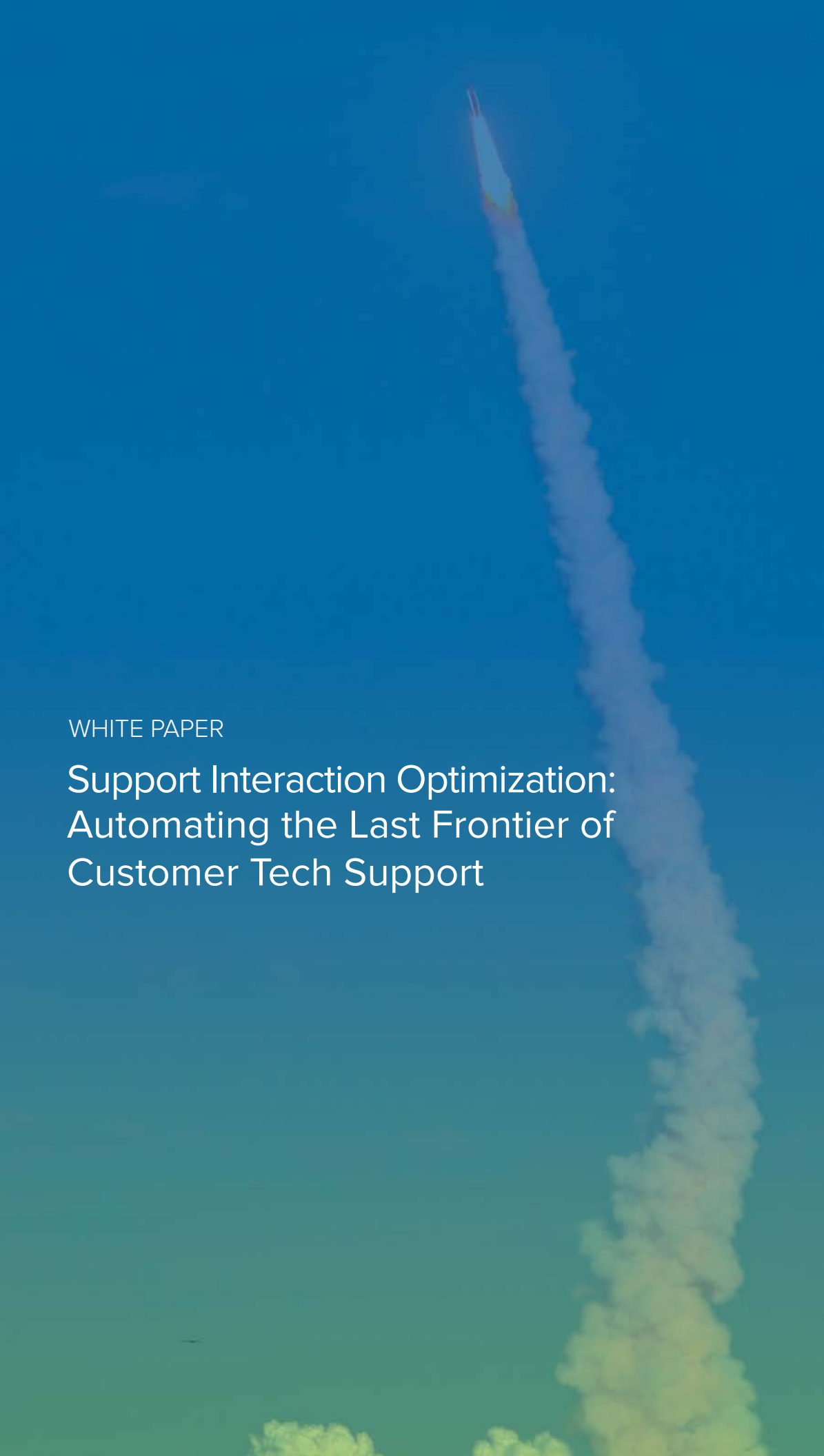


WHITE PAPER

Support Interaction Optimization: Automating the Last Frontier of Customer Tech Support



A NASA satellite engineer once said that a rocket launch is like sending your kid off to his first day of school: You hope and pray you did everything right, because for the next few hours, it's out of your hands.

It's a little like that in tech support as well. We've automated everything we possibly can and trained our agents thoroughly, but once they pick up the phone it's out of our hands.

As each of us can personally attest, customer relationships can be built or broken during support calls. A company needs to use the best hiring and training techniques, then augment them with the best support software, if it wants to rise above the competition and improve the bottom line. In this paper we'll look at how this can apply to the actual call itself.

If you were to draw a diagram of the life cycle of a support episode in a reasonably sophisticated contact center, you'd see a process steeped in carefully thought-out automation.

Even before a call is answered, an automatic call distribution system has already determined if it's an existing customer or someone who's called before. Interactive voice response will quickly figure out what the call is about and use skills-based routing to make sure the call gets to the proper agent. Computer-telephony integration and a customer relationship management system will populate that agent's screen with a wealth of pertinent information, and a semantic analyzer might even alert her as to what kind of mood the caller is in.

Then, at the most crucial point of the whole process, all of that programmed intelligence drops away and it's just two people talking. For the next few minutes it's out of our hands, and there's little else we can do to influence the outcome.

To someone who views the contact center as a burdensome necessity that has little impact on the bottom line other than draining money, this bit of free-form white space in the life-cycle diagram might not be troubling. But if, like many enlightened managers and executives today, we view the contact center as a vital component of our relationship with our customers, we might feel the way the NASA engineer does, hoping and praying that we did everything right before the call passes out of our control.

It doesn't have to be that way. Just as rocket scientists learned over time how to build telemetry into their valuable assets, we're now learning how to bring technology to bear on those precious few moments when one of our people is representing us to our most valuable assets.

Common approaches to this shortcoming are to monitor phone calls in real time or review recordings at a later time. But both are diagnostic, any remediation is post hoc, and there is no guarantee that the remedy will be implemented on the next call.

What is optimization in the contact center?

Let's first define our terms. This will require us to ignore how scientists and mathematicians define "optimization," which is the method of making a process as efficient as possible. Once you reach that state, no further improvement is possible. There is no such thing as being "more optimized" because something is either optimized or it isn't.

The definition of "optimization" in industry and business is a little more fluid. It refers to an ongoing process of incremental improvements within a set of constraints defining minimum standards of quality. This is usually a straightforward proposition: If one process produces a tin can for a nickel, it is "more optimized" than one that does it for six cents, assuming both tin cans meet the same standard of quality.

In a contact center, "optimization" is even more loosely defined. As every contact center manager knows, there are few hard guidelines when it comes to balancing the two most basic competing imperatives of every support organization: cost and customer satisfaction.

It's easy to minimize contact center costs: Don't have a contact center. Similarly, it's easy to maximize customer satisfaction: Put your best engineers on the phones and tell them to spend as much time as it takes to make every caller completely happy.

Somewhere between these extremes is the happy medium at which customers are satisfied with support that is supplied at reasonable cost to the provider. What constitutes an acceptable level of customer satisfaction and a reasonable cost is something every contact center manager wrestles with.

Fortunately, he or she has a lot of help. Supplying hardware, software and services to contact centers is a fiercely competitive, \$6 billion industry, all of it focused on fulfilling a central promise: reducing costs without compromising customer satisfaction.

Depending on how much of a vendor's representations you believe, progressive optimization shouldn't be that difficult. If it saves more than it costs, and improves (or at least doesn't reduce) customer satisfaction, it's worth doing. What makes it tricky, though, is making sure you can a) account for all the costs, including the burden of implementation; b) measure and verify the benefits; and c) easily rip out and discard the "solution" if it doesn't live up to its promise.

The contact center space is mature enough that we can reasonably predict costs and benefits based on the experiences of others. We know the telephony features we're going to need; we realize that ACD/IVR capability is indispensable; we know the conditions under which workforce optimization is going to pay significant dividends; and so forth, down a rich list of automation options. We know the relevant metrics and we have the analytical tools to gather and interpret data.

The quantifications are standard enough that we can compare one contact center to another and learn from each other's experiences, at every step of the support episode process.

Except one.

We're still babes in the woods when it comes to analyzing and *optimizing* that part of the process during which the actual interaction between an agent and a customer occurs.

The reason is simple: It's the only aspect of the support process relatively untouched by automation.

A number of companies have recently begun tackling this "last frontier" of contact center automation, attempting to bring to it the same level of rigor and sophistication that exists throughout the other parts of the support process. The objective is the same: Reduce costs as much as possible without any consequent erosion in customer satisfaction.

Happily, it turns out that SIO (Support Interaction Optimization) has the potential to claim the holy grail of the industry, namely reducing costs while dramatically *boosting* customer satisfaction.

Optimizing the support interaction

The goals involved in optimizing through automation are familiar:

- 1) Make the caller as happy as possible.
- 2) Do it in as short a time as possible.
- 3) Make sure there's no need for another call.

The key metrics for assessing these three goals should be familiar, too. They are Net Promoter Scores (NPS), handling time, and first call resolution.

It's not easy figuring out what specific values of these metrics are reasonable to shoot for in a particular contact center, but there's a straightforward starting point in determining what's possible: Identify the one agent who consistently delivers the best numbers. Not only is this your superstar, it's also living proof that those numbers are attainable.

More than that, it's your model of how an agent should conduct himself for maximum impact, and that in turn provides you with the most important input into automating the agent-customer interaction: the recipe for how to conduct the conversation. If you can get all of your agents to support customers the way your best agent does, you've optimized the "last frontier."

This is what SIO, Support Interaction Optimization, is all about.

The Elements of SIO

Automating the agent-customer interaction to improve caller experience requires the following:

- 1) Systematize the best approaches to solving customer problems
- 2) Apply those approaches consistently across all agents
- 3) Provide tools to enhance the resolution process and speed the interaction along
- 4) Continually fine-tune based on data gathered from each interaction
- 5) Provide feedback to the manufacturers to help them improve their product or service

Let's discuss each in turn before looking at how they're implemented in SIO software.

1) Systematize the best approaches

There are many ways to solve a customer's problem but there's only one best way. However that's determined (more on this later), the best approach needs to be packaged up and made available to every agent on every call.

This is a good place to mention that not every type of support interaction needs to be formally codified in a stored procedure and invoked every time the situation arises. If we did this every time a customer forgot a password or didn't know how to open the disc drawer, we'd defeat the purpose of SIO by bogging down agents with "assistance" they don't need. And we'd add the burden of supplying extraneous analytic data that management hasn't asked for and doesn't need.

The real benefits of SIO accrue when dealing with complex Tier 1 & 2 issues, the kind that could otherwise easily get an agent marching down a series of dead-ends that could have been foreseen.

2) Apply best approaches consistently across all agents

Tech support shouldn't be like a box of chocolates: A customer seeking help should know exactly what he's going to get, and it shouldn't depend on which agent he happens to end up connected to. If we're confident that our stored procedure is the best approach to getting the issue resolved, then every customer deserves the benefit of it.

Consistent application also has a direct impact on handling time. As we'll see later, it's almost impossible for an agent to know, based on his own experience and perhaps some random conversations with his peers, how much time he might be wasting trying various solutions that sound promising but have a low probability of success.

Using automation to ensure consistent execution also provides management with a way to be assured that policies and procedures are being adhered to. Compliance shouldn't depend on an agent's personality or memory or discipline. By codifying policies into the stored procedures, they'll be presented to the agent at the exact moment they're applicable, and therefore stand a far better chance of being followed than if it were left to intermittent training or coaching.

3) Provide the right tools

We've all had the deeply frustrating experience of trying to walk a novice through a series of seemingly simple mouse clicks and keyboard entries, and of hearing that person try to explain what he's seeing on his screen. ("There's a kind of a blue thingie on the left but...oh, wait, it just moved to...no, it's back...") It's not unusual to spend twenty minutes trying to get someone who "just doesn't get it" to navigate to the right folder before the real problem-solving even begins.

Here's one of the few absolutes in the contact center world: If an agent can't connect to a customer's device, there's going to be a lot of wasted time that adds up to dollars lost at the bottom line and a counterproductive tidal wave of agent and customer dissatisfaction. At an absolute minimum, a tech support agent should be able to initiate a co-browsing session where she can see the customer's screen, even if she can't affect it. Much better is to provide the agent with some basic tools that let her point to and highlight things on the screen in order to draw the customer's attention to them.

But those are still workarounds. The most effective tool in the agent's arsenal is full remote control, where she can, with the customer's consent, take over the mouse and keyboard and operate the device herself.

Even then, there's another level of support left, and that's the ability to push executables to the remote device and run them. This can take many forms, the most useful being diagnostic and "fix-it" modules. These can originate from the support provider or from libraries maintained by third-party operating system and application vendors, and made accessible to authorized parties.

With these last two support components in place – remote control and process launching – we remove impediments between the agent and the problem, and she can tackle it as though she were sitting right next to the customer.

4) Continually fine-tune based on gathered data

Part of the obligation of a robust SIO system is to check its own work. It does this by gathering data about what occurred during every interaction (which is one of the additional benefits of using an SIO system), checking it against the outcome and providing insights that allow contact center managers to further optimize the stored approaches. Those updated procedures, which should be instantly available to every other agent, can then be evaluated by the same mechanism to see whether or not they are an improvement over the prior version.

It's worth looking at an example of how an SIO system could pick up something that could easily be missed by less sophisticated, manual processes.

Let's say that a customer calls in complaining of a suddenly slow Windows PC. A typical first step would be to reboot, a five-to-seven-minute process, and see if that clears up the problem. If it doesn't, we might be tempted to launch a system restore, followed by a reboot, which could take another 10-12 minutes. So we want to avoid those attempts and see if we can find something obvious. We ask about recently installed software, signs of malware infection, how many processes are running simultaneously, and so forth.

Over the course of many hundreds of such support episodes, agents begin to get a feel for what works and what doesn't. They discover that, most of the time, they can ferret out the problem and solve it without a reboot or system restore. Intuitively, the approach feels right.

With SIO in place gathering detailed data on all of those hundreds of support calls, we might discover that the process of ferreting out the root causes of the slowdown is, as suspected, working 60% of the time, and that restores/reboots are only required 40% of the time. However, we might also learn that those detailed investigations are taking longer on average than the restores/reboots, and that, at least 50% of the time, a restore/reboot is what's solving the problem anyway.

Were the contact center supervisor to act on those findings, he might change the stored procedure for a suddenly slow PC to sidestep any investigation at all and proceed immediately to "restore/reboot." As counterintuitive as that might sound, the revised procedure is going to result in a drastic reduction in average handling time, even though the lengthy restore/reboot approach is going to fail 30% of the time and require that the original investigations be carried out. And the data will back up the supervisor's decision.

There are many less involved examples as well. Let's say we have a 10-step guided procedure for addressing a smartphone connection failure. Based on previously collected information, we know that savvy agents are consistently skipping Steps 3 through 6, and resolving the issue on Step 7 or 8, nearly 90% of the time. Knowing this will allow us to save a lot of time by reflecting that accumulated wisdom in a revised, more efficient procedure.

5) Provide feedback to vendors

Whoever is making the software, product or service being supported is going to be vitally interested in how their creation is faring in the real world. Their interest is an economic one, not just because they're probably bearing the cost of support, but because of the potential impact on their reputation.

If support is being handled in an SIO environment, there is a great deal of information that can be gathered to help pinpoint the source of recurring problems. A smart TV or cable box maker might be interested in learning that 90% of reported problems were solved by turning the customer's WiFi router off and on. In other words, 90% of the time it was actually some other manufacturer's problem. A solution as simple as providing additional troubleshooting procedures in the consumer packaging might lead to a dramatic reduction in support costs.

How is SIO implemented?

Now that we know what's required to create an SIO environment and what the benefits are, let's talk about how it's actually implemented in a contact center.

It's all done with software, whether delivered in the cloud, on-premise or in some combination. The software needs to deliver three basic capabilities:

Guided problem resolution

- Also known as “guided process workflow” or (misleadingly) just “workflow,” guided problem resolution is at the heart of SIO automation. These are the stored procedures that embody best practices for each customer problem type. They consist of a series of steps that guide the agent through the optimum resolution process, gather data about what was tried and what the outcomes were, and, if remote control is available, initiate the launch of diagnostic or repair processes on the customer's device.
- A complete solution includes an editor for creating and modifying stored procedures. Ideally, this editor will have a user-friendly graphical interface that is easily handled by contact center managers and supervisors without the need for IT support.
- Optionally, integrations might be provided that connect the SIO software to CRM and self-service systems. The latter would allow customers to take advantage of guided workflows without agent involvement. Integrations may also be provided to knowledge management systems, enabling stored procedures to use information already in place in a corporate knowledge base without having to re-create it in the SIO system. Connection to a formal knowledge management system also makes it easier for agents to suggest modifications to stored resolution flows.

Remote control

- This was discussed in a previous section. The ability to directly address a customer's device is a critical component in any tech support environment.

SIO analytics

- There are two sub-parts to Analytics. The first is built into the guided workflow processor and gathers data about what occurred during the support interaction. The second is an intelligent connection to a reporting tool sophisticated enough to allow both pre-packaged and ad hoc analyses. The reporting function should allow unlimited drill-down, so that managers can dig beneath summaries and averages to uncover underlying variations and anomalies. Another desirable feature is version tracking of guided procedures that would allow for easy before-and-after comparisons when they are revised.

Additional benefits

By now it should be easy to see how implementing an SIO system will result in better service delivered in less time. There are two additional benefits that are less obvious but have bottom line impact: significant reductions in the cost of training agents and the potential for reducing churn in the contact center work force.

The hard truth is that providing tech support is a difficult, stressful and often tedious job, resulting in one of the highest turnover rates of any business sector. It's not at all unusual for a contact center to replace its entire workforce every year. Finding replacement workers places a tremendous strain on management, and there is a very high cost associated with training new agents.

Taking the second issue first: Training is largely about getting agents to memorize complex support procedures and knowing how to quickly find the right resources. A guided resolution system reduces the burden associated with both of these. There is no need to commit procedures to memory when the detailed steps are made available by the system.

Second, the steps within a procedure provide the appropriate resources at the exact time that they're needed. These could be in the form of text-based instructions, PDFs containing more detailed information, videos, diagnostic and fix-it modules to be pushed to remote devices, and calls to external knowledge bases. Clearly, this kind of capability provides significant reductions in the time and cost of training new agents.

As to the issue of turnover itself: A robust SIO system can have a powerful mitigating effect on both the stress and tedium of providing support. Guided procedures and remote control tools make it easier to solve problems, and solving them faster makes the process less monotonous and contentious.

Of equal importance is that agents can become far more engaged in the entire process of delivering support by participating in the continual fine-tuning of guided resolution workflows. Because their feedback is more systematized than random or anecdotal, there is more agent buy-in to the cycle of ongoing improvement. Countless studies have proven that a major determinant of employee satisfaction is the perception that they're being heard and have the opportunity to make meaningful contributions. Agents who are more satisfied are more effective at resolving customer issues, which leads to a direct reduction in the costs associated with losing customers and training new agents.

Next steps for a contact center

Providers of products and services for contact centers have wasted little time in aggressively embracing Support Interaction Optimization. This is good news for contact center managers because the resultant fierce competition means not only an increasing number of highly capable offerings at reasonable prices, but strong emphasis on making their implementation as easy as possible.

The trends accelerating adoption of SIO as of this writing are clear:

Cloud-based service: There is virtually no aspect of SIO that can't be delivered in the cloud, and the industry is taking full advantage of the many benefits attendant to software as a service (SaaS). Advances in ability to scale are making it possible for even large organizations to avoid the downsides of maintaining their own servers, comm lines, and upgrade rollouts. One of the great advantages of a cloud-based SIO service is the ability to start off slowly, because there is no capital expenditure involved and pricing is on a per-seat basis.

Ease-of-use: Lag times are being cut between perceiving a need for a new or revised guided resolution procedure and actually getting it implemented. More and more vendor offerings eliminate the need for IT involvement altogether by providing drag-and-drop, WYSIWYG functionality that requires no technical skill.

Ad hoc analytics: Leading SIO vendors have incorporated powerful third-party reporting and analytics capabilities into their services. These allow contact center managers to quickly triangulate in on problems and opportunities, and to much more effectively fulfill requests from executive management for one-off analyses. Many of these reporting functions can also integrate with other business systems in the organization to provide wider, more meaningful insights.

Third-party integrations: There is a high demand for integration in two specific areas, CRM and knowledge management, the latter primarily to support self-service. Leaders in the SIO space have made a great deal of progress in linking to the major CRM products. Knowledge base integration is lagging in comparison, but increasing demand will drive development there as well.

Suites: While contact center managers have the ability to select and combine various best-of-breed components, there is progressively less need to do so, allowing them to avoid the pitfalls of a multi-vendor configuration. Whether by building, buying or partnering, more and more vendors are offering fully-integrated suites that provide all the essentials of SIO. That said, forgoing superior standalone products for the sake of a single-vendor environment is generally not a good idea.

Trials: Several vendors of cloud-based SIO offer free trials. This is generally limited to software that is especially simple, since the more feature-rich offerings require more effort to implement. Cloud-based free trials, in combination with post-trial, per-seat pricing, provide a painless way for contact center managers to test the waters before making a full-scale commitment to SIO.

Summary

Support Interaction Optimization is the natural last step in using automation to increase the efficiency and effectiveness of the contact center. Industry recognition of the opportunities inherent in SIO has led to a broad array of service offerings that make it easy and cost-effective to exploit the possibilities. The most popular solutions offer enriched guided problem resolution capabilities, provide increasingly sophisticated analytics functions that drive valuable, cost-reducing insights, and integrate with both third-party products and other in-house systems. We're already seeing the addition of advanced natural language processing and inference engines that allow "virtual agents" to substitute for live agents in limited circumstances, clear signs that SIO has proven its merits and will only improve over time.

In coming years we'll see SIO expand into contact centers unrelated to tech support but which still tackle complex interaction issues. This will include healthcare consultations, insurance claim processing and inquiry, banking and brokerage transactions, maintenance procedures for manufactured products, general project management and countless others. The software and techniques are easily generalizable into those fields, especially after they've been tested and refined in the tech support arena where the groundbreaking work is now being done.



Ready to start your Support Interaction Optimization journey? For more information about how Nexus® helps improve productivity and customer satisfaction with Guided Paths™ and Interaction Analytics, visit our website <http://corp.support.com/nexus> or contact us at [650-556-9440](tel:650-556-9440) or sales@support.com.

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