

Geospatial Targeting

Overview:

The client for this project wanted a native app developed which would enable its subscribers to promote and advertise, anything that they have to offer to their customers, using web service and beacon technology. This app can be used quite effectively in exhibitions, fairs, professional events, retail stores etc. The app has two types of users – subscribers and end-customers. The subscribers make use of the web server and choose from the list of rich, friendly user interfaces available to push the content that they desire, and in a format of their choice, into the screens of their customers using location based technology offered by beacons. The team at Mindfire developed the android and the iOS version of the application.

Client details:

Name: Confidential | **Type:** Events Services | **Location:** USA

Technologies:

iOS SDK 8.0 to 10, BLE (Beacons), Google AdMob, Android SDK 15.0 to 25.0

Project Description:

The project involved developing a native mobile application that leveraged an existing web service along with location/micro-location based technology to produce accurate, rich, friendly and informative user interfaces to its end users. The geospatial targeting is enabled using beacons which define hotspots that can be discovered by mobiles. Based on the discovered hotspot identification a valid call to a web service results in return of a specific layout and content data that is used by the application for the corresponding mobile UI presentation.

Description of Features

Map Activity Screen

This is the screen a user lands into after launching the application. The user then has the option to navigate to the following screens:

- Settings: To Enable/Disable notifications/logs from Gimbal
- Logs: View activity logs based on the user's visits/exits to/from a place
- Content Home: Screen where the place specific data is shown to the user

The user cannot access the "Content Home Section" unless the user has a valid visit to a place where the beacons are already installed. On successfully visiting the place, the icons on the Map Activity Screen change accordingly and the user has the option to load the content home.

Content Home

Content Home has the ability to support seven themes. The subscriber has the discretion to choose from the list available by sharing the required information in the webserver.

It contains the following sections:

- Home Section: Contains 3 levels, namely top level, sub level and detail level for displaying content of the entire place.
- Bookmark Section: Contains 3 levels, namely top level, sub level and detail level for displaying only the bookmarked items of the place.
- Menu Section: All menu items can be accessed from navigation drawer. Each menu item is displayed in a WebView.
- Contact Us: Contact Details are listed on this page.
- Search Section: All entities displayed in the place can be searched and accessed via this section.

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- Advertisements: Native as well as Google admob advertisements get displayed across the application.

The media files across these sections have the ability to be played automatically when tapped. On being done the same, the images appear in an enlarged manner.

Beacon Interactions

This service is always running in the background and notifies the application with beacon communications. On receiving the notification from the beacons, the application then navigates the user to the targeted detail item from the initially received list of entities. Beacon callbacks help in starting a fresh session, ending session and updating the UI.

Detail Sections

This section is independent of the theme received from server. The section has the ability to expand/collapse the sub sections based on the following:

- User Taps and Selections in Bookmarks
- Beacon Triggers

The files in this section are auto played only when the user is viewing this section.

Notification Handling

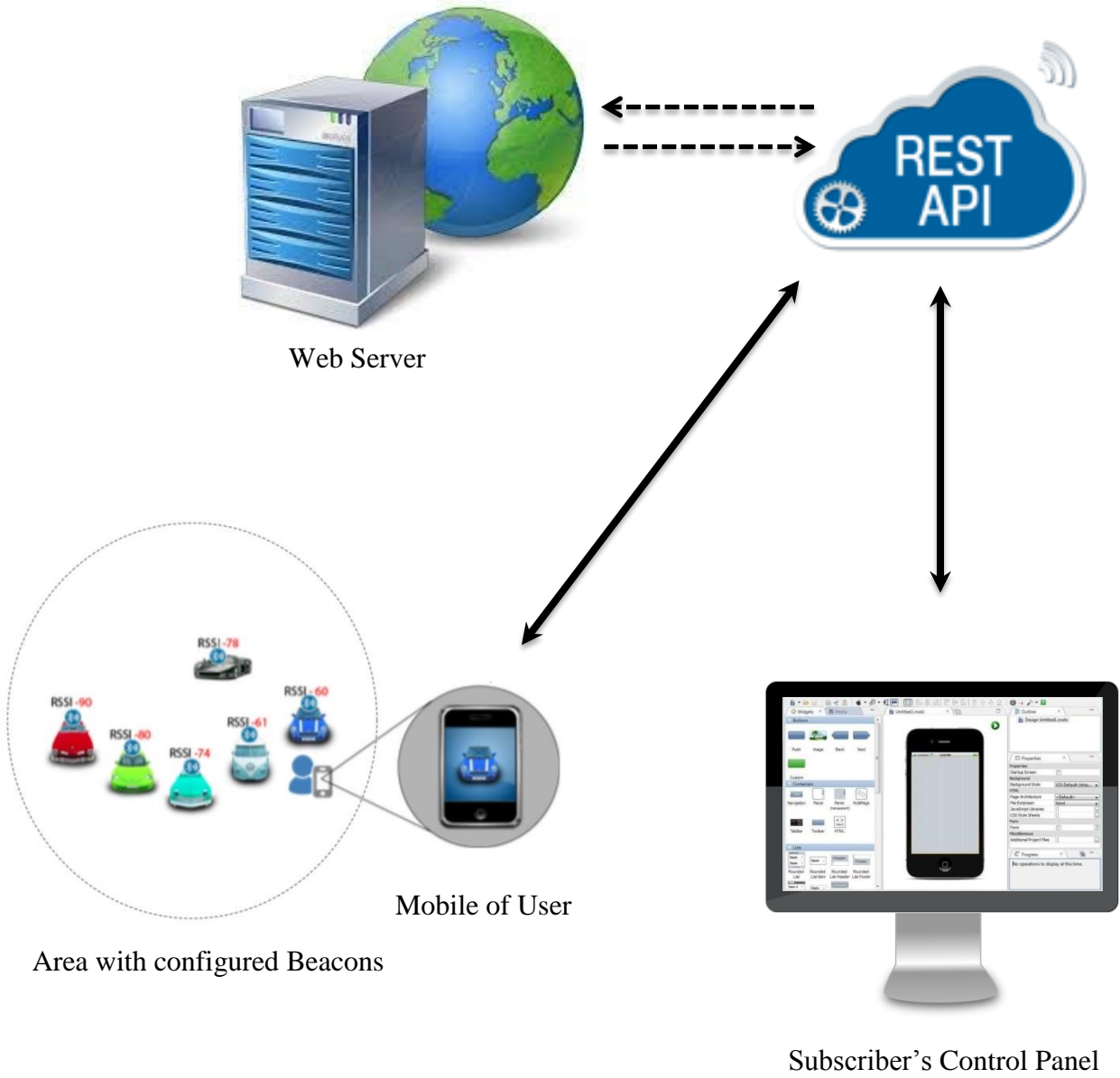
Local notifications are generated by the Gimbal SDK whenever set from the server. This posts the content on the notification drawer of a user's device, granting the user the ability to launch the application from the notifications. These can be enabled/disabled from the settings screen.

Breadcrumb Logs

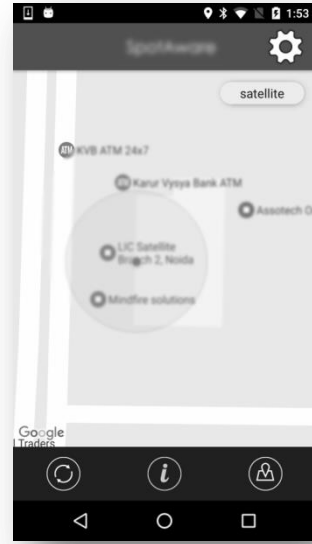
The application stores the logs of visit and exit events generated by the Gimbal SDK. These can be enabled/disabled from the settings screen.

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Architecture:



Screen Shots:



Map Activity Screens

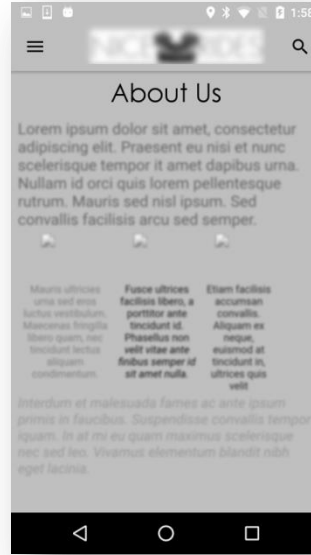


Home Section Screens

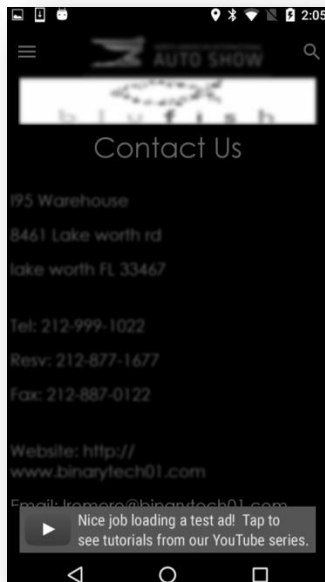
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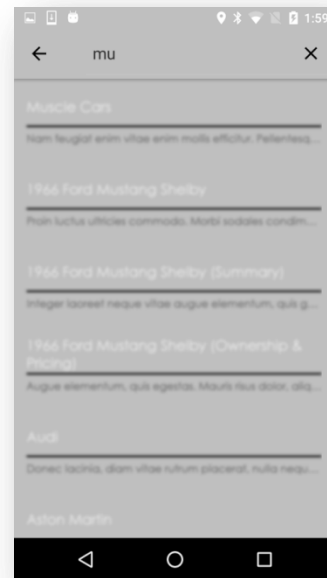
Bookmark Section



Menu Section

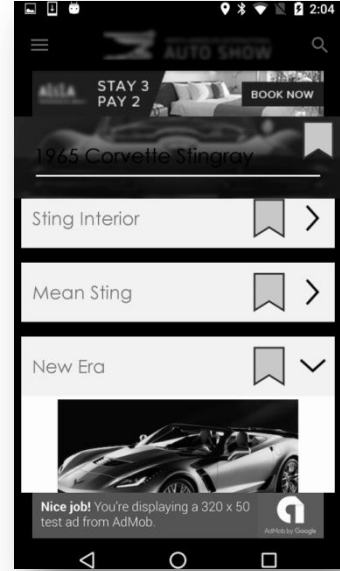
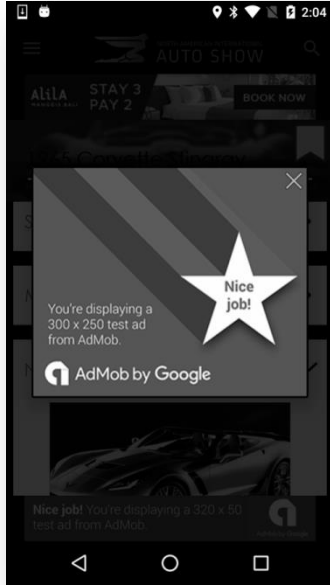


Contact us Section



Search Section

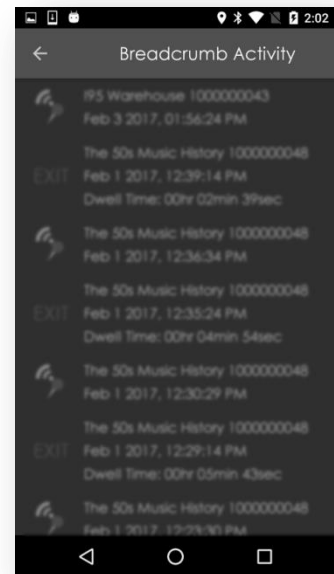
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Advertisement Section Screens



Detail Section



Breadcrumb Log