

The Dynatrace and Nutanix solution

Dynatrace seamlessly and intelligently monitors Nutanix clusters, applications and hyperconverged infrastructure

Key Benefits

- **Performance optimization** – Collect an array of different metrics that show real-time performance, bottlenecks and proactive optimization.
- **Root cause analysis** – AI-driven analytics and automatic topology show alerts in context, giving the root cause and avoiding alert storms.
- **Improved customer experience** – Nutanix metrics, performance data, and user sessions are correlated and shown in real-time to empower customer service.
- **Custom alerting** – Set custom alert conditions and thresholds so that each cluster and application is monitored to your uniquely defined requirements

Products

- [Intelligent Operations](#)

Solutions

- [Hybrid Multicloud](#)

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Challenge: Cloud complexity and siloed tools

In modern hybrid multicloud environments, the inherent complexity of distributed architectures makes it especially challenging to understand your topology, how services interact and even what services could be affected by an incident.

Organizations commonly rely on environment-specific tools to monitor and manage their infrastructure. However, teams have different levels and quality of data and there is no way to get a holistic view of the entire IT landscape.

According to research from Dynatrace[®], the average organization has 10 or more monitoring tools but only has visibility into 9% of its infrastructure.

With the right tools, you can have seamless insights into your entire technology stack across clouds, across clusters and from the server all the way to the application.

Solution: Observing dynamic clusters from top to bottom

Offering unprecedented visibility, Dynatrace is a game-changer for your Nutanix hybrid multicloud infrastructure. Take for example a deployment scenario where an application front-end is hosted in a public cloud while the back-end operates within a Nutanix cluster. With service- or environment-specific tooling, it can be impossible to correlate events and logs or identify affected services, much less track down and repair the cause.

With Dynatrace, you have a single observability tool across all different environments and at every layer from the hardware to the VMs and clusters to the applications, and even the code itself.

Dynatrace provides essential insights into Nutanix clusters. Powered by a causal AI known as Davis™, Dynatrace sifts through all of its collected metrics, logs, events, and distributed traces to identify the precise root cause of failure.

Additionally, Davis correlates events and can show affected services, user sessions and the overall business impact of an issue. Davis includes predictive AI to forecast trends, potential bottlenecks and optimization. With better analytics, your support and IT teams will be more efficient when addressing issues. This creates more innovative, delightful and intelligent customer experiences.

Business value

Nutanix provides a foundational, unifying platform for hybrid multicloud infrastructures that spans containers, storage and applications. Different users interact with different levels of the infrastructure and have different

goals, expectations and key performance indicators.

For example, IT operations focuses on the health and performance of the underlying cluster while support and end users interact with the application layer. Dynatrace creates a unified view across the entire stack, from cluster to application, and provides a single source of data and analytics. This unified perspective helps foster cross-functional collaboration.

| Use Case | Solution | Benefit |
|---|--|---|
| <p>Get deep insights into your application and code performance</p> | <p>Dynatrace collects performance metrics from Nutanix clusters, including latency, input/output operations per second (IOPS) and network throughput</p> | <ul style="list-style-type: none"> • Monitor performance of infrastructure and applications in real time. • Identify performance bottlenecks, root causes of issues and use AI for recommended actions. • Reduce unplanned downtime. |
| <p>Automate workflows and notifications for faster remediation</p> | <p>Dynatrace works across the infrastructure and can tie into key developer and operational tools like Jira, Slack and ServiceNow as well as build systems like Red Hat Ansible, Puppet and TerraForm.</p> | <ul style="list-style-type: none"> • Automate key elements of the operations lifecycle for faster response times and shorter mean-time-to-recovery (MTTR). |
| <p>Assess and triage incidents to improve the</p> | <p>AI-driven analytics correlate events and logs and trace real-time root cause analysis. Additionally, defining custom alerts allows intelligent monitoring for</p> | <ul style="list-style-type: none"> • Reduce tickets and avoid alert |

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| <p>overall customer experience</p> | <p>bespoke or customized applications.</p> | <p>storms.</p> <ul style="list-style-type: none"> Identify underlying issues accurately and improve MTTR through clear problem identification. |
| <p>Optimize performance and resource utilization across the cluster</p> | <p>By correlating Nutanix metrics with application performance data in Dynatrace, organizations can ensure a seamless user experience. Advanced capabilities in Dynatrace track synthetic and real user-sessions to reveal user experiences.</p> | <ul style="list-style-type: none"> Improve outcomes and control costs by optimizing resource utilization. Improve application performance by evaluating user interactions and outcomes. Improve support with clear insights into session data. |
| <p>Effectively define and manage service-level objectives</p> | <p>Dynatrace comes with native support for SLO monitoring according to Site Reliability Engineering (SRE) fundamentals published by Google. This includes core metrics like current status</p> | <ul style="list-style-type: none"> Define actionable and more relevant objectives and |

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|--------|---|--|
| (SLOs) | and errors within defined timeframes. Additionally, you can create a custom SLO dashboard using available tiles and configurations. | metrics. <ul style="list-style-type: none"> • Report data and performance in a way that is easily communicated across teams. |
|--------|---|--|

Technical solution

The Nutanix extension within Dynatrace provides robust capabilities out of the box:

- Prebuilt monitoring dashboard.
- Unified analytics for key assets, including clusters, networks, storage, hosts, and VMs.
- Predefined alerting rules for capacity thresholds on CPU and memory for key assets.

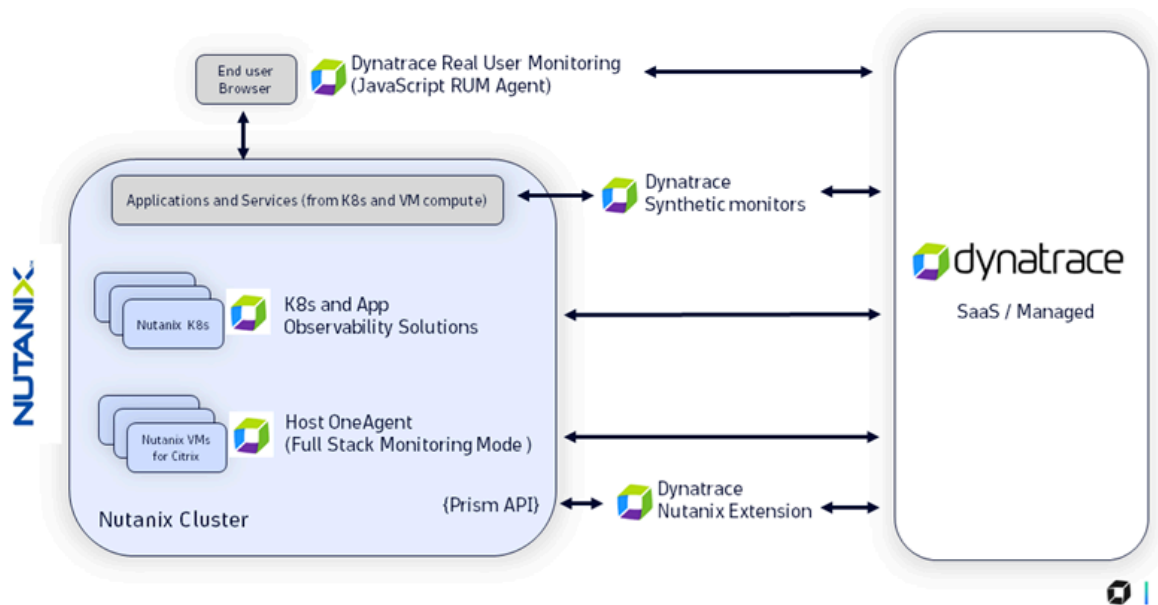
The Nutanix extension tracks metrics and performance at every layer of the infrastructure, from clusters to VMs to applications. Additionally, Dynatrace identifies code-level issues and flags problematic releases or changes to simplify rollback for affected systems.

To extract data, the Nutanix extension connects through the [Nutanix Prism API](#). Because there are different elements within a Nutanix environment, there are different ways that Dynatrace can interact with Nutanix services.

- Deploy OneAgent on VMs and hosts for full-stack monitoring.
- Embed the real user monitoring (RUM) agent in applications to securely track user sessions.
- Create synthetic monitors to track services and define workflows in a way

that mimics common user interactions.

- Monitor containers and containerized services for performance.
- Automatically discover and update the overall topology and view interactions and dependencies between services and applications.



The Nutanix hybrid multicloud infrastructure is manageable through other capabilities within Dynatrace, such as the Kubernetes App for richer cluster observability and the Carbon Footprint App to track resource utilization and areas of cost and energy waste.

Infrastructure observability driven by AI

Together, Dynatrace and Nutanix simplify cloud complexity. Dynatrace enables organizations to innovate faster and more securely with the only analytics and automation platform powered by causal AI. Deep observability, AIOps and application security are combined in one open, unified Nutanix hybrid multicloud platform that continuously delivers precise answers and intelligent automation from data.

To learn more, please visit the Dynatrace Hub: dynatrace.ai/nutanixclusters

NUTANIX

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