

# The Definitive Guide to Beacon Pilots

---

The How, What, Why  
Answered





I

## Beacons in Retail

- Retailers using beacons
- 5 questions to answer before getting started with beacons
- How to create a trial beacon campaign for your retail store
- 10 campaign ideas

3



II

## Beacons in Events

- Events using beacons
- 5 questions to answer before getting started with beacons
- How to create a trial beacon campaign for your event
- 10 campaign ideas

12

III

## Beacons in Outdoor Venues

- Outdoor venues using beacons
- 5 questions to answer before getting started with beacons
- How to create a trial beacon campaign at your venue
- 10 campaign ideas

21

IV

## Beacons in Museums

- Museums using beacons
- 5 questions to answer before getting started with beacons
- How to create a trial beacon campaign for your museum
- 10 campaign ideas

32

V

## Beacons in Hotels & Restaurants

- Hotels & Restaurants using beacons
- 5 questions to answer before getting started with beacons
- How to create a trial beacon campaign for your restaurant
- 10 campaign ideas

42



A woman with blonde hair, wearing a light-colored coat over a grey hoodie, is looking up at a clothing rack filled with various garments. The background shows shelves with more items, creating a retail environment.

# Beacons in Retail

The retail sector has been one of the early adopters of iBeacon technology. Many major retailers such as Macy's and Lord & Taylor have already deployed beacons in a majority of their stores after successful pilot programs. By 2016, 85% of major retailers in the US will be using beacons in their stores. Here is a list of beacon deployments by major retailers.

## 1. Macy's

After beacon trials in New York and San Francisco, Macy's has now deployed 4000 beacons across its various stores in the US. The retail chain took the third-party app route so that anyone with the partner app on their phone will receive the currently available promotions, deals or discounts.

Macy's enabled 150,000 associates in 45 states across the country with iPhones or iTouches for increased access to information about customers in-store, allowing them to better meet each customer's needs.

Future plans: Tracking and targeting someone who came to the store but didn't buy anything.



Lord & Taylor saw a 60 percent engagement rate with its beacon marketing program.



## 2. Lord & Taylor

Lord & Taylor deployed beacons in seven departments in its Boston store with individualized campaigns. As customers enter the store, they receive a message on their smartphone welcoming them. They are also asked if they would like to opt in to receive further messages. The company has currently deployed 10 beacons per store.

Contd...

### **3. American Eagle Outfitter**

American Eagle Outfitters also took the third party route with beacons. The company placed beacons at the front entrance and in dressing rooms. When a customer with the partner app enters the store, the beacon senses their smartphone's presence via Bluetooth and notifies them about possible rewards for trying on clothes. Then, the beacon in each fitting room determines if a customer has approached it, and awards points accordingly.

More than 10,000 customers took part in this trial. To ensure that only interested customers received offers, the company provided the option to easily disable notifications.

Future plans: Use beacons to connect to customers through American Eagle's own app.

### **4. Regent Street**

Regent Street has become a leader in the use of iBeacon technology with 130 stores installing beacons at their entrances. Shoppers can select the type of information they would like to receive. The technology also allows brands to build a detailed profile of customers who redeem online special offers, respond to mobile advertising and actually enter the physical stores.

### **5. House of Fraser**

House of Fraser chose to trial beacons in their stores last year by creating smart mannequins. This enabled them to send offers to shoppers' mobile phones as they walk past the mannequins. The beacons placed in the mannequins communicate information such as the price of the clothes the mannequin is wearing, a link to purchase the item in-app as well as its location within the store.

#### **QUICK STAT**

One-third of the Top 100 retailers in the United States will have deployed at least some beacons this year, according to Business Insider.

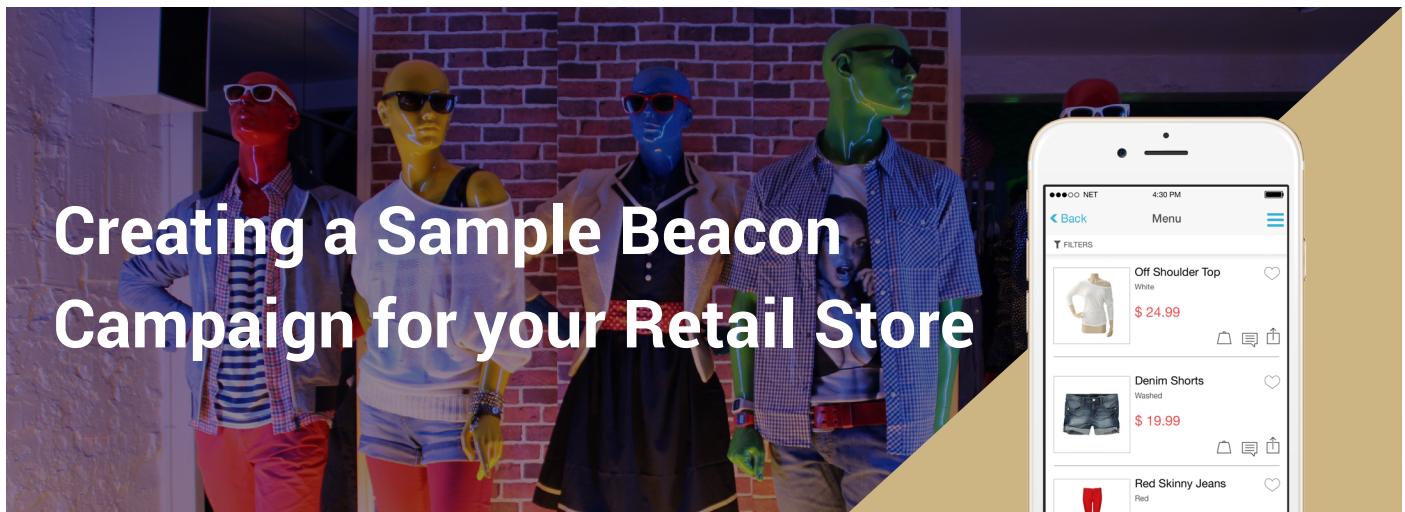
Future Plans: Focus on tailoring the in-store experience and making it more convenient for consumers.

# QUESTIONS TO ANSWER BEFORE GETTING STARTED WITH BEACONS IN YOUR RETAIL STORE

If you're looking to get started with beacons in your store, the first step would be to understand the use cases that benefit you and your customers.

- 1 How do your customers shop?
- 2 What kind of messages are your customers looking for?
- 3 How seamless is the experience that you currently offer across channels (i.e. website, mobile, etc.)?
- 4 What do you want to measure using beacons? This can include things like demographic breakdowns, bounce rates, and even customer movements to create heat maps that enhance store layouts.
- 5 How do you wish to identify and reward returning customers?





# Creating a Sample Beacon Campaign for your Retail Store

Let's create a sample campaign that turns your store mannequins into 'smart mannequins'. These 'smart mannequins' will detect when a user is close-by (in-store or looking at a window display) and provide them with information about the various brands displayed on the mannequins, such as their in-store location and any related offers.

The campaign requires the mannequins to send out a message about the clothes and accessories on it after a customer spends more than 10 seconds near it.

Here's how you set this up in the Beaconstac dashboard:

## Step 1: Add Beacons to the dashboard

The first thing to do is purchase a beacon and add its major and minor number in the dashboard. If you're using more than one beacon, you can import the beacon IDs into the dashboard automatically.

Beacons are small Bluetooth Low Energy based transmitters that can help with detecting proximity and manage messaging in an indoor environment.

Add a new Beacon

NAME	MAJOR #	MINOR #
Blue	7957	13962
Green	17688	45752

## Step 2: Add Rules based on your requirements

Once done, you need to create a simple rule about when this beacon needs to trigger an action. We are going to set this as “on Entry” after 10 seconds, which means that if a customer spends more than 10 seconds near the beacon, the below mentioned action will be triggered.

**Compose rule**

A "rule" allows you to define a set of conditions that have to be fulfilled for an action to be performed.

**RULE NAME**

Mannequin 1 - Denim Chic Look

**BEACON**

Blue ▾ Add a new beacon

**TRIGGER ON** ENTRY      **AFTER** 10 seconds

## Step 3: Create Cards

Next, we'll create a card that the user will see on his or her device. Cards are basically creatives that show up as notifications on the user's mobile phone. Beaconstac offers several types of cards such as Summary, Photo and Media. I'll choose Summary cards for this campaign since it gives me the option of adding some text to describe the item.

Cards / Get the look: Denim Shorts

**TYPE**

Summary Card Photo Card Media Card Page

The Summary Card can be used for many kind of web content, posts and news articles, to productsand restaurants.

Cards / Get the look: Denim Shorts

**TYPE**

- Summary Card
- Photo Card
- Media Card
- Page

The Summary Card can be used for many kind of web content, from blog posts and news articles, to products and restaurants.

**TITLE**

**BODY**

These chic rolled up shorts were made for sunny afternoons by the pool.

20% OFF Today!

**IMAGE**

Browse file...
Add from gallery

• denim\_shorts\_square.png uploaded successfully ×

SAVE

Here are all the cards created and ready to be used:

TITLE	TYPE	TAGS
Get the look: Denim Shorts	Summary card	0
Get the look: Off Shoulder Top	Summary card	0
Get the look: Red Skinny Jeans	Summary card	0

## Step 4: Set Actions to be triggered

After this, we'll add the action to be triggered when the rule is true. In our case, this involves sending the details of the Off Shoulder Top, Denim Shorts and Skinny Jeans.

Contd...

## Set Actions

An action is what you want Beaconstac to do when the conditions of a rule are met. Think of it as 'if **conditions** then **action**'

### ACTION NAME

Denim Chic



### ACTION TYPE

Cards

Get the look: Off Shoulder Top



### ACTION NAME

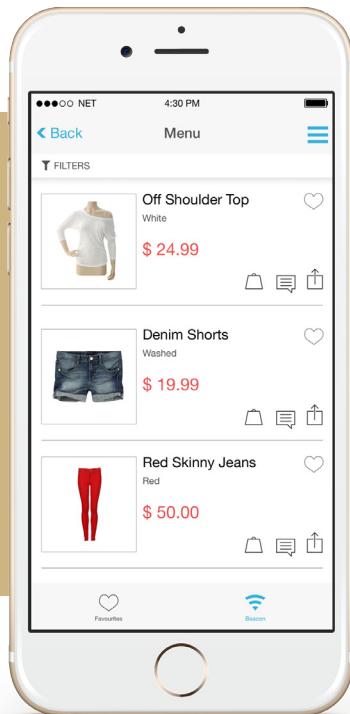
Denim Chic



### ACTION TYPE

Cards

Get the look: Denim Shorts



## And voilà! We're done.

You can now make the campaign live and see it in action.

When a user approaches the mannequin and stands near it for 10 seconds, they will receive the notification shown here.

# 10 beacon campaign ideas



- 1 Install beacons in specific sections of the store to send promotional offers based on how much time a customer spends in that section.
- 2 Use beacons at the entrance of the store to send promotional offers to customers passing by the store.
- 3 Use geofencing to keep a customer's order ready just before they arrive when they opt for in-store pickup.
- 4 Place beacons near dressing rooms to offer targeted sales and rewards points for trying on clothes.
- 5 Use beacons near check-out to send offers to customers while they wait in line.
- 6 Track employee coverage of the sales floor through beacon-enabled applications.
- 7 Remind customers of their loyalty points accumulated so far.
- 8 Alert customers about items in their online cart or wish list that are available in a nearby store.
- 9 Offer in-app product finders to locate products in-store.
- 10 Allow customers to reach out to the sales staff from within the app.



# Beacons in Events

Beacons provide event managers an opportunity to engage with attendees and to personalise their conference experience. You can use beacons to streamline the registration process, collect session feedback, help attendees navigate through the venue and much more. We've put together a list of events that are using beacons to provide attendees a great experience.

## 1. SXSW

At SXSW 2014, beacons were deployed at strategic locations within the venue to enable their attendees to gain easy and quick access inside. To enable this, the event organizers pushed Registration Quick Codes via notifications to the mobile phones of their attendees when they were in the vicinity of the SXSW registration area. In 2015, the event went a step ahead and deployed 1000+ beacons to allow attendees to network better. Beacons allowed audience members to know who else was attending a session and to get involved in conversations with other participants through the mobile app.

## 2. Cannes Lion Film Festival

In 2014, Cannes Lion Film Festival leveraged beacons to make it easier for attendees to instantly spot, connect with and message influencers around them. The goal of the app was to offer attendees a personalized experience featuring relevant content and meetups with like-minded event-goers. In 2015, the event used beacon-enabled apps to detect attendees and auto-favorite a session when they stayed for at least 15 minutes. Additionally, the app also added a social discovery element by using LinkedIn to show you if any of your contacts also liked the same session as you did. Moreover, iBeacons were used to offer session recommendations based on user profiles and preferences to offer a more personalized experience.

## 3. Consumer Electronics Show (CES) 2014

One of the best examples of gamifying events is the iBeacon-powered Scavenger Hunt at CES 2014. Users were directed to the instructions page after downloading the CES 2014 mobile app on their phone. The hunt encouraged them to explore the most important exhibits at the show, while collecting badges from each beacon that they encountered. Rewards were given to the first three users who collected the entire list of badges shown on the screen.

## 4. Chicago Auto Show 2015

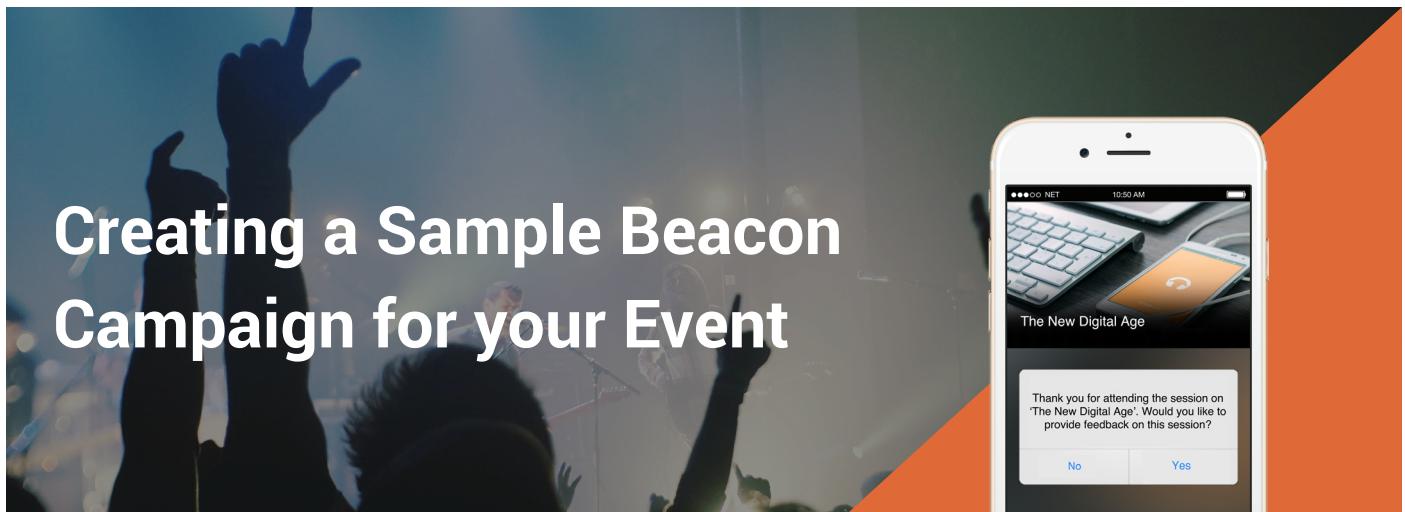
This year's Chicago Auto Show used beacon technology to engage attendees and to provide show organizers and exhibitors detailed tracking information about showgoers. Beacons were installed on the show floor and interacted both passively and actively with the app to provide an interactive consumer experience. For one, attendees received push notifications designed to keep them informed about breaking events and appearances. They were also greeted with personalized messages as they approached new concept cars or vehicles eligible for best of show and offered discounts and rewards as they crossed into new zones.

# QUESTIONS TO ANSWER BEFORE GETTING STARTED WITH BEACONS AT YOUR EVENT

Before you decide to use beacons at your event, the first step would be to understand the use cases that benefit you and your event attendees.

- 1 Where do you expect the most visitors to go? Are there any “hotspots” at your event?
- 2 What kind of devices do you expect your attendees to carry? All Apple devices using iOS7 are compatible with iBeacon, but Android devices must use version 4.3 or higher.
- 3 Is it an indoor or outdoor event? The beacon hardware you choose will depend on this.
- 4 How large is your event venue? How many beacons do you need to make your event more interactive?
- 5 How frequently should you engage attendees with beacons?





The objective of this campaign is to prompt attendees of a session to submit their feedback when a session is about to end. Let's take a dummy session called 'The New Digital Age' as an example. The session is scheduled between 10 AM to 11 AM at the central auditorium. We will prompt the attendees for feedback towards the end of the session between 10:50 AM to 11:10 AM.

## Step 1: Add Beacons to the dashboard and install them at the event venue

---

Before we begin, the first thing to do is to purchase a couple of beacons. Once you have your beacons, add their details such as UUID, major and minor numbers, to the Beaconstac dashboard, as shown in the image below. You can also name the beacons for easy identification. For the purpose of this campaign, I have named the beacon as 'Central Auditorium' after the auditorium where it will be placed. Once you have added beacon details, they are ready to be installed.

Beacons are small Bluetooth Low Energy based transmitters that can help with detecting proximity and manage messaging in an indoor environment.

Add a new Beacon

NAME	MAJOR #	MINOR #
Central Auditorium	17688	45752

## Step 2: Add Rules

---

After installing, all we have to do is create a rule for the beacon placed in the auditorium so that it triggers the feedback notification at the required time.

**Compose rule**

A "rule" allows you to define a set of conditions that have to be fulfilled for an action to be performed.

**RULE NAME**  
Mannequin 1 - Denim Chic Look

**BEACON**  
Blue ▾ [Add a new beacon](#)

**TRIGGER ON** [ENTRY](#) **AFTER** [?](#) **10** seconds

## Step 3: Create Custom Attributes

---

Next, we need to add a custom attribute which will determine which users will qualify to receive the notification. Custom attributes can be used to filter users based on criteria such as dwell time, registration status, etc.

Here we are creating two custom attributes called 'Time of day' and 'Registration status'. Users who are present in the auditorium will be prompted to give their feedback on a session towards the end.

Contd...

SET FILTERS WITH CUSTOM ATTRIBUTES

You can use attributes such as age, gender, reward points from your enterprise system or third-party system to define rules.

Create a custom attribute 

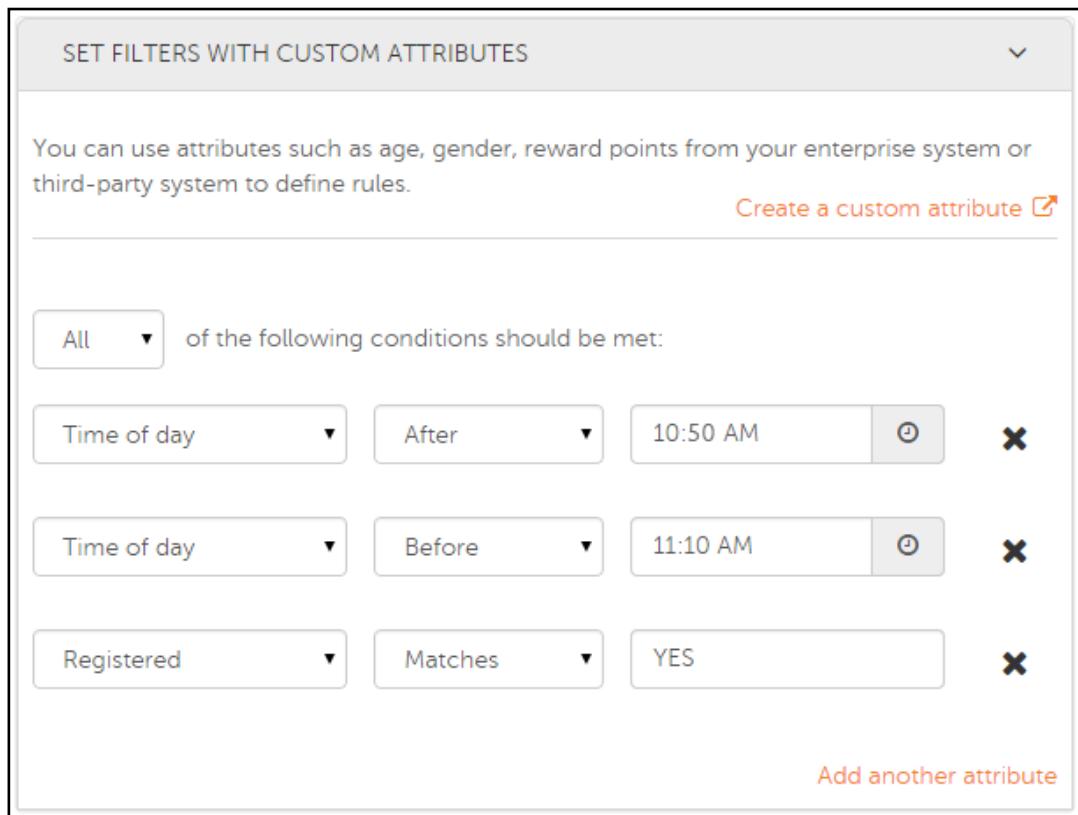
All of the following conditions should be met:

Time of day After 10:50 AM 

Time of day Before 11:10 AM 

Registered Matches YES 

Add another attribute



## Step 4: Set Actions

After this, we'll add the action to be triggered when the rule is true. Here, the action is to trigger the session feedback survey webpage. Besides this, it is also possible to direct people to a custom action type within the app.

Set Actions

An action is what you want Beaconstac to do when the conditions of a rule are met. Think of it as 'if conditions then action'

ACTION NAME 

Feedback Form

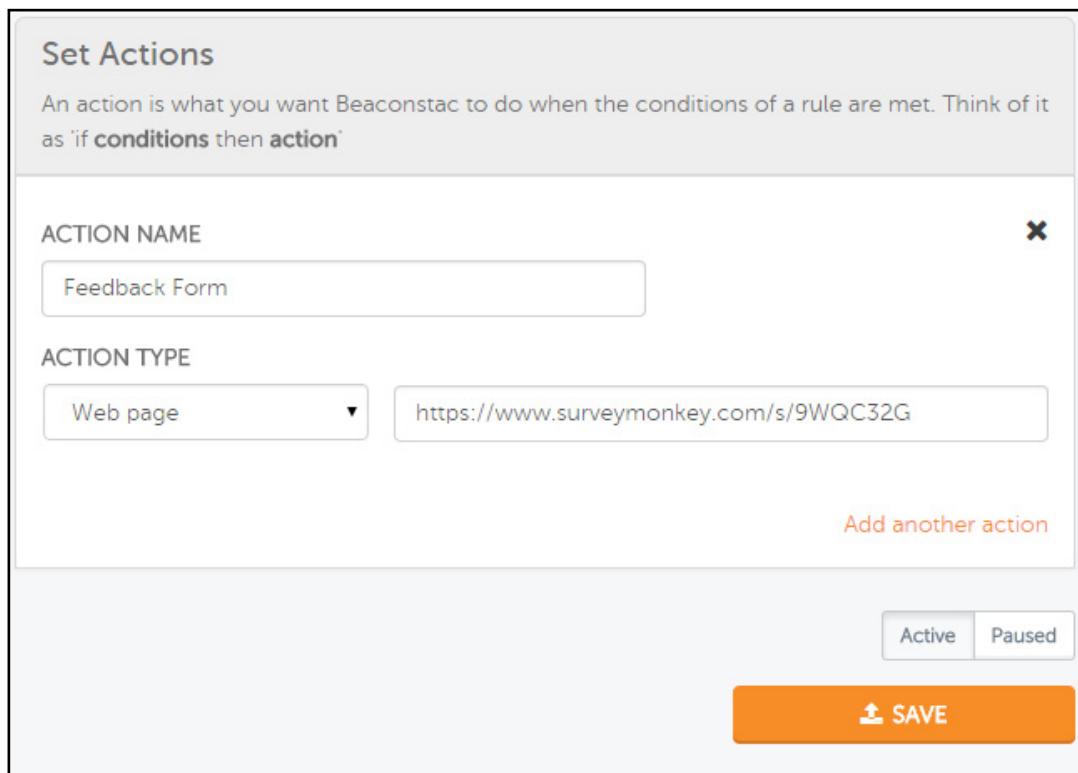
ACTION TYPE 

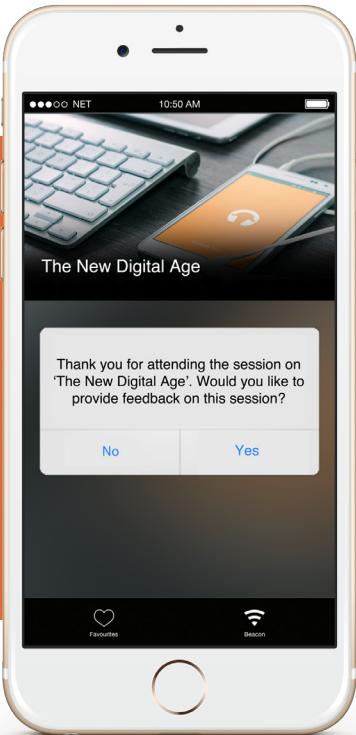
Web page https://www.surveymonkey.com/s/9WQC32G

Add another action

Active Paused







## That's it! We're ready.

Here's the notification that will pop up on the app screen between 10:50 AM and 11:10 AM if a user who has registered for the session is within the proximity of the beacon (i.e attending the session in the auditorium).

# 10 beacon campaign ideas



- 1 Send targeted messages when attendees approach a particular booth.
- 2 Gather real-time session feedback.
- 3 Reward attendees for attending specific sessions.
- 4 Hold beacon-powered scavenger hunts to engage attendees.
- 5 Provide opportunities for people to connect and network at the event based off their digital profiles.
- 6 Gather analytics such as exhibit popularity, average footfall and heat maps of event venues.
- 7 Streamline event registration by sending attendees registration links upon entry.
- 8 Direct event attendees to restrooms and other important locations via floor maps and indoor directions.
- 9 Engage people waiting in line with interactive content and special offers.
- 10 Push helpful instructions to attendees at charging stations, product displays and other key points of the event venue.



# Beacons in Outdoor Venues

Though beacons are often known for their use cases in retail stores and indoor events, they also have the powerful potential to transform large outdoor spaces into interactive, context-aware environments. Beacon technology can bring anything from stadiums to concert venues to public parks to life through interactive content, targeted promotional offers, navigation assistance and more!

## 1. Major League Baseball

MLB recently worked with Apple to integrate the iBeacon indoor mapping technology in iOS 7 to customize its 'At the Ballpark' app in order to provide app users with an interactive game-watching experience at the stadium. MLB installed iBeacons at 20 ballparks around the U.S. to offer spectators using iOS relevant contextual information during the 2014 MLB season. For example, when a user loads the app on his or her way to the stadium, it immediately identifies the stadium he is heading towards and begins sending stadium-specific information. Once he is near the entrance, it displays the barcode of his ticket and directs him to his seat via a map while highlighting the nearby points of interest. If he had purchased his tickets online using Apple Passbook, the app can even pull them up automatically.

## 2. NFL

NFL recently leveraged beacons to make a big push into geo-targeted mobile advertisements at the Super Bowl, one of America's most watched sports event every year. They initially installed beacons at the MetLife Stadium and New York's Times Square where the game was being played and used the NFL's mobile app to send notifications and personalized ads to reach out to potential shoppers during the big game. The location-based notifications sent by these beacons contained messages directing users to merchandise, NFL exhibits, and shorter concessions lines.

## 3. Wimbledon

Wimbledon organizers have begun beacon trials at nearby metro stations to communicate important information to attendees of the tennis mega-event. People with the Wimbledon app on their device who walk by these beacons will receive match times and schedules as well as directions to the stadium based on whether they have a ticket or not.

## 4. Bonnaroo Music Festival

Bonnaroo, an annual four day music festival held in Tennessee that draws up to 80,000 attendees every year, recently deployed 100 beacons at the campgrounds and entryways of the event. However, the manner in which they used iBeacon technology is a great lesson to many brands out there. Instead of pushing offers or deals, they used beacons to create an enhanced interactive experience for their visitors with non-intrusive proximity-based messaging.

### QUICK STAT

In 2014, the Bonnaroo music festival saw attendees spend 102 minutes interacting with content via beacons.

## 5. Los Angeles Zoo and Botanical Gardens

Drawing 1.6 million visitors each year, the LA zoo recently deployed beacons to revolutionize the way visitors interact and learn about animals in their natural habitat. They leverage their mobile app called 'Rainforest of the Americas' to unlock interactive content in a diverse range of formats, including detailed animal and habitat information, informational audio, and high-resolution images as the visitors move throughout the zoo. Moreover, the app also allows visitors to take the content home with them, creating a strong customer relationship with the Zoo that extends beyond their visit to the park.

## 6. Fluwel Tulpenland

Fluwel's Tulpenland (Tulip Land), a theme park that specializes in displaying Dutch tulips, recently adopted iBeacon technology to help visitors navigate through the park by directing them to other interactive locations. In order to more deeply engage visitors, the park's app presents quiz questions that customers can earn automatic rewards for correctly answering and also provides additional educational content for those interested in learning more.

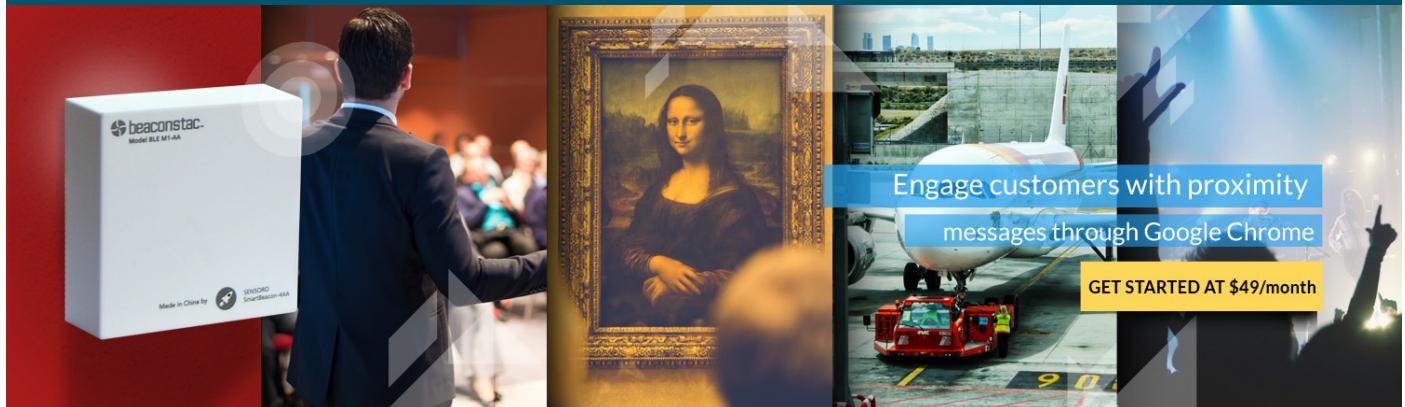
## 7. Golden State Warriors

The Golden State Warriors, an American basketball team based in Oakland, California, successfully completed a full-scale beacon deployment in Oracle Arena to better connect with fans. They have placed beacons at the entrance, which trigger welcome messages and exclusive content in their mobile app, as well as beacons at the top of the escalator to offer seat upgrades.

# QUESTIONS TO ANSWER BEFORE GETTING STARTED WITH BEACONS AT YOUR EVENT

Before you decide to use beacons at your event, the first step would be to understand the use cases that benefit you and your event attendees.

- 1 Will users already have downloaded your app? If not, what are some strategies to build an app audience?
- 2 What types of content (i.e. athlete stats, concert info, etc.) will enhance the user's experience at your outdoor event?
- 3 How can you integrate beacon technology with location services (GPS) to enhance an attendee's experience at your outdoor event?
- 4 How large is your outdoor space? If it's large, are there any "hotspots" where you should definitely place beacons?
- 5 How can you reward loyal customers (i.e. season ticket holders, frequent concert-goers, etc.) through your beacon campaign?





# Creating a Sample Beacon Campaign for your Outdoor Event

Let's create a sample campaign that allows you to upsell tickets to frequent visitors of a basketball stadium. Beacons placed at the entrance of various sections of the stadium will trigger a discounted upgrade offer for courtside seats to ticket holders in those sections who have been to at least 10 games in the last month.

## Step 1: Add Beacons to the dashboard

The first thing to do is to purchase a beacon and add its major and minor number in the dashboard. For a standard basketball stadium we recommend using at least 25 - 30 beacons to get the most coverage as possible. In use cases such as this with several beacons, you can import all of the beacon IDs into the dashboard automatically.

For the simplicity of this campaign, let's say there are two entrances to the stadium, each with their own beacon. We will name these 'Section 1 - Entry' and 'Section 2 - Entry', respectively. Once you have added the beacon details, they are ready to be installed.

Beacons are small Bluetooth Low Energy based transmitters that can help with detecting proximity and manage messaging in an indoor environment.

Add a new Beacon

Name	Major	Minor
Section 1 - Entry	7957	13962
Section 2 - Entry	17688	45752

## Step 2: Create Cards

Next, we'll create a card for the upgrade offer that the visitor will see on his or her device. Cards are basically creatives that show up as notifications on the user's mobile phone. Beaconstac offers several types of cards such as Summary, Photo and Media.

I'll choose a Summary Card for this campaign since allows you to add text in addition to your offer. I will name the card 'Courtside Seats' because the upsell offer is for discounted courtside seats.

The screenshot shows the 'Cards / Courtside Seats' section of the Beaconstac interface. It includes fields for TYPE (Summary Card selected), TITLE ('Want a better view of the game?'), BODY ('We are offering you a special upgrade to courtside seats for tonight's game for an additional \$50 only.'), TAGS, IMAGE (with options to 'Browse file...' or 'Add from gallery'), and a preview of the card on a smartphone. The card itself features the mobstac logo, the title 'Want a better view of the game?', the body text, and buttons for 'Dismiss' and 'Redeem'.

## Step 3: Create Tags

This is a great use case of Tags, which allow you to assign the same set of rules/actions to multiple different beacons.

To create a Tag, go to the Tags section, click 'Add a new Tag' in the upper right, and enter its name – for this campaign, we will name our Tag as 'Premium Tickets'.

To tag each beacon with this Tag, go to the Beacons section, click on each Beacon that you want to be tagged and type in ‘Premium Tickets’ in the space provided for Tags.

Beacons are small Bluetooth Low Energy based transmitters that can help with detecting proximity and manage messaging in an indoor environment		<a href="#">Add a new Tag</a>
Name	Beacons	Action
Premium Tickets	2	

## Step 4: Add Rules based on your requirements

After this, we have to create a rule for the beacons so that they trigger the offer when customers are in their proximity for 30 seconds or more—an ideal amount of time for ticket holders waiting in line. To ensure that these custom Rules are applied to all beacons with the ‘Premium Tickets’ Tag instead of a single beacon, toggle to the ‘Tags’ tab under the Rules section and add the ‘Premium Tickets’ Tag in the space provided for Tags.

**Compose rule**

A “rule” allows you to define a set of conditions that have to be fulfilled for an action to be performed.

**RULE NAME**

Courtside Seats

Single Beacon      Tags

**TAGS**

Premium Tickets

Separate tags with commas

## Step 5: Create custom attributes for the rules

Next, we need to add custom attributes that will determine which ticket holders will qualify to receive this offer and in what timeframe they will receive it. Custom attributes can be used to filter users based on criteria such as number of visits, previous purchase history, time of day, etc.

SET FILTERS WITH CUSTOM ATTRIBUTES

You can use attributes such as age, gender, reward points from your enterprise system or third-party system to define rules.

Create a custom attribute 

All  of the following conditions should be met:

Visits per month	 greater than	10	
Time of day	 After	6:00 PM	
Time of day	 Before	7:30 PM	

Add another attribute 

Here we are creating two custom attributes called 'Visits per month' and 'Time of Day'. For the former, we only want to target ticket holders who have visited the stadium 10 times in the last month. For the latter, we are only going to trigger action from 6:00pm - 7:30pm given the game starts at 7:00pm.

Contd...

## Step 6: Set Actions to be triggered

After this, we'll add the action to be triggered when the rule is true. In our case, this involves sending the 'Courtside Seats' card that we created.

### Set Actions

An action is what you want Beaconstac to do when the conditions of a rule are met. Think of it as 'if conditions then action'

ACTION NAME X

ACTION TYPE  
Card ▾ Want a better view of the game? ▾

[Add another action](#)

Active Paused

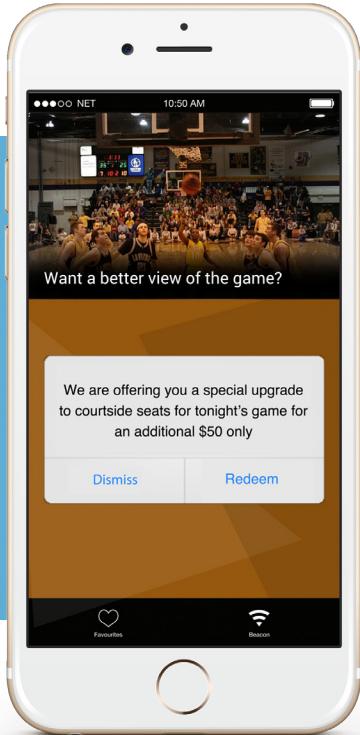
↑ **SAVE**

Once you've correctly set up your Rules/Actions and assigned them to your beacons via Tags, make sure that the Rule is set as Active in the list of rules.

A Rule allows you to define a set of conditions that must be satisfied in the proximity of a beacon, for actions to be performed inside the app. Add a new Rule

RULE	STATUS	BEACON	ACTION(S)
Courtside Seats	<span style="border: 1px solid green; border-radius: 50%; padding: 2px 10px; display: inline-block;">ACTIVE</span>	Section 1 - Entry	1

Contd...



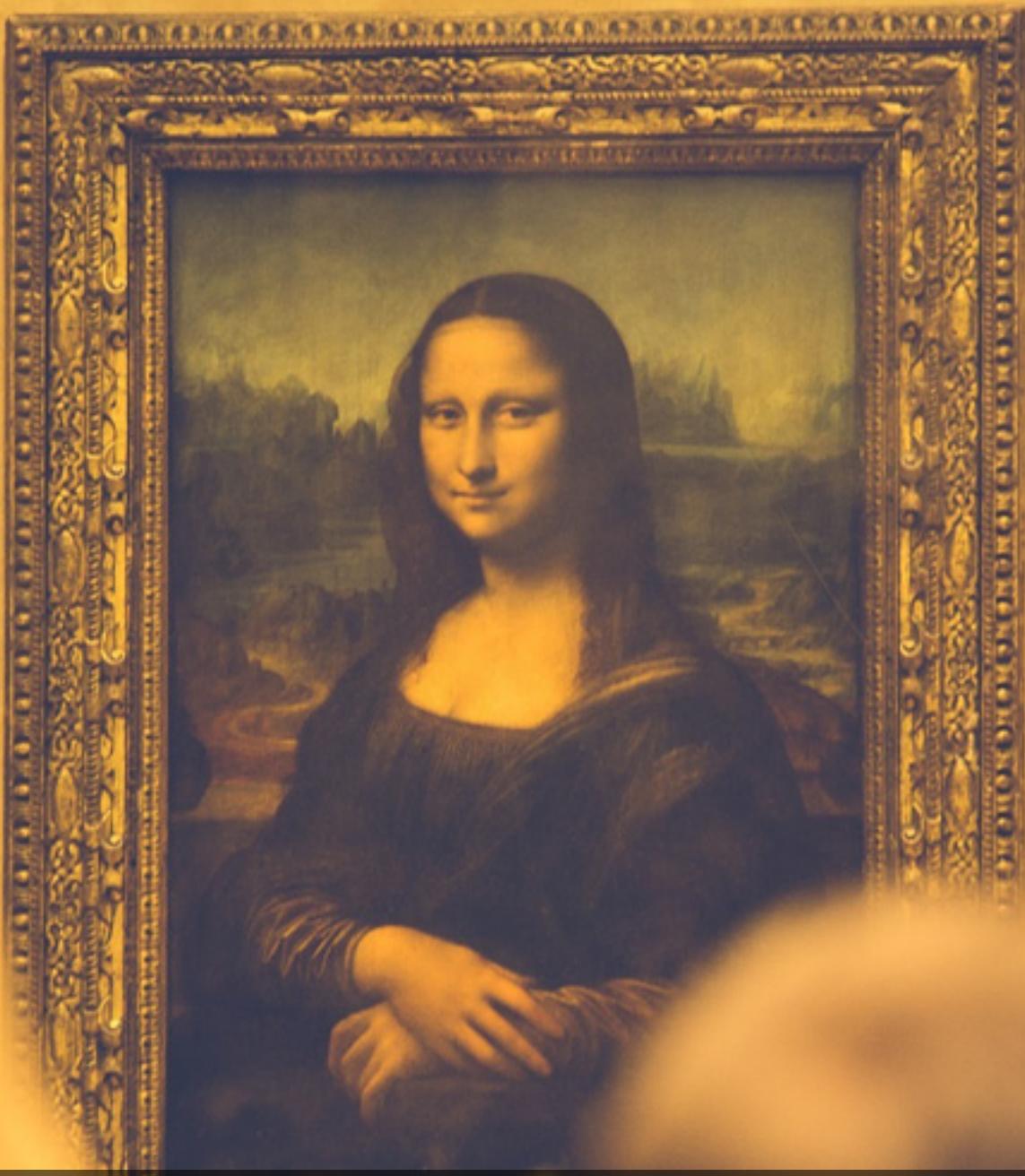
## And you're done!

Ticket holders who meet both the criteria set in the campaign will see the following screen and will be enjoying discounted courtside seats in no time!

# 10 beacon campaign ideas



- 1 Reward season ticket holders with deals on concessions or free merchandising upon entry to the stadium.
- 2 Improve outdoor event parking with beacon-triggered updates on lot availability
- 3 Update amusement park visitors of wait times at nearby rides in real-time via their mobile app.
- 4 Offer navigation assistance to the differently-abled with visual and audio directions at strategic points around your outdoor venue.
- 5 Alert parents when their kids have wandered off outside of proximity of their wearable beacon.
- 6 Streamline ride photos at amusement parks by sending automated photo selection and payment on their mobile device upon exit from a ride.
- 7 Notify concert attendees of “secret” shows or exclusive content such as backstage interviews.
- 8 Send concert fans a link to buy an artist’s new song as they leave the concert venue.
- 9 Create more engaging half-time shows that involve the audience in competitions, polls and more—all through their mobile phones.
- 10 Allow people at concerts and sporting events to buy merchandise from their seats instead of waiting in line.



# Beacons in Museums

Museums are continuously seeking to be on the forefront of interactivity and engagement through innovative technology—beacons provide them an opportunity to do exactly that. Through access to supplementary digital content, beacon-enabled self-guided tours and more, museums can successfully educate visitors in more interactive and meaningful ways using beacons.

## 1. National Slate Museum, Wales

Wales' National Slate Museum in Snowdonia was one of the first museums in the world to install beacons that enable visitors to discover more about collections as they walk around a site. The museum is attempting to incorporate bilingual and multilingual materials for a more inclusive learning experience. Content is brought dynamically into the hands of visitors to the museum, with media-rich material appearing on their mobile device as they walk around.

## 2. Brooklyn Museum

The Brooklyn Museum has adopted a more people-centric approach to using beacons. Museum administration realised that visitors often have questions about displays that go unanswered, unable to find nearby museum staff. Thus, using data from their beacon pilot, the Brooklyn Museum has been able to recognize visitor hotspots and strategically place relevant art experts where they are needed most.

The museum's ultimate goal was to help visitors learn more about the art on display, but it realized it also had no way of knowing what visitors wanted to learn about. Their iBeacon-powered app now enables experts to answer visitors' questions via mobile devices. Users can use the 'Ask' component to ask questions and receive answers in real time from an on-site expert.

## 3. Groninger Museum, Groningen

The Groninger Museum is the first museum in the Netherlands where beacons have been implemented. The technology has been available at the exhibition "The Collection", from March 29, 2014 onwards. It is used to send interactive content on artworks to visitors using the museum app. Visitors who do not have a compatible smartphone or tablet can rent these at the museum, so that they too will have access to interactive media. This beacon project has shown that of interactive

media can excite, amaze and inspire a unique museum experience—especially when museums make that media available to everyone, regardless of their mobile device.

## 4. Cleveland Museum of Art

Cleveland Museum of Art chose to use beacons to deliver more information about its art pieces to customers' mobile devices via the museum's ArtLens mobile app. The museum has installed 230 access points for beacons to serve additional media such as video, still images and texts to visitors based on where they are standing in the museum. If visitors would like more information about a specific exhibit, they can also scan its ArtLens icon with the app to receive extra content.

## 5. Philips Museum

Philips Museum in the Netherlands is a great example of the successful gamification of a museum experience using beacons. Visitors to the museum are invited to play an interactive game called "Mission Eureka" on iPads as they walk around the exhibits. Teams are presented with educational challenges in various locations around the museum that they have to solve, such as discovering how LED lights or X-rays work. For an added social dimension, the game allows members to compete against one another, making "Mission Eureka" a fun, competitive learning experience.

# QUESTIONS TO ANSWER BEFORE GETTING STARTED WITH BEACONS AT YOUR MUSEUM

Before you decide to use beacons at your museum, the first step would be to understand the use cases that benefit you and your museum visitors.

- 1 Who is the target audience of your museum? Try to think about age, professional background and other segments to guide the additional content that you offer.
- 2 How can you use beacons to supplement your museum staff (i.e. docents, experts, etc.) in order to offer the most informative experience possible, while minimizing overlap? Consider beacon location, density and signal range.
- 3 Are there opportunities to upsell merchandising in the gift shop throughout the museum?
- 4 What color, size and placement of beacons should you use to make them blend in the environment of the exhibits?
- 5 What types of visitor behavior do you want to track in your museum?





# Creating a Sample Beacon Campaign for your Museum

The objective of this campaign is to trigger an audio message with details of an artifact via a beacon based on a visitor's location and language preference in the app. You can follow the steps listed below to replicate the same for as many languages as you prefer. For the purpose of this tutorial, let's set up a campaign which sends details of 'The Mona Lisa' to the visitor in English or French (based on their language selection) when he/she is standing in front of the painting.

## Step 1: Add Beacons to the dashboard and install them at the museum venue

The first thing to do is to purchase beacons and add its details through the Beaconstac dashboard. Details of the beacon include UUID, major and minor numbers as shown in the screen below. You can also name the beacons for easy identification. Once you do this, your beacons are ready to be installed.

Beacons are small Bluetooth Low Energy based transmitters that can help with detecting proximity and manage messaging in an indoor environment.

Add a new Beacon

UUID	B9407F30-F5F8-466E-AFF9- [REDACTED]	
NAME	MAJOR #	MINOR #
Painting - The Mona Lisa	17688	45752

## Step 2: Install the beacons in the gallery for trial

---

Next, we need to install the beacon near an artifact for this test campaign. Beacon placement is crucial to ensure that there is no interference. Beacon signals are actually radio waves, and can be absorbed by walls, metal surfaces etc. For best results, follow these pointers during installation:

Place beacons such that the signals are not obstructed by a wall/metal surface.

Ensure that the beacons are placed such that the color and design of beacons go with the interiors, wall colors, and architecture of each section.

Make sure that the beacons installed stick well to the wall. Sometimes, this may involve using additional methods to secure the beacons besides the adhesive it may come packaged with.

Keep a map of every beacon installed, and its major/minor numbers so you can track these beacons later.

## Step 3: Create cards

---

Next, we'll create a card that the user will see on their device. Cards are basically creatives that show up as a notification on the user's mobile phone when certain conditions are met. Beaconstac offers several types of cards such as Summary, Photo, Media, etc. (We'll get into the possibilities that it opens up in a subsequent post.) I'll choose audio cards for this campaign since we are setting up an audio tour. Below, I've created 2 audio cards for guiding visitors in English and French.

Beacons are small Bluetooth Low Energy based transmitters that can help with detecting proximity and manage messaging in an indoor environment.			Add a new Card
TITLE	TYPE	TAGS	
Painting - The Mona Lisa - English	Media card	0	
Painting - The Mona Lisa - French	Media card	0	

For each card, we will add the appropriate audio link. Here, we're adding the English audio guide link for The Mona Lisa.

The screenshot shows the configuration of a media card. In the top left, a breadcrumb navigation shows 'Cards / Paintings: The Mona Lisa'. The 'TYPE' section includes tabs for 'Summary Card', 'Photo Card', 'Media Card' (which is selected), and 'Page'. A note states: 'The Media Card can be used for many kind of web content, from blog posts and news articles, to productsand restaurants.' The 'TITLE' field contains 'Painting - The Mona Lisa - English'. Under 'MEDIA TYPE', the 'AUDIO' option is selected. The 'LINK' field contains the URL 'http://beaconstac.com/the\_mona\_lisa\_english\_tour.mp3'. A large orange 'SAVE' button is at the bottom right. To the right, a smartphone displays the mobstac app interface with the title 'Painting - The Mona Lisa - English' and a blue musical note icon representing the audio file. Below the title are 'Dismiss' and 'Listen' buttons.

## Step 4: Set rules

After this, all we have to do is create a rule for the beacon placed near The Mona Lisa so that it triggers the right media card when a visitor spends 5 seconds in its proximity.

The screenshot shows the rule configuration screen. The 'RULE NAME' field contains 'Paintings - The Mona Lisa - English'. The 'BEACON' section shows 'Paintings - The Mona Lisa' selected in a dropdown, with an orange 'Add a new beacon' button next to it. At the bottom, 'TRIGGER ON' is set to 'ENTRY' (highlighted in green), 'AFTER' is set to '5' seconds, and there is a small orange circular icon with a question mark.

## Step 5: Create a custom attribute

Next, we need to add a custom attribute which will determine which users will see the notification or message. Custom attributes can be used to filter users based on criteria such as gender, age and number of visits. For example, regular visitors who have visited a museum more than 10 times could be shown a special offer on a yearly pass to the museum.

The screenshot shows a user interface titled "SET FILTERS WITH CUSTOM ATTRIBUTES". A descriptive text states: "You can use attributes such as age, gender, reward points from your enterprise system or third-party system to define rules." Below this is a button labeled "Create a custom attribute" with a plus icon. A dropdown menu indicates "All" conditions should be met. Underneath, there are three input fields: "Media Language" set to "Matches" with the value "English", and an "Add another attribute" button. There is also a delete icon (X) next to the English entry.

Here we are creating a custom attribute called 'Media language' that will be used to detect if a visitor's language preference is English from the app and if so, show them the audio guide in English.

Contd...

## Step 6: Set action to be triggered

After this, we'll add the action to be triggered when the rule is true. Here, the action is to trigger the audio card for The Mona Lisa.

### Set Actions

An action is what you want Beaconstac to do when the conditions of a rule are met. Think of it as 'if conditions then action'

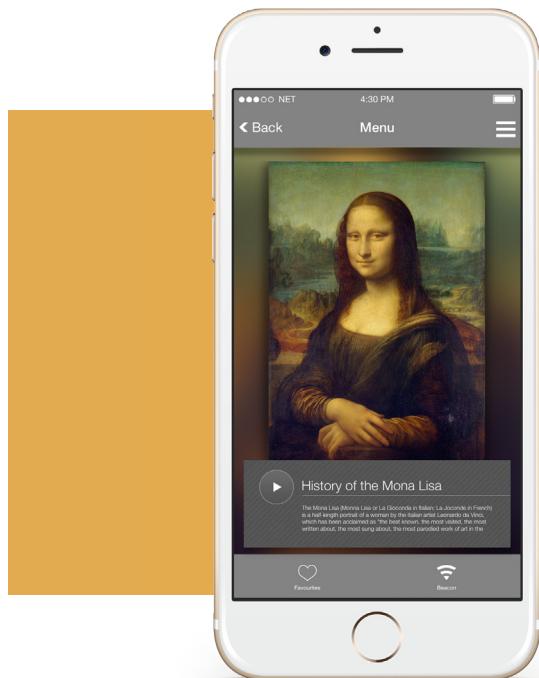
**ACTION NAME** X  
English Audio Guide - The Mona Lisa

**ACTION TYPE**  
Cards ▼ Painting - The Mona Lisa - English ▼

[Add another action](#)

Active Paused

↑ [SAVE](#)



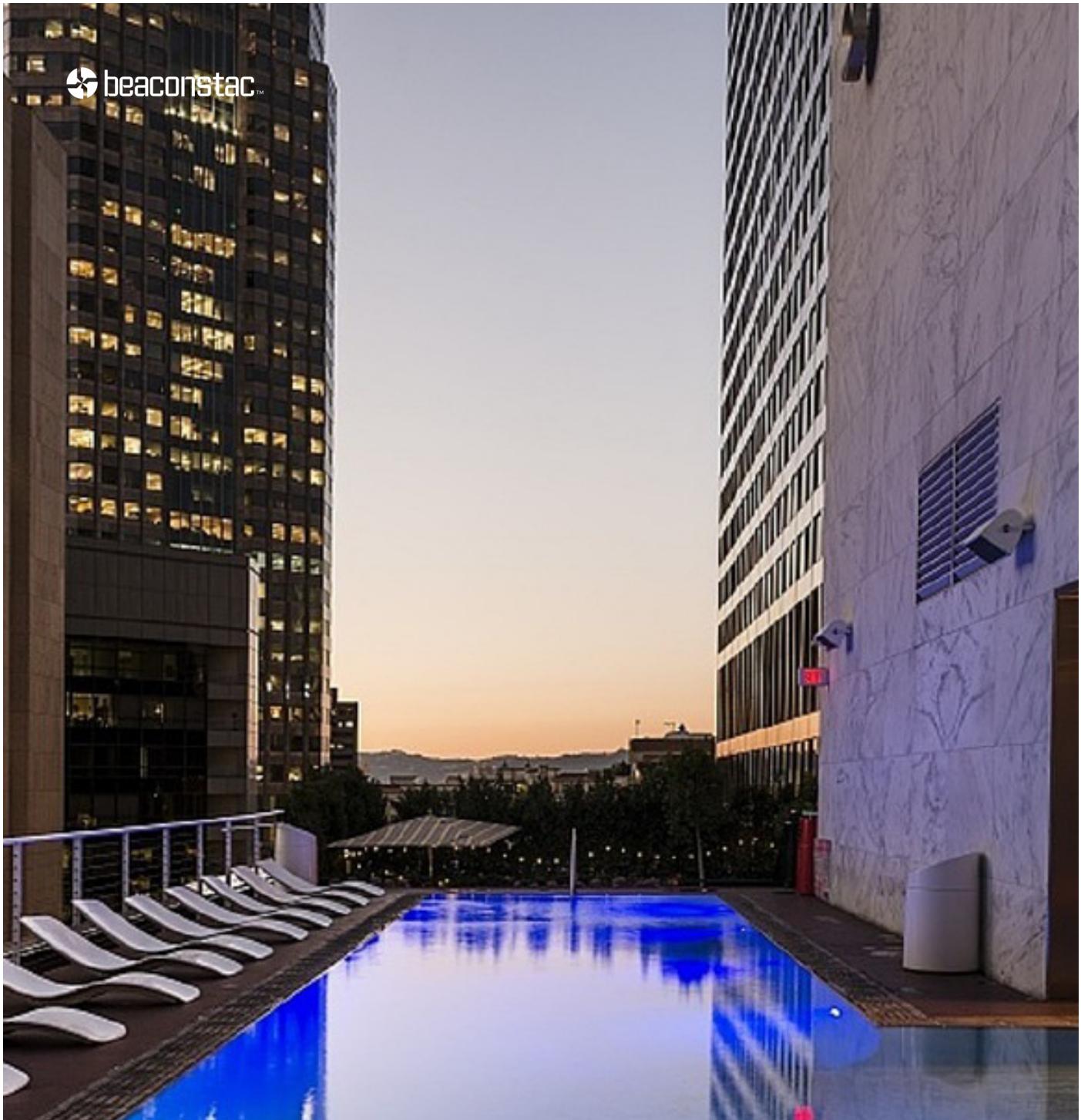
## That's it! We're ready.

A visitor who has selected English in the app's language preference will see the following message in the app when they approach The Mona Lisa.

# 10 beacon campaign ideas



- 1 Allow museum-goers to “favorite” exhibits in order to gauge popularity of exhibits and offer directions to similar exhibits.
- 2 Provide discounted tickets and other rewards to frequent museum-goers.
- 3 Incentivize engagement with museum material by offering deals at the gift shop for people who successfully complete interactive games or challenges.
- 4 Enable teachers to become knowledgeable tour guides for their students through additional real-time information on exhibits sent to their mobile devices.
- 5 Implement ticketless entry for guests who have bought tickets through their mobile app.
- 6 Integrate digital exhibits with social networks to allow people to share information they have learned.
- 7 Let people “bookmark” exhibits that they wish to revisit later.
- 8 Track important metrics such as average footfall, duration of visit and number of exhibits interacted with to measure progress and evaluate impact of management changes.
- 9 Offer information about the museum facilities such as the location of bathrooms, water fountains and help desks.
- 10 Send information on upcoming exhibits upon exit of the museum.



# Beacons in Hotels & Restaurants

The hospitality industry has always been built on responsiveness to specific client needs, whether the time-sensitive requests of a person dining at your restaurant or the preferences of a guest at your hotel. Beacons allow for the flow of targeted, real-time information between hospitality clients and the people and places accommodating them, unlocking ways to mutually improve these experiences. These innovations may include offering loyalty rewards to frequent guests, enabling automated check-in or offering special deals based off past activity—though the opportunities are endless.

## 1. Marriott International

Marriott International recently deployed beacons around the lobbies and other areas within their hotels to push geo-targeted in-hotel discounts and offers from nearby retailers to their loyalty club members.

The company revamped its loyalty program by adding two new features – LocalPerks and FlashPerks—that were built on a program that linked loyalty points to social media activity on Facebook, Instagram etc. Among them, LocalPerks allowed customers to reap the benefits of offers that were available in local neighborhoods around that specific hotel. FlashPerks, on the other hand, allowed them to use reward points as virtual currency redeemable on offers such as a discounted stay at the JW Marriott Marquis Dubai or a test drive of luxury cars such as Porsche and Lamborghini.

## 2. Starwood Group

Starwood Hotels & Resorts is implementing a new pilot program that will see two key hotel locations in Manhattan and Silicon Valley allowing guests to enter their rooms with their smartphones. After installing the Starwood Preferred Guest (SGP) App, guests will receive a virtual key on their iPhone, which can then be used to unlock a door with a tap using Bluetooth 4.0. The Bluetooth Low Energy specification, first introduced with the iPhone 4s, has been used in a similar way for many home locking products like the Lockitron and the August Smart Lock, but this is the first time it's being used on a larger scale.

### **3. The James**

The James Hotels, with locations in New York, Chicago, and Miami, has just released a new app, the James Pocket Assistant, featuring iBeacon integration. The app uses beacons to give hotel guests a concierge-like experience, providing location-based suggestions for dinner, shopping, and activities. The app also offers basic features such as the ability to check-in, check-out, extend one's stay, view the hotel map, order room service, book a spa appointment and, of course, use one-button communication with the front desk. The app can also give guests a 'self-guided art tour' through the hotel's art collection and send users offers and perks based on their location.

### **4. The Mook Group**

Mook, a German restaurant group, recently integrated iBeacon technology with their existing mobile app to reward their customers for spending time at the restaurant. Beacons were deployed at various parts of restaurant to keep track of the amount of time customers generally spend at the group's establishments. The app is programmed to use this information to assign ratings such as 'addicted connoisseur' and 'guest', rewarding customers with higher ratings with offers such as a free drink or a quick table allotment on their arrival.

Future plans: They are planning to learn what people eat and drink, when peak restaurant hours are, and how often a customer comes into the establishment.

Key strategy: Add value and excitement to each visit, rather than simply offering a discount.

### **5. Eggcellent**

Tokyo-based Eggcellent recently started allowing customers to order food and make mobile payments via iBeacon technology. To implement this, they placed these bluetooth-enabled devices on each table at the restaurant. As soon as a customer places his mobile device close to the beacon, the menu app opens up. It even allows customers to view dishes liked by their friends, since it links the app to social networking sites that the customer frequently visits. Once done, the restaurant has a

cashless checkout facility by paying through the app.

---

## QUICK STAT

40% of millennials look up information about their food while in a restaurant.

---

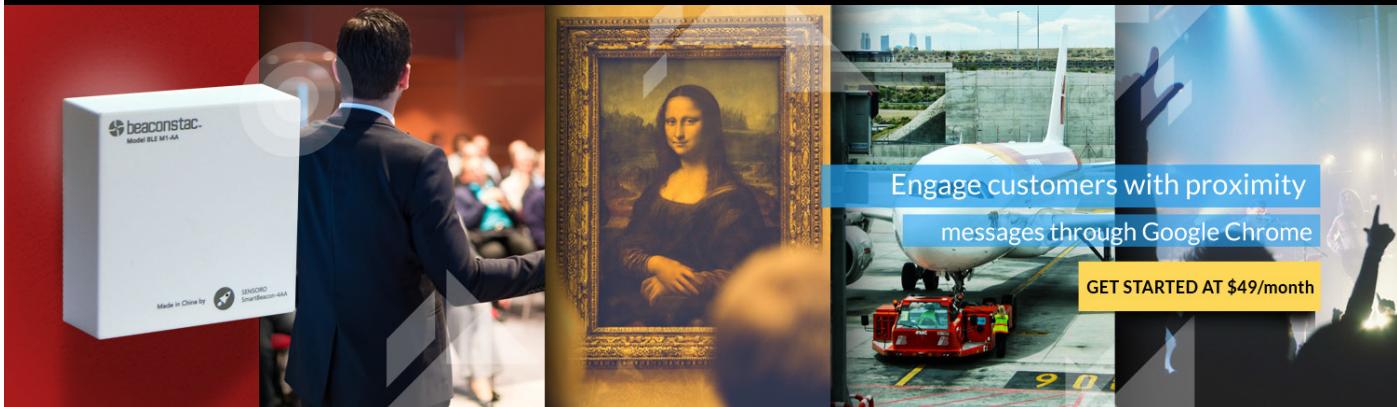
## 6. McDonald's

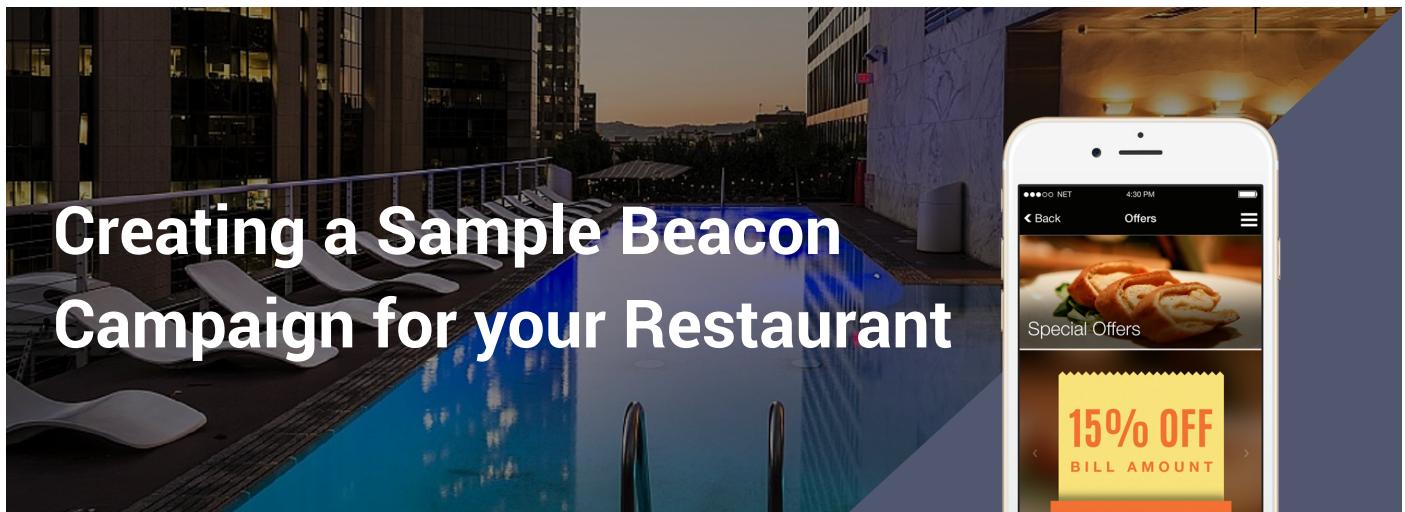
There are 26 McDonald's franchises in Columbus, Georgia that are integrating iBeacon technology with a custom mobile app to give customers an improved dining experience. In the trial, beacons were used for sending special deals for McChicken Sandwiches and Chicken McNuggets. This pushed McChicken Sandwich sales up 8 percent and Chicken McNuggets up 7.5 percent.

# QUESTIONS TO ANSWER BEFORE GETTING STARTED WITH BEACONS AT YOUR HOTEL



- 1 Does the profile of your average guest change seasonally? If so, how can you adjust your campaigns accordingly?
- 2 What processes can you automise with beacons in order to delight your customer or guest?
- 3 What concerns may guests have with engaging with beacons (i.e. privacy) and how can you mitigate those concerns?
- 4 How can you use beacons to directly generate more revenue to increase ROI?
- 5 What strategic partnerships (i.e. aggregator apps, local business, etc.) can you develop to enhance your beacon campaign?





Let's set up a campaign that offers customers a 15% discount on their bill amount if their total order value (Online + dine-in) for the month is \$500 or more. The discounted dine-in offer should be sent only to customers who're in the proximity of the restaurant between 7 – 10 PM.

## Step 1: Add Beacons to the dashboard and install them in your restaurant

---

Beacons are small Bluetooth Low Energy based transmitters that can help with detecting proximity and manage messaging in an indoor environment.

Add a new Beacon

NAME	MAJOR #	MINOR #
Repeat Customers	17688	45752

Once you purchase beacons, add their details to the Beaconstac dashboard. Details of the beacon include UUID, major and minor numbers as shown in the screen below. You can also name the beacons for easy identification. For the purpose of this campaign, I've named the beacon as 'Repeat Customers' since the beacon is being used to reward them. Once you have added the beacon details, they are ready to be installed.

Contd...

## Step 2: Create Cards

---

The screenshot shows the 'Cards' section of the Beaconstac app. A card titled '15% OFF Bill Amount' is being edited. The card type is set to 'Summary Card'. The title is '15% OFF Bill Amount' and the body text is 'Avail 15% OFF your bill amount as a loyalty bonus.' There is a placeholder for an image labeled 'IMAGE PLACEHOLDER'. To the right, a smartphone displays a notification card with the same title and body text, along with the 'mobstac Beaconstac' logo and 'Dismiss' and 'Redeem' buttons.

Next, we'll create a card that users will see on their device. Cards are basically creatives that show up as a notification on the user's mobile phone when certain conditions are met. Beaconstac offers several types of cards such as Summary, Photo, Media, etc. I'm creating a Summary card titled '15% off Bill Amount' for this campaign.

## Step 3: Add Rules

---

After this, all we have to do is create a rule for the beacon placed near the entrance so that it triggers the offer when a customer is in its proximity for 10 seconds or more.

Contd...

## Compose rule

A "rule" allows you to define a set of conditions that have to be fulfilled for an action to be performed.

### RULE NAME

Loyalty Reward

### BEACON

Repeat Customers

Add a new beacon 

### TRIGGER ON

**ENTRY** 

AFTER 

10

seconds

SET FILTERS WITH CUSTOM ATTRIBUTES 

## Step 4: Create Custom Attributes

Next, we need to add a custom attribute which will determine which users will qualify to receive this offer. Custom attributes can be used to filter users based on criteria such as number of visits, previous purchase history, etc.

Here we are creating two custom attributes called 'Time of the day' and 'Purchase value'. Users who satisfy both these criteria will see the offer on their phone when they are in the proximity of the restaurant.

Contd...

SET FILTERS WITH CUSTOM ATTRIBUTES

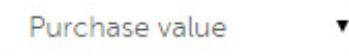
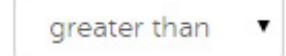
You can use attributes such as age, gender, reward points from your enterprise system or third-party system to define rules.

Create a custom attribute 

All  of the following conditions should be met:

  \$500 input field" data-bbox="565 405 795 430"/> 

Add another attribute 

## Step 5: Set Actions

After this, we'll add the action to be triggered when the rule is true. Here, the action is to trigger the '15% off Bill Amount' card we created. Besides this, it is also possible to direct people to a webpage or set up a custom action type.

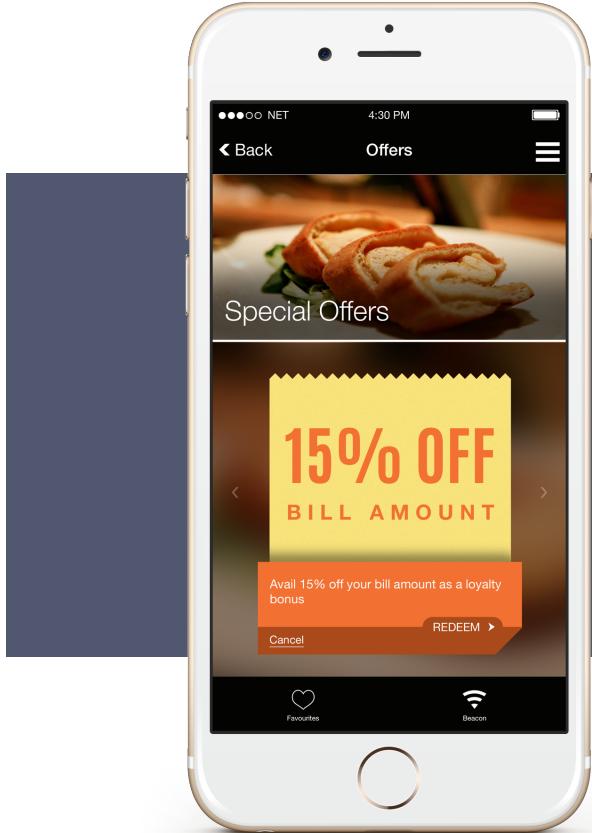
**Set Actions**

An action is what you want Beaconstac to do when the conditions of a rule are met. Think of it as **'if conditions then action'**

**ACTION NAME**   
Discount

**ACTION TYPE**

Cards  15% OFF Bill Amount 



## And we're done!

A patron passing by the restaurant who meets both the criteria set in the campaign will see the screen shown here on their device.

# 10 beacon campaign ideas



- 1 Create an interactive pub crawl by partnering with other local bars and restaurants willing to offer promotions to participants.
- 2 Push automatic check-in notifications to hotel guests when they enter your lobby.
- 3 Gain insight into popular menu items, peak hours and other metrics to inform decisions in your restaurant.
- 4 Automate lighting, air conditioning and other features within hotel rooms based on proximity settings personalized by guests in the hotel app.
- 5 Push tailored offers based off a restaurant customer's favorite dishes or past purchase history.
- 6 Let guests pre-order room service and have it automatically delivered when they arrive at their room after a long day.
- 7 Deliver custom menus and prices to valued customers at your restaurant.
- 8 Begin keyless entrance to rooms for guests checked-in via their mobile device.
- 9 Engage customers in your cafe waiting in line with exclusive offers and updates.
- 10 Direct hotel guests to their room with beacon-based indoor navigation.



## Looking to get started?

Beaconstac platform is designed to take  
your beacon project from demo to  
deployment

[GET STARTED](#)

What we offer:



# About Us

MobStac is bringing online-style customer intelligence & engagement to the world of offline spaces with Beaconstac, a full stack solution for proximity marketing and analytics



iBeacon & Eddystone-compatible beacon hardware



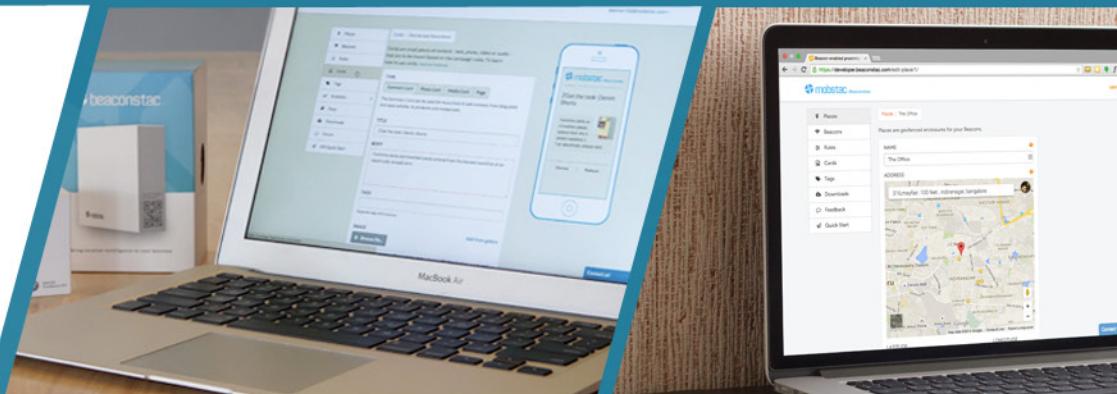
Fully native iOS & Android SDKs to build beacon-enabled apps



Cloud-based proximity marketing & analytics platform

## No coding required

With our Beaconstac app and intuitive management platform, you can create and experience a beacon demo without needing a developer's help.



## Beacon platform

Our beacon platform has everything you need to go from demo to deployment, all in one package

Follow us



Blog



Website



Twitter