In-Car Ad Solution For

ENHANCED PASSENGER EXPERIENCE

The implementation opened up a new avenue for monetization with a tablet-based entertainment system for rideshare vehicles.

Overview

An in-car advertisement solution tailored for rideshare and transportation network companies. The solution uses a kiosk-like tablet device to display engaging content and ads to passengers during rides. The solution enhances passenger experience leading to increased loyalty while providing a cost-effective way for advertisers to reach a highly targeted audience.

Client Profile

Leading telecommunications company that provides wireless voice and data services to customers in the United States.

Business Requirements

The client wanted a scalable and resilient tablet application that operates in kiosk mode and enhances rideshare experience.

- ◆ Develop an admin dashboard for managing creatives and ad sets

- ◆ Develop backend infrastructure and enable data extraction capabilities for analytics
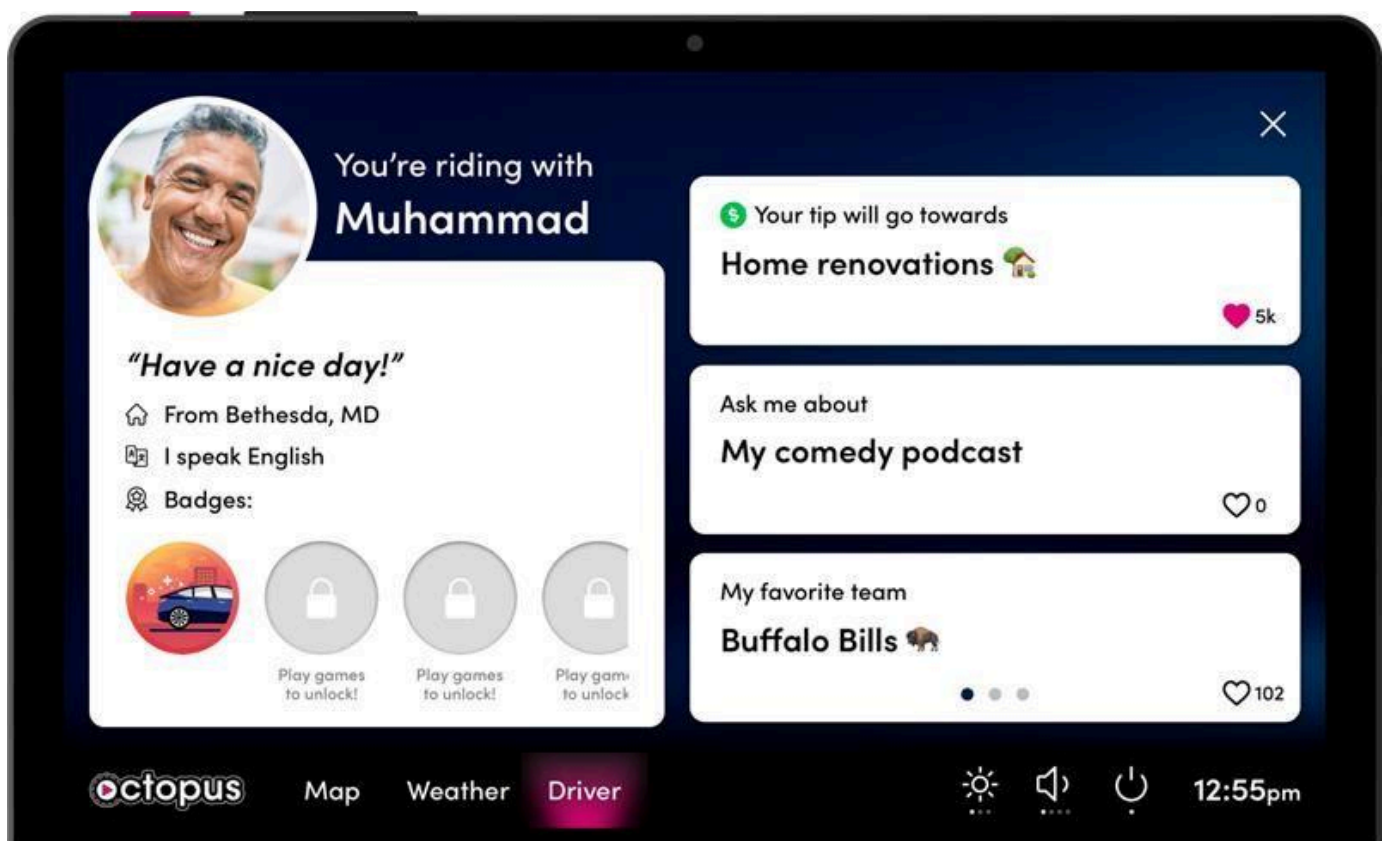
QBurst Solutions

The application operates in kiosk mode by utilizing Mobile Device Management (MDM). This prevents users from exiting the app and using the device for personal use. Upon launch, drivers can enter their registered email and tablet ID to log into the app. This validates the information with the backend.

After successful login, the app plays the default ad set and retrieves driver-specific data from the backend. Once the default ad set ends, the app checks for completed data fetches and plays user-specific ad sets. At the end of each ad set, the app sends a location/data ping to the backend for user engagement tracking and displays a leaderboard to the rider.

The internal admin dashboard is a content management application that enables CRUD (create, read, update, delete) functionality for the app.

Technical Highlights

- Django and PostgreSQL deployed into EC2 instances with autoscaling enabled for multi-zone deployment

- Incorporated Datadog and New Relic to ensure performance and uptime

- REST APIs for tablet application, internal admin site, driver dashboard, advertiser dashboard, and analytics engine

- Implemented ETLs to export data to the snowflake warehouse for analytics

- Tensorflow integration for rider detection

- Asynchronous jobs for cache mechanism and ETL

- Third-party advertising integrations supporting multiple SSPs

- Game scorecard integration using Stats Perform API

Key Features

Tablet application

- Offers live games including real-time trivia, daily giveaways, and cash prizes

- Displays driver profiles, weather, and other location-specific information

- Features engaging interactive ads

Internal admin dashboard

- Add/edit new video ads, games, and trivia game questions

- Create and manage ad sets and assign them to different tablets

- Create entry against orders placed by advertisers to determine placement and timing of ads

Technologies

- Android SDK
- Angular 10
- Nginx
- AWS DynamoDB
- CloudWatch
- Java
- Django
- PostgreSQL
- EC2

Business Benefits

- Added revenue stream: The advertising solution created a new revenue stream for ridesharing companies and drivers by enabling them to monetize the tablets installed in vehicles.

- Increased customer engagement: Interactive games and engaging content increased customer engagement and satisfaction, leading to higher ratings for drivers.

- Improved brand awareness: The advertisements displayed on the tablets improved brand awareness for the advertisers, leading to increased sales.

- Enhanced customer targeting: Targeted ads based on demographics, location, and other criteria improved the effectiveness of advertising campaigns.

- Increased operational efficiency: The internal admin dashboard and backend functionalities helped streamline operations and made it easier to manage advertisements across multiple vehicles and locations.