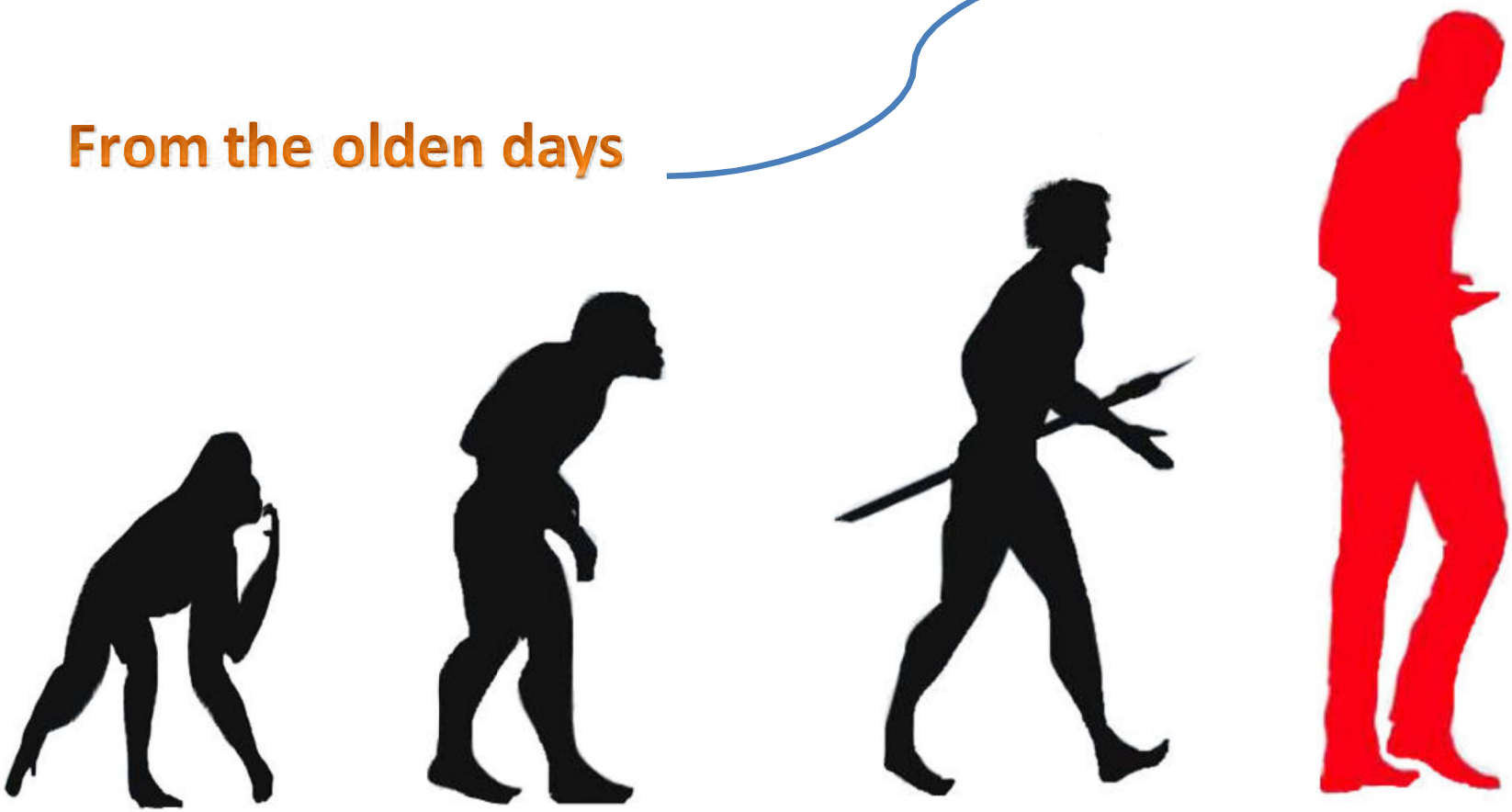
Empowering The Beacon Technology to Enable the LBS Market to Go…

To the Future

From the olden days



Beacons:

The Next Frontier for Consumer Engagement



Google Joins The Beacon Party with Eddystone

July 20, 2015

Facebook Bluetooth® Beacons

Written by Doug Thompson, January 9th, 2014

The Washington Post | PostTV | Politics | Opinions | Local | Sports | National | World | Busines

Innovations

How iBeacons could change the world forever

BY MATT MCFARLAND January 7 at 10:00 am

iBeacon and Bluetooth LE are door-openers to "groundbreaking services that could enhance the average person's life" according to the Washington Post.

The potential for beacon technology is massive. We will soon find ourselves searching for beacons in all large retails stores, hospitality providers and all large stadium events. How we travel will become more streamlined. Concierge and tour guides may become a thing of the past. Airport parking will no longer be a mammoth task of finding a free space or aimlessly searching for your car three weeks later. It is a very exciting time.

RISE OF THE BEACONS

In Five Years, iBeacon/Bluetooth Low Energy Device Market To Reach 60 Million Devices | TechCrunch



Google Joins The Beacon Party with Eddystone

July 20, 2015

iBeacon is set to change the way Londoners shop. Here's why

Museums

Rubens House Museum, Antwerp has deployed beacons to let visitors know about locations of specific pieces/areas of the art collection. It also sends timely notifications to customers with fun facts and beautiful graphics, or offers on paintings that are up for sale.

Stadiums

Major League Baseball (MLB), in its effort to offer fans a completely interactive experience at stadiums, makes use of beacons that interact with its "At the Ballpark" app. Beacons, that have been installed across 20 of its ballparks, help create micro-locations that communicate specific messages to visitors.Some of the features offered to visitors via beacons are:

- Offers and rewards
- Personalized history for ballparks visited

visitors in the vicinity



iBeacon enables digital handouts at conferences and meetings



From www.pozzey.com - July 18, 2:30 AM

"Bluetooth beacons (iBeacon) can be used at conferences and meetings to seamlessly distribute to attendee's tablets."

Facebook Bluetooth® Beacons

CES Scavenger Hunt and Faberge' Easter Egg Hunt.

Thanks to beacons, the physical world is now the new digital channel.There's no doubt that these small devices, with the proximity-based services they deliver, are all set to revolutionize the way people interact with public spaces.The opportunities are limitless and the game has just

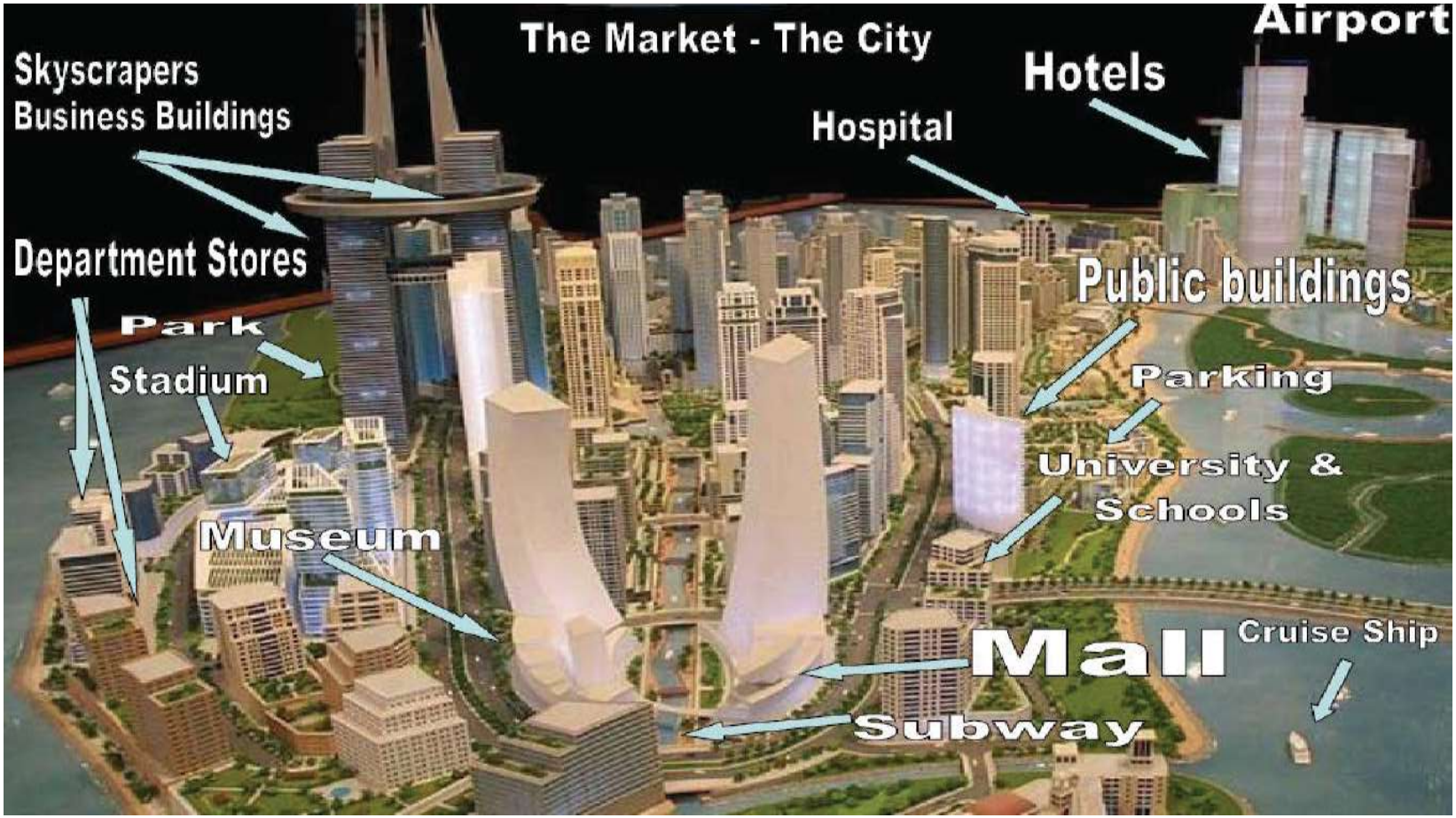
Cannes Lions Festival app will use iBeacons to let attendees network

iBeacon for Health

Location Based Services (LBS) Market worth $39.87 Billion by 2019

Is iBeacon the answer to payments and indoor mapping?

Market Possibilities… Everywhere…



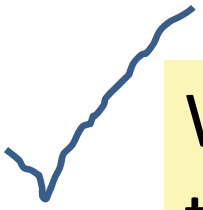
FROM OUR CLAIM:

…**providing infrastructure for LBS and indoor navigation** and LBS services in the type of facility or area selected from the group consisting of but not limited to:
pedestrian in an environment like a **mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal buildings, museum, subway, train station, airport, hotel and resort ,cruise ship ,down town center,** any type of **parking facility** or any place when and where GPS cannot be provided or is not accurate or precise enough.

Some Facts:

LBS represents the **most important and the biggest market** and it is fuelled by **the beacon technology**

- Apple introduced the Ibeacon in **2013**
- Google and Samsung just introduced their own version In **2015**
- Facebook just started deployment of beacons **2015**



We introduced our patented beacon technology way way before… – in **early 2005**

" because the hard part is not making the beacon or the App. .. is to think about it in the first place.."

Local Ad new War

Google Joins The Beacon Party with Eddystone

July 20, 2015



Now Facebook is making an ingenious play to take even more of your local market's advertising spend.

They're giving away free beacons

From our patents which go back to 2005

From our patents :

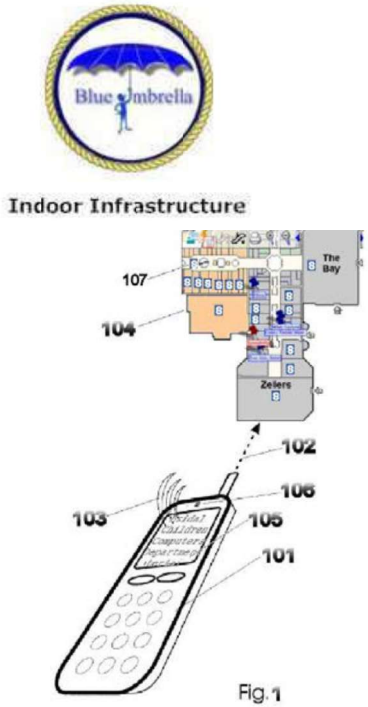
"… The local business owner can introduce his content in real-time to the users in the area"

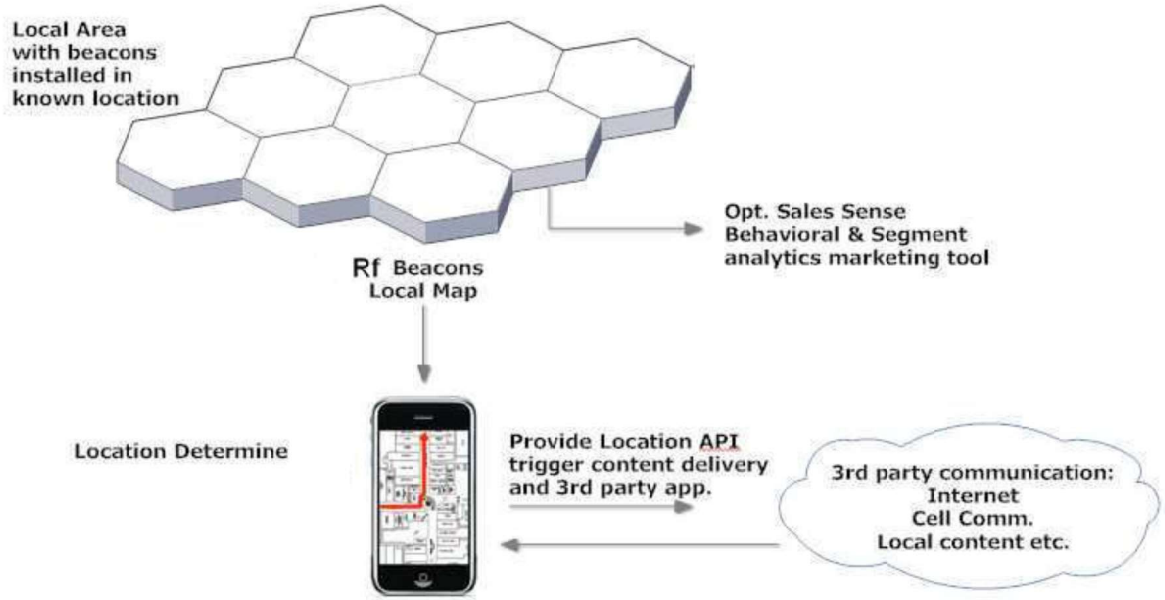
"….Beacon technology allows to tap into the huge local advertising market (Estimate at 134B in US alone..!)"

The answer to the most needed and missing part of the future of LBS

RF Bluetooth Beacons to enable LBS Infrastructure platforms and Trigger Content and indoor Navigation

Patent's Technology from 2005



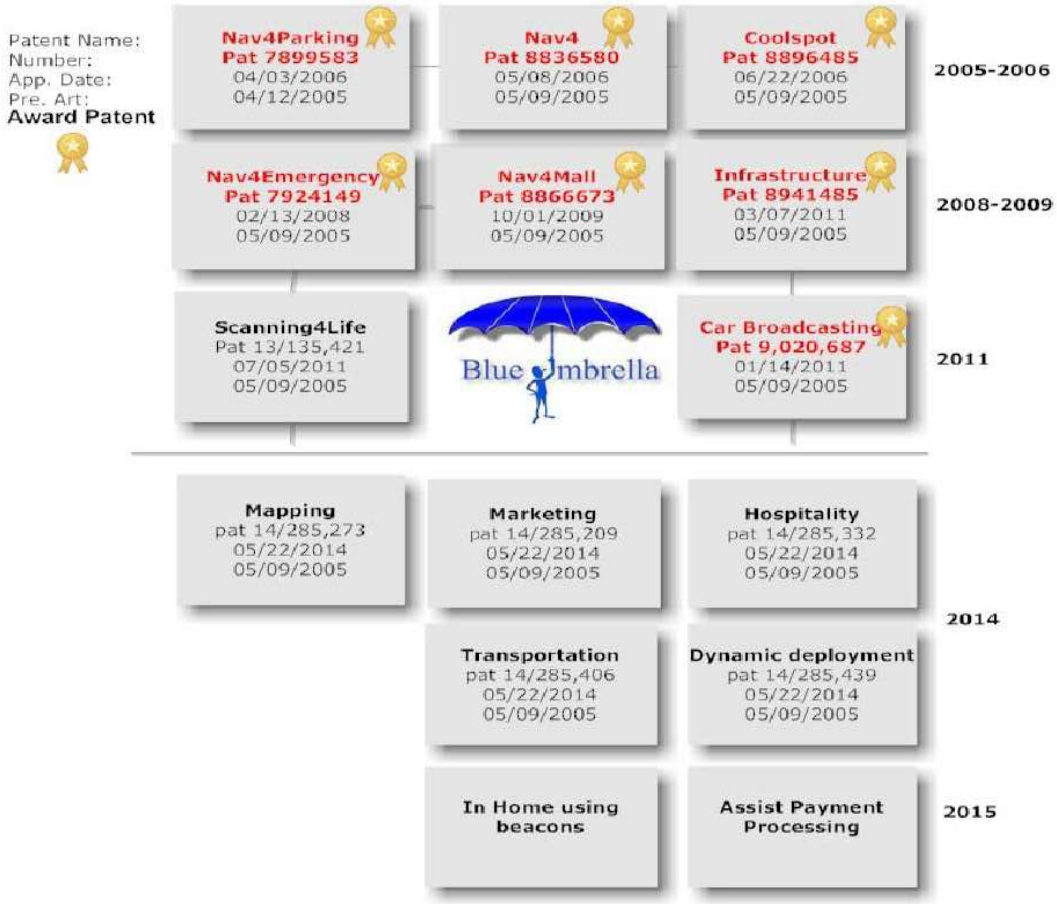


Beacon's Identifier trigger Content Via App or Direct to Web

From our patent claim:

"… RF Wi-Fi or Bluetooth beacons installed in known locations in area/buildings and serve as infrastructure to enable indoor LBS and trigger content

The most completed RF Beacons Intellectual property



Empowering the beacon technology, Patents from 2005…!

List of our Intellectual property Page 1

Awarded patents:

1. US Patent 7,899,583 -**NAV4Parking**- filed on April 03, 2006 with prior art of April 12, 2005. A system and method to find empty parking spaces, based on beacon installed in a known/parking location to be scanned by the mobile phone, the patent contains the basic concept for locating navigating and LBS services application based on deployment of RF beacons.

2. US Patent 8,836,580 -**NAV4**- filed on May 08, 2006, with prior art of May 9, 2005. This invention is directed generally to the field of LBS and navigation to such method to be used indoors or outdoors utilizing a RF wireless beacons Bluetooth and or Wi-Fi.

3. US Patent 8,896,485 -**CoolSpot**- filed on June 22, 2006 with prior art of May 9, 2005.A method to be used indoors or outdoors for triggering content delivery of waypoint using RF beacons.

4. US Patent 7,924,149- NAV4Emergency filed on February 13, 2008 with prior art of May 9, 2005. A system and method to provide infrastructure utilize RF beacons Bluetooth and or Wi-Fi for indoor and in buildings guide and emergency (E911) providing critical emergency alarming notification information to occupants in a building or emergency designated area and to increase the accuracy of existing locating method especially in emergency the method and system can be use for non emergency application.

List of our Intellectual property Page 2

Awarded patents Continue :

5. US Patent 8,866,673- NAV4Mall- filed on October 01, 2009 with prior art of May 9, 2005. A method and system to use a deployment of RF beacons, Bluetooth or Wi-Fi for LBS and to guide people around urban environments indoor and outdoor, provide a direct content according to the user preference/profile and navigation guide to the content integrated into a special local base services (LBS)application and a method to use the behavioral patterns for sales and marketing benefit mall store or building facility areas.

6. U.S. Patent 8941485 -Beacon Infrastructure- filed on March 07, 2011, with prior art of May 9, 2005.A System and method for providing infrastructure to enable indoor local base services applications outdoor and indoor malls inside stores shopping centers resort cruise ships and buildings utilizing RF beacons, Wi-Fi or Bluetooth.

7. U.S. Patent 9,020,687 -Car Broadcasting - filed on January 14, 2011, with prior art of May 9, 2005. Car wireless system and method to integrate a RF beacon into a car transportation provides telematics application.

List our Intellectual property Page 3

Pending patents application:

8. 13/135,421- **Scanning4Life**-filed on July 05, 2011, with prior art of May 9, 2005. A method and system to provide people in emergency and a disaster situations help to be found by emergency E911 or search and rescue utilize an RF beacons.

.

9. 14/285,209 -**Indoor Mapping**- filed on May 22, 2014, with prior art of May 9, 2005. A method and system to provide indoor mapping and update waypoints by utilizing Bluetooth and or Wi-Fi beacons.

10. 14/285,273 Beacon Marketing- filed on May 22, 2014, with prior art of May 9, 2005. A method and system to provide marketing assistance by utilizing Bluetooth and or Wi-Fi beacons.

11. 14/285,332 Hospitality hotel/resort cruise ship, Casino using beacons -filed on May 22, 2014, with prior art of May 9, 2005. A method and system to provide LBS services and application to Hospitality industries by utilizing Bluetooth and or Wi-Fi beacons.

12. 14/285,406 Transportation industry using beacons -filed on May 22, 2014, with prior art of May 9, 2005. A method and system to provide the transportation industry a benefit application utilizing Bluetooth and or Wi-Fi beacons. Car to car automatic notification and transit system.

List our Intellectual property Page 4

Pending patents application continue :

13. 14/285,439 deployment method using Beacons-filed on May 22, 2014, with prior art of May 9, 2005. A method and system to provide dynamic deployment method by utilizing Bluetooth and or Wi-Fi beacons.
.

14. Assist payment processing using beacon deployment- U.S. Patent Application, A method and system to provide assistance with payment processing by utilizing Bluetooth and or Wi-Fi beacons.

15. In home and IOT support by beacon deployment- U.S. Patent Application, A method and system to provide in home and IOT application by utilizing Bluetooth and or Wi-Fi beacons.

The following is an examiner's statement of reasons for allowance: the examiner found no teaching in the prior art that would render obvious the claimed method for navigation and receiving local content, indoor and outdoor in a facility area like a mall department store downtown center building on at least one display device selected from a group consisting of a display device, a mobile phone, hand held navigation system, car navigation system, and a Bluetooth enabled device including the steps of " determining a current position of said display device by utilizing a proximity to one or more wireless radio frequency (RF) beacons, wherein said RF beacons employ at least one of Bluetooth , long range Bluetooth, and Wi-Fi protocols, each RF beacon comprising a beacon identifier and is installed in known position within said area/facility, and receiving local content, wherein said local content is determined based upon a location of said display device as identified by beacon identifiers of proximate beacons".

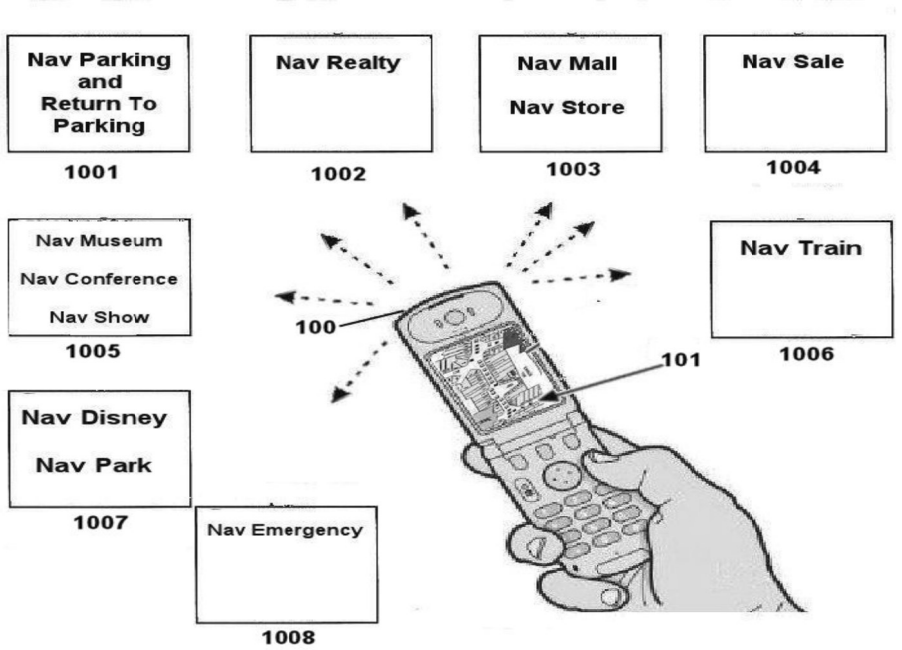


FIG. 10

Drawing from 2005 show application for indoor LBS services using RF beacons

...**providing infrastructure for LBS and indoor navigation** and LBS services in the type of facility or area selected from the group consisting of but not limited to:
pedestrian in an environment like a **mall, department store, specialty store, conference, trade show, amusement park, university, hospital, school, municipal buildings, museum, subway, train station, airport, hotel and resort ,cruise ship ,down town center,** any type of **parking facility** or any place when and where GPS cannot be provided or is not accurate or precise enough.

Our patent claims cover and protect the technology, the beacon deployment and many other applications, some highlights from our 150 claims:

- **RF Bluetooth beacons** Method and deployment as infrastructure for LBS services
- **The beacon Identifier** method as a key triggering mechanism
- **Indoor Mapping** – we even hold the domain name.
- **Indoor Navigation** - in fact we even hold the **trade mark indoor navigation** using beacon deployment…
- Cover deployment specific in Museum, conference, amusements park,transit,parking,store,malls,buldings,school and universities,hospitals, airport, hotel resort, cruise ship , casino ,business, real estate and more…
- **Transit –use beacon in transit applications** Which fit with recent transit applications just introduced by Apple and Google.
- **Car broadcasting** – make the car a beacon, use the car/beacon identifier as trigger for many applications and telematics like automatic car to car notification and communication, fits existing cars and future car projects by Google and Apple

Continue highlights from our claims:

- **Parking** - search4parking and return2parking – use beacon deployment in parking spaces to allow search and find parking and return to the parking spot -fits existing and future cars projects by Google and Apple.

- **Direct to web trigger by the beacon identifier without app.** The main deference between Apple and Google beacon format is covered by our patents.

- **Beacon in the light structure** (same as the current product being tested in Walmart) which is covered and protected by our claims.

- Option to **use the phone as a beacon**

- **Emergency and E911** :The FCC recently announced a requirement to improve the E911 accuracy especially indoors. Major carriers are now investing billions on providing and improving the location positioning infrastructure. Several of our granted patents directly cover the use of beacon technology to **assist locating people in emergency and E-911.**

Continue highlights from our claims:

- **Medical/emergency information ID/profile.**
- **Assist payment processing**: Our patent claims cover payment processing assisted by beacon deployment. In fact, our patents even cover use of NFC with the deployment of beacons in the store/building to provide assistance to secure payment transactions.
- **Marketing analysis behavior** based on user interest and location triggers content accordingly based on beacon deployment.
- **The overlay range Circle**
- **IOT – internet of things** empower by deployment of beacons
- **Hospitality application** support and trigger by deployment of beacons
- **Social networking and Local Ad support** Facebook start beacon deployment to tap into local AD
- **beacon databased** provides database of deployment of beacon for location Enj. /marketers

Some drawings from our patents, dating back to 2005

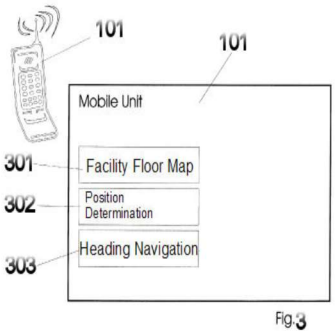


Fig.3

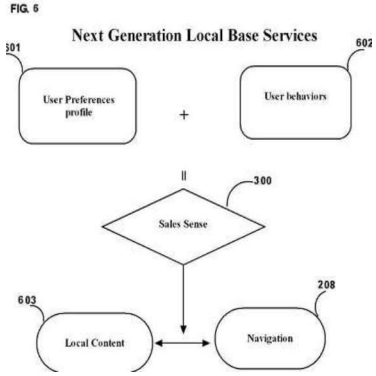
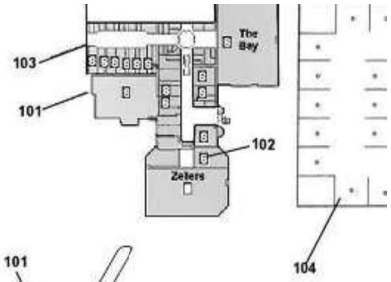
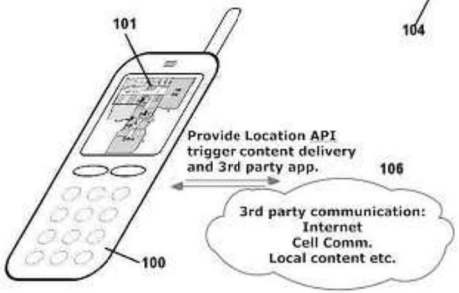


FIG. 1





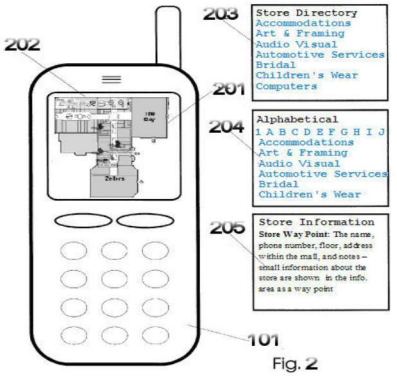


Fig. 2

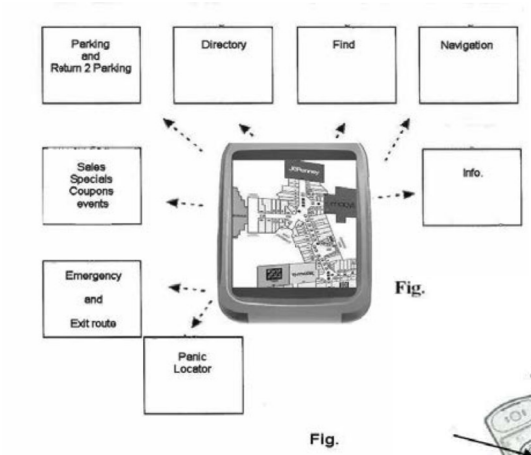
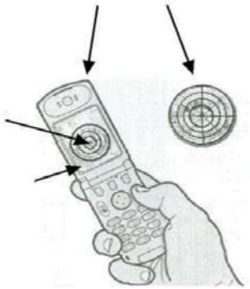
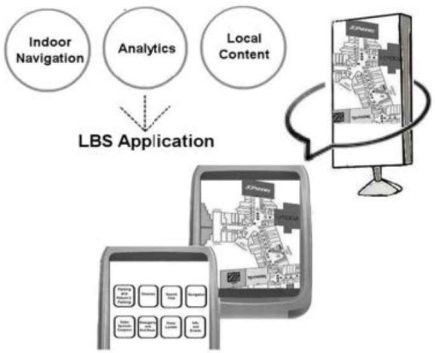
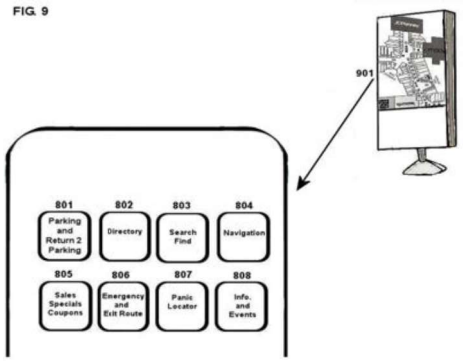


Fig.


Fig.





One More Thing…

Over the years (from year 2005) we approached many companies with our innovative ideas. We introduced our beacon technology and provided our insights regarding the future implementation of the beacon technology and also notify about our patents.

Now, thousands of developers and companies around the globe are working and developing applications for what is seen as the most promising market, all based on deployment of RF beacons (Bluetooth).

In fact, recent articles enthusiastic to explain the technology and the possibilities of deployments mimic our company presentations and patent documents published years ago.

Some Quote from viewers

I found you doing a patent research .. you have impressive IP in the "iBeacon", bluetooth alarming localisation etc space. Congratulations - i am very impressed - truly.
I was about to file a patent in this area too, obviously, you had the ideas before. Congratulations !
I wonder if there would be a way to cooperate, i see that Apple and others probably heavily violate your patents and sell your ideas as "new", despite your patents .. of course, being a "small" company (actually, i am working on a startup in this field) - i will not do this but rather see if we can do something together.

InMail | Google
RE: indoor navigation innovation
Strategic Partner Manager, Google Product Partnerships at Google
October 14, 2013, 12:02 PM
Hi Ehud,

I've shared this information w/ the right folks on the relevant Maps/Local team and we'll follow up

> Hi Ehud, I'm an engineer over at Google in Mountain View CA working on
> localization technologies. I came across links to your Blue Umbrella
> approach > and would like to learn more. Do you have some time for a call? I'm
> open > most of today (until 3:30 PST). Give me a call (or I can call you).
>
> -
[redacted]
On Thu, Oct 7, 2010 at 10:42 AM, [redacted]@google.com> wrote:
>
>>
>> Ok, we'll talk then. For background, I'm a electrical engineer
>> and I'm most interested in the base infrastructure that you are
>> using. We could talk for a long time about apps/etc but it is the
>> nuts and bolts that I'd like to learn about. Some questions for
>> you in the mean time:
>>
>> - Can you elaborate on your beacon ?
>> - What's the battery life & type ?
>> - What's the beacon rate ?
>> - What's the operating range of the beacon ?
>> - Have you actually deployed any ? How many ?
>> Talk to you on Tuesday,

Software Engineer at Apple
Cupertino, California | Computer Software

RE: Indoor and In-store pedestrian navigation infrastructure innovation 4 years ago

business suggestion

Ehud, It seems that your product is quite interesting. I would like to know more. This is...

9/23/2010 via LinkedIn

Ehud,

It seems that your product is quite interesting.

I would like to know more. This is actually what I have been looking for.

So if I want to use such a device to navigate in store, what do I need to do?

Do I need to order a device from you? How many places do you support now?

Thanks.

Some Articles and Quotes about us

thewherebusiness.com
Inside information on the business of location

The Where Business eBrief - direct to your inbox

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- Latest Videos
- Blogs
- Meet The Team
- Bloggers
- Report Marketplace
- About Us
- Contact Us
- Login

Advertise here

Join TheWhereBusiness Group on LinkedIn

Blue Umbrella indoor navigation offers one-metre accuracy

Jun 16, 2010

Tags: Bluetooth Cellphone navigation Indoor navigation LBS location based services location technology Mobile Navigation people location personal location

Blue Umbrella, an R&D company based in Florida, has announced an indoor navigation solution which it believes will have "a game-changing impact" on the navigation market.



Blue Umbrella is a pioneer in the largely untapped market for indoor navigation. Its new solution offers accuracy of indoor location to a metre or less.

The solution relies on the Bluetooth in smartphones in combination with small beacons that cost less than $10 each. The beacons provide a proximity triggering mechanism for fast and easy deployment with metric accuracy. Ehud Mendelson, Blue Umbrella's president, notes: "What is unique is that the beacons are autonomous and there is no exchange of communication between the beacons and the user. This results in faster locating without the need for cellular or Internet."

He adds: "It also saves the user's battery power."

The user's phone with Blue Umbrella software installed will scan an area for known tags (the beacons) in the same that a Wi-Fi device scans for Wi-Fi access points. Mendelson comments: "As with Wi-Fi detection, there is no real communication between the phone's Bluetooth and the beacons - there is only fast discovery of the area proximity tags, which takes less than five seconds."

Blue Umbrella tailors patented applications for indoor uses ranging from finding specials, sales and coupons to showing where you parked your car. In an emergency the solution delivers an alarm and a notification, then directs the user to an exit.

The company is currently developing 14 applications for indoor use, based on patents pending going back to 2005. Mendelson says: "The needs for indoor navigation are not limited to the shopping mall. We see it being used inside department stores and supermarkets, commercial buildings, shows, conferences and museums as well as hotels, resorts, amusement parks and any places where there is a need for better accuracy than today's methods can provide."

Follow the developments in location technology at People Tracking and Location USA 2010 in Chicago on June 22-23.

Login or register to post comments

Mobile navigation under cover

Nov 2[illegible] 2009

- Very recently BDNooz explored a proposal for indoor nav that disregards GPS data and instead relies heavily on Bluetooth, which can be built into smartphones. BDNooz highlighted the advantages of the Bluetooth solution: "The system automatically detects a signal directly from sensors, without requiring communication with a central system, data plans or even cellular communication. There is no need for pairing as every Bluetooth device's tag has a unique ID. This ID can be used for locating the tag.
- "Bluetooth is ubiquitous. Additionally, it is a low-cost, low-power technology, and when it's relatively free of obstruction it can provide a less than two-metre meter error range."

From: N [illegible]@navteq.com]
Sent: Thursday, April 10, 2008 7:38 PM

shortly. I would recommend having a call with Udi and his team. Sounds like a cool technology (better than wi-fi or RFID to track inside the building). I worked in the wi-fi and RFID for many of years, and these technologies for tracking assets, people are oversold, with not a significant market penetration. What Udi is offering, can be very compelling.

Sent: Sunday, July 18, 2010 10:54 PM
To: ehud
Subject: Re: Your Article "Apps we wish we had.."
Importance: High

Very impressive!

d

David Pogue
Tech Columnist, The New York Times



Working with us Our Inventions as Assets and benefit

patents are strategic business assets and are supportive of all the benefits that they provide—including protection, exclusive rights, and innovation.

We share the belief that patents are the most valuable assets. That's why we put our invention assets and intellectual property (IP) patents, trade marks ,domains and our R&D expertise in the field **to work for you** through portfolio licensing and complementary value-added solutions.

We want your company to utilize our expertize and our intellectual property regards as **the most complete portfolio of Beacon IP** , To benefit your business and provide you with an advantage in what promises to be a huge market.

We are positioned to meet the ever-changing needs of innovation help achieve an invention-based advantage in the market and product spaces.

Our IP will help companies gain efficient access and protection using our invention rights

Send us an email to learn more about the benefits of becoming licensing customer.

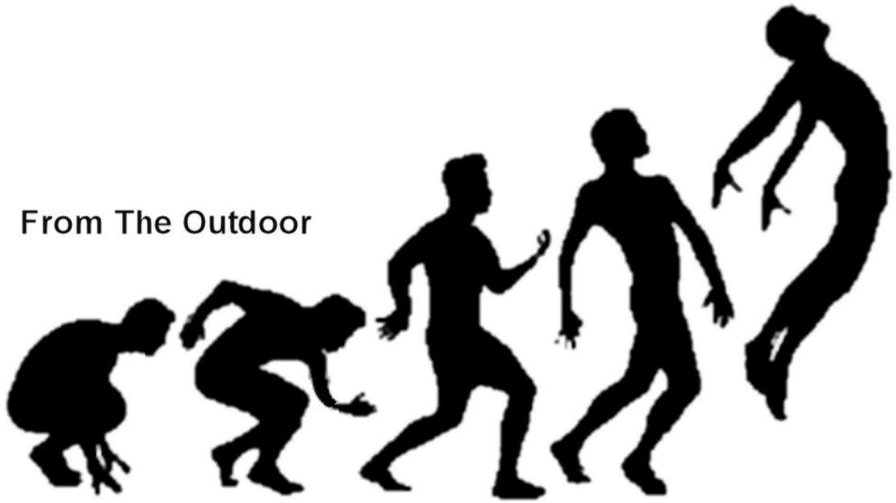
Our Intellectual Property may be the key to dominate the huge emerging market

Allowing The LBS Market Next Jump

To The Indoor



From The Outdoor



To some, our Intellectual Property can be the key to dominate the huge emerging market





To others, just the Golden Egg…