

A Call for the Development of an International Standard for the Management of AIOps Systems

- Abstract Paper -

Blind Review

Abstract- In this abstract paper, we discuss the need for developing an international standard for the management of an AIOps system. We argue that a standard would drive innovation, increase productivity, and improve operational excellence. We discuss the focus of the standard, which goes beyond the technical requirements of AIOps tools to include the governance, process, and people aspects.

Keywords—AIOps, IT standardization, IT management systems.

I. WHY A STANDARD FOR AIOPS

Artificial Intelligence for IT operations (AIOps) is defined as the use of AI and data analytics to improve and automate the operations of IT systems [1][2]. AIOps has gained traction in recent years due to the complexity of contemporary IT infrastructures that rely on advanced distributed architectures, cloud computing, and virtualization and containerization. AIOps leverages AI to support a range of IT operations including anomaly detection, incident report management, root cause analysis, and recommendation of mitigation actions [1]. Despite the many advantages offered by AIOps, there is no common framework that provides guidance to organizations on how to adopt and manage an AIOps solution. By solution, we go beyond the technical requirements of AIOps to include the governance, process, people aspects of AIOps.

In this abstract paper, we argue for the necessity of developing a unified standard to guide the adoption and management of AIOps solutions in organizations using best practices and guidelines. There are many advantages of having a standard for the management of AIOps solutions including:

- A standard can provide a structured approach to manage risks and opportunities associated with AIOps.
- An AIOps standard can promote innovation by enabling solution providers to develop AIOps solutions more efficiently based on best practices and guidelines.
- The development of an AIOps standard is crucial for determining the quality of AIOps solutions, which, in turn, provides organizations with the necessary assurances to maintain their confidence in the solution providers.
- An AIOps standard can be used in conjunction with other IT-related standards, such as ITIL (Information Technology Infrastructure Library), ISO 270001 (an

international standard to manage information security), and ISO 42001 (the recently standard on Management of AI Systems)¹, helping organizations benefit from the full potential of these standards.

II. COMPONENTS OF AN AIOPS STANDARD

The standard should include a clear definition of AIOps and its scope and provide a common language for describing AIOps concepts in the form of a standardized vocabulary. Currently the scope of AIOps overlaps with many other fields such as DevSecOps, DevOps, DataOps, etc. It would be useful to have a clear definition of AIOps while determining its boundaries with respect to other fields. AIOps concepts including telemetry data, incident reports, performance measurements should also be clearly defined to guide the development of consistent solutions and methods. Additionally, the standard should define performance criteria against which organizations can assess the performance of an AIOps solution from the technical perspective.

The standard should also address the governance and process aspects of an AIOps solution. The governance aspect of the standard should provide organizations with tools to help them define the mission and vision of an AIOps solution, assess their capabilities in implementing and maintaining such a solution, and align their AIOps solution with the strategic directions of the company. The main focus of the process component is to define organizational processes that should be put in place for day-to-day operations of an AIOps solution. These processes should be mapped so that it is easy to spot inefficiency and identify opportunities for process improvement. Finally, the standard should define roles and responsibilities of the people who use, manage, and oversee an AIOps solution.

REFERENCES

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- [2] Gartner report on AIOps, URL <https://www.gartner.com/en/information-technology/glossary/aio-ps-artificial-intelligence-operations>

¹ <https://www.iso.org/standard/81230.html>