Piper Beacon Technology for Universities & College Sports

Piper technology is ideal for creating innovative proximity solutions on campuses and large scale events. The demand for proximity technology within education, sports and entertainment is growing rapidly as students utilize their phones more and more as part of their every day lives.

Piper is a complete enterprise proximity platform that provides hardware, deployment, content management software, and analytics. With a focus on interoperability, Piper can help universities, stadiums and media offer engaging content for students and new digital advertising opportunities for advertisers. At a time when new technology tends to disrupt sporting events and college experiences rather than help them, Piper Beacons can be harnessed to expand your reach with timely and highly relevant content. Piper’s Sensors and software also generate robust analytics that can be mapped to improve an organization’s operations and asset tracking. And because the Piper platform is modular and focused on interoperability, it provides a scalable solution efficiently and cost effectively.

So, what’s proximity and how do beacons help?

Proximity is about triggering actions based on detecting what’s nearby. Using Bluetooth LE beacons and sensors that are tied to our powerful cloud-based platform, Piper can detect the presence of people, vehicles, physical assets, environmental conditions, and numerous other data points which can help any campus become part of the smart Internet of Things (IOT). The latest smartphones also have the capability to detect these beacons which provides opportunities for student notifications and fan engagement of which the most common use is retail offers. However, we believe there are far more interesting uses for BLE beacons and sensors.
Thinking Creatively to Improve Campus & Stadium Experience

- Provide information about upcoming events, sports and intramural games, bookstore offers etc.
- Unlock exclusive content just by being near a beacon.
- Get sports score updates, highlight reels and player interviews.
- User Generated Content: prompt social sharing or photo campaigns.
- Self-guided audio/text tours showcasing departments, student life and school history.
- Real time bus route and arrival notifications.
- Store tickets on phone in Apple Wallet and Google Wallet.
- Instant volunteer, fan club, or greek organization sign ups.
- NEW FEATURE Groups now allow you to attach multiple messages to a single beacon. Faculty and Staff can become part of a closed network and receive private information or instructions.
Three Adaptable Products

The Piper platform includes three primary products that can be adapted to nearly any enterprise environment: Piper Beacons, Piper Sensors, and Piper Apps. All three are connected to the Piper Cloud Platform that let’s customers manage content, interact with environments, collect analytics, and develop customized solutions from the aggregated data. And because the Piper platform is modular and focused on interoperability, it provides a scalable solution efficiently and cost effectively.

Four Applications

- Free to download iOS and Android Piper App.
- Branded version of the Piper App.
- Available SDK for optimizing existing app.
- Custom application development.

Benefits of Piper Beacons

We make it easy for universities, event organizers and even media to turn any campus into a Smart Campus. Piper beacons are made to live outdoors and can handle rain, wind, sun, and snow. They don’t need WIFI or an Internet connection to operate. They last for up to 8 years, so you won’t have to worry about changing batteries or replacing them any time soon. They have a broadcast range of up to 200 feet, and you can control the signal strength to cover both large areas like stadiums and small locations like bus stops.

- Inexpensive to deploy with long life in both battery and AC powered form.
- Centralized content management system that makes it easy to control messages sent by each beacon or groups of beacons.
- Multi-user features allow media outlets to give messaging control to advertisers and partners.
- A robust analytics suite to track usage, message targeting, & revenue.
- Flexible content options including notifications, links to specialized HTML5 content, social media, videos, photos, and even Apple Passes that can also be read on Androids.
- Opportunities for closed loop offers that track the promotion from the beacon to the cash register.
- Easy to use APIs for integrating third-party content.
- Integration into University’s own app with an available SDK!

Closed Network Proximity Messaging

Piper has also developed the first closed network capability for beacons. You can now assign multiple messages to a single beacon and deliver the messages to different groups of users. At any point in time a user will still only receive one message per beacon though. This is useful for employee or volunteer communication, special VIP messaging or any other instance where private messaging pertaining to a specific location is required.
Functional Big DATA for Universities & Events

Piper beacon technology, real-time sensors, and wireless chargers provide enormous amounts of data that can be recorded and mapped into enterprise requirements. Here are some examples and scenarios:

- **Tracking crowd movement**, dwell time, frequency and proximity to particular locations can be converted into heat maps to easily identify trends that can help current operations and predictive analysis of concessions, rest rooms, retail and spectator viewing areas.

  The spectator dwell time to the right of Stadium Entrance 3 was 65% longer than the left side. 54% of those spectators arrived at that location by crossing through courtyard. Moving the concessions cart to that walk through path could increase sales tomorrow.

- **Identify wait times** for concessions and rest rooms.

  Tapping restroom icon brings up list of restrooms and ranks based on proximity to user location or by wait time. Selecting the best choice opens up map with suggested route.

- Beacons on buses and sensors on routes can provide more accurate **scheduling information** and time of arrivals and departures.

  The New York Subway system and MTA for example, are using Piper technology to track trains and predict arrivals.

- **Inventory tracking.** Disposable Piper beacons can be placed on items shipped from various locations. You can also locate a hard-to-find item by looking at the app’s real-time distance-to-beacon information.

  Beacons and sensors can help with weekly operations efficiency by only notifying assembly team to start once all parts of specific structure have arrived from the previous location.

  - Piper’s beacon bracelets with **accelerometers** can be used for both beacon interaction and health purposes. Beacons can be used for entry into VIP areas, payment methods or check ins for scavenger hunts. Accelerometers in the bracelet can track distance covered and other physical activity data. This can be a novel way for patrons to view events as fitness opportunities. They can also be tied to fitness challenges and leaderboards. Imagine being crowned this week’s “Fittest Fan” and winning new “Nike Fitness Trainer” shoes!

  - Piper’s **Wireless Chargers** are a great way to provide a much-needed service to students who often run out of battery life for their phones. These small chargers can be attached to tables or poles and run on AC power. There is also a beacon in the charger, which provides an opportunity for only the phone charging to receive a targeted message.
University and Partner Revenue Opportunities

- Using Piper’s **Live Ad Network** you can have exclusive offers at a single beacon for any duration of time. Because Piper’s system allows for instantaneous updating of a beacon’s content, you could monitor live events and tailor messages to the audience at that exact location. This provides unique advertising opportunities for your partners. A fully deployed set of Piper beacons on a campus can act like a mini ad network where you can sell ads based on placement, impressions or clicks.

- Piper **Smart Displays** system provides cutting edge opportunities for highly personalized, hyper-local messaging. The Piper dongle in the monitor detects nearby phones and changes content to engage a specific user. **Retargeting** is also possible by connecting content that a user engages with to Piper activated displays at retail stores.

- Extend the experience beyond the campus. Partner with local restaurants, attractions, retailers and hotels by providing beacons for their locations. Students walking downtown on Friday night receive special offers from partner restaurants who will want to promote your app too.

About Piper

Piper is an innovative technology company based in San Diego, CA, that specializes in proximity messaging and data capturing. Their proximity-based messaging platform uses Bluetooth LE beacon technology to deliver local, timely, and contextual information to smartphone users. The Piper mobile app is available for free in the App Store and Google Play and helps users discover nearby places and things. Piper adapts to a variety of beacon devices and includes a Content Dashboard for creating engaging message options including Passbook, videos, social media, photos, and notifications. Piper also works with enterprises by providing SDK’s and custom app development to help them improve customer engagement, generate robust analytics, inventory tracking, and many other solutions.

Contact us for a customized demo of Piper Proximity Technology.
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