Fraud Detection – Top Hotel Rooms Aggregator

Sector

Hotels

Customer Profile

Very Large hotel rooms aggregator

Business Requirements

- Customer is an aggregator of hotel rooms where they tie up with existing hotels and take care of their booking
- They have now entered into owning entire hotels and running it through their employees.
- The customer has a challenge of revenue leakages happening because of employee frauds.

- The employees allow customers to stay at the hotel without making an entry into the hotel and customers digital booking system
- This is causing a top line loss of 4-6% to the customer
- They would like to have a decision support system that can help them accurately detect such frauds and process violations without putting too much efforts
- They already have extensive CCTV system installed at all their hotels

Challenges

- Accurately capturing customer information and creating a "digital customer journey [DCJ]" that can be analyzed to detect potential frauds.
- Detecting fraud patterns and digitizing them to provide an effective decision support system
- Making all the relevant information available in the decision support system for the command center staff to efficiently and effectively identify and tag frauds
- Integrating with the customer's booking and transaction system and combining with the DCJ to generate specific insights
- Integrating with customer's CCTV system to avoid deploying additional cameras and increasing costs

Solution

Axelta provided a comprehensive system that works both with Axelta's advance smart camera and the customers CCTV installation for fraud detection. The cameras used are for the reception and hotel entrance. Analysis of the video footage is done in real time and the insights generated are sent to the cloud system where further analysis is done and by combining with the POS and booking data

A comprehensive decision support system [DSS] has been provided for command center staff to utilize the information and indentify potential frauds. These are then validated offline before initiating further action

Outcome

Axelta has successfully completed a POC at one of their flagship property where at least 10 such high suspicion instances were detected by using the system and action initiated.

Accurate Customer Information

We are able to achieve 85%+ accuracy in capturing customer data on an average. This includes customer counts that are validated on a daily basis. The system uses facial detection, recognition, video analytics and machine learning

| Customer List | Employee List | Check-In List | | | | |

📅 February 4, 2019 12:00:00 am - February 4, 2019 11:59:59 pm ▾   All ▾   Refresh

Show 100 entries   Search: [   ]

S.No.	Date/Time	Type	Customer Image	Remarks	Customer Info
1	04-02-2019 11:59:09 pm			New person	👜
2	04-02-2019 11:51:48 pm			On-going customer who was previously seen on: 02/02/2019 23:50:06 hours	👜
3	04-02-2019 11:32:18 pm			On-going customer who was previously seen on: 03/02/2019 14:05:30 hours	👜
4	04-02-2019 11:27:15 pm			On-going customer who was previously seen on: 03/02/2019 21:43:44 hours	👜
5	04-02-2019 11:16:57 pm	Valid Customer		Repeat customer who last visited on: 29/01/2019 08:36:49 hours	👜
6	04-02-2019 11:16:43 pm			New person	👜
7	04-02-2019 11:11:52 pm			New person	👜

Decision Support System

A comprehensive and user friendly DSS is provided for command center staff to analyze the suspects identified by the system. On a typical day, about 200 new faces are seen by the system, their digital journey created and analyzed to throw out about 5-10 suspect cases for manual analysis.
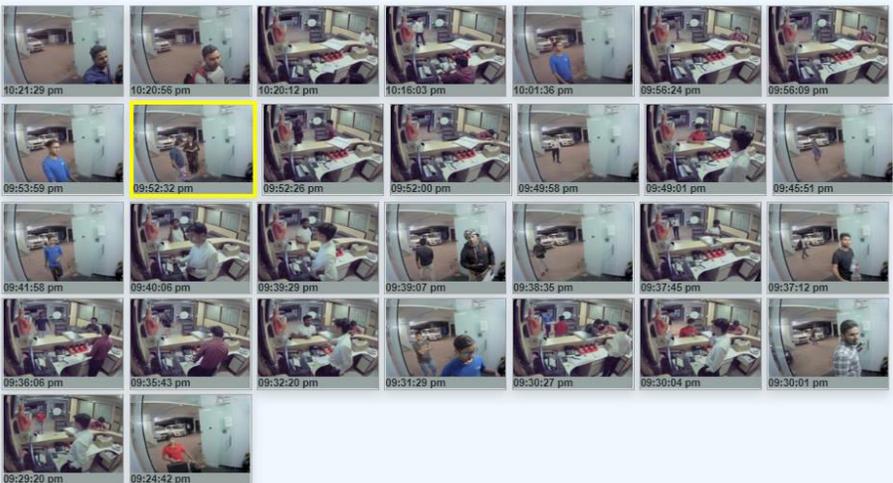

2019-02-04 09:52:32 pm

REMARKS : 1. There were no checkins +/- 10 mins when this person was seen. 2. Has been seen 6 times. 3. Seen both at entrance and reception

Necessary contextual information including images from all cameras where the person was seen, videos around that time, checkin and cancelling information, credit card transaction information, etc is all provided to enable quick and effective decision making.

The system automatically uploads only the videos that are related to the suspects identified by it so as to avoid costly and unreliable streaming of all the video footage.

Black Label Faces and Real Time notification for Security

Provided a simple mechanism to tag faces as threats and send real time notifications in case those were seen at the premises.

Way Forward

POC has been successfully concluded. In-process of starting pilot for 20 properties across 6 different geographical areas.