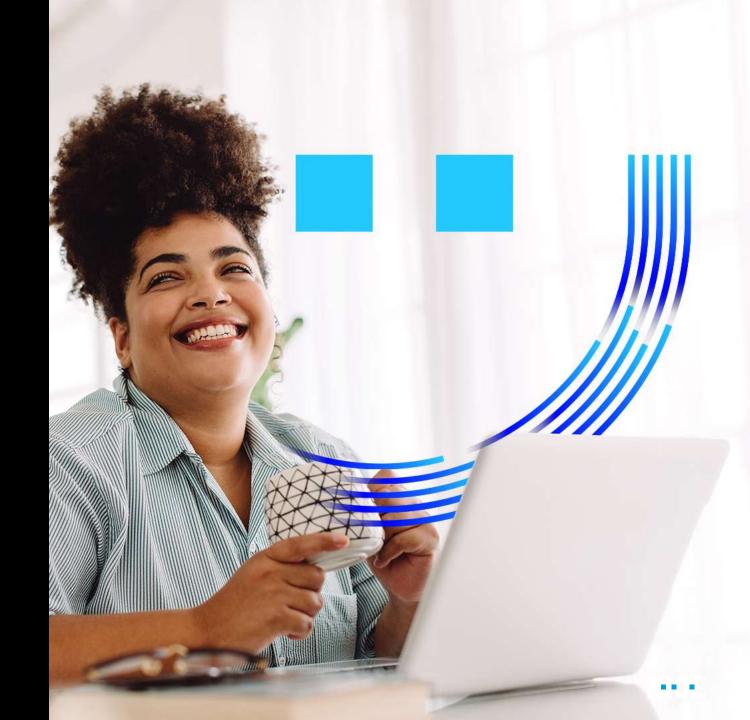


Customers expect to be able to use their preferred communication method with the companies with whom they deal.



Understanding the Pain of Treating Digital Channels Too Simplistically

Inaccurate long-range planning

Inaccurate requirements from forecast



Inefficient schedules

Changes become painful to ensure skills and channels are both covered



Long Duration Work and Asynchronous Work



Synchronous

- The conversation, dialog, or messaging between the requestor and the employee is continual and contiguous.
- Although there may be pauses or breaks in the flow of the conversation, the requestor and the employee are fully engaged and not easily distracted by other work objects.

Asynchronous

- The conversation, dialog, or messaging between the requestor and the employee is intermittent, sporadic, and discontinuous.
- There are frequent pauses or breaks in the flow of the conversation. The requestor and/or the employee are not fully engaged and are easily distracted by other work objects.

Challenges with Long Asynchronous Interactions

Initial Email*







Customer sends email to

Employee

Second Email*







sends email for Customer clarifying question

Third Email*







Customer

sends answer

Employee



For Employee to read initial email

5 mins

For Employee to type & send back questions to customer

3 mins

For Employee to read customer response and resolve

60 mins delay in response

Customer sends answers 1h later

Business problem: was this...



One contact that lasted 10 minutes?



One contact that lasted 70 minutes?



Three separate Contacts with an average handle time of three minutes and 20 seconds?

which interval should the information be reported?



When the contact started



When the contact ended

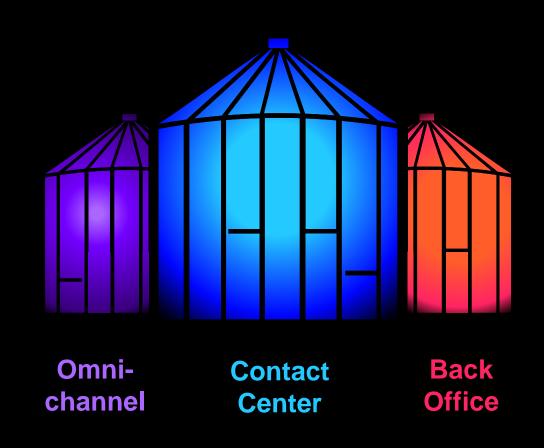


In each interval work was performed

^{*} The example is "email"; other examples include SMS, social media posts, chat, claims, tickets, cases, etc.

Current WFM Paradigms Resist Blending Work

- Forecasts are based on when a work item* is completed (not based on when the work was performed)
- Work items are assumed to be synchronous
- AHT is shorter than the planning interval
- A work item is processed by a single employee
- Employee works no more than I work item concurrently
- A work item resides in a single channel





^{*} Call, contact, chat, social post, message thread, case, ticket, etc.

Our Operational Context







• **Bots** – handling the simple, **leaving the complex** (*long handle times are more common*)



WCE Analytics – waiting until contact ended is waiting too late



 Blended Planning Interval - work planning and scheduling must be normalized to the smallest planning interval for blended work items



 Work Item Decomposition - Synchronous & asynchronous work items that have a lifespan longer than the planning interval must be decomposed into activity-based work history



 Activity-Based WFM - schedules must cover both work item-based & activity-based staffing requirements



A Paradigm Shift: TTI Analytics

WFM using Answered & Active True to Interval (TTI)

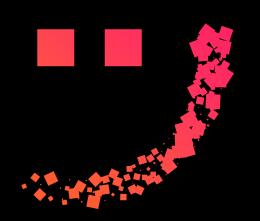




Challenges With Long Interactions

"When Contact Ended" (WCE)

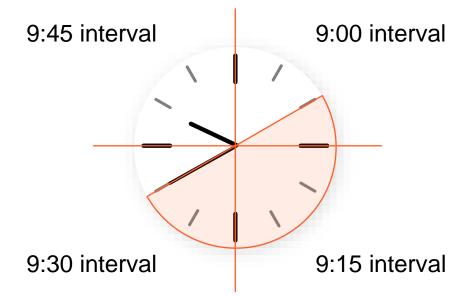
- A contact is counted once in the interval in which it ends...even if the contact spanned intervals
- Handle Time is reported only in the interval in which contact ends



Contact Arrives at 9:10 & Completes at 9:40

Interval	Received	Handled	Handle Time	Staff Req	
9:00	1	0	0	0	
9:15	0	0	0	0	
9:30	0	1	30	2 people*	

*Workload = (1 contact x 30mins) / 15mins in interval = 2 people



Use when..

- most contacts arrive and complete in the same interval
- intervals are longer than the handle times

Creates staffing problems when...

- handle times are long or intermittent and contacts span intervals
- intervals are shorter than the handle times



Challenges With Long Interactions

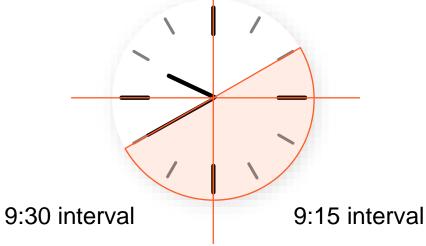
New "Answered & Active True to Interval" (TTI)

- A contact is counted once in the interval in which it is initially answered
 If the contact spans intervals, it is counted again in each subsequent interval where activity occurred
- Handle Time is reported in each interval in which work activity occurs



Interval	Received	Answered	Active	Handle Time	Staff Req*
9:00	1	1	0	5	.33
9:15	0	0	1	15	1
9:30	0	0	1	10	.67





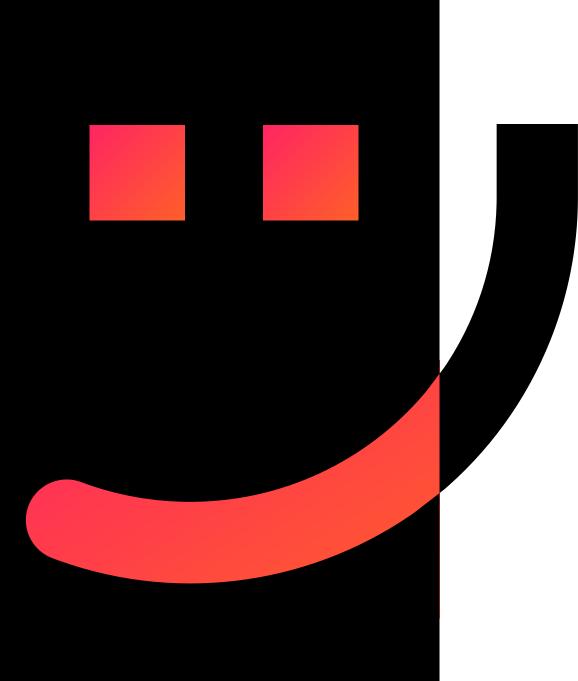


- most contacts arrive and complete in the same interval
- intervals are longer than the handle times



- handle times are long or intermittent and contacts span intervals
- intervals are shorter than the handle times

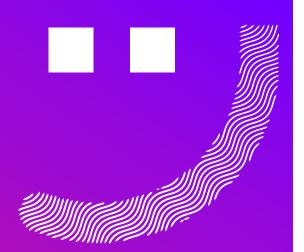




Answered & Active True to Interval Analytics

- Paradigm shift...
 - From: **report when contact ended** (handled, WCE)
 - To: report when activity occurred (answered + active, TTI)
- Cases / tickets / conversations are automatically **decomposed** into data that is usable for WFM purposes at the interval level
- Volume/AHT forecasts, staff requirement calculations, and schedules are driven by historical patterns of interval-specific activity required to resolve long duration cases / tickets / conversations

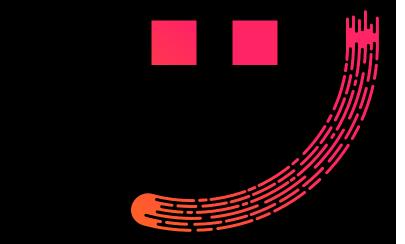
TTI Analytics ...many benefits



Improved accuracy

- Accurate interval-specific forecast of staffing requirements drives schedule optimization to align schedules with the life cycle of contacts
- Resolves false staffing requirements when AHT is greater than the planning interval
- Improves forecasting arrival patterns
- Resolves !DIV/0 errors for low- to medium-volume queues where work is performed but no contacts are answered

TTI Analytics ...many benefits



Solves problems of planning for asynchronous interactions

Improves blended contact center operational efficiency

- Decompose back-office work into a common planning interval for blending with contact center work
- Enables staff planning and scheduling of shared contact center and back-office employees

Improved user control over inputs to staffing requirement forecasts



NICE WFM TTI Analytics Works Best with NICE CXone Voice & Digital

Voice	Digital	Social Media Monitor & Listen	Collaboration		Messaging		Search	Bring Your Own Channel	In-App Messaging
C)	\bowtie	Ö	#				G		G
Voice	Email	Instagram	Slack	Apple Business Chat	Google Business	WhatsApp	Google		iOS App
Q ^Q >	Q	P	**		LINE	%	b		
IVR	Chat	YouTube	Teams	FB Messenger	LINE	WeChat	Bing		Android App
		in			kık.		\mathbf{Y}'		CXONNECT
	Co-Browse	LinkedIn	Zoom	Telegram	Kik	Viber	Yahoo		CXone Connect
	2 Way Video	Twitter		TALK KakaoTalk	RCS	Instagram			
	2 way video	i witter		NakaoTaik	ROS	mstagram			
		f Facebook		SMS					
		Google Places							



Employee Self Select Work Items Immediate Response & Deferred Response Contacts

AHT Longer Than Stat Interval

> Dedicated Task Time Limits

Employee Cognitive Load Limits

NICE

WFM for Digital Channel Management

Deferred Work Forecast Based on Capacity

Simultaneous Interactions

Interruptible Interactions

Elevated Interactions

Long Asynchronous Interactions



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