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To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof

1. Name of conveying party(ies):

U.S. Wireless Corporation 1-28-02

Additional name(s) of conveying parties attached? ☐ Yes ☒ No.

3. Nature of conveyance:

☒ Assignment ☐ Merger

☐ Security Agreement ☐ Change of Name

☐ Other: _____

Execution Date: December 10, 2001

2. Name and address of receiving party(ies)

Name: Trafficmaster USA, Inc.

Internal Address: 1209 Orange Street

Street Address: 1209 Orange Street

City: Wilmington State: DE ZIP: 19801

Additional names and addresses attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s).

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No(s): See attached "Exhibit A"

6026384

B. Patent No(s): See attached "Exhibit A"

Additional numbers attached? ☒ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Chad S. Hilyard
TOWNSEND AND TOWNSEND AND CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, California 94111-3834
(303) 571-4000

6. Total number of applications and patents involved 18

7. Total fee (37 CFR 3.41): ----------$720.00

☐ Enclosed

☒ Authorized to be charged to deposit account

8. Deposit account number: **20-1430**

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document.

Chad S. Hilyard
Name of Person Signing
Atty. Reg. No. 40,647

Signature

January 3, 2002
Date

Total number of pages including cover sheet, attachments and document

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02/19/2002 DBYRNE 00000062 201430 6026384
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EXHIBIT A

Issued Patents

Pat. No.	Date Issued	Title
U.S. Pat. No. 6,026,304	February 15, 2000	Radio Transmitter Location Finding for Wireless Communication Network Services and Management
U.S. Pat. No. 6,064,339	May 16, 2000	Subspace Signature Matching for Location Ambiguity Resolution in Wireless Communication Systems
U.S. Pat. No. 6,101,390	August 8, 2000	Calibration Table Generation for Wireless Location Determination
U.S. Pat. No. 6,249,680	June 19, 2001	Radio Transmitted Location Finding in CDMA Wireless Communication Systems
U.S. Pat. No. 6,232,918	May 15, 2001	Antenna Array Calibration in Wireless Communication System
U.S. Pat. No. 6,112,095	August 29, 2000	Signature Matching for Location Determination in Wireless Communication Systems
U.S. Pat. No. 6,108,557	August 22, 2000	Signature Matching for Location Determination in Wireless Communication Systems
U.S. Pat. No. 6,104,344	August 15, 2000	Efficient Storage and Fast Matching of Wireless Spatial Signatures
U.S. Pat. No. 6,084,546	July 4, 2000	Location Determination in Wireless Communication Systems Using Velocity Information

Pending Patent Applications

Appl. No.	Date Filed	Title
Appl. No. 09/421,438	October 19, 1999	Radio Transmitter Location Finding for Wireless Communication Network Services and Management
Appl. No. 08/948,713	October 10, 1997	Internet Distributed Real-Time Wireless Location Database
Appl. No. 09/561,319	April 28, 2000	Methods of Using Wireless Geolocation to Customize Content and Delivery of Information to Wireless Communication Devices
Appl. No. 09/482,692	January 13, 2000	Signature Matching for Location Determination in Wireless Communication Systems
Appl. No. 09/153,091	September 14, 1998	Velocity Estimation in Wireless Communication Systems
Appl. No. 09/574,394	May 19, 2000	Multisite Location Ambiguity Reduction
Appl. No. 09/595,340	June 15, 2000	Call Characteristics Mapping
Appl. No. 09/231,256	January 15, 1999	Measurement of Spatial Signature Information in CDMA Wireless Communication System
Appl. No. 60/225,986	August 16, 2000	Wireless Application Protocol Mobile Device Geolocation

INTELLECTUAL PROPERTY ASSIGNMENT

This Assignment is made by U.S. WIRELESS CORPORATION, a Delaware corporation having an address at 2303 Camino Ramon Suite 200, San Ramon, California 94583 (hereinafter referred to as "Assignor"), to and in favor of TRAFFICMASTER USA, INC., a Delaware corporation having an address at 1209 Orange Street, Wilmington, Delaware 19801 (hereinafter referred to as "Assignee").

WHEREAS, Pursuant to a Sale Order of the United States Bankruptcy Court for the District of Delaware dated December 6, 2001 (the "Order"), the Court has approved the sale of Assignor's assets and the assumption and assignment by Assignor of certain Patents, Patent Applications and Trademarks (the "Intellectual Property") and executory contracts as described in the Order;

WHEREAS, Assignor is the owner of the entire right, title and interest in and to certain technology that is the subject of the Intellectual Property listed in Appendix A attached hereto;

WHEREAS, Assignee desires to acquire Assignor's entire right, title and interest in and to the Intellectual Property;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, and intending to be legally bound hereby, Assignor hereby agrees as follows:

1. Assignment. Assignor does hereby assign, transfer and convey unto Assignee the entire right, title and interest in the Intellectual Property and any divisional, continuation, continuation-in-part, continued prosecution application, extension, reissue, foreign and other patent applications and applications for any other form of intellectual property protection applicable thereto (including copyright and trade secret); and the right to sue and obtain damages for infringement of letters patent issuing from the Intellectual Property, to be held and enjoyed by the Assignee to the full end of the term or terms or extensions thereof for which said Intellectual Property or any other form of property protection to which the Technology is or will be entitled, as fully and entirely as the same would have been held and enjoyed by Assignor, had this Assignment not been made.

2. Covenants. Assignor covenants to execute at Assignee's request all divisional, continuation, continuation-in-part, continued prosecution application, extension, reissue, foreign and any applications for any other form of intellectual property protection relating to the Intellectual Property, and to take all other actions and to execute and deliver all additional instruments and documents which Assignee may deem necessary or desirable to make this Assignment of record in the U.S. Patent and Trademark Office and patent and trademark offices in foreign countries and otherwise to make this Assignment fully effective and to enable Assignee to enjoy to the fullest extent the rights, title and interests herein conveyed in the United States and foreign countries.

3. Power of Attorney. Assignor hereby authorizes its attorneys to execute any and all documents on its behalf in order to perfect Assignee's rights in the Intellectual Property.

4. Recordation. Assignor hereby requests the Commissioner of Patents and Trademarks in the United States, and the equivalent functionary in every foreign country, to issue any and all Letters Patent and such other applications as described herein, in the name of the Assignee.

5. Miscellaneous.

(a) Controlling Law. This Intellectual Property Assignment and all questions relating to its validity, interpretation, performance and enforcement shall be governed and construed in accordance with the laws of the State of Delaware.

(b) Binding Nature of Agreement. This Intellectual Property Assignment shall be binding upon Assignor and its successors and assigns and inure to the benefit of the Assignee and its respective successors and assigns.

Signed at San Ramon, CA, this 10th day of December, 2001.

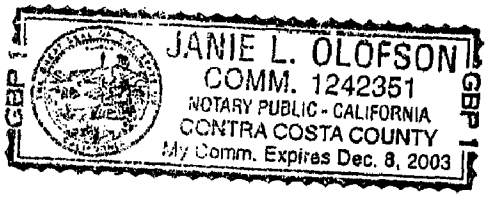
U.S. WIRELESS CORPORATION

By: Patricia Murphy
Name: Patricia Murphy
Title: Vice President

STATE OF CALIFORNIA :
: ss.
COUNTY OF CONTRA COSTA :

I, JANIE L. OLOFSON, a Notary Public, in and for the State and County aforesaid, do hereby certify that on this 10TH day of December, 2001, appeared before me Patricia Murphy, to me personally known, who, being by me duly sworn, did say that she is the Vice President of U.S. Wireless Corporation, a Delaware corporation, and that said instrument was signed on behalf of said corporation by authority of its board and said Patricia Murphy acknowledged said instrument to be the free act and deed of said company.

Subscribed and sworn to before me this 10TH day of December, 2001.



Janie L. Olofson
Notary Public

APPENDIX A

PATENTS, PENDING PATENT APPLICATIONS,

TRADEMARKS

(ALL OWNED BY U.S. WIRELESS CORPORATION)

Issued Patents:

6,026,304 – "Radio Transmitter Location Finding for Wireless Communication Network Services and Management"

Date of Application: 1/8/97
Date of Issuance: 2/15/00
Inventors: Oliver Hilsenrath, Mati Wax
Title History: Assigned from Inventors to the Company
Summary: A method and apparatus for location finding in a wireless communication system uses multipath signals in order to accurately determine a transmitter's location. Direct path and multipath signals from a mobile transmitter arrive at an antenna array of a base station receiver. The base station determines signal signature from a subspace of an array covariance matrix. The signature is compared to a database of calibrated signal signatures and corresponding locations, and a location whose calibrated signature best matches the measured signature is selected as the most likely transmitter location. The database of calibrated signal signatures and corresponding locations is generated by a calibration procedure in which a phone transmits location data derived from a GPS receiver and GPS satellites to the base station which records the location information together with the signal signature of the transmitter. The location information can be used to increase the performance of a cellular telephone network and provide useful services to cellular telephone customers.

6,064,339 – "Subspace Signature Matching for Location Ambiguity Resolution in Wireless Communication Systems"
Date of Application: 8/20/98
Date of Issuance: 5/16/00
Inventors: Mati Wax, Yan Meng, Oliver Hilsenrath
Title History: Assigned from inventors to Company
Summary: A method and apparatus reduces the ambiguities in the determination of cellular telephone locations in a location finding system based on the use of multipath signals. A location finding base station determines a signal signature from a subspace of an array covariance matrix. The signature is compared to a database of calibrated signal signatures and corresponding locations, and a set of likely locations whose calibrated signatures best match the measured signature is selected. A subset of most likely locations is selected from among the likely locations by comparing a function which represents how closely the measured signature matches the set of calibrated signatures with functions which represent how closely each likely signature matches the set of calibrated signatures. The locations corresponding to the best matching function are selected.

6,101,390 – "Calibration Table Generation for Wireless Location Determination"
Date of Application: 4/22/98
Date of Issuance: 8/8/00
Inventors: Sriram Jayaraman, Mati Wax, and Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A system and method is provided for processing a calibration table used in a wireless location finding system. The initial calibration table data comprises points partitioned into routes followed by moving vehicles, where each point comprises a wireless signal signature and corresponding geographical location. The method comprises calculating, for each point, a list of neighboring points; and generating, for each route, a plurality of geographical bins covering all points in the route. Each bin has a bin location and a bin signature derived from those of the points within the bin. The resulting calibration table, which contains fewer redundant data points than the original calibration table data, may be used in a location finding system for quickly identifying the location of wireless transmitters in real time.

6,249,680 – "Radio Transmitted Location Finding in CDMA Wireless Communication Systems"
Date of Application: 9/14/98
Date of Issuance: 06/19/2001
Inventors: Mati Wax, Oliver Hilsenrath, Abraham Bar
Title History: Inventors assigned to Company
Summary: A method and apparatus for location finding in a CDMA wireless communication system uses multipath signals in order to accurately determine a transmitter's location. Direct path and multipath signals from a mobile transmitter arrive at an array of p antennas belonging to a cellular network base station. A location finding apparatus connected to the base station contains a multichannel receiver that uses PN sequence information provided by the base station receiver to despread the p signals and to separate each of the p signals into temporally distinct multipath parts. A signal processor calculates a signal signature for each active mobile. The signature is comprises a code correlation function, a set of temporal delays corresponding to the multipath parts and a set of signal subspaces. The signature is then compared to a database of calibrated signal signatures and corresponding locations, and a location whose calibrated signature best matches the measured signature is selected as the most likely location of the mobile transmitter. The location information can be used to increase the performance of a cellular telephone network and/or to provide useful services to cellular telephone customers.

6,232,918 – "Antenna Array Calibration in Wireless Communication System"
Date of Application: 09/14/98
Date of Issuance: 05/15/2001
Inventors: Mati Wax, Sriram Jayaraman, Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A method and apparatus are provided for easily and accurately calibrating an antenna array in a multipath environment. A calibration table containing spatial signature data together with corresponding location data is used to calibrate the antenna array, i.e. to determine the array response in various directions. The calibration table includes a set of calibrated signal covariances $\mathbf{R}_1,\ldots,\mathbf{R}_N$ together with a set of N corresponding geographical locations. From this data, a set of array calibration vectors $\{\mathbf{a}(\theta)\}$ is determined, where each vector $\mathbf{a}(\theta)$ characterizes the complex signal response of the antenna array in the direction θ. Once the array calibration

vectors are determined, this information can be used for direction finding, beamforming, and other enhancements to the performance of the communication system.

6,112,095 – "Signature Matching for Location Determination in Wireless Communication Systems"
Date of Application: 7/14/98
Date of Issuance: 8/29/00
Inventors: Mati Wax, and Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A method and apparatus for wireless location finding determines a set of likely locations from a signal covariance matrix **R**, a set of array calibration vectors $\{\mathbf{a}(\theta)\}$, and a set of calibrated signal covariance matrices $\{\mathbf{R}_k\}$ corresponding to calibrated locations. From these quantities, an angular energy distribution function $B(\theta)$ is calculated from **R** and $\mathbf{a}(\theta)$, and compared to a set of calibrated angular energy distribution functions $B_1(\theta),..., B_N(\theta)$ corresponding to the set of calibrated signal covariance matrices $\mathbf{R}_1,..., \mathbf{R}_N$. The function $B(\theta)$ is then compared with each of the calibrated functions $B_1(\theta), ..., B_N(\theta)$ to determine those calibrated functions that most closely match the calculated function $B(\theta)$. From these calculations a set of likely locations is then determined.

6,108,557 – "Signature Matching for Location Determination in Wireless Communication Systems"
Date of Application: 2/18/98
Date of Issuance: 8/22/00
Inventors: Mati Wax, Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A method and apparatus improves the accuracy of a wireless location finding system based on the use of multipath signal signatures. A location finding apparatus measures an array covariance matrix **R** of a signal. The covariance matrix is compared to a database of signatures comprising calibrated signal subspaces. The comparison is based on calculating the projection of **R** onto each calibrated subspace. From these calculations a set of likely locations is then determined.

6,104,344 – "Efficient Storage and Fast Matching of Wireless Spatial Signatures"
Date of Application: 3/24/99
Date of Issuance: 8/15/00
Inventors: Mati Wax, Sriram Jayaraman, Vladimir Radionov, Gennadi Lebedev, and Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A method for determining a geographical location from a measured wireless signal signature comprises calculating from the measured wireless signal signature a multi-dimensional signature vector, wherein each component of the vector measures a degree of coincidence between the measured wireless signal signature and a calibrated signal signature stored in a calibration table. The method also includes matching the signature vector with vectors in a set of multi-dimensional calibrated vectors. The matching uses a procedure comprising searching a hierarchical tree structure and eliminating nodes that cannot contain the best match vector. Within the remaining nodes, the search eliminates individual vectors that cannot be the best

match vector, and selects one or more vectors in the set of multi-dimensional calibrated vectors, where the matched vectors correspond to calibrated geographical locations.

6,084,546 – "Location Determination in Wireless Communication Systems Using Velocity Information"
Date of Application: 12/4/98
Date of Issuance: 7/4/00
Inventors: Mati Wax, Sriram Jayaraman, and Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A method for improving the accuracy of signal signature determinations in wireless location finding systems advantageously uses transmitter velocity estimates to accurately and reliably determine in real time a present signal covariance matrix for a transmitter. In a preferred embodiment of the invention, a method for determining a likely location of a transmitter in a wireless transmitter location finding system comprises coherently measuring transmitter signals received at an antenna array, and calculating a current signal covariance matrix from the measured transmitter signals. The method further comprises calculating an average covariance matrix by forming a linear combination of the current signal covariance matrix with past average covariance matrices. The coefficients of the linear combination are selected such that the average covariance matrix is derived primarily from covariance matrices measured over a range of recent transmitter locations within a predetermined distance D from the present location. This distance D preferably corresponds to a spatial span of calibrated signatures. In a preferred embodiment, this condition is satisfied by selecting the coefficients in dependence upon the distance D and an estimated current velocity of the transmitter. The method also includes determining a likely current transmitter location by measuring a similarity between the average covariance matrix and a set of calibrated covariance matrices corresponding to calibrated transmitter locations.

09/421438 - "Radio Transmitter Location Finding for Wireless Communication Network Services and Management"
Date of Application: 10/19/99
Inventors: Mati Wax
Title History: Assigned from Inventor to Company
Summary: A method and apparatus for location finding in a wireless communication system uses multipath signals in order to accurately determine a transmitter's location. Direct path and multipath signals from a mobile transmitter arrive at an antenna array of a base station receiver. The base station determines signal signature from a subspace of an array covariance matrix. The signature is compared to a database of calibrated signal signatures and corresponding locations, and a location whose calibrated signature best matches the measured signature is selected as the most likely transmitter location. The database of calibrated signal signatures and corresponding locations is generated by a calibration procedure in which a phone transmits location data derived from a GPS receiver and GPS satellites to the base station which records the location information together with the signal signature of the transmitter. The location information can be used to increase the performance of a cellular telephone network and provide useful services to cellular telephone customers.

08/948713 - Internet Distributed Real-Time Wireless Location Database
Date of Application: 10/10/97
Inventors: Abraham Bar, Ravi Rajapakse, Mati Wax, Oliver Hilsenrath
Titles History: Inventors Assigned to Company
Summary: A system for easily and inexpensively distributing real time location information of cellular telephone users to various third party information subscribers comprises an HTTP server machine which maintains a dynamic database of current cellular users. The database has a list of caller entries, where each entry typically comprises a user ID number, such as a phone number, mobile ID number, and/or handset serial ID. The entry also includes, for each user ID number, a user location identifier such as a latitude and longitude, a sector number, a caller or called phone number and/or a street address. The HTTP server is connected to the internet so that registered third party information subscribers have access to the database by means of standard HTTP protocols that ensure authentication and provide encryption for security. Using caller ID or other means for obtaining a caller's phone number, the third party subscriber can obtain, via a simple internet query, the current location of the caller by submitting the phone number to the HTTP

server using an HTML form. Standard software on the central server machine verifies the authenticity of the subscriber, looks up the location information in the database, and returns the information to the subscriber. The subscriber can then use the location information to provide any of a wide range of services to the caller, or to dispatch emergency vehicles to the location of the caller. In addition, the server can directly provide many location-based services to callers.

09/561319 - "Methods of Using Wireless Geolocation to Customize Content and Delivery of Information to Wireless Communication Devices"
Date of Application: 4/28/00
Inventors: Uday Nagendran
Title History: Inventor assigned to Company
Summary: The present invention provides a method for finding the location of a mobile device user, and using the location to customize the information and to determine the way of delivering such information to the user. The mobile device user may request the information either with an interactive series of one or more requests, or by pre-selecting the type of message to be delivered. The customized information is transmitted only to the mobile device from which the request is originated. It can also be displayed at a public display unit (such as an electronic billboard), sent to a public broadcaster, posted on the Internet, or sent to a fax machine or a modem. The present invention also provides a method for determining traffic density and speed information that can be continuously updated. The traffic information together with a variety of traffic services can be transmitted to mobile devices users, displayed at inanimate devices (such as electronic billboards), publicly broadcast, or posted on the Internet.

09/482692 - Signature Matching for Location Determination in Wireless Communication Systems
Date of Application: 1/13/00
Inventors: Mati Wax
Title History: Inventors assigned to Company
Summary: A method and apparatus improves the accuracy of a wireless location finding system based on the use of multipath signal signatures. A location finding apparatus measures an array covariance matrix **R** of a signal. The covariance matrix is compared to a database of signatures comprising calibrated signal subspaces. The comparison is based on calculating the projection of **R** onto each calibrated subspace. From these calculations a set of likely locations is then determined.

09/153091 - Velocity Estimation in Wireless Communication Systems
Date of Application: 9/14/98
Inventors: Natan Malkin, Mati Wax, and Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A method for velocity estimation in a wireless communications system comprises measuring a first signal covariance matrix **C** and a second signal covariance matrix **C′** corresponding to signals received from a mobile transmitter during a first sampling time interval and a second sampling time interval, respectively. The first and second covariance matrices are then used to directly calcuate a measure $|\delta\theta|$ of the angular change in a signal vector in a signal space between the first sampling time interval and the second sampling time interval. In a preferred embodiment, the angular change is calculated by

$$\delta\theta \approx \sqrt{\{ |\delta C|^2 - |Tr(\delta C)|^2\}/2[Tr(C)]^2} ,$$

where $\delta C = C' - C$ and $|\delta C|^2 = Tr(\delta C\, \delta C^H)$. The magnitude of the transmitter velocity is then calculated from the following expression: $|v| = \alpha\, \delta\theta/\delta t$, where δt is the time difference between the first and second time intervals, and α is a constant of proportionality that is determined empirically. The average velocity over a longer time interval is obtained by averaging or smoothing a plurality of velocity estimates obtained during that longer interval. This method allows a useful measure of velocity to be determined from a few simple arithmetical operations on the measured signal covariance matrices.

09/574394 – "Multisite Location Ambiguity Reduction"

Date of Application: 5/19/00

Inventors: Sriram Jayaraman, Tarun Kumar Bhattacharya, Sudharman Jayaweera Kankanamge

Title History: Inventors assigned to Company

Summary: A method for determining the location of a mobile transmitter in a wireless communication system calculates a signature from signals received at an antenna array from the mobile transmitter, and matches the signature with calibrated signatures stored in a database to estimate the location of the mobile transmitter. The signature contains information characterizing the spatial channel between the mobile and the antenna array, such as information characterizing the multipath present in the signal propagation path. In a preferred embodiment, the signature comprises a signal covariance matrix calculated from outer products of signal vectors sampled over a few seconds. An apparatus implementing the method comprises an antenna array and multi-channel receiver for coherently receiving multi-dimensional signal vectors from a mobile transmitter. A processor calculates a signal signature from the received signal vectors. The calculated signal signature is then compared with calibrated signatures stored in a memory to identify calibrated signatures that are similar to the calculated signature. Also stored in the memory is calibrated location information corresponding to the calibrated signatures. The likely locations of the mobile transmitter correspond to those calibrated signatures that are most similar to the transmitter signature. In this manner, the location of the transmitter can be accurately determined from signals received at a single base station, even in a severe multipath environment. Preferably, the matching includes various techniques to reduce location ambiguity, including sending location information over a communication line to a central hub, which combines the information from multiple sites to provide more accurate location estimates. A technique of grouping signatures first into one-degree sectors and then, within each sector, clustering signatures using a similarity measure produces an enhanced direction finding (DF) calibration table. A technique for fusing location and bearing estimates from multiple base stations mitigates ambiguity and lowers the variance of the final location estimates.

09/595340 – "Call Characteristics Mapping"

Date of Application: 6/15/00

Inventors: Uday Nagendran, Mark Kahn

Title History: Inventors assigned to Company

Summary: A system that utilizes sampled multi-path RF signal characteristic correlated to independently provided location information together with operational call characteristics of a number of wireless communication devices to create a call characteristic map. The operational signal characteristics depend on a primary technical environment mainly defined

by the communication infrastructure of the wireless communication devices. The system utilizes the call characteristic map to control actions within a secondary technical environment that extends into traffic control systems and the living space of the subscribers and other users.

09/231256 – "Measurement of Spatial Signature Information in CDMA Wireless Communication System"
Date of Application: 1/15/99
Inventors: Abraham Bar, Mati Wax, Oliver Hilsenrath
Title History: Inventors assigned to Company
Summary: A CDMA receiver for measuring spatial signal information corresponding to several user transmitters comprises a bank of coherent receivers coupled to an antenna array, a bank of signal buffers for recording samples of the received signal data, and a bank of I/Q despreaders for despreading selected signal samples. The receiver also comprises a buffer control circuit for selecting active power control groups in the recorded signal samples for despreading, and a despreader control circuit for selecting PN despreading sequences required to despread the selected power groups. Selected data samples from the signal buffers are fed into the despreaders. The output of the despreaders is a set of spatially correlated I/Q data streams divided into temporal frames, where each frame contains active power control groups from different user transmitters.

60/225986 – "Wireless Application Protocol Mobile Device Geolocation"
Date of Application: 8/16/00
Inventors: Oliver Hilsenrath, Uday Nagendran
Title History: Inventors assigned to Company
Summary: The current patent describes a method to acquire call setup information from mobile devices, that the mobile device itself uses to complete the call, using either a standard or non-standard wireless application interface, for example, the Wireless Application Protocol (WAP), or other similarly equipped devices. The geolocation system then receives the mobile device call setup information independent of the carrier's MSC. The information is transferred directly from the mobile device to the Service Provider, or through alternate means.

The PTO issued a response to one of our patent applications whereby certain "Business Method" claims relating to the location network hub system were rejected. Our outside patent counsel has generally been responsible for handling all claims relating to business methods, and they recently advised us of the pending bar date (Oct. 4) for responding to the office action, requesting our decision whether or not to proceed with filing a response. Sriram has reviewed their prospective changes for his comments, but was not able to provide input as to their value due to the fact that the claims relate primarily to business methods. All of the proposed claims relate generally to: "a plurality of radio transmitters; a plurality of base stations, wherein each base station comprises an antenna array adapted to receive signals from the transmitters, a memory storage device containing a database of calibrated signal signatures, and a signal processor adapted to calculate signal signatures from the signals received at a single base station and to determine likely locations of the transmitters based upon a comparison of the signal signatures with a database of calibrated signal signatures; a hub in communication with said plurality of base stations, said hub configured to store transmitter location information received from said plurality of base stations,

said hub being connected to a network for access by one or more service providers." And various business uses derived from such an arrangement.