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Why You Need a Single Tool for Infrastructure Monitoring and APM

Your guide to managing tool sprawl, reducing downtime, and minimizing revenue loss

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Your path to full-stack observability starts here

Now, more than ever, many organizations face immense challenges to maximize revenue. Inflation. Tighter budgets. Cost reallocations. Competitive growth opportunities. Whatever the reason, they demand highly available, customer-facing applications and services that rely on a high-performing and reliable underlying infrastructure. And they want it all without excessive spending on engineering resources.

To achieve this goal, first, you need a single observability platform that informs how your underlying infrastructure impacts your application performance. Second, you need a cultural shift that embraces end-to-end observability—inclusive of people, processes, and tools. The ultimate goal is to achieve full-stack observability so you can detect and resolve issues quickly while minimizing impacts on your teams and customers.

If you want to build, deploy, and operate high-performing services, while reducing high tooling and engineering costs, this ebook is for you. You'll discover how to achieve application performance monitoring (APM) and infrastructure monitoring from a single observability platform that enables you to:

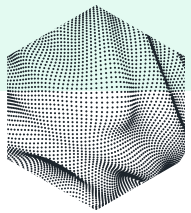
- ✓ Lessen revenue loss as a result of downtime.
- ✓ Reduce tool sprawl.
- ✓ Remediate performance issues quickly to minimize customer impact.

Let's get started.

Full-stack observability is the ability to see the performance of everything in your tech stack and understand how the performance of the various parts impacts other areas of the stack. This concept is also referred to as end-to-end observability.

It enables you to:

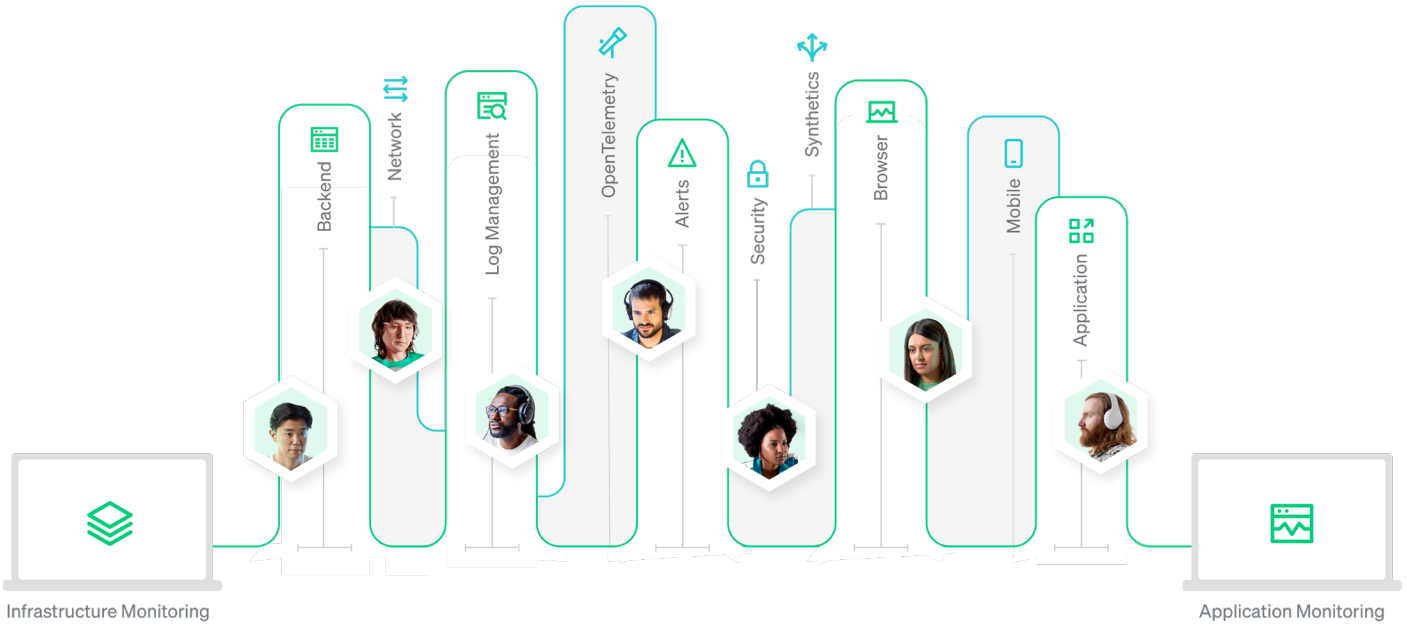
- Avoid downtime and deploy more resilient applications faster.
- Reduce overall mean time to detection (MTTD) and mean time to resolution (MTTR).
- Increase developers' confidence by giving them visibility into how their code performs.
- Free up developers' time so they can focus on innovation.



Siloed monitoring tools lead to headaches and costs

Over time, software development and operations teams adopt various languages, frameworks, infrastructure architectures, and CI/CD tools. In doing so, the number of point-solution monitoring tools they need to understand the performance of each technology grows linearly. What might seem like a reasonable decision at the time results in a ballooning set of monitoring tools that don't communicate with each other. In turn, they create data silos that prevent teams from delivering performant services to customers.

With each new monitoring tool you add, you end up spending more money on already tight budgets. Nowhere is this more evident than in having separate APM and infrastructure monitoring tools.



The downside of separate APM and infrastructure monitoring tools:

- Inconsistent and incomprehensive telemetry.
- Low data resolution, causing undetected spikes to delay issue resolution.
- Lack of visibility into applications without an APM solution.
- Errors, latency, and outages go unnoticed until after they affect users.
- Minimal correlation of the infrastructure's state with application performance.
- No visibility into configuration changes that create performance issues.

So how does this impact your organization? In inefficient and costly ways:

Increased outages and slow MTTD and MTTR due to limited visibility across the tech stack: Switching between disparate monitoring tools—or, worse, not having access to all monitoring tools—creates blind spots and forces engineers to resort to guesswork and trial and error. In turn, it can lead to more frequent outages and longer MTTD and MTTR.

Customer dissatisfaction, churn, and reputation and revenue loss: Outages, low uptime, slow apps, apps with excessive errors, or a combination of these issues can cause a ripple effect that leads to customer frustration and churn, resulting in reputation and revenue loss.

Reduced operational efficiency and increased costs due to tool sprawl: The more apps your software teams build and run, the more infrastructure and engineering resources you need to support them. Consulting multiple tools takes more time—further decreasing MTTD and MTTR—and costs more to operate, license, and train users. As a result, teams cut costs by instrumenting less of their stack, further exacerbating more frequent outages and downtime and creating a subpar customer experience, leading to revenue loss.

increased outages **decreased satisfaction** **increased costs**

86%

use two or more monitoring tools

61%

have siloed telemetry data to some degree

58%

learn about interruptions with multiple monitoring tools

25%

say too many monitoring tools are a primary challenge

US$7.75M

median cost of outages/year

Source: *2023 Observability Forecast*

A single monitoring platform means fewer headaches, lower costs

Overcoming the challenges just described requires consolidating your infrastructure monitoring and APM tools. It warrants a single observability platform that gives you complete visibility into each layer of your tech stack—without blind spots that keep you guessing. Specifically, you need a full-stack observability platform that encompasses the following capabilities:

- **Seamlessly connects infrastructure monitoring and APM,** so you can forget about silos and, instead, gain visibility into your entire tech stack.
- **Embeds host performance directly into APM** to correlate host performance telemetry data with application telemetry data. This way, you can quickly triage the stack layer that's causing performance issues and activate the correct teams while allowing unaffected teams to continue working as usual.
- **Provides infrastructure monitoring based on relevant data and workflows**, including embedded APM data, so you can remediate problems faster than ever.

Let's take a closer look at the benefits of this solution.

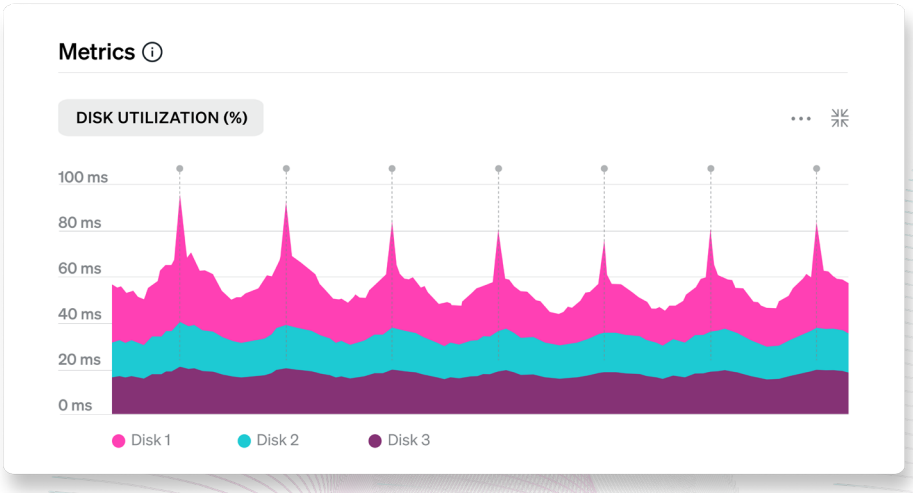
54%

prefer a single, consolidated observability platform

41%

plan to consolidate tools in the next year to get the most value out of their observability spend

Source: *2023 Observability Forecast*

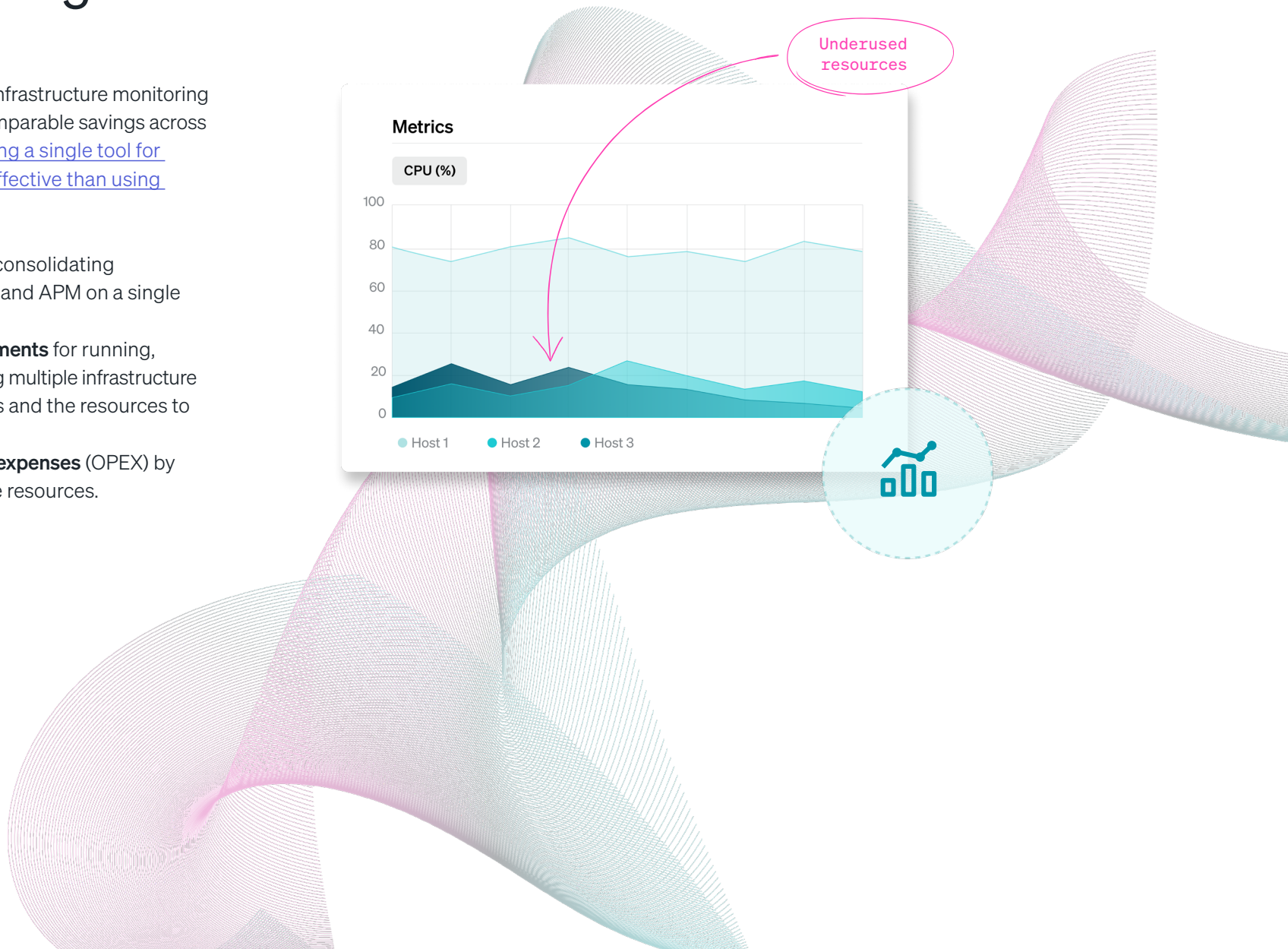


Components of full-stack observability: Both APM and infrastructure monitoring are components of full-stack observability. Together, they help deliver highly available applications on a high-performing and reliable underlying infrastructure to ensure a consistent customer experience.

Right-sized computing with big cost savings

When you consolidate your infrastructure monitoring and APM tools, you get incomparable savings across your enterprise because using a single tool for observability is more cost-effective than using multiple tools.

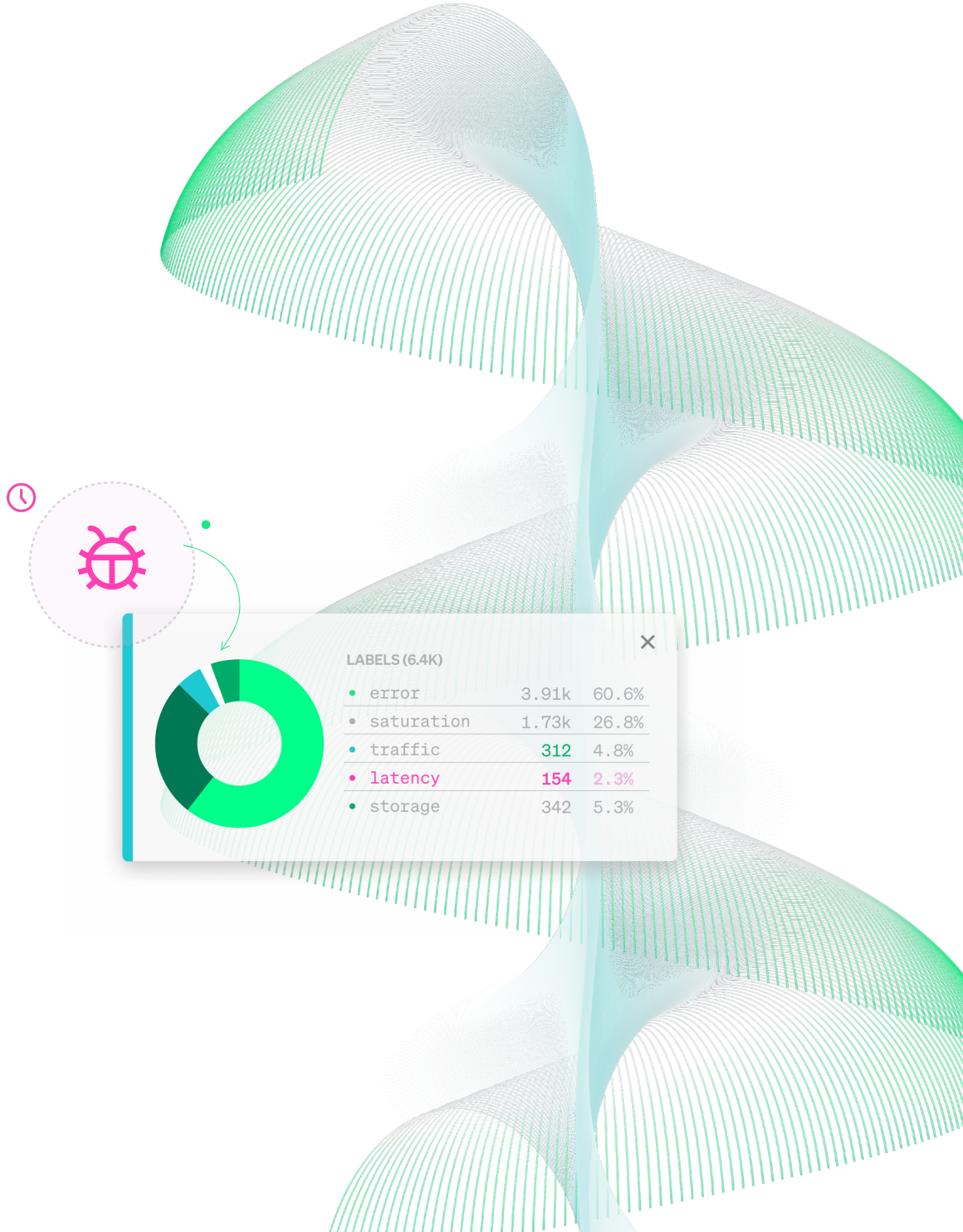
- **Reduce tooling costs** by consolidating infrastructure monitoring and APM on a single observability platform.
- **Reduce resource requirements** for running, managing, and maintaining multiple infrastructure monitoring and APM tools and the resources to support them.
- **Reduce your operational expenses** (OPEX) by right-sizing your compute resources.



Unlimited scalability and efficiency

Monitor your applications and infrastructure by using a single observability platform tool that has:

- **All telemetry data in a single data store** to quickly understand and debug issues by correlating performance across your entire stack, enabled by having all your telemetry data in one place.
- **Real-time analytics delivered with speed and flexibility** through a schemaless database, so you can run fast, ad hoc queries without requiring indexing in advance.
- **Unlimited scalability and fault tolerance to keep up with dynamic demand**, so you can pinpoint the cause of outages in seconds.



"With no single view into the performance of our website or mobile app and very little accountability, it was impossible to gauge how we were doing. We couldn't have strategic discussions because we lacked the data that would show us response times across the business. What's more, without that data it was impossible to quickly solve problems or improve performance."

Yang Tang
Global Director of Engineering at AB InBev

Multiple vs consolidated infrastructure monitoring and APM tools

Consolidate your infrastructure monitoring and APM tools for greater impact.

	Multiple infrastructure monitoring and APM tools	**Consolidated** infrastructure monitoring and APM tool
Customer impact	• Frequent outages • Slow apps • Excessive app errors • Limited visibility of your tech stack • Customer frustration and churn	• Improved uptime and availability • Increased performance and speed • Reduced app errors • Full visibility into your tech stack • Optimized customer experience
Business impact	• High OPEX • Multiple tools and higher cost • Hours spent tuning systems • Slow MTTD and delayed MTTR • No shared understanding of performance across teams	• Reduced OPEX: Right-sized compute • Reduced OPEX: Fewer tool licensing fees • Increased operational efficiency and engineer velocity • Faster incident resolution, decreased MTTD and MTTR • Single source of truth for the entire organization

Top 10 must-haves of a consolidated monitoring tool

Use this checklist as a guide in choosing an observability platform that provides reliable and performant infrastructure monitoring at scale.

- **A single platform:** Look for a vendor that offers APM and infrastructure monitoring on the same platform—so you can correlate performance across your stack.
- **Entire infrastructure view:** Get a live, in-depth view of your infrastructure, applications, network, end-user experience, and security—without screen swivels.
- **In-context application health:** Get dynamic charts that show host- and APM-specific metrics to correlate drops in performance across the infrastructure and the apps running on it.
- **Integrated infrastructure experiences inside APM:** View CPU and memory for hosts, containers, and virtual machines (VMs) within APM to identify under-provisioned resources instantly that are impacting apps.
- **Low, consistent per-GB pricing:** Find a vendor that enables you to pay the same price for custom metrics as your host metrics—with no surprise costs or penalties.
- **AI assistance:** Get AI assistance to automate insights for rapid alerting, incident detection, correlation, and resolution.
- **Embedded change tracking:** Understand how application deployments impact host performance and application health.
- **Inventory software monitoring:** Assess current software settings across your hosts, identify configuration drift in your fleet, and uncover outdated software or problematic settings.
- **Changes to infrastructure events:** Correlate recent host activity with changes in behavior, and monitor host and configuration changes to reduce impacts on the health and behavior of your applications.
- **Customizable UI:** Analyze hosts faster and more easily by customizing the UI to suit your preferred use cases.

The ideal platform for infrastructure and application monitoring

You don't have to look far for a platform that delivers the capabilities and must-haves outlined in this ebook. The New Relic all-in-one observability platform provides all of these features, advantages, and more, enabling you to:

- **View all telemetry data in one place**—regardless of whether it's instrumented via agents, third-party sources, or open source software, such as OpenTelemetry, Prometheus, and FluentBit—eliminating blind spots.
- **Gain visibility into speed and performance** across your infrastructure, APM, and the rest of your stack to quickly derive meaning, pinpoint issues, make smarter decisions, and fix problems before they impact your customers.
- **Choose from over 335 infrastructure-specific quickstarts** (integrations and pre-built dashboards and alerts to accelerate your monitoring) for your specific environment—including on premises, Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), and Kubernetes (K8s)—that complement 14 APM-specific quickstarts to monitor application performance.
- **Pay only for what you use**—without any additional charges for custom metrics or peak usage billing—and gain up to 5x the value of subscription-based pricing from competing alternative solutions.

From your applications and infrastructure to the logs across your stack, New Relic gives you end-to-end visibility. Request an in-depth, customized demo, find answers to your tough technical questions, and get competitive pricing information.

Request Demo

"[The New Relic] platform makes it easy to always understand the health and performance of our systems, which has, in turn, made it possible for our developers to spend more time building new features."

Sona Khosla
Chief Impact Officer at Benevity

PROOF OF EFFECTIVE ROI

Many New Relic customers have seen the return on investment (ROI) of consolidating infrastructure monitoring and APM.

OuiCar gained visibility across silos and improved backend response time by 40%.

Benevity reduced MTTD by 67% and reduced MTTR by almost 66%.

Cellulant consolidated its monitoring tools and reduced MTTR by 50%.

The Access Group saved about £1,000 per month by reducing database usage.

movingimage gained code-level visibility and slashed K8s costs by 50%.

About New Relic

As a leader in observability, New Relic empowers engineers with a data-driven approach to planning, building, deploying, and running great software. New Relic delivers the only unified data platform with all telemetry—metrics, events, logs, and traces—paired with powerful full-stack analysis tools to help engineers do their best work with data, not opinion.

Delivered through the industry's first usage-based pricing that's intuitive and predictable, New Relic gives engineers more value for their money by helping improve planning cycle times, change failure rates, release frequency, and MTTR. This helps the world's leading brands and hyper-growth startups to improve uptime, reliability, and operational efficiency and deliver exceptional customer experiences that fuel innovation and growth.

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