CUSTOMER SUCCESS STORY

Delivers enterprise observability and analytics at scale

Provides automated, customizable dashboards

Improves reliability for a better customer experience

Outreach

Outreach conquers cardinality with VMware Tanzu Observability™

Outreach had trouble getting a reliable and scalable application monitoring solution for its sales engagement platform. The engineering team had started with an established metrics tool vendor and Prometheus, but could not reach a satisfactory quality of application monitoring. The Outreach team had experienced numerous issues with their monitoring tools before they decided to switch to Tanzu Observability for all their application metrics. Tanzu Observability has resolved Outreach's application performance and reliability issues.

Scaling and performance challenges

The Outreach engineering team started the exciting process of decomposing their monolith and incorporating more microservices. In the past, Outreach used the software of one of the commercial metrics tool vendors for application monitoring and Prometheus for infrastructure metrics. However, Outreach's engineers experienced a number of challenges with the former solution.

The commercial metrics tool vendor's solution was initially cost effective, but it became expensive as more and more data was monitored. With its expanding business, Outreach expected explosive growth of data and cost.

Outreach

Outreach, the leading enterprise-ready sales engagement platform, accelerates revenue growth by optimizing every interaction throughout the customer lifecycle. The platform manages all of the customer's interactions across email, voice and social, and leverages machine learning to guide sales reps into taking the right actions.

INDUSTRY

Technology

HEADQUARTERS

Seattle, Washington

LEARN MORE

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

FOR MORE INFORMATION OR TO PURCHASE VMWARE PRODUCTS

Call 877-4-VMWARE (outside North America, +1-650-427-5000) or visit vmware.com/products.

To avoid this vendor's metrics tool scalability issues, Outreach needed to pre-aggregate the data. Aggregation made Outreach apps, as well as the monitoring logic, more complex. The engineering team had to develop many parts of the monitoring product on their own, including a newly created internal memory space for pre-aggregated metrics. That didn't seem the right fit for Outreach because developers wanted to focus on developing their business and not building a monitoring solution.

There were many operational issues with this solution, mainly when it came to dashboards. At first, they were extremely slow to load and then would not load at all. After several calls from the Outreach engineering team, the tool vendor made some changes on the back end to help cache the dashboards. Instead of lagging 5–10 minutes, new data metrics were 15 minutes behind. Debugging gets complicated with metrics data significantly behind their actual situation.

According to Emmanuel Pinault, Principal Engineer at Outreach, the commercial metrics tool vendor they abandoned is for those who favor prebaked dashboards. "Once you start customization and custom metrics, that's where the issues start," he says.

In addition to this commercial metrics tool, Outreach used Prometheus as its tool for infrastructure metrics. The Outreach team faced a number of challenges when using Prometheus.

The Outreach teamed observed that Prometheus has a cardinality problem with application metrics. An entire infrastructure team was needed to fill in Prometheus' application metrics gaps when scaling. Although Prometheus has become a community standard for system monitoring, handling application metrics requires quite a different tool. Prometheus starts breaking down at a relatively moderate scale. For example, handling application metrics from the more than 1,000 Outreach customers resulted in too much data for Prometheus. Outreach is not a monitoring company, and developing code around the application monitoring was not the work they wanted to do.

It wasn't easy to use Prometheus to find out which Outreach customer was getting affected by an incident, or which specific set of clusters per customer was the one experiencing the issue. Solutions to such problems might have been found only at a substantial cost, and even then, not coherently defined.

Prometheus' queries were too slow and not even returning the data efficiently. Comparing seven days of data with records from the previous week wasn't working. Also, Outreach did not have enough engineering resources to dedicate to supporting Prometheus.

"The best practice is to automate monitoring as much as possible with Tanzu Observability. It's important to figure out quickly what types of components and what types of things you're going to measure. Then, use the Tanzu Observability API and the easy-to-customize dashboards, and automate your measurements."

EMMANUEL PINAULT
PRINCIPLE ENGINEER, OUTREACH

Automated and customizable dashboards with Tanzu Observability

To overcome the scaling and reliability issues with previous tools, the Outreach engineering team decided to deploy Tanzu Observability for their application metrics. Because of the original investment, engineers still use Prometheus for their system monitoring. Since deploying Tanzu Observability, Outreach engineers are leveraging an array of benefits:

- Intuitive UI. The intuitive and reliable Tanzu Observability UI brings a consistent view during the debugging of issues.
- Easy-to-customize dashboards. Engineers can easily create customized dashboards, presenting full insight into problems. There are no restrictions on mixing different types of data when creating a dashboard.
- Analytics-driven alerts. Alerts are an integral part of the unified user experience that Outreach is now getting. Tanzu Observability alerts are used for the number of requests, error rates, increased depth of back-end queues and more.
- Powerful Tanzu Observability proxy. Outreach engineers likethe Tanzu Observability proxy right from the start. All metrics sent via the proxy can be retrieved, even in the case of a system outage. With Tanzu Observability, there was no degradation of monitoring, even in the case of outages, unlike the data loss that Outreach experienced prior to Tanzu Observability.
- No need for developing monitoring logic. Since the engineers turned to Tanzu Observability, they don't need to run and maintain the counters on their own. Instead, Tanzu Observability handles the counters from multiple servers easily, which simplifies the Outreach monitoring logic.
- Automated dashboard creation. The pushing of new releases daily drives a need for automatic monitoring. The Tanzu Observability APIs enable automation of the dashboard creation process. Insight into all the elements of an application, with any number of entities tracked, is made possible through Tanzu Observability. Outreach has solved its cardinality issues using Tanzu Observability, and its engineers don't have any problems with the tool's performance and reliability.

"The best practice is to automate monitoring as much as possible with Tanzu Observability. It's important to figure out quickly what types of components and what types of things you're going to measure. Then, use the Tanzu Observability API and the easy to-customize dashboards, and automate your measurements," said Pinault.

Supporting Outreach's platform reliability and a better customer experience

Currently, the majority of Outreach engineers are using Tanzu Observability. There is a framework for creating dashboards and metrics, allowing engineers to make custom dashboards based on the components they choose to monitor. There are internal libraries that show them how to add metrics quickly. As a result, most of the teams use Tanzu Observability regularly in their everyday work. Creating and adding metrics is easy.

Outreach engineers can now monitor the health of their customers' environments (including their integration with Salesforce). With Tanzu Observability, they can figure out if any of their customers are experiencing an issue—something they could not do before. They are also able to define the scope of the impact of customer issues, helping the Outreach platform become even more reliable.

Developers are supposed to look at their dashboards frequently because of the daily release of code. Development engineers need to know how their new code affects their customers. For executives, they want to make sure they achieve their goals, and that their customers are happy. Tanzu Observability is now an integral part of the Outreach executives' decision-making process.

@outreach_io boosts its platform reliability for a better customer experience with #VMwareTanzu Observability.