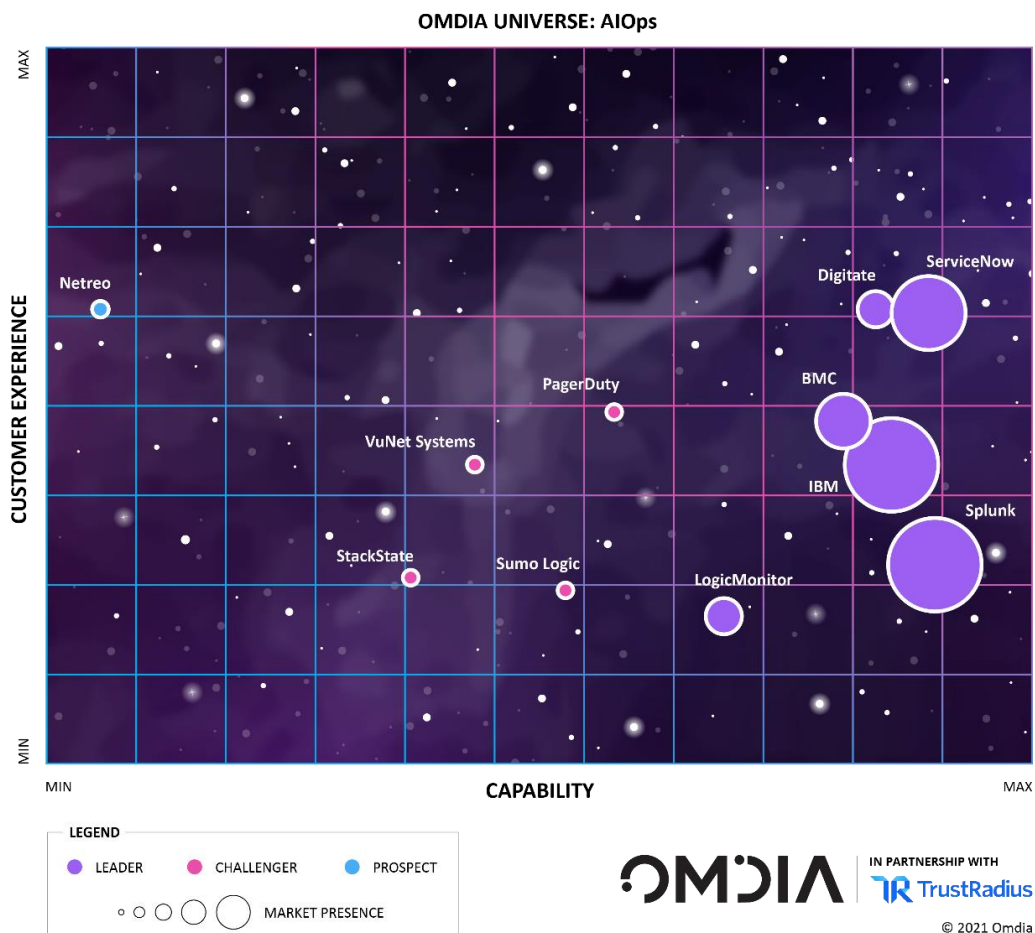# OMDIA
UNIVERSE

Omdia Universe: Selecting an AIOps Solution, 2021–22

OMDIA

Summary

Catalyst

The introduction of the latest technology can be seen as a way for organizations to accelerate growth, increase efficiency, and improve customer service. AI for IT operations (AIOps) is one area where the application of technology, if not matched with organizational maturity and readiness, will fail to deliver all promised benefits. This report provides an analysis of the AIOps market. **Figure 1** shows the diversity in the AIOps market.

Figure 1: The Omdia Universe for AIOps

Source: Omdia

Omdia view

AIOps is an evolving market from many different IT operational management domains. This evolution witnessed the vendors develop initial solutions based on their own domain-specific perceptions of business requirements. However, as the market matured, the domain expertise and perception of requirements changed, and the leading AIOps vendors have all demonstrated a clear understanding of what an AIOps solution must offer to customers. The pleasing aspect of this maturity is a recognition that AIOps must be an open solution that does not demand customers to deploy a single vendors stack of capabilities alone; rather, AIOps can work with existing domain expert systems such as application performance monitoring (APM), etc. to provide a broad and deep perspective of the IT environment.

Omdia can see the potential future evolution of AIOps as branching out to more business and other related areas such as environmental sustainability. While we do not expect all vendors to develop the same capabilities going forward, we expect that several core capabilities will become table stakes. Therefore, this further evolution will be driven by what new business-related problems the vendor solutions can solve and how well they resonate with the customers. It is not inconceivable that AIOps could evolve along industry vertical lines, solving the specific challenges of those verticals. For example, in manufacturing, the need to provide solutions that can deal with low latency across an inhospitable environment, as with industrial IoT and edge, will be more relevant than in banking where mobile and customer experience is more important.

Key messages

- The leaders (see **Table 1**) all recorded a solution breadth score of over 90%, which means that out of the 119 capabilities measured, fewer than 12 were delivered with a minimum capability or not at all.

- BMC recorded the most category leading scores, three in total, while IBM, PagerDuty, and VuNet Systems recorded two and Digitate, ServiceNow, and Splunk recorded one each.

- ServiceNow and Splunk were joint total capability top scorers, being only slightly ahead of BMC and Digitate, which were joint third.

- Splunk was the only vendor to score 100% for solution breadth, meaning it has none of the 119 capabilities that were scored as lower than being a partial capability.

- The difference between the classifications can be characterized as follows: the leaders have the breadth of coverage and a reasonable depth, and the challengers have a reasonable breadth but have at least one area of specific domain expertise, while the prospects are more domain experts and lack the breadth.

- The highest scoring category across all vendors was performance monitoring with an average of 64%.

- The lowest scoring category across all vendors was security operations with an average score of 42%.

Analyzing the AIOps universe

How to use this report

Omdia is a proud advocate of the business benefits derived through technology, and AIOps is at the forefront of realizing benefits for IT operational teams. The Omdia Universe report is not intended to advocate an individual vendor, but rather to guide and inform the selection process to ensure all relevant options are considered and evaluated in an efficient manner. The report findings gravitate toward the customer's perspective and likely requirements, characteristically those of a medium-large multi-national enterprise (5,000+ employees). Typically, deployments are considered across the financial services, TMT technology, media and telecoms, and government sectors, on a global basis.

Market definition

The AIOps market has evolved from many different domain expert systems being developed to provide more holistic capabilities. This report brings Omdia's vision of what an AIOps solution should currently deliver as well as areas we expect AIOps to evolve into. AIOps is a term that has been adopted by the market to define the way IT operations needs to perform in digital enterprises. Omdia defines AIOps as the overarching technology that can bring all the management practices (observability, rapid mitigation, augmented decision making, self-healing, auto-scaling, etc.) in IT together. This concept does not translate to a single person or team that can now perform all these activities; rather, a single view can be obtained, and a single control point established. Omdia clarifies the sector by identifying the key characteristics of an AIOps solution. The current reality of the market is that many different AIOps solutions exist, but they do not all deliver on Omdia's ten key characteristics.

- **Performance monitoring**. One of the starting points for AIOps is IT operational management (ITOM) and the ability to extend its capabilities so that organizations could get insights into how IT systems were performing. Performance monitoring remains a core capability that underpins many of the other capabilities an AIOps solution provides. Understanding how the different elements in a complex IT system are performing means monitoring the complete IT ecosystem. This includes all of the layers involved, such as server, storage, network, customer experience, and application performance.

- **Collaboration.** The purpose of AIOps is to foster a culture of collaboration and sharing between the many different actors involved in the delivery of IT in an organization. The way this is achieved is a key measure of the technology. Omdia considers that an AIOps solution must at its heart be easy to use and enable intuitive sharing of information. As the oversight layer, AIOps must not appear as another layer of management or tooling; rather, it must appear seamless with existing tools. This characteristic in Omdia's opinion should make AIOps almost invisible to

the users. In fact, it should enhance their existing tools and processes, and only in the mature organizations will it become evident by its effect in transforming processes and organizational structures. However, this collaboration must be managed in terms of access control and privileges, which should be hidden from users, who should see only what they need to see and not get swamped in information just because it is available.

- **Data management.** The key requirement of an AIOps solution, as with any AI solution, is that it needs access to data so that it can understand and learn from its environment. The AIOps solution is made up of lots of disparate data sources that it has access to, and it must be able to evaluate the quality of this data and, if needed, to store aggregated views of that data. Omdia considers that the ability to correlate data and identify new insights is a key benefit of using AIOps. This enables IT departments to become faster to identify issues and resolve problems, leading to them becoming proactive in terms of problem resolution. An AIOps solution will need to access data that is kept in log files, configuration management databases (CMDBs), and other data stores such as wire data from network traffic; unstructured data such as support tickets; and real-time streaming data. While Omdia accepts that initially, very few solutions will be able to deal with the whole array of data sources, we do expect these to be incorporated within solutions as demand and the market grow.

- **Security operations.** Understanding the known good behavior of a system is critical to identifying an anomaly such as a security breach that needs to be investigated. The technologies used to identify an anomaly differ from vendor to vendor, but they are basically looking at events, incidents, and resource usage to identify something that does not fit with a known good state. For example, a significant increase in disk I/O activity could be an indication of ransomware that is reading and locking a large quantity of data files.

- **Optimization.** The need for organizations to optimize the IT systems so they can deliver the maximum efficiency and effectiveness has become one of the most visible benefits of AIOps to business leaders. The questions business leaders are asking CIOs about the organization's IT system cover a wide range of different aspects of how the solution optimizes:

  - The cost aspects of delivering IT services?

  - The storage capacity?

  - The computing capacity?

  - The network (capacity and throughput)?

  - The service delivery?

  - The environmental aspects?

  - The solution must be flexible enough to adapt as the questions evolve.

- **Automation.** Having the ability to automate many tasks is one way that IT operations can begin to regain control of a complex and fast-moving environment. Omdia considers that AIOps must

be able to identify the most opportune tasks that can and should be automated. The expectation is that as the use of AI increases, the ability to automate more tasks will be enabled. Omdia expects the AIOps solution to support many different levels of automation from simply alerting an administrator to the need to act through to complete process automation driven by learned behaviors. The level of maturity in the organization will determine exactly how it uses automation (for more details, please read *Understanding the People and Process Challenges with Deploying Data Center Automation Technologies*). The AIOps solution must be able to match the level of maturity the organization is operating at.

- **Analytics and alerting.** Omdia considers that as organizations adopt AIOps, the reporting and analysis expectations will change. Omdia expects AIOps to introduce the concept of metric-based reporting and analysis. In metric-based reporting, the organization identifies the key business outcomes and associates the relevant metrics to these in terms of the IT performance. For example, if a business change to a customer-facing application has a potential value of $100,000 per day in increased revenue, then a metric that measures the time from concept to production can be linked to this value. The whole premise behind metric-based reporting and analysis is that IT actions or processes are directly linked to the business activity in some way that can be measured. The adoption of this approach is seen by Omdia as enabling IT departments to transform the role they perform in a business in a measured and meaningful way.

- **Platforms and environments.** The first key characteristic of any AIOps solution is that it must be platform agnostic and operate in all environments. While the ability to operate across 100% of environments is unlikely, Omdia does expect any AIOps solutions to be capable of working across any cloud environment as well as on premises for x86-based workloads. Omdia does not prescribe the architecture of an AIOps solution; it can be a control plane based in a cloud in a software as a service-like (SaaS-like) delivery or an on-premises installation. The key characteristic is that it has reach and visibility across all the environments the operational IT department is responsible for managing. This reach should also extend to the IT development teams, and it should work with the most popular development platforms for cloud-native and traditional application development.

- **Operational management.** The whole idea behind AIOps is that it uses application programming interface-based (API-based) integration to extend to all the areas of IT operational activity. AIOps is not a suite of solutions that will rip and replace existing management tooling; rather, it is a thin meta-data management layer that connects all these activities and uses AI technology to improve the business of IT delivery. While the first AIOps solutions are focused on those areas that represent the biggest opportunities for organizations, AIOps will, by being able to deal with complexity effectively, extend to cover other aspects and allow the organization to operate at higher maturity levels.

- **Compliance and privacy.** An area of increasing use for AIOps is the security and compliance management space. Understanding when equipment is out of compliance or when an unusual event has occurred are key capabilities that can shorten the time from a known incident to a resolution. In terms of compliance, the ability to know the state of any system as it relates to

patch level, the workloads executing on it, and its criticality provides useful inputs to the process of deciding when a system should be patched.

Market dynamics

AIOps is a relatively new market that has evolved from a number of different operational management and automation technologies. AIOps is also a response from these domain expert systems to the rise in cloud-native applications and the use of cloud computing that has added a layer of complexity to the role of IT operations. The three key management technologies the market has evolved from are IT operational analytics (ITOA), IT operational management (ITOM), and IT service management (ITSM), all underpinned by an automation and workflow capability. As such, the market is crowded with many small startups and a few larger well-known management vendors that have developed an AIOps capability. The AIOps Universe leaders include those vendors that have expanded their existing solutions, from whatever starting point, and extended the AIOps capabilities to all three of the management technologies that underpin it. The challengers and prospects demonstrate a strength in one or two of these management areas, or a less comprehensive set of capabilities across all three.

Table 1: Vendor rankings in the AIOps Universe

Vendor	Product(s) evaluated
Leaders	
BMC	BMC Helix, TrueSight & AMI Suites
Digitate	ignio
IBM	IBM Cloud Pak for Watson AIOps and Instana
LogicMonitor	LogicMonitor v. 152
ServiceNow	ServiceNow ITOM Predictive AIOps
Splunk	Splunk AIOps
Challengers	
PagerDuty	PagerDuty Event Intelligence
StackState	StackState
Sumo Logic	Sumo Logic AIOps
VuNet Systems	VuNet Systems
Prospects	
Netreo	Netreo, Stackify by Netreo

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Source: Omdia

Market leaders

The market leaders all scored above 90% for solution breadth and greater than 65% for total capability (see **Table 1**). The common trait the leaders shared was a comprehensive solution that has no significant gaps in capability. It comes as no surprise that the leaders between them accounted for more than 64% of the category leading scores. However, some of the prospects and challengers were equally as good in specific categories. The value of the leaders is they can accommodate any specific requirement a customer may expect from AIOps, but they may not be the best in that category. In essence, the leaders are very good all-rounders and provide a breadth of coverage with a good degree of depth.

Market challengers

The market challengers all scored above 70% for solution breadth and greater than 50% for total capability. The challengers all had at least two categories where they performed below the average, but these were not always within the same categories. The market challengers represent slightly lower all-round ability than the leaders, and while they may have some strengths that are equal to or better than the leaders, they have some categories where they either do not provide solutions or are still evolving. The market challengers provide some greater depth in one or more specific area but lack the comprehensive breadth of the leaders.

Market prospects

The market prospects all scored below 70% for solution breadth and below 50% for total capability; the key characteristic from the prospects is that they have some strong categories but also at least four categories where they performed well below the average. The market prospects are more domain-specific experts in one area and lack the breadth of coverage of the leaders or challengers.

Market outlook

According to Omdia's *Software-Market-Forecasts: Infrastructure, 2019–24,* the AIOps market was worth $913 million in 2020 and it is rapidly growing (2019–24 CAGR of 25.4%). The AIOps market is forecast to be worth $2.3 billion globally by 2024; however, its adoption is not uniform across all market verticals. Healthcare (2019–24 CAGR of 30%) and media and entertainment (2019–24 CAGR of 32%) represent the leading verticals, while energy (2019–24 CAGR of 16%) and professional services (2019–24 CAGR of 18%) are the markets with the slowest adoption. Omdia considers the variation in adoption rates reflects the maturity of these industry verticals when it comes to digital transformation of both the business and IT operations.

`Vendor analysis

Definition of the categories used for classification

The Omdia Universe uses three dimensions to position a vendor; capabilities, customer experience, and market presence (see **Figure 1**). The individual vendor diagrams (see **Figure 2** to **Figure 12**) show how the vendor scored compared to the average and maximum for that category. The diagrams show the following categories:

- **Solution capability**: This is the total capability score from all the capability subcategories the vendor was assessed against.

- **Solution breadth**: This is a calculated score based on the percentage of scores the vendor obtained for all questions at partial capability and above.

- **Solution innovation**: This is a calculated score based the percentage of scores the vendor obtained for all questions at advanced capability.

- **Strategy and roadmap**: This capability is an analyst assessment based on a briefing with the vendor and the response to selected questions in the vendor's submission.

- **Recommendation:** This is the average score from customer feedback survey on the question of willingness to recommend the vendor.

- **Product experience:** This is an average score from the customer feedback survey to a number of questions relating to the product, such as product quality, product usability, etc.

- **Vendor experience:** This is an average score from the customer feedback survey to a number of questions relating to the vendor, such as pricing policy, customer support, etc.

- **Market presence**: This is a measure of the relative size of the vendor in terms of revenue for products in this market.

BMC (Omdia recommendation: Leader)

Product(s): BMC Helix, TrueSight & AMI Suites

BMC should appear on your shortlist if you want a solid all-round solution that operates from mobile to mainframe environments
BMC was one of the most consistent vendors in the Omdia Universe; all of its category scores were above 50% and were within a 20% band ranging from 50% to 70% (see **Figure 2**). BMC is classified as

a leader and recorded three top category scores and a customer experience score of 87%. BMC has a wide and inclusive range of ITOM capabilities ranging from BMC Helix ITSM to TrueSight Operations Management and BMC AMI solutions. This breadth of coverage from mobile to mainframe and connection to the IT operational activities puts it in a strong position in terms of market recognition and demonstrates that it has the experience needed to manage and operate a heterogeneous IT estate. BMC's AIOps approach is to reduce the signal to noise ratio that IT administrators have to deal with on a daily basis so that they can be more responsive to incidents and root cause analysis. In fact, BMC has made its solution capable of preventing incidents from causing serious business impact by a combination of predictive alerts and automated responses. This approach is delivering the correct balance for where the IT department is on its transformation journey—moving from siloed domain experts to a more collaborative cross-domain approach to IT operational management.

Figure 2: Omdia Universe ratings – BMC

OMDIA UNIVERSE VENDOR SUMMARY

BMC: AIOps

LEADER

| BMC | AVERAGE SCORE | MAXIMUM SCORE |

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Source: Omdia

Strengths

BMC's strongest category was performance monitoring where it scored 70%, which given BMC's heritage in IT operational management, was no surprise. BMC was particularly strong in the application monitoring space, which is not an area traditionally associated with BMC. Omdia considers the comprehensive approach by BMC to collecting application performance metrics is worthy of note. BMC captures a range of different metrics such as transaction tracing, web server health metrics, application server health metrics, and database server health metrics. These metrics are collected using either the BMC agent or via the intelligent integration component. The intelligent integration component is used to ingest metrics, events, resources, and topology from third-party

APM solutions like Dynatrace, SolarWinds, etc. However, just gathering the metrics is not sufficient; it is how these are corelated and used to deliver deep application performance visibility that is where BMC adds the value. By providing this level of visibility, organizations can pinpoint which users, transactions, and application calls are affected by changes and are affecting performance. This is one of the reasons BMC can perform proactive problem solving, which leads to faster issue resolution. BMC's joint strongest category, with 70%, was collaboration. Omdia considered that BMC provided several valuable tools to facilitate cross-team collaboration.

- The cross-functional BMC Helix Dashboards (based on Grafana) enables users across teams to combine service, operations, and security data into configurable views. For instance, service owners can configure a dashboard that shows the open incidents, events, metrics, insecure configurations, and necessary patches for the systems supporting their business services.

- The solution also has intelligent swarming capabilities integrated with Microsoft Teams to improve cross-team collaboration for critical incidents. When a high priority issues arrives, the support agent initiates a team conversation, or a swarm, in the appropriate channel in Microsoft Teams. The BMC ChatOps bot interacts with IT service management (ITSM) and lists people who have worked on similar tickets or have the necessary expertise. The agents and experts in the swarm can search for information using the natural language processing (NLP) capabilities in ITSM user interface (UI). After the issue is solved, the support agent associates the necessary contextual information and updates the incident directly from the chat.

Limitations
BMC's weakest category, with a score of 50%, was platforms and environments. It was BMC's lack of native support for any application testing automation solutions that affected its score. However, because nearly all test automation solutions have native integrations to Jenkins, BMC's Jenkins integration gives indirect support for nearly all test automation solutions.

Opportunities
Omdia considers that BMC could enhance its offering to provide more assistance to customers in right-sizing environments for workloads. BMC does provide documentation that helps organizations with deployment sizing guidance based on the use cases that will be implemented and the scale of the environment. Customers can use this guidance as well as current and future projections to define infrastructure plans. However, by comparison to other AIOps vendors, BMC's approach is too generic and needs to be more automated. Omdia believes BMC has the technologies and expertise to make this more of an integrated dynamic offering.

Threats
BMC's biggest threat does not come from any specific competitor; rather, it is making sure it can continue to appeal to the wide audience it serves and remain relevant to them. As new technologies are developed and adopted, specialist solutions are spawned, and this, in turn, forces the holistic vendors like BMC to add support for these as the technologies become adopted. The issue is that supporting all environments means complexity in terms of products and capability. The challenge for BMC is how to accommodate all these diverse environments in a solution that is simple to use and easy to navigate.

Methodology

Omdia Universe

The process for writing a Universe is long and time consuming; it involves the following:

- Omdia analysts perform an in-depth review of the market using Omdia's market forecasting data and Omdia's enterprise insights survey data.

- Omdia creates a matrix of capabilities, attributes, and features that it considers to be important now and in the next 12–18 months for the market.

- Vendors are interviewed and provide in-depth briefings on the current solutions and future plans.

- Analysts supplement these briefings with other information obtained from industry events and user conferences.

- The Universe is peer reviewed by other Omdia analysts before being proofread by a team of dedicated editors.

Inclusion criteria

The criteria for inclusion of a vendor solution in the Omdia Universe for AIOps 2021–22 are as follows:

Inclusion criteria

- The vendor must be a global vendor and have customers in two of the three regions: Asia & Oceania, Europe, Middle East & Africa (EMEA), and North America.

- The vendor must have at least 100 customers, and they must be a mixture of mid-sized enterprises and large enterprises.

Exclusion criteria

- The vendor's solution is only applicable to five of ten different classifications in the features questionnaire.

- The vendor's solution is more than 33% made up from partner solutions or third-party solutions.

- The vendor solutions are "white labeled" and not sold as a branded solution.

Appendix

Further reading

Software Market Forecast: Infrastructure, 2019–24 (September 2020)

Omdia Decision Matrix Selecting an Enterprise ML Development Platform, 2020–21 (March 2020)

AIOPs Transforming the Role of IT (March 2019)

Data Center Network Strategies & Leadership North American Survey – 2020 (March 2021)

IoT, Cloud, AI & 5G – IT Enterprise Insights 2021 (September 2020)

Understanding the People and Process Challenges with Deploying Data Center Automation Technologies (March 2021)

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Omdia consulting

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