# 501783214 01/11/2012

## PATENT ASSIGNMENT

# Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Jae S. Lee	01/10/2012
Elaine Van Horn	01/10/2012
Doug L. Wekamp	01/05/2012
Joseph Reiter	01/05/2012
Charles W. Brown	01/10/2012
Firouzeh Rahimzadeh	01/06/2012
Neil A. Rogers	01/05/2012
Joseph A. McLaughlin	01/11/2012

#### **RECEIVING PARTY DATA**

Name:	Verizon Patent and Licensing Inc.	
Street Address:	Address: One Verizon Way	
City:	Basking Ridge	
State/Country:	NEW JERSEY	
Postal Code:	07920	

# PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13348258

## **CORRESPONDENCE DATA**

 Fax Number:
 (703)439-2658

 Phone:
 571-297-0007

 Email:
 pto@snyderllp.com

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

Correspondent Name: Snyder, Clark, Lesch & Chung, LLP

Address Line 1: 950 Herndon Parkway

Address Line 2: Suite 365

501783214

Address Line 4: Herndon, VIRGINIA 20170

PATENT

REEL: 027517 FRAME: 0391

F \$40.00 15548Z

ATTORNEY DOCKET NUMBER:	20110649
NAME OF SUBMITTER:	Viktor Simkovic
Total Attachments: 16 source=20110649_Assignment#page1.tif source=20110649_Assignment#page2.tif source=20110649_Assignment#page3.tif source=20110649_Assignment#page4.tif source=20110649_Assignment#page5.tif source=20110649_Assignment#page6.tif source=20110649_Assignment#page7.tif source=20110649_Assignment#page8.tif source=20110649_Assignment#page9.tif source=20110649_Assignment#page10.tif source=20110649_Assignment#page11.tif source=20110649_Assignment#page12.tif source=20110649_Assignment#page13.tif source=20110649_Assignment#page15.tif source=20110649_Assignment#page15.tif source=20110649_Assignment#page15.tif source=20110649_Assignment#page15.tif source=20110649_Assignment#page16.tif	

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

#### NETWORK AUDITING TOOL

Which has been executed by the undersigned concurrently herewith, and in which cas I/we hereby authorize and request the Assignee, its successors, assigns and/or legal representatives, to insert here in the parentheses (Application Number 13/348258 filed January 11, 2012 ) the filing date and application number of said application when known.
which was filed on and assigned Application No.
and in and to said application, and all divisional, continuing (in whole or in part), substitute, renewal reissue, provisional, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements or based on or claiming priority to sai application; and in and to all original and reissued patents which have been or shall be issued in the Unite States and foreign countries from any of said applications, and in and to all rights of priority resulting from the filing of any of said applications; and in and to all rights which may exist under the International Convention for the Protection of Industrial Property to any of the foregoing;
II. agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns an legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing (in whole or in part), substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, power of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, at facts known to undersigned relating to said improvements and the history thereof; and generally deverything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for Letters Patent and all Letters Patent on said improvements, it said Assignee, its successors and assigns; and
III. covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant mortgage, license, or other agreement affecting the rights and property herein identified has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.
IN WITNESS to my/our agreement to the foregoing, I/we have executed this Assignment as set forth below:
Verizon entity (Assignee): <u>Verizon Patent and Licensing Inc.</u> , having a place of business at <u>One Verizon Way Basking Ridge</u> , New Jersey 07920.
Signature Date: 01-10-20/2
Signature: Date:
Elaine Van Horn

REEL: 027517 FRAME: 0393

Verizon Invention Assignment for Verizon Reference No.: 20110649 Page 2 of 2

Signature		Date:
_	Doug L. Wekamp	1000
Signature	Joseph Reiter	Date:
Signature:	Charles W. Brown	Date:
Signature	Firouzeh Rahimzadeh	Date:
Signature	Neil A. Rogers	Date:
Signature	Joseph A. McLaughlin	Date:

Verizon Invention Assignment for Verizon Reference No.: 20110649

Page 1 of 2

1/5

# ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

## **NETWORK AUDITING TOOL**

[] which has been executed by the undersigned concurrently herewith, and in which case I/we hereby authorize and request the Assignee, its successors, assigns and/or legal representatives, to insert here in the parentheses (Application Number 13/348,258 , filed 3anuary 11, 2012 ) the filing date and application number of said application when known.		
which was filed on and assigned Application No.		
and in and to said application, and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements or based on or claiming priority to said application; and in and to all original and reissued patents which have been or shall be issued in the United States and foreign countries from any of said applications, and in and to all rights of priority resulting from the filing of any of said applications; and in and to all rights which may exist under the International Convention for the Protection of Industrial Property to any of the foregoing;		
II. agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing (in whole or in part), substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said improvements and the history thereof, and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for Letters Patent and all Letters Patent on said improvements, in said Assignee, its successors and assigns; and		
III. covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein identified has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.		
IN WITNESS to my/our agreement to the foregoing, I/we have executed this Assignment as set forth below:		
Verizon entity (Assignee): <u>Verizon Patent and Licensing Inc.</u> , having a place of business at <u>One Verizon Way</u> . Basking Ridge, New Jersey <u>07920</u> .		
ASSIGNORS:		
Signature: Date:		
Signature: Date: 1-10-2017 Elaine Van Hom		

VZ Docket No.: 20110649

Full name of Additional J	oint Inventor: Joseph Reiter
Residence Address:	Richardson, TX
Mailing Address:	3007 Wyndham Lane, Richardson, TX 75082
Citizenship: USA	
Signature:	Date:
Full name of Additional J	oint Inventor: Charles W. Brown
Residence Address:	Plano, TX
Mailing Address:	1412 Calhoun Lane, Plano, TX 75025
Citizenship: USA	
Signature:	Date:
Full name of Additional J	oint Inventor: Firouzeh Rahimzadeh
Residence Address:	Plano, TX
Mailing Address:	8700 Mandevilla Drive, Plano, TX 75024
Citizenship: USA	
Signature:	Date:
Full name of Additional Jo Residence Address:	oint Inventor: Neil A. Rogers
Mailing Address:	1641 San Francisco Street, Carrollton, TX 75007-5049
Citizenship: USA	1011 Gail Fallows College Callentons IA 7,5007-5049
Signature:	Date:
Full name of Additional Jo	oint Inventor: Joseph A. McLaughlin
Residence Address:	Colorado Springs, CO
Mailing Address:	7153 Purple Thistle Court, Colorado Springs, CO 80922
Citizenship: USA	
Signature:	Date:

Verizon Invention Assignment for Verizon Reference No.: 20110649 Page 1 of 2

# ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

#### NETWORK AUDITING TOOL

Which has been executed by the undersigned concurrently herewith, and in which case I/we hereby authorize and request the Assignee, its successors, assigns and/or legal representatives, to insert here in the parentheses (Application Number 13/348,258, filed January 11, 2012) the filing
date and application number of said application when known.
which was filed on and assigned Application No.
and in and to said application, and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements or based on or claiming priority to said application; and in and to all original and reissued patents which have been or shall be issued in the United States and foreign countries from any of said applications, and in and to all rights of priority resulting from the filing of any of said applications; and in and to all rights which may exist under the International Convention for the Protection of Industrial Property to any of the foregoing;
II. agree that said Assignee may apply for and teceive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing (in whole or in part), substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for Letters Patent and all Letters Patent on said improvements, in said Assignee, its successors and assigns; and
III. covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein identified has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.
IN WITNESS to my/our agreement to the foregoing, I/we have executed this Assignment as set forth below:
Verizon entity (Assignee): <u>Verizon Patent and Licensing Inc.</u> , having a place of business at <u>One Verizon Way</u> , <u>Basking Ridge</u> , <u>New Jersey 07920</u> .
ASSIGNORS:
Signature: Date:
Signature: Date:

**PATENT** 

REEL: 027517 FRAME: 0397

	Verizon Invention Assignment for Verizon Reference No.: 20110649 Page 2 of 2
Signature:	Date: 1/5/20/2
Doug L. Wekamp	
Signature:	Date:
to be settent from the control of the first of the second of the second	
Charles W. Brown	
Signature: Annual State of the	Data
Firouzeh Rahimzadeh	Land to the state of the state
Neil A. Rogers	Control of the second
Signature:  Signat	Date: <u>And the case of affine entargence</u> of the case
	The second of th
The second state of the second	or for the second of the secon
$\mathcal{L}_{ij} = \{ i \in \mathcal{L}_{ij} : i \in \mathcal{L}_{ij} $	And the State of t
THE PROPERTY OF THE WORLD SERVICES AND A SERVICES OF THE SERVICES AND A SERVICE AND A SERVICES AND A SERVICES AND A SERVICE AND A SERVICES AND A SERVICES AND A SERVICES AN	and the second of the second o

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

# NETWORK AUDITING TOOL

Which has been executed by the undersigned concurrently herewith, and in which case I/we hereby authorize and request the Assignee, its successors, assigns and/or legal representatives, to insert here in the parentheses (Application Number 13/348,258 , filed January 11, 2012 ) the filing date and application number of said application when known.
which was filed on and assigned Application No.
and in and to said application, and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements or based on or claiming priority to said application; and in and to all original and reissued patents which have been or shall be issued in the United States and foreign countries from any of said applications, and in and to all rights of priority resulting from the filing of any of said applications; and in and to all rights which may exist under the International Convention for the Protection of Industrial Property to any of the foregoing;
II. agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing (in whole or in part), substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for Letters Patent and all Letters Patent on said improvements, in said Assignee, its successors and assigns; and
III. covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein identified has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.
IN WITNESS to my/our agreement to the foregoing, I/we have executed this Assignment as set forth below:
Verizon entity (Assignee): Verizon Patent and Licensing Inc., having a place of business at One Verizon Way, Basking Ridge, New Jersey 07920.
ASSIGNORS:
Signature: Date:
Signature: Date: Elaine Van Horn

Verizon Invention Assignment for Verizon Reference No.: 20110649

Page 2 of 2

Signature:	Date:
Doug L. Wekamp  Signature:   DOUGL Nekamp  Figure 1. Signature 2. Sign	
Joseph Reiter  Signature: Charles W. Brown	Date:
Signature: Firouzeh Rahimzadeh	Date:
Signature: Neil A. Rogers	Date:
Signature:  Joseph A. McLaughlin	Date:

Verizon Invention Assignment for Verizon Reference No.: 20110649 Page 1 of 2

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

#### NETWORK AUDITING TOOL

	I/we hereby authorize and request the Assignee, it	undersigned concurrently herewith, and in which case successors, assigns and/or legal representatives, to 13/348,258 , filed January 11, 2012 ) the filing known.	
	which was filed on a	nd assigned Application No.	
	reissue, provisional, and all other applications for L United States and all foreign countries on any of said application; and in and to all original and reissued pa States and foreign countries from any of said applica	continuing (in whole or in part), substitute, renewal, etters Patent which have been or shall be filed in the improvements or based on or claiming priority to said tents which have been or shall be issued in the United tions, and in and to all rights of priority resulting from o all rights which may exist under the International o any of the foregoing;	
II. agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing (in whole or in part), substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for Letters Patent and all Letters Patent on said improvements, in said Assignee, its successors and assigns; and			
III. covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein identified has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.			
IN WIT	INESS to my/our agreement to the foregoing, I/we hav	e executed this Assignment as set forth below:	
Verizon entity (Assignee): Verizon Patent and Licensing Inc., having a place of business at One Verizon Way, Basking Ridge, New Jersey 07920.			
ASSIGN	NORS:		
Signatur	Ire:	Date:	
Signatu	re: Elaine Van Horn	Date:	

Verizon Invention Assignment for Verizon Reference No.: 20110649 Page 2 of 2

Signature	Doug L. Wekamp	Date:	
	Joseph Reiter	Date:	
Signature	Charles W Brown	Date: Jan 10, 2012	
Signature	Fírouzeh Rahimzadeh	Date:	
Signature	: Neil A. Rogers	Date:	
Signature	Joseph A. McLaughlin	Date:	

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

L have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

# NETWORK AUDITING TOOL

I/we hereby authorize and request the Assignee, its successors, assigns and/or legal representatives, to insert here in the parentheses (Application Number 13/348,258 filed January 11, 2012 ) the filing date and application number of said application when known.			
which was filed on and assigned Application No.			
and in and to said application, and all divisional, continuing (in whole or in part), substitute, renewal, reissue, provisional, and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said improvements or based on or claiming priority to said application; and in and to all original and reissued patents which have been or shall be issued in the United States and foreign countries from any of said applications, and in and to all rights of priority resulting from the filing of any of said applications; and in and to all rights which may exist under the International Convention for the Protection of Industrial Property to any of the foregoing;			
agree that said Assignee may apply for and receive Letters Patent for said improvements in its own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all divisional, continuing (in whole or in part), substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said improvements and the history thereof; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said improvements and for vesting title to said improvements and all applications for Letters Patent and all Letters Patent on said improvements, in said Assignee, its successors and assigns; and			
III. covenant with said Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein identified has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.			
IN WITNESS to my/our agreement to the foregoing, I/we have executed this Assignment as set forth below:			
Verizon entity (Assignee): Verizon Patent and Licensing Inc., having a place of business at One Verizon Way.  Basking Ridge, New Jersey 07920.			
ASSIGNORS:			
Signature: Date:			
Signature: Date: Elaine Van Horn			

BTRATENT<sub>69:02</sub> ztoz/90/to REEL: 027517 FRAME: 0403

Verizon Invention Assignment for Verizon Reference No.: 20110649 Page 2 of 2

Signature:	Date:
Doug L. Wekamp	
Signature:	Date:
Joseph Reiter	
Signature:Charles W. Brown	Date:
Signature: Fijouzeh Mahimizaden	Date: 1/6/2012
Signature: Neil A. Rogers	Date:
Signature:	Date:

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignee") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters Patent entitled

### NETWORK AUDITING TOOL

	I/we hereby authorize and request the Assignee, its insert here in the parentheses (Application Number date and application number of said application when leaves the control of the cont	13/348,258 . filed January 11, 2012 ) the filing	
	which was filed on an	d assigned Application No.	
	and in and to said application, and all divisional, or reissue, provisional, and all other applications for Le United States and all foreign countries on any of said is application; and in and to all original and reissued pate States and foreign countries from any of said application the filing of any of said applications; and in and to Convention for the Protection of Industrial Property to	tters Patent which have been or shall be filed in the improvements or based on or claiming priority to said ents which have been or shall be issued in the United ons, and in and to all rights of priority resulting from all rights which may exist under the International	
; ; ;	that, when requested, without charge to, but at the ex- legal representatives, to carry out in good faith the int- will execute all divisional, continuing (in whole or in papplications on any and all said improvements; execute of attorney and other papers; communicate to said Ass- facts known to undersigned relating to said improv- everything possible which said Assignee, its successor for aiding in securing and maintaining proper patent p to said improvements and all applications for Letters P said Assignee, its successors and assigns; and	pense of, said Assignee, its successors, assigns and ent and purpose of this Assignment, the undersigned part), substitute, renewal, reissue, and all other patent eall rightful oaths, declarations, assignments, powers ignee, its successors, assigns, and representatives, all rements and the history thereof, and generally do s, assigns or representatives shall consider desirable rotection for said improvements and for vesting title	
i i	enant with said Assignee, its successors, assigns an mortgage, license, or other agreement affecting the rigothers by the undersigned, and that full right to conveundersigned.	hts and property herein identified has been made to	
IN WITNESS to my/our agreement to the foregoing, I/we have executed this Assignment as set forth below:			
Verizon entity (Assignee): Verizon Patent and Licensing Inc., having a place of business at One Verizon Way, Basking Ridge, New Jersey 07920.			
ASSIGNO	ORS:		
Signature	a: Jae S. Lee	Date:	
Signature	Elaine Van Horn	Date:	

**PATENT** 

**REEL: 027517 FRAME: 0405** 

Verizon Invention Assignment for Verizon Reference No.: 20110649

Page 2 of 2

Signature:		Date:
	Doug L. Wekamp	Date.
Signature:	Joseph Reiter	Date:
Signature:	Charles W. Brown	Date:
Signature:	Firouzeh Rahimzadeh	Date:
Signature:	Neil A. Rogers Rogers	Date: 01/05/2012
Signature:	Joseph A. McLaughlin	Date:

A distribution of property of the control of the co 1301533

Verizon Invention Assignment for Verizon Reference No.: 20110649 Page 1 of 2

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I/We, the undersigned:

I. have sold, assigned and transferred, and by the presents do hereby sell, assign, and transfer, to the Verizon legal entity identified below ("Assignce") and its successors and assigns, the entire worldwide right, title and interest in and to any and all improvements which are described in the application for United States Letters

	Patent entitled	A control of the second
	NETWORK AUDI	
	I/we hereby authorize and request the Assignee, i insert here in the parentheses (Application Number date and application number of said application whe	to undersigned concurrently herewith, and in which case to successors, assigns and/or legal representatives, to 13/348,258 , filed January 11, 2012 ) the filing a known.
	which was filed on	and assigned Application No.
	reissue, provisional, and all other applications for I United States and all foreign countries on any of sai application; and in and to all original and reissued p States and foreign countries from any of said applic	continuing (in whole or in part), substitute, renewal, Letters Patent which have been or shall be filed in the dimprovements or based on or claiming priority to said atents which have been or shall be issued in the United ations, and in and to all rights of priority resulting from to all rights which may exist under the International to any of the foregoing;
	that, when requested, without charge to, but at the legal representatives, to carry out in good faith the will execute all divisional, continuing (in whole or i applications on any and all said improvements; exec of attorney and other papers; communicate to said A facts known to undersigned relating to said impreverything possible which said Assignee, its successfor aiding in securing and maintaining proper paten	ers Patent for said improvements in its own name; and expense of, said Assignee, its successors, assigns and intent and purpose of this Assignment, the undersigned in part), substitute, renewal, reissue, and all other patent all rightful oaths, declarations, assignments, powers assignee, its successors, assigns, and representatives, all rovements and the history thereof; and generally do sors, assigns or representatives shall consider desirable transfer for said improvements and for vesting titles a Patent and all Letters Patent on said improvements, in
	mortgage, license, or other agreement affecting the	and legal representatives that no assignment, grant, rights and property herein identified has been made to nvey the same as herein expressed is possessed by the
IN WITT	NESS to my/our agreement to the foregoing, I/we have	ve executed this Assignment as set forth below:
	entity (Assignee): <u>Verizon Patent and Licensing I</u> Ridge, New Jersev 07920.	nc., having a place of business at One Verizon Way.
ASSIGN	NORS:	
Signatur	re: Jae S. Lee	Date:
Signature	re:Elaine Van Horn	Date:

Verizon Invention Assignment for Verizon Reference No.; 20110649 Page 2 of 2

Signature:			Date:	
	Doug L. Wekamp	and the second of the second o	i f	
			**.	et en
Signature			Date:	
	Joseph Reiter		1.7	
. स् रो.	in the Marian in the Company	the transfer of the		94
				<b>4</b> **
Signature:			Date:	
	Charles W. Brown			• • •
		or set \$1 miles	js ( <del>f.</del> ≥	
Signature:			Date:	
	Firouzeh Rahimzadeh			
		•	. 1::	
			ì	and the constitution of th
Signature:			Date:	
	Neil A. Rogers			
		1 10		
		A 1 11/1	90	Well no
Signature:		Mi Layellan:	Date:	1-11-2012
	Joseph A. McLaughlin			
		$\cdot$ , $(I_{ij}, \cdot)$		
		No.		