The Maturity Of Observability Is Not Where You Think It Is

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While the topic of Observability has gained a lot of attention in the tech communities, the enterprises adoption varies greatly. We at Research In Action have survey 1,500 global decision makers across the various roles of IT and found that only eight percent of companies are using observability in production. Here is a quick summary of what we found:

- Thirty-seven percent of our survey participants say that they are familiar or very familiar with the topic of observability.

- Sixteen percent are currently (May 2022) evangelizing the topic in their company.

- Eighteen percent are piloting Observability Platforms.

- Eleven percent think the topic is all hype and twelve percent don't really understand what it is and are confused.

The Observability Topic and Approach Must be Presented Showing Benefits

While many organizations still leverage fragmented monitoring approaches across their organization, the results in limited insights into the performance of modern hybrid cloud applications and other business critical resources is challenging progress in the digital transformation. The education, best practices and case studies must be showing success and benefits for the combined team of development, IT operations and business to gain adoption and to accelerate this space.

But Observability is Essential for Enterprise Growth and is not an Option but a Necessity

In the current economic context, productivity gains are key elements of the growth equation. Studies have shown that productivity depends more on technological changes and economy of scale than any other factor. Thus, an increase in IT performance management and service assurance can only come from better tools and technologies. The current situation shows that:

- Knowledge about infrastructure management becomes widespread. This has led to a commoditization of infrastructure management, as witnessed by the availability of numerous open source and commodity solutions. Hardware infrastructure monitoring is consequently no longer a central issue but a mature and controlled discipline.

- The focus has shifted to the entire application stack. End user experience defines the quality of the overall service. The hardware-software combination that represents the service dependencies has become more important. With pure infrastructure management being widely available, the focus

has now shifted to other dependencies such as the middleware that ties application pieces together and the application code itself.

- Hybrid cloud environments keeps performance and health visibility challenging. The use of hybrid cloud for parts or whole transactional applications added another disruptive element to the performance equation.

- Complexity requires adoption of observability. The adoption of microservices and hybrid cloud for parts or whole transactional applications, for better or worse, for many, have become the default architectural choice. For organizations with autonomous teams and loosely coupled systems, microservices can work well, but they bring the complexity inherent in working with any distributed system. One challenge is to pinpoint the source of a problem and therefore steps to increase the observability of applications and its supporting infrastructure must be prioritized.

- The emergence of OpenTelemetry impacts the monitoring space. OpenTelemetry was formed through the merger of OpenTracing and OpenCensus and today has broad vendor and language support, providing standardization as to what the distributed telemetry data looks like. Many IT organizations are faced with tremendous complexity in the infrastructure and applications they are collecting telemetry from. The adoption of observability hinges on processes and frameworks that make the instrumentation of applications and infrastructure easier. Observability must be more about data analysis and experience management than instrumentation, which can only be achieved if there are standards across telemetry data.

From our research we know, the following capabilities and priorities are essential for IT professionals responsible for service assurance, application performance, and health:

- Getting alerted on problems before the end user is affected. The old way of receiving a vast majority of performance alerts coming from users calling the service desk is unsustainable in the digital economy. IT teams are looking for increased visibility and proactive operational insights across multiple business services, application stacks, infrastructure platforms and more. This requires an updated of existing performance management tools.

- Being pointed in the right direction. Technology specialization is required in today's IT operations, but it has the unfortunate side effect of making it difficult to correlate the myriad of data coming from the different pieces of the service. This leads to wasted resources and delays in resolving performance issues. One key priority for the adoption of Observability Platforms our survey respondents told us was to improve how data is collected.

- Service health and application performance comes from multiple sources. Originally and logically, application performance management was aimed at monitoring and controlling what was

perceived as the weakest link in the service chain: the applications servers itself. But IT teams know that if the application part might create issues, other problems across the infrastructure, messaging or integration technologies, or capacity and configuration errors play an equal role as potential sources of performance lapses at the business user level.

- Improving event data and analytics. Nineteen percent of our survey respondents said that their number one priority related to their current observability strategy is to improve event data and analytics. Data collected in real time from different application or business service components is notably impossible to "integrate", as it comes from different devices at different frequencies. Reducing the sample by using some form of aggregation, such as transaction topology mapping leads to a better mathematical analysis and hopefully helps localize the performance problem.

- Improving how data is presented. As there are many different constituencies across IT and the business who are all interested in understanding real and historic data across applications and services, value streams and product offerings, the presentation of the data needs to be contextual to the audience. Nine percent of our survey respondents indicated that this is the number one priority related to their current observability strategy.

The best Observability Platform Means Different Things to Different People

An important step should be to understand the definition and the capabilities of an Observability Platform. Here is how we at Research In Action define Observability Platforms:

Observability Platforms provide visibility across a variety of details to pinpoint why there is a problem. The platforms typically leverage real and historical data from across the infrastructure and applications such as metrics, traces, histograms, logs, and events. Software solutions which fall into the observability platform category must be able to understand what is happening within a system by observing the outputs of such.

The focus of Observability Platforms is leveraging the data across the value chain of software delivery including the macro steps of ideate, create, release, and operate within modern hybrid environments.

The essential capabilities of an Observability Platform should include the following key capabilities:

- Telemetry is collected across distributed data sources as observability output

- Observability output analytics through ingestion of many data points across modern hybrid and legacy environments (applications, infrastructure, security, etc.)

- Integration into existing tooling or other management domain solutions already existing

- Leverages synthetic and real-user monitoring

- Correlates customer and business metrics to application and infrastructure performance

- Leverages Machine Learning and AI to analyze volume of metrics (this is optional as much of this is part of AIOps solutions)

Observability is Big Business

There are so many tools and vendors offering Observability platforms and solutions out there, so how do you choose? No matter if you are part of an Infrastructure and Operations team, Site Reliability Engineering, DevOps or a Developer, the Observability platform is (or will become) one of the most important tools because Observability can help improve customer experience, improve processes, and accelerate incident and problem resolution. But what about the investments you have made into the other topics such as AIOps or monitoring solutions?

- Observability is more of an attribute than a process. Observability goes hand in hand with Application Performance Monitoring & Management (APM). APM provides visibility into the performance of system components through the collection and analysis of traditional system metrics. These metrics provide the insights that help make the system observable. Making a system observable is achieved in part through the implementation of a robust APM strategy but Observability is more of a state than a process. A system is observable when its state can be easily determined without further implementations.

- Don't confuse APM with Observability. APM is part of the tooling and processes which enable the observability of systems. While APM does not need to be part of the Observability platform, its output are essential metrics for observability.

FIGURE 1: CONTINUOUS HYBRID IT MONITORING (CHITM):
COMBINATION OF TRADITIONAL MONITORING, OBSERVABILITY AND AIOPS LEVERAGING REAL TIME AND HISTORICAL DATA
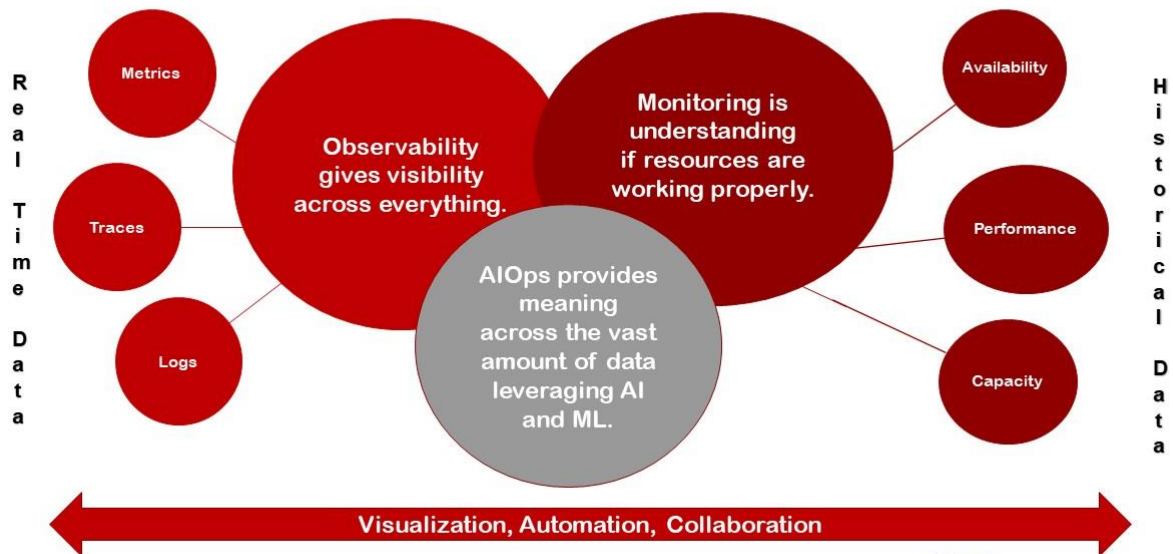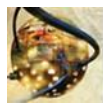
- The new era of Continuous Hybrid IT Monitoring. While AIOps is still seen somewhat of a different topic and market, we believe that AIOps is (or should be) a capability within an Observability Platform as it adds additional meaning to the data leveraging Artificial Intelligence and Machine Learning (see Figure 1).

Dig Into the Vendors and Their Observability Platform

The top Observability Platform vendors have great vision, continuously innovate, and approach the market with thought leadership and think ahead to market and industry changes. If you are spending a significant amount of money on Observability solutions, your goals should be to improve your existing application and infrastructure performance monitoring and improve the visibility across the business and technology ecosystem. Therefore, the second step is to ask the vendors a variety of questions:

- How will the tool vendor help to up your organization's service assurance, application performance or existing application performance monitoring game?

- How does the vendor intend to stay relevant? How poised are they to evolve with the market?

- Does the vendor provide new ideas and innovations or are they more about optimizing your existing processes?

- Will the vendor be able to assist in the delivery of new best practice practices such as SRE, DevSecOps, etc.?

- How about the ease of use, adaptability and how customizable is the tool?

- How does the vendor assist with changes and new releases?

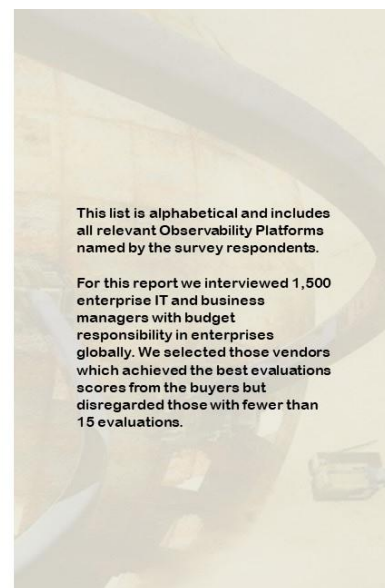**The Top Global Observability Platforms**

VENDOR SELECTION MATRIX™
FIGURE 2: OBSERVABILITY PLATFORMS

These are the Top vendors as selected by 1,500 buyer companies users based upon product, company and service quality.

VENDOR NAME	SOLUTION
BMC	BMC Helix
BROADCOM	AIOps from Broadcom
CATCHPOINT	Catchpoint Platform
CISCO APPDYNAMICS	AppDynamics Platform
DATADOG	Datadog Observability Platform
DYNATRACE	Dynatrace Software Intelligence Platform
IBM	IBM Observability by Instana
MICRO FOCUS	Micro Focus Operations Bridge
MICROSOFT	Azur Monitor
MOOGSOFT	Moogsoft Cloud
NEW RELIC	New Relic One Platform
OPSRAMP	OpsRamp Platform
ORACLE	Oracle Cloud Observability and Management Platform
RIVERBED	Alluvio by Riverbed
SOLARWINDS	Appoptics Platform
SPLUNK	Splunk Observability
STACKSTATE	StackState Observability Platform
SUMO LOGIC	Sumo Logic Continous Intelligence Platform
ZENOSS	Zenoss Cloud

This list is alphabetical and includes all relevant Observability Platforms named by the survey respondents.

For this report we interviewed 1,500 enterprise IT and business managers with budget responsibility in enterprises globally. We selected those vendors which achieved the best evaluations scores from the buyers but disregarded those with fewer than 15 evaluations.

NOTE: If a vendor does not respond, Research in Action will complete its scoring assessment based on analyst experience and desk research. The vendor's products and quick facts will be documented in the report, though a vendor scorecard will not be written.
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RESEARCH IN ACTION
vendor selection matrix®

We have researched the Observability Platforms and are sharing the findings as a guide to important Observability market trends, and key top global Observability Platforms as selected by 1,500 buyer companies based upon product, company, and service quality (see Figure 2).

The research should help you to determine which Observability Platforms fit your requirements for an observability journey. This study should be used as a starting point before a more detailed evaluation of Observability Platforms.

Stay connected.

Sincerely,

Eveline Oehrlich