Wavefront Helps Yammer Hit Global SLAs

The Challenge
Over four years, the Yammer cloud service grew rapidly. A combination of Yammer expanding and its engineering teams developing new features requiring new services resulted in a significant telemetry increase. The transition from monolith to microservices drove the need for even more measurement points.

Geographical expansion created additional challenges. Observability tooling had to be able to serve multiple data centers spanning different continents. Yammer’s Data Engineering and Analytics (DEA) team needed a powerful observability tool to help them exceed their global SLAs. Only a fast and reliable modern platform could fulfill the engineering team’s expectations. The DEA team understood early on that a powerful observability tool is a must.

The Solution
The transition from monolith to microservices can hardly be addressed with the open-source monitoring tools which the DEA team used before. They did not want to maintain and scale open source monitoring platforms requiring significant engineering investment. The Yammer DEA team adopted Wavefront by VMware. It scaled to meet the demand of a rapidly growing service and did not pose a limitation for Yammer’s expansion. And because Wavefront is a cloud service, it natively works with multiple data centers in different geographies.

Yammer’s engineering teams started relying on Wavefront analytics-driven alerts to be able to hit their SLAs. They adopted a modern approach to alerting, mandating that internal customers avoid alerting on logs. “Metrics for everything,” they say. Metrics are quick, and Yammer gets better history out of the analytics, with less false positives. Compared to logs, metrics are ingested about 5-10 times faster and are also more reliable. Logs can often be delayed up to five minutes, which can have a detrimental impact on SLAs. Any delay in outage detection increases the time to fix the underlying issue, which could result in SLA violations.

Today, Yammer’s team uses Wavefront data to report key metrics to business stakeholders. The reported metrics include adherence to SLAs and KPIs such as latency P99s, helping them understand the health of their service around the clock.
"The reliability of Wavefront is pretty impressive. We use a lot of hosted services, and obviously, Yammer itself is a hosted service, and I can appreciate, over the last 16 years in tech, how hard it is to keep the nines up in an SLA. The Wavefront platform is very reliable. We can count on it. It’s fast. The amount of data that you keep for the extended amount of time, how fast the graphs draw, and reliability is pretty impressive.”

BEN FREEMAN
DATA ENGINEERING AND ANALYTICS
MICROSOFT YAMMER

The Results
Currently, Wavefront usage across Yammer development teams is mandatory – and that goes for 100 percent of the engineers.

“It’s a requirement for our services to have metrics up and running, alerting, as well as dashboards, for anything that we launch.”

The development team handles about 100 microservices, and they always have someone on call for a weekly rotation. Everyone on the team is expected to be able to troubleshoot. Developers own their code in full.

Wavefront is also used to monitor the release pipelines. When a developer deploys code, pushes up a pull request (PR), and the co-worker gives it a thumbs up, the code goes into the release pipeline and CI kicks-off as well as CI metrics. Developers observe that pipeline data with particular metrics, and if those exceed usual parameters, the PR gets pushed back to the developer that issued it. This process significantly improves code quality by relying on Wavefront data, preventing bugs from going into production.

When engineers reach a stable release process, they don’t necessarily need to look at Wavefront constantly. However, for any big code pushes, Yammer encourages everyone to watch Wavefront dashboards. Yammer engineers have already created approximately 3,000 alerts in Wavefront.

A best practice that the Yammer team has adopted with daily Wavefront use is to have alerts for all critical microservices. If a new problem does arise later, engineers are required to add appropriate metrics and alerts.

As for the plans for the future, the Yammer team is currently working on Graph QL. They would like to come up with a “templatized” alerting system to find the service owner for every downstream service.

The Yammer team says that the Wavefront customer success team is very responsive. Their support has been valuable with the Wavefront Azure integrations. The Wavefront customer success team usually responds to first emails within a few minutes, especially if it’s a high priority issue. Low priority issues get a response within an hour.

As a result of Wavefront usage across Yammer, the DEA team was able to catch more bugs before they reached production, preventing site outages and costly SLA violations. They also managed to shorten the time for troubleshooting, further protecting SLA commitments and helping Microsoft Yammer meet customer expectations.