Public Safety Commercial LBS Internet of Things

OmniLocate

The Universal High Accuracy Mobile Device Location Platform



www.polariswireless.com

The Universal High-Accuracy Mobile Device Location Platform

As mobile networks evolve and customers deploy more sophisticated applications, accurate location determination has become the core component of the wireless eco-system. OmniLocate is a comprehensive, versatile platform that enables wireless operators to quickly deploy Tier-1 compliant Location Services with market-leading accuracy.

OmniLocate determines the geographic location of any wireless device in any RF environment with the highest accuracy available in the industry. OmniLocate supports a variety of location technologies, from the most basic Cell ID to its patented Polaris Wireless Location Signatures (Polaris WLS[™]), which has over 100 patents associated with it. Customers are able to deploy a hybrid version of WLS, A-GNSS and other location technologies in order to locate devices in urban, suburban, rural and indoor environments.

OmniLocate does not need any additional investment in hardware at cell towers, as it is a software only solution that utilizes standard 3GPP wireless network interfaces. The system can be deployed on Commercial-Off-The-Shelf (COTS) platforms in data centers and fully supports virtualized environments and cloud container environments as well.

How It Works

OmniLocate offers the following best-in-class capabilities:



OmniLocate Features

Accurate location in all environments

OmniLocate provides a time-to-market and performance advantage over all other location solutions, delivering the highest degree of accuracy in dense urban and indoor environments where the majority of the population resides.



Flexible Architecture and Easy to Deploy

OmniLocate supports control plane and user plane (SUPL) location architectures as defined by the 3GPP and OMA standards bodies, as well as a broad range of network technologies and geo-location methods.

Network Technologies

- 2G (GSM)
- 3G (UMTS/WCDMA)
- 4G (LTE)
- 5G (2020 Roadmap)
- Distributed Antenna Systems (DAS)

Geo-Location Methods

- Hybrid
- WLS
- A-GNSS
- 3D (2019)
- Wi-Fi
- E-CID
- CID + TA / CID

Features

- High Accuracy Locate
- High Availability
- Geo-redundancy
- Active-Active Load Sharing

Platform that scales to meet any network requirements

OmniLocate offers a flexible, virtualized carrier-grade solution that is able to power the high-accuracy, highvolume demands of today's location-based services. OmniLocate easily adapts to any sized network, enabling customers to easily and cost-effectively increase or decrease capacity.

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Accuracy chart depicting accuracy of WLS versus ECID



RF signal strength distribution map, which serves as an input for the WLS pattern matching algorithm



Subscriber location with the industry-best accuracy.

The Polaris Wireless Advantage

Best-in-class Hybrid Location Solution with Polaris WLS™

Polaris Wireless determines the location of wireless devices using a best-in-class Hybrid location solution. The Hybrid location solution uses all available handset, sensor and network-based location technologies including Polaris Wireless Location Signatures (Polaris WLS[™])—a patented implementation of the 3GPP standardized Radio Frequency Pattern Matching (RFPM) approach. The result is the most accurate, most reliable horizontal and vertical location performance of its type.

24/7 Support

Polaris Wireless solutions are inherently easy to service because they are software-based; avoiding the costly and time-consuming maintenance associated with hardwarebased location solutions. Polaris Wireless also provides regular enhancements and updates, and 24/7 global technical and operational support, to better monitor and improve the performance of its solutions

Commitment to the Industry and Technology

Since 1999, Polaris Wireless has consistently served the location needs of the wireless industry. Through core research and development that has yielded over 100 patents and several primary products, Polaris Wireless has evolved with the industry and is committed to serving the future needs of the expanding market for locating devices for public safety and commercial uses.



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Polaris Wireless is the global leader in providing high-accuracy, software-based wireless location solutions to wireless operators and public safety organizations. Polaris Wireless OmniLocate is used in the United States to meet the stringent FCC E911 Phase II requirements, for commercial LBS and Internet of Things applications and by several customers in Asia, the Middle East and Africa. We are the recipients of the Frost & Sullivan 2011 and 2014 "Enabling Technology of the Year" award, recognizing our accomplishments and leadership in developing location solutions. We participate in industry forums and standards-setting bodies such as the 3rd Generation Partnership Project (3GGP) and Open Mobile Alliance (OMA).

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