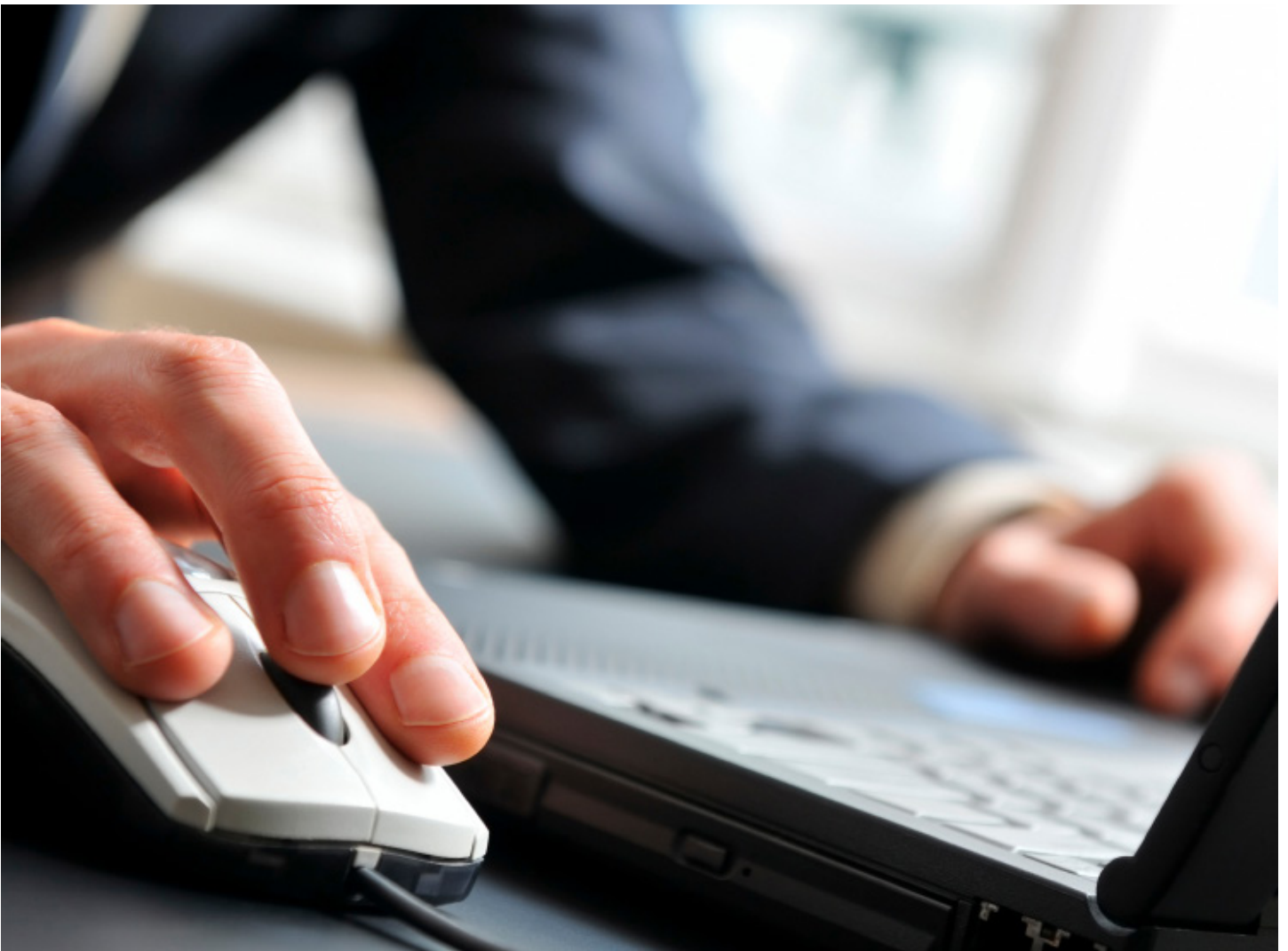


WHITEPAPER

# ONE CLICK SATISFACTION: AUTOMATING SERVICE AND SUPPORT WITH SUPPORT ACTIONS



## ABOUT

With a comprehensive set of solutions spanning self-service, customer management, chat, communities and proactive, just-in-time marketing and support all fueled by a patented, best-of-breed knowledge management platform and backed by advanced analytics Aptean's KCS Verified tools are the choice for integrated, multi-channel customer service and support. The only CRM vendor focused entirely on service and support, Aptean helps the Global 2000 control costs while providing a superior customer experience.

## DATELINE: BOCA RATON, FLORIDA

Lana sighed and looked at the clock on her desktop. It was 8:30 a.m., and the last of the 327 laptops had just been imaged. It seems like she and her colleague Roger had been living in this conference room, seeing nothing of the resort, for the last four days. And that was after three months, including too many nights and weekends, getting ready for the big event.

It was the worldwide sales kickoff, and all the reps had flown in to get fired up for the new year. They were also getting outfitted with brand-new top-of-the-line laptops, configured just for them, with one-click access to the product pages on the intranet, one-click access to the VPN, and one-click access to their sales management application. Lana and Roger had finished just in time: the sales VP was going to personally hand out the laptops during the closing event this morning, after which the reps would fly back to their territories all over the world.

At least she and Roger could get some rest, finally. It had taken months to pull together all the applications from all the different groups-and it all came together at the last minute, just like always. She prayed there would be no glitches and called the bell staff to move the laptops to the main meeting room down the hall.

The next day, the calls started coming. The sales reps were fired up, all right. "There IS no sales application," one yelled. "You gave me one-click access to an error message!"

A little digging around uncovered the truth. "Found it!" Roger grinned, somewhat inappropriately given the situation. "I knew we should have said no to that last minute phone sync application upgrade. It overwrites a file required by the SFA app."

"In other words," said Lana, "we spent weeks getting ready to ship some very expensive paperweights around the world."

## WITHOUT SUPPORT ACTIONS

"No problem," Roger nodded to himself, making notes. I'll just send 'em all an email telling them what to do. Step one, open the Explorer and delete the bogus file; two, go to the FTP server and download the new file; step three, unzip it; four, move it in the right spot; five, open up the Registry Editor and..."

"Registry Editor!" Lana interrupted. "Are you kidding me? Have you even talked with these people? They sell stuff for a living. Asking about people's kids? Sure. Playing golf? Fine. But FTPing? I think you've been playing too much World of Warcraft-you're living in a fantasy world."

"Maybe we can train someone technical at their offices."

"Most of them work from home."

"Have them ship us their computers?"

"Have us get blamed for every missed quota this quarter?"

Eventually, there was nothing to be done but to try remote log-ins to fix the issue, and, if that didn't work, ship the computers back and forth to get them fixed at Headquarters. 327 computers meant 327 angry sales reps, and one very angry VP of sales. Lana and Roger's project continued another four weeks, pushing their next project off schedule, too.

Lana knew what she would be talking about with her boss during her next annual review. Sure, mistakes can happen to anyone. But this one sure was a doozy.

## WITH SUPPORT ACTIONS

"No problem," Roger nodded to himself, making notes. "We did manage to get the Aptean Smart Issue software on the laptops, didn't we?"

"Of course!" Lana replied emphatically. "Our computers 'don't leave home without it.'"

"Great. Tell you what. I'll write a quick Support Action to download the right file, do the configuration, and next time they connect to the network they'll be all fixed up during the sync cycle. I'll have it ready before our staff meeting at 3:00."

"Sounds good...but it's not just a matter of downloading the file. We need to make registry changes and..."

"I know, I know." Roger waved his hand dismissively. "Support Actions have that covered. Now, let me open a Mountain Dew and get to work. The first time the boss hears there's a problem, I want her to hear that we have it solved."

"Excellent plan. I'll call the VP of Sales with the good news," said Lana. Sure, mistakes can happen to anyone. But this one was pretty painless.

## SUPPORTING COMPLEX ENVIRONMENTS

It's a hard job, and it's only getting harder.

Whether you're leading an **IT service desk** maximizing the productivity of demanding knowledge workers, a **customer support organization** making sure customers are receiving full value from your products, or a **digital service provider** seeking to increase average revenue per user (ARPU) and loyalty, the mission is the same. Your customers expect zero problems, but if problems do arise, you both want them dealt with quickly and painlessly.

Product complexity is increasing rapidly, and so too is the complexity of troubleshooting and resolving issues. Products are being used in new combinations. Smartphones synchronize with laptop applications. Those applications rely on networking, security, application, and user interface functionality spread across local devices, corporate servers, and the cloud. Devices from home entertainment systems to telephones are running the Internet Protocol. A problem anywhere in this complex web of technology can show up as a symptom almost anywhere else. Complex multivendor issues used to be the exception; now they're the norm.

Henry Ford said you could have the Model T in any color you wanted it, so long as it was black. As the market has moved from mass production to mass customization, every product, every installation, and every dataset is just a bit different. Cookie-cutter approaches no longer work for support: personalized products require personalized services.

Agents, analysts, and engineers spend more time gathering environment information and researching resolutions. And the days of pulling a single hotfix off the shelf and applying it across the installed base are long gone. Support must adapt to the increasingly individualized nature of problem resolution.

Our increasingly complex, customized technology environment is hard for support professionals, but it has been devastating for self-service, where success rates have trended steadily downward to nearly 40 percent.

In a recent research program, our partner DB Kay & Associates observed end users using self-service for an extremely popular product used by millions. Customers were often at a loss to describe their problem correctly, resulting in poor search results. To students of self-service, that's not a surprise. But what was surprising is that they often didn't recognize the correct resolution even when it appeared at the top of the search results! Or, if they did recognize the content, they found themselves unable to complete the resolution described. The content developers did everything right; the search engine did everything right; and still, customers couldn't execute. And, given the complexity and customization described above, perhaps that's not such a surprise, after all.

As an industry, our current performance is discouraging:

- IT Service Desks are less successful at keeping their users effective and satisfied, and are too busy with incident management to spend time on value-added activities like problem management
- Customer support organizations are answering phones, chats, and emails about low-value issues that would be more efficient and satisfying to handle with self-service
- Digital service providers are overwhelming customers with complexity, inviting churn and inhibiting customers from signing up for new offerings

So, support professionals and self-service customers each face challenges resolving issues and getting the full value from their products. Traditional text knowledgebases are helpful, but we need more powerful tools, too.

# SUPPORT ACTIONS TO THE RESCUE

Fortunately, support staffs are not left to their own devices to sort through environments and configurations to determine the best resolution. And, puzzled customers no longer need to delve into arcane technical details to get up and running. A new breed of automation called Support Actions allow providers to avoid, pre-empt, and painlessly fix customer issues.

Although the idea behind Support Actions is simple-it's software that proposes what needs to be done and, with the user's permission, does it-successful implementation requires very advanced technology. Support Actions must be intelligent, empowered, customizable, powerful, and easy to create:

## Intelligent

The right medicine for the wrong disease is poison. So too, fixes need to be applied with precision-only when an issue has happened, or is likely to happen, and only for the matching machine configuration. That's why Support Actions are built on a sophisticated technology layer that accesses, evaluates, and interprets the state of the computer. It gathers information about the computer's activity, hardware, software, error conditions, registry settings, and more, and matches that information against the criteria for applying each Support Action. Only if the fix is needed, and if it's precisely the right fix, will it be proposed and recommended to the user.

## Empowered

Trusted Support Actions need the freedom to do whatever is necessary to prevent and solve customer problems. Because Support Actions are delivered securely from a trusted source, it's safe to empower them to do their work. However, web browsers are configured for today's Internet, where malware lurks behind every ill-considered click. Traditional browser-based solutions would be penned inside the browser's

security sandbox, straightjacketed and unable to fix what needs to be fixed. So the Support Action infrastructure provides a security model that empowers trusted and validated Support Actions, while still providing users a safe browsing experience.

## Customizable

Some applications and operating systems ship with simple-self-healing software. For example, Microsoft provides "Fix it" modules that can deal with specific problems in Windows. Unfortunately, these are designed only for out-of-the-box Windows deployments, and can't be configured by customer organizations to handle customized deployments, enterprise-specific policies, or multivendor product stacks. Unlike Fix its, Aptean-provided Support Actions can be customized and extended as needed. This allows customers to leverage Support Actions in today's environment, and tomorrow's as well.

## Powerful

You don't take a knife to a gunfight, and you shouldn't attack troublesome technology problems without serious firepower at your disposal, either. The Support Action framework ships with an extensive series of libraries that allow developers to easily access system resources, manage passwords, configure network interfaces, and easily perform all the capabilities that Support Actions need to automatically identify, troubleshoot, and resolve system issues. Programmers need not write low-level code for common issues; powerful methods ship out-of-the-box.

## Easy to Create

As powerful and effective as Support Actions are, they're not very useful unless IT service desks, technology vendors, and service providers can easily create new ones to cover new high-value support scenarios as they come up. Fortunately, there's no need to get a Ph.D. in Support Actions. In addition to leveraging powerful libraries, developers use familiar, simple scripting languages (JavaScript or VBScript) to extend an existing Support Action or create an all-new one.

## BEST PRACTICES: GETTING THE MOST FROM SUPPORT ACTIONS

Of course, technology-no matter how wonderful-doesn't save money, satisfy customers, or drive loyalty by itself. Support Actions are a powerful tool, so they need to be used thoughtfully.

Fortunately, a number of Aptean customers have gained experience with techniques for getting the most value from investments in Support Actions. Here are the five most important.

### DEVELOP CAPACITY

Support Actions are easy to write and maintain, but to go beyond the out-of-the-box Support Actions, there is still technical work to be done-up front, and on an ongoing basis.

One challenge that we see our customers face is that there's no one designated to do the work. Relatively few service and support organizations have on-staff programmer/analysts who can design, create, and test Support Actions. (Because of their power and potential impact, Support Actions should be created by people with a formal software engineering background.)

“ We have three developers. That's a key point: eSupport has to be considered a development team, not just a group of analysts. ”

- Project Manager, eSupport, Major International Hotel Chain

IT organizations that partner with service and support groups are typically organized around large projects, not a day here and a half-day there. And, IT help for service and support tends to be a scarce resource in any event. So, for most organizations, traditional IT isn't a solution.

Successful Support Actions users generally rely on one of two techniques:

#### **In-house developers.**

Although IT organizations sometimes frown on what they might call "shadow IT," many Aptean customers have a few technical resources within the service delivery team who can get small, bounded tasks accomplished quickly, based on extensive familiarity with the organization's business and needs. Support Actions can be one of many tasks for these embedded technologists, along with user interface customizations, simple system integrations, or report development.

#### **External on-demand resources.**

Systems integrators specializing in service and support generally, or Support Actions in particular, can be brought in on-demand, as needed, on a pay-as-you-go basis, typically with a retainer and a not-to-exceed amount. Having this kind of relationship provides tremendous flexibility, and the ability to have specially trained resources available without adding them to the payroll or inciting political battles with IT. Aptean's own professional services organization provides ondemand Support Action services.

“ In our group, Support Actions are written by different technical specialists for different product areas. They partner with a group that creates the customer experience that puts the Support Action in the right context for the user-delivering a great customer experience is what Support Actions do really well. ”

- VP, Technology Service Desk & Support, Self-Support Strategy, U.S. Megabank

Whichever model you choose, make sure that you have rapid, low-overhead access to people who can jump in quickly to create Support Actions as soon as they're needed. As Roger said in the opening story, it's best to have the solution completed before announcing a problem.

## BUILD ON STRONG KNOWLEDGE QUALITY PRACTICES

Looked at one way, Support Actions are code. But successful customers tell us the better way of looking at them is as very special, very powerful pieces of content.

This means that the same knowledge management practices that guide the creation of solution documents or multimedia content also guide Support Actions.

For example, any experienced knowledge management professional will tell you not to put quotas on the number of articles people contribute. Nor is it helpful to concentrate on quickly increasing the size of the knowledgebase. The same thing holds true for Support Actions: they should be written based on need, not to fill a quota or to get a bonus.

That's because, just as it is for knowledgebase articles, quality is far more important for Support Actions than quantity. If we put the emphasis on creating the most important Support Actions with care and precision, they will have a much more positive impact. Any quality processes that exist for knowledgebase articles should be adapted for Support Actions as well<sup>1</sup>. These can include:

- Solution quality sampling
- Linking Support Actions to cases they resolve, and crediting their creators and modifiers with "citations"
- A licensing and certification model that restricts rights to create, edit, approve, or publish Support Actions to team members who are qualified to do so
- Feedback tools where any user, internal or external, can recommend changes, improvements, or fixes to a Support Action, and a process for managing and acting on the feedback
- Case management (incident management) QA processes that are extended to measure the effectiveness of Support Actions
- Pre-publication review queues (potentially including design reviews and code walkthroughs)

<sup>1</sup> Readers familiar with Knowledge-Centered Support (KCS) may be wondering if the practices listed below, especially the formal review queue, are consistent with KCS principles. In fact, they are: Support Actions are "B Loop" (value added) content, generally created outside of the workflow, and the KCS Practices guide states that additional investment of this kind is appropriate for B Loop content.



“ The same practices we use for knowledge, we also use for Support Actions. For example, what are the top ten Support Actions being used? I really see each Support Action as another piece of content, but with higher cost and higher return. ”

- Project Manager, eSupport, Major International Hotel Chain

## CHOOSE WISELY

Support Actions are easy to create, but they still take effort. This means that organizations should be smart about creating Support Actions that deliver the biggest bang for the buck.

Fortunately, even in highly complex environments, issues generally follow the 80:20 rule: a small number of resolutions solve lots of user difficulties. In an IT service desk, it may be password resets, VPN / connectivity issues, and email errors. For a support organization, it may be specific error messages, installation problems, or configuration errors. In the digital service provider market, the short head of issues might include network configuration, browser issues, and working with third-party products like smart phones, remotes, IP telephone systems, or A/V receivers. In any event, a small number of resolutions <sup>ii</sup> will satisfy a large percentage of customer needs. The question is, how to find the right issues? <sup>iii</sup>

Most incident or case management systems (including Apteian's) provide an easy way for staff to characterize an issue by navigating a problem and/or resolution taxonomy using pull-downs. This can provide some information, but these pull-downs are limited in their effectiveness by the fact that they're quite high-level, and agents aren't always motivated to select codes carefully.

A better way of finding the problems to attack with Support Actions is to track the reuse of knowledgebase articles. If staff who resolve issues link their case or incident to the relevant knowledgebase article, then over time, the most-linked articles correspond to the most frequently encountered issue. This technique can be further refined by ranking links based on total handle time or customer severity.

Another source of supporting recurrence data comes from self-service. The number of times a knowledgebase article is viewed is a good proxy for its incidence in the customer experience.

Service and support teams must then prioritize their ranked list of knowledgebase solutions using the following criteria:

- Can the fix or action be taken from the user's computer? If it requires "sneaker net," or replacing batteries, Support Actions cannot automate it.
- Does the issue require a human decision or trade off? For example, assume I want to stream movies from a DSP at 1080p, but doing that requires that I upgrade to a higher service level. Since the "fix" relies on a customer decision, it might not be a good candidate for automation.

<sup>ii</sup> The specific number will vary by industry. In working with our customers, we've learned that for DSPs, it may only require 10 or 20 support actions to address 60 to 70 percent of the issues, while 100 or more may be required to do the same for a high-complexity software vendor.

<sup>iii</sup> IT service desks that use ITIL will recognize answering this question is a key component of the Problem Identification and Categorization subprocess of Problem Management.

- Does the issue affect especially high-value customers? (For an IT service desk, this might be an issue that happens mostly to frequently traveling executives or sales staff; for a support organization, this might be an issue that occurs only in high-scale deployments.) If so, bump up the priority.

Then, one by one, develop Support Actions to identify and address the knowledgebase articles that remain, in priority order.

“ We have a request process; the requests can come from anyone -it’s often the third level operations team, but we get lots from the service desk, to. The requestor fills out a standard business requirements document, which is reviewed by a governance board. As people see more successful examples, they challenge us to do more and more. ‘Can you automate this? Can you automate that?’ ”

- VP, Technology Service Desk & Support, Self-Support Strategy, U.S. Megabank

In addition to this reactive way of selecting Support Actions, there are also occasions when it makes sense to develop them proactively. For example, after an acquisition, there’s often a need to move customers and employees to a new technology infrastructure. Doing this manually is timeconsuming and error prone; it also can be an off-putting start to the new relationship.

In cases like these, when a new issue is known to be coming, creating a Support Action in advance that makes the process smooth and efficient not only returns high ROI; it also builds loyalty.

Finally, brainstorm ideas that don’t solve problems, but proactively make the customer experience better: improve performance, simplify configurations, do routine maintenance, and the like.

For customer-facing organizations thinking through which Support Actions to build, it’s useful to engage partners in product management, marketing, and customer experience. They’ll bring additional context about what the customer will find most valuable, and what best supports the brand and value proposition.

## MEASURE USE AND EFFECTIVENESS

Support Actions provide a wealth of reporting data for tuning and improvement. The two primary success measures are technical success, and perceived success.

Technical success is baked into the procedure the Support Action implements. If the action completed correctly, including whatever verification steps the developer implements, then the use of the Support Action is declared a technical success. Support Actions that do not have a high technical success rate, or where the technical success rate is declining, need to be examined for improvement. Does the Support Action make assumptions about the environment that are not universally true? Have things changed in the customer environment? Do we need to test Support Actions in new environments?

Perceived success is reported by the customer in a survey that is presented at the end of the Support Action's execution <sup>iv</sup>. In some cases, it is hard for customers to assess whether or not the Support Action has completed correctly, and in those cases, it's likely that a large volume of the answers are "not sure." But in many cases, customer perceived success rate should be very close to technical success rate. If it's not, the Support Action developer (perhaps in conjunction with usability testing and customer experience professionals) should consider more feedback and transparency on the Support Action's operation.

Along with success rates, the other important measure of the effectiveness of Support Actions is their use rate.

- Which Support Actions are getting used the most? These are the best candidates for improvement.

- Are there Support Actions that aren't getting used as much as expected? Let's dig a little deeper:
  - Are agents reluctant to deploy the Support Action, so cases are still being closed manually? A few quick conversations should help you figure out why.
  - Are customers declining to initiate the Support Action? Schedule some customer interviews, or to engage the customer experience team.
  - Are cases still coming in about an issue that should be resolved with a Support Action in self-service? Check success rates, and make sure the Support Actions are triggering on the right criteria.

Support Action reporting, along with the kind of incident or case and knowledge reporting provided by Apteian, will allow for continuous improvement in service and support effectiveness.

“ People rate the Support Actions as they use them, and we get a feedback report daily. We also can trend decreased call volume on a specific topic after we deploy a support action; this helps us see call deflection. ”

- VP, Technology Service Desk & Support, Self-Support Strategy, U.S. Megabank

<sup>iv</sup> Fortunately, probably because Support Actions engage customers, response rates are much closer to post-case or post-incident surveys than knowledgebase article surveys—wese response rates approaching 50% at some of our customers.

## RESPECT AND EMPOWER CUSTOMERS

Few of us would reach over and start typing on a stranger's computer. Support Actions need to show the same respect. It's important that you always tell the customer what you're doing, and always ask the customer's permission.

For example, one of the Support Actions that ships out-of-the-box addresses a variety of connectivity issues. When it detects such an issue, it-politely-notes that it has detected a problem, explains the problem, and asks for permission to fix it. Only then will it take the needed actions. The user is in control at all times.

For customer-facing organizations, permission to execute Support Actions should be part of the license agreement. For IT service desks, Support Actions should be covered during the new-hire onboarding process, along with other IT topics. For organizations selling to enterprises, detailed security information suitable for CSOs or CISOs is a must. (If this is you, please let us know-we can help.)

Don't forget to market the benefits of Support Actions, too! It's just what customers want: problems that are taken care of automatically, ideally before customers even know they've happened.

## SUPPORT ACTIONS: REAPING THE BENEFITS

Having shared the things that make Support Actions an especially powerful tool in the service and support organizations toolbox, and having passed along best practices that our customers are using to get the most from automated issue resolution, we'd like to close with a recap of the benefits Support Actions bring to agents, customers, and the enterprise.

For more information on KCS and the KCS Verified program, see the Consortium for Service Innovation's website at [serviceinnovation.org](http://serviceinnovation.org).

### Increased self-service adoption and effectiveness

Few end users enjoy searching for help. If the search experience works well, they find a knowledgebase article that we generally describe as "the answer," but that customers think of as "more work that I have to do." Support Actions aren't more work for the customer, and they're not just the answer-they're the solution! No one wants a problem, but a problem that goes away with a single click of a button-served up directly from the self-service portal-isn't so bad. These good experiences encourage customers to come back to self-service for more.

### Increased productivity

Which is faster for the agent: walking the customer through a troubleshooting and resolution process, or asking them to push a button within a live chat to initiate the Support Action? OK, that was a trick question-ideally, the Support Action is initiated automatically via their Aptean Dynamic Agent desktop portal and the contact is avoided altogether. Either way, the agent moves on to higher value work faster.

“ It's all about pushing work down the stack. If we can automate it and bulletproof it, we lower risk and increase productivity. ”

- VP, Technology Service Desk & Support, Self-Support Strategy, U.S. Megabank

**More satisfied customers, and more satisfied agents.**

In survey after survey, the answer comes back loud and clear: the greatest predictor of customer satisfaction is time to resolution. Support Actions can trigger before the customer is even aware of the problem, and can finish within seconds of being accepted. That's extremely satisfying for customers, and it makes agents' lives better, too: they can focus on the more interesting, less repetitive issues that really require human expertise.

**Risk mitigation in the world of the "perpetual beta."**

Using Tim O'Reilly's term, software and services have moved into perpetual beta, where technology and service vendors release an unending flow of enhancements and improvements, especially in the software as a service (SaaS) model. This affects IT service desks managing these services, as well as vendors and digital service providers deploying these services. With constant change comes constant opportunity for error. Support Actions are an insurance policy that whatever gets done, can also get undone, quickly, if needed.

**Differentiation through service excellence.**

Fundamentally, service and support organizations are sources of competitive advantage. We want customer satisfaction, but we really want to delight our customers with unexpected levels of service that surprise and even shock them, making them more productive and loyal. Software that fixes problems quickly, transparently, and easily provides just that kind of "wow" experience, and it does so in a way that saves money, too.

“ Our vision is to be proactive—we want to move away from being reactive. Support Actions help us automate a long task, empower end users, and help analysts through a process. ”

- VP, Technology Service Desk & Support, Self-Support Strategy, U.S. Megabank



More than 9,000 customers around the world rely on us to give them a competitive edge. By providing innovative, industry-driven enterprise application software, Aptean helps businesses to satisfy their customers, operate most efficiently, and stay at the forefront of their industry.

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