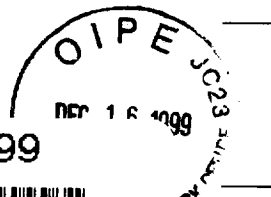


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12-28-1999



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COVER SHEET
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attached original document(s) or copy(ies)

TO: The Commissioner of P.

Submission Type

- New
- Resubmission (Non-Recordation)
Document ID#
- Correction of PTO Error
Reel # Frame #
- Corrective Document
Reel # Frame #

Conveyance Type

- Assignment
 - License
 - Merger
 - Security Agreement
 - Change of Name
 - Other
- U.S. Government**
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- Departmental File Secret File

Conveying Party(ies)

- Mark if additional names of conveying parties attached
- Name (line 1) Execution Date Month Day Year
- Name (line 2)

Second Party

- Name (line 1)
- Name (line 2)
- Execution Date Month Day Year

Receiving Party

- Mark if additional names of receiving parties attached
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- Name (line 2)
- Address (line 1)
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City State/Country Zip Code
- If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Domestic Representative Name and Address

Enter for the first Receiving Party only.

- Name
- Address (line 1)
- Address (line 2)
- Address (line 3)
- Address (line 4)

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Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:
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PATENT
REEL: 010452 FRAME: 0116

Correspondent Name and Address

Area Code and Telephone Number

800-833-9848

Name TONYA CHAPPLE

Address (line 1) C/O CSC

Address (line 2) 80 STATE STREET

Address (line 3) ALBANY, NEW YORK 12207

Address (line 4)

Pages Enter the total number of pages of the attached conveyance document including any attachments.

#

4

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

Patent Number(s)

08/265,185 08/768,821

4,939,726 5,115,433 5,570,084
5,471,469 5,079,768 5,479,400
5,453,977 5,130,987 5,400,338

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month Day Year

Patent Cooperation Treaty (PCT)

Enter PCT application number only if a U.S. Application Number has not been assigned.

PCT PCT PCT
PCT PCT PCT

Number of Properties

Enter the total number of properties involved.

#

29

Fee Amount

Fee Amount for Properties Listed (37 CFR 3.41): \$

1,160

Method of Payment: Deposit Account

Enclosed

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number:

#

Authorization to charge additional fees:

Yes

No

Statement and Signature

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

TONYA CHAPPLE

Tonya Chapple

12-14-99

Name of Person Signing

Signature

Date

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

Conveying Party(ies)

Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Name (line 1)

Execution Date
Month Day Year

Name (line 2)

Execution Date
Month Day Year

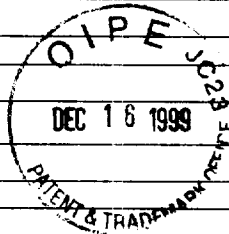
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Execution Date
Month Day Year

Name (line 2)

Name (line 1)

Name (line 2)



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Patent Application Number(s)

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Patent Number(s)

5,515,369	5,007,052	5,488,608
5,664,194	5,774,344	5,706,221
5,818,828	5,636,216	5,465,398
5,406,249	5,703,602	5,479,176
4,835,463	4,939,451	5,485,393

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

Conveying Party(ies)

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Name (line 1)

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Month Day Year

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Execution Date
Month Day Year

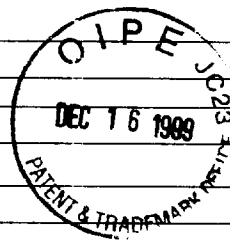
Name (line 1)

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Execution Date
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Patent Application Number(s)

Patent Number(s)

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5,243,536	5,223,790	5,338,332
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RELEASE AND REASSIGNMENT OF PATENT COLLATERAL

This release and reassignment of patent collateral is made this 29th day of November, 1999 by Vulcan Ventures Incorporated, a Washington corporation (hereinafter "Vulcan").

WHEREAS, Metricom, Inc., a Delaware corporation (hereinafter "Metricom") and Vulcan are parties to a certain Mortgage and Assignment of Patents (hereinafter "Agreement"), which was recorded at the United States Patent and Trademark Office on July 6, 1999 at **Reel 010070, frame 0462**; and

WHEREAS, all obligations secured by the security interest granted by Metricom to Vulcan under the Agreement have been fully paid and satisfied, Vulcan is hereby releasing the security interest granted under the Agreement and reassigns to Metricom all interest assigned to Vulcan pursuant to the Agreement.

NOW, THEREFORE, for good and valuable consideration, receipt and sufficiency of which are hereby acknowledged, Vulcan releases and reassigns to Metricom any and all rights it acquired from Metricom by virtue of the Agreement, including, without limitation, the lien on the following identified United States patents and patent applications, respectively:


<u>U.S. Patent Application Nos.</u>	<u>Description</u>
08/265,185	Method for Distributing Program Code to Intelligent Nodes in a Wireless Mesh Data Communication Network
08/768,821	Method for Emulating Point to Point Protocol (PPP) Over an Imperfect Mesh Network
4,939,726	Method and System for Routing Packets in a Packet Communication Network
5,115,433	Method and System for Routing Packets in a Packet Communication Network
5,570,084	Loose Source Routing Over Disparate Network Types in a Packet Communication Network
5,471,469	Method of Resolving Media Contention in Radio Communication Links
5,079,768	Method for Frequency Sharing in Frequency Hopping Communications Network

5,479,400	Transceiver Sharing Between Access and Inband Backhaul in a Wireless Digital Communication
5,453,977 -	Method for Network Configuration Via Third Party Query
5,130,987	Method for Synchronizing a Wide Area Network without Global Synchronization
5,400,338	Parasitic Adoption of Coordinate-Based Addressing by Roaming Node
5,515,369	Method for Frequency Sharing and Frequency Punchout in Frequency Hopping Communications
5,007,052	Method for Routing Packets by Squelched Flooding
5,488,608	Method and System for Routing Packets in a Packet Communication Network Using Locally Constructed Routing Tables
5,664,194	Method for Autonomously Transferring Code to a Computer Without Accessing Local Memory by the Central Processing Unit
5,774,344	RF Shield for Circuit Card having a Solid First Flange
5,706,221	Method and Apparatus for Recovering Digital Data from Baseband Analog Signal
5,818,828	Hybrid Multiple Access Protocol for Wireless Frequency Hopping Microcells with Adaptive Backhaul and Heartbeat
5,636,216	Method for Translating Internet Protocol Addresses to Other Distributed Network Addressing Schemes
5,465,398	Automatic Power Level Control of a Packet Communication Link
5,406,249	Method and Structure for Coupling Power-Line Carrier Current Signals Using Common Mode Coupling
5,703,602	Portable RF Antenna
5,479,176	Multiple-Element Driven Array Antenna and Phasing Method
4,835,463	Wide Dynamic Range AC Current Sensor
4,939,451	Wide Dynamic Range AC Current Sensor

5,485,393	Method and Apparatus for Measuring Electrical Parameters using a Differentiating Current Sensor and a Digital Integrator
5,243,536	Method and Apparatus for Measuring Volt-Amps Reactive Power
5,223,790	Current Sensor using Current Transformer with Sintered Primary
5,338,332	Current Sensor using Current Transformer with Sintered Primary

IN WITNESS WHEREOF, Vulcan has duly executed this Release and Reassignment on the date set forth above.

VULCAN VENTURES INCORPORATED

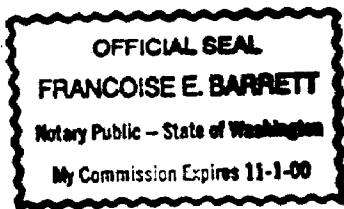
By 
William D. Savoy, Vice President

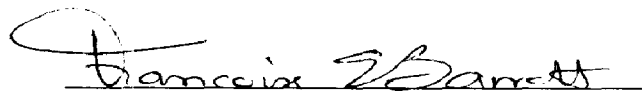
CERTIFICATE OF ACKNOWLEDGMENT

STATE OF WASHINGTON)
)ss:
COUNTY OF King)

On November 29, 1999, before me, Francoise E. Barrett a Notary Public, personally appeared William D. Savoy, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity as Vice President of Vulcan Ventures Incorporated, and that by his signature on the instrument the entity upon behalf of which he acted, executed the instrument.

WITNESS my hand and official seal.




Notary Public

My Commission Expires: Nov 1, 2000