



Product Lifecycle Management (PLM) Performance Monitoring for DevOps

Sogeti USA

Balachandra Tarodi, Ketan Suri



"The application is slow today and getting slower every minute."

Hearing complaints related to application performance issues is an IT manager's nightmare. Most cases of performance degradation can be attributed to bad code and design practice. The team continues to fix performance issues as they face them, especially in large scale applications—becoming a daily battle for many IT teams.

Eventually users and developers simply succumb to the challenge and accept that PLM application is too slow or not scalable—postponing the challenge until the next software or hardware upgrade.

The PLM applications of today are not limited to just a few internal departments with a few hundred users, nor do PLM users use them to just view data. The PLM applications that drive today's modern businesses are storing terabytes of data and serving thousands of users. With such large, globally-deployed applications, we do expect few issues even with the most rigorously tested code. But when application issues arise, how we approach the challenge makes all the difference.

The three things that are critical to discover first are summarized by the 3Ws:

- When did the application begin to slow?
- Who brought the issue to attention?
- What application feature is currently running slowly?

DON'T GUESS

The most important approach to fixing an application issue is to remove the guesswork and discover what's causing the issue.

- The IT team should be able to track where users are experiencing performance bottlenecks.
- Users do not need to spend time logging performance issues.
- There should be a single source of truth for users, IT team and management to view behavior of application.

TRADITIONAL APPROACH

Either due to limited budget or resource unavailability to simulate production, the performance metrics of production do not meet the expectations of PLM customers. The common approach is to troubleshoot the issues as they surface and spend time and money to find the cause, make code changes, and fix the issues. Oftentimes, finding the root cause and simulating the issue accounts for 80% work but fixing the issue accounts only for 10% total time. As time progresses, data continues to increase and the team continues to see challenges even in the most unexpected simple screens.

A PICTURE IS WORTH A THOUSAND WORDS



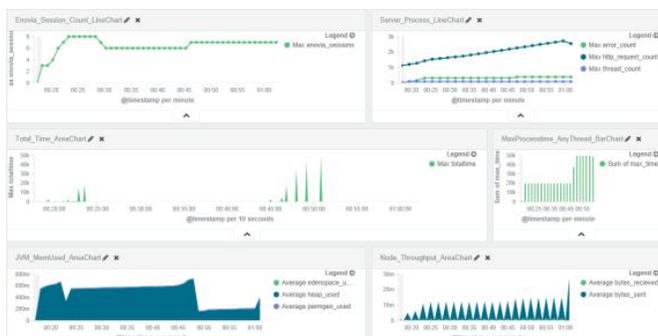
At Sogeti, we take a new approach to help overcome the traditional challenge by monitoring application performance in near real time and visualizing the actions of every user for each functionality. No more digging up application server logs, combining them, and trying to make sense of what happened hours ago. Instead, we set system performance metrics to visible and notify administrator if the performance thresholds are being breached.

OUR THREE-STEP SYSTEM

Measure: It's important, as a first step, to understand the application baselines. We use custom interceptors that require no application code change, but only configuration for integrating into any JEE application server to gather real-time metrics.

Monitor: This is second vital step, consisting of data shippers and transformers that will feed live data from several application servers to central analytic engine. Analytical engine can process millions of records of raw data at amazing speed to work with visualizer explained in final step.

Visualize: The last step is visualize the data in near real-time to understand the issues and correlate the various interrelated data aspects with respect to time. Many times application crashes can be predictable and the root cause can be more quickly identified if only we can visualize it in time.



OUR SOLUTION

At Sogeti we offer solutions to measure real-time application performance. The following are just few of the metrics we capture to plot meaningful statistical results for each application server—allowing the IT team to take decisive actions. Solution can be integrated seamlessly with any JEE compliant applications (ENOVIA, TeamCenter, Agile) to monitor your application performance.

- Number of concurrent users logged in, including logged in user id
- JVM statistics
- Garbage Collector Info
- Longest running processes
- Currently executing processes



CONCLUSION

Sogeti offers solutions to measure real-time application performance and take advantage of visualizing in one simple dashboard the overall application health. The days of calling help-desk and relying on IT administrators to dig through logs are only the past!

Contact our team for a demo and see how we can help you maximize the performance of your PLM application.