Magic Quadrant for Application Performance Monitoring Suites

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Summary

As historically dominant vendors revamp their APM suites with analytics, machine learning and cloud-based delivery, I&O leaders will find that the differences among the leading vendors and between Leaders and Challengers are less defined than they have been in previous years.

Strategic Planning Assumption

By 2021, the need to manage increasingly digitalized business processes will drive enterprises to monitor 20% of all business applications with APM suites, up from 5% in 2017.

Market Definition/Description

With one change of nomenclature, Gartner has retained its definition of application performance monitoring (APM) suites that was used in the 2016 Magic Quadrant. Gartner defines APM suites as one or more software and/or hardware components that facilitate monitoring to meet three main functional dimensions:

Digital experience monitoring (DEM) — Digital experience monitoring is an availability and performance monitoring discipline that supports the optimization of the operational experience and behavior of a digital agent, human or machine, as it interacts with enterprise applications and services. For the purposes of this evaluation, it includes real-user monitoring (RUM) and synthetic transaction monitoring (STM) for both web- and mobile-based end users.

Application discovery, tracing and diagnostics (ADTD) — Application discovery, tracing and diagnostics is a set of processes designed to understand the relationships between application servers, to map transactions across these nodes, and to enable the deep inspection of methods and other host resources. It combines three formerly separate dimensions (application topology discovery and visualization, user-defined transaction profiling, and application component in-depth analysis) under a common name. All three dimensions are primarily focused on problem remediation and are interlinked.

Artificial intelligence for IT operations (AIOps) for applications — AIOps for applications enables the automated discovery of performance and event patterns, and detection of the source (or root cause) of performance anomalies for HTTP/S transactions supported by Java

and .NET application servers. This is accomplished through machine learning, statistical inference and/or other methods. In 2016, AIOps for applications was referred to as "application analytics" and then as "algorithmic IT operations," before being changed to "AIOps" in mid-2017.

Gartner continues to include DEM and AIOps for applications as components of our APM suite evaluations, while also evaluating them as a separate markets.

Magic Quadrant

Figure 1. Magic Quadrant for Application Performance Monitoring Suites

Magic Quadrant showing Completeness of Vision (horizontal axis) versus Ability to Execute (vertical axis), with four quadrants: CHALLENGERS (top-left), LEADERS (top-right), NICHE PLAYERS (bottom-left), VISIONARIES (bottom-right).

Leaders quadrant: Cisco (AppDynamics), Dynatrace, New Relic, CA Technologies.

Challengers quadrant: Oracle, IBM, Microsoft, Riverbed.

Niche Players quadrant: Tingyun, Nastel Technologies, Correlsense, ManageEngine, BMC, SolarWinds, Micro Focus (HPE Software).

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Vendor Strengths and Cautions

BMC

Despite changes in ownership and overall positioning, BMC has long been a player in the APM market. Over the past two years, the company has thoroughly revamped its entire monitoring portfolio, placing APM and AIOps at the center of the portfolio's functionality. TrueSight AppVisibility Manager is usually positioned as part of a larger TrueSight Operations Management suite sale, which might also include TrueSight Infrastructure Management and TrueSight Log Analytics.

STRENGTHS

TrueSight is deeply integrated with the broader set of TrueSight IT management functionality (event management, log analytics, capacity management, etc.) enabling customers to manage events and capacity as well as perform analytics in an application-centric manner.

BMC has a large IT management product portfolio, which allows it several potential entry points for APM product sales.

TrueSight synthetic capabilities cover a broad range of applications that can be easily recorded from a PC, an emulator or a mobile device.

CAUTIONS

BMC has demonstrated little ability to sell outside of IT operations, which will become a liability as the purchasing influence for APM continues to shift toward developers and lines of business (LOBs).

By regularly positioning TrueSight AppVisibility Manager as part of a larger IT operations management (ITOM) suite, BMC limits the product's visibility to enterprises making stand-alone APM decisions.

BMC's lack of code tracing for protocols beyond Java and .NET limits the adoption of TrueSight AppVisibility diagnostics capabilities beyond IT operations for new and emerging applications.

CA Technologies

CA Technologies has been in the APM market since the acquisition of Wily Technology in 2006. Last year there were significant improvements in the company's APM solutions to address gaps where the solution had fallen behind newer market entrants. This was a consequence of a three-year effort to reinvigorate its APM portfolio, over the course of which CA applied for about 20 patents on a wide range of APM functionality. CA has once again become a market leader, but with room to improve overall usability.

STRENGTHS

CA combines the ability to discover and present topologies on many tiers of application and infrastructure stacks, with the possibility of specifying a "projection" of that topology onto highly specified roles.

CA has extensive sales and support resources that enable varied partnerships and account development with enterprise customers.

Several large CA enterprise clients with deployments of tens of thousands of APM agents provide a "real world" testing ground for future scalability requirements.

CAUTIONS

Some customers do not find CA sufficiently responsive to problems that occur during the implementation of new versions or upgrades of suite components.

While CA's SaaS-based portfolio deploys easily, the number of products that make up the on-premises APM portfolio elongate time to value for many enterprise customers.

AIOps for application functionality needs better integration with the rest of the suite's capabilities.

Cisco (AppDynamics)

Founded in 2008 as an APM specialist vendor, AppDynamics offers both an on-premises and SaaS- based APM solution with a common architecture for both deployments. AppDynamics was acquired by Cisco in March of 2017 as a new software business unit in Cisco's Internet of Things (IoT) and Applications department. The AppDynamics solution includes APM, end-user monitoring and business performance monitoring, with additional capabilities offered through the App iQ platform. The App iQ platform includes the recently released Business iQ capability, which provides business-centric analytics and dashboards.

STRENGTHS

An injection of R&D and sales talent from Cisco has improved AppDynamics' time to market and ability to address the market on a global scale.

As AIOps vendors become more competitive with APM, Business iQ provides a differentiated functionality to make AppDynamics' data relevant to the LOBs.

AppDynamics' vision to broaden its scope with orchestration and network visibility reflects the desire of end users to have end-to-end visibility coupled with automation.

CAUTIONS

The acquisition of AppDynamics by Cisco does not improve the APM company's historically weak position with enterprise preproduction (application development) stakeholders.

AppDynamics provides limited support for legacy application environments.

Many customers are still unclear about AppDynamics' plans for ultimate alignment and integration into Cisco's broad and network-focused product lines.

Correlsense

Correlsense is a privately held APM pure-play vendor founded in 2005, with headquarters in Tel Aviv, Israel, and Framingham, Massachusetts, and sales and support offices in EMEA and South America. Its product, SharePath, provides transaction visibility across much of the entire IT stack and has received several patents for its unique instrumentation approach that goes beyond traditional application server observability. While the company has succeeded in winning some large deals in the U.S., Correlsense has little overall visibility in the APM market, as it is keenly focused on profitability and has had a cautious approach to expansion. The company is generally moving away from field sales to a term-license-oriented, partner-led business model, which includes the leveraging of SaaS-based deliverables.

STRENGTHS

Correlsense has acquired a reputation for technical excellence and innovative approaches to APM and related areas of ITOM.

SharePath deployment is highly automated.

SharePath's approach to instrumentation supports tracing visibility across multiple, heterogeneous environments.

CAUTIONS

The company has a low profile in a very "noisy" market.

Correlsense has a limited direct sales force, which is necessary to be able to sell into complex enterprise environments.

There is limited DEM functionality in the product.

Dynatrace

Based on revenue, Dynatrace remains the largest technology provider in the APM suite marketplace. Despite ownership and corporate structure changes, Dynatrace has been in the APM business since 2005 and visibility of the company for its technology remains high. The firm is often found competing against the other APM market leaders for large, complex enterprise opportunities.

STRENGTHS

While Dynatrace is privately owned by Thoma Bravo, we believe the firm is fiscally sound with the largest dedicated sales force in the APM suite market.

The company has heavily invested in cloud, container, and microservices monitoring, as well as in strategic alliances with cloud providers.

The eponymous Dynatrace platform (formerly called Ruxit) is based upon a single adaptable and broad-scoped agent technology and supports expanding capabilities beyond core APM to include infrastructure monitoring, log analytics and AIOps for root cause analysis.

Dynatrace's growth is on par with other market leaders in absolute value, but its relative growth rate is smaller due to higher revenues.

Although the company has clarified its roadmap and positioning, Dynatrace is still suffering from the aftereffects of its weak messaging around the transition to the new platform. The company has since clarified its strategy, and customers should validate the Dynatrace roadmap with the company if any confusion remains.

While offering a unified UI as part of the new Dynatrace architecture, customers who remain on the classic architecture can find the interface difficult to navigate.

IBM

IBM has been a player in the APM market since 2003, focusing in recent years on enhancing its core APM functionality with AIOps capabilities and integrating the AIOps-enhanced APM with infrastructure monitoring. The company has been in the process of updating its sales approach to focus more on industry-oriented solutions, rather than pure technological or product-driven sales. IBM also focused on expanding the adoption of APM to the DevOps engineer by integrating APM into its DevOps toolchain, enhancing synthetic response time monitoring, and including embedded runtime data collector support for cloud microservice runtimes (Java, Node.js, Python, Ruby).

STRENGTHS

IBM has a considerable installed base of cloud (IBM Cloud Application Performance Management and Bluemix Availability Monitoring), infrastructure and ITOM (IBM Tivoli Monitoring, IBM Tivoli Composite Application Manager, SmartCloud APM, Netcool Operations Insight/OMNIbus) clients in which to sell APM suite technology.

The company's investment in "cognitive computing" makes AIOps for application functionality easy to consume from both a technological and a pricing perspective.

The IBM Cloud platform as a service (PaaS) offering provides a modern APM UI capability and enables frictionless instrumentation of applications running on the platform.

CAUTIONS

The company markets its APM capabilities as part of a larger ITOM solution, limiting its appeal to enterprises looking for stand-alone APM solutions.

While IBM certainly has a global reach, Gartner does not see it effectively leveraging this capability with respect to APM suite sales.

For those clients who have not yet adopted SaaS, the APM suite consists of several products and related tools that could make future migrations a time-consuming task.

ManageEngine

ManageEngine is the IT management division of Zoho, which is based in India and operates multiple, independent entities throughout the world. ManageEngine has been in the APM market since 2008, and, like its parent company, it has a very strong focus on small and midsize organizations, with offerings spanning not only many IT operations segments but also business applications. The company continues to offer Applications Manager and Site24x7 as its flagship products. Applications Manager is the company's on-premises offering and part of the larger ManageEngine portfolio of ITOM products; while Site24x7 is its SaaS option and is offered through a separate website.

STRENGTHS

ManageEngine facilitates product acquisition for small and midsize organizations via a low-touch and direct sales model.

The ManageEngine suite components are tightly integrated among themselves, as well as with its infrastructure and network monitoring products and services.

ManageEngine's APM products are easy to integrate with the products it offers for monitoring other domains like servers and networks.

CAUTIONS

ManageEngine takes a transactional view of customer relationships and cannot provide support at a strategic level.

The APM offerings are disjointed between on-premises and SaaS, with significant differences in features and functionalities.

ManageEngine has developed limited AIOps-for-applications functionality.

Micro Focus (HPE Software)

In 2017, Hewlett Packard Enterprise (HPE) Software was spun off from HPE and merged with Micro Focus. Since that time, the rate of feature innovation across the APM suite has slowed and the strategy moving forward lacks cohesiveness. While the company has had some success in retaining existing customers, new deployments of the suite, even within the existing customer base, are scarce.

Micro Focus did not respond to requests for supplemental information, but did review the draft contents of this document. Gartner analysis is therefore based on other credible sources, including public information and discussions with users of this product.

STRENGTHS

Micro Focus has a specialized field operations organization (sales/presales, consulting, etc.) to support APM suite product sales across the globe.

Users will have the opportunity to integrate APM functionality with Micro Focus' extensive application development capabilities.

Micro Focus' big data and machine learning technology could be deployed by users to enhance APM directly and link APM to other areas of ITOM.

CAUTIONS

It is difficult to assemble a coherent end-to-end view of application behavior from the Micro Focus suite while collecting different types of application-relevant data across the entire stack.

The APM software suite today has limited visibility to development teams and lines of business.

Micro Focus has positioned and sold its APM suite separately from the rest of its ITOM products and services, raising customer concerns about long-term plans for integrating APM with infrastructure and network performance monitoring.

Microsoft

Released in 2016, Microsoft's Azure Application Insights is a SaaS-only APM solution. While Microsoft has been active in the APM market since 2007, the company has changed its approach to APM a number of times over the years. The growing significance of Azure to Microsoft's overall strategy, however, has seen the company decide to concentrate the bulk of its APM R&D toward a cloud-based solution in the past year.

STRENGTHS

Azure Application Insights' tight integration with the Azure cloud platform and Microsoft's integrated development environment (IDE) makes it a natural choice for those large developer communities.

As a strategy to improve Azure penetration, Azure Application Insights is priced as the most competitive among APM vendors in the market.

Microsoft's investment in an analytics platform named Kusto (serving as App Insights foundation) will allow the application of machine learning across a number of operational IT data sources.

CAUTIONS

Focus on Azure and the Microsoft developers' commmunity leads to limited exposure to and value for the broader APM buying community.

Microsoft has limited support for environments besides .NET, Java and Node.js, like PHP or Ruby.

Microsoft's APM strategy through SaaS leaves users of on-premises System Center APM with an unclear migration path toward Azure App Insights.

Nastel Technologies

Founded in 1994, Nastel Technologies offers a product called AutoPilot Insight, delivered via SaaS and on-premises. The company entered the APM market in 2009, building on a historical competence in middleware. Supporting an integrated view of application execution across both mainframe and distributed environments, the use of machine learning and other AI-related functionalities to central AutoPilot Insight's root cause diagnostic and predictive capabilities.

STRENGTHS

Nastel's focus on AI-based diagnostics and its understanding of legacy environments differentiates AutoPilot Insight from more comprehensive APM suites.

Nastel is developing unique features for APM for blockchain-based decentralized applications (dapps).

As a privately held company, Nastel is able to quickly introduce features in response to specific customer needs.

CAUTIONS

Nastel's low-key marketing has restricted general awareness of the company's solutions.

Nastel's solution has limited appeal to application developers.

The company continues to have limited sales reach in rapidly growing geographies, such as Asia/Pacific.

New Relic

New Relic has, from its inception, focused on SaaS-only delivery of APM. While it has extended its capabilities to include business-oriented analytics and infrastructure monitoring over the past year and a half, APM remains the core of its business. Initially appealing primarily to small and midsize businesses (SMBs) and development teams, the company has found increasing success among larger enterprises as security and performance concerns about SaaS become less pressing.

STRENGTHS

New Relic continues to find success among enterprise clients, which contribute nearly half of the company's annual recurring revenue as of 1Q18.

New Relic's own cloud data center infrastructure gives the company the ability to scale to meet the needs of its large and expanding customer base while minimizing any administrative or maintenance burden associated with monitoring.

The SaaS-based product offering allows New Relic to gain deep insights into its customer base, translating into new offerings such as Project Seymour, now branded as New Relic Radar.

CAUTIONS

New Relic's pricing, while providing flexibility depending on customer environments, is on the higher end of the range relative to the market as a whole, although comparable to others in the Leaders quadrant.

As of today, New Relic only offers its SaaS platform from its data centers in the United States, with plans for expansion in EMEA in 2018.

While New Relic monitors both cloud environments and traditional data centers, its SaaS delivery model means buyers looking for on-premises solutions should consider alternative offerings.

Oracle

While Oracle has been in the APM market for a number of years, its SaaS-based offering, Oracle Management Cloud Application Performance Monitoring (OMCAPM), introduced in 2015, is considered in this year's research. Despite functional breadth and depth and the de facto ability to monitor non-Oracle application environments, the company's APM suite is typically deployed in Oracle-centric environments. Given the size and sophistication of the Oracle customer base, this is not a commercial limitation but it does account for the relative lack of awareness of OMCAPM's capabilities in the market.

STRENGTHS

Oracle has shown strong feature rollout cadence with added support for Node.js, Ruby, and synthetic and infrastructure monitoring over the past year.

OMC presents APM, Infrastructure Monitoring, Log Analytics, IT Analytics and Orchestration in an integrated package based on a common data store, which also includes integration with Oracle's PaaS offerings (such as Developer Cloud and Database Cloud Service), as well as IaaS offerings (such as Oracle Cloud Infrastructure).

Coupling of Oracle's APM solution with the broader Oracle Cloud strategy will enable easier adoption by Oracle's large customer base.

CAUTIONS

OMC was designed for heterogeneous environments, but so far there is limited awareness of OMC capabilities outside of the Oracle installed base.

OMC offers a broad range of machine-learning-based insights throughout the troubleshooting workflow. Automated troubleshooting is an area for Oracle to expand into.

While Oracle has offerings for customers to integrate Oracle Enterprise Manager Cloud Control (OEMCC) and OMCAPM, they are two fundamentally different products, which may limit the ability of some end users to broadly adopt the solution and causes confusion among end users.

Riverbed

Riverbed has offered APM products in one form or another since 2007. Its current portfolio, constructed and synthesized out of a series of acquisitions — most notably OPNET in 2012 and Aternity in 2016 —consists of SteelCentral AppInternals, AppResponse, SteelCentral Portal, SteelCentral Aternity and NetIM. Riverbed offers the AppInternals and Aternity products, both of which were introduced recently, as both on-premises and SaaS deployments.

STRENGTHS

Riverbed delivers complex functionality in both SaaS and on-premises delivery modes; for which, the user interfaces for which are, for all intents and purposes in effect, indistinguishable.

Riverbed continues integration efforts with Aternity for endpoint monitoring coupled with tight network performance monitoring and diagnostics (NPMD) integration, which differentiates SteelCentral from competitors with its breadth.

Use cases requiring access to unsampled transaction trace data are served well by AppInternal's fine-grained data support.

CAUTIONS

Riverbed must expand its footprint and competitive share within its existing large enterprise customer base.

Riverbed has to improve its mind share presence with the developer community.

Given that Riverbed has traditionally targeted the networking buyer, the company must improve its visibility to application-oriented buyers.

SolarWinds

SolarWinds, based in Austin, Texas, is a provider of ITOM tools that span IT infrastructure, network and application monitoring. The company was acquired in 2015 by a private equity group formed by Silver Lake Partners and Thoma Bravo, the latter also owning APM competitors Dynatrace and Riverbed. This year marks the first inclusion of SolarWinds in the APM Magic Quadrant, as the company has been adding more capabilities with regard to application monitoring specifically. The company offers both on-premises and SaaS products, depending on the customer type and product needs.

STRENGTHS

SolarWinds' low-touch business model with no external sales force is well-suited to customers seeking an easy consumption model and is particularly attractive to SMBs.

The vendor has a broad set of product offerings covering many segments of ITOM, including infrastructure, network and application monitoring across on-premises and cloud environments.

SolarWinds' diverse product offerings provide rich datasets and visibility across many technology domains.

SolarWinds has yet to develop high-touch professional services and consulting capabilities essential to supporting the deployment of a multipart APM suite.

The multiple sets of products are loosely coupled, and users need to jump between UIs to gain a complete view of complex application environments.

SolarWinds' tools are discrete products that do not currently provide full access to higher-level analytics supporting root cause analysis. The company recognizes this need and has started to address it in some of its newest products.

Tingyun

Tingyun is a China-based provider of APM tools with an expanding set of offerings. It began competing in the market in 2007 with a network-focused offering. While the company has customers in North America and EMEA, more than 90% of its revenue is generated within the Asia/Pacific and Japan regions, and it is rarely among the APM providers that are discussed by Gartner's client base. The company offers a set of integrated modules called Tingyun App, Tingyun Browser, Tingyun Server, Tingyun Sys and a new analytics offering, Tingyun Sense. The company offers its customers and prospects the choice of on-premises or SaaS-based deployments.

STRENGTHS

Tingyun has developed commercial expertise in the Chinese market, particularly in large organizations.

Tingyun has developed a SaaS offering that supports tens of millions of monthly active users and billions of event data points generated per day.

Tingyun's support of and close working relationship with large government-owned enterprises has allowed it to rapidly develop capabilities to match competitive offerings.

CAUTIONS

Tingyun's almost exclusive focus on large enterprises means it is missing an opportunity to service the growing needs of small and midsize organizations outside its home market.

Organizations looking for services outside the Chinese market will find that Tingyun's on-premises solution does not have the same scale as its SaaS offering, which is focused almost entirely on China.

Tingyun's researchers and developers are too focused on the Chinese market, and, while competitive there, it may not have the same visibility into other market needs.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

The following vendors were added to the APM Magic Quadrant:

Cisco — Acquired AppDynamics.

ManageEngine — ManageEngine met both the updated technical and business inclusion requirements.

Micro Focus — Acquired HPE Software.

SolarWinds — SolarWinds met both the updated technical and business inclusion requirements.

Tingyun — Tingyun met both the updated technical and business inclusion requirements.

Dropped

AppDynamics — Acquired by Cisco.

HPE — The software division of HPE was spun out to Micro Focus.

Inclusion and Exclusion Criteria

To qualify for inclusion in the 2018 APM suite Magic Quadrant, vendors needed to meet *all* of the following product and business requirements.

Product Requirements

The qualifying provider must offer an APM on-premises (software) product (and/or SaaS-based service) suite that includes *all* of the following APM functions and characteristics:

Digital experience monitoring

Real-user monitoring of web pages via automatic JavaScript injection performed by server-based agents

Application discovery, tracing and diagnostics

Automated discovery of web servers, Java and .NET application servers, as well as other middleware and their relationships, through the observation of an application's HTTP/S transaction behavior

- Automated tracing of unique, individual synchronous and/or asynchronous HTTP/S transaction execution paths from a web and/or application server entry point to a back-end data source exit point

- Automated collection of data for Java Virtual Machines (JVMs) and .NET Common Language Runtimes (CLRs) to aid in the detection of issues such as memory leaks, hot spots and thread locks

- AIOps for applications

- Automated pattern discovery in performance and event data, detection of the source (or root cause) of performance anomalies for HTTP/S transactions supported by Java and .NET application servers through machine learning, statistical inference or other methods

The qualifying provider must be among the top 12 vendors in the APM suite market in terms of revenue (including license — both perpetual and subscription, maintenance and services). The market share analysis leveraged data found in "Market Share: All Software Markets, Worldwide, 2016." Vendors that were below this top-12 cutoff could still see themselves included in the Magic Quadrant if vendors with greater revenue failed to meet any of the technical criteria. In other words, smaller revenue vendors moved up the listing for any technical limitations that disqualified a larger technology provider.

This requirement was updated to redirect the focus on APM suite technology providers that had worldwide product distribution and support capabilities, and, as a consequence, could meet the needs of large global enterprises.

Evaluation Criteria

Ability to Execute

Gartner analysts evaluate vendors on the quality and efficacy of the processes, systems, methods or procedures that enable IT provider performance to be competitive, efficient and effective, and to positively impact revenue, retention and reputation. Ultimately, vendors are judged on their ability and success in capitalizing on their vision. The criteria are:

Product/Service: Core goods and services offered by the vendor that compete in/serve the defined market. This includes current product/service capabilities, quality, feature sets and skills, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood of the individual business unit to continue to invest in the product, continue to offer the product, and continue to advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness and Track Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message in order to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Table 1. Ability to Execute Evaluation Criteria

Evaluation Criteria	
Product or Service	
Weighting	
	High
Overall Viability	
Weighting	
	High
Sales Execution/Pricing	
Weighting	
	Medium

Market Responsiveness/Record	
Weighting	
	High
Marketing Execution	
Weighting	
	Medium
Customer Experience	
Weighting	
	High
Operations	
Weighting	
	Not Rated

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Evaluation Criteria	
Product or Service	
Weighting	High
Overall Viability	
Weighting	High
Sales Execution/Pricing	

Weighting	Medium
Market Responsiveness/Record	
Weighting	High
Marketing Execution	
Weighting	Medium
Customer Experience	
Weighting	High
Operations	
Weighting	Not Rated

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Sales Execution/Pricing	
Weighting	Medium
Market Responsiveness/Record	

Weighting	High
Marketing Execution	
Weighting	Medium
Customer Experience	
Weighting	High
Operations	
Weighting	Not Rated

Source: Gartner (March 2018)

Completeness of Vision

Gartner analysts evaluate vendors on their ability to convincingly articulate logical statements about current and future market direction, innovation, customer needs, and competitive forces, and how well they map to the Gartner position. Ultimately, vendors are rated on their understanding of how market forces can be exploited to create opportunity for themselves. The criteria are:

Market Understanding: Ability of the vendor to understand buyers' wants and needs, and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology, and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries, as appropriate for that geography and market.

Table 2. Completeness of Vision Evaluation Criteria

Evaluation Criteria	
Market Understanding	
Weighting	
	High
Marketing Strategy	
Weighting	
	Medium
Sales Strategy	
Weighting	
	Medium
Offering (Product) Strategy	
Weighting	
	High
Business Model	

Weighting	
	High
Vertical/Industry Strategy	
Weighting	
	Not Rated
Innovation	
Weighting	
	High
Geographic Strategy	
Weighting	
	Low

Table 2.   Completeness of Vision Evaluation Criteria

Evaluation Criteria	
Market Understanding	
Weighting	High
Marketing Strategy	
Weighting	Medium
Sales Strategy	
Weighting	Medium

Offering (Product) Strategy	
Weighting	High
Business Model	
Weighting	High
Vertical/Industry Strategy	
Weighting	Not Rated
Innovation	
Weighting	High
Geographic Strategy	
Weighting	Low

Table 2. Completeness of Vision Evaluation Criteria

Evaluation Criteria	
Market Understanding	
Weighting	High
Marketing Strategy	
Weighting	Medium
Sales Strategy	
Weighting	Medium
Offering (Product) Strategy	

Weighting	High
Business Model	
Weighting	High
Vertical/Industry Strategy	
Weighting	Not Rated
Innovation	
Weighting	High
Geographic Strategy	
Weighting	Low

Source: Gartner (March 2018)

Quadrant Descriptions

Leaders

The APM suite Leaders quadrant is composed of vendors that provide products that are a strong functional match to general market requirements, have been among the most successful in building a loyal customer base, and have a relatively high viability rating due to strong revenue growth and/or high market share. They have comprehensive portfolios that offer superior application visibility and typically do not come with major integration challenges. Leaders also show evidence of superior vision and execution for emerging and anticipated market requirements, as well as a consistent track record of innovation.

Challengers

The APM suite Challengers quadrant is composed of vendors with high market reach and large deployments. Vendors in this quadrant typically have strong execution capabilities, as evidenced by financial resources, and a significant sales and brand presence garnered from the company as a whole, if not directly from its APM-related activities. Many have previously been among the top performers in the market and thus offer broad product portfolios; however, they are all currently engaged in efforts to more fully modernize and integrate their architectures and feature sets to better compete against those in the Leaders quadrant. It is also important to note that all of this

year's challengers support broad product and service portfolios that cover multiple IT market segments. In addition, their APM offerings are often positioned as elements of a larger solution that may even extend beyond the boundaries of IT operations management.

Visionaries

The APM suite Visionaries quadrant is typically composed of vendors that provide products that have built a compelling plan to competitively address current and future APM suite market requirements, but whose current product portfolio may still be a work in progress. They have a lower Ability to Execute rating than the Leaders, which is typically due to a lower viability rating as measured by installed base or financial strength. This year's Magic Quadrant produced the notable result that no vendor meeting the inclusion criteria could be classified as a Visionary. This result suggests that market requirements for APM have stabilized and that vendors are largely refining the functionalities that characterized this segment for the past 10 years, rather than introducing new ones. This is not to say that the vendors themselves have ceased to innovate, but rather that, at least for now, the innovation is taking outside of the borders of classical APM as defined by Gartner's functional dimensions.

Niche Players

The Niche Players quadrant is composed primarily of vendors with solutions catering to specific audiences or with limited use-case support today. Because they do not demonstrate equal depth across all three dimensions, they typically do not meet the APM suite needs of larger enterprises, or do so only within specific verticals or market segments. In addition, vendors in this quadrant may have a much more limited ability to invest in the necessary functional as well as sales and marketing capabilities to expand beyond their current focus. Inclusion in this quadrant does not reflect negatively on the vendor's value in the markets in which they choose to compete.

Context

In the course of this research, several key observations emerged from providers' responses as well as reference customer feedback that should be carefully considered during an organization's APM strategy formulation and solution selection. These include:

- For most enterprises, APM is now seen an essential element of application-centric IT operations and a DevOps-enabling bridge between production and development on one side and IT and digital business on the other.

- Pricing continues to be a major APM impediment to greater enterprise penetration. This is exacerbated by the adoption of increasingly dynamic technologies, such as cloud, containers/microservices and software-defined "everything." APM suite vendors continue to search for the right model to use when pricing ephemeral resources, with some form of consumption-based approaches seeming to capture the greatest technology provider interest.

When selected, APM tools were justified on the basis of (No. 1) improving mean time to repair (MTTR), (No. 2) improving customer relations/service and (No. 3) improving business outcomes — in that order.

After pricing, tool complexity remains the next major issue, as many end users require additional services to assist in APM suite deployment and configuration — the latter is especially acute with respect to correctly identifying key business transactions.

DEM functionality is increasingly being considered and acquired independently of other APM suites and being deployed for new use cases like digital workplace management.

The growing modularity, dynamism, and geographical dispersion of infrastructure and application stacks coupled with their growing importance to enterprise revenue generation has increased the attractiveness of a big data, AI-enabled approach to APM (and monitoring in general). This is leading a number of enterprises to consider using technologies that have historically fallen outside the boundaries of classical APM (e.g., log management systems) to understand and optimize application performance.

The shift "left" continues in terms of APM buyers increasingly coming from application development or a similar area, with only 43% of customer survey respondents identifying IT operations as the primary buyer of APM technology.

SaaS as an APM suite delivery model continues to grow in acceptance, as the customer references surveyed indicated that applications monitored in this manner would increase from an average of 29% today to slightly more than 50% within three years. (Note that 40% of the respondents indicated that at least 75% of their applications would be monitored via a SaaS approach in three years.)

Mobile and the Internet of Things remain areas of future interest; however, neither technology is generating any significant revenue for APM suite vendors today.

APM vendors are expanding the scope of their monitoring domain with plans to move both up the stack (gathering more business-relevant data) and down the stack (collecting information on servers, networks, databases and so on).

DevOps continuous delivery poses additional demands on IT organizations charged with application support. Not only does DevOps drive the need for increased granularity of information to detect subtle performance changes, but it also prioritizes timeliness, in terms of presenting data more rapidly to decision makers outside of IT operations.

When each vendor was asked who its primary competitors were, AppDynamics and Dynatrace were tied for the most selections, followed by New Relic, Splunk and then CA Technologies. When survey respondents were asked to identify other APM vendors that they considered before making their final choice, the order was AppDynamics, CA Technologies, Dynatrace and New Relic. It should be noted, of course, that Splunk does not meet current technical requirements for inclusion in this research.

As always, IT organizations should not use the Leaders quadrant as a shortlist of appropriate vendors, but instead should build a list of criteria describing their current and future needs, and then select from vendors that best meet those requirements. Enterprises should select a vendor that has both a history of, and future plans for, focusing on the APM market. Careful consideration should be given to required skills, training, process and deployment investments, because these factors can have a much greater impact on the overall value realized from an APM suite investment than any specific functional capability found in a given tool.

Market Overview

The APM market is one of the largest subsegments of the IT operations management market, with 2016 revenue of approximately $3.7 billion and a growth rate exceeding 18% over the prior year. Given these statistics, it is no surprise that Gartner observes continuing investment. Interestingly, while Gartner has observed many new startups appearing on the radar screen, we've also seen large software organizations such as CA Technologies, IBM, Oracle and Microsoft (re)investing at the same time. Other non-APM companies are also expressing potential interest in the market — almost all of the current APM suite providers expect to see companies like Google and Amazon boost their primarily infrastructure monitoring capabilities with increased support for application visibility. Yet these (and other large) cloud companies will pose another challenge for the traditional APM players — the battle for talent acquisition. There is some concern within the APM market that highly skilled individuals may opt for what may be perceived as better opportunities in the cloud.

While AIOps for applications functionality is considered to be an essential component of a Magic Quadrant-qualifying APM suite, vendors whose offerings are focused on general AIOps capabilities are increasingly seen by users as viable alternatives to classical APM vendors. IT operations and other organizations are already awash with data, and this situation will likely only become more challenging with the growth of cloud, microservices, IoT and so on. Hence, Gartner sees companies such as Splunk, Sumo Logic and even the open-source Elastic Stack (combining Elasticsearch, Logstash and Kibana) as leveraging their current repository capabilities to act as the system of "truth" for APM data. Likewise, we've already observed IT infrastructure monitoring companies, such as Datadog, using AIOps-like functionality to expand upon their own data (and event) aggregation capabilities and venturing into the APM space.

DEM is another functional dimension that may be starting to break out from its close historical association with APM and to establish itself as the driver of an independent market. DEM consists of RUM, STM and end-user sentiment monitoring, as well as other functions. Because of the growth of digital business (as well as increasing challenges in monitoring SaaS, PaaS and other technologies), Gartner expects the DEM market to grow rapidly. While the APM vendors all have some degree of support for DEM as a requirement for consideration within the Magic Quadrant, we believe that DEM-specific companies will continue to proliferate and challenge more broad-based APM players.

Evidence

The Magic Quadrant is a reflection of a broad-based research effort involving:

More than 1,500 inquiries (among three analysts) with Gartner clients inquiring about APM tools over the past 12 months.

Many in-person and other interactions with the vendors within this Magic Quadrant.

A detailed vendor survey requiring responses to more than 300 questions.

A review of Gartner Peer Insight data responses.

As part of the Magic Quadrant process, Gartner conducted a survey of organizations using online tools from August 2017 to October 2017. The survey participants were customer references nominated by each of the vendors in this Magic Quadrant. These surveyed customers were asked 38 questions about their experiences with their vendors and solutions. The results were used in support of the assessment of the APM suite market. We obtained 70 full responses representing companies headquartered across several different geographic regions.

A product demonstration (or PowerPoint slide set) from each of the 12 participating Magic Quadrant vendors, where each was requested to provide insight into its ability to support specific functions and use cases (specifics are detailed in "Critical Capabilities for Application Performance Monitoring Suites").

Evaluation Criteria Definitions

Ability to Execute

Product/Service: Core goods and services offered by the vendor for the defined market. This includes current product/service capabilities, quality, feature sets, skills and so on, whether offered natively or through OEM agreements/partnerships as defined in the market definition and detailed in the subcriteria.

Overall Viability: Viability includes an assessment of the overall organization's financial health, the financial and practical success of the business unit, and the likelihood that the individual business unit will continue investing in the product, will continue offering the product and will advance the state of the art within the organization's portfolio of products.

Sales Execution/Pricing: The vendor's capabilities in all presales activities and the structure that supports them. This includes deal management, pricing and negotiation, presales support, and the overall effectiveness of the sales channel.

Market Responsiveness/Record: Ability to respond, change direction, be flexible and achieve competitive success as opportunities develop, competitors act, customer needs evolve and market dynamics change. This criterion also considers the vendor's history of responsiveness.

Marketing Execution: The clarity, quality, creativity and efficacy of programs designed to deliver the organization's message to influence the market, promote the brand and business, increase awareness of the products, and establish a positive identification with the product/brand and organization in the minds of buyers. This "mind share" can be driven by a combination of publicity, promotional initiatives, thought leadership, word of mouth and sales activities.

Customer Experience: Relationships, products and services/programs that enable clients to be successful with the products evaluated. Specifically, this includes the ways customers receive technical support or account support. This can also include ancillary tools, customer support programs (and the quality thereof), availability of user groups, service-level agreements and so on.

Operations: The ability of the organization to meet its goals and commitments. Factors include the quality of the organizational structure, including skills, experiences, programs, systems and other vehicles that enable the organization to operate effectively and efficiently on an ongoing basis.

Completeness of Vision

Market Understanding: Ability of the vendor to understand buyers' wants and needs and to translate those into products and services. Vendors that show the highest degree of vision listen to and understand buyers' wants and needs, and can shape or enhance those with their added vision.

Marketing Strategy: A clear, differentiated set of messages consistently communicated throughout the organization and externalized through the website, advertising, customer programs and positioning statements.

Sales Strategy: The strategy for selling products that uses the appropriate network of direct and indirect sales, marketing, service, and communication affiliates that extend the scope and depth of market reach, skills, expertise, technologies, services and the customer base.

Offering (Product) Strategy: The vendor's approach to product development and delivery that emphasizes differentiation, functionality, methodology and feature sets as they map to current and future requirements.

Business Model: The soundness and logic of the vendor's underlying business proposition.

Vertical/Industry Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of individual market segments, including vertical markets.

Innovation: Direct, related, complementary and synergistic layouts of resources, expertise or capital for investment, consolidation, defensive or pre-emptive purposes.

Geographic Strategy: The vendor's strategy to direct resources, skills and offerings to meet the specific needs of geographies outside the "home" or native geography, either directly or through partners, channels and subsidiaries as appropriate for that geography and market.

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