



# Call center and agent performance analytics

Pediatric healthcare provider

Built a comprehensive self-serve automated Power BI dashboard to provide enterprise level visibility into call center units' performance and agents' performance

# Pediatric healthcare provider needs comprehensive visibility into its call center's performance

## Picture this...

You're looking for a cloud-based data lake in Azure for call center ERP system and an automated call center dashboard on Power BI to provide real time insights into the call center performance. Currently, there is no visibility into enterprise level call center units' performance and agents' performance because of disintegrated systems and lack of data driven analytics capabilities.

## You turn to Accordion.

We partner with your team to build a comprehensive self-serve automated Power BI dashboard to provide enterprise level visibility into call center units' performance and agents' performance, including:

- 1) Building an enterprise data lake on Azure Data Factory using Delta live tables and Databricks to integrate Nice InContact (Call Center system) data and ingested the call center & agent performance data in central data lake
- 2) Developing a comprehensive self-serve dashboard on Power BI for the call center by splitting the KPIs into two categories – call center level and agent level. This would help in providing detailed insight into their performance.
- 3) Performing data quality checks and validation to ensure proper reporting on Nice InContact front-end and the Power BI dashboard

## Your value is enhanced.

Your dashboard provides quick overview on call center performance at enterprise level and generated real time insights for the operations team. You were able to get insights on high/low performing agents and subsequently made changes in the team. You have also identified schedule inefficiency and agent level efficiency metrics for the call center.

### KEY RESULT

- Impact 1...
- Impact 2...

### VALUE LEVERS PULLED

- Call Center Analytics
- Data Management
- Power BI Dashboard

# Call center and agent performance analytics for pediatric healthcare provider

## Situation

- Client lacked visibility into enterprise level call center units' performance and agents' performance because of disintegrated systems and lack of data driven analytics capabilities. Client was looking for enterprise level Call Center Dashboards for the Operations Leadership team to make data driven decisions
- Partnered with the client to set up a cloud-based data lake in Azure for Call Center ERP system and develop an automated call center dashboard on Power BI to provide real time insights into the call center performance

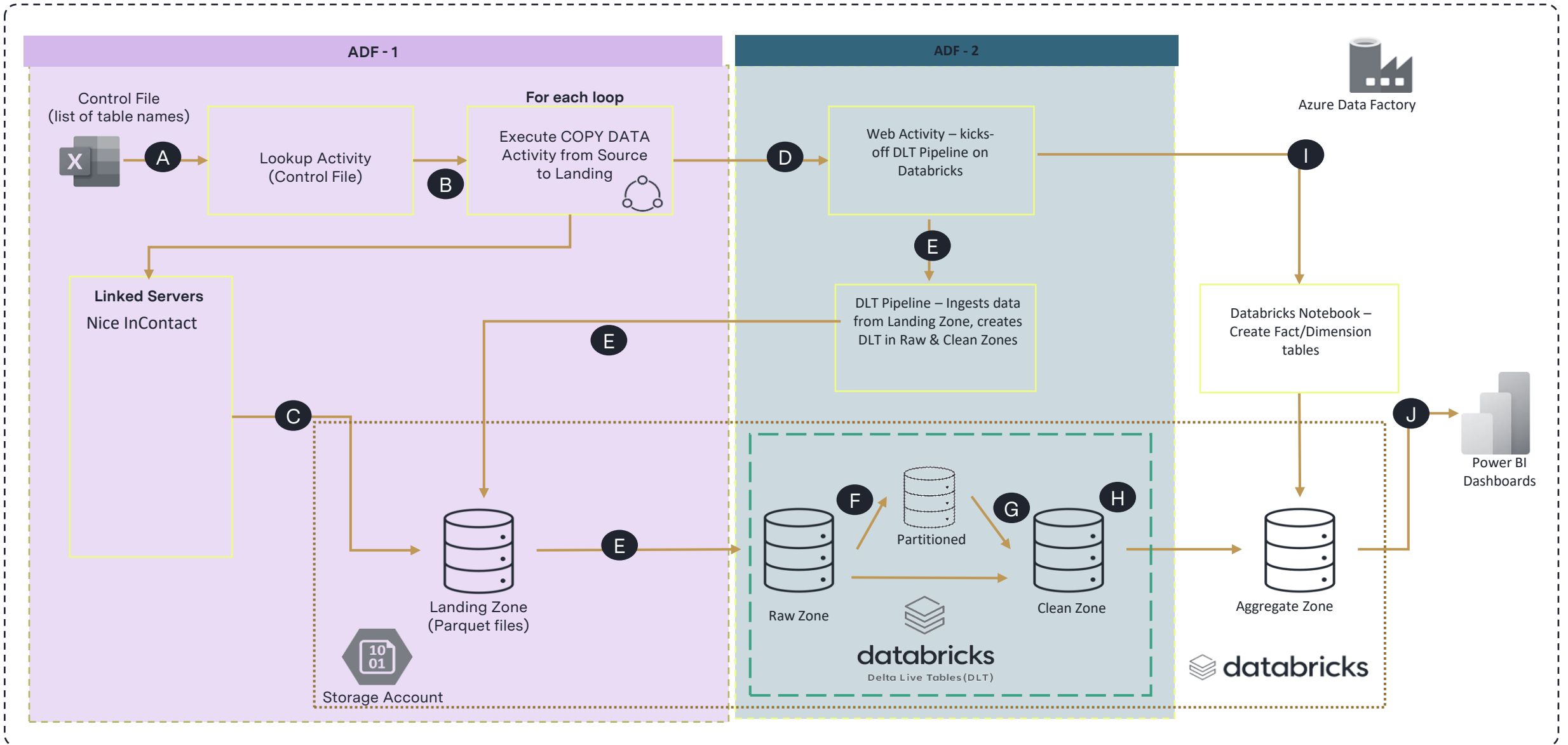
## Accordion Value Add

- Built an enterprise data lake on Azure Data Factory using Delta live tables and Databricks to integrate Nice InContact (Call Center system) data and ingested the call center & agent performance data in central data lake
- Developed a comprehensive self-serve dashboard on Power BI for the Call Center by splitting the KPIs into two categories – Call Center Level and Agent Level. This helped in providing detailed insight into their performance
- Performed data quality checks and validation to ensure proper reporting on Nice InContact Front-end and the Power BI dashboard

## Impact

- The dashboard provided quick overview on Call Center performance at Enterprise level and generated real time insights for the Operations team
- Operations Manager and Team Supervisors were able to get insights on high/low performing Agents and subsequently made changes in the team
- Identified Schedule inefficiency and Agent level efficiency metrics for the Call Center

# Data management architecture design



# Data management architecture design

- A From the Master Pipeline, looks up the tablename from the control file from a specific location in the landing zone
- B For each tablename as an output of Lookup activity, initiates a “COPY ACTIVITY” command to copy data from Source to the Landing zone
- C COPY Activity to extract data from source tables and converts it into Parquet format and stores the file in the Landing zone of the storage account
- D The Master Pipeline kicks-off a Web Activity which initiated DLT Pipeline which in turn triggers the DLT notebook in Raw and Clean Zone
- E The DLT Pipeline reads the Parquet files in the Landing Zone and creates DLT tables for all the source files in Raw Zone and the Clean Zone
- F Intermediate Partitioned Tables are created to hold Quarantine Records which fail the Data Quality checks. Once the data is corrected, the records are reprocessed to be available in Clean Zone.
- G Data structures in the Clean Zone are merged into summary tables. E.g., Call Summary & Agent Summary tables which will contain data about Call Volumes and Agent calls from Nice InContact
- H Summary tables are derived after the individual clean tables are created
- I Fact/Dimension Tables are created in the Aggregate Zone using Summary tables in Clean Zone
- J Separate schema where the KPIs and metrics are computed is accessed by Power BI through Azure Databricks connection and displayed in the visuals

# Call center summary

## CALL CENTER SUMMARY

Data Refreshed as of: 11/04



Date

10/1 10/31

Time Dimension

Date

Campaign Name

All

Business Unit

All

Skill Name

All

Call Type

All

Category

All

### Call Center Overview



Queue Offered (#)

345,552



Total Inbound Handled

320,204 (92.7%)



Abandoned Calls

25,333 (7.3%)



Callback Requests

9,096 (2.6%)



SLA %

77.5%



Avg. Speed of Ans. (mins)

1.5



Active FTE

575.3



Avg. Handle Time (mins)

6.2



Calls per Hour (#)

5.3



Avg. Login Hrs. / Day

7.2



Avg. FCR %

63.7%



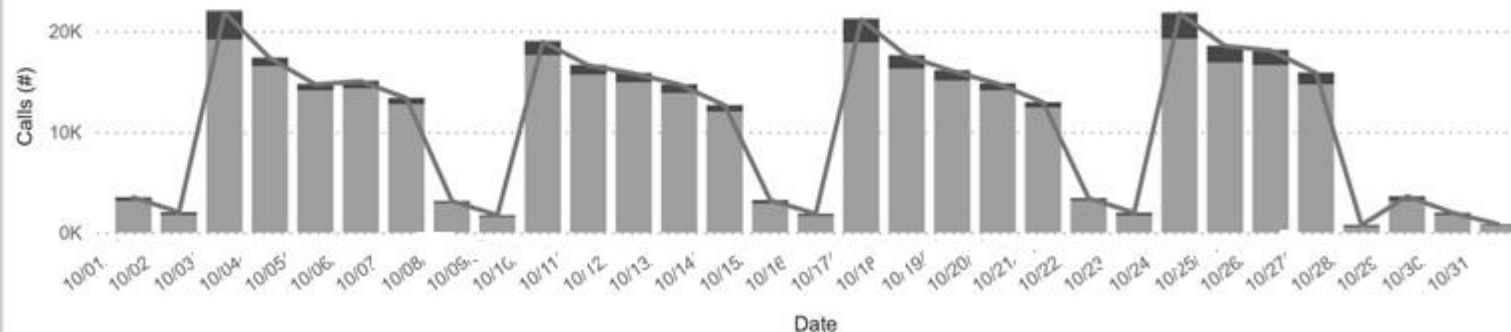
Avg. Occupancy %

88.0%

Total Queue Offered Split (#) by Date

# %

● Handled Calls ● Abandoned Calls ● Refused Calls ● Queue offered



Features: Summary dashboard provides Executive level overview on Call Center Units Performance and Agents performance

KPIs: Queue Offered, Total Inbound Handled, Abandoned Calls, Callback Requested, Active FTE, Calls per hour, etc.

Datasources: Nice InContact

# Call center overview



Features: Call Center Overview dashboard tracks key performance indicators for call center units and provides flexibility to view the performance by Call type, Region, etc.

KPIs: Callback Request, Success Rate, Call Transferred, etc.

Datasources: Nice InContact

# Agent performance details



Features: Agent Performance detail dashboard tracks key performance indicators for call center agents and provides flexibility to view the performance by Call type, Region, Supervisor etc.

KPIs: Avg. Hold Time, Talk Time>30 sec etc.

Datasources: Nice InContact



# Unique and repeat call summary

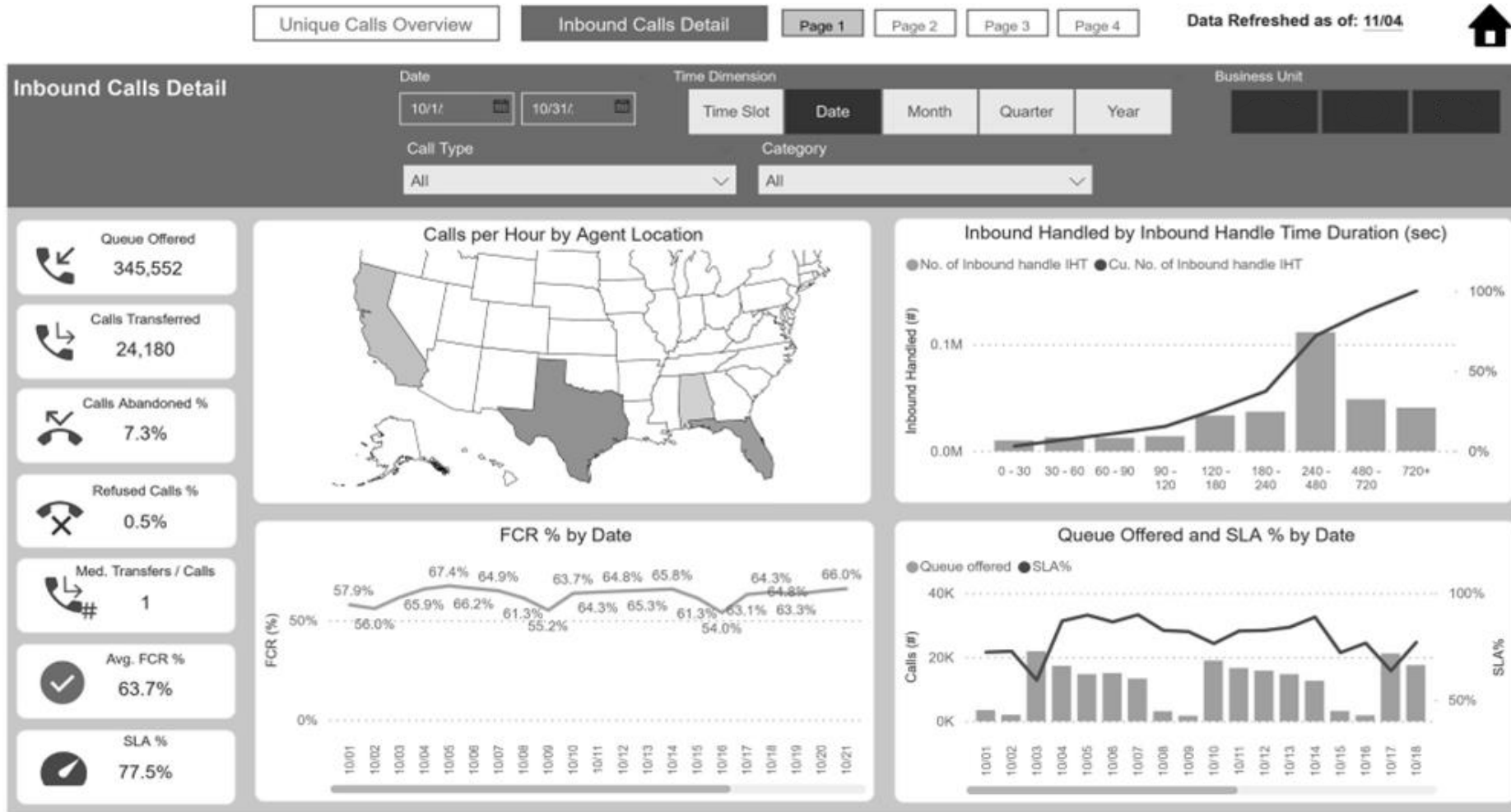


Features: Unique and Repeat call summary provides insights on no. of unique calls and repeat calls by the Call Center business units and tracks the First Call Resolution rate (FCR%) KPI – which is key indicator of Call Center performance

KPIs: Unique Calls, Repeat Calls, FCR%

Datasources: Nice InContact

# Inbound calls detail (1/2)

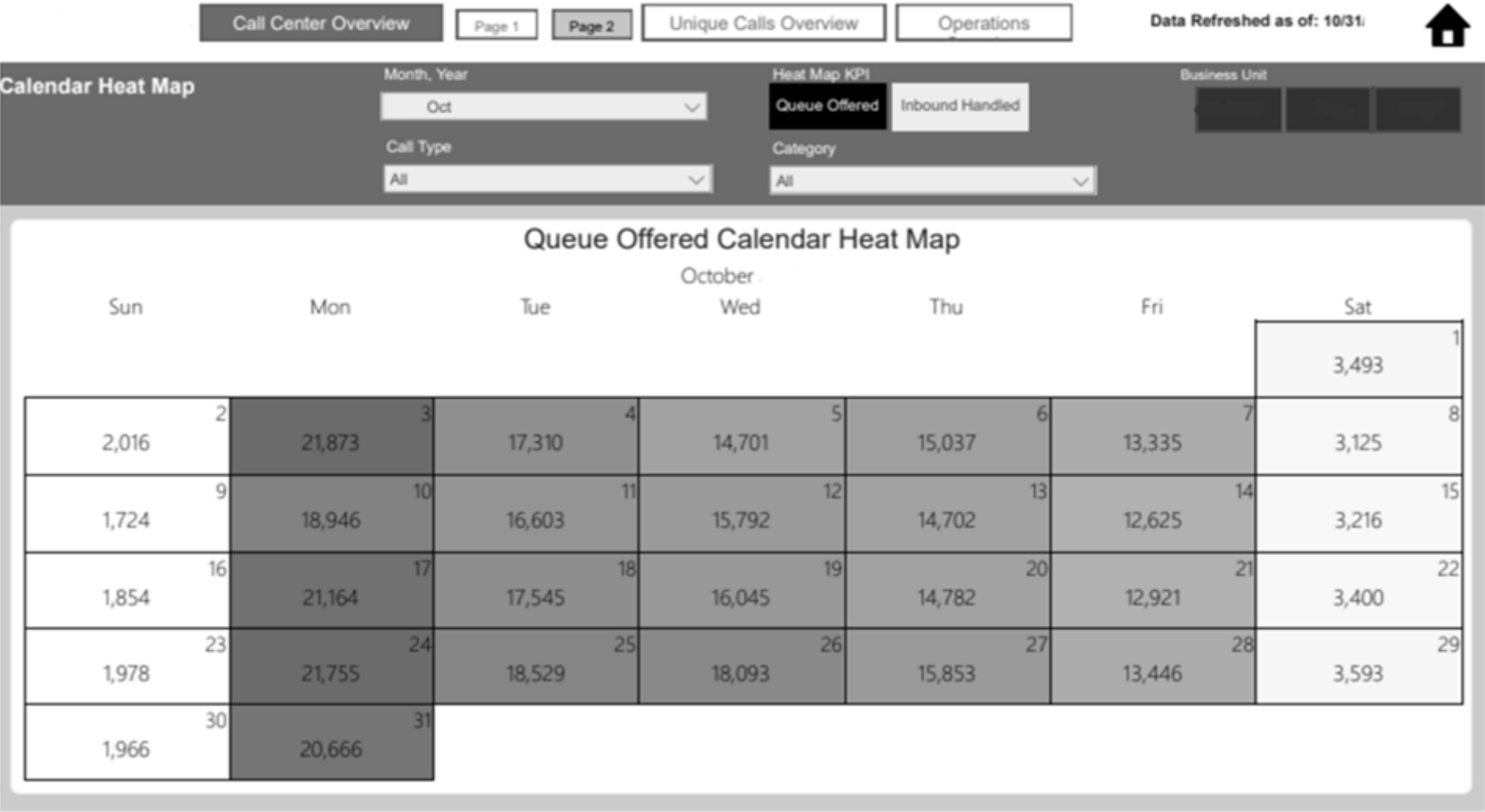


Features: Inbound Calls detail view double clicks on Inbound calls by tracking Inbound Handled time duration, Inbound calls in SLA and out SLA, Calls per hour by Agent, etc.

KPIs: Calls per hour, Inbound Handled Time, etc.

Datasources: Nice InContact

# Inbound calls detail (2/2)



**Features: Queue Offered Calendar Heat Map**  
provides visibility into total Queue offered day wise in selected period, so that Executive can get insights on daily spike or lows for the Inbound calls volume

**KPIs:** Queue Offered

**Datasources:** Nice InContact