

VMware Tanzu Observability provides full-stack monitoring on public cloud and containerized microservices



Tanzu Observability provides private data center monitoring in North America, Europe and Asia



Tanzu Observability measures and monitors SLA for call cloud services



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Tanzu Observability monitors VMware's CI/CD pipeline, including Jenkins servers and more

VMware CMBU

How the VMware cloud engineering team exceeds SLA using VMware Tanzu Observability™

Before Tanzu Observability

In the beginning, the SRE team selected another vendor to monitor the metrics. Though this tool worked for them in the beginning, they ran into issues as they started to scale. As they started growing their microservices and adding more containers, the cost started rising uncontrollably. They were not happy with this vendor's nontransparent pricing with hidden charges, as well as their opaque container pricing. Also, VMware engineers did not like proprietary collection agents and a lack of analytics to customize the packaged dashboards was very limiting.



FIGURE 1: VMware CMBU's metrics.

vmware[®]

ABOUT CMBU

The VMware Cloud Management Business Unit (CMBU) engineering team is responsible for delivering critical cloud services with strict SLA to internal and external stakeholders.

INDUSTRY

Technology

HEADQUARTERS

Palo Alto, California

LEARN MORE

Learn more about VMware Tanzu Observability at *https://tanzu.vmware.com/observability*.

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Transition to Tanzu Observability

Enter Tanzu Observability

As a result of all the above problems, the CMBU decided to try Tanzu Observability. After an initial investment of some engineering effort, the SRE team gradually migrated their critical cloud services to Tanzu Observability in a seamless fashion. Now, CMBU SRE rely solely on Tanzu Observability as their primary platform for full-stack observability. They use Tanzu Observability for reliability and health analysis across all microservices, build pipelines, and hybrid cloud infrastructure. The block diagram in Figure 2 describes their environment today.

Monitoring the CI/CD pipeline

As the velocity of developers' code pushes is high (i.e., about 500 pipeline executions per day), the SRE team started automating the entire pipeline for constant visibility, to make sure that it is always flowing and not stuck at any point (see Figure 2).

Tanzu Observability dashboards show all the pipeline metrics. They analyze not only the services but also the supporting infrastructure. That guarantees continuous running, while hitting SLA. Tests for different pipeline stages are available and powerful and easily customizable Tanzu Observability alerting is integrated with PagerDuty. Developers can securely push the code from their laptops and see that it is in production in a matter of minutes. They will immediately see the impact of the code release in production.



FIGURE 2: CI/CD pipeline.

Improved engineering efficiency

Also, the Tanzu Observability platform is integrated with Slack, driving a tremendous productivity increase and efficiency improvement for the entire engineering team, both SRE, and developers. Our collocutor reported that MTTR was reduced for more than 90 percent since her team adopted Tanzu Observability.

For engineering managers, it is essential how quickly a new developer can ramp up. With Tanzu Observability, developers can now become productive within a couple of hours. Managers share with developers, with a single SDK, and newly developed services are almost instantly ready to be pushed in prod, along with standard telemetry, including essential alerts.

Instant SLA visibility impresses executives

The CMBU global engineering team can offer a high 99.9 percent SLA to their cloud services customers, and that is where Tanzu Observability is critical for them. It is essential for engineers to detect issues proactively. They can pull Tanzu Observability dynamic dashboards any time to report to the executive team how business-critical cloud services are performing. Even better, they can go to Tanzu Observability themselves and see SLA for a particular service at any second, as well as a high-granularity historical view.

"What took us ten steps to do before, now it is only one step. What took us 20 minutes is now less than a minute."

SANDHYA A. SRIDHARAN VP OF ENGINEERING, VMWARE

Achieving the full-stack observability

Understanding how Kubernetes behaves across all levels, as well as their AWS as VMware SDDC, is paramount to the SRE team. They monitor all the layers and more: Whether on-premises or in the cloud, everything goes through Tanzu Observability. Using the Tanzu Observability Kubernetes integration helped quickly light up their Kubernetes dashboards. No matter how many Kubernetes clusters there are, they can pick one and see its performance dashboards visualizing Kubernetes heath instantly and not only Kubernetes health, but also correlated visibility across containerized microservices and the underlying infrastructure.

After a PagerDuty notification with CPU load spike, everything that is happening around that time becomes of significance—the kind of loads in the system, the number of users, or database connections. With Tanzu Observability, they are only one click away from the resolution. Developers are service owners. They can see what is happening from code check-in through production instantly.

The most recent addition of Open Tracing-, OpenCensuscompliant Tanzu Observability Distributed Tracing dramatically enhanced CMBU's platform observability. Tanzu Observability tracing SDK enables SRE to add detailed traces with no effort. Particularly useful are the three key health metrics: Request, error, and duration (RED). Such visibility empowers service developers to quickly identify the most critical failures within and across the services that they own.



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FIGURE 3: Cloud management services SLA.

With Tanzu Observability

Ultimately, Tanzu Observability became the first pane of glass for this VMware team. Tanzu Observability readily meets CMBU's SRE's need for detecting the problem quickly and resolving it with no delay. Automation services rely on dashboards on several levels, with Tanzu Observability links sent along with alerts for immediate access.

To summarize, use cases for the first pane of glass include the following:

- Full-stack monitoring for all CMBU on public cloud (AWS) Kubernetes and containerized microservices
- Private data center monitoring in North America, Europe, and Asia
- Monitoring of monitoring silos with a unified view across Pingdom, PagerDuty, and more
- Measuring and monitoring SLA for all cloud services
- Monitoring the CI/CD pipeline, including Jenkins servers, and more

Here's why the Tanzu Observability platform stands out:

- 3D observability: Metrics, traces, and histograms
- · A powerful, advanced analytics engine
- Easy usage monitoring and reporting
- OOTB Kubernetes visibility
- Open source agents for data collection
- Future-proof high scale
- Language and framework agnostic
- Easy onboarding for new developers

With Tanzu Observability, you gain a reliable, scalable platform for your cloud applications—be it in a public or private cloud. Instead of hidden additional costs, it joins dynamic infrastructure and support.

Try it and see for yourself what is possible with *Tanzu Observability*.



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