Beyond Workforce Management: New Insights into Complex Contact Centers

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OPTIMIZING CUSTOMER INTERACTIONS™

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Introduction

Bob, a Customer Service Operations VP at XYZ Corporation, runs a contact center with three departments. He needs to ensure each department is appropriately staffed and resources are correctly scheduled. He also wants to compare the performance of each department as well as the individual Customer Service Representatives (CSRs) within the department. All departments perform call and non-call work, and CSRs handle both call and non-call work activities, often alternating work modes several times a day. Bob has reams of call statistics from his Telephone Switch (ACD) reports and workforce management (WFM) package, but lacks useful information on the numerous non-call work activities.

A thorough understanding of both call and non-call work is vital to understanding and effectively managing contact center functions and processes. Unfortunately, most non-call work activities are either given a cursory overview or ignored entirely by management. This situation is often exacerbated when managers rely predominantly on reports available through standard contact center technology that may not provide the most accurate call data and do not provide information on non-call activities.

Bob's traditional WFM package lacks the capability to accurately calculate total staffing requirements. Measuring non-call work is one area where these programs often fall short. Another involves the fact that the Average Handle Times (AHT) calculated by WFM packages reflect CSR "self-reporting" (button management), not necessarily actual call handling requirements.

This paper will discuss why and how organizations can augment their existing contact center monitoring with accurate call and non-call work analysis. It will further explain how to use the results to accurately forecast, schedule, and measure contact center resources. Finally, this paper will also describe an effective and practical method for bringing this analytical capability into your organization.

Analyzing Work in the Contact Center

Why Analyze Non-Call Work?

Today's contact centers perform a variety of complex call and non-call work activities that need to be accurately defined and measured in order to appropriately and proactively allocate resources to handle them. Contact centers can improve resource allocation by acknowledging, measuring, and integrating non-call work statistics into their workforce management calculations. With improved resource allocation and the ability to effectively measure call and non-call work performance, contact centers can improve work quality, resource/workload distribution, employee morale and, ultimately, customer satisfaction.

Contact centers that do not have a realistic understanding of the resource requirements to handle non-call work may either spend too much for labor or too little, as evidenced in long queue times, high abandon rates, and general customer dissatisfaction. Under-estimating resources required for these activities can result in reduced work quality and performance, as employees attempt to finish all of the work (planned and unplanned) that needs to be done. If resource requirements are overstated, costs are negatively impacted while employee morale suffers from boredom.

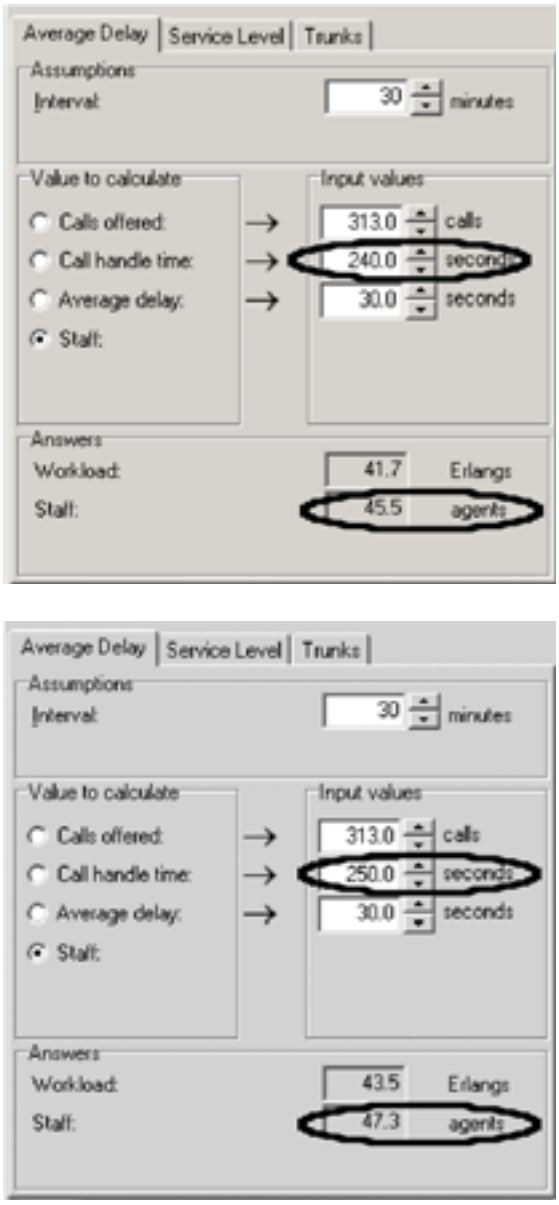
An organization that wishes to improve its ability to analyze, forecast, schedule, and measure contact center activities by gaining visibility into non-call work can begin by taking the following steps:

- Identify (and Acknowledge) Non-Call Work Activities
- Measure Non-Call Work
- Analyze Non-Call Work Observations
- Integrate Non-Call Work Analysis into Contact Center Operations

Why Reanalyze Call Work?

Too often, call work analysis is comprised solely of looking at system reports to determine AHT, call volumes, time-sensitive call arrival patterns, and Service Levels (SLs). Call volumes and patterns as well as SLs are usually fairly accurate, however, AHT data is often inaccurate and can be misleading.

AHT cannot be accurately measured by any WFM system. WFM systems simply measure button usage and/or set system parameters. For example, CSR Fred just finished speaking to a caller and has automatically gone into an After-Call Work (ACW) mode. Fred finishes up the necessary ACW work, but prior to pushing the "Available" button, he gets up for a cup of coffee and brings it back to his desk. The WFM system cannot determine how much of that time was spent in true ACW and how much was spent getting a cup of coffee. The WFM system will record the entire time from call termination to returning to the available state as ACW. When the system is set to automatically give a CSR some time between calls, the WFM system typically records that time as ACW. These two measurement errors effectively increase the overall AHT required to handle calls. For a 7x24 call center that averages 5,000 calls per day, an increase in AHT of just 10 seconds will indicate the need for at least 1.8 additional Full Time Equivalents (FTEs) as the graphic at right depicts.



Identify What to Measure

Call work activities are well-known in the call center. When selecting calls to measure, it is important to look for high-volume calls that historically have high ACW times and those where the ACW varies greatly among CSRs. Due to the accuracy WFM systems have in measuring talk time, it is not necessary to measure calls that have little or no ACW.

The first step to analyzing **non–call** work is to identify those activities performed by the organization. Unlike call work, where the types of activities are well-known, non-call work types are often not well-known and/or not well-defined by contact center management. A thoughtful, structured, and complete identification process will lay the foundation for measuring non-call work and applying these insights to operations.

When identifying non-call work activities, we recommend using verb-noun descriptors. The verb-noun descriptor provides a uniform terminology that quickly defines what is to be measured. For example, if you identify activities such as *Research Customer Complaints, Work Callback Report,* and *Handle E-mail,* the respective units of measure will be the number of complaints, the number of callbacks on the report, and the number of e-mail messages. (*There are exceptions, refer to the discussion on how to count a report in the next section.*)

Non-call work can be generated in a variety of ways. Activities include:

- Process Mail (paper, voice, or Web chat)
- Research Complex Cases
- Complete Administrative Duties
- Work on Special Projects
- Create Reports
- Handle E-mail

Non-call work should not be confused with minor ancillary activities that occur during a call. For example, sending a confirming fax or performing call documentation should be considered as part of the call and part of AHT. WFM systems usually measure work that occurs from the moment a call is answered until the time when ACW is completed. Activities that do not occur during that period may be considered non-call work.

During the course of identifying what non-call activities occur in the contact center, an estimation of each non-call activity's work volumes and handle time needs to be determined. Estimates can usually be obtained from the manager who oversees the department where the activity takes place.

The non-call work activities should be prioritized using the 80/20 Rule to determine which activities to analyze first. The 80/20 Rule simply states that approximately 20% of a group's tasks will require approximately 80% of their resources. The top time-consuming activities should be given priority. The exception is for activities that are crucial to the success of the center or can result in litigation if not properly performed. These activities will take priority regardless of their resource requirements. With a ranked list of activities, the organization can begin to measure these activities in the center in a meaningful way.

Merging Call and Non-Call Work Analytics

Once the activities that are to be measured have been identified, direct side-by-side observations must be performed in order to accurately analyze them. The observation process should be conducted on approximately three to five percent of the weekly work volume the center receives per activity using as representative a sampling as possible. Either all CSRs who handle the activity (only possible in smaller centers) or, in larger centers, a random **representative** sample of CSRs should be used. Observing the "best" CSRs or CSRs who are not fully trained or are considered "poor" will skew results. Observations should also be conducted during all hours that the center is open.

One common concern with conducting side-by-side observations is that CSRs will not perform as they normally would if not being measured and, as a result, the measured activities will not be accurate. However, this is precisely why these observations are the best method for determining the **true** average time to complete these activities. CSRs will perform their work as they are supposed to according to the training they received. They will refrain from both shortcuts that can reduce quality and from artificially lengthening work time.

When conducting direct side-by-side observations it is extremely important to determine how to count the activities being performed. A call activity is straightforward; however, determining how to count a non-call activity can be difficult. When determining how to count a non-call work activity it is critical to consider both the activity itself and future forecasting needs. For example, if the activity is named "Work the Special Orders Report," you can count:

- The report as one activity — this is appropriate if the size of the report and the time to work it remains stable over time. This is usually the easiest measure for a report since reports are usually worked on a regular interval whether that interval is hourly, daily, weekly, monthly, quarterly, or yearly.
- The number of special orders on the report — this is appropriate if the processing of one special order is always similar to processing other special orders on the report and you can forecast the number of special orders that will be received during any given time period.
- The types of special orders — if there are different types of special orders and you can forecast the volume of incoming special orders by type, you will probably count each type separately.
- Line items — this is appropriate if the time it takes to handle a line on the report is similar to the time required to handle any other line on the report and you can forecast the number of lines a report will have.

When observing non-call work, the time to complete the work is directly affected by how the activity is counted. The following table compares the potential results from observing the "Work the Special Orders Report" example.

OBSERVATION DATA FOR "WORK THE SPECIAL ORDER REPORT"			
UNIT OF MEASURE	VOLUME COMPLETED	OBSERVATION MINUTES	MINUTES PER UNIT OF MEASURE (MINUTES/VOLUME)
Report	1	120	120
Special Order	6	120	20
Line Item	24	120	5

The direct observation process for both call and non-call work activities often leads to additional insights and process improvements unavailable to organizations that rely exclusively on WFM technology and reports. Direct observations allow you to:

- Critically analyze workflows to help improve overall processes and procedures resulting in increased productivity and quality
- Accurately establish work-to-time relationships for each segment of the call-handling process and each task required to complete a non-call work activity
- Ascertain the quality of training that CSRs receive by actually seeing how well they handle calls and process non-call work

Once an organization has a solid baseline of call and non-call activities in place, it is ready to use these findings to improve operations and training.

Reality Check

The data from direct side-by-side observations of call and non-call work can be assessed to create *Reasonable Expectancies* (REs) for each activity. The RE is the number of activities that can "reasonably" be performed per hour by a single individual without interruptions. REs are important because they provide a common measurement that can be calculated and used for both call and non-call activities. The RE calculation is 60/Minutes per Unit.

Revisiting the example *Observation Data for "Work the Special Order Report,"* a manager would expect a CSR to finish half of the report in an hour, three special orders in an hour, or 12 line items in an hour. All of these would be considered REs.

OBSERVATION DATA FOR "WORK THE SPECIAL ORDER REPORT"				
UNIT OF MEASURE	VOLUME COMPLETED	OBSERVATION MINUTES	MINUTES PER UNIT OF MEASURE (MINUTES/VOLUME)	RE (60/MINUTES PER UNIT)
Report	1	120	120	0.5
Special Order	6	120	20	3.0
Line Item	24	120	5	12.0

To determine the RE for a call, the AHT first needs to be calculated. Now that you have observed the actual number of **required** ACW events and how long they **actually** take, a true AHT can be calculated, replacing a "best guess" or WFM generated AHT. To calculate the AHT, multiply the average ACW minutes by the percent of calls requiring ACW, then add that total to the Average Talk Time (ATT). *Remember: ATT includes the average time from call initiation to call termination and includes all hold time.* If a center has a WFM package, this calculated AHT should be fed into the system instead of letting the system calculate its own. Once the true AHT has been determined, the RE can be calculated using the same formula as with non-call activities. In the example below, two call types were observed, Sales Calls and Service Calls; the following table provides the results of the call analysis.

OBSERVATION DATA FOR CALL WORK							
UNIT OF MEASURE	CALL VOLUME	ATT MINUTES	ACW EVENTS	% OF CALLS WITH ACW	AVERAGE ACW MINUTES	AHT MINUTES ATT + (ACW% x ACW MINUTES)	RE (60/AHT)
Handle Sales Calls	700	3.75	285	41%	1.84	4.5	13.3
Handle Service Calls	450	9.35	300	67%	3.98	12	5

Applying this technique to the example from the beginning of the article, Bob now has some of the base data he requires to address his dilemma. For simplicity, assume the only activities performed in Bob's three departments are Handle E-mail, Work Report, Handle Sales Calls, and Handle Service Calls. The following table was created from the results of the call and non-call work analyses.

XYZ REASONABLE EXPECTANCIES		
ACTIVITY	MINUTES PER UNIT OF MEASURE (AHT) (MINUTES/VOLUME)	RE (60/MINUTES PER UNIT)
Handle E-mail	3	20
Work Report	120	0.5
Handle Sales Calls	4.5	13.3
Handle Service Calls	12	5

Realistic Staffing

To determine appropriate staffing levels for each of the three departments, Bob has a monthly forecast created based on numerous factors that are relevant to his business. The forecast indicates the monthly volume of work expected for each of the activities on a department-by-department basis.

Bob next applies the REs established during the analysis to the forecasted hours to determine the base number of hours required in each department for each individual activity. 27,000 e-mail messages are forecasted to arrive in Department B during the month. Per the non-call work analysis, Bob knows the RE for a Handle E-mail is 20, so he can calculate that 1,350 base hours will be required to handle those messages (27,000 / 20 = 1,350). Similar calculations are performed for each activity then totaled.

The base hours required to perform the forecasted monthly volume of activities is now known for each department. Bob will apply appropriate factors such as the number of working days during the forecast period, the desired percent productivity, the absenteeism and vacation rates, as well as the forecasted meeting and training hours for the period in determining the overall resource requirements for each department.

XYZ PERFORMANCE (IN HOURS)									
	MONTHLY FORECASTED VOLUME				FORECASTED MONTHLY RESOURCE NEEDS				MONTHLY BASE REQUIRED HOURS
DEPT	HANDLE E-MAIL	WORK REPORT	HANDLE SALES CALLS	HANDLE SERVICE CALLS	HANDLE E-MAIL	WORK REPORT	HANDLE SALES CALLS	HANDLE SERVICE CALLS	
A			18,000	33,000			1,353	6,600	7,953
B	27,000	240	3,000		1,350	480	226		2,056
C	7,500	60	6,000	18,000	375	120	451	3,600	4,546

Measuring Total Performance

Using the same RE information, Bob can begin measuring productivity in each of the departments and between CSRs, despite the fact the work being performed is completely different. The final measurement to be introduced is Earned Hours (EH). An EH is the amount of time a CSR "earns" for completing an activity. For example, the RE for handling e-mail is 20. If a CSR handled 30 e-mail messages the CSR will earn 1.5 hours for that work (30 / 20 = 1.5).

XYZ PERFORMANCE (IN HOURS)										
		COMPLETED VOLUME				EARNED HOURS (EH) PER ACTIVITY				
DEPT	CSR	HANDLE E-MAIL	WORK REPORT	HANDLE SALES CALLS	HANDLE SERVICE CALLS	HANDLE E-MAIL	WORK REPORT	HANDLE SALES CALLS	HANDLE SERVICE CALLS	WEEKLY EH
A	Sally				155				31.0	31.0
B	John	300	5	60		15.0	10.0	4.5		29.5
C	Sue	125		200	55	6.3		15.0	11.0	32.3

In the above example, Bob can compare the weekly performance of three CSRs working in three different departments performing different activities. Sally handled 155 service calls that have an AHT of 12 minutes. At an RE of 5 calls per hour, Sally earned 31 hours (155 / 5 = 31) for the week. Similar calculations were used to determine the earned hours for John and Sue. If all other considerations are constant (e.g., all three CSRs worked the same number of hours, had the same amount of time off during the week for lunch, breaks, and meetings), then Bob can correctly identify that Sue was the most productive CSR that week.

The Value of this Exercise

Analyzing, forecasting, and measuring complex contact center environments require time and resource commitments that may be difficult to meet, especially for centers that do not have automated WFM packages. The methods outlined in this paper are essential to create and maintain a highly productive center that delivers high-quality work.

If the center has a large ratio of non-call work activities, determining Reasonable Expectancies (RE) and calculating Earned Hours (EH), as outlined previously, may be the most cost-effective way to get a handle on the resource requirements to meet the actual work volumes. Centers that do not have a solid understanding of the resource requirements to handle their non-call work may either spend too much for labor or have a reduction in work quality as employees attempt to finish all the work that needs to be done. When overstaffed, employee morale can decrease due to boredom, when understaffed morale can decrease due to stress.

If management needs to compare different areas within their organization, even when they perform different functions, this methodology of using REs and EHs will provide the common denominator that can be used to compare the diverse operations.

This methodology is also an effective tool for "Tuning-Up" existing WFM packages. As stated earlier, WFM packages cannot accurately measure AHT. Schedules created from AHTs established during the observation process can be "force-fed" into WFM packages. If schedule adherence, productivity, and quality are managed correctly, the WFM package will start calculating an AHT that more closely reflects true call handle time. A "Tune-Up" should be conducted on an annual basis, or whenever there is a major change in workloads or activities.

Conclusion

WFM programs do not always offer a complete picture of call center workload. Many contact centers are missing a valuable set of statistics required to effectively measure and manage their contact center environments. While it is commonly accepted that measurement in contact centers is essential for continuously keeping costs down and service levels up, many centers lack the capability to create the non-call work statistics required to accurately measure and predict non-call work. Centers also rely too much on AHT as calculated by WFM systems, not realizing that the AHT is a measure of CSR push-button behavior, not a measure of actual call-handling requirements. Gaining visibility in these areas can help companies to improve operations and better manage resources. To address this gap, we recommend that organizations take the following steps:

- Identify Call and Non-Call Work Activities
- Measure Call and Non-Call Work
- Analyze Call and Non-Call Work Observations
- Use the Analysis Results to:
  - Determine appropriate staffing requirements
  - Measure performance

With the capability to effectively measure, compare, and contrast both call and non-call work, contact centers can expect to reap the benefits of improved customer satisfaction and improved resource allocation.

About the Author

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Bill Powers is a Principal with eLoyalty. He has over 20 years of experience providing management consulting services to a variety of industries. He has provided consulting to over 60 clients, both domestic and international. Bill has extensive experience in professional service organizations and contact centers. He has provided a diverse set of services to his clients including: organizational analysis; development of new organizations; consolidations; reorganizations; executive, middle management and staff training; process reengineering; facilities redesign; speaking engagements; operational improvement/cost reduction; change management, development of productivity and performance measurement tools; development of forecast tools and techniques; and development of WFM tools.

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