

White Paper:

Leveraging the Service Desk to Control the Cost of IT Non-conformance



Michael Kerman, Director of IT Solutions
 CDI IT Solutions
 215.282-8738

In many organizations, up to 40% of the IT budget is allocated to addressing “non-conformance,” or in other words, fixing things that were not done right the first time. In fact, a traditional help desk actually promotes non-conformance by taking a narrow view of a user issue and often focusing on mitigating symptoms instead of true problem resolution. A true “service” desk takes a more comprehensive and end-to-end perspective. By identifying the root cause of user incidents and improving IT processes, a service desk can actually reduce non-conformance costs.

“By identifying the root cause of user incidents and improving IT processes, a service desk can actually reduce non-conformance costs.”

Given the intense cost and service level pressures facing all IT organizations, the reduction of non-conformance related expenses represents a low-risk, high-reward opportunity. Unfortunately, these expenses are woven throughout the IT operations and processes, making them difficult to isolate, measure and attack. Clients who simply try to assign a project or initiative to each identified cost often end up with a myriad of conflicting, confusing and potentially costly initiatives.

Framework for Understanding IT Non-Conformance

A critical component within the overall Cost of Quality (CoQ), the cost of non-conformance comprises all of the costs resulting from failure of a product or service. These failures fall into two distinct segments or categories. First, internal IT non-conformance refers to costs arising within an organization due to defects. Examples include costs for redesign, recoding, retesting and retraining as well as downtime, data correction, and lost business. There are also external factors that contribute to IT non-conformance including equipment failure, downtime and warranty as well as administrative costs in dealing with failure and loss of goodwill.

For the purposes of this document, we will use the model shown in Figure 1 to explore how a service desk can dramatically reduce the cost of IT non-conformance including:

- **Downtime.** This refers to the duration that the end user is not able to perform their normal work because the computing environment is non-operational
- **Personnel Productivity.** This encompasses all personnel-related costs that fall within non-conformance including re-recruiting, re-hiring, re-onboarding, overtime/comp-time, etc.
- **Process Inefficiencies.** To reduce non-conformance costs, clients need to do the right thing (effectiveness) and do it correctly (efficiency). In many cases, organizations do the right thing (e.g., support a company computer user) but do it improperly (or insufficiently). In the latter case, the process is “inefficient” and there is a better way of addressing the need.
- **SDLC Weaknesses.** A major area of non-conformance stems from gaps or deficiencies in a clients’ application or system development life cycle, referred to as their “SDLC”. Excessive defects and costs can arise from:
 - Poor definition of the proposed solution
 - Lack of standards and controls to guide the development
 - Improper or inadequate testing

Figure 1 - Drivers of IT Non-Conformance Cost



Typically, clients should conduct a brainstorming or discovery session where they seek to identify, classify and group their specific instances of non-conformance cost. While there are certainly differences between organizations, the high-level categories described above usually apply to companies of all size and industry. Applying service desk principles and technologies to these cost elements is much easier once the groups have been established.

The Traditional Help Desk Versus the Modern Service Desk

Before analyzing the cost elements, it is critical to compare and contrast a modern service desk with a more traditional help desk (see Figure 2). While their high-level purpose

“A modern service desk is the key linkage between infrastructure and an organization’s application development and deployment processes.”

(supporting end users) remains constant, there are significant differences in how they deliver this benefit.

Given the attributes of the average help desk, it is no wonder that it is often viewed simply as a repository for user issues and is seldom considered strategic, much less an asset. However, a modern service desk is as strategic as a customer relationship management (CRM) application or certainly the network operations center (NOC) console. With its combination of service management processes and tools, workflow, database and user information, a modern service desk is the key linkage between infrastructure (networks, systems, etc) and an organization’s application development and deployment processes. As a result of its unique position, a service desk can reduce non-conformance costs across both infrastructure and application environments, enabling organizations to achieve superior levels of efficiency and cost-reduction.

Reducing Downtime-related Costs

In terms of assessing effectiveness, the first aspect of non-conformance expenses worth examining is end-user downtime. While some organizations attempt to minimize downtime with almost a zealous attitude and military-level precision, others simply take a “best-attempt” approach. But how well is the magnitude of this downtime truly understood? Consider the following sequence of events which is typical of a user support situation:

- User’s computer isn’t working. He/she spends 10-15 minutes trying to fix the problem

Figure 2 - Help Desk vs. Service Desk

	Traditional Help Desk	Modern Service Desk
High-level Model	Reactive	Proactive
Major Activities	Call handling; dispatch desktide support	Call prevention; proactive monitoring, user self-help
Perspective	Cost-centric; emphasis on number of calls, call length	Service-centric; emphasis on customer satisfaction
Integration within SDLC processes	Little; often caught off-guard by new hardware or applications	Tightly integrated with SDLC; plays vital role in release management
First call resolution (%)	56%	80%

- User calls the help desk. Waits 30 seconds to speak with a Level 1 analyst
- Level 1 analyst spends 10 minutes with user, tells user to reboot the machine and calls the user back 10 minutes later. Problem is not fixed and is escalated to Level 2. This is unfortunately common, with Level 1 support usually able to resolve only 56% of user issues (HDI User Survey, 2010)
- End user waits 20 minutes for a callback from Level 2
- Level 2 tries for 15 minutes to fix the problem. Determination is made that Desktide Support is required
- User waits 30 minutes for desktide support
- Problem is resolved 15 minutes later (best-case; if parts are needed, add 5 hours of additional downtime)

Many users circumvent the help desk and choose to resolve the problems themselves. Why? They see it as faster and there is less waiting for callbacks. Unfortunately, the results are often grim, including broken hardware, bent connectors and corrupted software. Usually, the worse the situation becomes, the more likely it is that colleagues will get dragged into the dilemma, thereby greatly increasing the downtime cost to the organization.

Even in this rather contrived example, the end user experiences more than 2 hours of total downtime per

incident. Assuming 6 similar incidents each year and an annual salary of \$50,000 per employee, this can amount to more than \$750,000 in lost productivity for a 2,000 person organization every year. (Note: These downtime costs are dramatically under-stated. While users can often quantify their length of downtime, they seldom account for the downtime incurred by their colleagues who took time to assist with problem resolution.)

"A service desk that leverages Information Technology Infrastructure Library (ITIL) and Help Desk Institute (HDI) principles can resolve 85% or more of end user issues on the first call."

Reducing Personnel-related Expenses

Another dimension of "fixing things done poorly the first time" relates to the utilization and turnover of help desk personnel. It is no secret that being a help desk analyst is a high-pressure job and burn-out is not uncommon. Turnover rates of 30%-40% are common, especially since most analysts are responsible for 325-500 end users, according to Computer Economics. Additionally, turnover is expensive, with recruiting, hiring, onboarding and training costs routinely reaching \$10,000 per incident. For an organization with 15 analysts, the 33% annual turnover can amount to \$50,000 in costs ever year.

However, a service desk that leverages Information Technology Infrastructure Library (ITIL) and Help Desk Institute (HDI) principles can resolve 85% or more of end user issues on the first call. This greatly reduces escalation costs along with trimming end user downtime by up to 65%. Furthermore, service organizations that invest in both help desk analyst training and cutting-edge support tools along with implementing best practices dramatically increase the efficiency, effectiveness and morale of the service desk analysts. As a result, these firms can realize turnover rates as low as 8%-12% with a corresponding 3x-4x reduction in turnover related expenses each year.

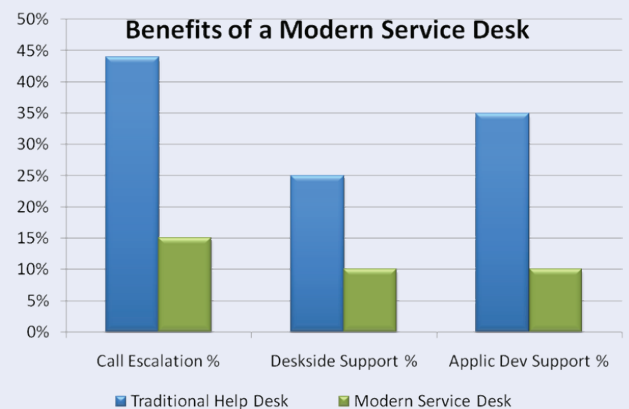
Eliminating Costs of Process Inefficiency

Even if the organization is pursuing the right projects and support model, it does not mean that the organization is executing properly. Many organizations aggressively pursue "service excellence" but do so at the expense of other critical projects, improving existing processes and optimizing organizational structure. This often results in problems and issues that resurface time and time again, causing non-conformance costs to rise, not decline. Below are several

examples of the benefits of taking an end-to-end view of problem resolution:

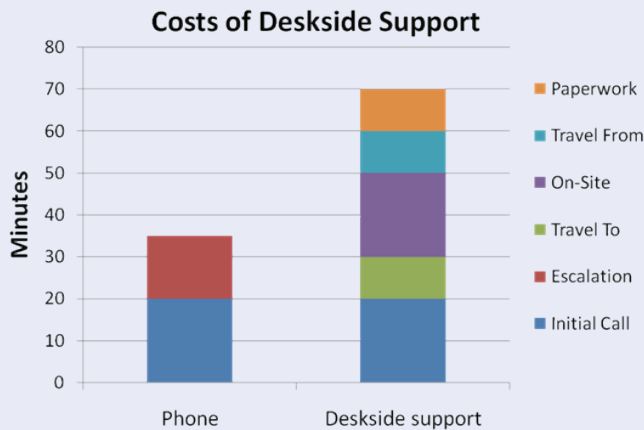
- Do it Once, Do it Right: Reducing Call Escalation**
 In a previous white paper entitled "Driving Customer Experience Quality from the Front Line," the concept of "Fix it Once and Forever" was introduced and the same concept holds true for reducing non-conformance costs. With Level 1 only able to address 56% of issues, the remaining 44% get escalated to the more resource constrained (and more expensive) Level 2 resources. In many organizations, much of this Level 2 support falls on the application development team. In fact, many developers routinely spend 30% or more of their work day performing Level 2 support instead of working on their actual assignments. Compounding the problem is the fact that application developers often make 2x-3x more than their help desk peers. With the proper training, processes and support tools, a Service Desk can dramatically reduce the escalation rate, taking it from 44% to 15% (see Figure 3).
- Do it Once, Do it Right: Reducing Deskside Support**
 Many under performing help desks provide little more than dispatch capabilities. In fact, organizations routinely provide desk side support services for 25% or more of the initial help desk calls they answer. While users generally appreciate this one-on-one hand holding, it comes at a steep price tag. According to HDI (and depicted in Figure 4), deskside support is at least 30% more expensive than providing phone-based (remote) problem resolution. In organizations that have many offices and are in congested areas (e.g., Atlanta, Los Angeles) the cost of desk side support can reach 2x-3x the cost of phone

Figure 3 - Cost Reductions Related to Service Desk



support due to the high travel related costs. By implementing modern incident management, remote support, knowledge management and call center software, a state-of-the-art service desk can reduce the overall cost of desk side support by 50% or more.

Figure 4 - Deskside vs. Phone-based Support Costs



- **Do it Once, Do it Right: Simplifying the Service Desk Analyst's Job**

Without the proper tracking and diagnostic tools, the help desk analyst is "reinventing the wheel" on almost every call or inquiry. Instead of automatically displaying possible resolutions based on keywords, the analyst needs to search through unstructured information. This creates unnecessary work and stress for the technician and more hold/wait time for the end user.

An integrated and well designed content and knowledge management system can improve service desk efficiency in several ways:

- Routine questions such as password reset and printing can be easily maintained in the knowledgebase, eliminating the need for the user to speak with an actual service desk analyst
- Furthermore, a robust knowledgebase can improve analyst efficiency by 10%-20% simply by providing pop-up answers to recurring questions instead of engaging in lengthy searches
- Users are provided answers that are consistent with the organization's policies and procedures, eliminating a potential end-run around IT security

"An integrated and well designed content and knowledge management system can improve service desk efficiency."

- Finally, a knowledgebase ensures that the same solution is provided to every caller, eliminating callbacks from "solutions" that cause other problems

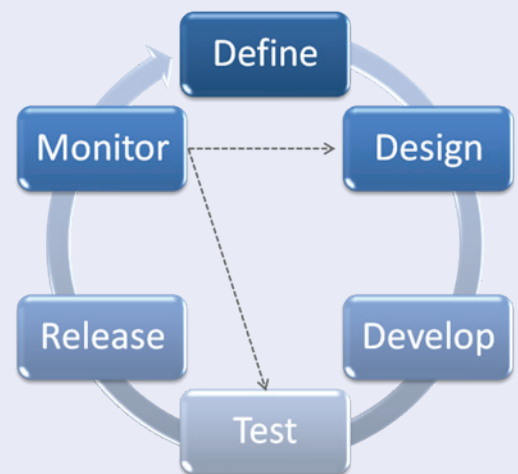
Reducing Costs Associated with SDLC Weaknesses

There exist a number of ways to reduce the costs associated with SDLC weaknesses including:

- **Improving Quality and Testing**

In reality, the service desk should function as the ultimate judge of QA and Testing effectiveness. However, many organizations look to expense quality/testing related tools to provide quality metrics while their help desk idly sits by. Post-release, all members of the project team (project managers, business analysts, engineer and quality leads, etc) should have daily meetings with the service desk leads for that product. This will help the organization rapidly identify gaps in any of the stages, especially the Design and Development phases where defect detection can save the most money (see Figure 5). Unfortunately, most organizations do not think of integrating their help desk with their SDLC because most traditional help desks often lack the reporting and analytical tools to positively impact the SDLC process while improving alignment and cross-functional communications and reducing costs.

Figure 5 - Service Desk Impact on SDLC Phases



- ***Formalizing Release Management***

Release management is a critical yet often overlooked aspect of the software or systems development lifecycle. This activity, which is closely related to Change Management, involves the following activities:

- Release policy and planning
- Release design, build and configuration
- Release acceptance and sign-off for implementation
- Roll out planning
- Extensive testing
- Communication, preparation and training
- HW and SW audit prior to implementation of change
- Installation of new or upgraded SW
- Storage of controlled SW
- Release, distribution and the installation of SW

A traditional, dispatch/escalation-centric help desk lacks the critical functionality, process support and end-to-end monitoring necessary to deliver true release management. However, all of the tasks noted above can be supported, executed and streamlined with a true service management platform that can correlate and provide transparency and reporting of issues and defects that cut across different functions. Using ITIL as a framework, a modern service desk can serve as the final checkpoint and clearinghouse for requests to move from the testing confines to the production environment. By evolving to a true service desk, clients can realize the following improvements in service delivery beyond reduction in non-conformance costs:

- Ability to cope with higher frequency of releases without sacrificing IT service quality
- Greater success rate of releases
- Consistency of releases

“Release management is a critical yet often overlooked aspect of the software or systems development lifecycle.”

- Minimal disruption to service
- Known quality of hardware and software in live use
- Stability of test and live environment
- Ability to set expectations with publication of an advance release schedule
- Reduction in incidents caused by a poor release
- Audit trail of changes to the live environment
- Reduced risk of unauthorized, illegal or malicious software
- Reduced time to release and fewer delays
- Fewer releases to be implemented

Conclusion

A considerable amount of the IT budget is tied up in non-conformance related projects. A modern service desk built around HDI and ITIL principles can help an organization shift from tracking problems to preventing them. This fundamental change results in tremendous cost savings, freeing up valuable capital for investment and improvement in IT and end user attitude and productivity. By using this document as a starting point, you will be able to identify a multitude of ways your under performing help desk is costing your organization. In fact, a new service desk solution may be closer than you think!