Infographic: Artificial Intelligence Use-Case Prism for AIOps

Published 2 March 2021 - ID G00743002 - 2 min read

Josh Chessman

Initiatives: Artificial Intelligence

This infographic identifies 17 use cases that are directly relevant to infrastructure and operations leaders. I&O leaders can leverage this information to identify the best AIOps use cases for their organizations based on each use case's feasibility and business value.

Additional Perspectives

- Summary Translation: Infographic: Artificial Intelligence Use-Case Prism for AIOps (26 March 2021)

More on This Topic

This is part of an in-depth collection of research. See the collection:

- Applying AI in Business Domains

Figure 1: AIOps Use-Case Prism

Use-Case Glossary

The above infographic highlights the following most relevant use cases for the artificial intelligence for IT operations (AIOps) space:

- Accelerate Remediation — Different from RCA in that you are not permanently resolving the issue but instead identifying causal factors of the anomaly to enable a quick fix and faster mean time to repair (MTTR).
- AIOps-Based ChatOps — Convergence and conversion of operations to natural language.

- Alert/Event Reduction — Aggregate tightly correlated events and alarms to reduce the number of notifications associated with a single event.
- Anomaly Detection — Identify anomalous signals, logs and metrics.
- App Predictive Availability — Predict when an application will fail or become unavailable for a foreseeable event.
- App Predictive Capacity — Predict the amount of system resources or service instances that will be required to address seasonal application trends.
- Hacking Attempt Identification — Identify when traffic patterns indicate suspicious traffic.
- Identify Problem Cause — Identify the cause of issues so eliminating the cause will ensure the issue never occurs again.
- Incident Remediation — Resolve identified issues based on root cause analysis (RCA) using automation.
- Infrastructure Predictive Availability — Predict when infrastructure components will fail or become unavailable for a foreseeable event.
- Infrastructure Predictive Capacity — Predict for capacity issues impacting infrastructure resulting from changes, including new applications, updates and seasonal changes.
- Intelligent Alert Escalation and Routing — Prioritize alerts and identify correct resources to notify.
- Network Predictive Availability — Predict when networks will fail.
- Network Predictive Capacity — Predict for network capacity needs.
- Ransomware Attack Prevention — Predict if ransomware is attempting or succeeding in encrypting data and start defense.
- Self-Healing Things — Systems that identify problems and their root cause and automatically resolve issues. This is a combination of alert/event reduction, alert escalation, incident remediation, diagnostic capabilities and RCA.
- User Experience Impact Analysis — Understand how infrastructure and application performance monitoring (APM) impacts user experience.

About This Research

I&O leaders should review this list of AI use cases, comparing it with the maturity and requirements of their own organization:

- Each use case listed toward the top of the prism has a great combination of business value and feasibility. Organizations ignoring these use cases must have good justifications for doing so (e.g., they have already matured or outsourced those processes).
- Use cases at the bottom of the prism do not score well. Organizations may not want to emphasize these use cases unless they have good reasons (e.g., they have exhausted all other use cases).

Please note: These use cases have been selected and positioned based on an assessment by Gartner analysts and customer feedback. Their applicability may vary across organizations and industries. For detailed customization, use Gartner's prism toolkit (see Toolkit: How to Rank and Prioritize Your Use Cases With a Gartner Prism).

Recommended by the Authors

Solution Path for Adopting AIOps

Market Guide for AIOps Platforms

Uncovering Artificial Intelligence Business Opportunities in Over 20 Industries and Business Domains

Toolkit: How to Rank and Prioritize Your Use Cases With a Gartner Prism

Automate Incident Response to Enhance Incident Management

© 2021 Gartner, Inc. and/or its affiliates. All rights reserved. Gartner is a registered trademark of Gartner, Inc. and its affiliates. This publication may not be reproduced or distributed in any form without Gartner's prior written permission. It consists of the opinions of Gartner's research organization, which should not be construed as statements of fact. While the information contained in this publication has been obtained from sources believed to be reliable, Gartner disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although Gartner research may address legal and financial issues, Gartner does not provide legal or investment advice and its research should not be construed or used as such. Your access and use of this publication are governed by Gartner's Usage Policy. Gartner prides itself on its reputation for independence and objectivity. Its research is produced independently by its research organization without input or influence from any third party. For further information, see "Guiding Principles on Independence and Objectivity."