

Reengineering Customer Support

Part 5: Data Collection and Analysis



Thus far this year, my column series has addressed preparing to reengineer an organization, performing an in-depth operational assessment, and then setting up teams to carry out the project. Now comes the real work. The data collection stage is the most important step in the reengineering project. The data you collect will become the foundation for the new, optimized support model. Everything you do later in the project will be based on the data you collect in this stage. However, because it's tedious, teams often want to rush through and minimize this aspect of the reengineering. They must not. This step is critical in the reengineering process and must be given adequate attention.

The Goal

The goal of the data collection stage is to gather the information necessary to design the optimal support process. You will design this process by simulating how a new process would work and then analyzing the projected results. Since the optimal process is yet unknown, you must perform numerous "what if" scenarios, going through an iterative process of developing a hypothesis, collecting data, simulating the model, considering the results, adjusting the hypothesis (if necessary), and then repeating the cycle. (I will go into further detail about the actual simulation exercise in a later installment of this series.)

Keep in mind that you are collecting data with the intention of redesigning the process to be more efficient. So it's not so important to measure how things are done today (except as a benchmark), but it is very important to gather the information necessary to predict how things will be, if support modifies its processes. Therefore, an effective approach to data collection is to begin by developing an educated guess regarding the potential new and efficient work process and then collecting the data that either will validate or disprove the hypothesis.

It is very important for the reengineering teams to think outside of the box—that is, beyond the current structure and processes—in order to determine more effective, more efficient ways of handling "calls" (i.e., any type of support inquiry, including phone calls, e-mails, and incidents submitted via the Web). It's typical for calls to be routed based purely on a product, platform, or module basis. However, the reengineering team might determine that it is important to establish the different call "types" based on the reasons for the calls. For example, the team may hypothesize that calls should be sorted into categories such as installation/upgrade questions, how-to questions, and data corruption or other error messages. In fact, they may hypothesize that knowing the product/module and the reason for the call would allow them to

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route the call to the appropriate agent with a high chance of resolution (increasing first-call resolution is one of the best ways to improve overall effectiveness). The team then would need to collect the data necessary to run this simulation.

Regarding the different types of calls, the reengineering team must determine the best way to sort calls in order to maximize the first-contact resolution rate and minimize the case-handling time. This means matching the customer's needs to the agent's capabilities. You don't want to route simple calls to your most experienced tech, and you don't want your less experienced techs struggling with complex calls. In order to maximize efficiency, you must route each call to the most appropriate agent. The key is for the reengineering team to let go of the current structure and process and ask themselves, "What's the best way to sort calls in order to optimize the customer-to-agent match?"

At this point, it is important that the team does not worry about how they will achieve the sorting; they only need to determine what the sort should be based on. I usually instruct the team as follows: "Imagine that you, a very senior tech, must take every call yourself

and then route each call to another tech (or group) for resolution. You can ask only a few short questions and then must send each call to the agent or group that you believe is the best match to resolve it. What would you want to know? What are the logical groupings into which you would put the agents and calls?" The result of this brainstorming is usually something substantially different from the current call-sorting model. Now you need to collect the data to match this hypothetical model.

Data Collection and Analysis

What data is necessary to simulate a support center? You will need a complete profile of the workload, including the call volume, arrival patterns, handle-time information, problem-resolution rates, and follow-up time required for calls not resolved on first contact. This may sound simple enough, but you'll need all of this information for each type of call as well. Furthermore, you need the information in a relational format, and you need to minimize the use of averages.

Now, when I say that you need information in a relational format, I mean that you should not be looking at the various pieces of data independently. For example, you must understand the

call resolution rate in relation to the call handle time, rather than looking at the two pieces of data separately. To avoid using averages, you might group calls into various "time buckets." For instance, you might look at the percentage of calls that are under five minutes, five to 10 minutes, 10 to 15, 15 to 20, and over 20 minutes. These ranges should be adjusted based on your own call profiles, with the intent of understanding the distribution of calls based on handling time. Of course, also look at the percentage of calls resolved during the first contact. Consider these two data points relationally. Of those calls that are under five minutes in duration, what percentage is resolved vs. those that require follow-up? Do the same for those calls that are five to 10 minutes, 10 to 15, and so on. This particular ratio is important in determining the point of diminishing return—when it is less likely that the call will be resolved and more effective to escalate the call for follow-up handling.

In addition to gathering data to forecast future performance, you need some information about current performance (the benchmark) in order to gauge the potential benefits of your what-if scenarios. The key benchmark information includes the current service levels (how long it takes customers to reach a live agent who has the ability to resolve their problem) and current resolve rates (the percentage of calls resolved at the conclusion of the customer's initial phone call). You should measure current customer satisfaction and current costs as well. It is important that you have this information in order to estimate the return on investment of implementing the new model and to measure the results afterward.

Attempting to use existing data is challenging. Many organizations rec-

ognize that they don't have the detailed information necessary to redesign the processes and/or to predict the results of a redesigned process. However, many organizations also resist the idea of going through an intense period of data collection and analysis. I often hear the argument, "We can get that from our CRM or phone system." The company may have expensive systems in place and therefore believe that they should be able to run reports and provide the necessary data. There are two reasons why this may not work.

First, many organizations do not capture data at the level of detail necessary to understand and redesign their processes. Moreover, the data that is collected is relative to the current process. So while it may tell how things are working today, it doesn't yield the information necessary to simulate a different process model. Typically, any changes to the existing reports would require significant effort from the IS/IT department. Changes also may require the addition of fields to the customer support screens in order to capture data that is not gathered currently. In order to gather all of the information needed, it's likely that you would revise the categories of data collected every one to two weeks, and it's not realistic for the system to be changed that quickly and frequently. Therefore, a timely and cost-effective alternative is needed.

The second reason that you can't rely on the existing systems for your information is that you need to validate everything. So you won't rely on those reports, but you don't want to ignore them. If a company has a good CRM and/or ACD system and can run reports, that's great; it's one source of data. Then, use your own data collection methods to validate the information.

A quick and easy data collection method (and a favorite technique of

mine) is the use of "tick sheets." These are simple forms designed to be completed by each support agent for every call handled. The concept may seem archaic, but nonetheless, it can be quite effective. What's more, using tick sheets has the added benefit of keeping the project on the minds of those taking calls and helps keep them involved in the process. In most cases, productivity actually can increase due to this extra management attention. (Google "Hawthorne Effect" for more on this.)

The key to using tick sheets effectively is to make them very simple and non-intrusive for the support reps. Rather than trying to collect all of the information you want to gather about calls in one fell swoop, you can use a series of simple tick sheets. Tick sheets should be designed so that there is no writing required by the call handlers. Each question should be multiple-choice so that agents just check a box. Agents should have one sheet per day, one line per call handled, and only a few check boxes per line. It shouldn't take more than a few seconds per call to complete the tick sheet.

From my experience, three to four data points (questions) per tick sheet is about the limit. Using any more breaks the rule about being non-intrusive. In most cases, a statistically valid sampling can be collected within one to two weeks. You then should review the information and determine the next set of criteria to be collected. By measuring three to four data points, and then changing those data points every one to two weeks, you should be able to collect all of the information necessary within two to three months.

There are a couple of key benefits to this approach. First, the information gathered will be very current and specific. It's more valuable to analyze a small amount of current and targeted

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data than to analyze huge amounts of dated material that may not be representative of current calls. Second, the fact that the agents are involved in collecting the data (and in the project itself) is likely to increase the accuracy of the data collected. You'll get additional "buy-in" from these agents as well, who eventually must accept the new support model.

Although a statistician might argue that the samplings are not statistically valid, I believe that the two former points outweigh this argument. Additionally, I rely on the Pareto Principle (also known as the 80/20 Rule): 20 percent of the call types account for 80 percent of the workload. If you do a good job of analyzing these predominant call types, your basis for design should be effective. Therefore, you don't need to analyze every single type of call down to the minutest detail. The tick-sheet data can provide enough information to complete your plan. The finer details can be worked out later.

Finally, be sure to gather data regarding the follow-up time required for any calls not closed during the initial contact. And you also need data on any other activities performed by the support department, including participation on product design teams, training, and professional services. Again, you need a complete profile of the workload in order to redesign the processes and project the staffing and other requirements accurately.

Yes, collecting and analyzing data can be tedious. But don't be daunted or tempted to jump to what I consider to be the fun part—designing and implementing the reengineered support operation. Thorough data collection is essential to reengineering success. ▼