



Whitepaper

# Troubleshooting Issues with Rollbar, APM, and Logging

How Rollbar enables you to take your  
APM and Logging solutions a step further

## Introduction

# Traditional Monitoring Is Not Enough

One of the most frequently asked questions we hear is: "Doesn't my existing Application Performance Management (APM) and Logging solutions monitor and track errors in our application?"

The short answer is—it's not enough. Rollbar, APM, and Logging are very complementary solutions. And most Rollbar users use all three, including the Rollbar team.

APM tools are great at telling you what's slow, when and where. Logs give you an ongoing record or trail of events that happen within your application. Rollbar is specifically designed for real-time error monitoring and resolution.

**Rollbar provides significantly more contextual information to help you determine what's broken, why it's broken, who is affected, and how to fix it.**

It saves you a substantial amount of time dealing with and resolving issues, freeing up more time for continuous code improvement.



## Troubleshooting Stack

- 1 What's Broken: Rollbar**
  - Real-time detection of critical code issues
  - Actionable application error data
- 2 What's Slow: APM**
  - Monitor leading application performance indicators
  - Address performance issues before they become significant
- 3 What Happened: Logging**
  - Specified event information leading up to and after an error
  - Record of what happened

# APM & Rollbar

## Why APM?

APM solutions offer a high-level view of performance issues over time and where they are coming from. They continuously monitor and track an application's health (performance and availability) to ensure it responds quickly to end users. APM allows you to see when there is an increase in errors, and which transactions are generating them.

APM is great at monitoring leading indicators in your infrastructure or application performance that "may" eventually lead to an error. It closely tracks different metrics to determine which factors are most greatly influencing your users' experience with your system. This can help you be more proactive in addressing issues before they affect your customers. This is where the strength of APM really shines.

BUT it's one thing to know whether a system is slow, it's another entirely to pinpoint the specific processes causing the issues. You'll still need to search logs to triage and debug. Additionally, errors have to happen a significant number of times before triggering an APM threshold. If an error is only affecting a small population of users – or a low traffic yet high-value customer to your business – you might never be aware of the issue until it's reported by a user.

Error rates don't tell you if it's critical or not, which is a challenge in your workflow especially if the error rates are within a certain threshold.

## APM & Rollbar

Where APM provides a more general overview of your systems, Rollbar focuses on detecting and reporting problems in real time. Rollbar receives errors as they occur along with important diagnostic and contextual data. This gives teams much more useful information about errors, including the root cause and where the error occurred.

When performance issues are discovered, in production or during load testing, Rollbar can identify the root cause quickly and automatically get the issue assigned to the right team for resolution. Rollbar tells you what needs fixing now, while APM tools tell you the state of your systems leading up to and immediately following the problem.

Rollbar also lets teams test for, debug, and resolve errors not only in production, but throughout the entire software development lifecycle, allowing you to adopt a 'shift left' mindset that solves issues earlier in your SDLC.

	<b>Rollbar</b>	<b>APM &amp; Logging</b>
<b>SDLC</b>	Test Release Production	Production
<b>FOCUS</b>	Code	Application



# Logging & Rollbar

## Why Logging?

Logs show you what happened and when it happened, so if something goes wrong with your systems you have a detailed record of every action prior to the error occurring. Log files help to identify the root cause of issues within applications and infrastructure.

BUT you have to search through logs files. You have to know what you're looking for and today's architectures are incredibly complex and are made up of an endless number of components. When there are hundreds or thousands of instances and containers, it's time consuming to track down the instance that's having the problem, then have to dig through stacks to identify the individual event that is causing those errors. And when incidents do happen, how do you know whether it is critical or not before the impact is significant?

## Logging & Rollbar

Detecting errors with logs requires you to configure complex parsing rules, create searches, define thresholds, then wait until incoming logs can be fully parsed and analyzed. Rollbar removes all these manual steps. Rollbar immediately notifies you of newly detected problems as soon as they occur.

Rather than dig through complicated log files for the debugging information you need, assuming that information is even available, Rollbar quickly shows you what is important, and notifies you about problems as they occur. Rollbar automatically provides contextual data for each error, such as stack traces and local variable values, preventing you from having to search for it yourself.

Additionally, because logs are treated as independent events, any efforts to group, correlate, or filter logs must be done manually or configured via a log management solution. Rollbar automatically groups related errors together and provides highly configurable notifications, so your team can be alerted without feeling alert fatigue.

Rollbar isn't meant to replace logging, and both actually complement each other. Rollbar is useful for detecting application-level problems and failures, while logs provide detailed information about the application and infrastructure leading up to the error.



# How Rollbar Takes Observability a Step Further

Rollbar is a continuous code improvement platform that gives development teams greater coverage and insights into broken code, across the software lifecycle. With Rollbar, developers focus on deploying better software faster, knowing they can quickly recover from critical errors as they happen. Rollbar enables developers to focus on continually improving their code and constantly innovating rather than spending time monitoring, investigating, and debugging.

## → See application errors live, in real-time

Rollbar gives you a real-time feed of all errors — including unhandled exceptions — so you'll never miss a bug. Easily monitor all related microservices in one view and use intelligent filters to see issues by project, environment or framework.

## → Get error alerts you can trust

Alert fatigue is real. Our platform automatically groups similar errors to reduce noise and give you trustworthy alerts. Rollbar's Automation-Grade Grouping uses machine learning to accurately identify unique bugs in real-time. Plus, you can easily customize the grouping rules or manually merge errors to fit your needs.

## → Get all the data you need

Rollbar gives you all the code-context and contextual metadata you need to immediately resolve errors. You can see the stack trace along with the exact line of code that caused the error and the related git blame information. You also get HTTP request parameter values, local variable values that happened at runtime, and more.

## → Set up custom automated workflows

Easily create custom API or webhook-based workflows using Rollbar's powerful rules engine. Halt or revert a release if there are new errors introduced. Or escalate alerts automatically when critical customer experiences are affected. Alerts can be triggered based on new fingerprints or high occurring errors, and can be filtered by any data in the occurrence payload.

## → Extend debugging to Logging & APM tools with ease

At times, you might be interested in what your other monitoring and performance tools are telling you about an issue. Rollbar Service Links enables you to quickly create links leveraging dynamic payload data, making debugging even easier. Drilling into an issue in Logging and APM tools are just 1 click away.

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## 1 See local variables when your exception was thrown

Rollbar lets you see the state your application was in when an error occurred with local variables and arguments. Easily view their values directly from the stack trace so you can reproduce the error, and fix it.

## 2 Telemetry to send events that occurred prior to your error

Telemetry shows you a timeline of browser events leading up to the error, including page loads, user actions, network activity, and console logs.

## 3 Link stack traces to broken code

Rollbar helps you find the root cause of issues faster by letting you drill down into the code where this error was generated. Rollbar integrates with your source repository and highlights the line where the error occurred.

## 4 See which code deployment caused your error

Rollbar shows you the deployment that we suspect has caused this error to occur, and the changes that have been made since the previous deploy. This is especially important to see who made the changes and whether there is a potential interaction when multiple changes happen together.

## 5 Drill down into the raw payload for each error occurrence

See the raw payload to see what additional information was passed to Rollbar when reporting the error. This is really useful because you can attach additional debug information in your code, or even entire objects or request payloads. Rollbar also stores every individual instance of the error and payload and not a sampled summary.



Rollbar is the leading continuous code improvement platform that enables developers to proactively discover and resolve issues in their code. With Rollbar, developers focus on deploying better software faster, knowing they can quickly recover from critical errors as they happen. [Learn more at Rollbar.com](https://rollbar.com)

