IPINVESTMENTS **G**ROUP

THE LBX PORTFOLIO

MOBILE LOCATIONAL APPLICATIONS

A Patent Portfolio Acquisition Opportunity

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Overview of the Opportunity

IPinvestments Group has been exclusively retained to broker the sale of patented technologies generally related to various mobile locational applications (the "Portfolio" or "the LBX Portfolio"). As a whole, the LBX Portfolio provides patented technologies with direct relevance to Location Based Services (LBS) and Location Based Exchanges (LBX). With LBX, mobile data processing systems can interact with each other as peers in communications and interoperability, for example, in sharing data, messages, and other content (automated or non-automated) for mobile device applications destined to become commonplace. Numerous claims are provided in the Portfolio for enabling new and useful location dependent features and functionality to the mobile data processing systems themselves, such as smartphones, much like those seen in today's marketplace.

The Portfolio is being offered for sale to patent acquisition and financing organizations as well as to select operating companies that participate in relevant markets and related industries. The Portfolio, listed chronologically by filing date in the table below, consists of 19 issued U.S. Patents and 10 pending U.S. patent applications, all of which comprise a single patent family *(all related file histories and copies of the U.S. patents are available upon request).*

PATENT NO.	TITLE	SERIAL NO.	FILING DATE	ISSUE DATE	PARENT RELATION
8,600,341	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATIONAL APPLICATIONS	12/077,041	03/14/08	12/03/13	N/A
8,639,267	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATIONAL APPLICATIONS	12/287,064	10/03/08	01/28/14	CIP of '341
8,634,796	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATIONAL APPLICATIONS	12/590,831	11/13/09	01/21/14	CIP of '267 and CIP of '341
8,566,839	SYSTEM AND METHOD FOR AUTOMATED CONTENT PRESENTATION OBJECTS	12/800,394	05/14/10	10/22/13	CIP of '796, CIP of '267, and CIP of '341
8,750,841	SYSTEM AND METHOD FOR AUTOMATICALLY LEAVING AN OUTGOING CALLER MESSAGE	12/800,395	05/14/10	06/10/14	CIP of '796, CIP of '267, and CIP of '341
8,761,751	SYSTEM AND METHOD FOR TARGETING DATA PROCESSING SYSTEM(S) WITH DATA	12/807,806	09/14/10	06/24/14	CIP of '796, CIP of '267, CIP of '341, CIP of '839,

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					and CIP of '841
8,887,177	SYSTEM AND METHOD FOR AUTOMATED CONTENT DISTRIBUTION OBJECTS	13/936,540	07/08/13	11/11/14	CON of '839
8,897,741	SYSTEM AND METHOD FOR MOBILE DEVICE USABILITY BY LOCATIONAL CONDITIONS	13/971,994	08/21/13	11/25/14	CON of '796
8,923,806	SYSTEM AND METHOD FOR PRESENTING APPLICATION DATA BY DATA PROCESSING SYSTEM(S) IN A VICINITY	13/972,001	08/21/13	12/30/14	CON of '796
8,897,742	SYSTEM AND METHOD FOR SUDDEN PROXIMAL USER INTERFACE	13/972,007	08/21/13	11/25/14	CON of '796
9,014,658	SYSTEM AND METHOD FOR APPLICATION CONTEXT LOCATION BASED CONFIGURATION SUGGESTIONS	13/972,014	08/21/13	04/21/15	CON of '796
PENDING (Issue Fee Paid)	SYSTEM AND METHOD FOR LOCATION BASED INVENTORY MANAGEMENT	13/972,125	08/21/13	-	CON of '796
8,718,598	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGE VICINITY INTEREST SPECIFICATION	13/972,155	08/21/13	05/06/14	CON of '796
8,750,823	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATIONAL APPLICATIONS	14/033,539	09/23/13	06/10/14	CON of '341
8,761,804	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATIONAL APPLICATIONS	14/033,540	09/23/13	06/24/14	CON of '341
8,886,226	SYSTEM AND METHOD FOR TIMELY WHEREABOUTS DETERMINATION BY A MOBILE DATA PROCESSING SYSTEM	14/033,543	09/23/13	11/11/14	CON of '341
PENDING (Issue Fee Paid)	SYSTEM AND METHOD FOR SERVICE-FREE LOCATION BASED APPLICATIONS	14/087,222	11/22/13	-	CON of '267
8,942,732	LOCATION BASED EXCHANGE OPERATING SYSTEM	14/087,228	11/22/13	01/27/15	CON of '267
PENDING	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATIONAL APPLICATIONS	14/087,242	11/22/13	-	CON of '267
PENDING	SYSTEM AND METHOD FOR WHEREABOUTS PROGRAMMING LANGUAGE	14/087,270	11/22/13	-	CON of '267
PENDING	SYSTEM AND METHOD FOR DETERMINING MOBILE USERS OF INTEREST	14/087,292	11/22/13	-	CON of '267
PENDING (Issue Fee Paid)	LOCATION BASED EXCHANGE PERMISSIONS	14/087,313	11/22/13	-	CON of '267
PENDING (Issue Fee Paid)	SYSTEM AND METHOD FOR APPLICATION SEARCH RESULTS BY LOCATIONAL CONDITIONS	14/087,340	11/22/13	-	CON of '267

8,942,733	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATION APPLICATIONS	14/087,353	11/22/13	01/27/15	CON of '267
9,055,406	SERVER-LESS SYNCHRONIZED PROCESSING ACROSS A PLURALITY OF INTEROPERATING DATA PROCESSING SYSTEMS	14/087,378	11/22/13	06/09/15	CON of '267
8,942,693	SYSTEM AND METHOD FOR TARGETING DATA PROCESSING SYSTEM(S) WITH DATA	14/217,661	03/18/14	01/27/15	CON of '751
ABANDONED	*SYSTEM AND METHOD FOR LOCATION BASED EXCHANGES OF DATA FACILITATING DISTRIBUTED LOCATIONAL APPLICATIONS*	*14/299,910*	*06/09/14*	*-*	*CON of '823*
PENDING (NOA received)	SYSTEM AND METHOD FOR LOCATION BASED EXCHANGE VICINITY INTEREST SPECIFICATION	14/306,877	06/17/14	-	CON of '742
PENDING	SYSTEM AND METHOD FOR AUTOMATED OUTGOING CALLER MESSAGES	14/505,221	10/02/14	-	CON of '177
PENDING	SYSTEM AND METHOD FOR TARGETING DATA PROCESSING SYSTEM(S) WITH DATA	14/551,437	11/24/14	-	CON of '693
To be filed soon	SYSTEM AND METHOD FOR SERVICE ACCESS VIA HOPPED WIRELESS MOBILE DEVICE(S)	TBD	TBD	-	CON of 14/306,877

A closer look beyond the priority date of a continued application reveals most of the assets within the Portfolio claim an even earlier priority date for many of their claims. For example, the independent claims from U.S. Patent 8,942,732 enjoy the earliest priority date of March 14, 2008. The independent claims from a number of additional issued patents and pending patents, listed below, enjoy an earlier priority date of October 3, 2008.

- □ U.S. PATENT 8,566,839
- □ U.S. PATENT 8,634,796
- □ U.S. PATENT 8,718,598
- □ U.S. PATENT 8,887,177
- □ U.S. PATENT 8,897,741
- □ U.S. PATENT 8,897,742
- □ U.S. PATENT 9,014,658
- □ U.S. PATENT APPL. 13/972,125
- □ U.S. PATENT APPL. 14/306,877
- □ U.S. PATENT APPL. 14/505,221

BACKGROUND OF THE TECHNOLOGY

People have a reasonably good understanding of what Location Based Services are all about – maps, knowing what or who is nearby, and being informed with location based content. The word "Services" in that terminology plays a major and indispensable role. Whether you're using the internet, or even communicating with someone nearby, there are many remote systems in play to help provide that service. Conventional Location Based Services rely on many remote service entities to carry out

interoperability between mobile devices and systems which are already nearby each other. It makes perfect sense to communicate directly between end points at opportune times, for example, to minimize outbound network bottlenecks involving significant concentrations of mobile communication devices. Moreover, numerous data breaches and NSA-like behavior of centralized services compromise privacy and security. Unnecessary reliance on "middle-man" intercepted processing has been a major inhibitor to the proliferation of Location Based Services.

Location Based Exchanges (LBX) provide location based functionality between a mobile device user and a device, beacon, or system in the vicinity, and between mobile device users in a vicinity of each other. The conversations may be compressed and encrypted while concealing identities, and there is no service involved unless it makes sense for a particular application. Interactions can be carried out directly between ends of the conversation and explicit location information may or may not be involved. Application data is shared between devices in proximity of each other. This is not only the most secure method of communicating data between people, but also prevents bottlenecks of outbound traffic at large concentrations of people by judiciously communicating data locally when it makes sense. However, LBX end-to-end communications may include highly secure conversations over any distance, and the Portfolio includes cloud platform and centralized service (LBS) innovations as well.

MARKET OVERVIEW

There were 1.1 billion active smartphones as of January 2014. LBX addresses all mobile computing which further includes beacons, wearables, RFID devices, and electrical and mechanical devices or appliances in a vicinity. Gartner and IDC determined that there is a smartphone for
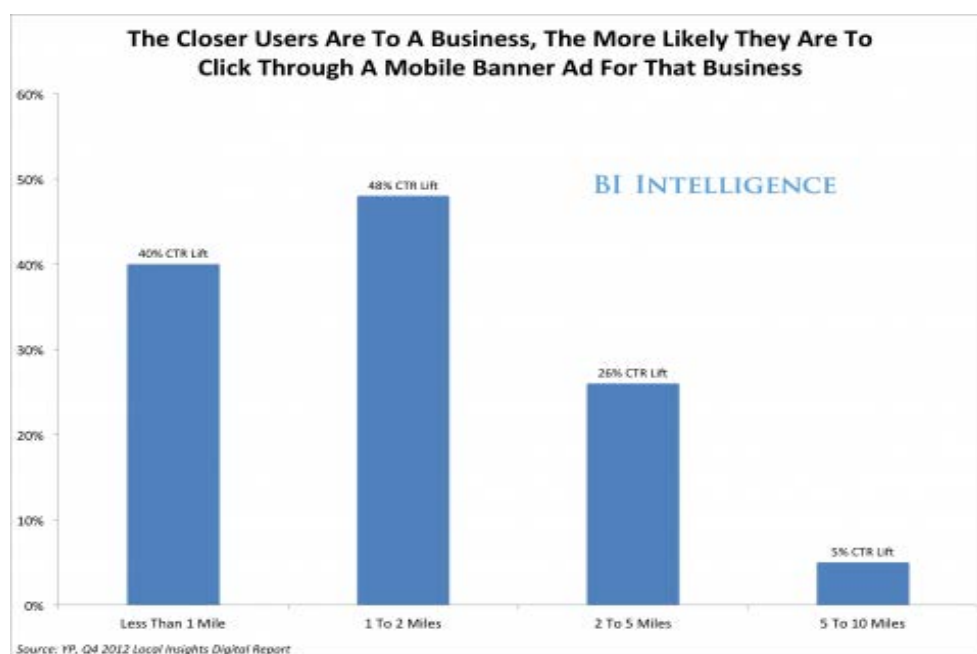
The Closer Users Are To A Business, The More Likely They Are To Click Through A Mobile Banner Ad For That Business

BI INTELLIGENCE

Source: YP, Q4 2012 Local Insights Digital Report

every 5 people in the world population. Another study showed that the closer mobile users are to a business at the time of being delivered an advertisement, the more likely they are to pursue information related to that advertisement.

When focusing on a particular mobile device such as a smartphone, LBX essentially consists of three major software components: a foundation including common processing, Proximity APIs for all things Radio Frequency interface related, and Vicinity APIs supporting location based functionality for every remaining novel LBS and LBX mobile application. LBX completes the LBS space. In preferred embodiments, LBX provides enhanced event processing. Today's operating systems are already event based, such as the following:

- o *User actions for mouse rollovers, clicks, and movement droppings;*
- o *Keyboard input;*
- o *Other user input actions;*
- o *Asynchronous system interrupt events such as email, messages, phone calls, and communication packet arrivals for one reason or another, etc.*

LBX expands event processing to include obtaining a confident location of the host device or another device nearby, receiving an inbound transmission from a beacon or device in proximity, sending an outbound transmission to a device in proximity, or processing a location or transmission for one reason or another. iOS devices, and Android in particular, provide ample multitasking capabilities facilitating minimal effort porting select features of the LBX architecture to a popular mobile operating system. LBX mobile device applications talk to other mobile device applications or system applications in their vicinity using any spectrum including sound waves, Wi-Fi, Bluetooth, UDP, or any other radio wave class; even light waves are disclosed. *Apple's iBeacon* space provides a market-ready platform, but is not required.

U.S. Patent 8,942,732, for example, covers a variety of LBX and LBS system architectures. U.S. Patent 9,055,406 covers a remarkable method and system for synchronizing processing across a group of interoperating devices without involving a centralized service of any kind. There are many LBX and LBS innovations brought forth by the Portfolio.

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THE PATENTED TECHNOLOGIES

The LBX Portfolio offers fundamental technologies which form the basis for many location based applications, including location based application vicinity beacons. With the Apple announcement of iBeacon at the end of 2013, iOS became the first mainstream operating system capable of easily supporting many exciting LBX applications. The LBX Portfolio covers the iBeacon application space as well as a variety of associated location based technologies. Some of the patents that certainly dominate the space as of today

> **KEY INITIAL FOCUS PATENTS:**
>
> - **14/306,877** *(NOA ISSUED)*
> - **9,014,658**
> - **13/972,125** *(ISSUE FEE PAID)*
> - **8,750,823**
> - **8,566,839**

include U.S. Patent No. 9,014,658, as well as pending U.S. Patent Application Nos. 13/972,125, 14/087,313, and 14/306,877 (have Notice of Allowances), among others. In fact, with regard to iBeacon or beacon based applications, the LBX Portfolio includes at least **14/306,877; 14/087,313; 9,014,658; 13/972,125; 8,750,823; 8,639,267; 8,897,742; 8,897,741; 8,566,839; 8,887,177; 8,718,598; 8,761,804;** and **8,886,226.**

As previously stated, the LBX Portfolio includes 19 issued patents and 10 pending patent applications, five of which have been issued a Notice of Allowance from the USPTO *(as of May 2015)*. The parent application, U.S. Patent 8,600,341, provides an earliest priority date of March 14, 2008 for the Portfolio and to which all CIPs and continuations claim priority, either directly or indirectly. U.S. Patent 8,639,267 (the first CIP), arguably contains the most noteworthy language deserving attention in today's marketplace because of the significant more detailed functionality disclosed therein.

U.S. Patent 8,639,267 covers location based trigger processing. The triggers may be made by novice users through advanced users for mobile device triggered processing based on inbound transmission data, outbound transmission data, and transmission data in desired intercepted paths of processing. Triggers can be configured with permissions between mobile users which are referred to as privileges, or with local permission(s) to grant vicinity beacon (e.g., iBeacon) processing. Triggers can be processed using system events in the same manner of operating systems today. LBX provides a natural extension to every operating system in existence. U.S. Patent 8,942,733 also covers triggered processing, but is based on smartphone detection of environmental conditions.
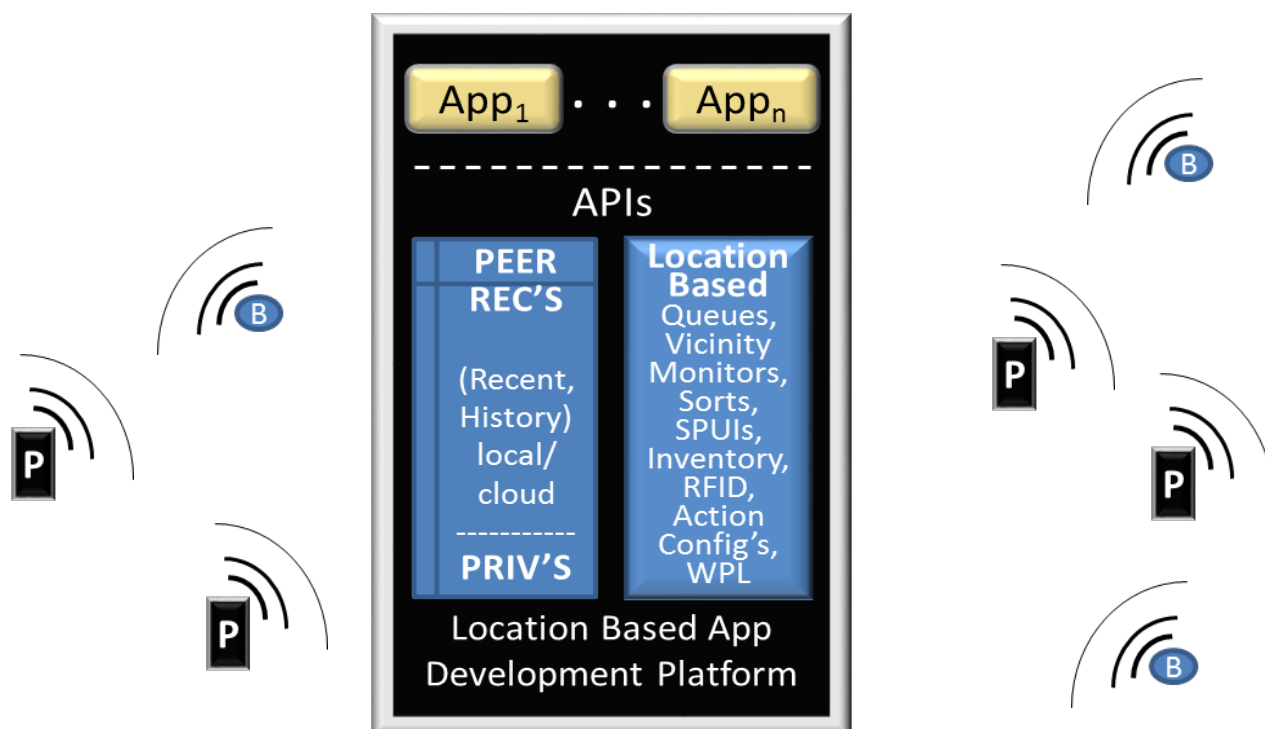
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LBX ARCHITECTURE

LBX foundation processing is depicted on the left in the figure above, and Vicinity API processing is shown on the right. Vicinity API processing includes special location based queue processing, multi-threaded vicinity monitors for monitoring unique situations simultaneously in the vicinity of the mobile device, location based sorts, Sudden Proximal User Interfaces (SPUIs), location based inventory management, passive and active RFID device interfacing, a comprehensive automated action configuration architecture, and a Whereabouts Programming Language that includes a parse-able syntax, an XML form, or may be embedded into C, C#, C++, or Java module (see 14/087,270). Information collected is not only searchable (see 8,750,823) synchronously or asynchronously (like iBeacon API), but there can be privileges in place specifically granulating desired interoperability. LBX provides a true single-sign-on like solution, without requiring an explicit sign-on, for interfacing with peers, beacons, other systems or devices, and with services.

The Portfolio includes U.S. Patent 8,718,598 pertaining to a mobile device Halo (also see 14/306,877). A Halo can be configured around a smartphone, for example, for filtering out what is or is not of

interest in your direct vicinity during mobility. Halo conditions handle beacons, and include configuration for identities of devices in your vicinity, types of devices in your vicinity, certain locations of interest, a distance from your current location, and literally every conceivable condition that makes sense. The Halo enables interaction with your nearby mobile friends, beacons in your vicinity (e.g., iBeacon), RFIDs in your proximity, electrical and mechanical devices or appliances in your proximity, and a whole spectrum of relevant location based applications, all without a required Big Brother centralized service. A simple example includes walking through your home – as you are moving, the lights turn on in front of you and the lights turn off behind you, all automatically. Prior to this innovation, moving interest radiuses were maintained at an indispensable centralized service for service side processing to deliver content. The LBX Halo is a very unique smartphone centric solution and covers a large number of novel uses.

U.S. Patent 8,750,823 provides methods and systems for a mobile device collecting information locally and/or to a cloud platform from peer mobile devices, beacons in the vicinity (e.g., iBeacon), other systems in its vicinity, and environmental data, while mobile. Convenient search interfaces are provided into that data (including SQL embodiments) for locational and iBeacon applications which run at the mobile device.

The LBX Portfolio includes many patents for a mobile device interacting with beacons, peer mobile devices, and any other systems in the vicinity or in accordance with location information. Most of the LBX Portfolio patents are scoped for claiming mobile-to-mobile through broader claims covering all systems disclosed (e.g., beacon and device processing). Direct mobile-to-mobile is a new frontier with very recently released applications, including as explicitly claimed in U.S. Patent 8,634,796; 14/087,222; and 14/087,340 (both having a Notice of Allowance) for direct interactions between mobile users. U.S. Patent pending 14/087,292 also addresses this exciting space. Interactions between a plurality of mobile devices (e.g. phone and watch) of a single user are also applicable.

U.S. Patent 8,600,341 (the original parent filing for this portfolio) generally provides for a mobile device determining a location by adapting to any environment and making best use of information available to determine a location. Locating methods exploit all information available to the device regardless of protocols or methods in order to deduce a location. A mobile device can be located relative to its peers, or by using completely unrelated technologies, or by using completely different originations of data in order to marry the information to assess a location. For example, a time of

arrival from a cell can be used with a time of arrival from a Bluetooth connection, or an angle or arrival can be used with TDOA, etc. - this is referred to as Missing Part Triangulation. There is also Recursive Whereabouts Determination (RWD) for continuing to recycle information from a queue in order to determine the best possible location. This technology solves the problems with determining a location indoors or in other challenging situations. In addition, an alert can be provided to a mobile user for who or what is nearby. Every layer of processing in a mobile device is satisfied from low level locating functionality to high level application functionality with a single data packet.

U.S. Patent 8,886,226 provides for minimized battery use per system requirements and constraints known about the applications on the mobile device. Location detection processing can be throttled up or down, depending on dynamic conditions and the real needs of the device, or by needs of the applications on the device. Every well performing mobile device will implement at least one of the independent claims.

The Portfolio includes U.S. Patent Nos. 8,761,751 and 8,942,693 (also see 14/551,437) which provide technology giving literal meaning to the phrase "shoot me an email". You literally shoot wireless data from one device to another by aiming it and shooting it with radio or sound waves. Google's Bump application (*now defunct*) allowed sharing contact info and pictures by slightly touching two devices in proximity to each other. This shoot technology needs no bump and no Big Brother centralized service to carry out processing. You simply aim and shoot. There's also a variety of bells and whistles for confirming your targets, shooting multiple targets, and for other aiming varieties like a fishing rod motion. There are a variety of markets candidate here because people don't need to wear garments for providing targets. A micro-device or a handheld smartphone is enough to know if and where you are targeted. Depending on an embodiment in use, explicit location information may or may not be necessary, for either the shooter or the target.

U.S. Patent 8,566,839 relates to sharing trigger loaded objects between devices, governed by permissions, so that an accepted object will cause presentation of content upon detecting location based conditions. As nice as it would be to prevent advertisements invading mobile applications, advertising certainly needs to be supported, and this technology supports at least that. Such objects can also be delivered from services. U.S. Patent 8,887,177 is similar to the '839 Patent, except instead of a presented content, a message such as an email or SMS message may be sent to at least one recipient when conditions trigger, for example, to alert someone or some system of a condition, outcome, or

status. This provides messaging and interoperable communications based on locational conditions. The '177 Patent and the '839 Patent cover location based enhancements to HTML5 as well as other deliverable objects and may be FRAND candidates (*See diagram below*).
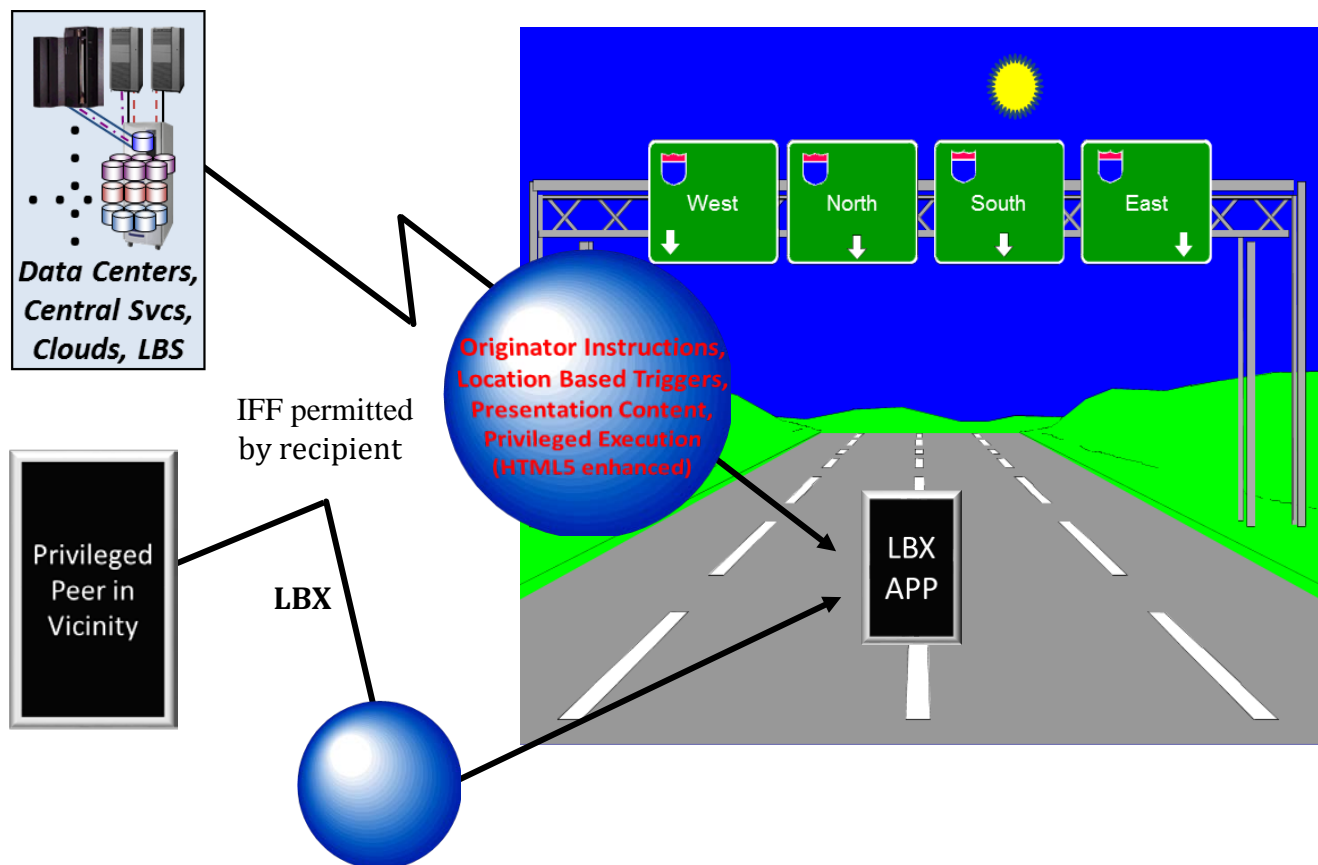
U.S. Patent 8,750,841 relates to leaving location based messages. For example, you're in tough traffic with some questionable drivers. Messages can be automatically left at a called messaging system by the caller opting to have a smartphone background thread take over to leave a message based on caller configurations including locational conditions. The claimed "*another situational location of another system*" may be "*another*" from perspective of a specification instance in the comparison. The mobile device user assignment from foreground thread to background thread for leaving a message should be patentable in itself, therefore pending U.S. patent application 14/505,221 is technically broader.

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U.S. Patent 8,897,742 details systems and methods for a sudden proximal user interface, referred to as SPUI. A SPUI is an automated user interface based on your location, someone else's location, a location of a beacon, a location of another device, a location of another smartphone or mobile device, or may include any conceivable and configurable related conditions that are detected in order to automatically present the SPUI for subsequently interacting with a user. A "*specific location*" may be implicit or explicit, a derived location, a beacon location, a location of someone or something, or by virtue of receiving a transmission, etc. An "*identified system*" may be the host system, a mobile system, a beacon, or any other device, appliance, or system. A configured *whereabouts* includes detecting a location by having received a transmission from another beacon/device in the vicinity, a specified location, a "*specific location*", or other disclosed embodiments. Other Portfolio patents process similarly with many condition configurations available.

The claim language used in U.S. Patent 8,897,741 is broad and includes determining a location by simply receiving an in-range transmission from another device (e.g. a smartphone, beacon, appliance, system, etc.) in the vicinity (i.e., the device is nearby), or may be an implicitly or explicitly specified location of the host device, some device(s), or user(s). A "*specific location*" and "*identified system*" is identically defined as above for U.S. Patent 8,897,742. There are many conditions which may be configured for triggering desired processing behavior, and there are many exciting applications which result in the claimed functionality.

U.S. Patent 8,923,806 provides methods and systems for sorting email items, address book entries, calendar entries, files, videos, pictures, or any other data according to who or what device(s) (e.g. beacon(s), appliance(s), system(s), mobile device(s), smartphone(s), etc.) is in your vicinity, or who or what is in the vicinity of a particular mobile device, or who or what is in the vicinity of a specified location. This solution provides every conceivable type of location based sorting in an LBS as well as an LBX embodiment.

In summary, these are only some of the highlights of this comprehensive location based Portfolio pioneered by a leader in the location based space since 1999.

IPINVESTMENTS GROUP

IPinvestments Group is an intellectual property business advisory firm committed to extracting maximum value for intellectual property assets. **IP**investments Group provides transactions and licensing services related to the selling and/or licensing of patented technologies. More specifically**,** we are intellectual property investment brokers who market, auction and/or sell patents on behalf of the patent owner. In addition to transactions, we assist our clients and partner in the development, implementation and management of patent licensing programs.

Determining the fair market value of intellectual property is critical to evaluating potential technology transactions. Our professionals have a tremendous amount of experience valuing intellectual property and determining reasonable royalties for intellectual property across a broad range of technologies and industries.

IPinvestments Group's professionals have backgrounds in accounting, engineering, finance and IP law, as well as extensive experience in negotiating the economics of intellectual property rich transactions and license agreements. We perform our intellectual property transactions and licensing work under a "success fee" structure (a/k/a – contingency fee). We have been engaged by Fortune 500 companies, government agencies, universities, privately held companies, investment / financial firms, and individuals.

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