



Cygnets **Infotech**  
It is about you



# Beacon Mobile Application For Museums

With Extensive In-House Location Based Features

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## Client Profile

Navjivan Trust is a renowned publication house which was founded by the great Mahatma Gandhi in the year 1929. They have published 800 titles in multiple languages based on the Gandhism with a motive to keep the principles of Gandhi alive. Apart from publication, they also manage a museum to preserve and display

## Business Scenario

The Museum that Navjivan Trust runs is visited by around 7,00,000 visitors from across the world. The museum preserves and displays various content related to Gandhi's life such as his Personal relics, 34,117 letters (Originals and Photostats) and 35,000+ books related to his life and teachings. The premise of the Museum is large along with four sites called "Nandini", "Vinoba Kutir", "Upasana Mandir" and "Magan Niwas". The Museum has various picture galleries like "My Life is My Message", "Gandhi in Ahmedabad" and "Life-size oil painting".

With such a large premise and repository, Navjivan Trust wanted to enhance the experience of the visitors and also wished to encourage the Gandhian learning amongst the youth of this generation. They have been funding various activities to educate the visitors but with such large premise and high number of footfall, doing justice to each and every visitor was a big challenge. Also, communicating the on-going activities like seminars, audio tours, educational events was a challenging task. With such scenario, they approached Cygnet to develop a technology that fulfilled their following requirements:

- To educate the visitors with relevant information about the place and artifact as they visit
- To notify the visitors about the on-going activities across various premises
- To guide visitors about the near-by events and exhibitions
- Enable in-house navigation

# MOBILE APPLICATION INTEGRATED WITH THE BLE DEVICES TO ENHANCE THE EXPERIENCE OF MUSEUM VISITORS



## IoT Based Mobile Application For Android And iOS Platform

# Cygnnet's Solution

Cygnnet offered a scalable Android and iOS (iphone & ipad) mobile application integrated with the BLE (along with accelerometer and temperature sensor) devices also known as Beacons with real-time in-house GPS tracking, continuous advertising and push-notifications enabled with geo-fencing.

Following are features of the solution developed by the team of 4 expert Mobile Application Engineers:

## Prompts

Visitors were provided with notification on their smartphones when they came in immediate proximity of the beacon. The notification was about the content related to the artifact that they are visiting. The pop-up of the content was aligned with the minor UUID of the Beacon.

## Push Notifications

The visitors were also informed of the near-by attractions and on-going events using the Near and Far TxPower range of the beacon using push notifications and display screens. Each and every event and attractions were aligned with the major UUIDs of the Beacon.

## GPS Tour Guide

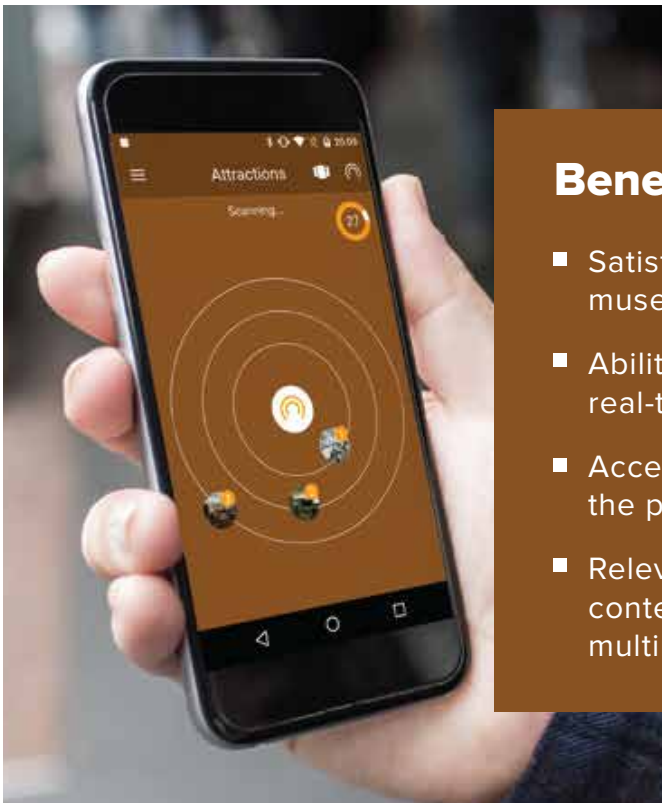
Complete floor plan of the museum was developed using the Beacons and it was used to navigate the visitors to the different places in the Museum. Also, it was used to align the audio tour of the museum along with various multimedia contents.

## Donations

The application can also accept donations from various visitors with multiple payment options like PayPal, PayU, PayTM, using the Payment Gateway Integration.

## Easy-to-use Content Management System (CMS):

To educate the visitors with relevant information and to help them aggregate their visit experience even when they are off the premise, relevant articles and galleries were integrated into the mobile application using the Custom CMS. The UX of the application was made simple using Angular JS and NodeJS so that users can easily manage their content the way they find convenient.



## Benefits to the End Users

- Satisfactory and interactive experience of the museum
- Ability to locate near-by activities and events in real-time
- Access to the content of the museum on and off the premise
- Relevant and additional information about the content of the museum with audio-tours and multimedia contents

## Benefits to the Client

- Using Beacons enabled client to provide cost-effective in-house location based facilities to the visitors
- Technology enabled client to provide interactive and unified experience to their visitors
- Client was able to communicate with each and every visitor both on and off the premises
- The application also boosted donations by 15%
- Museum had 20% more footfall due to positive word of mouth and appropriate communication of events and promotional activities



## Tools and Technology



iOS and Android



Angular 2



Node.JS



MySQL DB

# App Screens



# About Cygnet

Cygnet Infotech is one of the most trusted names in the IT space delivering technology solutions to global clients across 35 countries. Born out of a vision to create software development company where quality, innovation and personalized services trump low cost, makeshift solution, Cygnet partners with its client to help them transform in to high performance businesses.

Cygnet has deep industry and business process expertise, global resources and a proven track record in delivering innovative technology solutions. Cygnet can mobilize the right people, skills and technologies that improves business performance.

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Founded in 2000,  
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900+ Employees  
Delivered 2000+  
Projects



18 Years of Experience  
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in 35 countries



95% Client Retention



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