Because of Dell’s direct relationship with its customers, the company’s success depends not only on the quality of its products and services, but also on the quality and consistency of its customer service. And because many Dell customers rely on telephone services when purchasing products or seeking technical support, quality of service is strongly influenced by the efficiency and responsiveness of Dell call centers. Continuous efforts to increase call center efficiency and flexibility while streamlining operations can contribute significantly to Dell’s high level of customer service.

Among the many Dell call centers around the world, the technical support centers are the largest group. These 40 centers are staffed by 20,000 agents who collectively field more than 20 million calls a year. With such a high volume of calls, even simple gains in efficiency can lead to significant benefits.

Verification authorization slows troubleshooting
In early 2006, Dell IT analyzed 2,000 technical support calls to determine ongoing call center costs. The analysis revealed that the Dell technical support agents were efficient troubleshooters, but were losing a large amount of time—anywhere from 30 seconds to two minutes—verifying customer identity at the beginning of each call during a process called verification authorization (VA).

Unfortunately, VA is necessary for customers and agents alike. It is legally required for technical support calls, helping ensure not only that customers are entitled to support, but also that they have authority over the equipment—at many sites, only certain personnel are authorized to act on advice that might require reinstalling software or changing registry settings.

Although VA is necessary, it does not increase call center efficiency or customer satisfaction. Dell IT set out to streamline the VA process by investigating the potential benefits of automation. Many organizations automate VA by using an interactive voice response (IVR) system to prompt customers for identifying information. But many customers—especially those wanting to speak with a technical support agent—may not tolerate the delay posed by numerous IVR questions.

To help spare customers the tedium of answering a large number of IVR questions, Dell IT streamlined the VA process by identifying customers through the caller ID information that accompanies nearly every phone call. The system can automatically gather identifying information already stored in a Dell customer database by cross-referencing it with the caller ID, also known as the automated number identification (ANI). To complete the process and verify the customer’s identity, the Edify IVR system used by Dell only needs to prompt for a single piece of information, called the express service code (ESC), which is generated by converting alphanumeric service tags to numerical sequences that customers can key in over the telephone.

Related Categories:
- Application development
- Call center technology
- Computer telephony integration (CTI)

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Dell IT creates a custom application to overcome telephony limitations

Originally, Dell IT had designed the system to send the customer’s identity as part of the call data. However, Dell IT discovered a limitation related to the third-party computer telephony integration (CTI) platform: it only allowed up to 2 KB of call data. Using a service-oriented architectural approach to telephony application development, Dell IT was able to design and build a custom application to conserve the limited shared resources and achieve a flexible, scalable design.

Dell IT built this custom application on a Microsoft® ASP .NET C# platform running on Dell™ PowerEdge™ servers. To locate customer records, the application interfaces with Oracle® databases, which also run on PowerEdge servers. The call center systems use Cisco® Intelligent Contact Manager (ICM) software to route calls to available agents. Because the process must work quickly, to avoid making customers and agents wait for the system to complete the identification and records retrieval process, the application performs the VA process and searches for customer information in the background while the customer is routed to an available agent.

Once the IVR system has verified a customer’s identity, the data is stored in a high-speed off-board database through a distributed Web service, and the system sets a flag identifying that the customer’s identity is verified. When the call is delivered to an agent, the softphone uses a unique call identifier to retrieve the customer’s identity and verification outcome from the high-speed database through a Web service. When Cisco ICM routes a call to an agent, the system matches the unique key to the call. The customer record appears on the agent’s screen integrated with the softphone call-handling system. The record includes a simple VA check box that identifies whether the customer has been successfully verified, as shown in the VER column in Figure 1.

VA automation helps save time and money while enhancing customer service

So far, the VA automation has been a clear success, forecast to reduce the call time for 37 percent of the 20 million annual technical support calls and save the technical support call centers approximately US$1.5 million. The custom application has also created additional opportunities to help speed technical support calls. By identifying customers at the outset of the process, the system can now employ intelligent routing—for example, by using information on Dell products the customer has purchased in the past to help route calls to agents who are well suited to help solve technical issues related to those products. Dell IT can also identify whether a particular customer has made multiple calls in a given time period, indicating that the customer’s problem should be expedited.

In addition to helping save both customers and agents time, the system has also led to other customer service enhancements. For example, agents can greet customers by name when they first answer calls. And when agents transfer calls, the customer’s record can follow the call, helping eliminate the need to repeat information for additional agents.

Call center automation holds promise for the future

Dell IT can duplicate the VA system for use in its other call centers, potentially including the company’s sales call centers. Customer identification enables Dell IT to equip call center agents with background information on customers before call routing. The additional information available before a call is routed or answered can help solve customer problems faster and provide a more personable customer experience than is possible without this information, and enables sales associates to offer additional products related to previous purchases.

Through automation, Dell can increase the efficiency of each customer interaction for both customers (by helping reduce call time and providing personal service) and Dell (by helping increase sales opportunities, reduce call time, and increase customer satisfaction). Results like these from innovative solutions to common problems help Dell build on the success of its direct sales model.

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