

Zero defects, zero hypercare: Accelerate SAP updates with smart impact analysis

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SAP application updates and a clogged kitchen sink have more in common than you might think. For the kitchen sink, the first instinct for many is to pull in family or friends to help or spend a small fortune at the hardware store, all while the backlog of dishes grows. After exhausting all options, you call the plumber who quickly locates the clog and repairs it.

For IT professionals, SAP application updates can feel like trying to fix a clogged kitchen sink without a plumber. Implementations are complex, and teams often don't have a way to determine where the potential issues are or how they could impact existing functionality. As a result, teams test too much, too little, or the wrong things entirely – and then spend weeks in hypercare trying to identify the root cause of an error that has made its way into production.

Ultimately, the 'try anything' approach to SAP testing slows down an enterprise's SAP releases, adding to costs while doing little to minimize risk. What if, like a plumber who can quickly find a clog in the kitchen sink before the dishes pile up, you could quickly identify where potential issues exist in your next SAP release and remedy them before they ever get to production?

Less risk, more speed

Many enterprises are falling behind on their SAP updates because SAP has been steadily increasing the pace at which it delivers support packs – and because business innovation relies on increasingly frequent customizations. Once issued on an annual basis, SAP now releases feature packages on a quarterly basis, and many organizations report making updates to their SAP systems on a monthly, weekly, or even daily basis.

Traditional testing methods are just not fast enough to handle today's accelerated update cycles. To better understand this issue, Tricentis collaborated on research with ASUG, the world's largest SAP user group, about SAP customers' needs and challenges related to SAP updates, testing, and rollouts. The study found that the top three challenges SAP customers face during updates are risk (51%), speed (46%), and cost (41%).

Top challenges when updating SAP systems



Source: ASUG and Tricentis research, August 2020

Rapidly evolving technology requires IT teams to upgrade their systems regularly, and <u>41%</u> of respondents are updating their SAP systems every couple of months or more frequently. But these updates are lagging because of legacy testing processes that are labor-intensive. Testing is the top cause of bottlenecks in the SAP release process for <u>49%</u> of respondents.

Greatest sources of slowdowns in the SAP release process



Source: ASUG and Tricentis research, August 2020

> Where the ideal SAP release process goes wrong

The idealized view of the SAP release process is the classic three-tier landscape of development, testing, and production. Changes are supposed to flow from left to right so that changes made in development are then promoted into the test system. The changes are then validated before finally being released into production.

Although it sounds simple in theory, the reality is that the process is much less straightforward and often ends in critical issues with releases. That is because IT professionals routinely don't think to ask a difficult, but necessary, question: **what should be tested?**

With uncertainty about how to answer this question, organizations will likely take the much less effective 'test-everything approach.'

The top challenges respondents experience with SAP testing are:

1. The availability of test data and environments

2. A lack of dedicated testing resources

 Not knowing what to test based on the impact of the related changes

Source: ASUG and Tricentis research, August 2020

This approach can be relatively useless in highly sophisticated applications, such as SAP. SAP applications have an enormous number of dependencies that make it problematic to determine what should be tested in response to a change. The change could be a code, config, other data, user interface aspects, or even the APIs being consumed. It becomes a game of Where's Waldo to find where the change is hidden.

By questioning what should be tested, the entire SAP release process velocity is accelerated and prevents the consequences of defects in the production stage.

> The problem with hypercare

To mitigate risks and ensure zero-defect releases, many organizations will employ a process known as hypercare. **Hypercare brings together all of an enterprise's most expensive and skilled resources** from key users, development, operations, and testing to respond to the emergency defects that come up in production.

Hypercare is a high-cost endeavor that requires an extreme level of intensity. While critical resources are tied up in hypercare, an organization's backlog continues to grow. Yet, without it, companies will likely suffer significant damage in their release systems. According to Forrester's survey of their larger SAP customers, **one hour of downtime costs between \$500,000 and \$1 million**.

The ASUG and Tricentis study found that a majority (60%) of respondents rely on business users to do their testing, which takes them away from their critical day-to-day work. Business user testing is often the last step in the process before the release, which means defects are discovered very late in the game.

Often a hypercare period is required to clean up these issues after the release has gone out. This could explain why <u>75%</u> of respondents said they require hypercare periods after their releases.

The good news is that hypercare is not the be-all and end-all solution for ensuring zero-defect releases. Tricentis LiveCompare eliminates the need for hypercare. LiveCompare protects your business processes with Al-powered risk analysis that provides 90%+ risk coverage and zero-defect releases.

For example, a Tricentis customer found themselves eight years behind on SAP support packs. This amounted to a backlog of more than 1 million application changes. **The company used LiveCompare to answer that all-important question – what should be tested?** The customer was able to go live with zero defects and zero hypercare.

> Ensuring a risk-free release

LiveCompare's name comes from its ability to compare SAP systems in real time. LiveCompare analyzes SAP systems at the object and code levels, pinpointing exactly what needs to be tested in a given SAP update based on whether the changes put an object at risk.

LiveCompare sits alongside dev, testing, and production in the SAP release process like a trusted friend. First, LiveCompare ingests data from two sets: change data from the development system and usage data from production. Usage data is particularly fundamental to ensure LiveCompare's results focus on the things that an enterprise actually uses day in and day out to support its business processes.

"Using LiveCompare we achieved an 8x increase in release velocity. 11 to 88 per year."

- SAP Quality Manager

Once LiveCompare has these two datasets, it then applies its sophisticated smart impact analysis, using AI to pinpoint exactly what needs to be tested to deliver a zero-defect release in production.

LiveCompare integrates with Tricentis Tosca and Tricentis qTest to provide even more time saving and risk-reducing benefits. Integrating enables LiveCompare to automatically:

- Identify the automated test coverage and gaps for an SAP update.
- Create the associated test plan and requirements in Tosca or qTest.
- Audit test results to monitor progress and assess release readiness.

LiveCompare is unique in its ability to identify the most at risk functionalities to test. Tricentis LiveCompare customers agree, and they are cutting their release test scopes by **85% or more**. In other words, they can **cover 100% of the risks to their SAP systems for only 15% of the effort** they previously put into testing SAP releases.

Making an impact

Have you ever thought about when changes are made, what do they impact?

There are multiple layers of components such as the data dictionary, standard code, and custom code that are impacted. These all support what is referred to as the **testable surface area** of the SAP application.



The testable surface area has changed over time. Historically, it comprised only transactions and programs. Now it has expanded to include new interactive experiences, smart forms, APIs, and Fiori web applications. LiveCompare takes a deep dive into all these intricate parts of the testable surface area.

> A smoother SAP testing journey

Forrester conducted a study on the cost savings and business benefits enabled by SAP application testing solutions by Tricentis. Forrester interviewed five decision-makers with experience using these solutions. Prior to using SAP application testing solutions by Tricentis, interviewees noted their organizations:

- Incurred high costs related to application testing processes due to manual testing practices.
- Lacked visibility into what to test based on any changes made.
- Experienced poor integration with SAP and its roadmap.

These challenges are common among Tricentis' clients, and often lead to overly broad scopes for application testing, lengthy and infrequent software release cycles, delays to the productivity of application end users, and bug-laden user experiences.

The same Forrester study found that these challenges had a negative impact on job satisfaction and work-life balance. An ERP principal test manager in the telecommunications industry said, "SAP Change Impact Analysis really makes a difference when the support guys that are in charge of operations come to you and say, Thank you for letting me sleep after the production go-live because it saved my night."

"Before, our testing wasn't structured at all. We had no idea what we were really testing or why."

- IT senior solution manager, agriculture

After the investment in Tricentis solutions for automated functional and performance testing, interviewees noted a reduced cost of testing and faster software releases. Their organizations reduced the scope of their testing, automated both functionality and performance testing processes, and improved the productivity of end users by releasing updated software more frequently. These organizations:

- Reduced testing scope by <u>84%</u>.
- Improved their application release rate by <u>300%</u>.
- Reduced costs of performance testing-related hypercare by <u>90%</u>.

> So, what should be tested?

It's okay not to know the answer to this important question. In fact, most companies don't know, and put a lot of time, effort, and money into trying to figure it out in the form of hypercare.

Your organization should care about hypercare, but only to the extent that this draining process does not play a part in your SAP testing. Be on the lookout to prevent it from creeping in.

By using Al-powered impact analysis, you can shift your testing team's focus from complex hypercare to simply knowing how to answer that question. Because zero defects equal zero hypercare.



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ABOUT TRICENTIS

Tricentis is the global leader in enterprise continuous testing, widely credited for reinventing software testing and delivery for DevOps and agile environments. The Tricentis Al-based, continuous testing platform provides automated testing and real-time business risk insight across your DevOps pipeline. This enables enterprises to accelerate their digital transformation by dramatically increasing software release speed, reducing costs, and improving software quality. Tricentis has been widely recognized as the leader by all major industry analysts, including being named the leader in Gartner's Magic Quadrant five years in a row. Tricentis has more than 1,800 customers, including the largest brands in the world, such as Accenture, Coca-Cola, Nationwide Insurance, Allianz, Telstra, Dolby, RBS, and Zappos.

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