EXECUTIVE WFM CASE STUDY

Intraday Attendance & Conformance Tracker

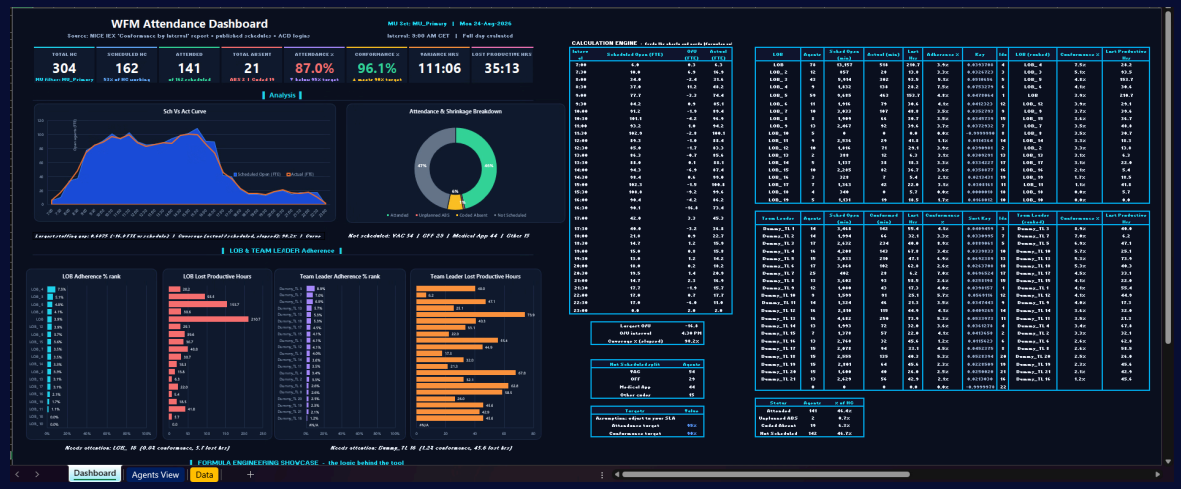
Engineering Real-Time Operational Visibility for 304+ Agents Across 19 LOBs & 1 Management Units Using 100% Native Excel Architecture

+304
Agents Managed
(304 HC in MU_Primary Model)

19 LOBs
21 Team Leaders Covered

125,000+
Raw Interval Rows Processed Seamlessly

100%
Native Excel Formulas



Marwan Shaaban | Global Real-Time Analyst (RTA) & WFM Specialist

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OPERATIONAL BLIND SPOT

No live tracker, and only 7 columns of data

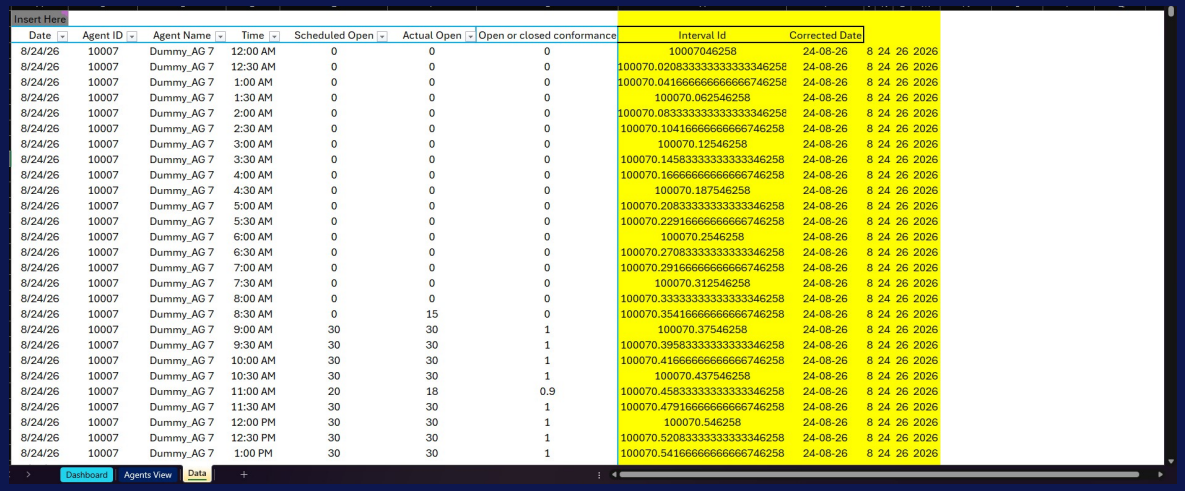
Restricted tool access meant no live view of intraday attendance, absence minutes, or non-productive intervals across global teams.

NICE IEX “Conformance by Interval”

Only Date (text), Agent ID, Agent Name, Time (30-min), Scheduled Open, Actual Open, Open/Closed Conformance.

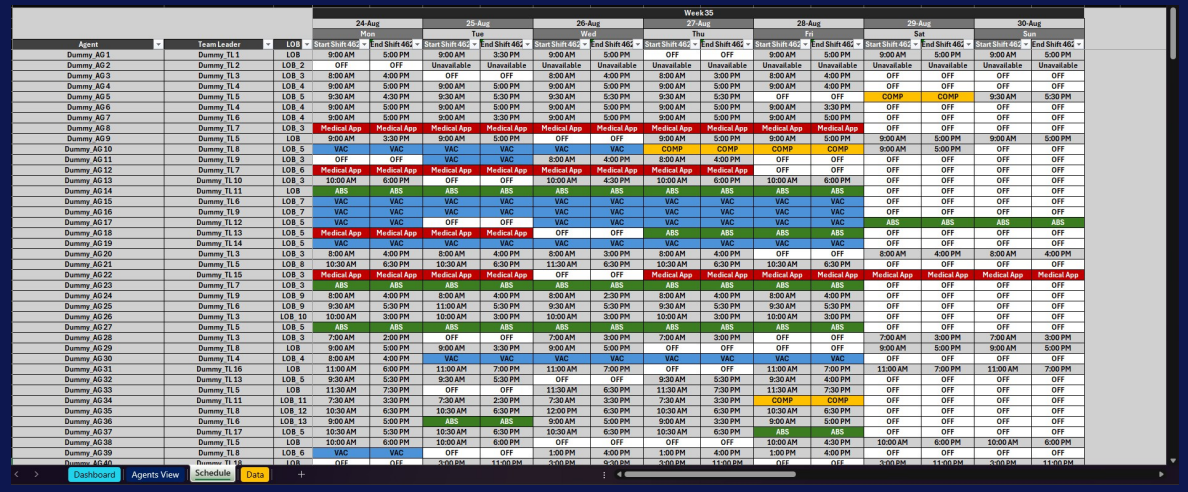
Missing operational context

LOB, Team Leader, published shift start/end, shrinkage codes (VAC, OFF, Medical), first-login and last-logout times.



Insert Here									
Date	Agent ID	Agent Name	Time	Scheduled Open	Actual Open	Open or closed conformance	Interval Id	Corrected Date	
8/24/26	10007	Dummy_AG 7	12:00 AM	0	0	0	10007046258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	12:30 AM	0	0	0	100070.020833333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	1:00 AM	0	0	0	100070.041666666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	1:30 AM	0	0	0	100070.062546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	2:00 AM	0	0	0	100070.083333333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	2:30 AM	0	0	0	100070.104166666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	3:00 AM	0	0	0	100070.12546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	3:30 AM	0	0	0	100070.145833333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	4:00 AM	0	0	0	100070.166666666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	4:30 AM	0	0	0	100070.187546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	5:00 AM	0	0	0	100070.208333333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	5:30 AM	0	0	0	100070.229166666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	6:00 AM	0	0	0	100070.2546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	6:30 AM	0	0	0	100070.270833333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	7:00 AM	0	0	0	100070.291666666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	7:30 AM	0	0	0	100070.312546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	8:00 AM	0	0	0	100070.333333333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	8:30 AM	0	15	0	100070.354166666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	9:00 AM	30	30	1	100070.37546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	9:30 AM	30	30	1	100070.395833333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	10:00 AM	30	30	1	100070.416666666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	10:30 AM	30	30	1	100070.437546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	11:00 AM	20	18	0.9	100070.458333333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	11:30 AM	30	30	1	100070.479166666666666746258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	12:00 PM	30	30	1	100070.546258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	12:30 PM	30	30	1	100070.520833333333333346258	24-08-26	8 24 26 2026
8/24/26	10007	Dummy_AG 7	1:00 PM	30	30	1	100070.541666666666666746258	24-08-26	8 24 26 2026

Dashboard | Agents View | Data



			Week 35													
			24-Aug		25-Aug		26-Aug		27-Aug		28-Aug		29-Aug		30-Aug	
			Mon		Tue		Wed		Thu		Fri		Sat		Sun	
Agent	Team Leader	LOB	Start Shift 46	End Shift 46	Start Shift 46	End Shift 46	Start Shift 46	End Shift 46	Start Shift 46	End Shift 46	Start Shift 46	End Shift 46	Start Shift 46	End Shift 46	Start Shift 46	End Shift 46
Dummy_AG 1	Dummy_TL 1	LOB	9:00 AM	5:00 PM	9:00 AM	3:30 PM	9:00 AM	5:00 PM	OFF	OFF	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM
Dummy_AG 2	Dummy_TL 2	LOB_2	OFF	OFF	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable
Dummy_AG 3	Dummy_TL 3	LOB_3	8:00 AM	4:00 PM	OFF	OFF	8:00 AM	4:00 PM	8:00 AM	3:00 PM	8:00 AM	4:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 4	Dummy_TL 4	LOB_4	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	4:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 5	Dummy_TL 5	LOB_5	9:30 AM	4:30 PM	9:30 AM	5:30 PM	9:30 AM	5:30 PM	9:30 AM	5:30 PM	OFF	OFF	COMP	COMP	9:30 AM	5:30 PM
Dummy_AG 6	Dummy_TL 4	LOB_4	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	3:30 PM	OFF	OFF	OFF	OFF
Dummy_AG 7	Dummy_TL 6	LOB_4	9:00 AM	5:00 PM	9:00 AM	3:30 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 8	Dummy_TL 7	LOB_3	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	OFF	OFF	OFF	OFF
Dummy_AG 9	Dummy_TL 5	LOB	9:00 AM	3:30 PM	9:00 AM	5:00 PM	OFF	OFF	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM	9:00 AM	5:00 PM
Dummy_AG 10	Dummy_TL 8	LOB_5	VAC	VAC	VAC	VAC	VAC	VAC	COMP	COMP	COMP	COMP	9:00 AM	5:00 PM	OFF	OFF
Dummy_AG 11	Dummy_TL 9	LOB_3	OFF	OFF	VAC	VAC	8:00 AM	4:00 PM	8:00 AM	4:00 PM	OFF	OFF	OFF	OFF	OFF	OFF
Dummy_AG 12	Dummy_TL 7	LOB_6	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	OFF	OFF	OFF	OFF	OFF	OFF
Dummy_AG 13	Dummy_TL 10	LOB_3	10:00 AM	6:00 PM	OFF	OFF	10:00 AM	4:30 PM	10:00 AM	6:00 PM	10:00 AM	6:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 14	Dummy_TL 11	LOB	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	OFF	OFF	OFF	OFF
Dummy_AG 15	Dummy_TL 6	LOB_7	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	OFF	OFF	OFF	OFF
Dummy_AG 16	Dummy_TL 9	LOB_7	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	OFF	OFF	OFF	OFF
Dummy_AG 17	Dummy_TL 12	LOB_5	VAC	VAC	OFF	OFF	VAC	VAC	VAC	VAC	VAC	VAC	ABS	ABS	ABS	ABS
Dummy_AG 18	Dummy_TL 13	LOB_5	Medical App	Medical App	Medical App	Medical App	OFF	OFF	ABS	ABS	ABS	ABS	OFF	OFF	OFF	OFF
Dummy_AG 19	Dummy_TL 14	LOB_5	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	OFF	OFF	OFF	OFF
Dummy_AG 20	Dummy_TL 3	LOB_3	8:00 AM	4:00 PM	8:00 AM	4:00 PM	8:00 AM	3:00 PM	8:00 AM	4:00 PM	OFF	OFF	8:00 AM	4:00 PM	8:00 AM	4:00 PM
Dummy_AG 21	Dummy_TL 5	LOB_8	10:30 AM	6:30 PM	10:30 AM	6:30 PM	11:30 AM	6:30 PM	10:30 AM	6:30 PM	10:30 AM	6:30 PM	OFF	OFF	OFF	OFF
Dummy_AG 22	Dummy_TL 15	LOB_3	Medical App	Medical App	Medical App	Medical App	OFF	OFF	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App	Medical App
Dummy_AG 23	Dummy_TL 7	LOB_3	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	OFF	OFF	OFF	OFF
Dummy_AG 24	Dummy_TL 9	LOB_9	8:00 AM	4:00 PM	8:00 AM	4:00 PM	8:00 AM	2:30 PM	8:00 AM	4:00 PM	8:00 AM	4:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 25	Dummy_TL 6	LOB_9	9:30 AM	5:30 PM	11:00 AM	5:30 PM	9:30 AM	5:30 PM	9:30 AM	5:30 PM	9:30 AM	5:30 PM	OFF	OFF	OFF	OFF
Dummy_AG 26	Dummy_TL 3	LOB_10	10:00 AM	3:00 PM	10:00 AM	3:00 PM	10:00 AM	3:00 PM	10:00 AM	3:00 PM	10:00 AM	3:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 27	Dummy_TL 5	LOB_5	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	ABS	OFF	OFF	OFF	OFF
Dummy_AG 28	Dummy_TL 3	LOB_3	7:00 AM	2:00 PM	OFF	OFF	7:00 AM	3:00 PM	7:00 AM	3:00 PM	OFF	OFF	7:00 AM	3:00 PM	7:00 AM	3:00 PM
Dummy_AG 29	Dummy_TL 8	LOB	9:00 AM	5:00 PM	9:00 AM	3:30 PM	9:00 AM	5:00 PM	OFF	OFF	OFF	OFF	9:00 AM	5:00 PM	9:00 AM	5:00 PM
Dummy_AG 30	Dummy_TL 4	LOB_4	8:00 AM	4:00 PM	VAC	VAC	VAC	VAC	VAC	VAC	VAC	VAC	OFF	OFF	OFF	OFF
Dummy_AG 31	Dummy_TL 16	LOB	11:00 AM	6:00 PM	11:00 AM	7:00 PM	11:00 AM	7:00 PM	OFF	OFF	11:00 AM	7:00 PM	11:00 AM	7:00 PM	11:00 AM	7:00 PM
Dummy_AG 32	Dummy_TL 13	LOB_5	9:30 AM	5:30 PM	9:30 AM	5:30 PM	OFF	OFF	9:30 AM	5:30 PM	9:30 AM	4:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 33	Dummy_TL 5	LOB	11:30 AM	7:30 PM	OFF	OFF	11:30 AM	6:30 PM	11:30 AM	7:30 PM	11:30 AM	7:30 PM	OFF	OFF	OFF	OFF
Dummy_AG 34	Dummy_TL 11	LOB_11	7:30 AM	3:30 PM	7:30 AM	2:30 PM	7:30 AM	3:30 PM	7:30 AM	3:30 PM	COMP	COMP	OFF	OFF	OFF	OFF
Dummy_AG 35	Dummy_TL 8	LOB_12	10:30 AM	6:30 PM	10:30 AM	6:30 PM	12:00 PM	6:30 PM	10:30 AM	6:30 PM	10:30 AM	6:30 PM	OFF	OFF	OFF	OFF
Dummy_AG 36	Dummy_TL 6	LOB_13	9:00 AM	5:00 PM	ABS	ABS	9:00 AM	5:00 PM	9:00 AM	3:30 PM	9:00 AM	5:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 37	Dummy_TL 17	LOB_5	10:30 AM	5:30 PM	10:30 AM	6:30 PM	10:30 AM	6:30 PM	10:30 AM	6:30 PM	ABS	ABS	OFF	OFF	OFF	OFF
Dummy_AG 38	Dummy_TL 5	LOB	10:00 AM	6:00 PM	10:00 AM	6:00 PM	OFF	OFF	OFF	OFF	10:00 AM	4:30 PM	10:00 AM	6:00 PM	10:00 AM	6:00 PM
Dummy_AG 39	Dummy_TL 8	LOB_6	VAC	VAC	OFF	OFF	1:00 PM	4:00 PM	1:00 PM	4:00 PM	1:00 PM	4:00 PM	OFF	OFF	OFF	OFF
Dummy_AG 40	Dummy_TL 18	LOB	OFF	OFF	3:00 PM	11:00 PM	3:00 PM	9:00 PM	3:00 PM	11:00 PM	OFF	OFF	3:00 PM	11:00 PM	3:00 PM	11:00 PM

Dashboard | Agents View | Schedule | Data

Mission: process a week of 30-minute intervals (~125,500+ rows) in Excel to expose live attendance, shrinkage and staffing gaps in under 60 seconds.

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NATIVE EXCEL ARCHITECTURE

A 5-layer architecture turns raw rows into decisions

01 Raw Data & Composite-Key Engine

'Data' Tab, 150,000-row capacity. Parses text dates (“8/24/26”) into Excel serial dates; builds unique key `=B3&D3&I3` (Agent ID + Interval Time + Date).

02 Governance & Reference Engine

'Setup' & 'Schedule' Tabs map 304 weekly rosters, 33 half-hour intervals (07:00 to 23:00), break entitlements (20 to 50 mins), and 11 non-productive codes into 4 statuses: Attended, ABS, Coded Absent, Not Scheduled.

03 Dynamic Roster & Agent Grid

'Agents View' Tab auto-populates rosters via `UNIQUE` and `FILTER` by Management Unit (MU_Primary) or LOB.

04 Elapsed-Interval Conformance Engine

'Agents View' Cols AW:AY compare Scheduled vs. Capped Actual productive minutes only through the last completed interval (Eval. Through); future intervals never distort conformance.

05 Executive BI Dashboard

'Dashboard' Tab: live KPIs, 6 native dynamic charts, automated outlier alerts.

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FORMULA ENGINEERING

Back-calculating logins and fixing break credit

First login

First interval with >0 open minutes + 30 minutes - worked minutes. Agent 10001, scheduled 09:00–17:00, logged in at 08:43 AM.

```
=IFERROR(INDEX($O$7:$AU$7, MATCH(TRUE, O8:AU8>0, 0)) + TIME(0,30,0) - TIME(0, INDEX(O8:AU8, MATCH(TRUE, O8:AU8>0, 0)), 0), "Not Working")
```



Last logout

Scans right-to-left with `LOOKUP(2, 1/(O8:AU8>0), ...)` for the final active interval and adds its active minutes (e.g., 16:46 PM).

Break-credit fix

Standard templates credit breaks even for absent agents. If Productive Hours (K8) = 0, break credit is zero.

```
=IF(K8=0, 0, TIME(0, XLOOKUP(G8, Setup!$F$3:$F$20, Setup!$G$3:$G$20), 0))
```

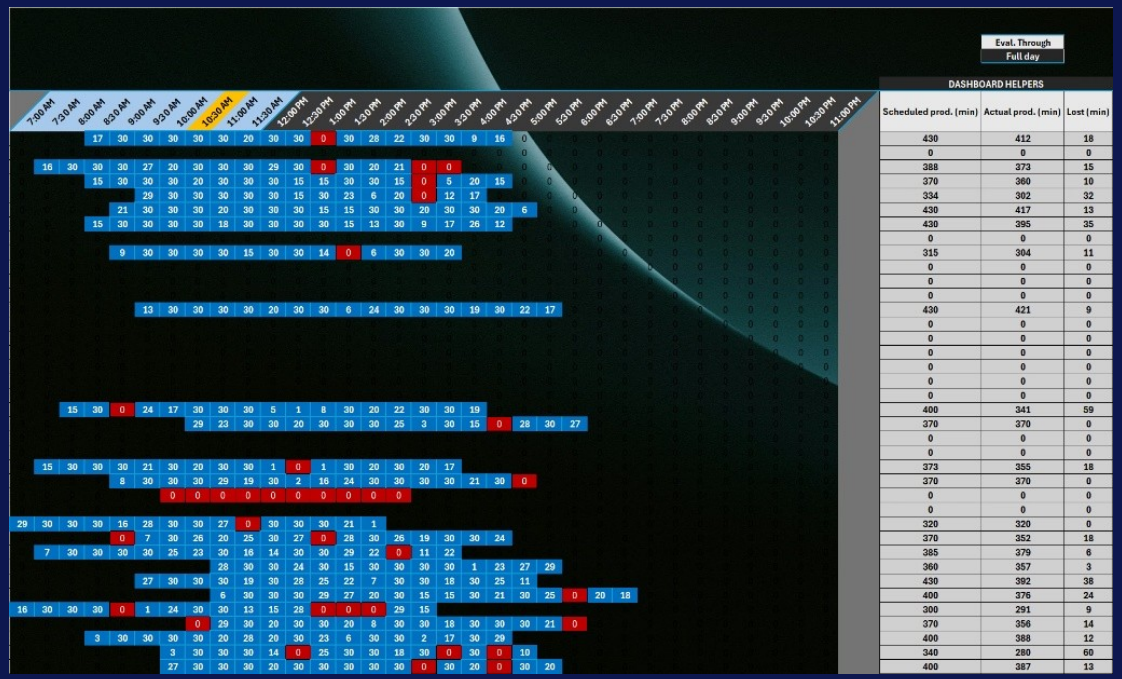
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LIVE AGENT VIEW

A 10,000-cell live interval matrix exposes mid-shift gaps

33 half-hour columns (07:00 AM to 11:00 PM), over 10,000 live formula cells.

```
=XLOOKUP($A8 & O$7 & $E$4, Data!$H:$H, Data!$F:$F, "")
```



Cyan
Current CET interval

Green
Active productive intervals (1–30 mins)

Bright red
0-minute mid-shift intervals

RTAs separate scheduled breaks from unauthorized mid-shift Aux/drop-offs without switching screens.

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MON 24-AUG-2026 · MU_PRIMARY

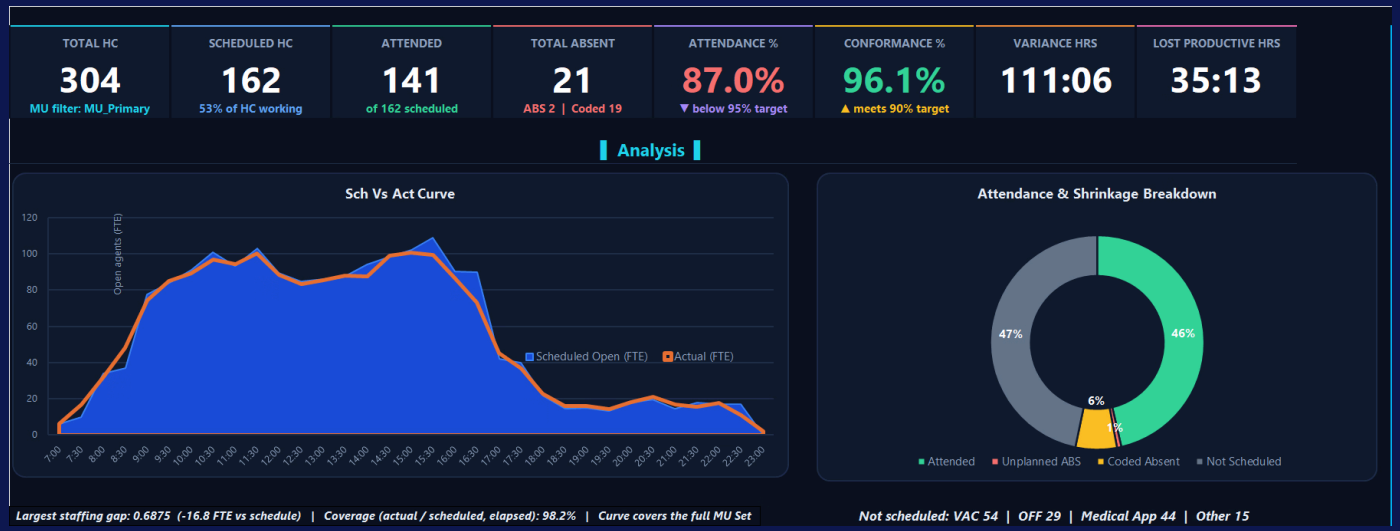
Attendance is 87.0%, but conformance is 96.1%

87.0% Attendance

▼ 8.0% below 95% SLA target, driven by 19 coded absences

96.1% Conformance

▲ 6.1% above 90% target



Total HC 304; Scheduled HC 162 (53% of HC working); Attended 141; Total Absent 21 (2 Unplanned ABS | 19 Coded Absent).

Not Scheduled: 142 agents / 46.7% of HC (VAC 54 | Medical App 44 | OFF 29 | Other 15).

Variance Hours 111:06
Lost Productive Hours 35:13

Agents who logged in kept exceptional schedule discipline; the risk is pre-shift shrinkage, not floor management.

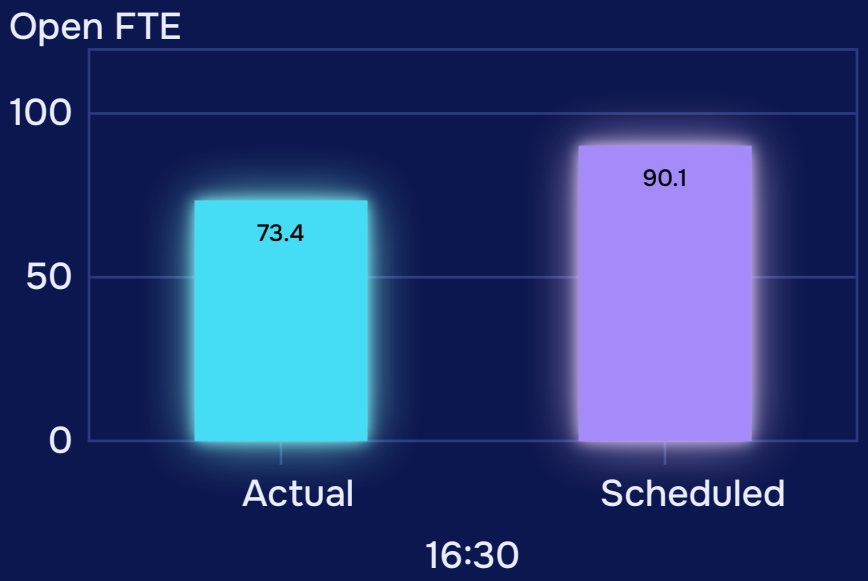
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INTERVAL COVERAGE

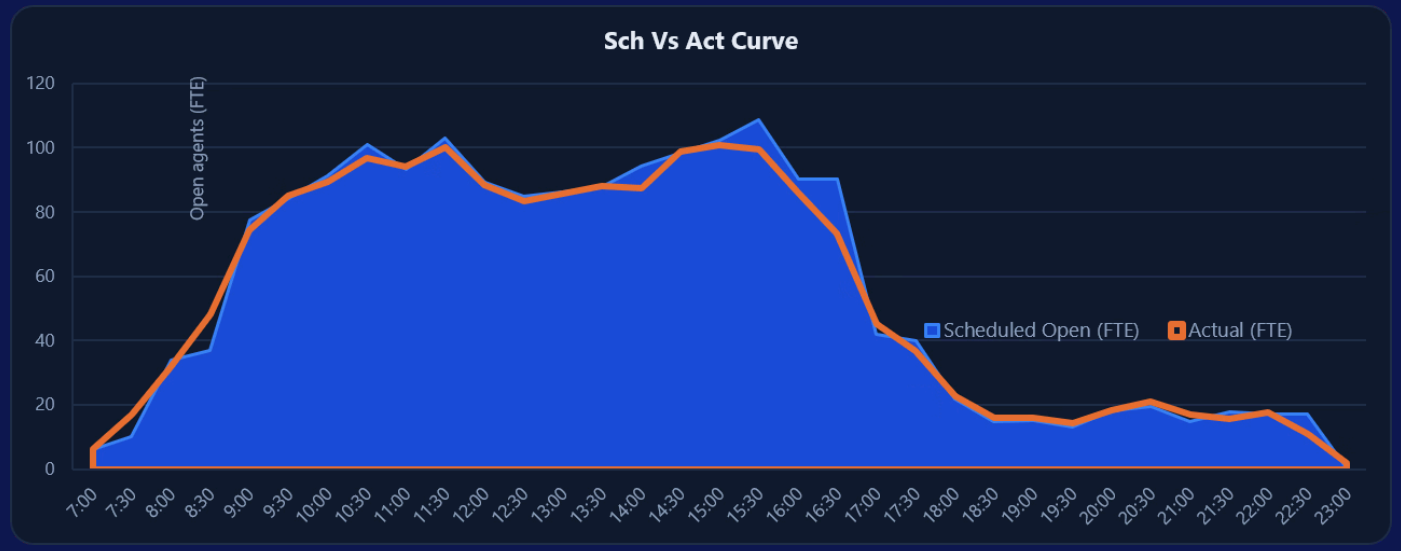
The 16:30 staffing crater hides behind a 98.2% daily average

-16.8 FTE deficit

At 16:30: 73.4 Actual vs. 90.1 Scheduled FTE; 81.4% interval coverage.



Overall elapsed coverage: 98.2% (Actual vs. Scheduled Open FTE).



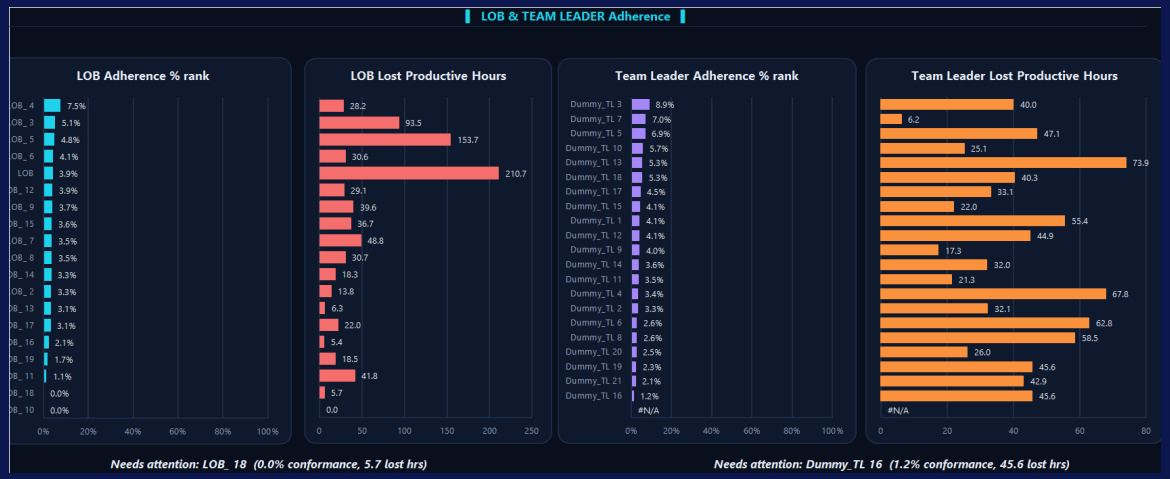
Seen hours ahead, RTAs can re-time breaks, pull offline support, or flex cross-skilled LOBs before SLA degrades.

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LOB & TEAM LEADER ACCOUNTABILITY

Ranking by conformance and lost hours shows true accountability

A small LOB with low conformance may cost few hours; a massive LOB with moderate conformance drains capacity.



Outlier	Capacity impact
LOB_5	59 scheduled agents; 153.7 Lost Hours, the largest capacity drain
LOB_18	Needs attention: 0.0% conformance, 5.7 lost hrs
Dummy_TL 16	1.2% conformance, 45.6 lost hrs across 13 agents
Dummy_TL 13	73.9 lost hrs across 16 agents

A 4-card Formula Engineering reference guide sits at the bottom of the dashboard for handover.

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NATIVE EXCEL · OPERATIONAL DRILL-DOWN

Under one minute, zero IT overhead, full drill-down

< 1 minute automation

Replaced manual multi-sheet VLOOKUPs and Ctrl+F searches with a paste-and-refresh pipeline.

Zero IT overhead

Native XLOOKUP, UNIQUE, FILTER, INDEX/MATCH, LOOKUP, SUMIFS; compatible across cloud and desktop, no macro security blocks.

Granular accountability

01	02	03	04	05
Management Unit	19 LOBs	21 Team Leaders	304+ Agents	33 Half-Hour Intervals

Live portfolio and downloadable tool: marwanshaaban-wfm.vercel.app

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