



Realizing the Full Promise of Workforce Management Technology:

Avoiding Mistakes that Short-Change Your
Investment

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Since the cost of staffing in most call centers is between 60 and 70 percent of the total budget, the incremental benefits of selecting the best solution for your operation and implementing it successfully are significant. Companies in the market for a workforce management tool today face a mind-boggling array of choices. Automated workforce management systems range from quite simplistic to highly complex, with a wide range of price tags to match. This paper will help contact center managers navigate the choices.

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Introduction

Workforce management systems can make a substantial impact on operating costs and service delivery in contact centers. Companies in the market for a workforce management tool today face a mind-boggling array of choices.

Automated workforce management systems range from quite simplistic to highly complex, with a wide range of price tags to match. The decision on which system to invest in should be driven by the overall potential for return to an operation rather than simply the cost and ease-of-use of the solution.

Experience has shown that gaining the maximum return on investment requires a commitment to a sophisticated tool and a workforce management team with the expertise to make the most of it. Since the cost of staffing in most call centers is between 60 and 70 percent of the total budget, the incremental benefits of selecting the best solution for your operation and implementing it successfully are significant.

Workforce Management Marketplace

Since workforce management software tools arrived on the market in the 1980s, the capabilities and options have grown rapidly. Today the marketplace is essentially divided into three distinct categories:

- **Low-end** tools assist in one facet of workforce management, usually calculating the staff needed in a half-hour period to handle a defined workload to meet a specific service goal. Being somewhat single-purposed, tools in this category provide few configuration options to adapt to operational differences and rarely provide for automatic collection of data from other systems.
- **Mid-range** workforce management tools perform the functions of forecasting, scheduling, and daily performance management with a focus on ease-of-use. In an effort to make them simple to implement and use, these tools offer limited flexibility to accommodate highly complex situations. Some will interface to other systems to import and export data; others do not.
- **High-end** workforce management tools have many options and capabilities to adjust to nearly any kind of contact center environment. These tools may sacrifice ease-of-use in order to provide the sophistication and flexibility needed to match the unique needs of complex staffing situations.

Deciding Which Tool is Best

Almost all contact centers can benefit from a workforce management tool. The question is which tool, the high-end tool versus the less expensive simpler models, offers the highest potential for return? First, it's probably safe to say that if a contact center has 35 people who all handle incoming calls from 8 a.m. to 5 p.m. Monday through Friday, they probably do not need a highly sophisticated tool to tell people when to come to work and go home.

Even a simple workforce management tool offers the ability to help this type of operation develop a more accurate forecast of when the workload will arrive, when breaks, lunches, and training should be scheduled, and adjust to the daily variations that are the standard fare of contact centers.

The Impact of Operational Complexity

Even if small and simple now, most contact centers expand, consolidate, and/or add more requirements over time. Add just a little operational complexity and the operational challenges grow exponentially. What if the center in the previous example expands their hours of operation just slightly, possibly 7 a.m. to 9 p.m. Monday through Friday and 8 a.m. to 4 p.m. on Saturday?

With additional hours it is likely that a wider variety of shifts are needed to cover them. The use of part-time personnel also becomes increasingly attractive to cover the peaks and weekends without overstaffing during the lower volume periods. Figuring out what the best combination of shifts might be is a complex, iterative process, and accommodating the balance of business needs and agent preferences is even more challenging.

In addition to expanded hours, a number of other factors add to a contact center's operational complexity, such as:

- **Total number of agents** – as a general rule centers with more than 35 agents can develop a sound business case for workforce management. The larger the agent pool however, the easier it is to accumulate benefits from marginal improvements in agent productivity or scheduling efficiencies.
- **Multiple contact center sites** – centers located in different geographic areas usually entail a wider range of operating hours, notably when using overseas sites to provide “follow-the-sun” contact handling. Centers ‘outsourcing’ a portion of contacts should also be treated as multisite operations.
- **Use of skills-based routing** – contacts that queue to multiple possible agent destinations and agents logged into multiple queues greatly increase the complexity of forecasting requirements and determination of actual agent availability.
- **Scheduling restrictions** – rules or procedures imposed by external factors such as trade unions regarding working hours and shifts must be taken into account. Documentation of compliance is also an area where workforce management systems can be of great help.
- **Highly variable workloads** – contact volumes that vary widely due to seasonal patterns or marketing campaigns can be difficult to track and predict without a historical database and sophisticated forecasting techniques.
- **Outbound calling requirements** – whether related to inbound calls, like dispatch functions, or in support of telemarketing or collections functions the effects of outbound requirements on agent availability need to be taken into account, especially in a blended inbound/outbound environment.
- **Handling non-telephone contacts** – e-mail and Webchat contacts need to be handled with the same eye to service quality as telephone contacts. Specific service goals vary and the contacts may be handled by separate or blended groups, but scheduling the correct number of agents to meet the requirements is increasingly important as the volume of these non-telephone contacts continue to escalate.

Any one of these complications definitely suggests that the center could benefit from a sophisticated workforce management tool. A combination of two or more however, is strong evidence that a mid-range tier system will simply not be adequate.

The good news is that there are workforce management systems possessing the capabilities to deal with complex operational environments. However, these sophisticated capabilities come with a

responsibility on the part of the user to understand the implications of how these systems operate in order to avoid missing a great deal of the return that the investment is capable of delivering, as illustrated by additional examples.

Improving Forecast Accuracy

The accuracy of the forecast is the foundation of any workforce management plan. Without detailed knowledge of the workload, there is little chance for a schedule that will meet the service objectives. Contact centers are putting greater emphasis on forecast accuracy, working to reach a level of accuracy in every period not just on a daily average.

If the service level average for the day is within two percent of plan but some periods are 30 percent over and others 20 percent under (as is very common) service experience for customers is very inconsistent and a lot of effort is unnecessarily expended reacting to the mismatch of workforce to workload. An increasingly common practice is to set forecasting accuracy goals at 90 to 95 percent in at least 80 percent of the periods, some even more aggressive in large centers. Without a sound understanding of how a workforce management system goes about creating a forecast achieving these goal levels may be impossible.

A significant timesaving feature of some workforce management systems is the capability to import contact volume and average handle time (AHT) data directly from the ACD. Since historical patterns are the basis of the forecast of future workload, the accuracy of this data is essential. It is easy enough to ensure that the data has been received, but it is far more important to review it for discrepancies.

For example, the ACD may have skipped reporting a few half-hour periods during the day and the imported data has zeroes for both volume and AHT for those periods. These missing periods need to be filled in with reasonable estimates before being used in future forecasts. External events that shift patterns should also be saved for forecasting those effects when they next occur, but not used for averaging into the normal forecast.

Some workforce management systems make this process even easier by automatically detecting statistical anomalies allowing the user to decide whether they should be included in future calculations. This feature further minimizes the amount of manual intervention required to maintain historical data integrity resulting in additional time savings by allowing users to deal only with exceptions rather than the entire data set.

Other examples of events with the potential to negatively impact forecast accuracy if not accounted for include; an IVR system being offline for a brief period resulting in more calls than usual going to agents, a group of trainees being introduced to the phones resulting in higher than normal AHT values or external factors such as marketing campaigns, holiday periods or natural disasters that cause one-time changes to contact patterns.

High-end workforce management systems make planning analysts more productive (and accurate) by helping them identify anomalies in forecasting data and making adjustments easy to perform.

Creating Optimal Schedules

Another barrier to achieving maximum return on a workforce management investment occurs in the scheduling process. When the shift options are limited a relatively simple scheduling tool can be used. But most centers today are working with expanded shift choices and using a mixture of full- and part-time staff to improve operational efficiencies. Even full-time shifts are configured in an increasing variety of ways, expanding upon the traditional mix of eight and ten hour combinations.

The variability of shift start-times is also on the rise, driven by compelling evidence that starting shifts every half-hour is more efficient than hourly start times. Starting them on quarter-hour intervals further improves the ability to schedule agents according to peaks and valleys in contact volume without over and under staffing. As the numbers and types of shifts expand, so also does the complexity of determining the best way to combine them to optimize scheduling efficiency. Increasing the number of shift options without having a workforce management tool capable of handling this additional complexity serves to short-change the potential return on investment.

Accounting for Non-Telephone Contacts

Contact centers are increasingly taking on non-telephone work such as emails or web chats as well as calling workloads not directly associated with inbound calls like telemarketing and customer loyalty campaigns. Adding these requirements into the scheduling mix presents an even greater challenge in creating optimal schedules.

A popular approach for handling email is to delay working on them until the telephone workload is handled, but there is a deadline for emails too even if it is 24 or 48 hours. Backlogs build and must be cleared on a regular, well-planned basis. High-end workforce management tools aide in this effort by finding the best times to schedule the work without adversely affecting other contact handling requirements or incurring avoidable costs arising from overstaffing or overtime pay.

Outbound calls may need to be planned in the schedule too. It is often not sufficient to simply schedule outbound calls into inbound call arrival valleys since that may not provide adequate time to meet campaign goals. In many cases, utilizing off-peak inbound times to satisfy outbound requirements may not be a viable option due to calling time restrictions or potentially low live-answer rates. Many workforce management tools today, even some in the high-end segment, do not offer sufficient flexibility to schedule outbound work.

Centers handling multiple contact types face a daunting challenge in accurately forecasting the workload requirements of each, not to mention the creation of schedules to ensure that all are accomplished within their respective service goals. Successful coordination and effective use of the center's resources across contact types in these situations are next to impossible to achieve without a sophisticated workforce management tool.

Accounting for Skills-Based Routing Requirements

There is no point in identifying a customer's unique need and routing the contact to a specialized

group if there is nobody there to handle them. A comprehensive forecasting and skills-aware scheduling process must be in place to justify the investment and reap the rewards of deploying a skills-based contact routing environment.

There are proven and significant advantages associated with service quality and operating costs for contact centers utilizing skills-based routing strategies, especially when combined with the use of multiskilled agents. All too often however the complicating effects this approach has on forecasting and scheduling efforts goes unaccounted (and unplanned) for.

Forecasting volume and AHT by individual contact type is not all that difficult although caution needs to be exercised when forecasting for extremely low volume contact types. Estimating the exact number of agents required to handle the forecasted workload is the real issue. Most pure mathematical approaches to this problem fall short due to the fact that the solution presents a 'chicken and egg' type scenario. The required number of agents to be scheduled is determined by the skill sets of the agents actually scheduled... which affects the number required... which affects the agents scheduled... which...

If all agents had a single skill set, or every agent could handle the entire range of necessary skills the answer would be straightforward. Unfortunately in the real world we deal with a mixture of skills, a mixture that can and does change from week to week as a result of turnover, vacations, absenteeism and new skills acquired through cross-training.

Evidence suggests that a simulation-based strategy likely offers the best approach to scheduling in a skills-based environment due to its ability to accurately reflect multiskill agent efficiencies and real-world routing rules. The most effective workforce management tools integrate simulation algorithms into the scheduling process rather than treat it as an external validation tool, and the best-in-breed solutions allow for replication of the center's exact configuration and routing rules rather than relying on standard assumptions.

Considerations for Multisite Operations

Contact centers with multiple sites face a compounding of the challenges of single site operations plus additional ones unique to the multisite environment. Multisite centers must not only deal with the complexities of workforce management tasks themselves but how they should be divided within the organization. For example, should all forecasting and scheduling be centralized or should some or all of it be distributed to the individual sites?

There are implications in these choices that need to be fully understood and the set-up and operation of the workforce management tool needs to align with and support the defined business processes. It is important to have a workforce management system with the flexibility to distribute the tasks and responsibility as desired in order to adapt to the operational environment as opposed to adapting the environment to the limitations of a particular tool. Flexibility in a workforce management tool is also important to support the potential for changes.

Multisite centers may also have to deal with different scheduling rules for each center and a need to distribute the workload fairly across all locations. For example, is it fair for East coast agents to get all the early shifts and West coast agents all the late ones simply because the time zones are three hours apart? Does it make sense to have all the agents in a newly opened site work the late shift and close the center in the morning just because they do not have enough seniority to get a day shift?

Finding the best balance of schedules to fit the needs of the centers, agents, and customers takes a lot of experimentation, creativity, and likely a sophisticated mathematical algorithm or simulation, as well as a savvy user who understands how to tap into the power of the workforce management tool.

A Good Analyst is Critical

Investing in a workforce management tool without committing to a similar investment in securing or developing the people to use it severely dilutes the potential for return. Workforce management systems, particularly those at the high-end, provide a powerful computational and analytical platform. That platform must be utilized intelligently, with an insight into contact center operations and the business needs underlying it, to deliver substantial benefits.

A successful workforce management analyst combines computer skills and mathematical ability with a working knowledge of the business and the negotiation skills of a diplomat. The job typically encompasses a wide range of highly critical responsibilities including:

1. Gathering and analyzing data to determine weekly, daily and often half-hour forecasts
2. Working with supervisors or agents to ensure staffing requirements are covered
3. Providing 'what if' analysis and performance reports to management
4. Evaluating different schedule mixes and their effects on service and operating costs
5. Planning for long range staffing requirements

Being able to analyze situations and make effective decisions requires training, experience and a continuing commitment on the part of the company to professional development. Taking a low-ball approach in regard to salary levels and career planning is not the way to attract the quality of employee needed to successfully staff this position.

Where does an organization find qualified candidates with the unique mixture of required skills? The first place to look is internally in the contact center. Looking for supervisors that exhibit a talent for math or analytical thinking is a good approach. The establishment of formalized workforce management intern or training programs is also a growing trend in centers to help secure a good supply of qualified prospects.

If there is a lack of qualified personnel internally then external sources must be tapped. Whether working directly with applicants or through a human resource department make sure the job and skill requirements are detailed. When looking externally it also makes sense to place additional emphasis on candidates with direct experience using the workforce management tool that is in use (or planned) in the contact center. Vendor user conferences and industry professional meetings are good networking sources for finding qualified candidates.

Once qualified analysts are secured, whether from internal or external sources, make sure they have in-depth training on the use and fundamentals of the workforce management tool. It is also important to have a plan for ongoing training to account for new staff, training of existing staff on new features or product upgrades and professional development to help minimize turnover at this critical position.

Use 'What-If' Analysis

Even when the forecasting and scheduling are working at their best, the full power of a workforce management tool may not have been tapped. A substantial value of these systems is the ability to

perform analysis of options under consideration, or “what if” scenarios. Perhaps upper management is considering the implementation of a contact management system as part of a CRM rollout that is expected to add 20 seconds per call for agents to collect additional information.

- Select personnel for the workforce management team who are computer-savvy and comfortable with mathematics. These people need to either understand the business or have access to those who do, so that they can determine the business drivers and influencers that affect forecasts and decisions. It is unwise to assume that this is a clerical position or a great deal of the potential payback will be lost. Higher salaries for more capable personnel will be recovered many times over in the efficiencies gained, the decision-support analyses provided, and the reduction in turnover when agents are involved in and happy with the processes.
- Everyone in the center must receive workforce management training tailored for the specific role that person plays:
 1. Agents and supervisors need to know the importance of even one person not being in place as scheduled, and understand the processes for schedule development, assignment, and changes. This takes the “big brother” suspicion and the mystery out of the processes involved in an efficient schedule, while making the agents aware that their preferences are important and will be accommodated in the system in balance with customer needs and business requirements.
 2. Managers need to know what kinds of analysis the systems are capable of performing and the reports that are available to assist in decision-making. No manager should have to make a staffing or scheduling decision without having all of the data at hand that would detail the tradeoffs involved.
 3. The workforce management team must have training that goes beyond which buttons to push. Every member of the team should understand the full range of implications of choices that need to be made and the general theory and practice of workforce management techniques. When there is turnover in the team, the new members must be given the same training as the initial team to ensure the level of knowledge remains constant.

To ensure that the organization gains the maximum return on an investment in workforce management technology it is critical not to short-change the process by selecting a tool, vendor or staff that is limited in potential. Incremental investments in better tools and in analysts with higher skills and thorough training generally reap significantly higher rewards in customer and agent satisfaction as well as efficiencies and cost savings.

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About the Author

Maggie Klenke is a founding Partner in The Call Center School. As an active industry consultant, she assists clients in development of strategic and tactical plans, technology applications and integration, network design, staffing and scheduling, service level analysis, and overall management issues. Maggie teaches seminars on a wide variety of call center and telecommunications topics and is a frequent speaker at industry events and trade shows.

About IEX Corporation

IEX Corporation, a subsidiary of NICE Systems Ltd. (NASDAQ: NICE), is a leading provider of feature-rich, scalable workforce management software that enables contact centers to develop accurate forecasts and build efficient staff plans. Founded in 1988, Richardson, Texas-based IEX has a strong global market presence in over 45 countries with more than 900,000 agents in over 3,100 sites. IEX is part of the NICE family of companies, which offers the industry's broadest set of contact center business performance and analytics solutions. In addition to workforce management, the NICE product portfolio is comprised of quality monitoring, interaction analytics and performance management technology. These solutions address the entire spectrum of contact center business issues while supplying valuable strategic information to enterprise-level decision makers. For more information about IEX, visit <http://www.iex.com>. For more information about NICE, visit <http://www.nice.com>.