

EMA Radar Report: AIOps

A Guide for Investing in Innovation



An Enterprise Management Associates® Radar Report
Written by Dennis Nils Drogseth
Q3 2020

TABLE OF CONTENTS

EXECUTIVE INTRODUCTION	1
METHODOLOGY	2
HIGHLIGHTS ON WHAT THE DATA SHOWS.....	3
USE CASES: A CLOSER LOOK	10
READING THE RADAR CHARTS	11
INCIDENT, PERFORMANCE, AND AVAILABILITY MANAGEMENT	12
CHANGE IMPACT AND CAPACITY OPTIMIZATION.....	14
BUSINESS IMPACT AND IT-TO-BUSINESS ALIGNMENT	17
WHAT THE DEPLOYMENTS SAY	19
SEVENTEEN AIOPS VENDORS IN SUMMARY	21
SPECIAL AWARDS	24
CONCLUSION.....	25
VENDOR PROFILE: SCIENCELOGIC	26
MEASUREMENT CRITERIA: APPENDIX A	35



EXECUTIVE INTRODUCTION

The growing interest in AIOps over recent years is a positive sign for the market's future, although the term itself has sometimes sparked controversy and confusion. The phrase "Artificial Intelligence for IT Operations" carries with it some rather head-scratching speculation that focuses, perhaps too much, on the heuristics underneath the hood of the car, rather than the direction in which it's driving.

The prior industry term, "IT Operations Analytics," seemed less distracting. EMA's research over the years has leveraged the terms "Advanced Performance Analytics" and more recently "Advanced IT Analytics" in order to focus on the fact that it all often goes well beyond operations to span DevOps, IT service management (ITSM), SecOps, the IT executive suite, and even business stakeholders.

However, "AIOps" as a term is here to stay for the present. Many of the platforms covered in this report have branded themselves around it in keeping with marketing needs. Indeed, trying to rebrand what's become industry standard is all too often a short road to failure and even more confusion.

Core Criteria

One may well ask, how does EMA approach AIOps in context with its own research? As reflected in EMA's "AIOps and IT Analytics at the Crossroads: What's Real Today and What's Most Needed for Tomorrow?" from Q4 2018, the following criteria were used here, as well, for market inclusion:

- Assimilation of data from cross-domain sources in high data volumes for cross-domain insights.
- The ability to access critical data types, e.g., events, KPIs, logs, flow, configuration data, etc.
- Capabilities for self-learning to deliver predictive and/or prescriptive and/or if/then actionable insights.
- Support for a wide range of advanced heuristics, such as multivariate analysis, machine learning, streaming data, tiered analytics, cognitive analytics, etc.
- Potential use as a strategic overlay that may assimilate or consolidate multiple monitoring investments.

- Support for private cloud and public cloud, as well as hybrid/legacy environments.
- The ability to support multiple use cases, including but not limited to, application/infrastructure performance and availability.

Two areas of primary interest not on this list, but examined closely in this Radar, are support for automation to accelerate action and how platforms leverage discovery and dependency mapping for improved context.

A Market in an Accelerated State of Evolution

When EMA first examined this arena in 2012, they looked at 22 vendors, primarily frameworks and management suites that were beginning to apply machine learning to data assimilated from a growing range of sources. In various ways, each vendor met all of the criteria listed, even then. They differentiated from big data because they were at that time more of what was called "a tiered system," importing correlated data and insights from other management tools to accelerate their use of AI/ML. The term "overlay" seemed to be the most single relevant descriptor.

In the last eight years, the changes have been dramatic in some respects, but not in others. The notion of an overlay still applies one way or another to all of the vendors represented, and all of them meet the criteria listed. However, the diversity of approaches and design ramped up significantly, along with ongoing advances in AI/ML, integrated automation, and unique approaches to discovery and dependency mapping.

In fact, diversity of approach, value, and design is now central to AIOps. Rather than a market in the strictest sense, it might be more accurately described as a "landscape" containing within it some rather startling surprises. In a few cases, the vendors here can be seen as complementary to each other more than competitors.

That's in large part why the goal of this Radar is not to pick a single winner. Instead, it's to provide IT organizations with use case descriptions relevant to purchase. The truth is that any of the 17 vendors represented here might be the best choice for you depending on what you currently have, your level of process and organizational maturity, your goals, and what technologies you already have deployed.



EMA first reached out to vendors that it felt were qualified for this Radar in late February of 2020. The process required that EMA complete the following steps with each of the 17 vendors covered in this report:

- Finalizing a 44-page questionnaire and sharing it with vendors
- Providing weighting to different questions and answers to support the generation of KPIs, pentagons, and Radar Chart positioning
- Reviewing vendor inputs in sessions that lasted 90-120 minutes
- Entering the data from the questionnaires into Excel to generate KPIs and Radar Charts
- Interviewing customers to validate vendor claims. This step was required. There were 31 interviews done in total.
- Analyzing the results and developing the profiles in June and July
- Final reviews and report generation starting in late July

Use Cases and Associated Criteria

The three use cases evaluated are:

- **Incident, performance, and availability management.** This focused on optimizing the resiliency of critical application and business services—including microservices, VoIP, and rich media—in cloud (public/private) as well as non-cloud environments with a strong focus on triage, diagnostics, roles supported, self-learning capabilities, and associated automation.
- **Change impact and capacity optimization.** These are admittedly two use cases combined into one, but share requirements in terms of understanding interdependencies across the application/service infrastructure as volumes increase, changes are made, configuration issues arise, and automated actions are required.
- **Business impact and IT-to-business alignment.** This includes user experience, customer experience, and customer management, business process impacts, and other relevant data, with an eye to supporting business initiatives, such as digital transformation through superior IT-to-business alignment.

The Radar also looked at DevOps support, integrated SecOps capabilities, and IoT support, which could variously play to each, or all, of the use cases listed depending on the platform's design and the vendor's focus.

Appendix A looks at KPIs in detail, but the core criteria for evaluation are as follows:

- **Deployment and Administration** – This area addresses overall efficiencies for deployment and administration. It targets a number of factors, such as FTEs for ongoing administration, time to value, automation, and administrative advantages in deployment and adaptability to changing conditions, as well as maintenance, customer support, and range of services available to address core requirements along with unique use cases. Customer/deployment interviews are especially critical in validating vendor perspectives here.
- **Cost Advantage** – Costs include core software for on-premises or SaaS investments, basic services costs associated with deployment and basic administration, and maintenance costs. Some questions, such as pricing models, are more descriptive than evaluative to help provide a more rounded insight into solution adoption.
- **Architecture** – Assesses breadth of AI/ML heuristics, such as anomaly detection and predictive analytics, scalability in terms of data volumes assimilated in five minutes, time granularity in sequencing KPIs, breadth of data sources such as events and time series data, support for cloud, big data capabilities, breadth of discovery and versatility of dependency mapping.
- **Integrations** – Is grouped under architecture and targets: range of third-party integrations, breadth of technical integrations such as monitoring and automation, breadth of business integrations such as financial planning systems, and open-source integrations.
- **Functionality** – Includes breadth of application support, business impact and business awareness, reporting and visualization, triage capabilities, change impact and capacity optimization, DevOps support, breadth and strength of automation, IT roles supported, and business (non-IT) roles supported.
- **Vendor Strength** – Highlights vendor market presence and growth relevant to AIOps, geographical coverage, and the percentage invested in research and development.

HIGHLIGHTS ON WHAT THE DATA SHOWS

One of the benefits of doing the Radar was getting data from all 17 vendors on critical areas ranging from deployment and adoption challenges, to cost and pricing, to architectural and functionality insights across everything from heuristics, to automation, to data assimilation, and discovery and dependency mapping. Without getting lost in vendor specifics, EMA wanted to present a few highlights here.

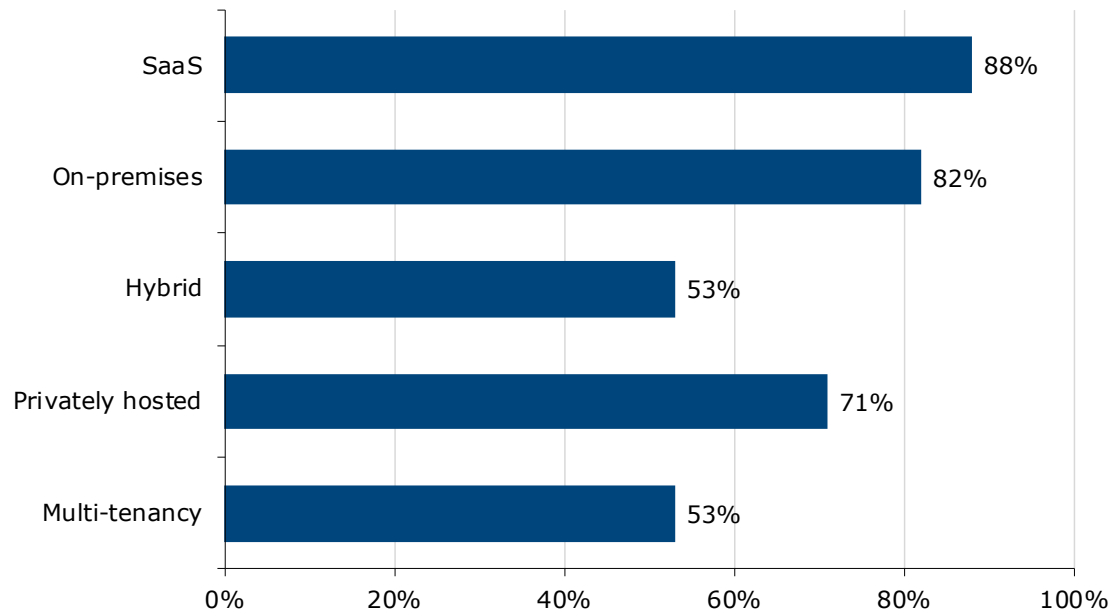
Administration and Deployment

In the area of deployment and administration, EMA found that (on average) AIOps vendors indicated between 1-1.5 full-time employees (FTE) were required for ongoing administration in an enterprise with about 10,000 employees. This didn't include initial deployment or any significant extension in breadth of coverage or functionality. In 31 interviews, these estimates were generally

borne out. Three vendors at the high end estimated between 2.5 and 3 FTEs, whereas the three vendors at the low end estimated between less than 0.5 FTEs. The range was affected by differences such as SaaS versus on-premises requirements, and to what degree the solution was primarily offered as a managed service, which cut down considerably on administrative overhead. It also favored singular, well-focused platforms versus the added complexity of often more functionally rich suites.

The growth of SaaS is highlighted in Figure 1, which led the pack in overall deployment options at 88%. On-premises followed closely at 82%, with hybrid at 53%. It's also interesting to note that across this range, the average AIOps vendor offered about three and a half (3.47) deployment options for its customers. This represents a significant change from 2012, when most AIOps-related solutions were solidly on-premises.

What deployment options do you support?



Sample Size = 17, Valid Cases = 17, Total Mentions = 61

Figure 1: AIOps solutions are becoming more versatile in customer choice for deployment options.



HIGHLIGHTS ON WHAT THE DATA SHOWS

Heuristics, Data, and Toolset Assimilation, and Cloud Support

The great majority of AIOps platforms (94%) have heuristics that can “learn” their environments dynamically, without added administrative intervention. On average, they can do this in a little more than one week for 5,000 managed entities. EMA then asked vendors to weight their AI/ML heuristics on a scale from 0-2, with 2 being a featured heuristic value, 1 being present, and 0 being absent. The top 10 heuristics getting a 2 weighting were:

1. Correlators – 100%
2. Anomaly detection – 94% (or 16 of the 17 vendors)
3. Machine learning and baselining for event pattern recognition – 94%
4. Topology-based analytics – 94%
5. Prescriptive analytics – 82%
6. Predictive algorithms – 76%
7. Comparators – 71%
8. Streaming analytics – 65%
9. Optimization algorithms – 59%
10. Object-based modeling – 59%

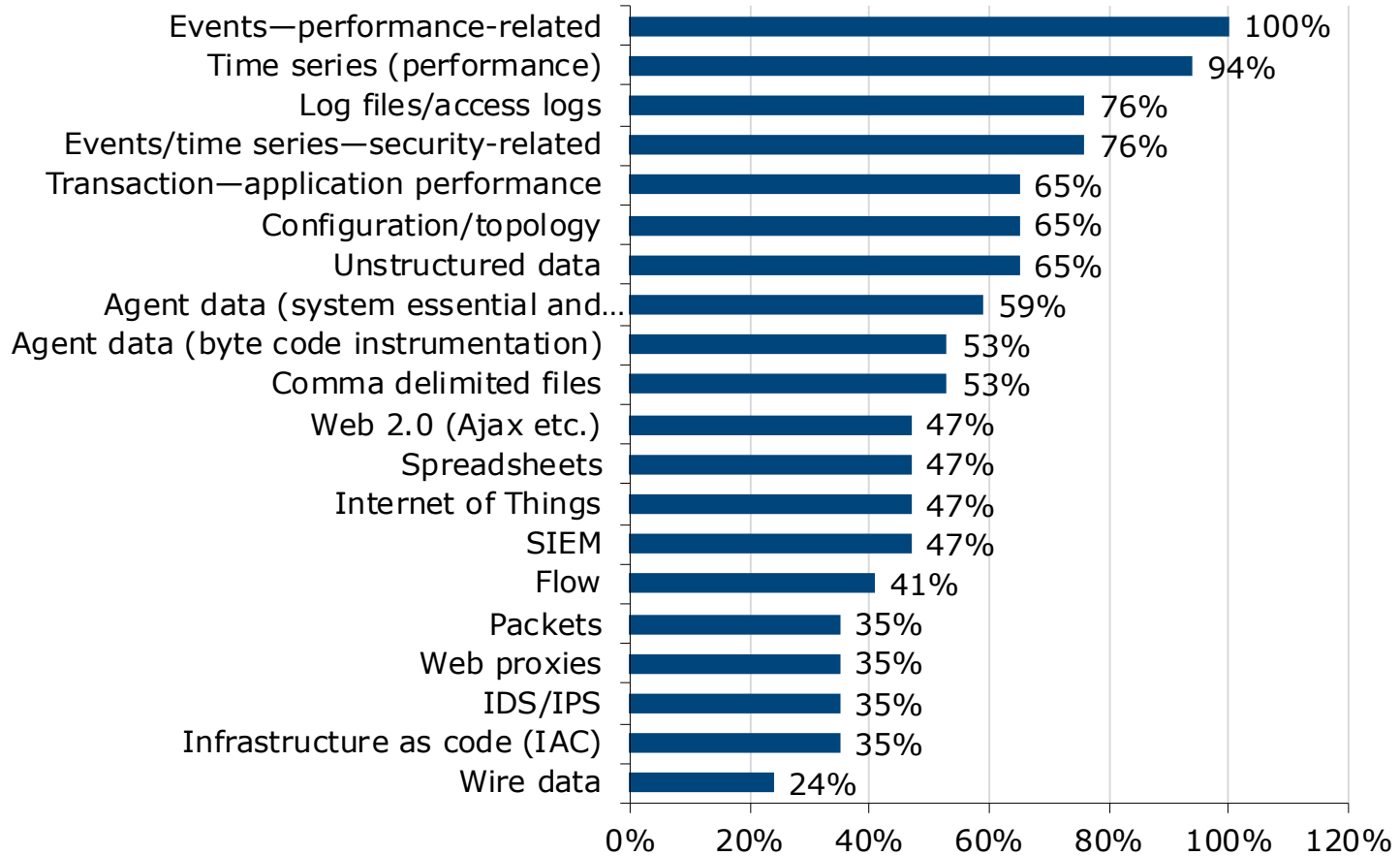
With eight more options, the Chaos Theory came in last at 6%.

EMA looked at the data surrounding scalability for data assimilation by asking about data or metric volumes that can be taken in and leveraged by analytics in five minutes. On average, AIOps vendors fell in the range of between 1 million and 10 million metrics within five minutes. Vendors at the low end showed between 10 and 50 thousand metrics, while the highest group indicated more than 50 million. In parallel, EMA asked about granularity in sequencing KPIs. Here, 41% could provide real-time or subsecond sequencing.

EMA also asked about the type of data collected both directly and through third-party sources. On average, the 17 AIOps platforms surveyed took in 9.63 different sources directly and 10.99 different sources through third-party integrations, underscoring both overall breadth of data collection and the assimilative nature of AIOps platforms. Not surprisingly, events and time series data topped the charts in both cases, with configuration data coming in third for direct collection and log files coming in third place for data coming from third-party sources.



Which types of data/alerts can your advanced analytics solution collect through fully supported third-party integrations?



Sample Size = 17, Valid Cases = 17, Total Mentions = 192

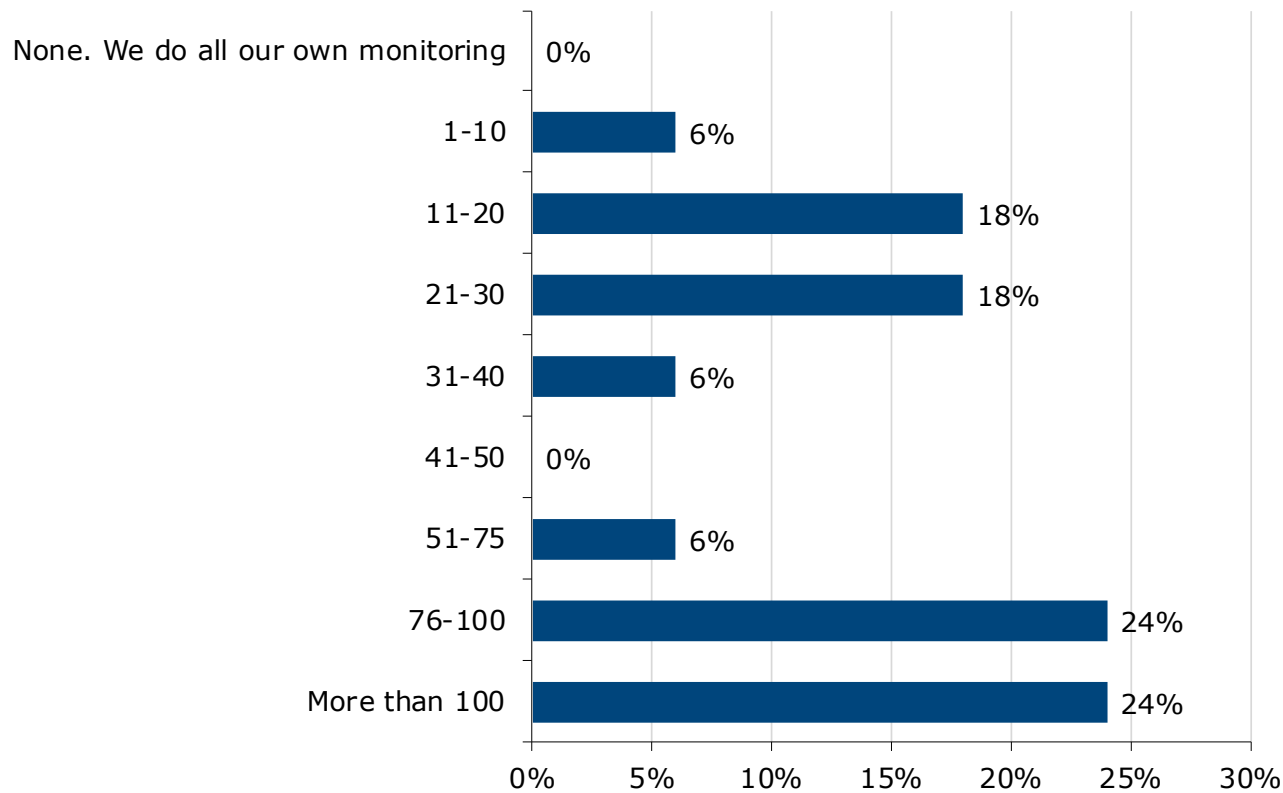
Figure 2: Breadth of data is central to most AIOps solutions.

HIGHLIGHTS ON WHAT THE DATA SHOWS

Another critical avenue for data collection is integration with third-party toolsets, as examined in Figure 3. Significantly, all 17 vendors have some level of third-party toolset integration out of the box, or in parallel, none claim to do “all their own monitoring.” In fact, the average respondent indicated support for between 51 and 75 different toolsets, with four vendors indicating 100 or

more. This can have powerful political and practical advantages, easing stakeholder reluctance by eliminating the need to break away from their existing tools completely. Additional values include toolset consolidation and optimization as IT organizations begin to observe redundancies while realizing which toolsets are most valuable for given technologies.

How many different monitoring or other tools (your own and/or third party) are fully supported today as (additional) fully integrated sources for your advanced analytics solution? Or, in other words, how many tools can you integrate with out of the box?



Sample Size = 17

Figure 3: AIOps integrations of third-party toolsets are becoming more and more prevalent.



HIGHLIGHTS ON WHAT THE DATA SHOWS

When asked about toolset priorities for integration, the AIOps vendors in this report indicated the following for their top-tier priorities:

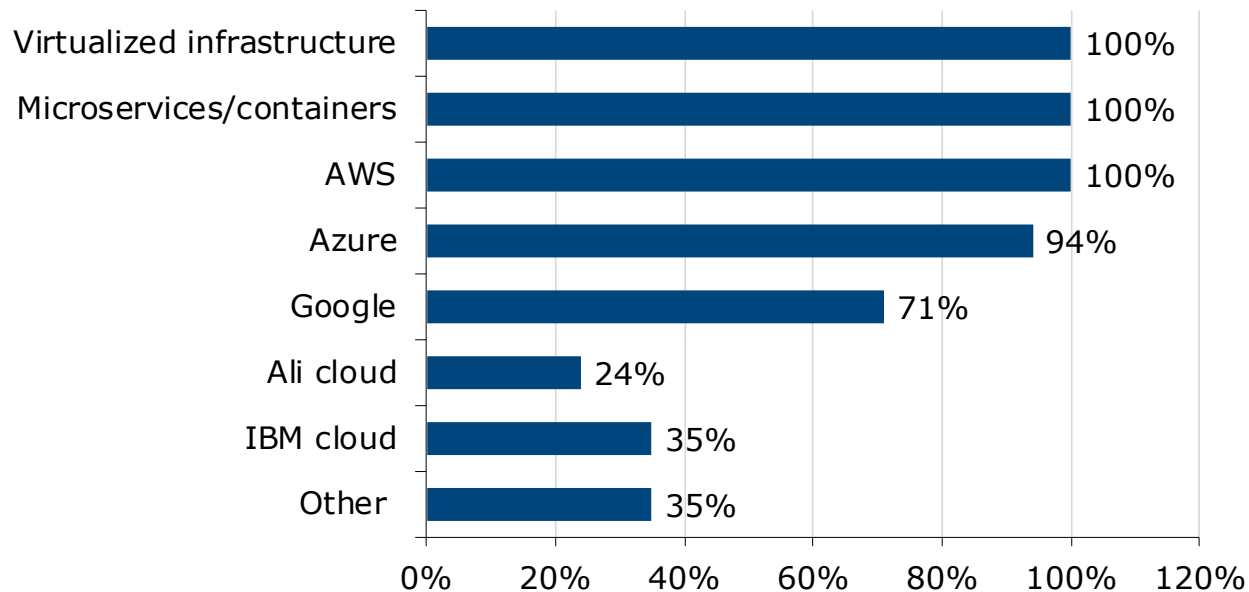
- Application performance management (94%)
- CMDB or extended configuration management system (94%)
- Service desks for trouble ticketing (88%)
- An event management system (76%)
- IT process automation or runbook (71%)
- IT asset management tools (71%)
- ITSM service catalogs (71%)
- Network performance management (65%)

- Application development, DevOps tools/processes (65%)
- SW asset management tools (59%)
- Other configuration and change impact management (59%)
- Public cloud-related resources for performance (59%)
- Application dependency mapping for change impact (59%)

When asked about export to third-party toolsets, the top three priorities were IT process automation, service desks for trouble ticketing, and CMDB or an extended configuration management system.

Figure 4 highlights cloud support. Significantly, all 17 vendors supported virtualized environments, microservices/containers, and AWS through a mix of technology-specific and toolset integrations.

Which public cloud capabilities and providers can you support?



Sample Size = 17, Valid Cases = 17, Total Mentions = 95

Figure 4: Support for cloud continues to be a growth area among AIOps platforms.



HIGHLIGHTS ON WHAT THE DATA SHOWS

Discovery, Dependency Mapping, and Automation

Nine of the seventeen vendors offer options for both agent-based and agentless discovery, while one is purely agent-based and seven are exclusively agentless. When looking at how discovery is conducted, once again the assimilative nature of AIOps platforms comes to the forefront since an average of 9.43 sources were being discovered directly and 13.14 are being discovered through the ingestion of third-party sources.

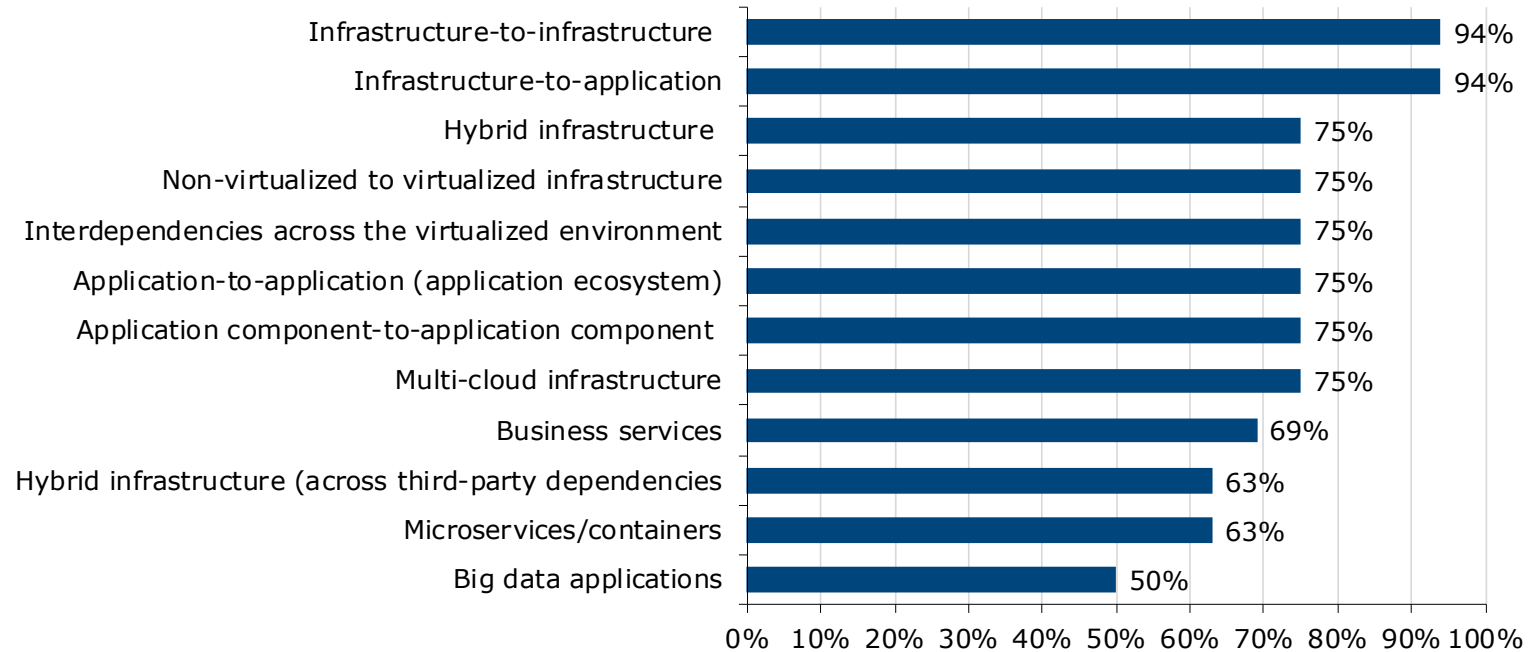
- For native discovery, the top sources were:
- Containers in private cloud (81%)

- Layer 3 logical layer discovery (69%)
- Data center elements and component detail (storage, systems, database) (69%)
- Virtualized environments in private cloud (69%)
- Microservices in private cloud (69%)

For third-party ingestion, the top source was tiered application interdependencies.

Fifteen of the 17 vendors offered some form of application dependency mapping, once again either through their own discovery or through the added ingestion of third-party toolsets.

How would you characterize your support for capturing and analyzing applications or other service interdependencies directly through your own platform?



Sample Size = 17, Valid Cases = 16, Total Mentions = 143

Figure 5: Native dependency mapping closely parallels what our AIOps vendors do through third-party sources both in breadth and priority.



HIGHLIGHTS ON WHAT THE DATA SHOWS

EMA placed a high value on support for automation, which also came out strongly in the 31 deployment interviews. Recent research underscores the analytics/automation handshake as transformative not only for IT, but for business initiatives, such as digital transformation. The top ten automation priorities among the AIOps vendors presented, generally done through a mix of both native capabilities and integrations, were:

1. Alert-driven notification (94%)
2. Automation in support of incident team communication (94%)
3. Workflow within and across IT (94%)
4. Automated event remediation (88%)
5. Automated trouble ticketing (88%)
6. Runbook or IT process automation (88%)
7. Automated remediation and proactive service resolution (88%)
8. Core service desk workflows (76%)
9. Core configuration tools (such as Puppet, Chef, and Ansible) (76%)
10. Automation in support of application discovery and dependency mapping (76%)



USE CASES: A CLOSER LOOK

The three use cases are intentionally parallel to those in the “EMA Radar for Advanced Performance Analytics (APA) Use Cases” from December 2012. This parallelism makes meaningful comparisons possible, enabling tracking of trends, progress, and areas of stasis. While it’s clear that the AIOps landscape represents serious forward progress in eight years, many of the challenges and tradeoffs remain similar. For instance, some vendors are strong in change impact management, but weak in capacity optimization analytics, or vice versa. On the other hand, while in 2012 almost all vendors were formally centered in what EMA then called “technical performance management,” it’s clear that some vendors are now more centered in change management, business impact, or other dimensions for bringing value to their customers.

Use Case	Actively using	Currently in deployment, but not yet using	Planning, but not yet deployed	Not planning/ don't know
Cross-domain application infrastructure and performance	87%	12%	1%	0%
Capacity management and infrastructure optimization	73%	22%	5%	0%
DevOps/Agile	72%	22%	4%	2%
End-user experience/customer experience management and business alignment	71%	23%	4%	1%
Integrated security and operations (SecOps)	69%	26%	3%	1%
Cost management (including hybrid and multi-cloud)	66%	29%	3%	1%
Change management	65%	28%	4%	3%

Figure 6: AIOps use cases have significantly diversified over the last eight years.¹

¹ Figure 6 is taken from “AIOps and IT Analytics at the Crossroads: What’s Real Today, and What’s Most Needed for Tomorrow?” Q4 2018.



READING THE RADAR CHARTS

This Radar is specifically intended to provide a useful set of insights into the design points and unique strengths of each of the seventeen AIOps solutions. Only strong offerings were invited to participate, and while there will be some sorting based on value leader, strong value, and specific value for each use case, IT and service provider buyers will be well advised to first define their objectives and then seek out the solution that fits them best—regardless of apparent “rank” or “award.” Similarly, the report makes every effort to offer high-level insights into design and function for each vendor so that it, too, can be used as a starting point for planning an AIOps investment.

The survey questions covered the five key functions common to all EMA Radar Reports, which include Architecture, Functionality, Deployment & Administration, Vendor Strength, and Cost Advantage.

In this AIOps Radar, there are three Radar Charts to emphasize use case diversity. However, there are some core things to keep in mind as you look at each of these, or look across them in combination:

- The vertical axis (Product Strength) will be primary for seeking strengths in functionality and overall architectural breadth and power.
- The horizontal axis (Cost Efficiency) favors cost advantages, as well as advantages in administrative overhead and overall administrative efficiency.
- The size of the bubble is reflective of Vendor Strength and represents overall market strength as relevant to the Radar.

Because of the nature of AIOps solutions, proximate vendor positions may still reflect radically different advantages. For instance, one vendor’s core analytic power may place it next to a vendor at a similar cost/administrative advantage, but with weaker core analytics and broader assimilative and modeling strengths. They may, in fact, represent significantly different types of investment choices. Therefore, no investment decisions should be made without thoroughly considering each vendor’s specific profile.

Keeping IT services at appropriate levels of performance remains central to most AIOps platforms.

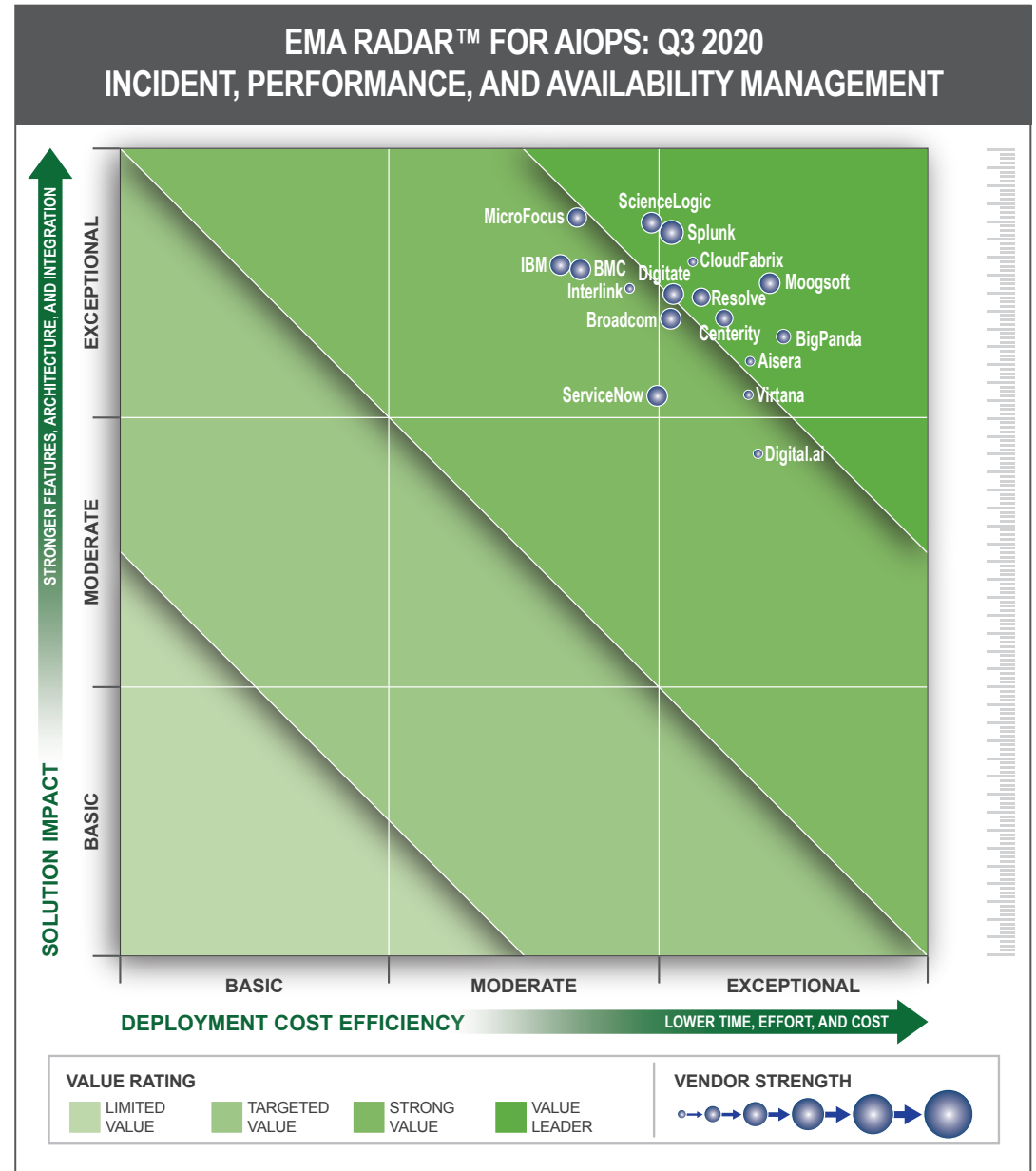


INCIDENT, PERFORMANCE, AND AVAILABILITY MANAGEMENT

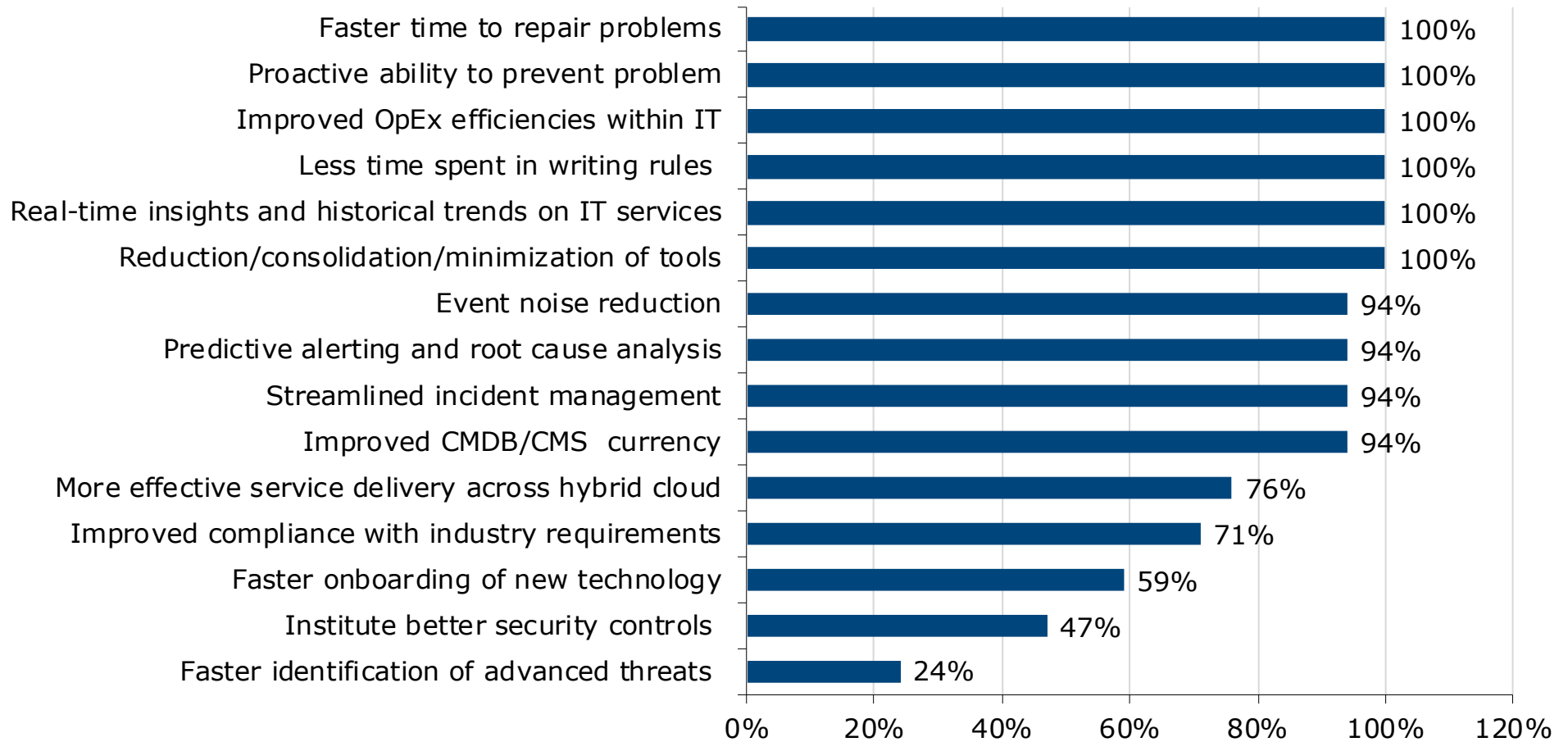
In this Radar, EMA examined a number of factors ranging from domain reach, stakeholders supported, real-time data currency, and heuristics to enable not only awareness of anomalies, but predictive and prescriptive recommendations. When asked specifically about triage capabilities, the top ten reported by the 17 AIOps vendors were as follows:

1. Isolate whether the problem is within the application, server, network, or database (94%)
2. Triage across virtualized systems (94%)
3. Isolate infrastructure issues internal to systems (94%)
4. Isolate infrastructure issues within the DB (94%)
5. Isolate infrastructure issues in storage (94%)
6. Triage across application tiers (88%)
7. Isolate middleware issues (88%)
8. Isolate infrastructure issues in the network (88%)
9. Isolate infrastructure issues within public cloud (82%)
10. Visibility from the branch into issues such as QoS (82%)

The least supported triage capability was “isolate mobile-specific end-device issues” at 41%.



What benefits have you seen achieved in actual deployments from your solution?



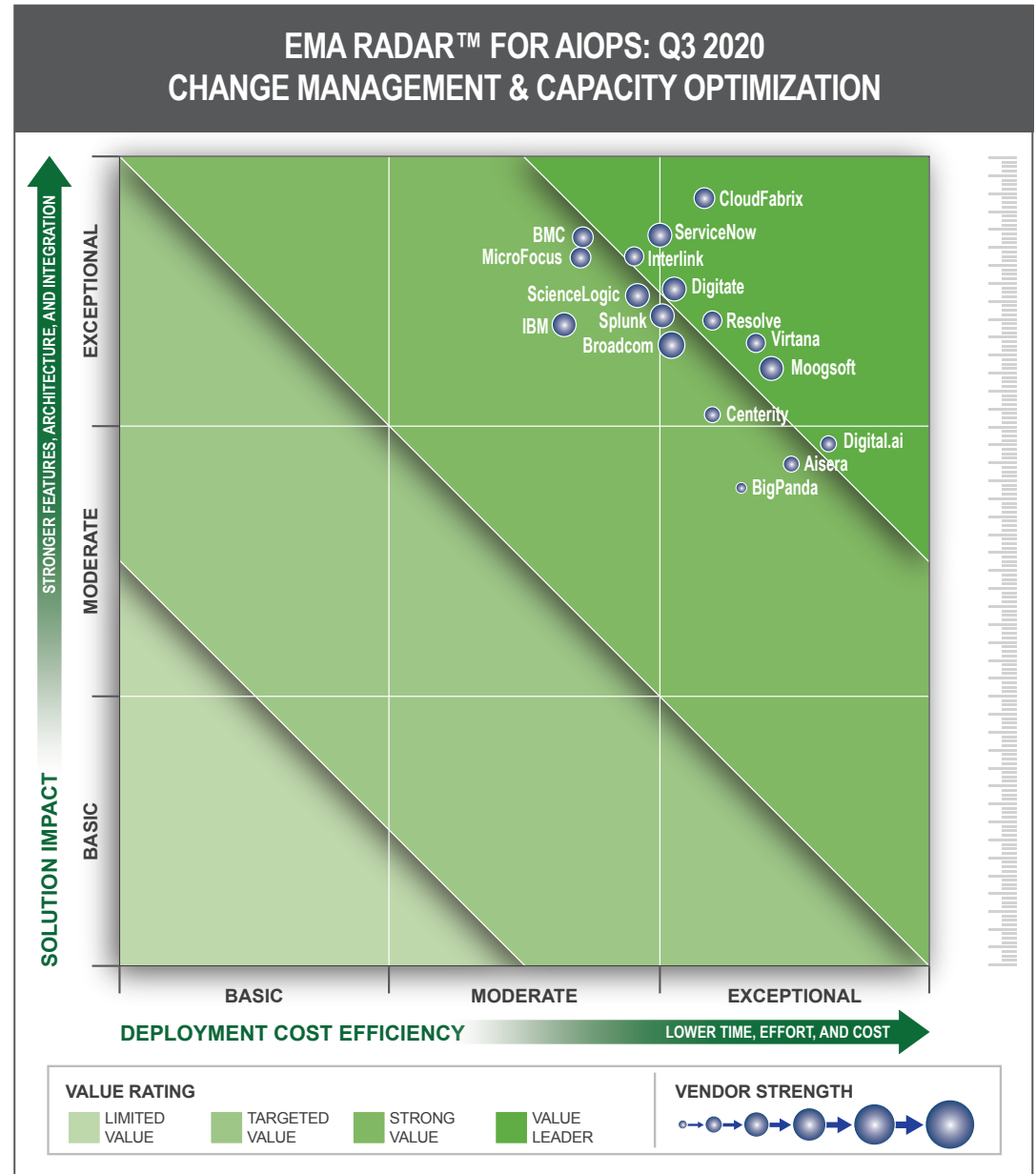
Sample Size = 17, Valid Cases = 17, Total Mentions = 219

Figure 7: AIOps vendors in this Radar were overall very consistent in benefits achieved in incident, performance, and availability management.

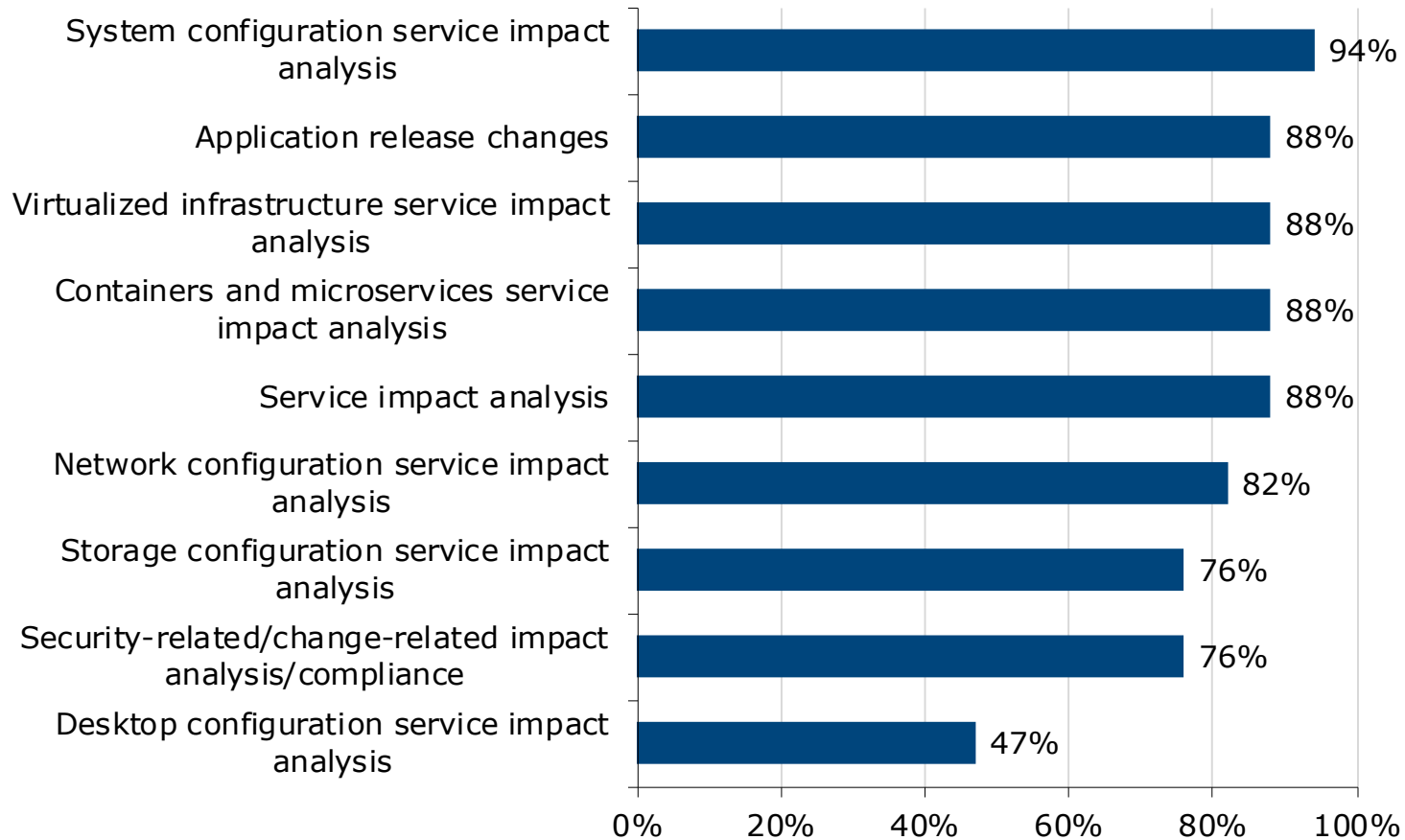
CHANGE IMPACT AND CAPACITY OPTIMIZATION

Benefits across the 17 AIOps vendors for this use case were also strikingly in line. Of the nine EMA surveyed, the following were most prevalent:

- Better correlation between change and performance (94%)
- Improved efficiencies in managing change (88%)
- Improved efficiencies in keeping your CMDB/CMS up to date (88%)
- Faster time to deliver new IT services (88%)
- More effective migration to public cloud (82%)
- More efficient use of infrastructure capacity (71%)
- More effective optimization of public cloud/multi-cloud (65%)
- More efficient use of hybrid cloud resources (59%)
- Optimized capacity for service delivery (59%)



Please indicate what capabilities you have for tracing infrastructure, application, and/or business performance to changes made to infrastructures and applications?



Sample Size = 17, Valid Cases = 17, Total Mentions = 126

Figure 8: On average, AIOps vendors in this Radar showed a capability for tracing more than seven of the nine options listed. Once again, there is a lot of commonality, with end-device awareness being the most limited.

CHANGE IMPACT AND CAPACITY OPTIMIZATION

EMA also asked AIOps vendors what change management-related KPIs they could support, with the following results:

- Configuration/change management efficiencies (94%)
- Internal cloud efficiencies (82%)
- Public cloud efficiencies, not including cost (82%)
- Hybrid cloud efficiencies (82%)
- Infrastructure (network/systems) optimization requirements (76%)
- Infrastructure (data center) requirements (76%)
- DevOps efficiencies (65%)
- Storage optimization KPIs (65%)
- Application optimization KPIs (65%)
- Public cloud efficiencies, including cost (53%)
- Security-related KPIs (53%)
- KPIs addressing the extended enterprise (partners, suppliers, service providers) in managing change (47%)



BUSINESS IMPACT AND IT-TO-BUSINESS ALIGNMENT

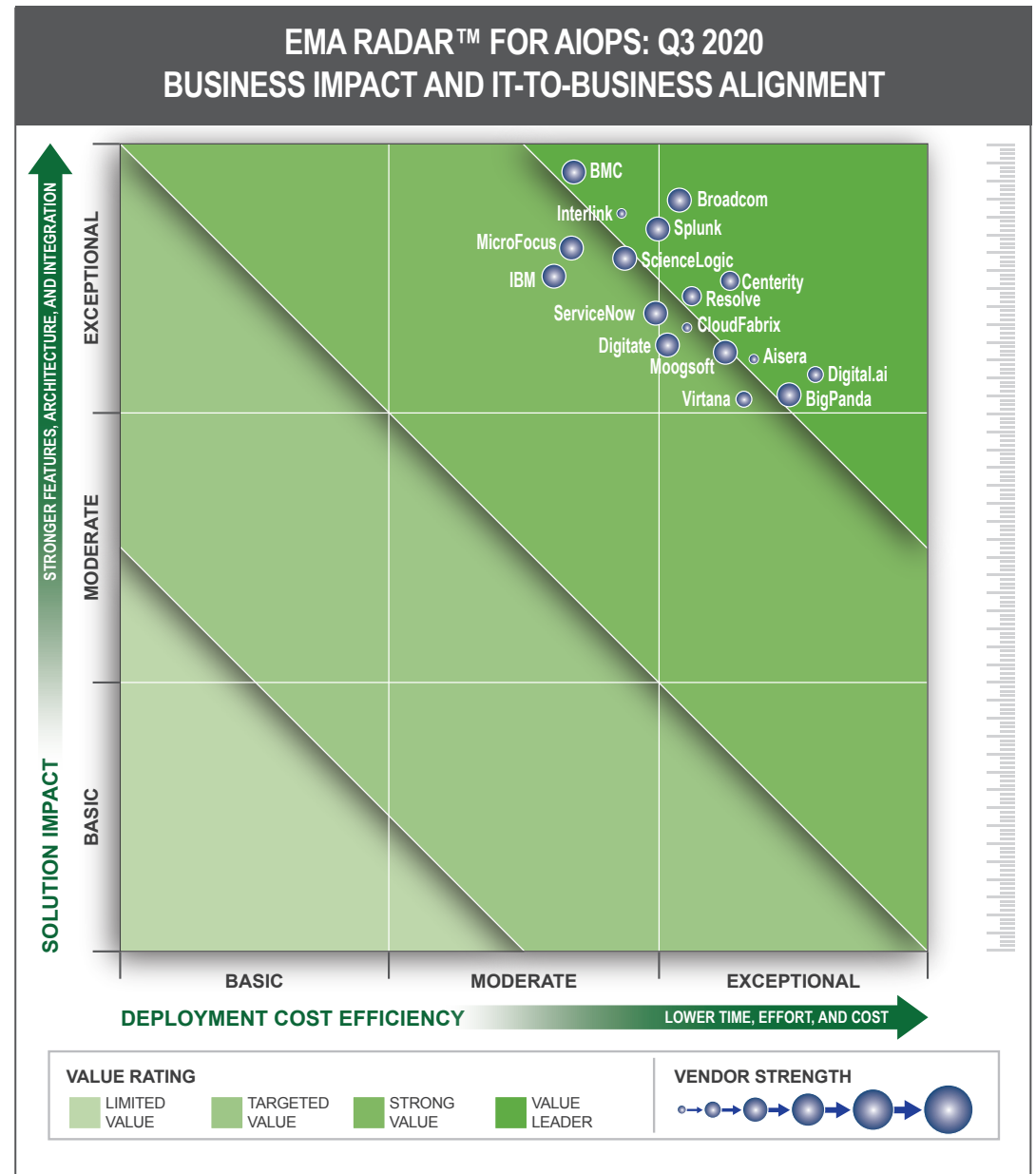
Business impact and IT-to-business alignment have also been areas of growth for AIOps solutions overall, as the need to promote strategic initiatives, such as digital transformation, has risen consistently in importance. This has only been accelerated due to the recent pandemic, which has made digital services even more central to the global economy.

Support for business outcomes and better alignment between IT and the business stakeholders they ultimately served is achieved in various ways through AIOps platforms.

When EMA asked about business sources for import, the top five were:

- Enterprise operations data (75%)
- IT warehouse for advanced trending (50%)
- Business application owner data (44%)
- Executive dashboard (31%)
- Security/audit compliance systems (31%)

Also tied at 31% were: business process management systems and digital transformation-related data. The top two sources leading for export were executive dashboards (94%) and an IT data warehouse for advanced trending (82%).

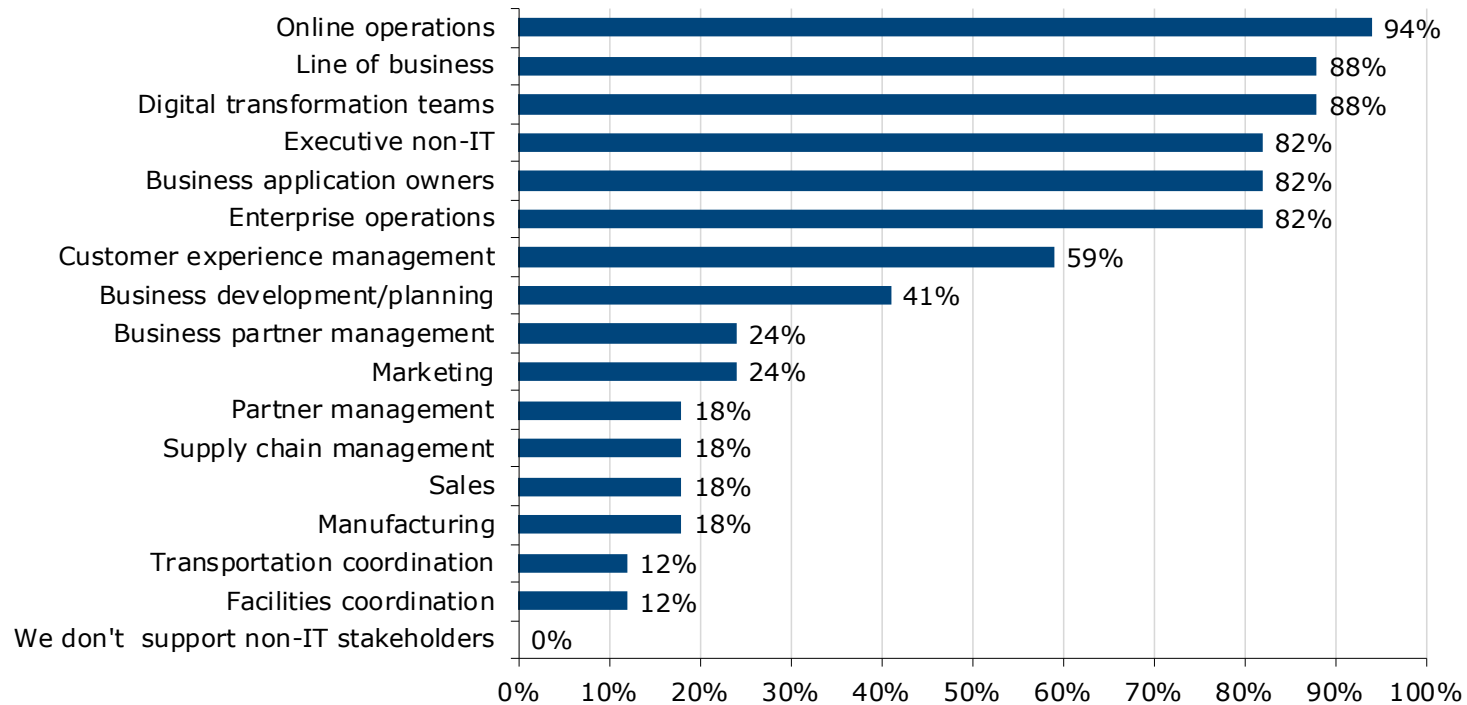


BUSINESS IMPACT AND IT-TO-BUSINESS ALIGNMENT

Figure 9 shows that the AIOps platforms evaluated here support a wide range of business roles, with online operations, line of business, and digital transformation teams at the top. All of the 17

vendors indicated some level of support for business stakeholders.

Which of the following non-IT-related roles do you support natively or as fully integrated extensions to your advanced analytics solution?



Sample Size = 17, Valid Cases = 17, Total Mentions = 130

Figure 9: AIOps platforms are also growing in their breadth of support for business outcomes and business stakeholders.

In terms of benefits achieved, EMA saw the following:

- Accelerated capabilities for digital transformation (100%)
- Improved end-user/customer experience (94%)
- Better alignment with IT service and business service performance (94%)
- Improved business performance in terms of revenue (94%)
- Improved business performance in terms of business process efficiency (94%)
- Faster onboarding of new customers (47%)
- Understanding customer behavior to drive innovation (29%)



WHAT THE DEPLOYMENTS SAY

In reviewing the 31 customer interviews for this Radar report, certain things stood out in terms of vendor selection, adoption and deployment, and benefits achieved. The following quotes are grouped into each of these three categories, but kept anonymous as to vendor and source. They represent a mix of large enterprises, telecommunications vendors, and MSPs from North America and Europe. The quotes have been selected as being emblematic, while at the same time expressing some of the variety inherent in both IT environments and values achieved.

Vendor Selection

“Our AIOps platform’s support for automation, machine learning and integration, the relative ease with which we could achieve our required customizations, and the ability to support almost every technology vendor, in the end gave us the most bang for the buck.”

“We purchased our AIOps platform primarily to promote IT-to-business alignment and business outcomes across cloud and existing infrastructures.”

“Our company has grown through several mergers, each with its own diverse toolsets, and we needed our AIOps platform to assimilate what we have and create a common single pane of glass.”

Deployment and Administration

“Our AIOps platform has turned out to be lightweight to manage, with less than one person dedicated to ongoing administration.”

“It took us about three months to get through deployment where we could see substantial value. Administration on an ongoing basis is fairly easy and doesn’t require a lot of engineering. Right now, we have roughly the equivalent of five full-time employees working with our AIOps platform in support of roughly 100 customer environments.”

“We are now getting into auto-remediation. If we know that a system component is misbehaving and we know what the issue is, we can run more advanced levels of automation to restore service.”

“Our AIOps dashboards are reusable and repeatable and they help to keep everyone on the same page. No more ‘my data is more accurate than your data.’”

“There are always politics associated with process improvements, so we do get challenged, and our AIOps platform is a huge help in managing the dialogue.”

“Our AIOps platform has become so popular that we’ve become victims of our own success. There’s been a great response to the tool, but of course that puts more pressure on my team to constantly deliver extensions to the solution.”

Benefits

“Our collaboration across IT has improved dramatically because we have one place to get information. Different teams customize the dashboard for what they need, and all the information is there in one place. We are moving to replace all the point solutions in the environment with the AIOps toolset. This has the added benefit of saving us money on licenses as we eliminate unneeded, overlapping tools.”



WHAT THE DEPLOYMENTS SAY

“One of the values we’ve seen is minimized change advisory board (CAB) requirements. This has helped tremendously from an OpEx perspective. We no longer need so many people on the call. At the end of the day, they just want to know if a planned change is risky or not.”

“Above all, what we liked about our AIOps platform was the fact that it was outcomes-driven. Rather than just looking proactively at different data, which was itself of value, we were able to take that up a level and relate what was happening to business outcomes and business objectives. That was good for our business because most CIOs we sell to are focused on business outcomes.”

“One of the first values we got from our AIOps platform was bidirectional updates and data sharing with our CMDB.”

“We have already achieved some excellent success in 2019. Some of these successes include:

- A 60% reduction in the time required to bring new customers on board
- A 50% reduction in the number of incidents during non-business hours
- A 21% reduction in the time required for incident resolution
- A 70% improvement in our own OpEx efficiencies
- A 60% reduction in service-level agreement breaches
- An estimated one million U.S. dollar savings in our annual operational expense

Overall improved customer experience and service quality.”

“Our AIOps platform will help to tell me where I have to refresh the infrastructure for performance and asset management reasons, three to five years out. And if I need to refresh part of the infrastructure, our AIOps platform will show me the cost in terms of both CapEx and operational expenditures. I can just plug in a number, say, targeting 500 assets per year, and all the data is there in ten to fifteen seconds. It’s amazing!”



SEVENTEEN AIOPS VENDORS IN SUMMARY

Aisera: Aisera's AIOps leverages a wide variety of machine learning heuristics to predict incidents and outages, recommend remediations, promote new levels of IT efficiencies, and address key business requirements. Its solution, Aisera AIOps Major Incident Predictor and Dynamic CMDB, is designed around six key features: Major Incident Detection and Prediction, Automated AI Discovery, Dynamic CMDB, Automated Root Cause Analysis, an Automated Causal Graph, and a CI and Major Incident Connectivity Graph. Aisera's vision is to promote a "fully automated and continuous learning" environment across IT "in which humans can provide reinforcement for the issues identified." The solution is complemented by its AI Service Management Platform focused on AI for service desk and enterprise service management (ESM). Aisera is a Value Leader in Incident, Performance, and Availability Management and Business Impact and IT-to-Business Alignment, and a Strong Value in Change Impact and Capacity Optimization.

BigPanda: BigPanda has a clear focus on ease of deployment and time to value, as well as explainable AI with its Open Box Machine Learning. Its platform also includes an Open Integration Hub for assimilating events and topologies and an Operations Console for shared viewing of critical service behaviors across IT operations. Automation is another area of focus for BigPanda. According to the vendor, "BigPanda believes that enabling autonomous IT operations as an end state is the vision for the future. Autonomous Operations (AO) is the next generation of IT automation that helps operations teams from being a bottleneck to becoming an enabler of digital transformation." BigPanda is a Value Leader in Incident, Performance, and Availability Management and Business Impact and IT-to-Business Alignment, and a Strong Value in Change Impact and Capacity Optimization.

BMC Software: BMC's approach to AIOps reflects the industry's first move to fully integrate AI/ML capabilities across operations and ITSM from a robust product suite perspective with a long history of extensive investments in both operations and ITSM. These currently include fully parallel capabilities: BMC's SaaS-enabled Helix Suite and its on-premises equivalent, the TrueSight Suite. These will be delivered as a single platform by Q1 2021 as "BMC Helix" with SaaS and containerized on-premises options. These capabilities combine to address BMC's vision of the Autonomous Digital Enterprise, in which AI/analytics and automation combine proactively to support both business and IT requirements. BMC is a Value Leader in Business Impact and IT-to-Business Alignment and a Strong Value in Incident, Performance, and Availability Management and Change Impact and Capacity Optimization.

Broadcom: Broadcom's DX AIOps is distinctive in its breadth of coverage across the entire application infrastructure, including cloud-native and hybrid architectures. The platform is built on Automation.ai, an open, scalable data lake. It can be delivered in standalone mode or with integrations into a suite of critical supporting capabilities: DX Application Performance

Management, DX App Experience Analytics, DX Infrastructure Manager, and DX NetOps Manager. Broadcom is strong in integrated security and managing IT for business outcomes, creating dynamic feedback loops to inform business and IT stakeholders on the ongoing impacts of IT service performance on business objectives. Broadcom is a Value Leader in Business Impact and IT-to-Business Alignment and a Strong Value in Incident, Performance, and Availability Management and Change Impact and Capacity Optimization.

Centerity: Centerity, through its AIOps Business Services Platform, delivers many of the benefits of larger AIOps suites with reduced administrative overhead and more modest software costs. The platform's Dynamic Business Service Views (DSVs) bring the full seven-layer stack together with an eye to IT service performance and business outcomes and priorities. It does this across cloud, hybrid, and legacy environments. Among its unique strengths is growing support for IoT requirements, such as energy resources, ATM, and point of sale terminals critical to business performance. Centerity is also a leader in integrated security with its unique and growing focus on "Autonomous CyberOps" (AIOps + cybersecurity). Centerity is a Value Leader in Incident, Performance, and Availability Management and Business Impact and IT-to-Business Alignment, and a Strong Value in Change Impact and Capacity Optimization.

CloudFabrix: CloudFabrix is an innovative, emerging presence in the AIOps landscape with significant diversity of functionality integrated into a single, cost-effective platform. The CloudFabrix AIOps Platform, cfxDimensions, delivers unique strengths in performance, change management, and capacity optimization by which cost, performance, and capacity can be effectively predicted, each in context with the other. CloudFabrix AIOps is also distinguished by its outcome-driven approach in which audited results can be assessed for critical processes in operations and planning, while also reaching up the stack to support business goals. CloudFabrix is a Value Leader in Change Impact and Capacity Optimization and Incident, Performance, and Availability Management, and a Strong Value in Business Impact and IT-to-Business Alignment.

Digital.ai: Digital.ai acquired Numerify in June of 2020. It offers a well-focused and much-needed value when looking at the broader AIOps landscape—ongoing and significant insights to improve IT efficiencies and outcomes across all three use cases evaluated. Its strengths in IT governance are distinctive, and as such, it is largely complementary to the other AIOps and IT management vendors. Its three current offerings include Change Risk Prediction, Service Management Process Optimization, and Business Service Performance Management. The vendor's vision sums it up well when it comes to unifying IT and business stakeholders with common insights: "To empower everyone, from the CIO to analysts, to get the right information at their fingertips, with interactive visualizations that support all types of analytics, dashboards, and queries." Digital.ai is a Value Leader in Change Impact and Capacity Optimization and Business Impact and IT-to-Business Alignment, and a Strong Value in Incident, Performance, and Availability Management.



SEVENTEEN AIOPS VENDORS IN SUMMARY

Digitate: Digitate delivers on its vision for “autonomous IT operations” with ignio AIOps. The platform provides observed, predictive, and prescriptive insights to enable actions ranging from remediation to change impact analysis and capacity planning across the full IT infrastructure. Automation is central to Digitate’s AIOps platform, with more than 8,000 prebuilt, out-of-the-box automation options. Digitate complements ignio AIOps with ignio AI.ERPOps for in-depth insights in deploying and managing SAP, along with ignio AI.WorkloadManagement for advanced capabilities in optimizing workload effectiveness, and AI.DigitalWorkspace for optimizing endpoint/consumer experience. Digitate is a Value Leader in Change Impact and Capacity Optimization and Incident, Performance, and Availability Management, and a Strong Value in Business Impact and IT-to-Business Alignment.

IBM: IBM brings a strong, well-centered solution in AIOps with IBM Netcool Ops Manager and IBM Telco Network Cloud Manager. IBM’s balance and depth in the AIOps arena has accelerated in recent years with renewed investments in machine learning, automation, and visualization. IBM Netcool Ops Manager and IBM Telco Network Cloud Manager both include products within them that were, until this year, branded separately. IBM Predictive Insight delivers metric-based anomaly detection for critical time series data, and Agile Service Manager provides dynamic topology to enable ongoing contextual insights for IBM’s analytics. Also, a part of both platforms in the area of AI/ML, IBM launched Watson AIOps in the spring of 2020. IBM is a Strong Value in all three use cases.

Interlink Software: Interlink has established itself as a leader in enabling a unified and cohesive approach for managing IT infrastructures and business service applications. Over the past few years, these capabilities have been significantly enhanced with a focus on AI and machine learning in Interlink’s AIOps Platform. Interlink’s platform delivers service-centric management of hybrid IT infrastructures with unique strengths in breadth of use cases, domain and role support, IT-to-business alignment, reporting, and visualization, including fully evolved mobile access. Interlink rightly prides itself in supporting global, follow-the-sun deployments requiring scalable, secure offerings with significant numbers of engaged stakeholders. Interlink is a Value Leader in Business Impact and Business-to-IT Alignment and Change Impact and Capacity Optimization, and a Strong Value in Incident, Performance, and Availability Management.

Micro Focus: Micro Focus’s AIOps platform delivers a breadth of role-aware capabilities that make it a leading unifier across IT, as well as between IT and the business. As an AIOps solution, Micro Focus brings a wealth of workflows, third-party integrations, and pragmatically evolved AI/ML to support real-world requirements across all three use cases addressed. The vendor’s central AIOps platform is its Operations Bridge Ultimate Edition, which offers strong discovery, dependency mapping, anomaly detection, and automated problem remediation. Among the vendor’s more

significant innovations is its highly scalable Vertica data lake, which enables cross-domain data consolidation for all data collection technologies. Micro Focus is a Strong Value in all three use cases.

Moogsoft: Moogsoft took an early lead in moving the AIOps market away from traditional management suites toward dedicated platforms for advanced analytics. Its AIOps platform carries with it significant investments in AI/ML heuristics with well-integrated workflows and automation, as well as strong support for third-party integrations. It is designed to deliver strong value without the overhead that often accompanies large, complex AIOps deployments. This is enhanced by Moogsoft’s Situation Room, which provides a rich environment for collaboration. The Moogsoft AIOps platform is available in two modules: Moogsoft Enterprise targeted at IT operations and associated stakeholders, and Moogsoft Express with a focus on DevOps. Moogsoft is a Value Leader in Incident, Performance, and Availability Management and Change Impact and Capacity Optimization, and a Strong Value in Business Impact and IT-to-Business Alignment.

Resolve Systems: Resolve is unique in this Radar in being a combination of a dedicated AIOps platform, Resolve Insights, with a dedicated automation platform, Resolve Actions. Resolve Insights came about in 2019 when Resolve Systems acquired FixStream from Tech Mahindra. The platform’s strengths include rich capabilities for dependency mapping, a breadth of its AI/ML analytics, and support for more than 100 integrations. Resolve Actions currently powers more than a million automations every day across its customer base. These are designed to promote both versatility and flexibility in adoption and range from isolated, repetitive tasks to complex, cross-domain processes. According to the vendor, “Ultimately, our vision is to achieve the long-awaited promise of ‘self-healing IT.’” Resolve is a Value Leader in all three use cases.

ScienceLogic: ScienceLogic SL1 is a richly assimilative AIOps platform covering the full application/business service landscape. The platform has shown industry-leading value in optimizing business service health, hybrid/multi-cloud visibility, and toolset modernization and consolidation. It does this in part through a real-time data lake designed specifically to address AIOps requirements. SL1’s capabilities also include discovery, business services awareness, mapping, monitoring, event management, automation, and AI/ML heuristics. This functionality is all combined in one platform to avoid the administrative overhead associated with separate modules in many management suites. One of the platform’s strengths is unifying IT and business stakeholders in supporting business services from both a top-down and bottoms-up perspective. ScienceLogic is a Value Leader in Incident, Performance, and Availability Management, and a Strong Value in Business Impact and IT-to-Business Alignment and Change Impact and Capacity Optimization.



SEVENTEEN AIOPS VENDORS IN SUMMARY

ServiceNow: Over the last fifteen years, ServiceNow has revolutionized IT service management (ITSM) through its extensive innovations and growing functionality. As a strong contender in the AIOps marketplace, ServiceNow combines a unique library of AI and ML capabilities with a wide range of integrated workflows and other automation options. Central to ServiceNow's leadership in AIOps is its IT Operations Management suite with ITOM Visibility for robust discovery and service mapping, ITOM Health for event management and operational intelligence, and ITOM Optimization for improved cloud migration and capacity optimization. In addition to ServiceNow's ITOM triad, the vendor has integrated support for DevOps, SecOps, and Software Asset Management. ServiceNow is a Value Leader in Change Impact and Capacity Optimization, and a Strong Value in Business Impact and IT-to-Business Alignment and Incident, Performance, and Availability Management.

Splunk: Splunk has pioneered a unique approach within the advanced IT analytics landscape that might be called "data-driven AIOps" with all the inherent advantages that the term implies. The vendor does this through a strong and growing investment in AI/ML in on-premises Splunk Enterprise, Splunk Cloud for SaaS deployments, and Splunk IT Service Intelligence (ITSI), which can reside on either the cloud or enterprise platform for added value in incident resolution, as well as in aligning IT performance with business outcomes. Along with speed in decision-making and associated action, Splunk's AIOps vision centers on providing "the greatest flexibility to analyze any logs and metrics and produce visualizations for any business KPIs." Splunk is a Value Leader in Incident, Performance, and Availability Management and Business Impact and IT-to-Business Alignment, and a Strong Value in Change Impact and Capacity Optimization.

Virtana: Virtana stands out within the AIOps landscape for its in-depth insights into hybrid application infrastructures for improved performance, change management, and capacity and cost optimization. The vendor does this with a focused solution designed for fast time to value and minimal administrative overhead. Virtana's VirtualWisdom offers strong AI/ML capabilities that enable in-depth, application-aware visibility of hybrid infrastructures, spanning compute resources, to on-premises network, compute, and storage. SaaS-based CloudWisdom complements VirtualWisdom with its predictive analysis of performance, capacity, and cost across cloud resources. The vendor's stated mission is to "solve the problems enterprises continue to encounter as they extend existing, and implement new, mission-critical offerings using mixed cloud, multi-cloud, and on-premises resources." Virtana is Value Leader in Change Impact and Capacity Optimization, and a Strong Value in Incident, Performance, and Availability Management and Business Impact and IT-to-Business Alignment.



The EMA Radar analysis is a deep look at leading vendors in a market. While this particular report used three distinct use cases to evaluate the offerings in the AIOps space, there are key capabilities or vendor characteristics that can have greater importance to some potential buyers than is afforded in the analysis framework. Special Awards are used to highlight these capabilities and characteristics in addition to the broader analysis results. Ten of the seventeen vendors received such awards. The goal was once again to promote a highly individualized approach to reviewing AIOps options based on need and priority.

AI Discovery and Dynamic CMDB: Aisera's attention to innovation is visible in its AI-driven discovery and its Dynamic CMDB, which complements (but does not replace) existing CMDB investments. The currency of the Dynamic CMDB is ongoing, as it is taken from real-time data.

AIOps-Driven Governance: While most AIOps platforms are centered in telling you what's wrong, or what might be wrong in the future, Digital.ai can tell its customers how they can improve the way they work in a well-metricized, proactive way. Its customers have seen benefits, such as improved ROI on applications and services and significantly improved OpEx efficiencies.

Cloud Migration and Optimization: Virtana achieves this through unique strengths in dynamic data assimilation—more than 50 million metrics in less than five minutes, as well as its versatile options in AI/ML and automation. These include visibility into hybrid cloud resources as they impact application and business services, automated workload optimization, and predictive insights for performance, capacity, and cost optimization.

Dedicated Telecommunications Support: IBM introduced IBM Telco Network Cloud Manager as separate from IBM Netcool Ops Manager in Q1 of 2020 to promote “new and relevant innovations to clients in telco and enterprise segments, as well as simplifying the purchasing experience.” This decision also reflects IBM's significant success in the telecommunications vertical, with a long history of deployments globally.

DevOps Innovation: Moogsoft Express was introduced in October of 2019 and already had 100 active deployments by June 2020. With intelligent noise reduction, alert correlation, and observability capabilities, it includes support for Q/A Test, handoffs between development and operations, optimizing application performance through rapid feedback from production, and minimizing the time developers spend troubleshooting production performance issues.

Dynamic Asset Intelligence: CloudFabrix's Asset Intelligence Advisor provides usage and end-of-life (EOL) insights, spotlighting redundancies, compliance issues, and performance-related

vulnerabilities across the data center and edge networks, with outcome-aware visibility into cost. It also provides full-stack context for automated alert enrichment.

Explainable AI: Open Box Machine Learning, BigPanda's Explainable AI implementation, provides users with transparency, testability and control so that correlation patterns are not logged away in a black box, but clarified in plain English. This can help in building trust toward AI/analytics and automation.

Integrated Automation: Digitate stands out as an industry leader in fully integrated automation, with more than 8,000 prebuilt automations enabling use cases ranging from self-healing, to more effective change management and capacity optimization, to business outcome responsiveness, promoting what EMA calls the “analytics/automation handshake.”

Integrated Security: Security is a growing area of interest in AIOps, and Centerity is not alone in bringing its AI/ML capabilities to support security needs. That being said, Centerity stands out in its focus on “Autonomous CyberOps” (AIOps + cybersecurity) as both a present reality and path to future growth.

Most Balanced Use Case Value: Micro Focus delivers unique AIOps strengths in all three use cases reviewed: Incident, Performance, and Availability Management; Change Impact and Capacity Optimization; and Business Impact and IT-to-Business Alignment. OpsBridge Ultimate's leadership in integrations, automations, role-based awareness, and AI/ML functionality are consistent across all three use cases evaluated.

Who's Not Included?

While these 17 vendors make up the heart of the AIOps landscape as EMA defines it, the list can never be 100% complete since the AIOps market is evolving with new and emerging vendors, as well as growing AI/ML strengths in more established vendors. One category deliberately not included is application performance management (APM) platforms, such as Dynatrace, AppDynamics, and New Relic. This decision was made because while such platforms go significantly beyond application performance, they remain strongly application-centric and consistently complement most of the AIOps platforms reviewed. As proven in many of the 31 deployment interviews, the vendors in this Radar often draw significantly from the APM space and assimilate their alerts, topologies, and KPIs into a broader full-stack picture.



CONCLUSION

The fact that AIOps is a market showing strong growth in value has been born out time and again in EMA research over the past decade. Some data from the Q4 2018² report is worth sharing because it projects well into the current signs of growth that EMA is seeing in 2020, while mapping against insights from past EMA surveys. The 2018 research was global in outreach, with 300 respondents of various titles including IT executives and business roles, IT operations, ITSM, architects, security, and development professionals. The averages taken were done in 2014 and 2018 with similar demographics. In all cases, respondents were asked about their intentions in deploying AIOps, or its equivalent.

Growth of stakeholder support, including domain, cross-domain, and business stakeholders, rose from an average of 9 in 2014 to 11 in 2016, to more than 19 in 2018.

The number of third-party integrations rose from 15 in 2014 and 2016 to 23 in 2018.

Between 2016 and 2018, the average number of different types of data sources rose from 5 to 13.

Some things didn't change much. The average FTE requirement for ongoing administration was 2.2 FTEs in 2014 and 2016 and 2.3 in 2018.

The message for IT organizations looking to pursue a forward path in AIOps adoption is nevertheless overall a strongly positive one. The benefits achieved are growing in diversity and value. The obstacles do remain similar, as they reflect not only on a technology purchase, but also on processes, organizations, and cultural realities.

AIOps can and should be transformative in enabling more effective decision-making, data sharing, and analytics-driven automation. The recommendation here remains that buyers should consider their own realities in all these dimensions, then begin a search for the AIOps platform that most fits their requirements. Which vendor here can most effectively address your top prioritized long-term goals? Which vendor is a most natural fit for your current technology environment? Which vendor is likely to bring you the fastest near-term wins? The answer could be any one of the seventeen presented in this Radar, depending on the answers to these and other questions.

² EMA's "AIOps and IT Analytics at the Crossroads: What's Real Today and What's Most Needed for Tomorrow?" Q4 2018.



INTRODUCTION



ScienceLogic SL1 is a richly assimilative AIOps platform covering the full application/business service landscape. The platform has shown industry-leading value in optimizing business service health, hybrid/multi-cloud visibility, and toolset modernization and consolidation. It does this in part through a real-time data lake designed specifically to address AIOps requirements. SL1's capabilities also include discovery, business services awareness, mapping, monitoring, event management, automation, and AI/ML heuristics. This functionality is all combined in one platform to avoid

the administrative overhead associated with separate modules in most management suites.

ScienceLogic's SL1 platform is targeted at large, complex enterprise and MSP environments that require breadth of data collection and toolset assimilation to fuel proactive AI/ML values. One of the platform's strengths is unifying IT and business stakeholders in supporting business services from both a top-down and bottom-up perspective.

USE CASE PERSPECTIVES



**INCIDENT, PERFORMANCE,
AND AVAILABILITY
MANAGEMENT**

INCIDENT, PERFORMANCE, AND AVAILABILITY MANAGEMENT

ScienceLogic is a clear leader in incident, performance, and availability management with among the very highest scores for product functionality and architecture. Its triage capabilities span the full-stack application infrastructure from networks to systems to storage, including issues with public cloud, microservices, and containers, or conversely, QoS requirements for application responsiveness in branch offices.

Two of the vendor's customers have documented a more than 98% reduction in downtime. Other related benefits include:

- Improved OpEx efficiencies across IT
- Improved compliance with industry requirements

- Reduction/consolidation/minimalization of toolsets
- Predictive alerting and root cause analysis
- Streamlined incident management
- Minimizing the time developers spend troubleshooting
- Increased effectiveness of handoffs between development and operations
- Continuous improvement of the application lifecycle due to performance feedback across production and preproduction teams



USE CASE PERSPECTIVES



BUSINESS IMPACT AND IT-TO-BUSINESS ALIGNMENT

BUSINESS IMPACT AND IT-TO-BUSINESS ALIGNMENT

Addressing business impact and alignment has been a recent but growing focus with ScienceLogic. Its deployments have already engaged a solid variety of non-IT stakeholders, including business executives, online operations teams, business application owners, digital transformation teams, and enterprise operations.

SL1 Behavioral Correlation detects and correlates performance anomalies, events, and changes in context with business services and their associated subservices. Business services can be discovered in terms of applications and their components, then composed to fully align with business outcomes. The

versatility of the platform was demonstrated in one case when weather-related data was integrated into business service performance KPIs, as weather turned out to be related to business process effectiveness.

SL1 can associate service performance with logical or business KPIs, such as revenue, cost of service delivery, and OpEx effectiveness, helping to not only improve business outcomes, but to better align IT with the business it serves. With its synthetic transaction capabilities, ScienceLogic is also looking more closely at customer and user experience dynamics.



CHANGE IMPACT AND CAPACITY OPTIMIZATION

CHANGE IMPACT AND CAPACITY OPTIMIZATION

The SL1 platform provides in-depth capabilities for infrastructure optimization across hybrid cloud environments with an eye to service performance. It does this not through simulation, but through proactive insights into performance-related behaviors and their associated interdependencies. In parallel, SL1 can assess change impact in context with performance outcomes, associating changes with events and other data, and prioritizing actions based on business relevance. The platform's dynamic views of topological interdependencies have also improved CMDB/CMS currency in many customer environments.

Other associated SL1 benefits include:

- More efficient use of hybrid cloud resources
- More effective migration and optimization of public cloud
- Improved efficiencies in managing change
- Better correlation between change and performance
- Faster time to deliver new IT services



DEPLOYMENT, ADMINISTRATION, AND SERVICES

ScienceLogic SL1 can be deployed in a variety of options, from SaaS, to on-premises, to hybrid, to privately-hosted models. It is instrumented to collect data across a solid mix of both infrastructure and application components, including internal and public cloud containers. Given its one-platform unity, overhead can be as low as less than one full-time employee for ongoing administrative requirements.

The platform's agentless PowerPacks include no code/low code support for a wide variety of integrations, to complement data brought in through the vendor's own agents and open APIs. Users can set their own metrics and KPIs. Report creation is versatile, including templates, drag-

and-drop widgets, and customizable dashboards, so that non-technical stakeholders can design their own individualized reporting and visualization options.

ScienceLogic professional services offerings are outcome focused and evolve from requirements analysis into operational deployment through well-defined stages that include use case configuration, solution validation and testing, and mentoring and knowledge transfer. ScienceLogic professional services offerings beyond deployment support strategic requirements for SLM and performance, IoT, capacity planning and optimization, cloud migration, business impacts/outcomes, and digital transformation consulting.

COST ADVANTAGE

ScienceLogic SL1 is priced in four ways: Base, Standard, Advanced, and Premium, with annual subscription costs ranging from \$312 thousand to \$1.5 million. ScienceLogic also offers dramatically reduced pricing for customers who are just getting started with their platform. These packages are designed to capture shifting needs based on the problems being solved and the

range of capabilities required. Although overall pricing is in the premium category for AIOps, customers consistently report value with one subscription deployment of SL1 seeing ROI in less than one week.

ARCHITECTURE AND INTEGRATION

SL1 combines topological analysis for detecting patterns and anomalies with a wide variety of other heuristics, including comparators, correlators, baselining, object-based modeling, prescriptive analytics, streaming analytics, and neural networks. The platform leverages behavioral correlation rather than simple event correlation to help assess the relevance and effectiveness of SL1 algorithms for specific incidents, conditions, and technological requirements.

The SL1 platform is a leader in AIOps scalability, as it is capable of assimilating more than 50 million metrics in less than five minutes, with real-time to subsecond data assimilation and 1-3-minute latencies for data sequencing. Data is brought in through a data lake that merges different sources using a variety of ingestion and sharing mechanisms, including SL1's collector and publisher. The breadth of data assimilated can span:

- Events (performance- and business-related)
- Time series data (performance- and business-related)
- Log files
- Byte code instrumentation
- Flow and packets
- Application transactions
- Web proxies
- Business process impacts and sentiment analysis

With more than 80 out-of-the-box integrations supported for third-party toolsets, ScienceLogic is a leader in AIOps data breadth enabled in part through the richness and diversity of its PowerPacks. Moreover, partners can build their own PowerPacks through SL1 PowerFlow and PowerSync to extend

the platform's reach. These integrations currently include third-party resources in application, network, and systems management, IT service management (ITSM) integrations, and third-party automation capabilities, among others. Public cloud support currently spans AWS, Azure, Google Cloud, IBM Cloud, and Alibaba, among other public cloud options.

The SL1 PowerMap delivers multi-layer, multi-technology, and multi-vendor topologies, supported by agent-based and agentless discovery across hybrid cloud application/infrastructures and a wide range of application dependency mapping options. Application relationships are placed in SL1's graph database for more dynamic assessments of interdependencies and improved levels of visualization. These span business service relationships and application and infrastructure interdependencies.



FUNCTIONALITY

ScienceLogic offers a rich automation library out-of-the-box with more than 400 automation policies, which can be combined to create more extensive automation flows using SL1 PowerFlow. Customers can also add new automation options into the library via PowerFlow's low code/no code capability for composing and executing complex workflows. Moreover, customers can leverage machine learning-based behavioral correlation to make recommendations about next steps based on past actions.

SL1 automations currently include:

- Automation in support of incident team communication
- Runbook or IT process automation
- Automated remediation and proactive service resolution
- Workflow within and across IT

- Configuration automation via tools such as Chef and Puppet
- Autoscaling capacity optimization
- Automation in support of discovery, data assimilation, and diagnostics collection

SL1 application support depends in part upon critical application performance management (APM) integrations, such as those with AppDynamics, Dynatrace, and New Relic. It also utilizes growing capabilities for application performance monitoring and tracing within SL1, including synthetic transaction analysis, with a growing focus on customer and user experience. The vendor views itself as complementary to most APM tools, assimilating both metrics and events as well as interdependencies for dependency mapping, which it brings into its graph database.

For reporting, SL1 offers options for trend analysis, problem area identification, change/impact assessments, business impact assessments, prescriptive recommendations, and auditing past changes and remediation. Mobile access is available through a web-based UI.

VENDOR STRENGTH

Based in Reston, Virginia, ScienceLogic is a fast-growing private company with more than 400 discrete paying customers and revenue growth of more than 100% over the last three years. Its customer base consists primarily of large enterprises and internet service providers, with some reach into mid-tier, spanning North America, Europe, Southeast Asia, and South Africa.

ScienceLogic partners include large consulting firms and systems integrators, such as Tata Consultancy Services and IBM. Technology and integration partners are also key since the vendor continues to expand its technology reach. SL1 SaaS is currently hosted in AWS.

STRENGTHS AND LIMITATIONS

STRENGTHS

- ScienceLogic SL1 has proven itself to be an AIOps leader in incident, performance, and availability management, with compelling reductions in downtime.
- The platform is highly scalable in assimilating thousands of different sources, while also able to bring in more than 10 million data points in less than five minutes.
- SL1's support for public cloud environments is also at the top of the AIOps pack.
- The company's growth rate of more than 100% in revenue over the last three years puts it among the fastest-growing AIOps vendors evaluated.

LIMITATIONS

- Overall, ScienceLogic SL1 should be seen as being optimized for larger enterprises rather than smaller or mid-tier vendors given its higher-end price points and multi-dimensional administration requirements for achieving fully rich AIOps functionality. However, ScienceLogic does offer a much lower priced entry point that allows its customers to start small and build from there.
- Despite its geographic reach, the platform currently supports reporting and visualization in English only out-of-the-box.

CUSTOMER QUOTES

“We evaluated ScienceLogic among other solutions, including those from Micro Focus, IBM, SolarWinds, and Microsoft. ScienceLogic won out not so much on price point per se, but because of SL1’s support for automation, machine learning, integration, the relative ease with which we could achieve our required customizations, and the ability to support almost every technology vendor, which in the end gave us the most bang for the buck.”

“We have been very focused on proactive and intelligent monitoring in our dialogue with customers. I believe we have taken an area that used to be a technical background task and shifted it to one of the main topics for showing how we add value. Our customers are really positive and enjoy seeing real-life examples of what we have improved for other clients. For instance, we show them our live dashboards, featuring health, availability, and risk, along with our ability to be proactive. We can also show them capacity management reporting in a live dashboard. All these features can be collated together across a given customer’s many technology investments. After sharing these features, our clients respond positively and ask how we can offer the same for their business. In essence, ScienceLogic has enabled us to engage with our customer base in a completely different way than before.”

“We have already achieved some excellent success in 2019. Some of these successes include:

- A 60% reduction in the time required to bring new customers on board
- A 50% reduction in the number of incidents during non-business hours
- A 21% reduction in the time required for incident resolution
- A 70% improvement in our own OpEx efficiencies
- A 60% reduction in service-level agreement breaches
- An estimated one million U.S. dollar savings in our annual operational expense
- Overall improved customer experience and service quality”

“Leveraging ScienceLogic SL1 for intelligent business services is a relatively new effort—we have been in production for selected services for five months. But it brings strong added value to some of our more progressive customers because it allows them to map their application infrastructure to critical business services and prioritize accordingly. You might say it provides our customers with a dynamic template to manage according to relevant business outcomes. It also helps us keep well ahead of the curve as an MSP capable of delivering meaningful added value.”

- Comments from a technology and business management professional at a large, European MSP.



CUSTOMER QUOTES



“

“We have 10,000 users across our customer base as we deliver monitoring, management, and other services. After a focused assessment across six different vendors, we chose ScienceLogic SL1 as our management platform. It provides an overlay to integrate the different technologies resident across our customer base where they can see what’s happening and how they should focus their time.”

“We purchased ScienceLogic primarily to promote IT-to-business alignment and business outcomes across cloud and existing infrastructures. It gave us everything we needed, including service outcomes mappings, with awareness into how a particular device might impact a given business service, as well as early warnings and audited insights that support best practices.”

“One of the first values we got from SL1 was bidirectional updates and data sharing with our ServiceNow CMDB.”

“We currently have two individuals dedicated to SL1 to ensure ongoing visibility across our customer base. One is very experienced, and another is a relatively new hire. But across our operations center, virtually everyone can use the tool.”

- Comments from a solution development manager at a European-based IT infrastructure and services provider.

EVALUATION SUMMARY



DEPLOYMENT COST EFFICIENCY: DEPLOYMENT & ADMINISTRATION

EASE OF DEPLOYMENT

PoC Availability	Outstanding
Versatility in Deployment Options	Outstanding
Automation for Deployment	Outstanding
Time for ML to “Learn” the Environment	Outstanding

SUPPORT AND SERVICES

Breadth of Professional Services	Outstanding
Levels of Customer Support	Outstanding
User Groups	Outstanding

EASE OF ADMINISTRATION

FTEs Required for Admin	Strong
Breadth of Support for Data Collection	Outstanding
Ease of Report Creation	Outstanding



PRODUCT STRENGTH: ARCHITECTURE & INTEGRATION

ARCHITECTURE

Breadth of Analytics Technologies Applied	Outstanding
Scalability	Outstanding
Granularity of Data Sequencing	Strong
Range of Data Sources	Outstanding
Breadth of Domain Support	Outstanding
Support for Cloud	Outstanding
Big Data Capabilities	Outstanding
Breadth of Discovery	Strong
Versatility of Dependency Mapping	Outstanding

INTEGRATION/INTEROPERABILITY

Third-Party Integrations	Outstanding
Third-Party Technical Integrations	Outstanding
Third-Party Business Integrations	Solid
Open-Source Integrations	Limited

EVALUATION SUMMARY

FUNCTIONALITY



FEATURES	
Application Support	Outstanding
Business Impact	Strong
Reporting and Visualization	Outstanding
Triage	Outstanding
Change Impact/Optimization	Outstanding
DevOps Support	Solid
Automation	Strong
IT Roles	Outstanding
Business (non-IT) Roles	Outstanding

COST ADVANTAGE



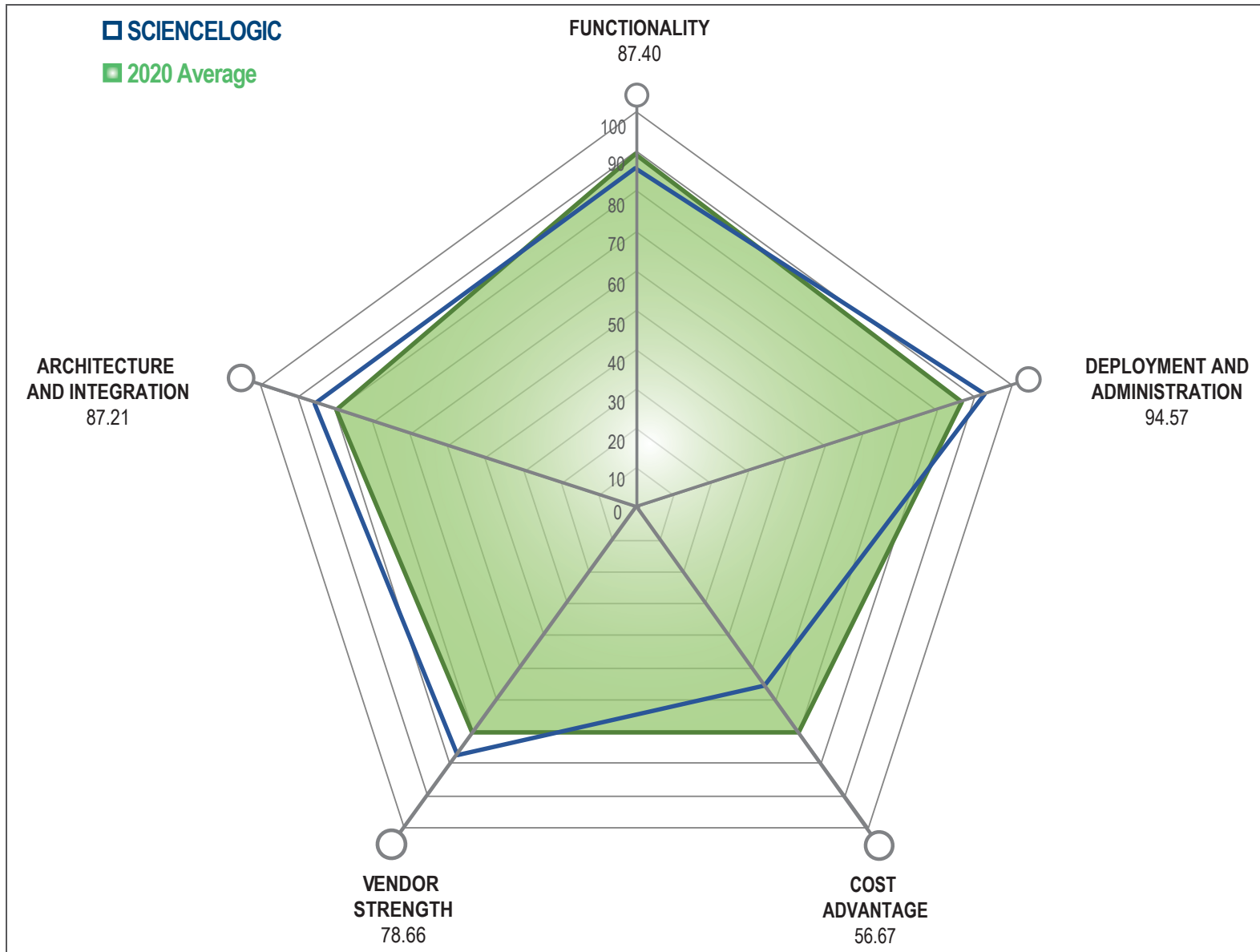
Estimated Cost for 5,000 MEs	\$\$\$\$
Licensing Model	Outstanding
Maintenance Costs	\$\$\$\$\$
Estimated Time for ROI	Strong

VENDOR STRENGTH



Financial Strength	Strong
Research & Development	Outstanding
Market Credibility	Strong
Geographic Coverage	Strong

2020 AIOPS RADAR – AVERAGE OF ALL USE CASES



Research for the Q3 2020 AIOps Radar Report took place starting in Q2 2019. Vendor input is included in the process of updating the measurement criteria. EMA used the following requirements to evaluate the participating vendors. Please keep in mind that these categories were weighted differently, depending on their importance to a versatile and effective AIOps platform, as well as their relevance to each of the three different use cases addressed: Incident, Performance, and Availability Management; Change Impact and Capacity Optimization; and Business Impact and IT-to-Business Alignment.

DEPLOYMENT AND COST-EFFICIENCY

Deployment and Administration

Ease of Deployment

Proof of concept availability: Asks if the vendor offers a PoC prior to deployment.

Versatility in deployment options: Where and how the solution is deployed and instrumented to assimilate data.

Automation for deployment: Automation for such functions as data assimilation, self-learning, configuration, and load balancing, as well as requirements for manual baseline settings and professional services.

Time for ML to “learn” the environment: Time for AI/ML to learn the dynamics of an enterprise environment with 5,000 managed entities.

Support and Services

Breadth of professional services: Breadth of professional services available directly and through partners for deployment and strategic initiatives.

Levels of customer support: From phone to on-premises options.

User groups: Such as formal conferences, ad hoc meetings, and online forums.

Ease of Administration

FTEs required for administration: Requirements for ongoing administration are based on vendor estimates and customer interviews.

Breadth of support for data collection: This examines to what degree a vendor has an effective administrative workbench for creating policies directed at data collection.

Ease of report creation: A look at how such features as templates and drag-and-drop widgets can facilitate report creation for technical and non-technical stakeholders.

Cost Advantage

Estimated cost for 5,000 managed entities: Vendor provided cost estimates, including maintenance fees, that are supplemented by deployment interviews.

Licensing model: Breadth of options such as SaaS, on-premises, and privately hosted.

Estimated time for ROI: Vendor provided estimates for “shortest time to achieve ROI” that are supplemented by deployment interviews.

PRODUCT STRENGTH

Architecture and Integration

Architecture

Breadth of analytics technologies applied: Range and kind of AI/ML heuristics in play, such as anomaly detection, predictive and prescriptive insights, topology-based analytics, and others.

Scalability: Volume of data that can be assimilated within five minutes.

Granularity of data sequencing: What is the shortest interval in which KPIs or other metrics can be sequenced—e.g., real-time, near-real time, or minutes.

Range of data sources: What data sources, such as events, time series, and logs, are assimilated either directly or through third-party integrations.

Breadth of domain support: Span of domain coverage from traditional infrastructures, to virtualized infrastructures and cloud, to applications.

Support for cloud: Support for microservices, virtualized environments, and public cloud-specific vendors, such as AWS, Azure, and Google Cloud.

Big data capabilities: Support for big data lakes and associated technologies for data storage and search.

Breadth of discovery: Discovery as it maps to the full application/infrastructure stack, including cloud.

Versatility of dependency mapping: How application-to-application, infrastructure-to-infrastructure, and application-to-infrastructure interdependencies are captured and kept current.

MEASUREMENT CRITERIA: APPENDIX A

Integrations and Interoperability

Third-party integrations: The number of fully supported third-party toolset integrations overall.

Third-party technical integrations: The types of fully supported technical toolsets, such as those for monitoring, or ITSM, both for importing and exporting.

Third-party business integrations: The types of fully supported business integrations, such as business process systems and financial planning data, both for importing and exporting.

Open-source integrations: The number of open-source integrations supported, such as Kafka, Apache, and Kubernetes.

Functionality

Features and Use Cases

Application support: Breadth of application support in terms of application types, such as web, Web 2.0, custom-developed, virtualized applications, and microservices.

Business impact/business awareness: Natively available logical associations for IT service performance, such as revenue and business process impact.

Reporting and visualization: Types of reports supported out-of-the-box, such as trend analysis, incident team communication, and prescriptive recommendations.

Triage capabilities: Where and how can triage be achieved across the broader application infrastructure, including cloud.

Change impact and capacity optimization: Types of configuration and other changes that can be traced and natively associated with metrics for efficiency, service impact, and infrastructure optimization.

DevOps support: Range of options to support development teams, Q/A test, ITSM, and operations throughout the application lifecycle.

Automation: Breadth of automation options available either directly or through integrations such as workflow, IT process automation, incident team alerting, and configuration automation.

IT roles supported: Domain and cross-domain roles supported in IT, including the IT executive suite.

Business (non-IT) roles supported: Business roles supported, such as application owners, business executives, and digital transformation teams.

Vendor Strength

Financial strength: Ongoing revenue and annual growth.

Research & development: Percentage spent on R&D.

Market credibility: Number of AIOps-relevant customers and range of verticals and company sizes.

Geographic coverage: Geographic customer reach and linguistic support.



About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals, and IT vendors at www.enterprisemanagement.com or blog.enterprisemanagement.com.

Please follow EMA on:



This report in whole or in part may not be duplicated, reproduced, stored in a retrieval system or retransmitted without prior written permission of Enterprise Management Associates, Inc. All opinions and estimates herein constitute our judgement as of this date and are subject to change without notice. Product names mentioned herein may be trademarks and/or registered trademarks of their respective companies. "EMA" and "Enterprise Management Associates" are trademarks of Enterprise Management Associates, Inc. in the United States and other countries.

©2020 Enterprise Management Associates, Inc. All Rights Reserved. EMA™, ENTERPRISE MANAGEMENT ASSOCIATES®, and the mobius symbol are registered trademarks or common-law trademarks of Enterprise Management Associates, Inc.

Corporate Headquarters:

1995 North 57th Court, Suite 120

Boulder, CO 80301

Phone: +1 303.543.9500

www.enterprisemanagement.com

4018.09022020-RRSUMMARY-SCIENCELOGIC



IT & DATA MANAGEMENT RESEARCH,
INDUSTRY ANALYSIS & CONSULTING