



**INTERACTIVE
INTELLIGENCE**[®]
DELIBERATE INNOVATION

THE FOUR COMPONENTS OF A GREAT WORKFORCE PROCESS

Ric Kosiba

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Your Seminar Leader



Ric Kosiba is vice president and founder of the Interaction Decisions Group at Interactive Intelligence. He founded the company, Bay Bridge, in 2000 that was acquired by Interactive Intelligence in August of 2012.

Ric has been involved in the call center industry 20+ years and enjoys working with contact center analysts and helping companies maximize profitability through math modeling. He holds a B.S.C.E., M.S.C.E., and Ph.D. in Operations Research and Engineering from Purdue University (go Boilers!).

Ric is responsible for the development and enhancement of our contact center capacity planning and analysis product line. He thoroughly enjoys working with our brilliant development and operations research team, which helped Interaction Decisions™ become the leading U.S. supplier of long-term forecasting and planning solutions.

Ric resides in Maryland with his wife and four children. He loves being a dad and enjoys coaching his kid's football, basketball and lacrosse.

Today's Discussion

- Chat about the big components of a great WFM process: Forecasting, planning, WFM, and communication
- The importance of all of these components working closely together
- Best practices for forecasting and simulation modeling that ensures the best plans.
- Why validated algorithms are so important to workforce management

Last week in Amsterdam...

I've been having a tough time figuring out how to frame this discussion...

But then... at the Planmen conference on Thursday, I was engaged in a discussion with a very smart WFM guru.

He asked, while arguing that WFM does not provide the necessary tools:

What value is WFM, when you know your forecast is most likely wrong, the moment it is published?



I think I know the answer



Workforce Management

Right number of agents at the right time, in order to maintain service standards

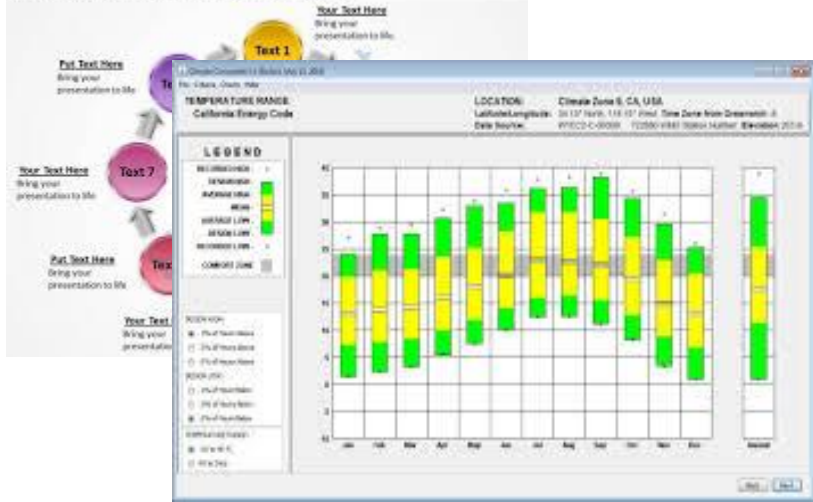
But do traditional workforce management platforms do this?

In the end, we are trying to answer some questions

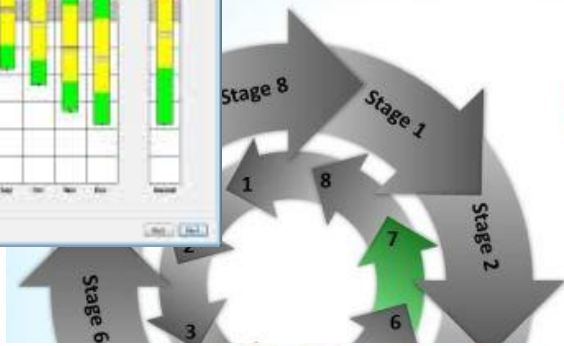
- How many contacts and what is their duration?
- What is our servicing goal?
- When and where should I hire my agents?
- What is their schedule?
- How do I adjust schedules when something changes?
- How do I manage these adjustments?
- How do I communicate all of this to whomever needs this info?
(and how do they communicate back to us?)

Finding the right consultancy thingy

8 Steps Quality Circle Process Chart



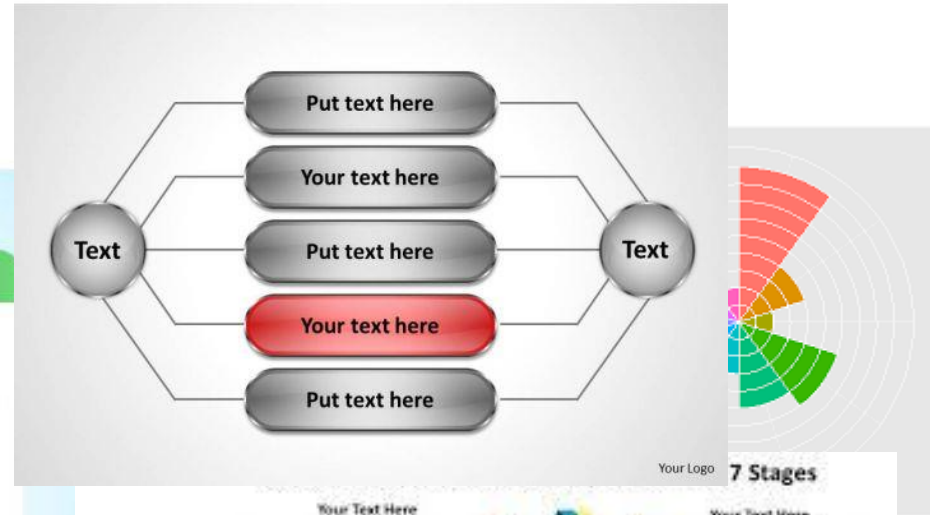
8 Stages Concentric Flow Chart



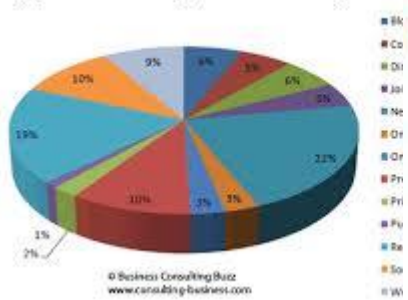
Put Text Here

- Your Text Goes here
- Download this awesome diagram
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One To Many To One 5 Stages Flow Chart



Type of Marketing Consultants Spend tl



Fancy visual: four components to WFM

Forecasting
and Variance

Traditional
WFM

Strategic
Planning

Communication

Forecasting

Forecasting and Variance

*Serves as starting point
for operational plans*

- Two general types (corresponding to the sorts of decisions being made):
- Long term (next week to 24 months):
 - Includes forecasting volumes, handle times, attrition, shrink, outbound contact rates, etc...
 - Serves to predict the seasonality of the business
 - Short term (1/2 day to a few weeks):
 - Focus on volumes (shrink and attrition is tallied, not forecasted)
 - Serves to aid real time management and find short term overage and underage
 - Predicts the likely inter-weekly arrival patterns
 - Variance serves to determine when it is necessary to change our plans— early warning device!

Workforce Management

- Efficient scheduling and schedule management
- Dynamic management of the dynamic operation
- Resource decision-making for the now to near term
- Issuing shift-related communications

Traditional
WFM

Develops efficient shifts and tames near term operational variability!

Strategic Planning (Capacity Planning)

Serves to manage the seasonality of the business:

- Develop hiring plans, overtime, undertime, and training plans
- Develops budgets
- If capacity plans and budgets are automated, can develop comprehensive strategic what-if analyses



Strategic
Planning

Delivers the right number of agents to the contact center every week!

Communication and Collaboration

- ACD/CRM/Communications platform (all channels)
- Communicating schedules and schedule changes/asks
- Online training and CRM cues
- Communicating with management and team members

Serves as the vehicle for implementing plans and scenarios

Communication

What happens if we are missing a piece (or do it poorly)?

- We don't recognize that the operation or environment is changing
- We prepare our operation for the wrong number of contacts (or too much/little shrink,..)

Forecasting
and Variance

Traditional
WFM

- We run an inefficient operation; supply does not match demand
- We hamper work-life balance and we burn out agents
- We miss service goals
- We introduce service variability

- Each week, we have the wrong number of agents
- We miss service goals
- We run an inefficient operation
- We mess up important analyses like: "what service standard should we run?"

Strategic
Planning

Communication

- We do a poor job implementing plans
- Agents are less effective
- Attrition increases

SOME BEST PRACTICES

Common methods of forecasting

Long Term:

- Seasonality/Trends
 - Holt-Winters
 - ARIMA
- Trends
 - Exponential smoothing
 - Moving averages
 - Time series regression
- Ensembles

Short Term:

- Same list on left plus:
- Apply average weekly distribution to LTF

Variance analyses are our canary in the coalmine

Why is there variance?

1. The forecast may be off– a math or process error
2. Something external may have changed the mix of contacts or agent performance
3. Something internal may have changed the mix of contacts or agent performance
4. It could be a random occurrence (a blip)



A very appropriate role of your forecasting process is to be an early warning signal. And variance is often the impetus for many what-ifs!

Is variance error or is it change?

Error

- Can I tweak my model to make it better?
- Hindsight: Was it my modeling choices that made the difference in accuracy?
- Nobody understands what's different this month

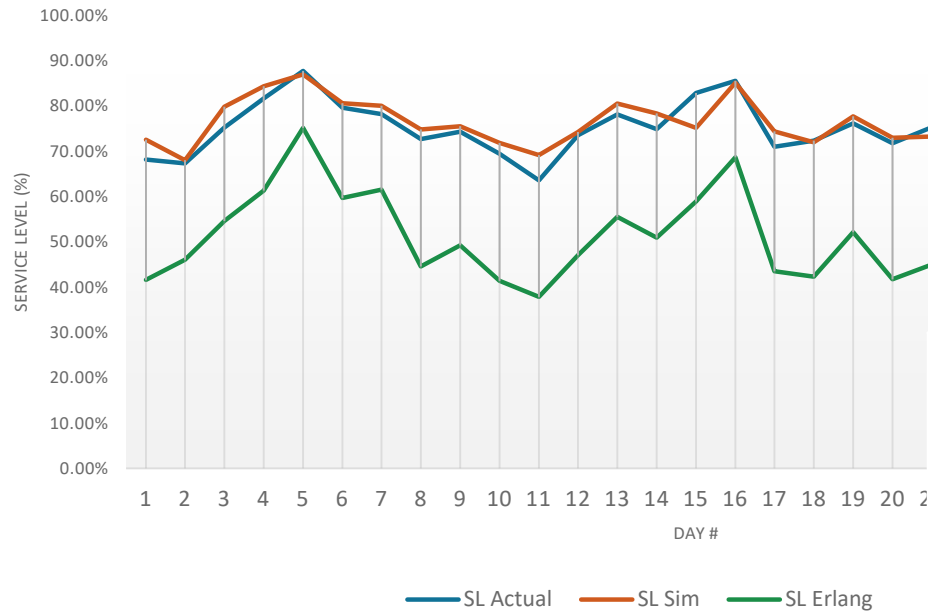
Change

- Or do I have to throw away my model for something radically different?
- Hindsight: Did I have any way of forecasting this right?
- We are hearing about the change (from the agents, from the news, etc...)

What many management teams view as error is really change! The best management teams view error *as* change!

Validation of the core staffing algorithms

Preferred Service: Service Level Comparison Simulation vs. Erlang-C vs. Actuals (Weekly Summary)

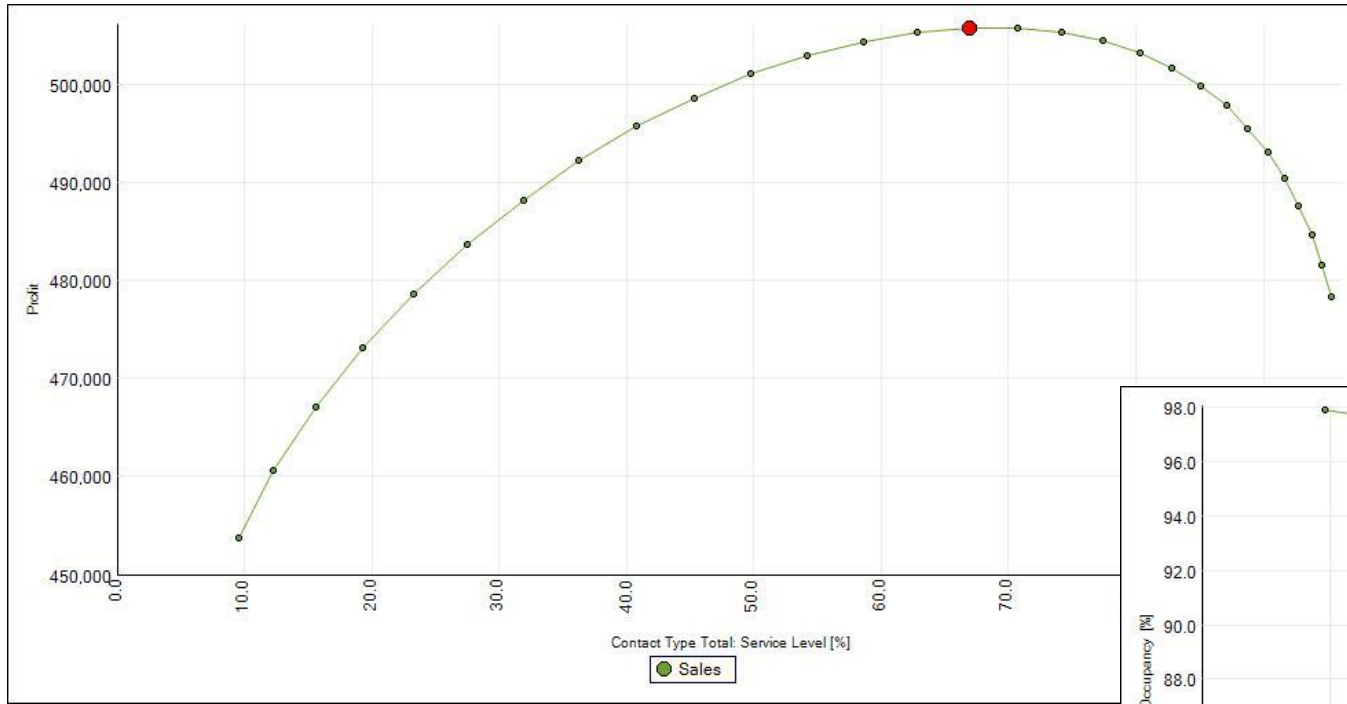


Both WFM and strategic planning have at their core an algorithm that simulates the relationship between the number of contacts, staff, and AHTs and the service provided.

Are they accurate?

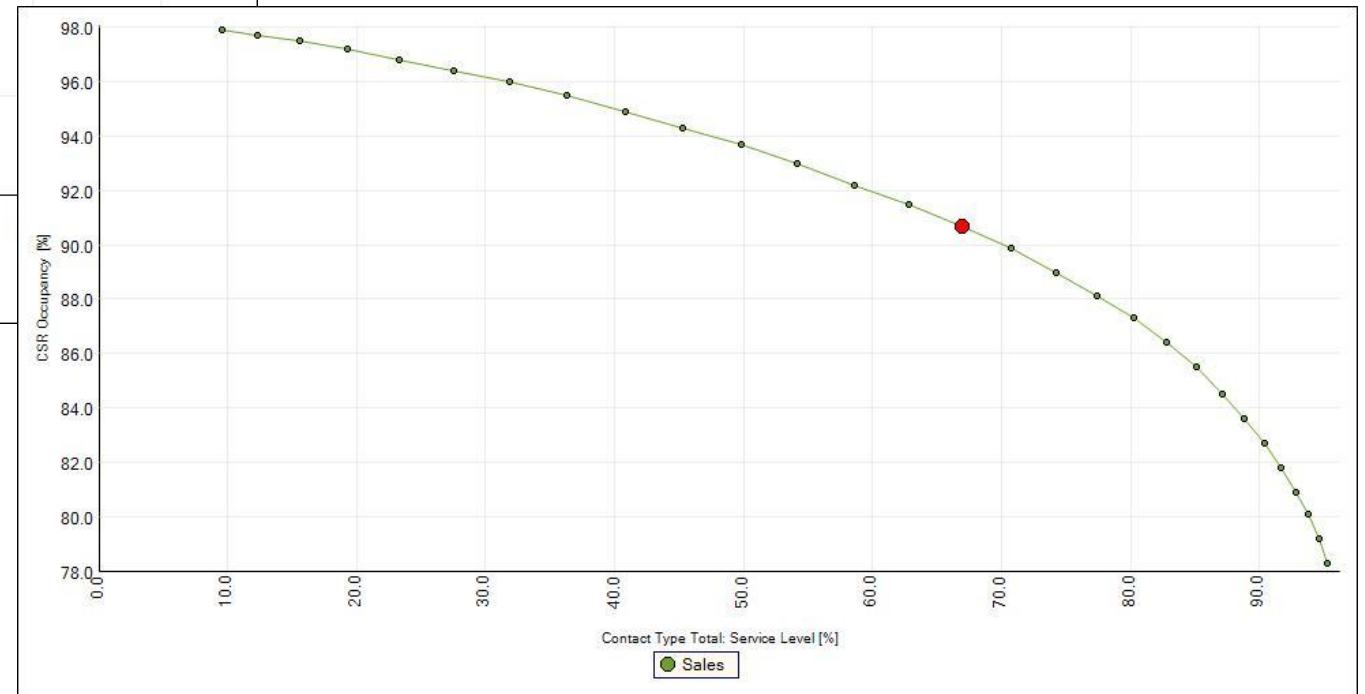
Call Type	Simulation Service Level Prediction			Erlang-C Service Level Prediction		
	Avg. Err	Avg. Abs. Err	Std. Dev. Abs. Err	Avg. Err	Avg. Abs. Err	Std. Dev. Abs. Err
Loans	0.59%	0.78%	0.65%	22.42%	22.42%	4.61%
Member Services	0.24%	1.19%	1.20%	25.97%	25.97%	5.56%
Preferred Services	-1.27%	2.21%	1.75%	24.11%	24.11%	4.67%
Retail	0.86%	2.66%	1.39%	3.36%	4.03%	4.85%
Credit Card	0.31%	1.01%	1.08%	9.99%	9.99%	3.41%
Auto Insurance	1.20%	2.45%	2.27%	-3.46%	3.46%	1.59%
Average	0.32%	1.72%	1.39%	13.73%	15.00%	4.12%

With a validated model, we get executive-level what-ifs at a mouse-click



Big picture what-ifs:

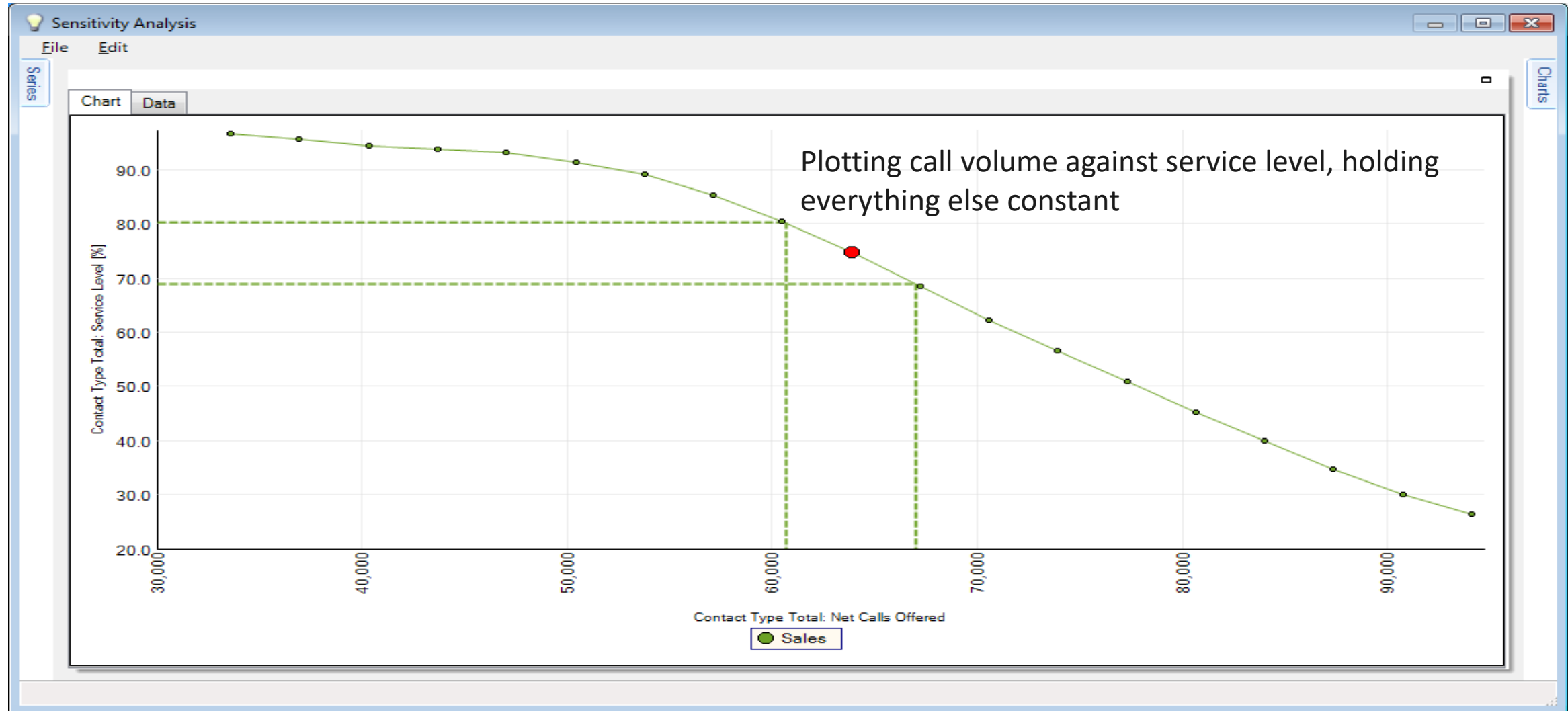
- What service standard should we deliver?
- What is the marginal NPS associated with this staffing plan? The costs?
- Does it make sense to run a marketing campaign in July?



... but also tactical what-ifs:

- Is it cost effective to call in overtime?
- How many customers would abandon if I held my team meeting?
- What is my marginal service level if we cancel training?
- What is the cost of additional agent flexibility?

Sensitivity Analysis



Ideal? Combining WFM/P/F with CRM/UC platform

The screenshot shows a web browser window displaying a CRM/UC platform. The interface includes a navigation bar with 'Activity', 'Directory', and 'Documents'. A chat window is open with 'LaMacchia, Samuel' (Out of Office). A profile card for 'Kosiba, Ric' (Vice President, Bay Bridge | Sales) is visible. A notification in the top right corner states: 'A new version of the application is ready; would you like to refresh?' with 'Yes' and 'No' buttons. A central text box lists use cases, and three callout boxes provide additional context.

A terrific platform for:

- coaching,
- asking advice from team members,
- swapping shifts, sharing and storing docs,
- finding and chatting with internal experts,
- enhancing the (team) work experience,
- and improving the quality of the interaction

Updates are as easy as refreshing

Communication amongst agents and with management is native in PureCloud

By combining WFM/P/F

- Efficiency gains, where most have ignored: more consistent service delivery, superior analytics, at lower cost
- What-ifs at all levels
 - Strategic, big picture what-ifs
 - Tactical next day, rest of the day what-ifs and trade-offs
- *Prove accuracy daily*– which removes doubts on analytics

These tools– when used together– ensure continuous improvement, a fine-tuning of the resource decisions management must make

What happens if all four components work together?

- Forecasting and variance tell us when we need to update our forecasts and make new resourcing decisions
- Strategic planning help manage the variability in the forecasts by staffing to manage operational risk
- Rapidly re-analyze any changes in our environment
- The right number of agents are available “day of”

Forecasting
and Variance

Traditional
WFM

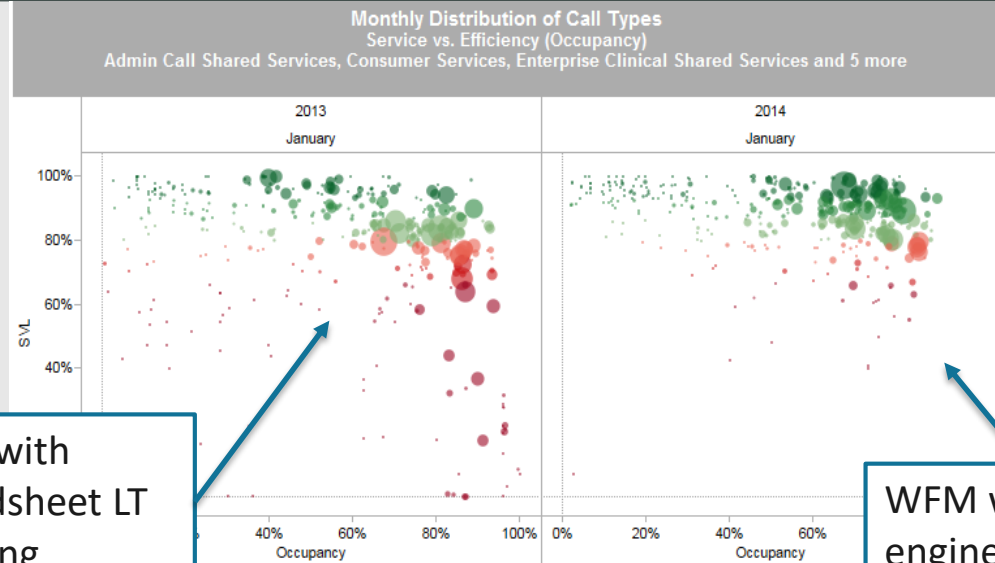
Strategic
Planning

Communication

- Our operation is efficient (supply meets demand)
- Any “day-of” variability is quickly analyzed and managed
- We reduce service delivery variability
- Our plans are communicated and implemented
- Schedules and schedule changes are well managed
- Good communication helps provide agent flexibility

What happens when you couple LTP with WFM: Optum ROI

Improved Efficiency and Experience *Service Level vs. Occupancy*

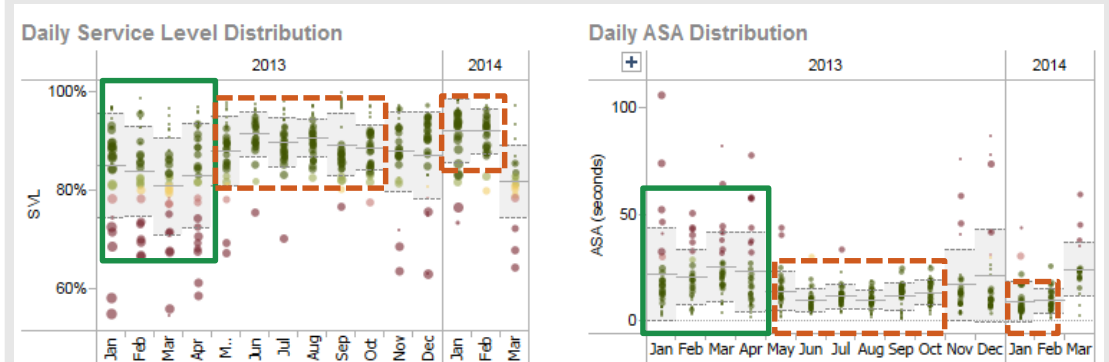


WFM with spreadsheet LT planning

WFM with engineered LT planning

Significant improvements in Service Levels and Occupancy even during peak periods

Increasing Customer Experience *Service Level and ASA Distribution*



Improved customer experience *consistency*

The answer

So what do you do when you know your forecast is likely wrong the moment you publish it?

- All steps: forecast/variance, capacity planning, traditional WFM, and agent communication are always happening at the same time. You are managing today, but looking out into the future.
- You have a process for continuous improvement, new resourcing decisions, and operational risk mitigation
- You will deliver consistent service levels, improved efficiency, fewer service meltdowns

What is Interaction Decisions?

- Decisions is a long-term contact center strategic planning and what-if analysis system. It helps to:



- Because it is fast and accurate:
 - Perform risk and sensitivity analysis of your contact center
 - Evaluate center what-ifs: investments, consolidation, and growth opportunities
- Decisions complements traditional workforce management software by focusing on strategic decision making and long-term planning

Contact Us!

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... if you would like a copy of the slides or to see a quick *Decisions* demonstration

Also! We have white papers all about planning and analysis at www.inin.com
(look for Strategic Planning)