

데이터시트

MERIDIAN MOBILE APP PLATFORM

Build a better mobile app for your venue

Meridian is a mobile-app software platform from Aruba Networks® that allows public-facing enterprise venues, hotels, casinos, resorts, airports, hospitals, and convention centers – to create or improve mobile apps that engage visitors on their mobile devices.

These venues can leverage Meridian to deliver location-relevant information such as mapping, turn-by-turn directions, venue-specific information, and proximity-based notifications to mobile-app users during their visits. The platform's cloud-based Meridian Editor is a software-as-a-service (SaaS) content management system (CMS) that houses a location's Meridian-powered app content. It offers an easy way for venues to create a complete white-label app from scratch with its AppMaker features. Alternatively, venues that already have a mobile app can use the Meridian software development kits (SDKs) to integrate navigation and proximity notification capabilities. Meridian supports the creation of apps for iOS and Android devices for both types of deployments (white-label and SDK).



Meridian-powered mobile apps work on both iOS and Android devices.

KEY FEATURES OF THE MERIDIAN PLATFORM

- **Meridian Editor** – Cloud-based content management system that serves as the online hub for Meridian-powered tools.
- **AppMaker** – A module in the Meridian Editor that lets you create a custom app.
- **Mapping and self-guided wayfinding** – Meridian feature that lets venues incorporate location-specific mapping and turn-by-turn directions into their Meridian-powered mobile app.
- **SDKs** – Tools to add mapping and wayfinding (NavKit), indoor positioning on a map (BluDotKit), and proximity-based notifications (ZoneKit) to an existing app built by a third-party developer.
- **Analytics and Location Services** – Products that connect to sources of mobile device positioning data, such as Aruba Beacons powered by Bluetooth Low Energy (BLE), that make a Meridian app location-aware.

THE MERIDIAN EDITOR

The Meridian Editor lets venues create, update and access all Meridian-powered content and functionality within their mobile app. This gives venues hands-on control over content, plus the ability to preview edits and make quick updates in real-time.

Additionally, the Meridian Editor houses content for both SDK and white-label app deployments and has a companion app called AppViewer that allows venues to view their content on a device before their app is formally published.

Cloud-based content management

A full-featured cloud-based content management system, the Meridian Editor allows venues to build and manage all of their Meridian components through a simple and intuitive web interface.

- Instant, real-time content updates.
- Accessible from any computer with an Internet connection.
- Accessible by multiple users.
- Cloud-based, no need for local software management.
- Supports multiple languages.
- Data resides on the Google¹ App Engine Datastore.

A venue might use these features to make it easy for guests to find and reserve conference rooms at an office, order food and drink from their seat at a stadium, and search the vast archives of a museum's exhibit collection.

App analytics for smarter venue operations

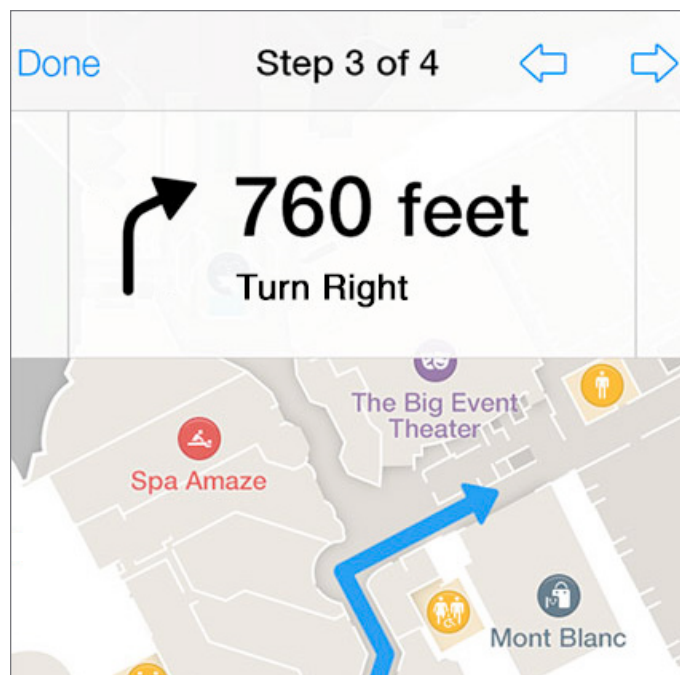
The Meridian Editor contains a reporting feature that lets venues see how mobile app users interact within their apps. Armed with this information, venues can make better-informed operational decisions about the type of content that guests prefer and respond to.

For example, in a sports stadium, seeing an increase in search queries for the term "water" might lead the stadium operator to install a public drinking fountain, vending machines or concessions that sell bottled water.

- Basic app analytics around page views, visits, app usage, and activity based on a customized range of dates.
- Visibility into popular search queries, wayfinding routes, and commonly accessed sections of the app.

MAPPING AND SELF-GUIDED WAYFINDING

The Meridian platform offers a simple and elegant way to incorporate a venue's custom maps into a mobile app along with directions to points of interest. Maps and map content are easily created and managed in the Meridian Editor content management system.



Help guests navigate venues

Finding your way through a venue can be challenging when GPS is unavailable. Meridian mapping and self-guided wayfinding give mobile app users a simple way to search for points of interest and access turn-by-turn directions to them – whether they are inside or outside.

These Meridian capabilities conserve operational resources and, more importantly, keep visitors satisfied by enabling them to instantly find what they are looking for from the comfort and familiarity of their own mobile devices.

- Convert existing floor plans and architectural layouts into vector-based, mobile-app friendly renderings.³
- Add searchable placemarks to maps that guests can use to access directions within the venue.
- Create custom routes on maps that define how guests navigate the venue.
- Easily adjust routes and placemark content in real-time when venue layouts change.

Add content about points of interest

Venues can add relevant, descriptive information about individual points of interest and enable guests to access additional content about them. Mobile app users can access this information using the search feature within the app or directly from a map.

Within a map, visitors simply tap on a placemark title or icon to access additional details about that particular point of interest.

- Various placemark icons – restaurants, restrooms, parking, information desks, and exits – can be used to denote specific points of interest.
- Custom placemark imagery provides a visual image to set the tone or describe a point of interest.
- Customized keywords help users search for and find specific points of interest and distinguish between multiple placemarks with the same name.
- Formatted text descriptions enable venues to describe individual points of interest within the app.
- Contact information such as phone number, email address, and web site lets users connect directly to the venue from the mobile app.
- Option to link external data sources to placemarks associated by a user ID instead of manual data entry.

MERIDIAN SOFTWARE DEVELOPMENT KITS

The Meridian SDKs allow venues to integrate Meridian features into their existing mobile apps. This is ideal for venues that have already invested in a mobile app but would like to insert Meridian-powered mapping, wayfinding, and/or proximity-based push notification features into it.

To use the Meridian SDKs, customers must have internal or third-party mobile app development resources.

Meridian SDK options

- NavKit – Incorporates Meridian mapping and wayfinding.
- BluDotKit – Incorporates location-aware indoor positioning with mapping and wayfinding. Requires Location Services powered by Aruba Beacons.
- ZoneKit – Incorporates proximity-based push notifications that associate actions with specific areas on a map. Requires Location Services powered by Aruba Beacons.

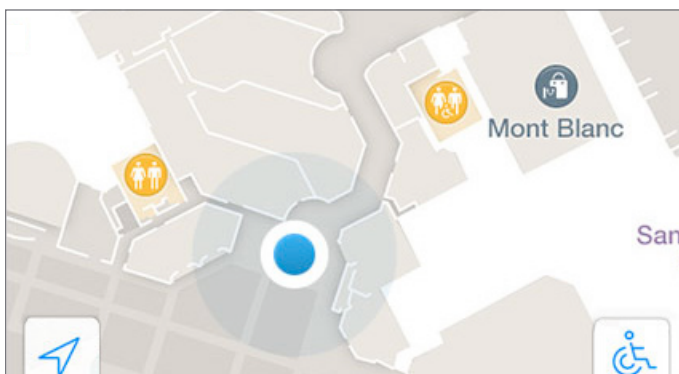
ARUBA LOCATION SERVICES

Aruba Location Services powered by Aruba Beacons can be added to provide an additional layer of contextual device positioning. This real-time data integrates with Meridian powered mobile-apps to give users access to more granular location-based services and personalized mobile engagement.

Blue dot wayfinding

Location context enhances the mapping and wayfinding experience by showing a glowing blue dot that indicates a mobile app user's location on a map. It also lets them search for directions from their current location without entering a starting point.

- Simulate a GPS-like wayfinding experience indoors.
- Access turn-by-turn directions from your current location.
- Display a glowing blue dot on a map.

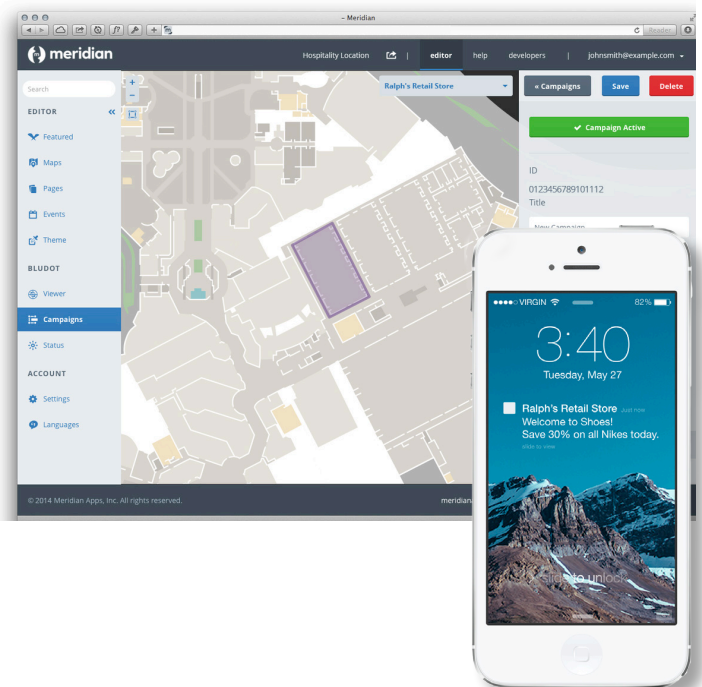


Users can easily see their current indoor location on a venue's map.

Zone-based customer engagement

The Meridian platform can also use location-context to enable venues to engage visitors with a push-notification message based on where they are on a property, in a way that respects their privacy and preferences. It's simple:

- Within the Meridian Editor, create zones on a map and tie them to specific user actions/campaigns.
- Users then download the venue's mobile app.
- Once they have the mobile app, they indicate their personal preferences and opt-in to receive push notifications.
- When users enter a zone you created, the app wakes up and pushes-out relevant content related to that part of the venue.



Venues can send push-notification messages to users when they enter predefined zones.

For example, in a hospital, the lobby area can trigger a push-notification that welcomes visitors to the facility and offers directions to a clinical appointment, or a zone around the pharmacy to remind hospital customers to pick up their prescription.

Venues can also integrate this information with their existing customer loyalty program databases. This enables venues to deliver personalized messages to visitors based on their engagement history and when they enter into a predefined zone.

A retail department store, for example, can deliver personalized rewards to customers for their third in-store visit based on preferred product. This can take the form of an in-store shoe promotion or an in-store promotion on outerwear, depending on their engagement history and product preferences.

- Send push-notifications messages to guest mobile devices, even when the app is not actively running.
- Send personalized, location-based messages that tie into existing loyalty program databases.
- Create large zones around the virtual perimeter of a property and send push-notifications to guests when they enter a venue.
- Create smaller zones within a venue to send more targeted proximity-based messages.
- Configure messages to launch the app and direct users to relevant, predefined pages, placemarks or events within the mobile app.
- Determine message frequency by having them always broadcast or only broadcast according to specific marketing schedules.

SPECIFICATIONS

Meridian Editor

- Supports multiple users per location or organization.
- Supports multiple venue locations per organization. (automatically loading the closest location to a user's real-time physical location)
- User account integration using OAuth. This allows visitors to login to a third-party account system using a simple browser-like API.

- REST API to access Meridian data (standardized data access methods).
- Sandbox API allows a hosted web page to interact with the Meridian environment and extend the capabilities of a Meridian app beyond the standard feature set. It also enables hosted web pages to look and feel like the rest of the app.

Browser requirements

The Meridian Editor works in Chrome and other modern WebKit browsers.

Many modern smartphones use a WebKit browser, however some Meridian Editor features require more computing power than most smartphones have. We strongly recommend using your desktop or laptop to manage content with the Meridian Editor.

Data importing feeds

- RSS
- XML
- JSON
- iCal (events only)
- FlightStats (events only)

AppMaker and SDK operating systems

- Objective-C for iOS, supports iOS 7 and up.
- Java for Android, supports API levels 15 and up.

AppMaker language support

English, simplified Chinese, traditional Chinese, Japanese, Korean, Russian, Portuguese, Spanish, Italian, French, Norwegian, German, and Arabic.

Map file specifications (for conversion)

High-resolution PDFs, JPEG, PNG, TIF and DWG files (files should be to scale and architecturally accurate).

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² Requires Aruba white-label professional services.

³ Requires purchase of the professional services mapping.



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