



2017 TOOL KIT:

The Fundamentals of Effective Workforce Management

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ICMI's Planning & Management Framework

About This Tool Kit:

The latest workforce management research from ICMI and NICE reveals some interesting challenges and trends in today's contact center. WFM remains a highly-manual function; Forecasting for non-voice interactions is minimal; And a frightening percentage of contact center's don't even measure forecast accuracy. In light of these findings, ICMI and NICE have partnered on this ICMI Tool Kit to provide contact center leaders with some of the fundamental resources that they'll need to develop an effective workforce management program.

In this toolkit, we'll explore:

- How to use historical patterns and proportions to project volume for a future period of time
- Typical skills based routing errors and how to avoid them
- The importance of forecasting for back office activities and how to get started
- The hidden costs of manual intraday forecasting and the value of intraday automation
- ICMI and NICE's research findings on the movement to cloud WFM and the challenges of Excel-based forecasting

Step by Step: Breaking Down a Forecast



Key Ideas:

- Breaking down a time series forecast involves using historical patterns and proportions to project volume for a future period of time.
- The process begins with long-term patterns (e.g., month of year), and works down to specific half-hour increments.
- To the degree that patterns are a good indicator of future activity, these forecasts will be a good base on which to then blend in judgement.

Example:

720,000	Current year's contacts
x1.12	add 12% (proportion)
<hr/>	
806,400	Forecasted annual contacts
x.071	January proportion
<hr/>	
57,254	January calls
÷ 31	Operation days – January
<hr/>	
1,847	Average contacts per day
x1.469	Monday's index factor
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2,713	Monday's contacts
x.055	10:00 – 10:30 proportion
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149	Forecasted contacts 10:00 – 10:30

Notes:

1. Determine operation days by counting the days the contact center will be open.
2. Calculate day-of-week index factors by dividing average day-of-week into the specific day's proportion

Example:	DOW Prop.		Avg. Prop.	=	Index Factor
Monday	.210	÷	.143	=	1.469
Tuesday	.170	÷	.143	=	1.189
Wednesday	.165	÷	.143	=	1.154
Thursday	.165	÷	.143	=	1.154
Friday	.150	÷	.143	=	1.049
Saturday	.095	÷	.143	=	.664
Sunday	.045	÷	.143	=	.315

January:

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

*Proportions and Index Factor are explained on the following page.

Step by Step: Breaking Down a Forecast

The Step by Step Process:



1. Obtain the number of calls received in the past 12 months. (720,000 in example)
2. Multiply the year's calls by 1.12 to reflect 12 percent expected growth. Factoring in growth at this level assumes that transactions will increase proportionally to the previous year's patterns. (If your center has a targeted growth number, substitute that percentage.)

If your growth instead will be concentrated around marketing campaigns or other events that don't necessarily happen at the same time from year to year, factor it in at a more specific level, such as monthly or weekly.
3. Multiply the estimated calls in the year by January's proportion, (7.1% in example). This percentage comes from history and is the typical proportion of the year's contacts received in January.
4. Divide the number of operation days in the month into the estimated monthly contacts. This yields average contacts per day. In the above example, the center is open every day of the month.
5. Adjust average contacts per day, using the appropriate daily index factor. The index factor gives the proportion of the week's contacts that typically arrive each day. In the example, Monday normally gets 21 percent of the week's traffic, Tuesday gets 17%, and so forth.

The next column reflects the proportion of a week that an operational day represents. For example, for a center that is open seven days a week, each day is one-seventh or 14.3 percent of a week. For a center that is open five days a week, each day is one-fifth, or 20 percent of a week, etc.

The final column is the result of dividing the first column by the second column. These index factors are then multiplied against the average contacts per day to estimate traffic by the specific day of week. In the example, Monday's index factor, 1.469, is multiplied against 1,847.
6. The final step is to multiply the predicted contacts for each day of the week by each half hour's proportion. In the example, the half hour from 10:00 to 10:30 is projected to receive 149 contacts.

Avoiding the Common Problems of Skills-based Routing

Skills-based routing is supposed to be the perfect answer to the challenge of getting the right contact to the right place at the right time. But in many cases, skills-based routing creates difficult new problems that temper or obviate the potential benefits: forecasting challenges, complex staffing puzzles and volatile service levels.

The top five problems that hamper good results and corresponding antidotes are summarized below:

1. Rostered staff factor (shrinkage) issues:

There are many things that can keep agents from answering contacts. With necessary skills unavailable, contacts end up with secondary or tertiary alternatives, sending a ripple effect through the process that can misappropriate staff and send service level and quality plunging. If there are times in the day that service level is volatile for some contacts, this issue is a likely culprit. There's no substitute for realistically planning and budgeting for the things that keep agents from answer contacts.

Solution:

Spend the time necessary to routinely and realistically anticipate and plan for the activities that keep agents from answering contacts, by time of day and by skill set.

2. Not forecasting accurately at the skill level:

The queuing formulas and simulation models available for calculating required staff are only as good as the accuracy of input they are analyzing. To anticipate staffing needs, you first need to know how many customers with a broken-widgit you're going to get between 9:00 – 9:30. The inability to forecast accurately at the skill level is the Achilles' heel of even the most powerful simulation programs now available.

Solution:

Invest the time necessary to forecast contact load for each mix of contacts requiring unique skill sets (e.g. French speaking calls for Service, French speaking calls for Support, etc.) Access the accuracy of forecasted contact load vs. actual; if it is routinely off by more than 5 percent to 10 percent by half hour, consider combining skills to form more manageable groups.

Avoiding the Common Problems of Skills-based Routing

3. *Not calculating base staff requirements accurately:*

Skills-based routing generally requires computer simulation, which can test a wide range of variables and assumptions before actually implementing changes.

Solution:

Invest in a simulator, and spend the time necessary to run a wide range of scenarios to assess your current capacity capabilities and requirements. When evaluating the market leading WFM solutions, assess their ability to provide simulations that exactly match routing rules.

4. *Poor assumptions/rationale:*

In general, skills-based routing works best in environments that require many skills and have many possible combinations of skill sets. Help desks handling a wide variety of complex issues and contact centers handling many languages are common examples. Skills-based routing can also help to quickly integrate new agents by initially routing only simple contacts or contacts of a predefined nature to them. What skills-based routing can't do is compensate for poor planning, inadequate training or poorly designed information systems. Remember, the core assumption of a contact center is pooled groups, where cross-trained agents are equipped to share the workload. All things equal, pooled environments are more efficient than those with specialized groups.

Solution:

Create an environment that is as pooled as possible. This requires an incessant effort to hire the right people, improve training, improve information systems and reduce staff turnover. In other words, go as far as possible toward obviating the need for skills-based routing.

5. *No skills-based routing manager/coordinator:*

Even small contact centers have learned through tough, practical experience that it takes a full-time person to keep skills-based routing running smoothly. Projecting requirements, assessing current capabilities, updating system programming and adjusting staffing plans and schedules to accommodate evolving circumstances are ongoing activities. Without such a position, organizations can struggle with matching skillsets to volume demands, and may find that some channels are wildly overstaffed while others are grossly understaffed. Additionally, organizations without a designated skills-based routing owner often lack a thoroughly structured and effective process for managing skills.

Solution:

Create a position for managing skills-based routing. Equip this person or team with the tools, information and authority necessary to predict requirements, make necessary changes to system programming and staffing plans, and advise on future requirements.

The Do's and Don'ts of Back Office Forecasting

The back office is a critical function of most organizations and is often deeply interrelated to the contact center. Despite this connection, however, many organizations do not apply the same principals of "front office" planning and forecasting to the repetitive and predictable tasks of the back office.

Here are some practical do's and don'ts for applying forecasting principals to the back office.

DO: Establish metrics to measure the workload and distribution patterns. Accurate data is the foundation of a successful forecast!

DON'T: Accept a lack of transparency into the areas encompassed by "back office". Defining these areas and understanding their scope of work is critical.

DO: Find a way to capture every single back-office transaction. This may require self-recording at first, but ideally you'd integrate a system that's guaranteed to track and support every process.

DON'T: Treat back office interactions exactly like their contact center counterparts. There are several key differences between calls and back office tasks.

- Back office tasks are commonly divided into multi-owner (skill) relationships.
- There is no possibility of "abandonment" with back office tasks.
- Agents can handle multiple back office tasks at a time.
- Back office tasks may carry over between multiple shifts.

DO: Involve back office employees into the process of planning for and evolving the back office forecasting process. Change is rarely adopted when it comes as a mandate from the top down.

DON'T: Blame the existing back office team for shortcomings or inefficiencies in their back office solution. Get them involved in evaluating the root cause of problems and evaluating the best path (and solution) forward.

DO: Develop and align business KPIs that align with back office staffing plans, process improvements, and operational goals.

Intraday Forecasting: Is the Effort Worth the Outcome?

According to ICMI's latest research, intraday forecasting and schedule adjustments happen in 29% of contact centers. For 71 percent of those organizations, it's a manual process, which forces the contact centers to weigh the return of intraday against the effort involved in creating the forecast.

Contact centers aren't just creating more work for themselves by making these manual changes to skill assignments within the ACD throughout the day – they're compounding and further complicating the problem.

The accuracy of future forecasts depends on the integrity of the data that's provided and, all too often, the manual changes to intraday staffing aren't tracked accurately and disguise the root cause data that's necessary to improve the accuracy of future forecasts. Continuing to treat the symptoms of an inaccurate forecast, rather than addressing the root causes, will only cause further damage to service levels and the organizations ability to achieve key performance indicators. In fact, these data inconsistencies will only lead to further gaps in future forecasts and can create even more manual work to adjust future forecasted skill requirements.

The solution here is two-fold:

1. Deploy automation and technology assisted functions wherever possible in your real-time management efforts. Not only does it reduce or eliminate the manual work, but it also accurately tracks the changes and modifications to skill assignments to ensure that they're accounted for in future forecasts.
2. Create short-term forecasts to increase the accuracy of your schedule. This approach will reduce, or prevent entirely, the need to make manual adjustments to agent skills because of inaccurate forecasting.

With the right tools and resources, intraday forecasts are easy to produce and are often quite accurate. Typically, short-term forecasts are more accurate than long-term forecasts. More importantly, when automated, intraday forecasts can maximize resources while reducing the costs and lost productivity associated with manually forecasting.

Intraday Forecasting: Is the Effort Worth the Outcome?

Intraday Forecasting:

402	Calls received by 10:30 a.m.
<u>÷.18</u>	Usual proportion of calls by 10:30 a.m.
2,233	Revised forecast for day
<u>x.066</u>	3:30 – 4:00 p.m. proportion
147	Intraday forecast for 3:30 – 4:00 p.m.

The approach works like this: At some point in the morning, say just after 10:30 a.m., reports indicate 402 calls have been received so far. Divide the usual proportion of the day's calls that would be expected by 10:30, 18 percent in this example, into 402. (Eighteen percent came from looking at traffic patterns on previous days and calculating half-hourly proportions.) If the trend continues, 2,233 calls can be expected for the day.

Next, you can break the revised daily forecast down into the remaining half hours by multiplying historical half-hourly proportions by 2,233. For example, since 6.6 percent of a day's calls would be expected between 3:30 and 4:00 p.m., 147 calls can be expected during that half hour.

The assumption behind intraday forecasting is that the morning will set the tone for the afternoon. However, this will be a bad assumption for a utility getting swamped with calls in the morning due to a major power outage. When the outage is fixed, the calls will call away. In many cases, though, intraday forecasting is a useful and accurate tool. What's important is that you recognize its value and can effectively forecast and staff for the intraday changes.

Is WFM Moving to the Cloud?

15% of contact centers today use cloud-based WFM



By size:

Under 50 Agents: **12.5%**
50 – 500: **36%**
500+: **85%**

22%

not utilizing cloud plan to move within the next 6 – 12 months, while

36%

are still undecided.

Who's planning to move – by current solution

On-premise:



within 6 months

Excel/Spreadsheet:



within 6 months

No solution:



within 6-12 months

Benefits of moving to the cloud:

1. Guaranteed system uptime (**84%** — Very or Extremely Important)
2. Reduce time to deployment (**70%** — Very or Extremely Important)
3. Shift of costs from capital to operating expenses (**68%** — Very or Extremely Important)
4. Ability to add/remove licenses month-to-month (**59%** — Very or Extremely Important)

The most important scheduling capabilities?



Schedule optimally across multiple sites (50%)



Optimize use of employees' multiple skills (57%)

The Dangers and Downfalls of Excel-Based Forecasts

Excel is a commonplace tool in contact centers under 500 seats. (It's the tool used in approximately 1/3 of those contact centers)



1 in 4 contact centers are making updates in Excel more than once per week.



A majority of contacts believe that WFM is extremely important to their organization. Is it really okay to leave something that important prone to so much manual work and potential for error?

The most manual process:

1. Agent schedule adjustments
2. Updating changes to agent skills or channels based on volume
3. Reporting
4. Building of volume forecasting models
5. Agent schedule creation

Which contributes to some very real scheduling challenges:

1. Managing and responding to real-time changes in workload/staff availability
2. Ineffective scheduling tools and resources
3. Lack of time/resources to explore new scheduling scenarios



None of these manual process or challenges will help organizations achieve their number one goal right now:

Delivering improved service at same or lowered costs

Suddenly it's not such a surprise that, of the organizations planning to move to the cloud, *67% will be leaving their spreadsheets behind!*



About ICMI

The International Customer Management Institute (ICMI) is the leading global provider of comprehensive resources for customer management professionals—from frontline agents to executives—who wish to improve customer experiences and increase efficiencies at every level of the contact center. Since 1985, ICMI has helped more than 50,000 organizations in 167 countries through training, events, consulting, and informational resources. ICMI's experienced and dedicated team of industry insiders, trainers, and consultants are committed to helping you raise the strategic value of your contact center, optimize your operations and improve your customer service. ICMI is a part of UBM plc (ubm.com), a global events-led marketing services and communications company.

About NICE

NICE, the vanguard for workforce management innovation, recognizes the constantly changing demands facing the modern organization. Our solutions offer a robust feature set designed to meet the up-to-the-minute industry developments discussed in this report, including advanced task automation in back-office WFM, branch solutions for brick-and-mortar locations, and employee engagement resources. NICE's automated decisioning tools have been custom-built to reduce time spent on manual intraday management processes and improve work-life balance for agents through self-managed scheduling and personal empowerment. We invite our current customers and anyone interested in optimizing their workforce to take a closer look at NICE's offerings, including NICE WFM, NICE EVOLVE WFM and NICE EVOLVE Branch WFM, to find the solution that best fits their needs.