

Magic Quadrant for Application Performance Monitoring

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In 2011, about \$2 billion will be spent worldwide on application performance monitoring licenses and first-year maintenance contracts. This is a 15% increase over the \$1.7 billion spent on APM in 2010, which grew by approximately 10%, compared with global spending in 2009.

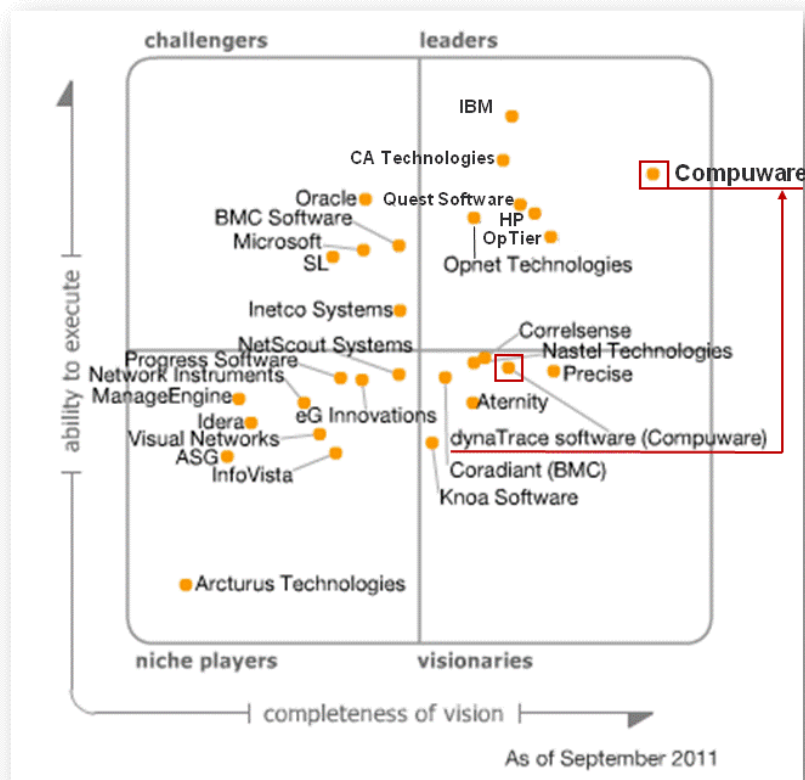
What You Need to Know

The \$2 billion market for application performance monitoring (APM) technologies is subdivided into five dimensions of functionality:

- End-user experience monitoring
- Application runtime architecture discovery, modeling and display
- User-defined transaction profiling
- Component deep-dive monitoring in application context
- Application performance analytics

Magic Quadrant

Figure 1. Magic Quadrant for Application Performance Monitoring



Source: Gartner (September 2011)

Market Overview

This Magic Quadrant assesses the APM market. First, we will define the market and explain why it's important to treat the five functional dimensions that together constitute its technology foundation in an integrated manner and to distinguish the APM market from others that are closely related to it. Next, we will set out the qualifying criteria for inclusion in this research and then survey some general characteristics of each of the resulting quadrants. This research will then conclude with a brief study of each participating vendor's APM strengths and weaknesses.

Defining the Market

Gartner defines an application as a set of algorithms with four characteristics:

- The execution of some members of the set may be initiated by an end user.
- The sequencing of some of the steps in some members of the set is dictated by business logic.
- The algorithms work in concert with one another as they execute.
- If the algorithms complete their concerted execution successfully, then they achieve well-defined goals that
- meet the established requirements of some end users or end-user communities.

Gartner defines APM as a process with five elements:

- It tracks in real time the execution of the algorithms that constitute an application.
- It measures and reports on the scarce hardware and software resources that are consumed as the algorithms execute.
- It determines whether the application has executed successfully.
- It records the latencies associated with some of the execution-step sequences.
- It determines why an application has failed to execute successfully or why resource consumption and latency levels have departed from expectations.

Compuware

Compuware supports all five dimensions of APM functionality. For the purposes of this research, we examined Gomez Real User Monitoring Data Center (Vantage Real User Monitoring), Version 11.5, Gomez Synthetic Monitoring Private Enterprise (Vantage Active User Monitoring), Version 11.5, and Gomez Service Manager (Vantage Service Manager), Version 11.5 for end-user experience monitoring; Gomez Business Service Manager (Vantage Service Manager), version 11.5, Gomez Real User Monitoring Data Center (Vantage Real User Monitoring), Version 11.5, Gomez Java/.NET Monitoring (Vantage for Java/.NET Monitoring), Version 11.5, Gomez Network Performance Monitoring (Vantage for Network Monitoring), Version 11.5, Gomez Server Monitoring (Vantage for Server Monitoring), Version 11.5, Gomez Transaction Trace Analysis (ApplicationVantage), Version 11.5, and Compuware Strobe, Version 4.2 for application runtime architecture discovery, modeling and display, user-defined transaction profiling and component deep-dive monitoring in application context; and the Gomez Performance Management Database (PMDB) module for application performance analytics.

Strengths

Compuware provides an effective, IT operations and business-oriented approach to packet capture and HTTP analysis-based real end-user experience. Following the acquisition of Gomez, Compuware has articulated a well-reasoned conceptual architecture that integrates an outside-in, service-based approach to monitoring with inside-out, data-center-bound capabilities to capture the behavior of Web 2.0 and cloud-dependent applications.

Compuware has pushed the boundaries of packet capture and analysis-based end-user experience monitoring technologies to support thick-client (e.g., SAP, Cerner Millennium) and server-based computing (Citrix XenApp) scenarios.

Its acquisition and rapid integration of BEZ for BLE functionality demonstrates Compuware's acknowledgment of the centrality of analytics to APM during the next few years. The Compuware sales force continues to effectively champion the growing Compuware product portfolio and the concept of APM itself.

Cautions

Compuware's service-based strategy runs the risk of being overshadowed by evolving technologies for endpoint instrumentation and Web page script injection. Compuware's APM portfolio has been historically criticized for a lack of depth in its ability to monitor fine grained application server and database events. Although the recent acquisition of dynaTrace Software will address the former issue (assuming effective execution on integration), the latter issue remains unresolved.

As a result of its recent string of acquisitions, Compuware owns multiple, sometimes conflicting, packet capture and synthetic transaction-based technologies; further rationalization is required.

dynaTrace Software (Compuware)

dynaTrace supports all five dimensions of APM functionality through a single, integrated, eponymous platform. For the purposes of this research, we examined dynaTrace Production Edition, Version 3.5.

Strengths

Although its capabilities are not restricted to Java EE and .NET, the dynaTrace platform is a particularly effective performance-monitoring technology for classical application server environments. The PurePath technology on which the platform is based creates a transaction-like data structure through which fine-grained, application-server-level events may be observed and contextualized at multiple levels of abstraction.

Originally designed to appeal to the special requirements of application developers, the technology has evolved to meet the needs of users focused on production.

Cautions

By positioning itself as a BTM concern, dynaTrace has understated the degree to which its core capabilities are specialized in component deep-dive monitoring dimensions. Getting full value out of the dynaTrace platform requires an understanding of application internals that is typically beyond the scope of IT operations professionals.