FORM PTO-1995 (Modified) Rh	Pressure of conveying party(ies) Rescue 100916600 JEET LA DEPARTMENT of Patent and Trademarks: Please record the attached original documents or copy of 1. Name of conveying party(ies): Brace A. Philips Paula C. Poberzyn 2. Name and address of receiving party(ies): Darwel Kang Richard H. Fink Name: LIS West, Inc. To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy of 1. Name and address of receiving party(ies): Name: LIS West, Inc. Darwel Kang Richard H. Fink Name: LIS West, Inc. Name: LIS West, Inc. To the Honorable Conveying party (ies) attached? Yes Name: LIS West, Inc. Street Address: Street Address: Additional name(s) of conveyance:	W 0464 I
Charlensis Definition Control of the formation of conveying party(iss): 1. Name of conveying party(iss): Patterns and Trademarks: Please record the attached original documents or copy thereof 1. Name of conveying party(iss): Public Conversion Patterns Darket A. Phillips Public Conversion Patterns Darket A. Phillips Public Conversion Patterns Darket A. Phillips Public Conversion Patterns Darket Kang Richard H. Fink Patterns Sceurity Agreement Change of Name Street Address: [B01 California Street, Suite 5100 A. Pattern Application Nuc(s) D9/203008C Pattern Nuc(s) Additional number(s): D9/203008C Pattern Nuc(s) Additional number(s): B. Patern Nuc(s) Pattern Application Nuc(s) Additional number of ap	Middlifely PATENTS ONLY Patentiand for PATENTS ONLY Patentiand for To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy tt 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Bruce A. Philips Paula C. Poberzyn 2. Name and address of receiving party(ies): Name: US West, Inc. To dd. A Feit Donakd L. Brodigan Internal Address: (Same as Street Address) Internal Address: (Same as Street Address) 3. Nature of conveyance:	
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Security Agreement Change of Name City:State: COZip: 80202 Other	Security Agreement Change of Name City:State: COZip: 8020 Other	
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Additional name(s) & address(es) attached?	Additional name(s) & address(s) attached? Yes)2
4. Application number(s) or patent number(s): 09/203.0846 If this document is being filed together with a new application, the execution date of the application is: Concurrent herewith A. Patent Application No.(s) B. Patent No.(s) A. Patent Application No.(s) B. Patent No.(s) S. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: 1	4. Application number(s) or patent number(s): 09/2031086 If this document is being filed together with a new application, the execution date of the application is: Concurrent herew A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? Yes _X_No 5. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: Name: Peter J, Kinsella, Esq 7. Total Fee (37 C.F.R. § 3.41)	_ <u>x</u>
If this document is being filed together with a new application, the execution date of the application is: Concurrent herewith A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? Yes Yes X_No 5. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: 1 Name: Peter J. Kinsella, Esq 7. Total Fee (37 C.F.R. § 3.41) \$_40,00 Address: 1801 California Street, Suite 5100 Enclosed Enclosed City: Denver State: CO ZIP: 80202 8. Deposit Account Number: US West, Inc. Deposit Account 21:0456 (Attach dupticate copy of this page if paying by Deposit Account) DO NOT USE THIS SPACE 9. Statement and signature. To the hest of my knowledge and belief, the foregoing information is true and correct, and any attached copy is a true copy of the original document. Ralph E. Smith Mame of Person Signing Signature Detember 1, 19	If this document is being filed together with a new application, the execution date of the application is: Concurrent herew A. Patent Application No.(s) B. Patent No.(s) Additional numbers attached? Yes X_No 5. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: Name: Peter J. Kinsella, Esq 7. Total Fee (37 C.F.R. § 3.41)	
5. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: 1	 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Peter J. Kinsella, Esq. Address: 1801 California Street, Suite 5100 City: Denver State: CO ZIP: 80202 B. Deposit Account Number: US West, Inc. Deposit Account Number: US West, Inc. Deposit Account Number: US West, Inc. Deposit Account Attach dupticate copy of this page if paying by Deposit Account Attach dupticate copy of this page if paying by Deposit Account Attach dupticate copy of this page if paying by Deposit Account Attach dupticate copy of this page if paying by Deposit Account Attach dupticate copy of this page if paying by Deposit Account Attach dupticate copy of this page if paying by Deposit Account Attach dupticate copy of the originature. 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 originature. 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 originature. 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 originature. 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 originature. 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 originature. Ralph E. Smith December 	
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9. 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. Ralph E. Smith Name of Person Signing December 1, 19 Signature	 9. 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 origination. Ralph E. Smith 	ınt)
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. Ralph E. Smith December 1, 19 Name of Person Signing Signature Date	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 ori document. Ralph E. Smith December	
Total number of pages including cover sheet, attachments, and document:5	Name of retson signing i signature Da	<u>r 1, 199</u>
	Total number of pages including cover sheet, attachments, and document:5	

Mail documents to be recorded with required cover sheet information to: Box Assignments, Hon. Commissioner of Patents and Trademarks Washington, D.C. 20231

> PATENT REEL: 9622 FRAME: 0220

ASSIGNMENT

For the sum of One Dollar (\$1.00) and other good and valuable consideration, receipt of which is hereby acknowledged, we, **BRUCE A. PHILLIPS**, of 9165 S. Mountain Brush Court, Highlands Ranch, Colorado 80126, **DARWEI KUNG**, of 15149 E. Princeton Pl., #F, Aurora, Colorado 80014, **TODD A. PETT**. 2318 22nd Avenue, Longmont, Colorado 80503, **DAVID J. ARENS**, of 9225 S. Mountain Brush Court, Highlands Ranch, Colorado 80126, **PAULA C. POBERZYN**, 1425 East Hermosa Drive, Highlands Ranch, Colorado 80126, **RICHARD H. FINK**, 4129 S. Ireland Court, Aurora, Colorado 80013, and **DONALD L. BRODIGAN**, 6281 W. 110th Avenue, Broomfield, Colorado 80020, respectively, do hereby assign, sell and set over to **US WEST**, **INC.**, a corporation organized and existing under the laws of the State of Delaware and having a place of business at 1801 California Street. Suite 5100, Denver, Colorado 80202, hereinafter referred to as the ASSIGNEE, its successors, assigns or other legal representatives, the entire right, title and interest, domestic and foreign, in and to the inventions and discoveries in

SYSTEM AND METHOD FOR INCREASING DISTRIBUTION DISTANCE OF XDSL TYPE SIGNALS

set forth in the application for United States Letters Patent, executed by us on the dates specified below, including the right of said ASSIGNEE, its successors, assigns or other legal representatives respectively, to make applications and to receive Letters Patent for said inventions and discoveries in any and all foreign countries in its or their own name or names, or in our names, at its or their election, and we hereby assign, sell and set over to said ASSIGNEE, its successors, assigns or other legal representatives, all rights of priority in and to said inventions and discoveries in all countries.

And we hereby agree for ourselves, our heirs, successors, assigns or other legal representatives to execute any and all papers, including applications for Letters Patent of any and all kinds and in any and all countries and to perform any and all acts which said ASSIGNEE, its successors, assigns or other legal representatives may deem necessary to secure thereto the rights herein assigned, sold and set over

And we hereby represent and warrant that we have not granted any rights inconsistent with the rights granted herein.

11-24-98 DATE

<u>11-24-99</u> DATE

BRUCE A. PHILLIPS

11/30/98

74/98 DATE 11/

11/24/98 DATE

DAVID J. ARENS

PAULA C. POBERZYN

RICHARD H. FINK

<u>// -24 - 98</u> DATE

<u> 11-24-98</u> DATE

Dorynell L. B-codign DONALD L. BRODIGAN

STATE OF (blorado) COUNTY OF Arapahoe) ss.

On this 24^{-d} day of <u>November</u>, 19<u>9</u>, personally appeared before me **BRUCE A. PHILLIPS**, to me known to be the person named in and who executed the above instrument, and acknowledged that he executed the same for the uses and purposes therein mentioned.

Nøtary Public

My Commission expires: 2/9/2002

PATENT **REEL: 9622 FRAME: 0222** STATE OF (clonado) COUNTY OF Quapakoe) ss.

On this 24^{cL} day of <u>November</u>, 19<u>95</u>, personally appeared before me **DARWEI KUNG**, to me known to be the person named in and who executed the above instrument, and acknowledged that he executed the same for the uses and purposes therein mentioned.

Notary Public My Commission expires: 2/9/2002

the above instrument, and acknowledged that he executed the same for the uses and purposes therein mentioned.



STATE OF Coloria) COUNTY OF Brudder) ss.

<u>(huyl X. Ja.</u> Notary Public My Commission expires: 11-27-99

On this 24^{cl} day of <u>Normler</u>, 19<u>95</u>, personally appeared before me **DAVID J. ARENS**, to me known to be the person named in and who executed the above instrument, and acknowledged that he executed the same for the uses and purposes therein mentioned.

Notary Public





PATENT REEL: 9622 FRAME: 0223 STATE OF (dorada-)) ss. COUNTY OF Grapahoe)

On this <u>24</u>^{tt} day of <u>November</u>, 19<u>98</u>, personally appeared before me PAULA C. POBERZYN, to me known to be the person named in and who executed the above instrument, and acknowledged that he executed the same for the uses and purposes therein mentioned.

Notary Public My Commission expires: 2/9/2002

Colorado) ss. On this 24^{dL} day of <u>November</u>, 1997, personally appeared before me **RICHARD H. FINK**, to me known to be the person named in and who executed the above instrument, and acknowledged that he executed the same for the uses and purposes, therein mentioned.



STATE OF

COUNTY OF

Notary Public My Commission expires: 219/2002

STATE OF (dorado)) ss. COUNTY OF (inspehal)

On this <u>24</u>th day of <u>Movember</u>, 19<u>98</u> personally appeared before me DONALD L. BRODIGAN, to me known to be the person named in and who executed the above instrument, and acknowledged that he executed the same for the uses and purposes therein mentioned.



Jeal G. Miller Notary Public My Commission expires: 2/9/-2002

-4-

PATENT REEL: 9622 FRAME: 0224

RECORDED: 12/01/1998