



# Ten Tips for Developing a Powerful End-to-End Contact Center Testing Plan

*Empirix solutions preempt significant problems by delivering expert, end-to-end validation of expected real-world performance.*

To achieve the time and money savings that pre-deployment testing offers, you need in-depth strategy and execution plans. This paper provides actionable information to ensure you achieve your testing goals, including:

- Detailed guidelines for developing your testing plan
- Step-by-step instructions for building an impactful testing ROI case
- Advice for developing a follow-up plan for your test phase

With over 77% of customer interactions occurring over the phone and 57% of customers surveyed choosing the phone as their preferred method of interaction with the contact center, pre-deployment testing of the contact center voice environment can result in both time and money savings, an improved customer experience, increased revenues, and expanded market share. To capture those benefits a testing strategy is required. But how in-depth do testing strategy and execution plans need to be?

Before implementing a test scenario, you must understand your existing environment, identify the tests that should be performed, gain clarity on the execution considerations, and make a case (complete with ROI analysis) for implementation. While there is no single answer when it comes to developing a testing plan, this paper will outline basic testing considerations, as well as some of the key metrics that will enable you to make a proposal that includes compelling ROI metrics.

## **SET GOALS AND EVALUATE RISK**

The first step in considering testing contact center applications or networks is to establish clear goals. Your test plan can affect many other business areas outside the contact center; designing tests that cover the needs of other departments is a sure way to secure buy-in from other teams.

*Runtime is the return on investment of automation—you need runtime capabilities to achieve an optimal ROI, and this only happens when you do not have to repeatedly modify scripts.*

Make sure they are included in your goals and that you understand the metrics that will help identify cross-departmental operational and financial benefits. It is equally important to understand the risk profile of your deployment, ensuring it is consistent with your organization's risk profile. This includes the costs of a new deployment, both fixed and variable but also unplanned costs based on outages, downtime, extended time to resolution, etc. A proper test plan can help reduce outages and delays.

## **BENCHMARK**

How does the system perform and behave today? Low-volume, continuous testing metrics will be essential to understanding the impact of an application change or a significant increase in traffic volume.

## **TEST END TO END**

Customer calls run through a complex maze of private and public networks to get to your business; interoperability problems typically comprise a majority of the issues found during testing.

## **TEST TO CAPACITY**

One metric that's often misunderstood is capacity. Ensure you clearly understand the typical load versus the peak load that the infrastructure and applications can handle. Then, test to peak, not typical capacity. Remember that it's not always about the number of concurrent transactions; it very well could be the frequency of transactions that causes performance degradation. Sudden bursts of traffic and their impacts must be taken under consideration.

## **TEST TO OPERATIONAL STANDARDS**

Don't overlook the end configuration: If you disable logging and all unnecessary services to pass a stress test, how will those services impact operations when the tests are completed and the contact center is live?

## **EVALUATE MULTICHANNEL CONTACT THROUGH VOICE/VIDEO/DATA CHANNELS**

It's critical that you completely understand customer contact methods and of course, your goals. Test each of these channels exclusively, but also measure one channel's impact on another. Doing one without the other leaves you open to unexpected issues once you go live.

For example, if you've recently installed a session border controller (SBC) that handles both voice and data traffic for the enterprise, do the following: test voice at load, test data at load, and then test the impact of voice on data performance and vice versa during an active security attack scenario. This will help you predict the customer experience and ensure business continuity while the organization is experiencing a security event.

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## ASSESS YOUR NETWORK

Plan for a network assessment that includes all network elements that will be working together. This will provide a good sense of foundational network status, enabling you to correct issues before investing in performance testing at the application level, where you will measure the customer experience.

## PLAN FOR THOROUGH, COMPLEX TESTING

A comprehensive testing plan includes:

- **Real-time synchronization:** Test configurations where end-to-end performance is measured in real time. Validate that calls are routed to the correct agent, data is passed at the CTI layer, and screen pops are timely and accurate. If possible, separate test application scripting from test orchestration.
- **Meaningful reporting:** Ensure the test reports you receive are timely and consistent with your organizational and testing goals. Moreover, ensure those reports are meaningful to anyone who may need the information. Test script labels that match the actions/dialog modules and application documentation will limit confusion.

## CONSIDER THIRD-PARTY INTEGRATION

### (Open/Closed) APIs

Consider all data sources in your test plan, not just that of the new system. Be sure those sources can be measured by your test in order to present the best view of what's happening.

Also, try to account for how the system will be monitored in the future, including how your work may be used for ongoing monitoring and root cause analysis by the operations team.

### Build an Impactful Testing ROI Case

If you build an ROI model, validate costs and focus on hard time and cost savings, by the time you're ready to present your case, you'll be in a much better position to justify the solution to the business and ultimately, minimize the risk of deploying new technology in your contact center.

## THREE STEPS FOR BUILDING AN IMPACTFUL TESTING ROI CASE

### STEP 1: Focus on Hard Cost Savings

- You know there will be soft, incremental customer satisfaction and revenue gain improvements. When building an ROI case, though, focus only on the incremental hard dollar cost savings: They are credible and can be measured. This is the first step in delivering a convincing story to your business team.

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## STEP 2: Identify Only the Key Metrics Directly Impacting Potential Hard Cost Savings

Empirix conducted some primary research to uncover the top cost-saving metrics to consider. Not all will be applicable to every situation; choose those that make sense for you:

- **Reduction in Poor Voice Quality:** Cost savings from eliminating workflow interruptions that occur due to poor voice quality.
- **Reduction in Misdirected Calls:** Cost savings from eliminating incorrect and unnecessary call transfers and increasing first call resolution (FCR).
- **Reduction in Callbacks:** Cost savings from eliminating repeated calls occurring due to system performance.
- **Reduction in “Lost” Agent Time:** Cost savings from eliminating idle time caused by lags resulting from a mix of communication technologies, mismanaged queues and lack of virtual queuing.
- **Reduction in Containment (Self-Service) Overages:** Cost savings from increasing the percentage of calls completed via self-service to the containment percentage goal.
- **Reduction in Customer Churn Attributable to a Better Customer Experience:** Revenue increase due to reduced customer losses normally attributable to mismanaged workflows.
- **Reduction in Project Completion Delays:** Elimination of delays that occur due to problems that arise in regression cycles or that are detected by test automation frameworks.
- **Early Discovery of Issues:** Cost savings related to identifying and eliminating problems before they impact customers and operational teams.
- **Automating Testing:** Productivity improvements and cost savings resulting from automation freeing manual test teams to focus on documenting bugs and resolving complex cases.
- **Reduction in Performance-impacting Incidents (Annually):** Cost savings in man hours from the elimination of performance-impacting incidents.
- **Reduction in Mean Time to Diagnosis (and Hence Repair):** Cost savings in man hours from a decrease in the average time required to identify the root cause of a problem.

### STEP 3: Validate Your ROI Model Inputs

Know to the penny, each cost and in particular, those associated with the following list. If you don't, you'll be surprised by what you discover (note: think in annual numbers).

- Number of incidents
- Number of concurrent self-service calls to be tested
- Actual containment percentage u Containment percentage goal
- Number of completed calls
- Average cost per call
- Number of peak calls per hour
- Number of peak agents staffed
- Average cost per transfer
- Percentage of transfers that could be eliminated with improvement
- Number of repeat calls
- Agent minutes lost due to poor voice quality
- Annual customer churn
- Percentage of churn attributable to poor experience with technology
- Dollar value of a customer relationship
- Average project length (in days)
- Average number of people per project
- Number of incidents likely to be found in post-production if testing is not performed

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### BUDGET, BUDGET, BUDGET

Companies that view testing as a strategic line item in their business plans are the most successful. They set goals, plan, budget and execute. Once in the virtuous cycle of testing before deployment, they tend to test regularly as new contact center technology is added. Those that see it as an afterthought tend to increase testing requirements as project timelines are extended due to unforeseen issues.

### UNDERSTAND THE TESTING TO MONITORING LIFECYCLE

The final step is to develop a follow-up plan. Include an active and/or passive change management and monitoring strategy. Things start changing as soon as testing concludes, which means the testing report is out of date from the moment it's produced, so think of the network as a living thing that needs to be cared for. Ongoing monitoring of the system and configuration changes is crucial.

Also be sure to consider audit and rollout/rollback configuration tools capable of providing a continuous and seamless transition from testing to monitoring a live environment. This will enable you to deploy new technology or make changes to existing technology with confidence.

## EMPIRIX SOLUTIONS

Empirix testing solutions provide the proof you need to implement technology changes with confidence. Our testing solutions pre-empt significant problems by delivering expert, end-to-end validation of expected real-world performance. We offer the most comprehensive, flexible, and scalable pre-deployment testing solutions designed to predict the behavior of complex IP-based solutions in the real world. We create scenarios that closely mimic actual customer actions (e.g., making phone calls, navigating web pages, watching videos) and drive that traffic through the network under full and oversubscribed conditions. Our integrated voice, video, and data testing offers insight into the quality of the application as customers experience it, enabling you to overcome the complexity inherent in today's sophisticated, hybrid communication environments.

Once new contact center technologies are deployed, it is important to snapshot configurations and continue to monitor the applications and any configuration changes. Empirix provides end-to-end monitoring solutions that offer complete understanding of network and application performance as experienced by customers, as well as configuration management and audit capabilities that help roll out positive changes and roll back negative changes—seamlessly.

Empirix is the only provider of solutions that provide comprehensive visibility into the complex array of factors impacting customer experience, interoperability, and network performance. We are uniquely able to provide end-to-end assurance of voice, video, and data services in a single solution.

Empirix analytics solutions can also help you identify new opportunities and enable true understanding of your deployment by transforming multiple customer, network, and operational data streams into insights that reveal key trends and illuminate micro-causes. By providing actionable intelligence at every level, we can empower you to uncover new revenue streams, develop more competitive business models, strategically enhance the customer experience, and carefully control costs.

Using the testing plan outlined in this paper, supported by comprehensive testing solutions from Empirix, you can improve business performance by predicting your customers' communications experience, end to end.

*Pre-deployment testing of the contact center voice environment can result in time and money savings.*

