



# MOBILE APPLICATION TO MINIMIZE LOSES FOR BUSINESS THROUGH VIDEO-DRIVEN ANALYTICS

## CLIENT OVERVIEW

Our client is one of the fastest-growing technology businesses in North America, aiming at preventing/minimizing losses by providing security services through behavioural intelligence, predictive analysis, fraud detection, exception based reporting, video intelligence and data mining for various businesses in retail, gaming, hospitality and banking industries. Client's Loss prevention, Game Protection and Footfall measuring product/solutions helps businesses by orchestrating day to day data from point-of-sale (POS), casino systems and other data sources with digital video surveillance, producing accurate business intelligence to help business operators cut down losses through frauds, etc.

## KEY REQUIREMENTS

- Develop a user friendly interface which provides seamless user experience over multiple device types.
- Provide anywhere access to client’s cloud platform to access data/key information about user’s business.
- Allow customization of dashboards to select from the available parameters with a drill down capability.
- Develop a POS Module:
  - Displaying different interactive graphs based on transaction data in order to display current trends in user’s business.
  - Including Graphs for trends, Journal data for live and playback, association of data to cameras.
  - Allowing to select graph items with detailed information on request.
- Enabling streaming live video from surveillance cameras, displaying the associated transaction data and watch the associated RTSP (Real Time Streaming Protocol) video.
- Allowing the users to track their incidents, open the incidents, add comments to the incidents,
- Allowing the creation of new data related to any incident from the mobile device.
- Develop a Case Manager for the users to be able to view the past created cases of any kind (video footage, fraud, etc.), study/analyze, solve them and add comments to them.

## KEY CONTRIBUTIONS

- Developed a responsive application (iOS and Android) on Xamarin using MVVM pattern where MVVMCross library helped in maximizing the code and components reusing between iOS and Android platforms.
- Accelerated the development and testing time with using this pattern, by clearly separating business logic and user interface layer. Business logic was put inside a portable shared library which was shared among iOS and Android platform.
- Integrated open source OxyPlot graph library for the POS module, and further modified to make the graphs interactive.
- Developed a customized video streaming solution(for camera module) using RTSP to display auto refreshing snapshots in video streaming which was not supported in-built on iOS platform.
- Developed a seamless navigation between different “Modules “and “Views” using hamburger menu of Xamarin Studio, which provided easy access to frequently visited views.

## KEY BENEFITS

- Instant alerts on mobile helped save time and money on any critical situations.
- Reduced efforts in loss prevention by around 20-30%.
- Increased the bottom line profits by around 20% with rapid adoption of mobile app version of the product.
- Decreased investigation and monitoring time by 20% which was one of the key pain points of client.
- Seamlessly integrated with customer’s existing surveillance and POS systems without delays caused in real time.
- Facilitated client to reach a wider user base with accelerated time to market.

- Built “Views” based on type of data received from the server in order to dynamically fit the available screen size and utilize the valuable screen asset effectively to support different form factors, such as mobiles, phablets and tablets.
- Provided Data analysis and Alerts mechanism using the Xamarin push notifications.

## HIGH LEVEL ARCHITECTURE



## TECHNOLOGY STACK

- Xamarin Studio
- Visual Studio 2013 with Xamarin Plug-in
- Android SDK
- iOS Xcode
- MVVMCross
- OxyPlot – an open source graph drawing library for iOS and Android
- Git



### About Xoriant:

Xoriant Corporation is a Product Development, Engineering and Consulting Services Company, serving technology startups as well as mid-size to large corporations. We offer a flexible blend of onsite, offsite and offshore services from our eight global delivery centers with over 2000 software professionals. Xoriant has deep client relationships spanning over 25 years with various clients ranging from startups to Fortune 100 companies.