

Of Jackpots And Jugglers, Making Service Optimization Work For You

Have you ever seen the street performers juggling five lawn chairs or six lit torches? They make it look so easy, but keeping all the items up in the air is no small feat. Similarly, field service dispatchers and managers in the call center do a fair amount of juggling of their own in managing the schedules of tens, hundreds or even thousands of field service technicians — keeping track of the availability of the entire staff, skill sets, service level agreements (SLAs), travel time to job sites, vacations and sick time.

Learning to efficiently allocate field service technicians is not something that happens overnight. It takes a well-thought-out plan followed by staff education for successful execution.

There are certain strategies and certain technologies that can be implemented to turn your call center into a master juggler — keeping customers happy and costs low. In this article, we'll explore how aligning strategic capacity and tactical resource planning with daily scheduling creates a winning mix for any call center team.

Been There, Done That

Traditionally, dispatchers have managed the service scheduling process by manually scheduling each field technician to each job. This tedious process is not only complicated but is an inefficient way to both manage schedules and use dispatcher time, especially in large service organizations; not to mention, customer service is often sacrificed, as accurate arrival times are impossible to predict at the time the service call is scheduled, and schedulers on the phone with customers are forced to give several-hour appointment windows.

But the problem often goes beyond scheduling. Even organizations that are

able to schedule in an efficient manner are stymied when service demand exceeds the company's capacity of skilled engineers. So the problem facing schedulers in the call center today is multilayered and often has its roots in the upper echelons of the service organization.

If such is the case, how do we solve this problem?

Optimize, Don't Compromise

Service optimization can be defined as the technology, solutions, methodologies and procedures used to manage field service delivery as efficiently as possible. Optimization helps service organizations to achieve highest levels of productivity from field resources, to boost customer service, to improve planning and dispatching and to enhance automation of service parts, logistics and inventory processes.

Overall, service optimization focuses on minimizing costs while maximizing a company's ability to serve its customers well. At the heart of optimization is the notion that you should not need to

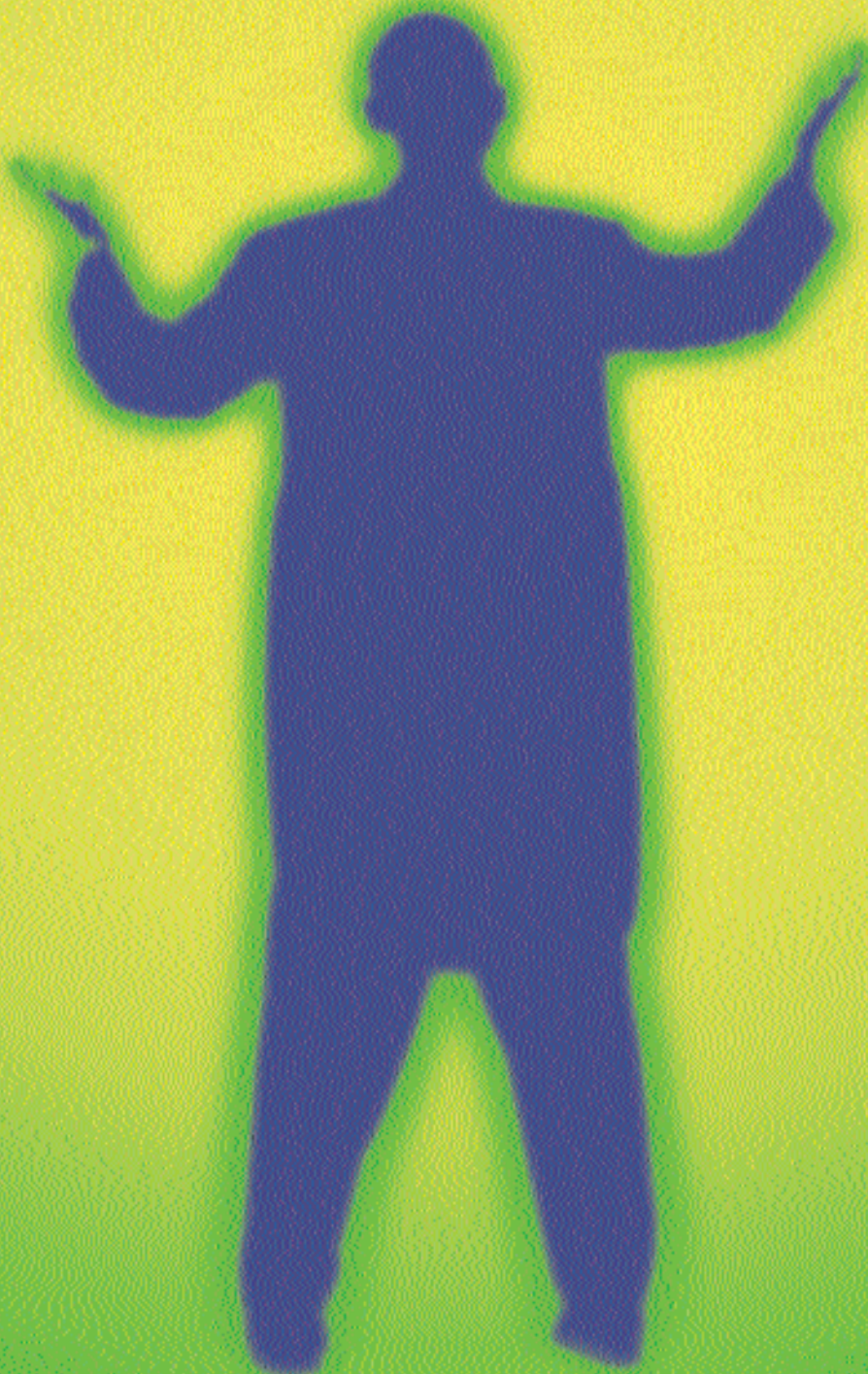
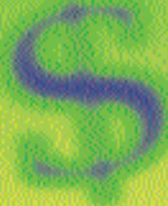
compromise high service levels for cost efficiency or vice versa. If you run a well-optimized service organization, there should be no reason why you cannot achieve both.

Tackling The Six Ws Of Scheduling

As service managers begin to consider service optimization technology for their own companies, it is natural for them to focus on schedule optimization first. Scheduling itself can be very complex. For each incoming call, a scheduler needs to decide which engineer to send to the job, what that engineer will need to perform the job and when to promise the tech will be there. All of these decisions ideally should be based on who the customer is, where the customer is, and what kind of service that customer needs.

Essentially, schedulers need to know *who* will do *what*, for *whom*, with *what*, *where* and *when*. I like to call this the Six Ws of Scheduling, and it is a lot of information for a human to process in a matter of seconds on the phone. With optimized scheduling, much of the decision making is handled by software programs designed to answer these questions in the most cost-effective manner.

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If optimized scheduling can so radically improve efficiencies in the service organization, what more do we need?

The “777” Jackpot

Let’s not forget that our original problem goes beyond scheduling into other areas of the service organization. While optimized scheduling is a sure start to improving your call center, longer-term planning is critical to preventing daily scheduling “fires” in the call center. Without solid forecasting and capacity planning, even the best scheduling capabilities will not help you. Let’s take a look at the “777” approach to service planning.

Consider a slot machine in Las Vegas. Pull the lever, and if you get one “7,” you are not a winner. If you get two “7”s, you are doing better, but you are still not a winner. But if you pull the lever and get three “7”s, you have won the jackpot. Like winning the jackpot in a slot machine, the “777” approach is key to winning the jackpot in the service world and is gained by synchronizing a service operation’s strategic, tactical and operational decisions.

As with any other business, within the call center there are daily issues, midrange tactical issues and long-term strategic concerns. At the daily processing level — the most basic level — the decision horizon usually spans anywhere from seven minutes to seven hours to seven days. (Yes, this could actually be five minutes, eight hours and three days, but “777” makes it easy to remember.)

Midlevel resource planning spans seven weeks to seven months in advance, where managers consider training, vacationing and other staffing issues. While these managers don’t know exactly what they will be hit with in the coming weeks and months, they need to be able to determine the approximate capacity requirement. This knowledge then provides a basis from which managers can approve or decline training plans or vacation requests, shuffle resources between territories or bring in temporary help.

And at the highest level, strategic business issues such as new product introductions, general growth in business volume or geographic territory expansion need to be evaluated. This level of long-term forecasting generally happens seven months to 17 months in advance and should have a significant impact on subsequent capacity planning for the forecasted time period.

Moving back to the analogy of the slot machine, if you are able to look holistically at the entire decision-making horizon and succeed in synchronizing all the variables, from forecasting and capacity planning to tactical resource planning and daily scheduling, the rewards will be incredible — a jackpot. Without this synchronized approach, challenges will continue to arise, as even the best scheduler cannot do much when there is a severe shortage of resources due to poor planning. However, with proper forecasting, your resource capacity planning will be at the right levels, making the day-to-day scheduling as uneventful as a daily schedule can possibly be.

Optimal Performance — On Your Terms

When it comes to measuring benefits in a field service organization, people generally fall in two camps of action: cut costs or improve satisfaction. Because schedulers often have different ideas of service policy objectives, schedulers under a manual system may not be scheduling engineers based on the same criteria as their colleagues, which leads to suboptimal performance on both the cost levels and the service levels.

Service optimization solutions, by virtue of what they do, force companies to define their service policies, as “optimization” is actually completely subject to the priorities of the company employing it. Once a corporate strategy is determined, the schedule is created consistently each time and is in line with corporate policy. This is perhaps one of the greatest hidden benefits of

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optimization. With a schedule consistently based on the same criteria, service organizations will be in a much better position to measure productivity, utilization and cost, among other things.

Proactively Manage Change

While there is much value to be derived from implementing service management software, it is important not to lose sight of the inter-relationship among people, processes and technology during the transition. You have to make sure that the workforce is ready to accept the changes that come with the new technology, and you have to ensure that you have processes in place and workflows established that will allow people to function alongside the technology.

Given that much of the change management of service optimization affects the scheduling level (as opposed to the planning and forecasting levels), care must be taken to work with the dispatchers and technicians alike, to ensure a smooth transition and optimal performance.

From the field engineers’ perspective, optimization will bring about some positive but radical changes in their day-to-day activities. Technicians used to getting all their jobs at the beginning of the day and planning their own routes may start to find that jobs are filtered to them throughout the course of the day, with predetermined routes. Engineers that were previously underutilized will find themselves working more. In companies with labor unions, involving the union in the implementation plans from the start will help abate

issues that may arise if the new system seems in any way to go against the union's contract.

Optimization also means big changes for dispatchers who are accustomed to manual scheduling. In fact, the role of the dispatcher in an organization with optimized scheduling changes dramatically from the previous system. With the optimization engine making the bulk of scheduling decisions, dispatchers are becoming more "exception handlers" who manually schedule the jobs that cannot be automatically scheduled within the constraints of the system. As the role of the dispatcher changes, it is important that companies work with dispatchers to accept the changes and help them deal with issues that may arise.

Recap

So now you know what it takes to transform your service organization and call center into a more balanced operation, rather than a juggling act. Achieving a schedule that utilizes resources in the most efficient way possible, while keeping your customers happy and your costs low, is only a "777" jackpot away — minus the Vegas odds.

But remember, to be completely successful you must take into consideration forecasting and capacity planning, not only scheduling. If you define company-wide service policies and align daily scheduling with capacity planning and long-term tactical resource planning, your call center daily schedule will run much more smoothly, to the benefit of your entire organization. **CIS**

Dr. Moshe BenBassat, Ph.D., is a world-renowned mathematician and pioneer in service chain optimization. He founded ClickSoftware (www.clicksoftware.com), a provider of software solutions that enable organizations to maximize field service delivery, after a distinguished academic career at USC, UCLA and Tel Aviv University, where his R&D work was funded by leading agencies such as the National Institute of Health, NASA, DARPA and the

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