



Bugsnap: An Innovative Solution to Application Stability Management

Abstract

Bugsnap's singularity of purpose in addressing end-user, session-ending events has enabled the vendor to deliver a product that is praised by engineering and product leaders, client observability and data science teams, and release and quality managers alike. Bugsnap has gathered a trifecta of followers across engineering organizations by focusing on a discrete but mission-critical issue and delivering a simple and transparent solution that is rapidly finding its way into organizational toolchains.

Event

In 2020, Bugsnap Inc., an application stability management pioneer, announced the general availability of an Alerting and Workflow Engine. These features enhance Bugsnap's core capabilities focused around full-stack (mobile, web, and server side) error data capture (including app not responding and out of memory conditions), analysis, prioritization, and remediation of errors to ensure application stability.

Context

Bugsnap is a leader in the application stability management (ASM) market. ASM shares the same full-stack scope and quality objectives with the application performance management market, but differs in enough ways to make the two markets complementary. ASM is specifically focused on delivering actionable data insights, such as stability scores, to help engineering organizations with error prioritization and resolution.

Bugsnap addresses a specific subset of end-user experience monitoring (EUEM). Although EUEM includes several types of monitoring (availability, performance, and failure), Bugsnap addresses application failure instances, which are the most critical from an end-user's perspective.

Bugsnap's Value Proposition

Bugsnap addresses the data collection, observability, and notification of application crash data.

Bugsnap's data collection is focused on capturing full-stack application crash telemetry. This telemetry includes traces, metrics (session data), and breadcrumbs (log statements that can also be supported by structured metadata), which are supported across more than 50 operating systems, programming languages, and frameworks. Unlike the agent technology that APM vendors frequently use, developers simply add a notifier library (specific to the OS, browser, or programming language) to the application during development. Bugsnap's automatic data capture collects handled (anticipated) and unhandled (unexpected crash) exceptions. This approach to data collection is lightweight and permits complete session data capture during development, UX testing, and production. This data then enables Bugsnap to calculate an app stability score (percentage of user sessions that are crash-free).

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Implementing data collection this way means that Bugsnag has successfully found a way to enable data collection without having to install separate agent technology on the end-user's device. Another benefit of this approach is that it occurs during application development, staging, testing, beta, and production, which shifts left the benefits of Bugsnag. By being a product that supports the complete lifecycle, Bugsnag has attracted users from many constituencies including infrastructure managers, SREs and observability, DevOps engineers, software engineers, product owners, QA engineers, and operations staff.

Bugsnag data collection is the foundation that drives observability that is used to provide detailed views into how stable a product is, what session-ending events have occurred, the ability to group these events by root cause or user impact, and segmenting these events by customer type. The stack traces collected by Bugsnag enable a user to see the exact line of code that crashed the application, retrace all user interactions leading up to the crash, and understand the context around the crash. This data is instrumental in understanding why the crash occurred, which also indicates and supports the remediation needed.

This newest announcement from Bugsnag adds new filtering, threshold definition, error frequency, and notification capabilities to drive more relevant alerting. Additional messaging options with collaboration tools are designed to streamline remediation workflows.

EMA Perspective

Bugsnag is an elegant product in its singularity of purpose, simplicity of integration, end-user transparency, and user relevance. By delivering insights on all errors, including the more binary application not responding and out of memory conditions, Bugsnag has avoided the complexity of the adjacent APM market in determining what constitutes acceptable performance and why it is immensely difficult and challenging. Consequently, Bugsnag's singularity of purpose and full-stack monitoring capabilities enable it to easily drive value across the pipeline and across many different roles involved in driving application stability and customer experience. Because Bugsnag has effectively been able to shift left and expand its use from development to include operations, release management, and end-user monitoring; Bugsnag has accomplished what many APM vendors have been trying to achieve for years.

While EMA believes that Bugsnag has an effective portfolio of observability capabilities, from data collection through filtering and segmentation to notification and alerting, there is an opportunity for Bugsnag to drive more deeply into advanced analytics and ML (based on correlation root cause with remediation attributes) to provide more insight and potential recommendations for achieving better software quality. The world is data-driven and digital, and Bugsnag epitomizes a solution to software quality that resonates with development and operations teams alike because of its effectiveness in understanding application crashes and surfacing root cause telemetry data critical to remediation activities.

About EMA

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