

# How Braintree's Exception-Driven Culture Drives their Product's Accountability

## Industry

Finance & Payments

## Platforms

Ruby, Java, JavaScript, Python, Go

## Partner Integrations

Slack, Pagerduty, Jira, Trello

## Company size

20,000 (PayPal), 600 (Braintree)

## Developers

254

## Projects on Sentry

143

## Headquarters

Chicago

Braintree, a PayPal service, is a large payments solution that ensures customer payment information is securely directed to the right place. With a payment gateway combining credit and debit card purchases, Braintree's interface lets your customers pay with their PayPal account without leaving the website's storefront. Braintree processes over 1 billion transactions per quarter and tens of millions of dollars per day.

For Braintree's development team, which numbers more than 250 software engineers, this high volume of transactions raises the stakes for maintaining a superb customer experience. Sentry is at the core of Braintree's efforts to put the customer first. Through widespread and sophisticated adoption of Sentry, Braintree has mastered the art of cutting through the noise and acting quickly to prioritize and resolve issues that might otherwise impact customers.

**Braintree**

 **SENTRY**

## The Challenge

As a key player and leading innovator in the payments industry, Braintree has a nearly 0% available margin for error. Their customers rely on them for a secure, seamless, and entirely stable experience, without exception. And, perhaps more importantly, their customers' customers, numbering in the hundreds of millions, depend on Braintree for smooth transactions every time they use their favorite apps.

*“Every single tool that we plug into must be 100% accountable. With transactions, there’s no retry.”*

— Lucas Willett, Braintree’s Engineering Manager of Observability.

Addressing millions of issues every month with shorter and shorter mean time to resolution is a challenge for even the most talented development team. They must be thorough, fast, and locked in their workflow. As Lucas Willett, Braintree’s Engineering Manager of Observability, remarks, “there is no exception too small not to be tracked down and defeated in a production environment.”

Additionally, Braintree requires a product that fits into its existing culture without disruption. As the team grows and the product scales, time becomes the most valuable resource. To ensure that resource is allocated appropriately, they require an elegant solution that extends their development stack, with simple configuration and good project management capabilities.

## The Solution

Braintree relies on Sentry for the peace of mind that results from world-class exception handling. Sentry is critical to their success:

### Ownership & Accountability

With every release, at such massive scale and with such a large development team, Braintree has to contend with the possibility of passing individual responsibility for production quality when an issue is reported to inboxes across the organization. By routing notifications to only the right people — the people with explicit knowledge of that code — Sentry helps Braintree engineers remain accountable, act with certainty, and prevent dilution of purpose.

“Sentry supports the values that we back as central to Braintree’s culture and workflow... We needed a better way of assigning accountability. It’s that somebody is competent, is owning it, is producing, and is responsible for the impact and the resolution of a particular problem... It’s coming from every individual member.”

### Noiseless Efficiency

Braintree uses error aggregation to tackle multiple issues at once, focusing the time on error remediation and maintaining accountability while optimizing time spent on remediation so that developers can get back to building. Grouping duplicate exceptions, especially on tricky issues related to high-volume transactions like stock trades, makes observation and response a less taxing challenge for everyone.

“Once we grew to 200, 300, 400 engineers, we needed a way of cutting down on the noise while still maintaining accountability... Aggregation had historically been something we avoided doing, because we weren’t sure how to deduplicate effectively. Sentry [does] it quite well. Sentry helped us save time by aggregating errors.”

## The Solution

### Collaboration

Sentry's Teams functionality equips the developers at Braintree to work together collaboratively across projects. They use Sentry as a workflow management tool by assigning issues to teams, removing friction and improving triage, communication, and information flow.

"The team-based and assignment-based workflow is a very attractive part of Sentry, and we're interested in that features continued development. It's so important."

### Scalability

As the organization grew and its customer base multiplied, Sentry's hosted cloud service scaled in parallel with no additional maintenance or management needed. Because Braintree's goal is to observe and react quickly to issues in production (as opposed to slow down the development cycle), Sentry's ability to support and exceed Braintree's scale requirements ensured accountability.

"We generate exceptions at an extreme rate because we service traffic at an extreme rate. One error can be introduced by 5,000 requests per second. Using Sentry, we've implemented strategies to handle these exceptions at scale."

### Workflow Integration

Braintree's developers implement Sentry throughout their stack to support the many different stages of their development workflow and to promote evolution and accountability. From testing to staging to deployment and beyond, Sentry is key to productivity and a development cycle focused on timely observation and insight towards always rolling forward.

"The accountability is the really important part, [ensuring] that everyone gets a hot fix out within an hour of ever seeing inception... Sentry is how we continuously iterate, support, and build to make our product better and better and better."

## The Outcome

Today, Braintree serves thousands of enterprise customers globally and is one of the most trusted payment solutions for developers. They have succeeded in making operational efficiency a core value throughout the product organization and making personal accountability a basic tenet of a development culture that prioritizes user experience and rapid iteration.

Ultimately, Sentry helps Braintree prioritize seeing and fixing what's broken as fast as possible. Problems can be fixed, as long as you're looking for them, whereas prevention alone is too assailable.

“What's important is that we have eyes on everything that's erroring.”

At a time when security and privacy are top-of-mind, Braintree remains an industry leader in accountability and reliability by not letting anything fall through the cracks. The team's accountability-based culture, powered by Sentry, supports the philosophy that all exceptions are worthy of remediation; all members of the organization are dedicated to the stability of the product, starting with individual ownership.

“It's not a top-down mandate. It's coming from every individual that thinks: 'I am really proud that we have such a stable, such an effective, such a world-class piece of software.' That's a value we all hold at Braintree, and Sentry has been a big part of that.”

Braintree has been using Sentry since 2016. To learn more about how other Sentry customers approach observability at scale, check out [The Monitor](#).