



Bluedot Innovation – Delivering 20x the precision of traditional mobile location services with the Google Maps API for Work



At a Glance

What they wanted to do

- Enable users to define precise locations using smartphone applications without additional hardware or battery drain.

What they did

- Created the Bluedot Innovation Point SDK to deliver 5m location awareness to smartphone applications using Google Maps API for Work.

What they accomplished

- Ability for businesses to deliver their products and services to their customers exactly when and where they need it.
- Create an intuitive and engaging user interface.

“Bluedot Innovation has always been focused on delivering a global solution for enterprise-level clients. They needed a mapping a solution that could handle high volumes of locations being set – tens of thousands in a short space of time – but only Google Maps could support this.”

Business

Bluedot Innovation is an enabler of location-based services across any industry where mobility and geo-location can add value. Started in Melbourne 2012 Bluedot created an innovative solution for transport-related payments in smart cities, which include: toll roads, congestion charging and parking. Realising they could change how location services are used in mobiles they shifted their focus and became a developer/licensor of software that’s powering the next generation of location-based commerce and social apps around the globe. Bluedot has delivered all of this while also leading the industry internationally on privacy protection. Bluedot Innovation generates rich aggregate analytics to create commercial value for its clients without tracking the end-users or collecting their personal information.

Challenge

Bluedot Innovation faced a core problem of delivering precise location services in the most scalable way to a global marketplace. They found that geo-service providers for smartphone apps lacked accuracy and were only able to show geofencing boundaries down to 100 metres. This was a unique challenge because of the precision the company required for the wide range of use cases they wished to enable for their clients. Additionally, Bluedot was told by leaders in the tech industry that they wouldn’t be able to overcome the trade-off between GPS and battery life. Determined to prove them wrong, they developed the first prototypes and began testing their innovative solution.

The key to obtaining such precision was finding a mapping platform that enabled the advanced geofencing of the Bluedot Innovation Points SDK (Software Developer Kit) to be visualised with up to 20x the accuracy of other providers. Bluedot tested a number of leading maps providers but they all lacked the required level of satellite imagery and were subject to limited international coverage or low resolution. “[Other mapping APIs] were unworkable for Bluedot

Innovation given the need to pinpoint the entryway to a building, the lane of a road or a specific pedestrian walkway. Google Maps was the only solution that could deliver the coverage and resolution needed.”

About Google Maps for Work

Google Maps API for Work makes it easy for companies to include fully interactive Google Maps on their public and internal websites. The Maps API helps your customers and employees make the right business and purchasing decisions by visualizing important information on a familiar map.

For more information visit:

<https://www.google.com/work/maps/earth/>

“Bluedot Innovation has always been driven to enable use cases that were simply impossible before. They have been able to achieve this vision with Google Maps.”

In addition, Bluedot Innovation have always been focused on delivering a global solution for enterprise-level clients. They needed a mapping platform that could handle high volumes of locations being set – tens of thousands of times in a short period – but only Google Maps could support this.



Solution

The Bluedot Innovation Point SDK allows both iOS and Android apps to use GPS at maximum precision, but with the vast majority of battery consumption prevented. This means that end-users are more likely to keep the app as the battery consumption is low. The SDK can operate intelligently in the background of the device and needs absolutely no additional hardware such as beacons or sensors - making it highly scalable at low cost.

Google Maps provides the resolution needed for precise mobile commerce and shows if the consumer is at the exact point a transaction needs to take place, not 100 metres away. For example, Street View also enables Bluedot Innovation’s clients to see where the entrance to a building is and not just the building itself.

The end result is a cutting-edge location service solution that can be used in almost any app across: mobile commerce and advertising; banking and payments; transport and road user charging; ticketing,

major events, tourism and many others. For example Bluedot Innovation enables its clients to set geofences as precise as 5 meters wide or 20x the precision of most other location service providers using advanced geofencing. Using Google Maps allows almost any shape geofence to be set, such as polygons that could cover even the most complicated commercial environments. For example, geofences can be treated as a consolidated 'zone' which is essential for understanding the path an end-user has travelled, ie. play a video, open a website or charge a payment when the end-user leaves the train station and travels a particular path to the sporting stadium.

The company was also focused on delivering an intuitive and engaging user interface to make sure non-technical clients were not disadvantaged. The public familiarity with the easy-to-use Google Maps interface has been central to achieving this. Users can now also utilise the Google Places API to search and validate a location just like they would on Google Maps.