

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 70%;">Name</th> <th style="width: 30%;">Execution Date</th> </tr> </thead> <tbody> <tr> <td>Lusheng Ji</td> <td>09/16/2009</td> </tr> <tr> <td>Bo Han</td> <td>09/11/2009</td> </tr> <tr> <td>Robert R. Miller II</td> <td>09/17/2009</td> </tr> </tbody> </table>		Name	Execution Date	Lusheng Ji	09/16/2009	Bo Han	09/11/2009	Robert R. Miller II	09/17/2009		
Name	Execution Date										
Lusheng Ji	09/16/2009										
Bo Han	09/11/2009										
Robert R. Miller II	09/17/2009										
RECEIVING PARTY DATA											
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Name:</td> <td>AT&T Intellectual Property I, L.P.</td> </tr> <tr> <td>Street Address:</td> <td>645 E. Plumb Lane</td> </tr> <tr> <td>City:</td> <td>Reno</td> </tr> <tr> <td>State/Country:</td> <td>NEVADA</td> </tr> <tr> <td>Postal Code:</td> <td>89502</td> </tr> </table>		Name:	AT&T Intellectual Property I, L.P.	Street Address:	645 E. Plumb Lane	City:	Reno	State/Country:	NEVADA	Postal Code:	89502
Name:	AT&T Intellectual Property I, L.P.										
Street Address:	645 E. Plumb Lane										
City:	Reno										
State/Country:	NEVADA										
Postal Code:	89502										
PROPERTY NUMBERS Total: 1											
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Property Type</th> <th style="width: 70%;">Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>12561130</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	12561130						
Property Type	Number										
Application Number:	12561130										
CORRESPONDENCE DATA											
<p>Fax Number: (512)338-6301</p> <p><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 5123386300</p> <p>Email: kprati@ip-counsel.com</p> <p>Correspondent Name: Mark Zagorin</p> <p>Address Line 1: ZAGORIN O'BRIEN GRAHAM LLP</p> <p>Address Line 2: 7600B N. Capital of TX Hwy, Ste 350</p> <p>Address Line 4: Austin, TEXAS 78731</p>											
ATTORNEY DOCKET NUMBER:	037-0124										
NAME OF SUBMITTER:	Katrina Prati										
<p>Total Attachments: 12</p> <p>source=Assignment_executed#page 1.tif</p>											

CH \$40.00 12561130

500965533

PATENT
REEL: 023248 FRAME: 0477

source=Assignment_executed#page2.tif
source=Assignment_executed#page3.tif
source=Assignment_executed#page4.tif
source=Assignment_executed#page5.tif
source=Assignment_executed#page6.tif
source=Assignment_executed#page7.tif
source=Assignment_executed#page8.tif
source=Assignment_executed#page9.tif
source=Assignment_executed#page10.tif
source=Assignment_executed#page11.tif
source=Assignment_executed#page12.tif

ASSIGNMENT OF INVENTION

For good and valuable consideration, the receipt of which is hereby acknowledged,
I, an ASSIGNOR named below,

Lusheng Ji of Randolph, NJ
Bo Han of College Park, MD
Robert R. Miller II of Convent Stn., NJ

hereby sell, assign and transfer to

ASSIGNEE: AT&T Intellectual Property I, L.P., a Nevada limited partnership,
having a place of business at 645 E. Plumb Lane, Reno, NV 89502,

its successors, assigns and legal representatives, my entire right, title and interest throughout
the world, including all rights to claim priority, in and to the invention(s) disclosed in:

- ☒ U.S. Patent Application executed on or about the date of this Assignment,
- ☐ U.S. Patent Application executed on _____, or
- ☐ U.S. Provisional Application
- ☐ U.S. Application No.: _____, filed on _____
- ☐ International Application No.: PCT/_____, filed on _____

ENTITLED: **IMPROVING QOS IN MULTI-HOP WIRELESS
NETWORKS THROUGH PATH CHANNEL ACCESS
THROTTLING**, and naming as

INVENTOR(S): Lusheng Ji, Bo Han, and Robert R. Miller II

including without limitation, my entire right, title and interest in and to any and all United
States and foreign applications (including any and all provisional, international, regional and
foreign national applications) for said invention(s), including divisions, continuations,
continuations-in-part, renewals, substitutes and extensions thereof, and in and to any and all
patents of every country or region that may be granted or have been granted for said
invention(s), including any reissues and reexaminations thereof.

To comply with 37 C.F.R. § 3.21 for recording this Assignment, I authorize and request that
the application number and filing date be inserted here, if not already shown above,
(12 /561,130 _____, filed September 16, 2009 _____) when they become known.

I authorize ASSIGNEE to apply for patents of foreign countries for said invention(s), and to
claim all rights of priority without further authorization from me.

I agree to execute any and all papers useful in connection with any and all United States and
foreign applications (including international, regional, and foreign national applications), and
generally to do everything possible to aid ASSIGNEE, its successors, assigns and nominees,
at their request and reasonable expense, in obtaining and enforcing patents for said
invention(s) in all countries.

I hereby covenant that no assignment, sale, license, agreement, or encumbrance has been or
will be made or entered into that would conflict with this Assignment.

ASSIGNMENT OF INVENTION

I authorize and request the Commissioner of Patents and Trademarks to issue any U.S. Letters Patent that may be granted for said invention(s) to ASSIGNEE, its successors or assigns.

Executed on <u>09/16</u> , 200 <u>9</u> by <u>[Signature]</u> Lusheng Ji	
----- Notary Use Below -----	
ACKNOWLEDGMENT	
State of <u>NJ</u>	
County of <u>Union</u>	
On <u>9/16/09</u> , before me, <u>Ingrid Filannino</u> , personally appeared (Date) (Printed Name of Notary)	
Lusheng Ji, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.	
I certify under PENALTY OF PERJURY under the laws of the State of <u>NJ</u> that the foregoing paragraph is true and correct.	
INGRID FILANNINO ID # 2226569 NOTARY PUBLIC OF NEW JERSEY Commission Expires 6/15/2014	WITNESS my hand and official seal. <u>Ingrid Filannino</u> Signature of Notary

ASSIGNMENT OF INVENTION

Executed on _____, 200__ by _____
Bo Han

----- Notary Use Below -----

ACKNOWLEDGMENT

State of _____)
County of _____)

On _____, before me, _____, personally appeared
(Date) (Printed Name of Notary)

Bo Han, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEAL

Signature of Notary

Executed on _____, 200__ by _____
Robert R. Miller II

----- Notary Use Below -----

ACKNOWLEDGMENT

State of _____)
County of _____)

On _____, before me, _____, personally appeared
(Date) (Printed Name of Notary)

Robert R. Miller II, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEAL

Signature of Notary

ASSIGNMENT OF INVENTION

For good and valuable consideration, the receipt of which is hereby acknowledged,
I, an ASSIGNOR named below,

Lusheng Ji of Randolph, NJ
Bo Han of College Park, MD
Robert R. Miller II of Convent Stn., NJ

hereby sell, assign and transfer to

ASSIGNEE: AT&T Intellectual Property I, L.P., a Nevada limited partnership,
having a place of business at 645 E. Plumb Lane, Reno, NV 89502,

its successors, assigns and legal representatives, my entire right, title and interest throughout
the world, including all rights to claim priority, in and to the invention(s) disclosed in:

- ☒ U.S. Patent Application executed on or about the date of this Assignment,
- ☐ U.S. Patent Application executed on _____, or
- ☐ U.S. Provisional Application
- ☐ U.S. Application No.: _____, filed on _____
- ☐ International Application No.: PCT/_____, filed on _____

ENTITLED: **IMPROVING QOS IN MULTI-HOP WIRELESS
NETWORKS THROUGH PATH CHANNEL ACCESS
THROTTLING**, and naming as

INVENTOR(S): Lusheng Ji, Bo Han, and Robert R. Miller II

including without limitation, my entire right, title and interest in and to any and all United
States and foreign applications (including any and all provisional, international, regional and
foreign national applications) for said invention(s), including divisions, continuations,
continuations-in-part, renewals, substitutes and extensions thereof, and in and to any and all
patents of every country or region that may be granted or have been granted for said
invention(s), including any reissues and reexaminations thereof.

To comply with 37 C.F.R. § 3.21 for recording this Assignment, I authorize and request that
the application number and filing date be inserted here, if not already shown above,
(12/561,130 , filed September 16, 2009) when they become known.

I authorize ASSIGNEE to apply for patents of foreign countries for said invention(s), and to
claim all rights of priority without further authorization from me.

I agree to execute any and all papers useful in connection with any and all United States and
foreign applications (including international, regional, and foreign national applications), and
generally to do everything possible to aid ASSIGNEE, its successors, assigns and nominees,
at their request and reasonable expense, in obtaining and enforcing patents for said
invention(s) in all countries.

I hereby covenant that no assignment, sale, license, agreement, or encumbrance has been or
will be made or entered into that would conflict with this Assignment.

ASSIGNMENT OF INVENTION

I authorize and request the Commissioner of Patents and Trademarks to issue any U.S. Letters Patent that may be granted for said invention(s) to ASSIGNEE, its successors or assigns.

Executed on _____, 200__ by _____ Lusheng Ji
----- Notary Use Below -----
ACKNOWLEDGMENT
State of _____) County of _____)
On _____, before me, _____, personally appeared (Date) (Printed Name of Notary)
Lusheng Ji, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of _____ that the foregoing paragraph is true and correct.
WITNESS my hand and official seal.
SEAL
_____ Signature of Notary

Executed on 09/11, 2009 by Bo Han
Bo Han

----- Notary Use Below -----

ACKNOWLEDGMENT

State of _____)
County of _____)

On _____ before me, _____, personally appeared
(Date) (Printed Name of Notary)

Bo Han, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____
that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEAL

Signature of Notary

ASSIGNMENT OF INVENTION

Executed on _____, 200__ by _____
Robert R. Miller II

----- Notary Use Below -----

ACKNOWLEDGMENT

State of _____)
County of _____)

On _____, before me, _____, personally appeared
(Date) (Printed Name of Notary)

Robert R. Miller II, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEAL

Signature of Notary

ASSIGNMENT OF INVENTION

For good and valuable consideration, the receipt of which is hereby acknowledged,
I, an ASSIGNOR named below,

Lusheng Ji of Randolph, NJ
Bo Han of College Park, MD
Robert R. Miller II of Convent Stn., NJ

hereby sell, assign and transfer to

ASSIGNEE: AT&T Intellectual Property I, L.P., a Nevada limited partnership,
having a place of business at 645 E. Plumb Lane, Reno, NV 89502,

its successors, assigns and legal representatives, my entire right, title and interest throughout
the world, including all rights to claim priority, in and to the invention(s) disclosed in:

- ☒ U.S. Patent Application executed on or about the date of this Assignment,
- ☐ U.S. Patent Application executed on _____, or
- ☐ U.S. Provisional Application
- ☐ U.S. Application No.: _____, filed on _____
- ☐ International Application No.: PCT/_____, filed on _____

ENTITLED: **IMPROVING QOS IN MULTI-HOP WIRELESS
NETWORKS THROUGH PATH CHANNEL ACCESS
THROTTLING**, and naming as

INVENTOR(S): Lusheng Ji, Bo Han, and Robert R. Miller II

including without limitation, my entire right, title and interest in and to any and all United
States and foreign applications (including any and all provisional, international, regional and
foreign national applications) for said invention(s), including divisions, continuations,
continuations-in-part, renewals, substitutes and extensions thereof, and in and to any and all
patents of every country or region that may be granted or have been granted for said
invention(s), including any reissues and reexaminations thereof.

To comply with 37 C.F.R. § 3.21 for recording this Assignment, I authorize and request that
the application number and filing date be inserted here, if not already shown above,
(12 /561,130, filed September 16, 2009) when they become known.

I authorize ASSIGNEE to apply for patents of foreign countries for said invention(s), and to
claim all rights of priority without further authorization from me.

I agree to execute any and all papers useful in connection with any and all United States and
foreign applications (including international, regional, and foreign national applications), and
generally to do everything possible to aid ASSIGNEE, its successors, assigns and nominees,
at their request and reasonable expense, in obtaining and enforcing patents for said
invention(s) in all countries.

I hereby covenant that no assignment, sale, license, agreement, or encumbrance has been or
will be made or entered into that would conflict with this Assignment.

ASSIGNMENT OF INVENTION

I authorize and request the Commissioner of Patents and Trademarks to issue any U.S. Letters Patent that may be granted for said invention(s) to ASSIGNEE, its successors or assigns.

Executed on _____, 200__ by _____
Lusheng Ji

----- Notary Use Below -----

ACKNOWLEDGMENT

State of _____)
County of _____)

On _____, before me, _____, personally appeared
(Date) (Printed Name of Notary)

Lusheng Ji, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEAL

Signature of Notary

ASSIGNMENT OF INVENTION

Executed on _____, 200__ by _____
Bo Han

----- Notary Use Below -----

ACKNOWLEDGMENT

State of _____)
County of _____)

On _____, before me, _____, personally appeared
(Date) (Printed Name of Notary)

Bo Han, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of _____ that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

SEAL

Signature of Notary

ASSIGNMENT OF INVENTION

Executed on Sept 17, 2009 by Robert R. Miller II
Robert R. Miller II

----- Notary Use Below -----

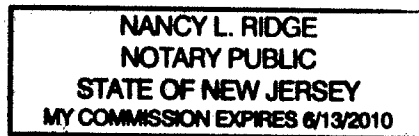
ACKNOWLEDGMENT

State of New Jersey
County of morris

On September 17, ²⁰⁰⁹, before me, Nancy L. Ridge, personally appeared
(Date) (Printed Name of Notary)

Robert R. Miller II, who 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/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of New Jersey that the foregoing paragraph is true and correct.



WITNESS my hand and official seal.

Nancy L. Ridge
Signature of Notary