Multi-cloud, modern apps introduce new challenges

Manual processes with siloed tools and a lack of visibility increase risk, friction and cost of cloud environments:

- 30 percent of organizations plan to make significant investments in AIOps over the next 12 to 18 months.¹
- 47 percent of respondents say they prefer a single, consolidated platform for observability. However, less than 2 percent use a single observability tool.²
- 52 percent of respondents said they planned to increase budgets to improve observability.²

VMware Tanzu Insights benefits

Increase efficiency through actionable business insights:

- AI/ML-based, early-issue detection
- Deep troubleshooting analysis for key Kubernetes issues
- Unified experience to enable proactive operations and tuning
- Quicker root-cause determination through full-stack event correlation
- Rapid identification of impact, causality and symptoms

VMware Tanzu Insights for Multi-Cloud Management

Drive operational efficiencies with actionable and intelligent insights

Disconnected data, siloed tools, and long mean time to resolution

Although the use of cloud native applications has connected many distributed workforces and boosted business, it leaves engineers and teams with a higher volume of complex data to analyze, observe and interpret to maintain their dynamic, multi-cloud environments. Due to new features and innovative capabilities, applications grow in complexity, making it difficult for organizations to understand what is going on in their systems. On average, an organization uses 12 different monitoring tools³ to gain greater visibility into applications, but many struggle to identify where the problem occurred and why it occurred, and quickly and efficiently troubleshoot it.

Without the right monitoring tools and the right expertise, correlating data and narrowing down the action to resolve can take time and negatively impact the user experience, the application stack, and even business reputation. This has resulted in the adoption of observability tools that go beyond potential issue alerts and focus on understanding and troubleshooting data such as metrics, logs and traces.

As organizations grow, their application stack scales to meet business demands. Different teams, including platform operators, site reliability engineers (SREs), and platform teams, need a solution that provides agility, actionable insights, faster mean time to resolution (MTTR), proactive management with correlated data, and guided workflows for Kubernetes.

Multi-cloud, modern apps introduce new challenges

Gaining access to monitoring and observability tools can help platform teams in comprehending what the current issue is. However, sifting through multiple alerts and extensive data makes it difficult to devise a solution. VMware Tanzu® Insights™ (formerly VMware Aria Insights™) is a comprehensive solution that connects multiple sources of data (VMware Aria Operations™ for Applications,

2. New Relic. "2022 Observability Forecast." Alicia Basteri, Daren Brabham. September 2022.

^{1.} TechTarget. "<u>What's next: Predictions, challenges and IT trends for 2023</u>." Lev Craig. December 29, 2022.

^{3.} TechTarget. "Explore the 2022 application performance monitoring market." Emily Foster. August 4, 2022.

VMware Aria Operations for Logs, metrics, traces) and provides simple, explainable AI/ML-based insights across modern cloud applications and the underlying infrastructure. VMware Tanzu Insights was developed to provide customers with a solution that combines the power of observability solutions and AIOps to enable platform operations, SREs and DevOps teams with meaningful data and insights for deeper troubleshooting for Kubernetes, AWS, and Microsoft Azure environments.





The solution provides a unified platform (see Figure 1), enabling cloud teams to leverage visibility and AI/ML-based insights holistically:

- Gain intelligent observability and actionable insights with rapid identification of impact and causality, along with AI-based early warning and preventative measures, resulting in reduced MTTR.
- Connect relevant data to enable proactive operations and provide a unified experience by bringing together events, traces, metrics and logs. Unify data from app to infrastructure.
- Provide deep issue resolution and analysis for key Kubernetes issues with opinionated and guided workflows.

Key benefits

Eliminate siloed tools for faster issue resolution

As technology continues to evolve, platform operators and SREs face a multitude of tools, dashboards and monitoring systems to manage their application stack and underlying infrastructure. However, these tools often become siloed due to vendor diversity, specialized capabilities, legacy systems, and complex environments. This leaves platform teams and SREs with disconnected data, troubleshooting difficulty, and the responsibility of correlating massive amounts of data from multiple different sources. VMware Tanzu Insights, along with tight integration with VMware Aria Operations for Applications and AIOps, performs in-depth data analysis and provides probable root-cause analysis and guidance on the resolution. This cutting-edge technology optimizes issue resolution and helps teams pinpoint issues, resulting in a faster MTTR.

Reduce IT alert noise and gain valuable insights

Platform operators and their teams often deal with a high volume of alerts and notifications, which can create a lot of unwanted noise in their IT environment. To effectively manage a modern IT stack, multiple tools and various dashboards must be used to assess application performance. However, with so many alerts and notifications, it can be overwhelming to ascertain the starting point of resolution.

VMware Tanzu Insights correlates data from different sources, including VMware and third-party sources, and presents the information in simple, meaningful insights (see Figure 2). This reduces the time platform teams must spend sifting through dashboards and long lists of alerts, making troubleshooting simpler and more efficient.



Figure 2: VMware Tanzu Insights correlates data from multiple sources and presents it as an insight with natural human language.

Simplify troubleshooting with AI/ML-powered remediation

Platform teams spend a significant amount of time troubleshooting their applications to identify problems and the most effective method for remediation. VMware Tanzu Insights provides teams with guided troubleshooting by leveraging the power of AI/ML for remediation recommendation and assistance, and in preemptively addressing potential problems before they escalate. In addition to using AI/ML, generative AI (genAI) is used to help understand where the problem might be and how to best resolve it. The combination of AI/ML and genAI streamlines troubleshooting and empowers teams to proactively manage and resolve any challenges that might arise.

Key features

VMware Tanzu Insights provides value to your teams with the following features.

AI/ML-based insights

VMware Tanzu Insights delivers explainable AI/ML-based insights for deeper and contextual troubleshooting for Kubernetes, AWS and Azure environments. By showcasing data from metrics, logs and traces via VMware Aria Operations for Applications and log alerts, VMware Tanzu Insights provides a unified platform that enables you to leverage deep visibility and AI/ML-based insights holistically, and make informed decisions quickly.

Timeline view

One key advantage of VMware Tanzu Insights is the ability to present events in real-time sequence, eliminating the need for multiple, siloed tools (see Figure 3). Providing access to a single source of truth enables seamless investigation and facilitates efficient issue resolution. Additionally, you can benefit from insightat-a-glance views of trends, empowering you to quickly identify patterns and potential problem areas. The flexibility to filter insights based on status, severity and source further enhances the troubleshooting process.



Figure 3: The timeline view shows an alert's duration and level of severity in the same dashboard.

VMware Tanzu Insights for Multi-Cloud Management

Impact view

To further enhance incident management, the impact view provides a holistic perspective, highlighting the affected applications and resources (see Figure 4). For in-depth analysis and root-cause identification, you can rely on the dedicated troubleshooting workbench, enabling a deep dive into the issues at hand.

Troubleshooting workbench

With many applications and a high volume of data, the troubleshooting workbench is a key feature to help identify the root cause of incidents. With its comprehensive toolkit, you can conduct in-depth investigations, uncover underlying issues, and apply targeted fixes (see Figure 4).



Figure 4: The collaboration between the impact view, which identifies affected resources, and the troubleshooting workbench, which aids in root-cause analysis during in-depth investigations.

Guided insights

VMware Tanzu Insights boosts operational efficiency and simplifies decisionmaking by applying AI/ML and further analysis on the data surfaced on VMware Tanzu Hub™ (formerly VMware Aria Hub™). With the power of genAI, you can proactively remediate problems before they arise, ensuring the reliability of your operational system. VMware Tanzu Insights for Multi-Cloud Management

Summary

Many businesses and their leaders have understood the benefits of a cloud-first strategy. A more distributed workforce and more intricate applications come with the need to address, solve and overcome a world of new complexities. Enterprises and their workforces want access to new features and innovative applications that can all come at a high cost if not properly maintained. Platform engineers and their teams not only have the responsibility of providing a seamless experience for their users and customers, but also must ensure uptime for their applications, perform analysis on data gathered from applications, protect the business and reputation, and be agile in times of problems and critical incidents.

VMware Tanzu Insights provides a unified platform that brings metrics, traces and logs to a single dashboard, and AI/ML-powered reasoning intelligently groups relevant data into a valuable insight, eliminating siloed tools and controlling costs. By implementing VMware Tanzu Insights, you can drive operational efficiency with actionable and intelligent insights. VMware Tanzu Insights takes your business from a cloud-first to a cloud-smart approach to modern applications.

Resources

- Visit the <u>VMware Tanzu Insights webpage</u> for more information, or contact your VMware representative.
- Read the <u>Introducing VMware Tanzu Insights</u> blog post to learn more about what the solution can do for your business.
- Try the <u>free tier</u>.

