

Developer visibility:

The key to overcoming your biggest software challenges

Consistently delivering innovative, high-quality software has never been more important than it is today. It's also never been more challenging.

As the world becomes more digital, our reliance on software to always work when and where we need it most grows. This, in turn, makes us just as reliant on software development teams to not only meet our needs, but to exceed them. The most successful software organizations are even able to anticipate those needs.

Innovative, performant, resilient software has become the ultimate business differentiator in every industry and region of the world. This has resulted in tremendous pressure on software developers – a group struggling to meet today's business demands, and who are well aware that those demands will only increase over time.

Market trends are squeezing developers and the business

The current global economy has pressured businesses of all sizes to “do more with less.” Specifically, to grow revenue while also reducing costs. For years, companies were growing revenue, but at tremendous costs. And, in times of economic uncertainty like the world is currently experiencing, many companies may find plenty of opportunities to cut costs, but then face greater hardships when trying to grow revenue.

With revenue increasingly, if not exclusively, tied to a company's software applications and digital services, companies are now looking to development teams to come up with answers to help solve financial challenges.

Development teams are under increased pressure to deliver faster, smarter, and meet growing customer expectations. And they are being asked to do it with less. According to the

World Economic Forum, there will be a worldwide shortage of 4 million developers by 2025.

While the cost of developing great software continues to climb, the cost of bugs and software failures has become astronomical.

In a 2022 report, CISQ calculated the cost of software failures in the U.S. alone at \$2.4 trillion. This staggering number comes not only from lost revenue due to customer churn, but also from development teams being pulled off new projects to remediate bugs in previous releases, mounting hours of support team engagement, and the erosion of trust in a company's entire brand.

Developers have also become increasingly responsible for performing more testing throughout the software development lifecycle (SDLC). While test automation tools aid developers in this effort, they're not created equal.

Those that require time-consuming maintenance and additional manual efforts eliminate the efficiency they were intended to provide. And, as software complexity grows – with a mounting number of new integrations, dependencies, and operating systems and device versions to test against – testing can quickly become a bottleneck no matter who is performing it.



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Confidence? In what context?

Another challenge that's perhaps less understood outside of the software world, but which has tremendous implications to the business, can be described as a "lack of context." Developers are often missing vital context around how and where a bug occurred and which was found by a tester, a customer, or even a test automation tool. This lack of context also hides the potential impacts of code changes and downstream effects.

This results in far more of a developer's time being required to find that bug, to then recreate it, and ultimately, to remediate it.

This lack of context is also often left out of requirements when they were initially shared. New features or requirements are needed in the software, but will now need to be added later, and at a higher cost (and a higher risk to the existing code) than had been understood earlier in the sprint.

These challenges have combined to create an additional challenge that no company can afford to ignore.

In 2022, SmartBear conducted a survey where we asked hundreds of developers to rank the greatest challenges in their daily work. The number one answer? "Having greater confidence in the code we're deploying." This should be a wake-up call for every company.

If your entire business depends on the continued or increased adoption of your software, it cannot be overstated how imperative it is for the team that builds, tests, and deploys that software to have the utmost confidence in its quality and reliability.

Every company will say that maintaining a high level of customer satisfaction is its top priority. Ensuring that your developers are confident that "each new software release is better than the last" is how you prove you mean it.

The mission: Developer visibility

At its most base level, developer visibility encompasses a set of tools and capabilities that provide actionable insights across the entire SDLC (pre- and post-production). But, as our CEO, Frank Roe, recently wrote, it's much more than that.

"We need to take a more humanized approach to visibility, allowing developers to see the right information to take action.

This information will enable more effective problem solving, which, in turn, drives better outcomes and better software, powers even better user experiences for our customers, and perhaps most importantly, drives more positive developer experiences.”

It's not simply “another tool” that will solve the challenges (those listed above and countless others) that developers face today. What's needed is an entirely more empathetic approach to this problem. A humanistic approach that enables developers to use their ingenuity and dedication to their craft to solve not only their own challenges, but just as importantly, the challenges of their customers.

It was through surveying, speaking with, and ultimately, partnering with our own developers and our customers that we came up with our new mission: *To provide the visibility development teams everywhere need to transform big ideas into sustainable realities.*

And, when we say, “development teams everywhere,” we mean everywhere. In every stage of the SDLC, every industry, and every region of the world, because that's where greater visibility is needed. To not only meet growing expectations, but to relieve an incredible amount of pressure that's been placed on developers worldwide.

We know that greater visibility is needed into a customer's requirements – the pinpointed location and root cause of bugs

caught in pre- and post-production, and threats to performance and stability. But point solutions that solve a single challenge at one stage of the SDLC then leave you on your own to improve visibility at every other stage (and which won't seamlessly integrate with the other solutions you discover elsewhere) are why this problem has persisted for so long.

This is why the SmartBear portfolio covers the entire SDLC with a set of comprehensive solutions that meets every developer where they are and gets them where they're going.

Greater visibility isn't impossible ... or optional

The demand for faster, innovative software and digital services will never slow down. And, in turn, the expectations and pressure put on development teams to deliver that software aren't likely to decrease either.

What existed for far too long was a lack of visibility not only within development teams into how to meet those demands, but also within the business side of the house in many companies. Their goal was too singular: “To give our customers whatever they need to do their jobs.”

The key to accomplishing that was right there all along: “Give your developers what they need to do theirs.”

It's developer visibility. And it's found in every SmartBear solution.

[Here's how to get buy-in from the c-suite →](#)

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About SmartBear

SmartBear provides a portfolio of trusted tools that give software development teams around the world visibility into end-to-end quality through test management and automation, API development lifecycle, and application stability, ensuring each software release is better than the last. Our award-winning tools include SwaggerHub, TestComplete, BugSnag, ReadyAPI, Zephyr, and PactFlow, among others. SmartBear is trusted by over 16 million developers, testers, and software engineers at 32,000+ organizations – including innovators like Adobe, JetBlue, FedEx, and Microsoft. With an active peer-to-peer community, we meet customers where they are to help make our technology-driven world a better place. SmartBear is committed to ethical corporate practices and social responsibility, promoting good in all the communities we serve. Learn more at smartbear.com, or follow us on [LinkedIn](#), [Twitter](#), or [Facebook](#).