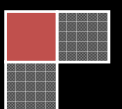


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Profitable Strategies for Optimizing Service Desk Operations: A Business Impact Analysis for Managers



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Abstract: *Strategic approaches to service desk management represent a far more powerful way of advancing organizational objectives than the tactical approaches that still predominate today. By re-thinking the way people, processes and new technological capabilities are deployed in the service desk environment organizations can resolve problems more quickly and measurably improve end-user productivity. Just as important, enterprises can actively address potential problems that can disrupt productivity in the future.*

Service managers are under severe pressure to improve the effectiveness of their service desk operations and elevate end-user satisfaction ratings. To meet these objectives, they'll need to implement new processes and new systems that accelerate problem resolution.

While 99% of IT service desk managers in the United States report substantial investments in the development and implementation of technology to provide better service desk support for end-users, only one third are completely satisfied with these investments, according to a recent survey by SupportSoft. The study found that:

- 60% of IT service desk managers are not confident that the diagnostic information in their IT asset management database is up-to-date at any one point in time. For organizations that depend on this resource for assessing potential problems, it means that analysts are often working with inaccurate and untimely information.
- Approximately one quarter (24%) of IT service desk managers say that diagnostic information is keyed-in manually into their call tracking system (CTS). This opens the door to human error that can delay the effective resolution of an incident.
- Two-thirds (66%) of IT service desk managers say that it takes 6 minutes or more to thoroughly gather diagnostic information about an end-user's computer when an incident is opened.
- Nearly all (98.5%) IT service desk managers say that if a call is escalated, their Level 2 and Level 3 analysts have to re-enter data that Level 1 analysts already gathered.

These findings suggest that a satisfaction gap is hampering the ability of service desk operations to achieve their mission objective of quickly resolving incidents in a cost effective manner. It points to a reactive – or tactical – approach to service desk management that is contributing to higher than necessary costs in operation and

maintenance activities, while draining resources from efforts to innovate and transform enterprise operations.

...Understanding the Satisfaction Gap

Satisfaction with the service desk operation is often in the eye of the beholder. While many service desk managers will cite performance metrics to conclude that service desk operations are reasonably satisfactory, end-users tell a different story. This seems to indicate there is often a fundamental disconnect between the subjective experiences of the end-user and the specific performance metrics that track service desk operations.

Service desk centers are often measured by the average time it takes to resolve an incident at different stages in the problem resolution process. With this as their performance standard, it is not uncommon to see service desk operations focus on quickly escalating calls and passing the end-user up to the next layer in the problem solving hierarchy.

While Level 1 analysts get points for moving the call rapidly to the next stage, from an end-user perspective, the clock effectively keeps on ticking as the incident is managed by the next layer of analysts. This suggests that end-user satisfaction often is not effectively accounted for in the problem resolution process. This discrepancy in metrics can be a problem for a number of reasons. At one level, the lack of proper measurements can result in a failure to detect issues that should be resolved. This, in turn, means that managers do not take steps to modify their incident management processes.

...Lost Faith Can Mean Losing Track of Incident Management Costs

When service desk analysts cannot resolve problems on the phone, a technician is sent to physically inspect and fix a device. This consumes a lot of time, money and resources. Even more troubling, however, is the fact that it makes it significantly more difficult to get an accurate understanding of the total cost of incident management.

Under the best of circumstances, accounting for the total cost of incidents managed is a difficult metric to capture. But when end-users cannot resolve their problems quickly, enterprises risk losing track entirely of the corporate resources that are tapped to remediate problems.

The incident management process can leak out of the service desk operation altogether. Situations like this can arise when end-users lose faith – or patience – in service desk resources and instead seek unofficial help from other technically savvy colleagues (such as those in engineering or application development departments).

This creates a phenomenon called “shadow support,” in which employees are taken off assigned tasks to resolve technical problems. It results in both the end-user and the “shadow supporter” being taken off their respective productivity tracks.

...Beyond Minimizing the Subtraction of Value: Subtraction Prevention

The satisfaction gap is prompting many service desk managers and executives to re-evaluate the precise role that service desk operations should play in the enterprise.

In most organizations today, the service desk function is seen as an overhead activity; it is a required element in the cost of doing business. These managers do not see the service desk function as a strategic opportunity to improve the way value is attained or retained by the organization. In more progressive enterprises, executives are looking for ways the service desk can deliver value to the organization by:

- Accelerating the employee’s return to productive work after incidents occur; and
- Identifying opportunities to avoid interruptions in productivity altogether.

There are a couple of different ways that you can look at the service desk. You can understand the function as simply the way organizations can minimize the subtraction of value that comes when end-users cannot perform productively because of technical problems. But a growing number of executives also see the interaction between the service desk and the end-user as an opportunity to prevent the subtraction of value from taking place in the first place. In some advanced organizations, analysts will even make suggestions to end-users that actually improve their productivity.

...Toward a Strategic Service Desk Environment

Most service desk operations focus only on resolving the issue at hand. Consequently, service desks follow incident management protocols that typically start with an initial gate keeper who performs triage (identifying the very basic nature of the problem) and then escalates the call by forwarding the caller to an appropriate subject matter expert who attempts to fix the problem.

- In this scenario, incidents recorded in the CTS often require multiple touches and multiple escalations. Poor coordination among the different levels of analysts (as documented in the survey) often require information to be repeated and re-collected, leading to low user- and analyst-satisfaction while generating extra costs for support organizations.
- Organizations that implement a more strategic approach look for ways to quickly gather and share diagnostic data, and then rapidly deploy solutions that resolve the incident. Analysts in this environment perform additional analysis to identify opportunities to either optimize the performance of the end-user’s device (by, for instance, recommending a defragmentation of a disk drive) or take action to

address an imminent threat (such as re-activating anti-malware applications that have somehow been turned off).

When this process is repeated every time a call comes in to the service desk:

- The volume of potential calls can be reduced; and
- The routine problems that disrupt productivity are resolved more quickly.

...Requirements for a Strategic Service Desk

Rolling out a more strategic service desk requires a shift in the way managers select and implement people, processes and technologies.

- **People** – A strategic service desk must have a team of analysts that are equipped, trained and motivated to quickly resolve as many incidents as possible in the first call, and who are willing to take the initiative to proactively look for potential problems in the end-user's environment.
- **Metrics for New Processes** – New measurement systems must be established that track these new service desk activities. Specifically, new processes and protocols should be developed to diagnose and remediate incidents that are called into the service desk.
- **Technology** – New capabilities are needed to enable analysts to quickly assess the current/immediate state of devices and applications experiencing problems. This enables a diagnosis of a problem to be reached quickly. This diagnostic capability must be integrated with tools that can prescribe and administer solutions that resolve incidents in a rapid and cost-efficient manner.

Strategic operations are created when these three key resources are effectively integrated. New technological developments in the diagnostic and solution delivery arena make it increasingly feasible for these advanced approaches to be implemented and managed.

...Streamlining the Diagnostic Process

Diagnostic data is the information that an analyst or agent needs in order to assess the cause of an incident and to determine how to resolve the situation as quickly possible. Collecting diagnostic information is performed in a number of ways:

- **Verbal Diagnosis** – While diagnostic data is frequently gathered by Level 1 analysts, it often is *not* immediately entered into the CTS so that it can be used after the incident is escalated. As a result, diagnostic data must be collected again by Level 2 or Level 3 analysts. The collection is typically performed by verbally asking callers to describe what they see on their screens. This is a very

slow and frustrating process for both the user and the agent. Moreover, it is a highly manual process that is prone to error. When this process fails, further costs and inefficiencies accrue as technicians are sent to the desktop to physically examine devices and applications.

- **Remote Control** – Some service desk operations have adopted technologies that allow the agent to take control of the users' device over the network to get a virtual picture of the device's status. With this approach, the end-user loses access to the device and any of its resources for the duration of the interaction. As a result, end-users are completely unproductive, even for problems that may be minor. Moreover, this process uses a lot of network bandwidth resources during the remediation session. This process requires a fairly advanced analyst to gather data about the device and interpret it to conduct a diagnosis. The procedures that enable remote control connections to take place are often not very secure, opening the door to vulnerabilities that can be exploited by malware and hackers.
- **Accessing Asset Management Systems** – Another source of potential diagnostic data can be found in asset management databases or systems. These applications are designed to track the life-cycle of hardware and software in an enterprise so that executives can effectively manage technology investment and refreshment strategies. They keep track of static data, such as installed software, installed memory, virus definitions, and operating system versions. Asset management systems are not specifically designed to support real-time troubleshooting situations. They do not collect the dynamic data (i.e. which processes were running when an incident occurred) that change minute by minute and that provide insight into a problem. As a result, the information in asset management databases is often less than completely useful when an end-user calls the service desk center with a device problem.
- **Diagnostic Data Capture** – Given the limitations of prior approaches, a way of collecting diagnostic information in a secure and real-time manner has recently emerged. Diagnostic data capture uses technology to automatically interrogate end-user devices and forward the information in real-time to analysts taking the call. The data is presented in a format that allows the analyst to immediately and intuitively determine the nature of the problem and its possible causes so that a response strategy can be developed.

To be truly effective, a *Diagnostic Data Capture* approach requires technology that can quickly collect data points from a variety of sources from different devices and applications that are supported by the service desk. It must also enable information to be shared between the end-user and the service desk agent in a secure environment.

...Crafting a Rapid Response for a Strategic Service Desk Operation

Having determined the problems and causes of an incident, the next step for the service desk is to respond in a quick and effective manner. An alternative is available to remote control remediation and verbally coaching end-users through the steps needed to resolve problem.

Automated Solution Delivery technology is a new capability that is based on developing a database of pre-packaged remediation solutions that can be quickly accessed by analysts using a “search engine” or “taxonomic library” structure. These “solution packages” are small programs designed to solve specific problems. They can be pushed by the agent to the end-user so that it can be executed to resolve the issue at hand.

The service desk organization can create a large library of “automated fixes” that address the most common causes of calls that flow into the service desk department. It is a faster, more consistent and a more secure approach to resolving problems than traditional manual and remote control approaches.

Moreover, it provides an opportunity to expand the problem solving role of Level 1 analysts in the service desk center and resolve more incidents in the first call. Instead of automatically forwarding incoming calls to Level 2 analysts, Level 1 analysts have an opportunity to pick a pre-packaged remediation solution and push it to the end-user to implement the fix. As a result, Automated Solution Delivery systems:

- **Improve** satisfaction ratings – by resolving incidents on the first call.
- **Accelerate** the end-user’s return to productivity.
- **Reduce** the cost of incident management -- by having calls resolved by less expensive Level 1 analysts rather than costlier Level 2 or Level 3 analysts.
- **Optimize** the use of subject matter expert resources. More expensive technical talent is made available to address complex problems or urgent mission-critical issues.

... Integration is Key to More Effective Service Desk Strategies

When Automated Solution Delivery technologies are combined with Diagnostic Data Capture techniques, analysts are not only able to more quickly address problems that prompted the call to the service desk, but they are now in a position to rapidly identify and resolve issues that may cause a disruption in end-user productivity in the future.

It is critical, however, that any new tools introduced into the service desk environment be well integrated with the Call Tracking System applications that support all service desk activities. These applications are the primary management tools for tracking the time, money and resources that are consumed by the service desk operation. Any technology that does not leverage the capabilities of the CTS, or which cannot be executed from these applications faces an up-hill battle for adoption by service desk analysts.

...The Business Case for a Strategic Approach

The business case for a proactive service desk strategy that harnesses Diagnostic Data Capture and Automated Solution Delivery capabilities is compelling. Major and measurable cost benefits accrue to strategic service desk operations by:

- **Increasing** the percentage of incidents that can be resolved on the first call;
- **Reducing** the time it takes to resolve incidents, and
- **Preventing** future disruptions in productivity (and potential calls to the service desk center) by using the diagnostic process to identify problems before they manifest themselves.

Business Case Assumptions	
First Call Resolution Rate	60%
Level 2 Resolution Rate	70%
Average number of calls/user/year*	15
Number of End Users	10,000
Number of Analysts	50
Average Cost/Minute/Level 1 Analyst	\$0.75
Average call duration (minutes) - Level 1	15
Average time spent at Level 1 for diagnostic data capture (minutes)	6.00
Cost of Level 1 Support Call	\$11
Cost of Level 2 Support Call	\$45
Cost per Desk Visit	\$125

Business Case Calculations				
	With Reactive Service Desk Solution	With Strategic Service Desk Solution	Actual Reduction	Percent Reduction
Key Levers				
First Call Resolution Rate	60%	63%	NA	NA
Average time spent at Level 1 for diagnostic data capture (minutes)	6.0	4.5	1.5	25.0%
Call Volume				
Level 1 Call Volume	150,000	150,000		NA
Level 1 Talk Time	2,250,000	2,025,000	225,000	10.0%
Level 2 Call Volume	60,000	55,500	4,500	7.5%
Desk-Side Visit	18,000	16,650	1,350	7.5%
	Cost with Reactive Service Desk Solution	Cost with Strategic Service Desk Solution	Actual Cost Reduction	% Reduction
Level 1 Support Cost	\$1,687,500	\$1,518,750	\$168,750	10.0%
Level 2 Support Cost	\$2,700,000	\$2,497,500	\$202,500	7.5%
Desk-Side Visit Cost	\$2,250,000	\$2,081,250	\$168,750	7.5%
Total Cost	\$6,637,500	\$6,097,500	\$540,000	8.1%



Total Savings with Strategic Service Desk Solution

Please contact us using information listed at the end of this white paper to obtain an Excel workbook model for calculating your potential savings and determining ROI.

...Conclusion: The Future of the Strategic Service Desk

A strategic approach to service desk operations will require a team of analysts that can not only rapidly resolve current incidents, but are willing to take the initiative and identify potential problems that can interrupt productivity in the future. Managers will have to design management processes and practices that encourage and reward the time and effort invested by analysts to resolve current and potential incidents. To make the entire effort cost effective, new technologies must be introduced that allow analysts to:

- **Collect and interpret** diagnostic data from a variety of end-user devices;
- **Assess** an appropriate response to problems that are diagnosed; and
- **Push and implement** solutions to end-users in real-time to resolve incidents and restore productivity.

Executives that implement effective service desk strategies will be in a position to handle increased volumes of “routine incident management calls” by Level 1 analysts while freeing up more experienced technical resources to address complex or structural problems that disrupt productivity. The projected outcomes of this strategy:

- Improved **customer satisfaction** ratings;
- Improved **end-user productivity** metrics; and
- Reduced **operational costs** to service desk.

As organizations increase their dependence on technology-enabled business strategies, and adopt new applications to support mission-critical functions, service desk operations will play an important role in maintaining high levels of productivity. Managers and executives who adopt a strategic approach to their service desk operations will not only leverage a greater return on their technology investments, the cost savings and new process efficiencies will free up resources that can be applied for innovative initiatives that can help differentiate their organizations in competitive markets.

About SupportSoft

SupportSoft (NASDAQ: SPRT) is a leading provider of software and services for technology problem resolution. For more than 10 years we've ensured that technology critical to businesses — and their customers—works as planned. Our best-in-class, scalable solutions enable both end users and analysts to detect, diagnose and correct problems at home, in the office or anywhere in between. The Company's solutions reduce technology support costs, improve customer satisfaction and enable new revenue streams for companies reaching 50 million users worldwide.

SupportSoft has built a solid reputation for providing the most advanced IT automation support infrastructure in the world. So it's no wonder that more and more Global 2000 companies turn to us for their support needs, including ADP, Bank of America, BT, Kimberly-Clark, Lockheed Martin, Marriott, Northrop Grumman, Sony Electronics, Symantec, Thomson Financial and Trend Micro.

For more information:

United States Corporate Headquarters

1900 Seaport Boulevard 3rd Floor
Redwood City, CA 94063
Tel: +1.650.556.9440
Fax: +1.650.556.1195
eMail: supportsoft@supportsoft.com

EMEA Headquarters

Harman House
1st Floor
George Street
Uxbridge, Middlesex
UB8 1QQ
United Kingdom
Tel: +44 (0) 1895.819.520
Fax +44 (0) 1895.819.521
eMail: supportsoft@supportsoft.com

APAC Headquarters

Tower B, 5th Floor,
Diamond District,
Airport Road
Bangalore - 560 008, India
Tel: +91 80 4115.0781/0782
Fax: +91 80 4115.0783
eMail: supportsoft@supportsoft.com