10-09-2001

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U.S. DEPARTMENT OF COMMI Patent and Trademark Office

Attorney Docket No. 100.211US01

To the Honorable Commission itents and 1 rademan original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Dieter H. Nattkemper, Robert S. Kroninger, Shaji Thomas Name: ADC DSL Systems, Inc. Additional name(s) of conveying party(ies) attached? __Yes _X_No 3. Nature of conveyance: Street Address: 13625 Technology Drive X Assignment _ Merger Security Agreement Change of Name City: Eden Prairie State: MN ZIP: 55344 Other Execution Date: September 21, 2001 Additional name(s) & address(es) attached? __Yes _X 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: September 21, 2001 A. Patent Application No(s). B. Patent No(s). Title: IMPROVEMENTS TO DIGITAL SUBSCRIBER LINE SERVICES Additional numbers attached? 5. Name and address of party to whom correspondence 6. Total number of applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR §3.41): \$ 40.00 Name: Laura A. Ryan Fogg Slifer & Polglaze, P.A. Address: P.O. Box 581009 X Enclosed Minneapolis, MN 55458-1009 Authorized to be charged to deposit account 8. Please charge any additional fees or credit any overpayments to Deposit account number: _501373 DO NOT USE THIS SPACE 9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is an original or a true copy of the original document. Jano align 25 September 2001 Laura A. Ryan Reg. #49,055 Name of Person Signing Total number of pages including cover sheet, attachments, and document(s): 5

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents Box Assignments Washington, D.C. 20231

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PATENT

REEL: 012217 FRAME: 0356

ASSIGNMENT

WHEREAS, We, <u>Dieter H. Nattkemper</u>, residing at <u>8001 Old Deer Tr.</u>, <u>Raleigh, North Carolina</u>, <u>27615</u>, <u>Robert S. Kroninger</u>, residing at <u>8509 Hampton Chase Ct</u>, <u>Wake Forest</u>, <u>North Carolina</u>, <u>27587</u>, and <u>Shaji Thomas</u>, residing at <u>1717 Bowling Green Trail</u>, <u>Raleigh</u>, <u>North Carolina</u>, <u>27613</u>, made certain new and useful inventions and improvements for which we executed an application for Letters Patent of the United States <u>filed herewith</u> which is entitled <u>IMPROVEMENTS TO DIGITAL SUBSCRIBER LINE</u> <u>SERVICES</u> (the "Application").

AND WHEREAS, ADC DSL Systems, Inc., a corporation organized and existing under and by virtue of the laws of the State of Delaware, and having an office and place of business at 13625 Technology Drive, Eden Prairie, Minnesota, 55344-2252, (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to the inventions, improvements and the Application and in and to the Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the Application, and in and to the Application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

AND, for the consideration identified above, we do agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to the Assignee, its successors and representatives all facts known to us relating to the improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in the Assignee, its successors or assigns the entire right,

REEL: 012217 FRAME: 0357

Assignment

Title: IMPROVEMENTS TO DIGITAL SUBSCRIBER LINE SERVICES

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title and interest in and to the improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with the Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 21 day of ______ 2001.

Dieter H. Nattkemper

STATE of NC

COUNTY of Wake

On this 21st day of Sept., 2001, before me personally appeared <u>Dieter H.</u> Nattkemper to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

Motary Public
My Commission exp. 7.7.2.002

PATENT REEL: 012217 FRAME: 0358 Assignment Title: IMPROVEMENTS TO DIGITAL SUBSCRIBER LINE SERVICES ATTORNEY DOCKET: 100.211us01 U.S. PATENT APPLICATION SERIAL NO. 09/865,216 PAGE 3 OF 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this $\frac{2!}{!}$ day of

Robert S. Kroninger

STATE of NC

On this 215 day of Sept. 2001, before me personally appeared Robert S. Kroninger to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

2001.

Motary Public

My Commission exp. 7.7.2002

PATENT REEL: 012217 FRAME: 0359

Assignment Title: IMPROVEMENTS TO DIGITAL SUBSCRIBER LINE SERVICES ATTORNEY DOCKET: 100.211us01 U.S. PATENT APPLICATION SERIAL NO. 09/865,216 PAGE 4 OF 4

IN TESTIMONY WHEREOF, I have hereunto set my hand this 2/ day of September.

Shaji Thomas

STATE of NC

COUNTY of Wake)

On this 215 day of Sept., 2001, before me personally appeared Shaji Thomas to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

2001.

My commission exp. 7.7.2002

PATENT RECORDED: 10/01/2001 REEL: 012217 FRAME: 0360