The Reinvention of Workforce Management
New Implications for Today's Enterprise

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Overview

Like living organisms, business organizations evolve over time, driven by changes in their environment. More subtly, the tools and processes people use in performing work evolve as well, driven by the users' changing needs.

Perhaps nowhere in the enterprise is this more evident than in the applications and related processes used in contact centers. Two cornerstone applications – workforce management and quality monitoring – are changing at a more rapid pace than at any time in memory. This unprecedented transformation is being driven by the shifting requirements of management at the executive and contact center levels. At the enterprise level, executives are increasingly hard-pressed to deliver profits and shareholder value in an environment that grows increasingly competitive by the day. At the contact center level, management teams are being forcibly matured by the wicked convergence of familiar internal drivers with powerful, new external forces. As a result, leaders are being forced to ask themselves: Are we workforce managers of the future, or of the past?

Failure to adapt to the changed environment carries the consequences of lost revenue, profit and customer loyalty. It also makes retaining the best employees difficult. Faced with new requirements, management support solutions in the contact center are undergoing a purposeful blurring of application boundaries. By thinking about contact center solutions in a new way, centers can avoid fatal imbalances between effectiveness and efficiency.

This paper focuses on the reinvention of workforce management within the context of business and technological drivers. It addresses how new pressures are morphing existing workforce management applications into holistic workforce optimization solutions that transform traditional contact centers into strategic assets that deliver greater value to the enterprise.

Workforce Management's Slow Evolution

Workforce management (WFM) software has been in existence for over 25 years. Originally developed to help automate and sharpen call center forecasting and solve scheduling challenges, early WFM products ran on computer mainframe timeshare systems.

With the advent of personal computers (PCs), however, the WFM market really took root. Early PC technology wasn't particularly robust, so these early WFM applications were fairly simple. Basic forecasting was coupled with automated Erlang statistical table-driven calculation to arrive at required staff for each half-hour interval. The WFM analyst was freed from time-consuming, tedious, error-prone arithmetic calculations. With the agent requirements for each half-hour identified, the software matched agents with schedule requirements, or the WFM analyst set up a shift bid in which agents sequentially indicated which of the remaining available schedules they agreed to work.

Over the next 15 years, WFM software didn't change very much. Forecasting algorithms improved somewhat, taking advantage of faster processing speeds with each passing generation of PC. The concept of real-time schedule adherence was enabled when automatic call distributors (ACDs) began to support computer telephony integration (CTI) applications, as exemplified by the renowned screen-pop. With an available real-time link to the ACD, WFM software expanded to provide a real-time view that compared what the agents were scheduled to do with what they were actually doing.

The requirement for WFM software to accommodate skill routing was the first truly significant evolution in the application's history.

In the mid-90s, the contact center industry began to embrace skill routing to solve growing transactional complexity issues. The requirement for WFM software to accommodate skill routing was the first truly significant evolution in the application's history. Skill scheduling, as it came to be called, involves the use of simulation routines to arrive at a set of agent schedules meeting the business requirements of the center. With skill scheduling, each agent's unique skill inventory is defined. In more robust offerings, the proficiency of the agent in each defined skill is explicitly established.

These enhancements permitted the WFM analyst to model more complex contact center call processing successfully and avoid the overstaffing inherent to Erlang-based solutions. However, the focus of the WFM application itself remained unchanged. At most centers, the only person interacting with the application was the WFM analyst. Today, this single-user orientation of WFM applications and much, much more is changing in response to the new contact center environment.

Dynamic New Environment

Three new, external drivers are reshaping contact centers and the WFM solutions used by their management teams:

- The Internet
- Hyper-competition
- Voice over IP

These forces are additive to the familiar internal drivers to reduce costs, improve service and increase customer loyalty, and they are responsible for the rapid acceleration in the rate of change confronting contact centers.

Impact of the Internet

The Internet furnishes connectedness and information to an unprecedented degree. For less than $20 a month, users get access to over four billion Web pages, and tens of thousands of new Web pages are added daily. There has never been anything like it in human history.

The Internet allows people with common interests to find each other easily, including buyers and sellers. Global access to so much information is having a profound impact on historic balances of power.

The first shift in power is from sellers to customers. It used to be *caveat emptor* – let the buyer beware. Businesses had the upper hand on information, its control and its flow. Not any more. Now, consumers can visit your Web site and the sites of all your competitors to research product and services. They can search for alternative sources of information. They can visit a chat site where other consumers freely discuss their experiences with your products or services, positive and negative. Then, fully educated, they call your center. Frequently, they know more about the subject than the hapless agent. This is one reason why complexity is increasing in centers.

The second shift in power is from command and control organizations to more autonomous organizations. It's no surprise that many businesses tend to be organized like medieval fiefdoms. Both are command and control structures. Information flows up where decisions are rendered. Orders flow down where work is actually performed.

Retaining valuable customers often means giving agents full authority to overturn company policy within reason.

The recent flattening of companies is a reflection of the improved information flow within them. Permission issues aside, most employees now have instant access to the same data as the CEO. Not only does this enable more autonomous behavior, but hyper-competitive times – characterized by relentless pressure on revenues, cost control and profits – seem to demand it. Retaining valuable customers often means giving agents full authority to overturn company policy within reason. The agent decides what the right thing to do is, and then does it. Placing the customer on hold while seeking permission to act doesn't work in societies running on Internet time.

The third shift is from *efficiency* to *effectiveness*. Center management has been tactically focused on efficiency. Make no mistake, efficiency remains a worthwhile goal, and center managers ignore it at their peril. Yet, there may be other, more beneficial uses of management focus and effort than a singular, relentless pursuit of efficiency. There is the small matter of effectiveness. Effectiveness implies that the goals you are focused on in the center actually relate to and support the goals of the enterprise. We do the industry and ourselves a great disservice when we suggest that a single, time-oriented metric like service-level percentage can link in any empirical fashion to the enterprise goals of increased revenue and profit or customer satisfaction and retention.

Being effective requires us to create new metrics that better connect to the enterprise. It is important to educate other enterprise departments about what the center does today and could do tomorrow if so tasked and resourced. Centers are in the middle of a rich dialog involving customers – current, returning and defecting. Other departments may already be paying for or desperately seeking information that the contact center can capture, distill and deliver. This game plan places a greater burden on the agent. Training, development and coaching for appropriate behaviors will be key factors for success.

Impact of Voice over IP

A seemingly simple set of ideas makes it possible for computers and networks to share information and messages on the Internet: break up information and messages into pieces called packets, deliver those packets to the proper destinations and then reassemble the packets into their original form after they've been delivered so the receiving computer can view and use them. That's the job of the two most important communications protocols on the Internet. Transmission Control Protocol (TCP) breaks down and reassembles the packets, while Internet Protocol (IP) is responsible for making sure that the packets are sent to the right destination.

Voice communications can be digitized or rendered into a stream of binary digits. Once in the form of data, voice conversations can be packetized and become just another packet among billions moving through the global Internet. Voice over Internet Protocol (VoIP) enables contact centers to consider new operational models that are sharply different from existing ones. The differences emerge from the fact that the technology enables a physical decentralization of the center, making remote locations and work-at-home agents possible and economically viable. And that last characteristic turns out to be key.

It's always been possible to pursue physical decentralization of the contact center. Many organizations have multiple centers that act more or less as virtual centers, depending on their degree of intersite connectivity. Traditionally, this intersite connectivity has been provided either by tie lines physically connecting the sites together (albeit in limited fashion) or by performing routing in the 800 network (i.e., Cisco/GeoTel).

A serious shortcoming of these approaches to decentralized contact centers has to do with economics. It costs real money to link centers together with tie lines or to perform network routing. So much money, it turns out, that most multi-site centers operate in a quasi-virtual manner, defensively trying to avoid hotspots rather than transforming multiple sites into truly seamless, proactive, virtual operations.

VoIP, on the other hand, has economics on its side. The rise of the Internet, coupled with the frenzy in fiber optic build-outs, has resulted in a glut of bandwidth on the market. One happy result is that the cost of moving packets of data using IP is approaching zero. The industry has finally reached the point at which distance is no longer a factor. To this, add the ubiquitous availability of broadband to residences, and the contact center has an unprecedented opportunity to drive down operating costs and raise agent satisfaction.

Contact centers must now evolve to help center management teams deal efficiently and effectively with faceless employees working in remote locations.

This gives rise to new and startling insight. Contact centers have labored for more than a quarter of a century to perfect high-quality, faceless interactions with customers and prospects. The solutions and processes inside contact centers must now evolve to help center management teams deal efficiently and effectively with faceless employees working in remote locations, sometimes half a planet apart. This new, changed environment has already caused WFM solutions to evolve, and the evolutionary pace is accelerating.

WFM Reinvented
WFM: The Past
Over the past several years, WFM solutions have undergone an expansion in reach. Whereas WFM applications had been focused almost exclusively upon the scheduler/analyst, functionality was added to permit agents themselves to interact with the applications as well. At first, the interaction was largely one-way. Using standard browser software, agents were enabled to view their schedules. This was not just a convenience, but a necessity as management teams – increasingly pressured to control contact center labor costs – engaged in intra-day reforecasting and rescheduling of breaks and lunches.

Agents became accustomed to viewing their schedules on the Intranet, and as Web technologies improved, more agent-facing functionality was added. Vacation planning and time-off management features were the first new capabilities to emerge. Here, center management decides how many vacation slots are to be made available for each week in the year, based on historical transaction demand. For centers that experience seasonal peak traffic, vacation slots are sharply restricted or even absent altogether during key periods. This is an excellent example of how technology can improve and benefit the work experience of center agents. The process of requesting and gaining approval for vacation time is made explicit, and worries about favoritism and unfair practices evaporate. Agents trust the system, and front-line managers are freed from spending precious time dealing with such purely administrative matters.

WFM: The Present
More recently, WFM software has expanded agent-facing functionality to address another important agent concern – their assigned schedules. While WFM scheduling engines have become ever more sophisticated and powerful, it is still the case that not all agents receive schedules that meet their preferences and desires. No scheduling engine could ever match demand with agent labor while still granting each agent his/her work preferences. Therefore, it's a common occurrence in contact centers that some agents will be assigned schedules that they would rather not or cannot work. For example, if an agent is assigned a Tuesday start time of 8 a.m. and is also responsible for taking his/her mother to a doctor's appointment at 8:30 a.m., then something has to give.

Shift-swapping capabilities meet this routine need. Again, the Intranet is accessed with browser-based software, and the agent has the ability to offer work shifts for either one-way or two-way swaps. A one-way swap is when another agent agrees to work the Tuesday morning shift as cited in the example. A two-way swap is when some other agent takes the Tuesday morning shift and in return the conflicted agent agrees to take his/her Tuesday afternoon shift. The software maintains a bulletin board of sorts with all the proffered shift swaps listed.

Business rules can be established within the software to ensure that shift swaps make good business sense. For example, the software would not permit an agent who speaks only English to swap shifts with a Spanish-speaking agent. Another business rule example would be to ensure that a shift swap doesn't put an agent into overtime pay hours. The addition of shift-swapping capabilities to WFM software is proving to be very pleasing to agents, since it gives them control over their work schedules without encroaching upon front-line management time.

Accelerating Evolution
While the change in focus from the solitary analyst toward the agent population is a positive development in WFM, Witness Systems believes that WFM solutions are poised for a bigger evolutionary jump, driven by the growing requirement for greater contact center effectiveness. The renewed emphasis on effectiveness is having a profound impact on what had been a purely efficiency-oriented solution.

The WFM solution of the future is emerging now. You may not recognize it yet. It provides not just a return on investment (ROI) in the traditional sense, but because of its reinvention, it's created a new ROI: Return on Information. This means performance management, analytics, e-learning and even advanced workforce planning must be included and interwoven. Not only must WFM continue to create value through workforce efficiency, it must also deliver on a new mandate: capturing value for the company through workforce effectiveness. That requires new approaches to WFM that prevent outdated practices from keeping contact center directors from thriving in a new era of accountability.

One new focus for WFM solutions emerges from the fact that forecasting and scheduling requires the manipulation of lots of performance data from ACD systems. Since agents are becoming familiar with using WFM functionality to view and swap schedules and make vacation and time-off plans, it is logical to provide them with similar visibility into their performance.

Best practices from human behavioral science suggest that effective performance feedback should occur daily, be data-driven and private, yet also be provided within a larger context so employees clearly know what is expected and how they are performing in relation to their goals and peers. Feedback with these characteristics tends to confer greater ownership and responsibility for performance upon the employee.

Unfortunately, performance feedback has been a perennial problem for contact centers. This is because of the nature of ACD reports and the time-consuming burden they place on the front-line management staff that must transform them into meaningful information.

ACD reports are snapshots of performance. As such, they entirely lack context. Since agents have different total sign-on hours, the data in the ACD reports cannot be used to compare agent performance directly, one with the other. Moreover, a snapshot report cannot be used to determine whether one agent's performance is improving or deteriorating unless a prior period report is also reviewed. Additionally, ACD reports themselves cannot be distributed to the agent population, since privacy concerns preclude such a heavy-handed practice.

For these and other reasons, WFM solutions are being expanded to include performance feedback in the form of scorecards. Familiar ACD measures, such as average handle time and the number of incoming calls handled, are displayed to agents within their browser application. The WFM application itself can add to the performance feedback by including adherence to schedule measures. At the most fundamental level, agents can see how they are doing in relation to these familiar measures. In advanced centers, agents also can see what goals have been established for all elements of their performance, as well as learn how their peers are performing against those same goals.

This is a tremendous benefit to agents and center management. Unambiguously knowing what is expected and how one is doing within the context of one's peers is truly empowering. To know on a daily basis the unvarnished truth about your performance separates agents into two groups: those who care about and take ownership for their performance, and those who do not. Successful centers have more of the former and fewer of the latter.

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The Future of WFM

Given the new contact center environment, adding performance feedback to WFM solutions is a step in the right direction, but it doesn't go far enough.

For example, a desirable outcome of WFM's expanded scope is that agents will demand more coaching time from the front-line management teams to address clear performance shortcomings. The key problem is that coaching time is already in short supply, and new demands for coaching may well go unmet. While pieces of WFM functionality exist to help free managers from administrative and other low-payoff tasks, there is nothing inherent in WFM solutions that addresses agent development or increases the coaching output from supervisors.

From this standpoint, a new focus for WFM solutions is on the front-line management team. Conventional WFM solutions have been all about efficiency; however, in truth, many center management teams find that their WFM solutions are doing a great job of efficiently scheduling agent teams that are decidedly mediocre. Given that today's hyper-competitive business environment leaves little room for mediocrity, it is clear that the success center managers must strive for requires both efficiency and effectiveness.

And therein lies the next step in WFM evolution – its transformation from a purely tactical to a more strategic role in the center. Witness Systems believes that this transformation will be exemplified by the blurring and disappearance of the boundaries between previously separate and disparate software applications used within and beyond the contact center. As part of this evolution, WFM is being transformed by the blending and inclusion of e-learning, performance management and quality monitoring capabilities.

This will take a number of forms. For example, scorecards can inform agents about their performance, while apprising team leaders and supervisors about the skill gaps existing within their teams. With both agents and supervisors informed and motivated to improve performance, the success formula simplifies into filling the identified skill gaps. The admonition to simply work harder and find the required coaching time is merely sloganeering and not a solution. Fortunately, new capabilities in quality monitoring fit neatly into e-learning technologies to provide the answer.

Quality monitoring is undergoing its own dramatic evolution, described in a companion white paper. One aspect of its evolution is the capability of using a recording of a high-quality interaction as an e-learning "clip." The captured customer interaction is easily transformed into a short learning session that can be assigned to agents whose performance profile suggests they would benefit by its assignment.

With suitably transformed solutions, team leaders and supervisors can leverage and multiply their available coaching time. After much trial and error, it is now apparent that certain subjects are taught successfully through electronic means, while other subjects require one-to-one coaching. e-Learning is very well-suited for supplemental training on some soft skills and certain aspects of product/service oriented transaction elements. One-to-one coaching is better suited for addressing issues such as attitude, phrasing and general behaviors. Instead of all agent improvement efforts being dependent upon one-to-one coaching time, e-learning offers a way to expand, enrich and multiply the effective coaching time of the front-line management team.

Point Systems or End-to-End Solution?

Well-understood legacy applications, such as forecasting and scheduling and quality monitoring, are being reinvented as end-to-end solutions. A synergy develops among the previously disparate parts, and its beneficial impact is profound.

This puts contact centers into a dilemma: Should they continue to adopt traditional, point systems for workforce management, performance management, e-learning and quality monitoring and then attempt to integrate separate software applications to achieve the desired result? Or should they select a packaged offering that provides a single end-to-end solution?

Integration

The argument in favor of selecting and integrating point solutions typically focuses on the fact that the user receives extensive sets of tried-and-true functionality and can augment, rather than replace, existing technology investments. Although these arguments are not without merit, they are flawed and carry substantial risk.

First, integrating separate best-in-breed solutions is costly, not because the integration per se is terribly difficult to accomplish, but because integrated systems are difficult to standardize, replicate and maintain over time. For example, pulling data out of standard databases is easy, but understanding where the data resides – and when and how to extract it – takes time and can be costly. It's perfectly fine to say that package "A" has been integrated with package "B" before, but that doesn't do justice to the implementation nuances that make each customer environment unique. Consequently, integrating disparate solutions tends to result in superficial and narrow interactions between the packages – which may leave the user unable to tap into the full range of functionality provided by each point system.

Additionally, integration costs are only part of the total cost of ownership problems facing best-in-breed approaches. System maturation and obsolescence issues abound. Moreover, if you consider the costs associated with learning multiple graphical user interfaces (GUIs), dealing with multiple databases, and maintaining multiple computing platforms and multiple operating systems, it becomes increasingly apparent why tightly woven, interoperating solutions enjoy cost-of-ownership advantages.

The argument in favor of integrated point systems also is flawed on another count. This second fallacy pertains to the quality of the results that are achievable. Witness Systems believes that end-to-end solutions are inherently structured to produce superior results.

To help envision why, imagine that the four cornerstones of workforce optimization (WFO) – workforce management, performance management, e-learning and quality monitoring – are coins. Architecturally speaking, integrated point systems are like coins spread out on a table-top with their edges touching. The integration points are narrow and well defined. The databases and user interfaces are unique to each coin. In contrast, end-to-end solutions are like a stack of coins, totally overlapping. There is only one user interface and one database. Moreover, each cornerstone application is fully in touch with and informed by the others.

Complete, End-to-End Workforce Optimization (WFO) Platform

To illustrate the synergy that is created when software solutions and processes are fully integrated, consider these examples of how disappearing boundaries between applications benefit the contact center.

A simple use case has to do with reinforcing desired agent behaviors. Many centers engage in internal quality monitoring and produce a quality score for each agent at some time interval, such as bi-weekly or monthly. Rewarding high-quality agents is a sure way of motivating the entire agent population to strive for higher quality assessments.

Centers with complete WFO solutions can develop an effective reward strategy that capitalizes on the fact that agents value favorable work schedules greatly. Although nearly every WFM software package supports agent preference-based scheduling, even well-integrated packages force analysts or team leaders to use simple, manual, rank-ordering schemes to grant agent preferences. However, with a complete solution, quality monitoring scores populate the preference-granting priority scheme automatically. Alternatively, users can select the key performance indicators (KPIs) of choice from the data sources available to the performance management solution and use them not only on scorecards, but also to drive schedule preferences and trigger certain e-learning sessions. These are powerful ways interoperating systems reinforce the impact they have on agent performance and behavior.

Synergistically, performance feedback, workforce management, quality monitoring and e-learning combine to improve both efficiency and effectiveness.

Synergistically, performance feedback, workforce management, quality monitoring and e-learning combine to provide a formidable array of tools and streamlined processes that improve both efficiency and effectiveness. Performance feedback informs team leaders where individual skill gaps lie. Quality monitoring processes capture examples of high-quality

interactions that are transformed into gap-closing knowledge clips. Workforce management solutions identify the most opportune time to remove agents from servicing the queue, so that they can complete e-learning assignments. Schedule adherence processes ensure the scheduled lesson is attended. And in circular fashion, performance feedback informs both the agent and the team leader about the beneficial impact of the learning clip content.

Because these disparate processes are now from a complete end-to-end solution, management time is no longer required to serve as process linkage points or to work data into actionable information. With less administrative overhead and more refined processes, center management and the agents can reach the next level of economic value and maturity.

Summary

Contact centers face a harsh environment shaped by powerful new forces, coupled with familiar internal performance pressures. The new environment is causing WFM and other contact center software applications to undergo unprecedented and accelerated changes that will profoundly reinvent their reach and focus while blurring application boundaries.

Tightly woven solutions, coupled with streamlined processes, will help transform contact center cultures from tactically focused, white-collar factories into strategic operations.

Previously confined to the solitary WFM analyst, the reach of WFM applications currently has spread to the agent population and is extending to front-line management. The focus is shifting from simply creating efficient schedules to reaching new levels of efficiency and effectiveness. As solution boundaries blur, users will enjoy the benefits of a single end-to end WFO solution that will enable contact centers to refashion cumbersome processes, freeing front-line management to pursue high-payoff activities involving root cause analysis and one-to-one coaching. Tightly woven solutions, coupled with streamlined processes, will help transform contact center cultures from tactically focused, white-collar factories into strategic operations in which every employee understands what is expected, how they are doing and how to improve everything in their performance to achieve specific business goals.

About the Author

William (Bill) Durr serves as principal solutions consultant for Witness Systems – a leading global provider of workforce optimization software and services. Prior to joining Witness Systems, he held sales, marketing and management roles for a number of major contact center vendors and entrepreneurial start-ups. He also provided consulting services for centers struggling to meet performance objectives. With more than 20 years of experience in the industry, Bill has authored numerous articles, white papers and has written two books on the technology and management of contact centers. He is a frequent industry speaker with emphasis on workforce and performance management and is a member of the Contact Center Leadership Council formed by *CMP/Call Center Magazine*.