes.

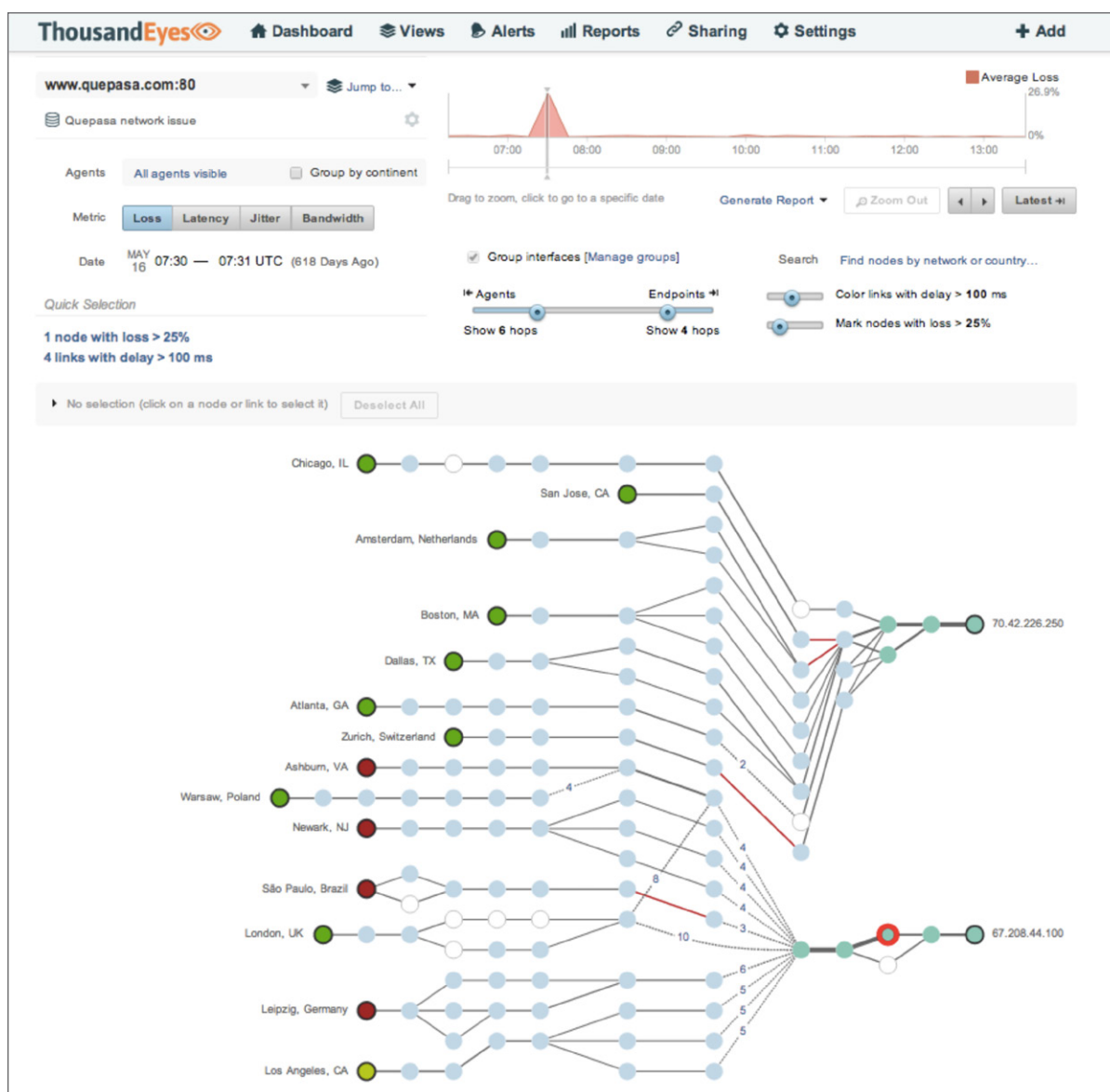


Figure 1: Transaction Paths

## EMA Perspective

ThousandEyes was founded by PhDs in Computer Science with a deep understanding of how the Internet actually works. In analyzing the growth of the public Cloud and anticipating the issues Cloud providers and customers would likely face, they set out to create an innovative product with distinctive capabilities to trace transactions through and across “the Cloud.”

While customers use ThousandEyes to support public Cloud, on-premise, and hybrid applications, its distinctive combination of capabilities differentiate it from traditional “performance management” solutions. A combination of DNS, Web, Network and BGP<sup>3</sup> testing, and particularly its ability to use BGP to reveal physical routes, is likely one reason why it already counts multiple eCommerce, SaaS, and customer-facing enterprise vendors as customers.

This product represents a materialization of “Cloud readiness” functionality which has been anticipated by ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) analysts for some time. By analyzing data paths across Cloud platforms, the Internet, and carrier networks, ThousandEyes is filling a gap which many companies may not yet know they have. However as complex Cloud transactions become increasingly commonplace, most will ultimately recognize the need for products providing deeper visibility to Cloud applications.

Make no mistake, this is a “young” product that is still venture-funded, and EMA recommends that prospects take advantage of the 15-day trial download prior to purchase. That being said, its founders apparently anticipated what has become a very real problem with a distinctive solution addressing complex Cloud and on-premise hosted applications. The impressive list of well-known (but not publicly identifiable) customers already on board drives this point home in a big way.

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<sup>3</sup> Border Gateway Protocol (BGP), per Cisco, “Performs routing between multiple autonomous systems or domains and exchanges routing and reachability information with other BGP systems.” Typically used primarily by network operators, this is a key layer controlling the internet, as it is where routes between points are propagated.

**About Vendor to Watch:** EMA Vendors to Watch are companies that deliver unique customer value by solving problems that had previously gone unaddressed or provide value in innovative ways. The designation rewards vendors that dare to go off the beaten path and have defined their own market niches.

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