



## A New Approach to Contact Center Optimization

**Jim Quiggins and Nathan Stearns**

### Abstract

Contact center managers are hearing a great deal from vendors and analysts about optimization. The definition of optimization varies depending on who is discussing it, but most approaches tend to focus on improving agent performance. An alternative approach is to take a holistic view of optimization that not only considers the entire contact center, but also considers the contact center within the enterprise as a whole.

Solutions for bringing about contact center optimization may be classified into three broad categories of contact routing optimization, human resource optimization and business process optimization. Business process optimization often is overlooked, but is the most critical part of the optimization process. Workforce management technology spans these areas and provides the foundation for any optimization project.

Optimization solutions are most often offered either as a suite of related solutions or as individual point solutions. Each approach offers its own strengths and weaknesses. Suites most often lack functionality and depth, while point solutions may require extensive integration. A new vendor strategy for contact center optimization offers the best of both the suite and point solution approaches. A meaningful alliance of technology vendors can provide highly functional best-in-class solutions that are integrated and tested to provide even more benefits to the customer. Building such an alliance is a strategic process requiring technology and industry leadership.

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### Introduction

One of the biggest contact center industry buzzwords in recent months has been “optimization.” Now that most contact centers have workforce management systems in place, managers hear from vendors and analysts that the next step is workforce optimization. How is the term “workforce optimization” being used and what is its real significance or impact in the contact center industry?

In the engineering and mathematical communities, optimization means the result of finding the specific values of certain variables that will maximize a certain objective, within any constraints that apply to the problem.

In more common usage, especially in the business world, it has taken on the definition of “making things as good as they can be.” In the contact center industry, the definition of optimization depends on who is talking. In general, the term has been used to describe technology tools designed to enhance, manage or generally increase the effectiveness of contact centers. There are a number of technologies associated with contact center optimization, and the technology that is considered to be the key factor depends on what the particular vendor has to offer. For the most part, the contact center industry defines “workforce optimization” as a combination of workforce management, quality monitoring, eLearning and analytics technologies. Under this definition, workforce optimization is narrowly focused on agent performance and is tactical, rather than strategic, in nature. In fact, the most often quoted workforce optimization elements (quality monitoring and eLearning) are agent-centric, and most analytics vendors focus on “agent dashboards” and “agent scorecards.”

To meaningfully optimize a contact center, however, managers must look beyond only workforce or agent optimization. Improving the performance of employees is key to a better contact center, but the contact center is also part of a larger business, and any optimization project should consider questions related to the enterprise as a whole. While a workforce can be trained, managed and rewarded, it sounds somewhat mechanistic to speak of “optimizing” people. For this reason, this paper will speak in terms of total contact center optimization.

Because there are so many technical, human and business factors that go into managing a contact center, it is essential to take a big-picture approach to optimization. Changing one specific area of a contact center with one technology may bring about a significant improvement, but it will not necessarily optimize the contact center. Taking a holistic systems approach to optimization gives businesses a better view for assessing what needs to be done and which technologies will be needed to bring about optimization. Furthermore, an optimization project is only as good as the business's commitment to it. It is a culture change as much as it is a software implementation. True optimization occurs when technologies work together to influence human behavior and drive performance across all elements of the contact center.

### Buying Optimization

The first question a manager should ask regarding optimization is where is the contact center suboptimal? What is working, and what isn't working? Doing this requires some form of assessment and measurement to determine the current operational status and identify strengths and weaknesses. Managers must look at any apparent problems from multiple dimensions and ask specific questions. Once a strategic decision has been made to set appropriate metrics that best meet corporate objectives, it is then critical to assess the root causes of any variations.

For example, if a contact center has established a service level goal of answering 80 percent of calls within 20 seconds and is not meeting that goal, there can be a variety of causes. The cause may be

budget-related if the center hasn't been given enough headcount to achieve objectives. The shortfall could be caused by poor schedule adherence by agents, inappropriate scheduling of off-phone events or even poor contact routing.

Once the assessment is complete and potential areas of improvement are identified, managers can then set goals and objectives for improvement. They also should establish the assumptions they will base measurements upon and decide how to compare performance after the project to previous performance. Critical questions to be answered include: "What is the basis of comparison?" and "How will that be measured?"

The answers to these questions will likely be unique to each contact center. There is no one-size-fits-all approach. Once the initial analysis is complete and objectives are set, it is time to develop and execute a plan of action.

Although there are many vendors eager to sell optimization, the truth is that optimization isn't something that can be bought or sold. Only technologies and services can be bought or sold. Optimization is something that is done using those technologies. The technologies are merely enabling tools that can be used to bring about optimization.

Some of these tools are needed before the project even begins. Measurement and analysis tools are essential for identifying areas that need improvement and for benchmarking at the start of a project. The good news is that a contact center with a powerful workforce management system already has many of the tools needed to compile data and determine where the center is not meeting objectives. ACDs also come packaged with a wealth of data and customized reporting tools. However, additional data analysis tools may be needed when it is time to dig deeper and determine exactly why these objectives aren't being met.

But even before turning to technology, most managers already know on an intuitive or instinctive level if their centers aren't optimized and where the areas of weakness lie. They just don't have the time and resources to dig into the raw data and pinpoint the exact source of any problem. This is where a knowledgeable vendor with the expertise to deduce problem areas based on the data and find the solutions that can help solve those problems can become an asset. Which vendor is best suited depends on the problem to be addressed.

### **Contact Center Optimization Solutions**

In general, vendor offerings in the so-called optimization arena fall into three primary categories: contact routing optimization, human resource optimization and business process optimization. Some solutions, such as workforce management, span all three categories. Therefore, most analysts and consultants agree that a workforce management system is the essential starting point for any optimization project.

### **Contact Routing Optimization Solutions**

Contact routing optimization solutions help ensure that the right contacts are delivered to the right place at the right time so that agent or self-service resources are used most efficiently.

Routing engines – Deliver the contacts to the right agent in a timely manner. To optimize the routing process, the engine needs more and better information about agents and callers. Managers need a better understanding of where they are over or underutilizing agents so they can make improvements

to routing protocols. This becomes especially important in multisite centers, where calls must be routed between sites in such a way as to reduce queues without raising costs. Multichannel and multiskill environments (including inbound/outbound blended environments) also require sophisticated routing engines to maximize performance.

IVR and self-service technologies – Provide cost-effective response methods when used appropriately. Self-service technologies automate routine inquiries and make sure that agents only have to take calls that need personal attention and can't be handled by automated means. The result is better customer service, with customers getting simple information like balance inquiries more quickly and getting faster service when they do need to talk to an agent. Self-service technologies also help make better use of skilled agents by directing calls to the right agent based on the caller's needs, such as at a bank where callers needing information on loans can be sent directly to agents with loan expertise. Self-service technologies are generally less expensive than live agents.

CTI (computer-telephone integration) – Provide agents with information about callers via computer screens. Prompts for account numbers before or at the same time the caller is connected to an agent help improve call handling decisions and provide agents with valuable information on the caller. The results are improved service, reduced handle time, and more opportunities for cross-selling and upselling. Account profile information can be delivered to an agent's computer before the caller is even connected to the agent. CTI also can be deployed as a pre-routing decision technology for skill-based routing.

### **Human Resource Optimization Solutions**

Human resource optimization solutions are designed to help improve agent performance, resulting in more efficient and more effective service.

eLearning – Provide online training at an agent's desktop. Training can be delivered in modules during scheduled learning breaks or to make better use of unscheduled downtime. E-learning can be linked to key performance indicators as indicated by data retrieved from the ACD or quality monitoring system. The learning can then focus on areas where each agent most needs improvement.

Quality monitoring and logging – Monitor agents' qualitative performance. Agents' customer interactions can be sampled and reviewed for scoring against performance indicators. Supervisor scoring or speech recognition systems and speech-to-text technology aid systematic analysis of interaction aspects such as voice inflections and key words. Logging systems, in which every call and screen movement is recorded, have been used as confirmation or back-up for some kinds of transactions, but can also allow managers to search for areas of needed improvement in customer interactions or to provide additional sales leads for follow-up.

Messaging systems – Keep agents informed of contact center status. Information on factors such as number of calls in queue can help agents adjust their customer interactions accordingly. Display boards and/or desktop messaging systems have a demonstrable effect on agent behavior by providing timely feedback.

Hiring and recruiting tools – Help managers hire the right people. Caller simulation technology allows managers to test potential hires in real-world scenarios of varying degrees of difficulty. Profiling technology, such as automated Myers-Briggs Personality Assessments, help managers find people who are the best match for the center's needs.

Education and training – Deliver classroom training designed to improve agent performance. This can include training in soft skills (how to defuse an irate customer); technical skills (systems navigation); product training; and contact center operations (how an agent’s schedule adherence contributes to the center’s performance as a whole). Supervisor performance training is also a critical area, since most contact center managers rise through the ranks, often with little formal training.

Agent scorecards and key performance dashboards – Provide performance targets and results online to agents and supervisors. Managers can use KPIs to monitor business and individual performance and analyze the cause when performance falls short of targets. These metrics drive the design of education and training offerings.

### **Business Process Optimization Solutions**

Business process optimization solutions enable contact centers to function better financially and as a strategic unit of the overall organization. This category differentiates contact center optimization from workforce optimization. While the previous two categories are tactically oriented, business process optimization focuses on strategic elements, such as longer term financial planning, physical plant and facilities, geographical location, and long-term headcount planning.

Financial planning – Allows contact centers managers to “talk the talk” of corporate financial departments. Financial analysts need to understand how contact centers operate in order to effectively allocate resources. These tools link meaningful business information from contact centers to financial departments. The analysis tools demonstrate the impact of contact center variables such as schedule inefficiencies and the “law of large numbers” so financial planners can more easily understand the contact center’s needs and impact.

Simulation and modeling tools – Test and prove concepts/recommendations in a non-production environment, before they impact the customer or agent. These tools allow the manager to model the current environment to provide a benchmark for testing various “what ifs” for addressing problems. Simulation and modeling are especially important for skills-based scheduling and financial planning. The greatest potential for simulation may lie in determining how to optimize the technology in place. It is a common occurrence for a company to spend significantly on the latest and greatest technology, only to use it to continue doing business in the same old way. Simulation can assist in determining the “right” uses of routing engines and scheduling systems.

CRM – Customer contact software to manage customer relationships. CRM may not have been the panacea early claims said it would be, but it is still an important business process solution. The need for recording and retrieving customer data is greater than ever. The management of customer data is the essential pre-requisite to managing the customer relationship.

Analytics, workflow management and data management – Provide tools to help contact centers understand where optimization is needed and provide input into how to correct problems. These tools identify areas of opportunity, then create triggers so that if an indicator falls below the standard, a work event is automatically generated and given to the person responsible for improving that area of performance. These tools also automate and manage routine tasks throughout a workflow. They build on the adage “if you don’t or can’t measure it, you can’t improve it.” This technology belongs in the “optimization” field. Data management tools help managers cope with system administration and synchronize data across multiple platforms while normalizing and cleansing data to improve data interpretation. Common administration tools provide one control panel/user interface to manage multiple systems.

## Workforce Management Software as an Optimization Technology

Spanning all of these areas, workforce management has become a “must-have” technology for any optimization project. Workforce management technology can have the biggest single impact in contact centers of significant size and extended hours of operation. Having the right number of staff at the right time to respond to customer contacts is now considered mission-critical and touches each of the optimization categories we have defined.

**Contact routing optimization** – Workforce management includes multiskill, multisite and multichannel planning, management and analysis tools. Sophisticated routing scripts all have a termination point. If the right agent with the right skill is not at the end of the line, the best routing plans are useless.

**Human resource optimization** – Includes agent scorecards for objective measurement of quantitative performance objectives, as well as standardized interfaces to quality monitoring and eLearning technologies. Workforce management can drive measurement events by finding the optimal time within an agent’s schedule. The workforce management system also yields statistical information regarding agent performance.

**Business process optimization** – Workforce management is the day-to-day tool for helping managers do the best they can with the resources they have available. Managers can optimize for today’s service levels and plan for the future based on anticipated needs and available staff. Through the active use of a Workforce Management System, areas of suboptimization begin to show up in initial measurements and processes. Unfortunately, many contact center managers don’t use the full analytical, data management, simulation and financial planning power of their workforce management systems.

### Optimization Approaches

Vendors may be classified into two broad approaches in the contact center optimization market: the suite approach and the point approach.

#### The Suite Approach

Some vendors offer a suite of solutions designed to work together. The most often quoted arguments for a suite of solutions are: “A suite of solutions can simplify an optimization project because there is little need for integration. The products are designed to work together. There is only one point of contact for the entire suite of products, which makes managing the project easier.”

However, the trade-off for this simpler integration is reduced functionality. Because the suite vendor has had to develop a whole range of products, these products are generally lacking in depth and expertise. No one product within the suite, or at best, only one, is truly outstanding, and some products in the suite may be sub-par. It is unlikely that a single vendor could provide all the technology solutions of the depth needed to truly optimize a contact center. The suite approach could be described as a mile wide, but an inch deep.

The trade of easier integration for less functionality is not in the best interest of most contact centers. The optimization issues being addressed by most of these technologies are complicated issues, so resolving these issues can be an operational challenge, even for the smallest of centers. A

supposedly simple solution may not be enough to accomplish the task. The irony is that even if a suite solution is purchased, it must be integrated with legacy systems. While third-party integrators may be less necessary in a suite implementation, industry consultants have often been needed to help managers work around the weaker areas of the suite in order to achieve the necessary degree of functionality to address the optimization objectives.

It is also interesting to note that of the four workforce optimization elements most frequently discussed (Workforce Management, Analytics, eLearning and Quality Monitoring), no suite provider has successfully developed a product suite that includes all four elements. Today's suites consist of quality monitoring and workforce management, or workforce management and analytics, or quality monitoring and eLearning. Even with these limited suite offerings, buying a suite doesn't necessarily mean that the products will be truly integrated. Some "suites" are created when companies merge or products are "resold," so that the products may be sold under a single name without being an actual integrated suite.

### **The Point Approach**

Point solution vendors offer individual technologies based on their particular area of expertise, but may not offer other technologies that might be needed for a contact center optimization project. These individual solutions may be excellent, considered to be "best of class", within one area of the contact center but they don't necessarily address the other areas of contact center optimization.

These vendors have a depth of expertise and a strong track record in their field, and they can bring this expertise to their customers. They can also provide value-added benefits to an implementation based on their experience with other customers. A consultative approach usually is embedded in the offering, with the products themselves being flexible enough to be configured around the business processes.

But in order for an optimization project to be successful, each point technology used must be able to share data with the others. When each technology comes from a different vendor, integration can be a challenge. They may be based on different platforms, may define data in a different way or have different levels of data. This approach could be described as a mile deep, but an inch wide.

A point solution can provide advanced functionality, but it often requires a knowledgeable integrator or consultant to help put together an overall optimization system that will work as one solution.

### **A "Code-share" Approach – Technology Alliances**

There may be a better way to approach optimization, combining the best of these two approaches. An alliance of point solution providers provides the depth of a point solution and the easier integration of a suite. This alliance works much like the airline alliances work in the travel industry. No one airline has to cover the entire globe, but by sharing codes, they can provide global service while giving customers the convenience of seemingly dealing only with one airline when they make their travel arrangements.

A contact center optimization technology alliance shares integration code as well, so that the worst integration headaches are resolved from the start and the customer only sees a set of powerful solutions that work together seamlessly. This approach allows contact center executives to select precisely the solutions that are necessary to meet that center's optimization needs and still be assured that the solutions can be implemented rapidly with a minimum of integration work. Contact

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centers also have the flexibility to choose only what they need, when they need it, but with the assurance that the technologies they choose will work as one.

With an alliance approach, not only do customers receive best-of-class solutions, they receive added benefits that come from the synergy of industry experts working together. The marriage of two vendors will provide more functionality than any two products could working separately or in conjunction with other products that aren't part of the alliance. This approach provides a range of solutions that is both a mile wide and a mile deep.

With the depth of a point solution, the industry expertise and best practices are built into the products for more functionality from the start. This reduces the need for third-party integration to help change or match business processes. The products are pre-integrated so the customer does not have to worry about integrating a set of solutions.

It is essential that such an alliance be a true technology alliance, going beyond the joint marketing agreements that are so common in the industry. It requires more than adding partners' logos to each vendor's web site and trade show signage. In a technology alliance, the members must agree to work on integration and test their products together, before those products are even presented to a customer, and then the members must work together to meet customers' needs as the integrated products are implemented.

Alliance members also should work together to drive more benefits from each others' products than the products would be able to provide separately. For example, by taking advantage of data made available by the workforce management product it is integrated with, a performance optimization product might be able to generate better, more detailed reports, without the customer having to do extra work to develop a business process, harvest data and convert it for use in the other product. The business processes surrounding all of the alliance products would be built in as part of the integration.

### **Building the Alliance**

#### **An Industry Leader**

It is essential that an alliance be developed strategically, rather than as a random gathering of technologies based on which companies are interested. A technology that spans most of the processes of a contact center should be at the core of an alliance. Workforce management is mission critical to contact centers, and therefore makes a strong alliance foundation. Additional alliance technologies should be best in their respective classes and chosen for their ability to impact business processes.

This is why IEX has taken the lead in building the first contact center optimization alliance of its kind. With a market-leading, best-in-class workforce management solution, IEX has the foundation for contact center optimization. IEX also already has "code share" partnerships with leading vendors in contact routing optimization, human resource optimization, and business process optimization and a customer base representing industry leaders in a majority of Fortune 500 companies.

To build this alliance, IEX actively sought best-in-class technology vendors in strategic sectors of contact center optimization and pursued technology partnerships to create integrations among these products. The focus has been on areas where contact center optimization needs were unmet by previous approaches and where customers would see the most immediate benefit and return on

investment. The most recent additions to IEX's contact center optimization alliance program include contact center performance management and advanced decision support.

### **Contact Center Performance Management**

Merced Systems Inc. has signed an agreement to participate in the contact center technology alliance led by IEX. Merced Systems offers performance management tools that automate the integration and cleansing of data from disparate sources, including spreadsheets and paper data. This data is then delivered to managers, supervisors and agents via personalized dashboards that provide visibility into goals and performance data. The solution provides automated out-of-threshold alerts, messages, and workflow tasks so agents, supervisors, and managers can be aware of and correct problems as soon as they occur. The system automates reward and recognition processes as well. This capability is essential for contact center optimization, making it possible for managers to make full use of the wealth of data obtained from all systems within the contact center, including the ACD and workforce management. Merced and IEX have co-developed role-based scorecards and dashboards which contain indices and ratios – focused on the contact center support processes - not available in any other performance management system. In addition, data integration and synchronization is seamless via IEX's SmartSync software suite.

### **Advanced Decision Support**

Bay Bridge Decision Technologies has also joined the IEX-led alliance. Bay Bridge provides decision support technologies, making contact center data available in a meaningful way to finance personnel. This facilitates staffing and hiring plans, budgets and service quality forecasts related to staffing decisions. The Bay Bridge CenterBridge System provides "what if" modeling and simulation technology to test the impact of contact center decisions on the center and on the enterprise as a whole. Bay Bridge fills a need in contact center operations by providing the tools to accomplish sensitivity analysis when a contact center is faced with many decision options – such as "Where should I optimize to receive the most significant benefit?" and "What is a reasonable and most cost effective objective for the optimization task?"

CenterBridge complements the IEX TotalView workforce management system by providing long-term financial planning. Whereas TotalView is the leading system for forecasting, scheduling and intra-day staff management, CenterBridge extends the planning horizon and provides strategic planning capabilities.

These two partners, working in conjunction with IEX's TotalView workforce management solution, help contact center managers obtain meaningful data on contact center performance, propagate contact center data throughout the enterprise, analyze that data to determine where improvement is most needed, provide long-range financial planning, develop optimization plans, and track optimization progress.

### **Synchronization: The First Step**

A technology alliance functions best when the core alliance vendor has incorporated a standardized synchronization technology to allow other technologies to interoperate and propagate data based on a single point of data entry. IEX's SmartSync Suite simplifies integration by providing a central data source for other contact center optimization technologies. A workforce management system such as TotalView must interface with contact routing systems and, therefore, has already tackled the challenges of data cleansing and normalization from a wide variety of contact routing vendors. In

addition, the workforce management system is usually the first system to be updated when something changes in the organization, thereby making it the key source for data synchronization to other alliance technologies.

Some large, multisite contact centers may have multiple ACDs from various vendors, all of which organize information in a different way that may not correlate with the way individual optimization technologies use and organize data. But an alliance technology vendor such as Merced or Bay Bridge only has to interface with the TotalView server to obtain much of the information needed, in the way the data is needed. This information makes the individual technologies more powerful because they then have better access to more information than they might have had otherwise. This is information that can be used to obtain in-depth analytics for measuring and improving performance. Because the allied technologies already have interfaces with the platform, it can happen right out of the box, without a lengthy integration process.

### **Conclusion: Making the Optimization Decision**

When choosing an optimization solution, a contact center manager must always keep in mind the needs of her particular contact center. A product may be considered “best of class” in the industry, but it isn’t best if it is not the best fit for that center’s needs, existing systems, processes, objectives and budget. Possible growth should be kept in mind as product acquisition decisions are made. Most contact centers grow, so current needs might not reflect future needs. A solution that scales and adapts will protect the investment.

Choose a vendor that offers more than just a feature set. Training and support, as well as a commitment to making the solution perform the way it needs to perform, are essential. Software alone will not bring about optimization. Ultimately, as in a contact center, it is the customer experience that differentiates vendors’ solutions.

Contact center managers beginning an optimization project can gain the best results in the shortest time by first choosing a powerful workforce management system, then selecting the allied technologies that meet their specific needs. Working with an alliance of solution providers is the best way to approach broad-based optimization, with all the benefits of point solutions and the implementation ease of a suite.

IEX is partnering with select vendors to pursue a contact center optimization alliance that truly meets the needs of complex, growing contact centers. In addition, IEX is leading the effort to educate the industry about the need for such an alliance to better serve customers. The result is optimization that is meaningful, providing bottom-line results.

### **About the Authors**

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### **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>.*