



## Taking the Service Desk to the Next Level

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## Executive Summary

What do your local bank branch and your IT service desk have in common? When a bank branch was your only option to access banking services, you visited there whether you were seeking help with resolving a problem, requesting a new service, or checking the status of an existing service, such as asking if a check had cleared. Similarly, in most companies, the IT service desk is the place to go for requesting and checking on services.

Over the years, technologies have continually evolved to enable the bank branch to improve service to its customers. Banks introduced teller terminals, giving tellers access to a wide range of applications and databases that empower them to serve customers more effectively and efficiently. With only an account number (as taken from a “swiped” bank card), all of a customer’s relevant information is instantly available to the teller — even if the customer has more than one account at the bank. In addition, ATM machines appeared, permitting customers to conduct account transactions without having to step inside the bank branch. The emergence of Internet banking — which allows customers to access a variety of services online 24x7 — was the next major step in the evolution of the bank branch.

Like banking applications, service desk applications have also continually evolved, enabling service desk technicians to provide better services. The service desk now has visibility into the entire IT environment, and no longer needs to collect detailed information verbally from users. Further, the emergence of self-service password resets and online access to technical help means that users can resolve many issues without service desk involvement at all.

Innovations in process and technology enable you to take your service desk to the next level, greatly improving service:

- > *The configuration management database (CMDB)*. Allow service desk technicians to view, at a glance, the entire IT environment, showing how all its components tie together to deliver business services.
- > *Seamless service management processes*. Remove the siloed “walls” that have previously isolated the service desk from other IT groups.
- > *Service awareness*. Empower service desk technicians to make decisions and take action based on business priority.
- > *Automated self-service*. Give users a broad self-service capability, taking a huge load off the service desk.

Taking your service desk to the next level will result in a proactive, business-oriented service desk, rather than a reactive, technology-focused one. You’ll manage IT based on business priorities, an approach known as Business Service Management (BSM). Service desk technicians will be able to focus more on their primary mission, which is to help the business achieve its goals.

This paper:

- > Examines the evolution of the service desk
- > Describes the processes and technologies available today that enable you to take the next major step in the evolution of the service desk
- > Looks at the benefits of taking the service desk to the next level

## The Service Desk Evolves

The evolution of the IT service desk, from its origin as a help desk to its current state, is similar to the evolution of the bank branch. Over the years, new technologies have enabled bank branch staff to better serve customers visiting the branch. Terminals empower tellers with immediate access to a variety of applications and databases that span all the bank's products, including checking accounts, savings accounts, CDs, and loans. Perhaps the most significant development, however, is that innovations in processes and technology have eliminated much of the need for customers to visit a bank branch, or have any interaction with bank personnel.

The changes in banking over the years are similar to what the IT service desk has experienced. (Of course, the service desk needs to evolve further to provide the level of service now available in online banking.) Just like people once visited their bank branch for services, the service desk was initially viewed as the place to go for technical help. It was the resource for providing assistance in using applications and databases, or to resolve problems. Service desk applications (originally called help desk applications) emerged to empower service desk technicians. These applications guide technicians through best-practice processes, ensuring the proper handling of incident tickets. They also aggregate service desk performance data, such as response times and first-call resolution rates, permitting the IT staff to monitor and improve service delivery.

Similar to banking applications, service desk processes and applications have continually improved to increase efficiency and effectiveness. Service applications maintain a knowledge base of solutions to known problems, which technicians can easily access. They provide a holistic view of the enterprise infrastructure that shows the infrastructure components (both physical and virtual), their configurations, and their physical and logical relationships. The ability to see users' computer configurations eliminates the need for users to communicate this information verbally to service desk technicians, saving time and reducing errors. In addition, the ability to see the relationship of users' systems to other infrastructure components speeds problem identification and correlation.

Just as ATM machines and online banking have empowered bank customers, service desk technologies are empowering consumers of IT services. Users now have access to tools that enable them to resolve many problems on their own, without having to contact the service desk. For example, they can reset their passwords on their own, eliminating a major source of service desk calls.

The evolution of the service desk has resulted in a number of service enhancements, yet there is still considerable room for improvement to take it to the level of self-service similar to the online banking experience. Most service desks still operate primarily in a reactive mode, responding to issues only after users report them. The service desk is still being inundated with calls, many of which are from users requesting services or simply checking on the status of their requests. These calls distract service desk technicians from resolving issues that are more critical to the business. In addition, in many cases, technicians are not able to determine the business relevance of incidents, so they cannot prioritize action based on business impact.

Process and technology innovations are now available that enable the service desk to take the next major step in the evolution of the service desk, eliminating many of these problems. The result will be a service desk that provides far more value to the business.

## What's Next?

IT is under increasing pressure to integrate more closely with the business. To accomplish this objective, IT has to *transition to a more business-oriented and proactive approach*. IT must help the business better achieve its goals, and prevent, rather than just solve, problems.

The best practices in the IT Infrastructure Library® (ITIL®) Version 3 (V3) reinforce the idea that *integrating* with the business is paramount, enhancing the previous version's recommendation of *aligning* with the business. To that end, ITIL V3 reorganizes the ITIL guidelines into a service lifecycle management approach that stresses managing services from the business perspective. With this in mind, IT should not make a decision or take an action without first evaluating its impact on the business.

To make the transition successfully, you need to empower your service desk technicians to a much greater degree. Service desk technicians need to prioritize their actions based on business impact and take a more proactive approach. To do these things, they will need a more comprehensive view of the overall IT environment, and greater insight into how specific incidents in the IT environment affect the business. In addition, you have to provide users with access to broader self-service capabilities, including the ability to request services and check the status of requests on their own — without involvement of the service desk.

## Enabling Innovations

You can take your service desk to the next level — where it is truly integrated with the business and drives business value — by leveraging the combination of four innovations:

- > Configuration management database (CMDB)
- > Seamless service management processes
- > Service awareness
- > Automated self-service

### Configuration Management Database

You can enrich the service desk technicians' view of the IT environment with a CMDB. A well-designed CMDB is based on a federated architecture, providing access to a wide range of information, including information that does not reside in the CMDB. Data remains where it is owned. For example, user role information remains in the HR database; change information remains in the change management application database; incident history stays in the service desk application database; and contractual information stays in the asset database. A federated CMDB automatically links to these data stores so that technicians have immediate access to the information they need. (See Figure 1).

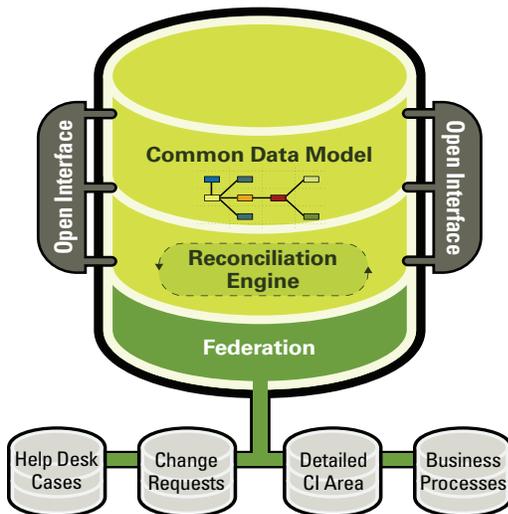


Figure 1. Federated CMDB

A comprehensive CMDB can provide details on the various physical and virtual components that make up the IT infrastructure, including servers, desktops, laptops, network equipment, applications, and databases. It can also provide access to information on people and services. People-related information includes users and their roles. Service information includes available services and the business criticality of each service.

An important function of the CMDB is to maintain information on the relationships of the components. This includes: physical and logical relationships (component interdependencies), the relationships of users to components (which users have access to which components), and the relationships of business services to components (which services are supported by which components).

The CMDB acts as the central hub and anchor of the environment, consolidating its wealth of information to provide a comprehensive view of the IT environment.

This view gives service desk technicians insight into how everything in the environment — technology, processes, and people — ties together. Through this consolidated view, a technician can quickly access information on a particular infrastructure component — configuration data, change data, user data, and contractual data — without having to jump across different user interfaces or re-enter information.

### Seamless Service Management Processes

To fully leverage the capabilities of your service desk, you need to integrate the service desk processes with processes in other IT disciplines, such as change management and performance management. Process integration is a fundamental tenet of ITIL.

Process integration requires integration of the automated service desk processes that are provided by the service desk application with other service management applications and tools. This permits a smooth flow of information and workflows between the service desk and other IT groups.

Application suites are now available that seamlessly integrate service management and service support processes out of the box. The CMDB provides the data foundation, ensuring that all service management applications are using accurate and consistent data.

Through process integration, service desk technicians can get the information they need and perform actions easily, without having to continually switch among multiple applications and tools. The following examples illustrate how the processes can work together to enable the service desk to operate proactively based on business requirements.

#### Scenario 1

The service desk is working to resolve an incident in the sales order system. The technician brings up a view of the IT environment and sees that the sales order service is running on a particular server. The technician consults the server change data that are collected and maintained by

the automated change management processes. This information indicates that the server operating system has recently been updated, and the technician determines that the update is the likely cause of the problem. The technician identifies which users access that server, and proactively alerts the users to the problem. He then creates an emergency request for change (RFC). Within the hour, the change management team restores the server, resolving the problem. The RFC is automatically closed, and affected users are informed that the server is back in service.

### Scenario 2

Automated performance management processes detect that the response time of a particular transaction exceeds the agreed-upon limit. The processes trigger a script that gathers additional forensic information immediately, instead of doing this many hours later, when conditions may have changed. The processes then generate an incident ticket to the service desk that identifies the specific services and components involved. Automatic ticket generation permits the service desk to move proactively to head off issues before they disrupt service.

### Scenario 3

A service desk technician is addressing a failure incident on a particular server. The technician consults the asset data maintained by automated asset management processes to determine whether that server is under warranty and/or maintenance contract. Based on this information, the technician addresses the incident in the most cost-effective manner and understands the total cost of that asset.

## Service Awareness

To operate based on business priorities, service desk technicians need to understand the relationships of business services to the underlying infrastructure components that support them, and the business priorities of those services. That understanding is made possible by service-aware technology that enables service desk technicians to view the relationships among business services and the components of the enterprise infrastructure, and to attach business priorities to the services. Access to this information is through the CMDB. This service-to-technology mapping is shown in the infrastructure view provided by the CMDB (see Figure 2), enabling the service desk to act based on business priority, resulting in a far more efficient use of time.



Figure 2. Understanding service-to-technology relationships

Without insight into business priority, the service desk typically resorts to a first-in/first-out approach to incidents. Horror stories abound concerning the service desk's focus on incidents that have low business priority, at the expense of far more critical incidents. Here's an example:

*An employee alerts the service desk that a router is down. A few minutes later, the operations employee sends a second alert that a second router is down. The service desk technician handling the alerts takes the traditional first-in/first-out approach and spends several hours diagnosing and resolving a particularly difficult problem in the first reported router outage. He then begins work on the second reported router incident, and quickly determines that a reboot will clear the problem. He requests network operations to reboot the router, returning it to service within a few minutes.*

As it turns out, the first router supports network access for a remote, one-person sales office that is located in a time zone in which the office is closed — certainly not a business-critical incident that requires immediate attention. The second router supports the daily electronic data transfer from suppliers to the company's business-critical enterprise resource planning (ERP) inventory application. Because of the delay in getting to the second server incident, the inventory update window is missed, seriously impacting production.

The technician would have reacted differently had he known the business priority of each incident. Here's a look at how this example might have played out with service-aware technology in place.

A technician begins working on the first router incident. The automated performance management processes generate an incident ticket, notifying the technician of the second router incident and indicating that this incident has a high business priority. He immediately stops working on the earlier case and addresses the high-priority incident. He brings the second router back to service quickly, avoiding disruption to the production line, and then resumes work on the lower-priority, first-reported incident.

As the example illustrates, a service desk application with service-awareness greatly increases the value of the service desk to the business.

## Self-Service

The typical service desk is bombarded with service requests and queries for request status from users. The combination of service request management and knowledge management technologies can help eliminate most of these calls.



Figure 3. Online service catalog

Through service request management technology, users can select and request services from an online catalog, as shown in Figure 3. (A well-designed system displays only those services available to the user based on the user's role.) The service request management system automatically performs the actions required to fulfill each request, gathering the necessary approvals and triggering necessary fulfillment processes. It also tracks progress and permits users to inquire, at any time, about the status of their requests. Here's an example of the power of such a system.

A manager hires a new employee. She accesses an online service catalog and enters a request to provision the new employee with a desktop computer. She requests that the computer be available in two weeks, when the employee begins work.

The service request management system automatically initiates the required processes, and periodically checks and updates the status of each process. One week later, the manager checks the status of her request online and sees that the computer will be installed the day before the new employee reports to work. When the installation is completed, the service request management system automatically notifies the manager that the request has been successfully fulfilled.

When the employee reports for work, the new desktop computer is on his desk, properly configured according to the employee's role in the organization. It has the right client applications, and the right access to enterprise applications and databases, so the employee can be productive from day one.

Self-service not only facilitates and speeds service fulfillment; it also eliminates a major source of workload on the service desk. Most of the calls to the service desk are to follow up on issues. Typical calls pertain to basic questions, such as "Is my printer fixed? Did my software arrive?" Through doing an online query, users can determine the status of their requests without burdening the service desk staff.

Knowledge management technology also helps eliminate service desk calls by enabling users to deal with issues on their own. It offers a number of self-service assistance features, such as providing a list of standardized services based on known issues, and directing users to relevant knowledge-related articles. Through these features, knowledge management can guide users through such tasks as configuring network printers, mapping network drives, resetting passwords, and downloading software.

## A Look at the Evolved Service Desk

Imagine that you have implemented a federated CMDB — seamlessly integrating your service desk with other service management processes — introduced service-aware technology, and automated service requests. What does your service desk look like now? Although technicians are still working incidents, the similarity ends there. The major differences are described below.

### The Service Desk Is Providing More Value to the Business

Technicians are no longer dealing with repetitive and mundane tasks, such as telling users the status of their service requests or providing password resets. Instead, they can

spend their time far more productively, resolving issues that are critical to the business. As a result, technicians focus on their primary mission: helping the business achieve its goals. Technicians also prioritize their work based on the business importance of incidents, optimizing their time and increasing their value to the business. Critical business systems now have increased availability because technicians know that resolving issues with these systems is the top priority.

The service desk can meet its service level agreements (SLAs) through effective service level management. This improves availability by tying everything together. The service desk staff can see if incidents are closed or escalated on time. The staff can see whether change requests can be performed with SLAs, and if the requests are completed on time. With service level management, you not only track incidents, but also trigger notifications so you can address issues before they impact service levels. Service level management applications also provide reports that permit you to assess whether you are meeting targets on incident resolution and request fulfillment.

### **The Phone Is Ringing Less**

Users can now request services, monitor request status, and solve problems, all on their own, so they don't have to call the service desk. In addition, the enterprise infrastructure automatically notifies the service desk of impending problems, so technicians are aware of problems before users are aware of them. With this early warning, technicians can proactively notify affected users of problems and keep them informed of the status of problem fixes, eliminating calls to the service desk.

### **Problems Are Diagnosed and Resolved More Quickly**

The system provides service desk technicians with a comprehensive view of the IT environment so they see exactly what is happening in the environment. They see how all the components, services, users, and processes fit together, so they can quickly zero in on problematic components. They see what changes have occurred, so they can quickly correlate reported incidents with changes. In addition, they are provided with rich forensic information gathered at the time the problems occurred, speeding diagnosis.

### **The Backlog Has Dwindled**

Removing the "noise" tasks from the service desk and accelerating incident resolution has freed up a substantial amount of the service desk technicians' time. This gives the technicians more time to address additional issues that historically may have been placed on the back burner.

## **Conclusion**

Like the bank branch, the service desk has evolved over the years, driven by process and technology evolution. This has enabled the service desk to continually improve service to users.

Now, process and technology innovations are available that can propel the service desk to the next level. A federated CMDB gives your service desk staff a consolidated view of the IT environment that offers greater insight into problems for faster resolution. Seamless integration of BSM processes makes your entire IT environment more effective by tying service desk processes together with those of other IT disciplines. Service-aware technology provides insight into the relationships among business services and the IT components that support them. This enables the service desk to prioritize incidents based on business impact. Finally, self-service technology empowers users to perform many more functions on their own, taking a huge load off the service desk.

You can leverage these innovations to extend service beyond the service desk. The result? You can transform the role of the service desk from delivering technical support to serving as a key player in helping the business achieve its goals.

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