

# **Licensed and Unlicensed Spectrum Applied-Use: A comparative analysis**

**Bluetooth**

**Carrier Voice and Data**

**RFID**

**WiFi**

**WiMAX**

**WiMAX Fixed Wireless**

**WiMAX Mesh**

**WiMAX Mobile**

## Introduction

Enterprise and consumer are increasingly annoyed and bored with location-based applications that provide only adequate positioning when their needs are becoming more transparent with the rise of social media as a method for communicating their desires and disappointments. Enterprise and consumer want the most powerful positioning solutions available for mobile work and social life – including employee safety, product sales, peer networking, and travel.

The capability of a technology to locate the position of a subject determines its present value to the market and its long-term value for investment. Which technology and what applied-use provide the best location positioning solutions that consumers can easily use at their discretion?

This report considers technologies that use the licensed and unlicensed spectrum:

- Frequency Bands – A View of Spectrum Use in North America
- Radio Wave Frequency Bands
- Licensed vs. Un-Licensed Location Applications
- Recent European Spectrum Investment
- Recent Global Infrastructure Investments
- The Sweet Spot For Strategic Partnerships
- Carrier Supported Cellular Applications
- RFID
- Bluetooth and Piconets
- Assisted GPS
- WiMAX – Mesh Networks
- WiMAX Fixed Wireless-Use Case
- WiMAX Mobile Wireless

## Methodology

Readers will be guided through the technology landscape and the applied use in location solutions. The readers will end the report with a clear understanding of the best solutions for positioning. Examination tools include a comparative analysis of frequency allocation, technology use of the frequency, functional operations of the technology, and ultimately consumer application. Use-cases are provided to enable readers obtain a holistic understanding of location technologies – how they work and are best applied for use to solve present-day challenges.

## Business Owners Tool Set

Readers will learn that the European market is a hotbed of investment and Asia is where infrastructure providers are earning their ROI. Outlined are the companies leading along with their current investment allocations. Readers will have a ranking of the best positioning solutions, a schematic for integrating multiple solutions to provide the best enterprise and consumer service as well as a view point on those companies in the sweet spot for strategic partnerships.

## Audience

This report is for anyone considering launching location-aware business, solutions involving location based technology and services, and businesses providing components to proximity solutions. New entrants and into the location-based communication ecosystem and existing participants wanting to expand their business lines are provided with a view of surrounding potential partners.

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## Companies Mentioned in the Report

Aruba	Clearwire	Motorola	Omnitrol	Symantec
BeepNTrack	Covad	M-Taiwan	Reliance	Tele Atlas
Bell Canada	E-Plus	Navini	SalesSense	Telecom Italia
Bloomingdales	Guardian Edge	Networks In Motion	Seven Networks	Telenor
Bluetooth	Huawei	Nokia-Siemans	Sprint	TeliaSonera
Broadcom	IBM	Noos	Starent	Tiscali
Cisco	Intel	Nortel	Sygc	University of Arkansas



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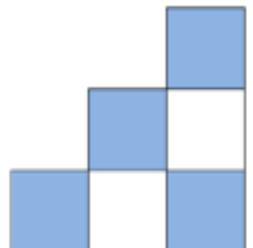
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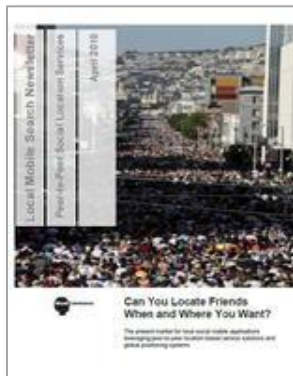
# Additional Reading



## **MOBILE LOCAL SEARCH 2010**

Mobile Local Search is the search and discovery of persons, places, and things within an identifiable space defined by distinct parameters. These parameters are evolving. Today they include social networks, individuals, cities, neighborhoods, landmarks, and actions that are relevant to the searcher's past, current, and future location. These parameters provide structure to vertically deep and horizontally broad data categories that can stand-alone or are combined to comprise searchable directories.

[http://www.mindcommerce.com/Publications/Mobile\\_Local\\_Search\\_Feb2010\\_Brochure.pdf](http://www.mindcommerce.com/Publications/Mobile_Local_Search_Feb2010_Brochure.pdf)



## **MOBILE SOCIAL PEER-TO-PEER LOCATION APPS TECHNOLOGIES**

This report addresses the leading app developers world-wide as well as recent applications making a difference and presents a visionary use of peer-to-peer mobile location-based services.

<http://www.mindcommerce.com/Publications/Peer2PeerSocialSearch.php>



## **MOBILE WALLET: LOCATION-BASED COMMERCE & PEER-TO-PEER PAYMENTS**

The report looks at the value of combining the mobile wallet with mobile local search. Covered are emerging mobile app developers and what they need to do next in their evolution towards bringing commonality of usage to the masses for rapid service adoption.

[http://www.mindcommerce.com/Publications/Mobile\\_Wallet\\_June2010.pdf](http://www.mindcommerce.com/Publications/Mobile_Wallet_June2010.pdf)