4

Key Advantages of

CONTINUOUS TESTING

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Introduction

Testing and software development go hand in hand. If innovation is the locomotive that drives development, then testing is the tracks on which it rides. Without it, no controlled motion and momentum are possible. Not all testing is equally effective for keeping the train on course, though. Any organization that takes on a major technology initiative, whether it be a cloud migration or an entirely new IVR system for the contact center, will quickly find that some testing methods are better than others.

Legacy approaches to testing, which are designed with the limitations of manual labor processes in mind, prove vastly insufficient for the pace and power of modern software and technology. In the end, trying to retrofit old methods for new systems is like trying to drive a bullet train on old tracks. You won't get there any faster, and you may be in more danger of a serious wreck along the way.

The Need for a New Way

Consider a massive cloud migration project. This is a key initiative for many contact centers, especially in the post-pandemic age of remote work and shifting customer preferences. In 2019, before the pandemic was even a thought, Gartner predicted that the proportion of contact centers that operate from the cloud would jump from 10% to 50% by 2022.[1] This market is now expected to grow by 21.8% per year from 2020 through 2026.[2]

Making this transition requires a significant overhaul of a call center's existing infrastructure. There is a vast array of moving parts, and the potential for delays and waste is substantial. In fact, McKinsey and Company forecasts $100 billion in wasted spend on cloud migration from 2021-24.[3] There are many reasons for that waste, but poor or outdated testing practices are one of the most significant factors.

Contact centers that want to make a seamless leap to the cloud can't get there by brute force alone. They need a testing process that's up to the task. And that means replacing old, scattershot methods with fluid, continuous testing.

What Is Continuous Testing?

Continuous testing (CT) is a methodology that grows out of an Agile, DevOps approach to software development and implementation. Any business can apply it and reap its rewards, however, regardless of whether it has fully embraced DevOps.

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75%
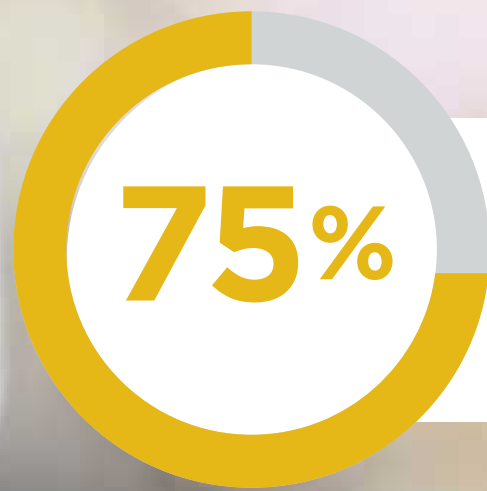
75% of companies executing cloud migrations run over budget, and 38% are behind schedule.[3]

The DevOps mindset is central to CT, though. This approach to software development looks at the process as fundamentally iterative and collaborative. Instead of reserving testing for a finished product, the Agile mindset views testing as integral to an ongoing process of development. Develop. Test. Develop. Test. Launch. Test. And so on.

This is in contrast to other forms of testing that are targeted only at specific moments or parts of the process. A waterfall method, for instance, would reserve testing until all development is complete. This leads to the dreaded "Big Bang" that often comes at the end of the development cycle, when the company discovers all the bugs and issues it now must go back and address.

CT also differs from an approach in which parts of the solution are isolated and tested apart from the whole. This might prevent some of the "Big Bang," but still fails to capture the full scope of an integrated software release. By nature, it can't test the complete customer journey to cover the breadth of potential CX issues.

In contrast, continuous testing provides a comprehensive look at the customer journey. It delivers multiple kinds of testing across the full omnichannel customer experience. It's also built on automation rather than manual resources. In a complex process like cloud migration, continuous testing is essential for avoiding slowdowns and cost overruns. Specifically, it brings four major advantages to any complex technological undertaking.
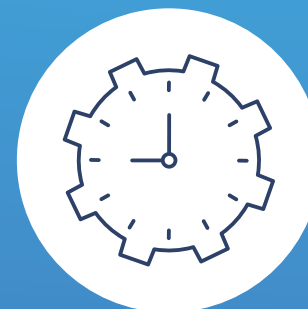
A Look at Continuous Testing through a Cost-Saving Lens

Reduce system downtime
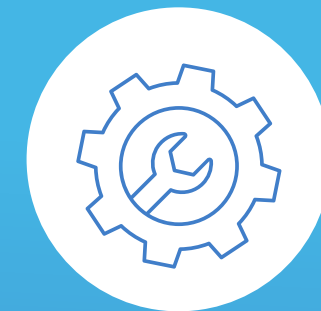
Find and fix issues earlier

Shorten testing time while increasing test coverage

**Recapture lost revenue caused by dropped calls**

Continuous Testing Touches Every Stage of Development

In traditional testing methodologies, developers and testers operate independently, and the processes stay entirely separate. Testing is reserved for the final stage, after development is complete. On the surface, this may seem like a simpler solution, but it ultimately leads to massive inefficiencies.

Again, consider a call center preparing for cloud migration. Such a transition involves moving loads of data and processes from legacy systems to the cloud — a process that demands myriad layers of coding and software development. A business with millions of customers around the globe would be looking at a massive project integrating previously disparate systems.

Organizations using Cyara reduce downtime by 90% in year 2. This saves an average of $2.2 million over 3 years.[5]
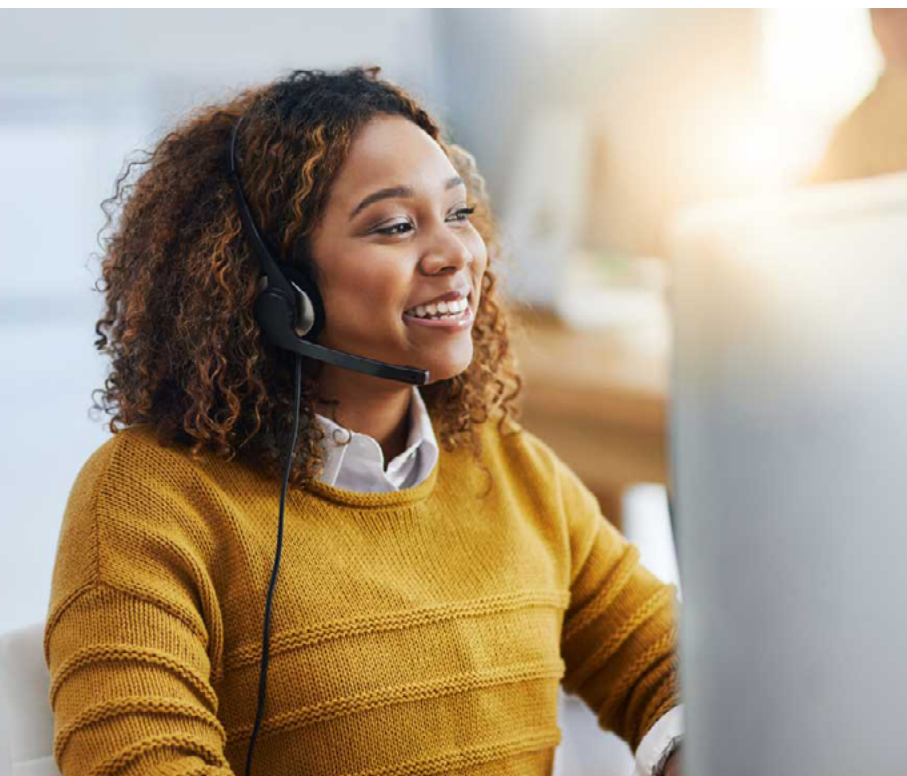
When testing only happens at the end of the development cycle, it will inevitably uncover a litany of previously overlooked issues. Even the best developers can't account for every problem that their software will encounter when it's actually put to the test. Any issues that arise will have to go back to development for correction, stalling the process and delaying the release.

In a CT methodology, there is no separation between testing and development. There's no formal handoff from developers to quality assurance (QA). Testing is automated and QA is involved at every stage of development — as developers submit code — to catch issues as they arise rather than only at the end.

Organizations that become adept at applying this methodology alongside other DevOps and Agile approaches see substantial improvements in project execution. One study showed a leap from a 10% success rate in project completion to as much as 90%.[4]

Completion is only half of the goal, though. Once completed, CT-based projects deliver better cost savings in the long run. By year two, organizations that use Cyara avoid 90% of the downtime previously caused by high-severity (SEV 1) errors, resulting in a $2.2 million cost savings over three years.[5] That execution level is largely the result of testing at every phase of development.

2 Continuous Testing Identifies Issues Earlier in the Development Process

When testing occurs at every stage, it enables organizations to discover problems much sooner than they previously would have. This early discovery doesn't just stop one headache on the back end — it likely prevents many of them.

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That's because flaws tend to stack on top of each other as development proceeds. What would have been a simple fix early in the process later becomes a complex project of untangling code and layers of errors to uncover the original issue.

Expanding the testing process to include earlier development stages translates to immediate results for Cyara's customers. One client, a major insurance provider, described the aftermath of their IVR software releases before Cyara as "Manic Mondays." They dreaded software-release weekends because they knew they would encounter a slew of errors and customer service problems on Monday morning.

After implementing continuous, automated testing with Cyara, our insurance client was able to uncover those problems much earlier in development and correct them long before release day. Not only were they able to eliminate downtime and priority-one issues, but they also sped up their release cycles and cleared up a backlog of upgrades they had previously been unable to execute.

One Cyara customer cut downtime to zero because they could catch bugs and defects earlier in the process.

Expanding the testing process to include earlier development stages translates to immediate results for Cyara's customers.

Continuous Testing Enhances Testing Efficiency and Effectiveness

Using CT is not simply about testing more often and at every stage of development — it's also about making tests more effective and efficient. When testing uncovers issues earlier, it means less time spent correcting problems and more time devoted to expanding testing variety and frequency. Because the CT process is automated, it is also unencumbered by the limits of manual labor.

This is particularly true when it comes to load testing. This process of assessing call center capacity is often shortchanged due to the strain it causes, but that's because it usually occurs late in the cycle. However, because CT has already been uncovering issues throughout the cycle, call centers can load test more often and with confidence that it won't derail the release process.

Cyara enables organizations to shorten test time by two-thirds while increasing test coverage 8X. This delivers an ROI of 283% and payback in under 3 months.

Another health insurance client discovered the difference continuous testing with Cyara can make in this regard. Although they had already implemented a DevOps strategy, they were unprepared for how much testing it would require, and their legacy methods couldn't keep up. As a result, open enrollment periods brought more strain than their under-tested system could handle, and outages were common.

With Cyara, this client was able to reduce testing execution times by up to 84% and decrease costs by 2–3% at each stage of development. This led to a 75% reduction in the time required for production execution.

Continuous Testing Improves the Quality of Software Releases

This fourth advantage is really the ultimate goal of continuous testing. It adds value where it matters most: customer experience.
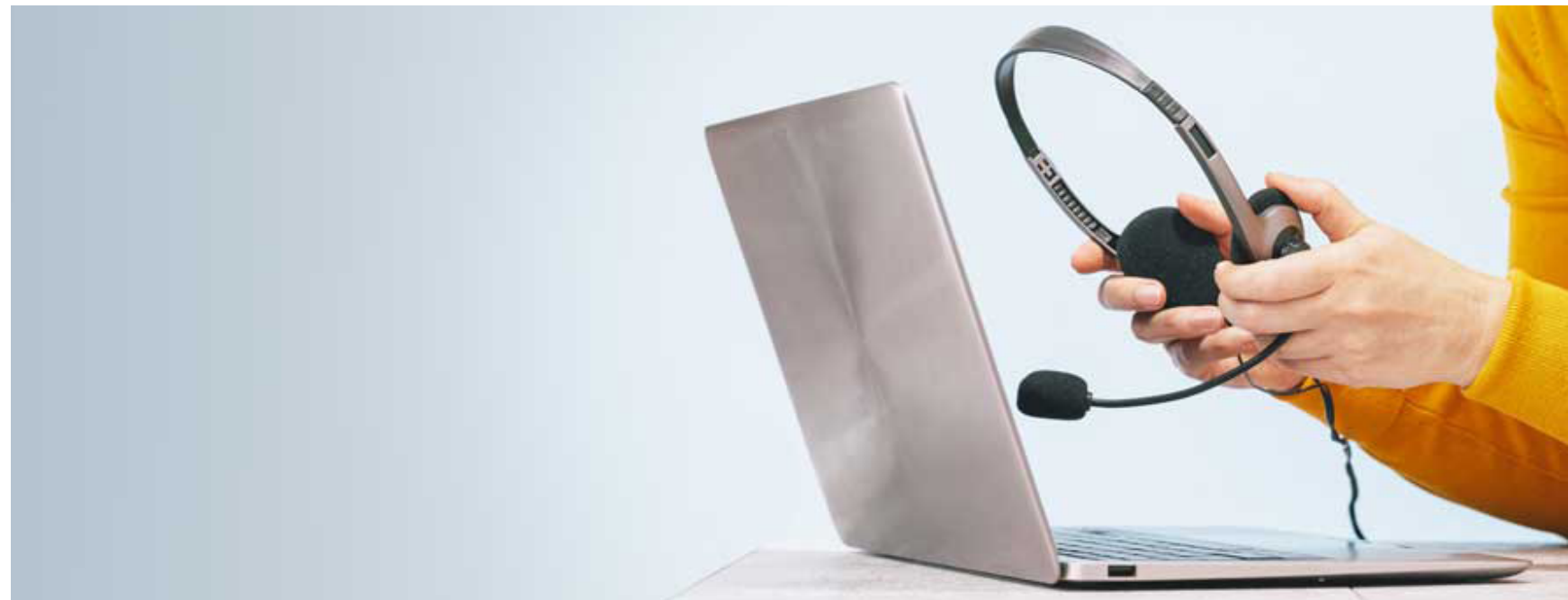
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By testing at every stage, catching issues earlier, and making the entire testing process more effective, the software that's finally released is of higher quality. And that enables businesses to deliver better customer service.

Due to improved releases, contact centers that work with Cyara report many benefits, such as fewer calls dropping after 30 seconds, along with an increase in positive customer interactions.

On average, they recapture nearly $442,000 worth of abandoned calls. One customer even noted, "We likely wouldn't have been able to attain the reliability of our chat interface without Cyara."[5]

These are all CX and bottom-line benefits of improving software releases through continuous testing. It goes even further, though, because better software can also enhance data security. Data breaches cost businesses over $1.2 trillion in 2018, and high-profile software failures have been even more prevalent since then. [4] For businesses like financial firms and insurance companies that deal with highly sensitive customer data, enhanced security is essential.

Cyara customers report fewer dropped calls, increased positive customer interactions, and $442k saved in recaptured abandoned callers.

Experience the CT Advantage

As more businesses migrate to the cloud or implement other digital CX solutions, they must adapt their software development processes to keep up with the changes. Continuous testing ensures companies can stay on track by making the entire development cycle more efficient. The result is improved software and better CX. And ultimately, major cost-saving advantages for your business.

Cyara has helped countless organizations realize the benefits of continuous testing. Our award-winning Automated CX Assurance Platform ensures a seamless end-to-end journey for your customers by integrating a variety of tests throughout the process.

About Cyara

The award-winning Cyara CX Assurance Platform helps companies accelerate customer experience development, increase quality across all digital and voice channels, and assure customer journeys endto-end. The Cyara Platform supports the entire software development lifecycle for customer experience, from design to functional and regression testing, user acceptance testing, load testing and production monitoring. We test from the customer's perspective, ensuring that you identify issues that impact the customer's experience from across the complex set of technology used to deliver that experience. www.cyara.com

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BOTIUM
Chatbot Testing & Assurance

CRUNCHER
Performance Testing

PULSE
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