

09-26-2000

8.22.00



To the Honorable Commissioner of Patents and Trademarks, 101471888, and the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

SEE ATTACHED ADDENDUM

## 2. Name and address of receiving party(ies):

Name: TELIA AB

Address: Marbackagatan 11,  
S-123 86  
Farsta, SWEDENAdditional name(s) of conveying party(ies) attached? ☒ Yes ☐ No

## 3. Nature of Conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other

SEE ATTACHED  
Execution Date: ADDENDUMAdditional name(s) and address(es) attached? ☐ Yes ☒ 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:

## A. Patent Application No.(s)

09/147,749

## B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

OBLON, SPIVAK, McCLELLAND, MAIER &  
NEUSTADT, P.C.  
Attorneys at Law  
Fourth Floor  
1755 Jefferson Davis Highway  
Arlington, Virginia 22202

## 6. Total applications and patents involved: 1

## 7. Total fee (37 CFR 3.41): \$40.00

- ☒ Enclosed  
☐ Authorized to be charged to deposit account

## 8. Deposit account number: 15-0030

(Attach duplicate copy of this page if paying by deposit account)

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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.*

Marvin J. Spivak

Registration Number 24,913  
Name of Person Signing

Signature

Date

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Total number of pages including this cover sheet: 5

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09/22/2000 GTON11 00000160 09147749

01 FC:581

40.00 DP

**Addendum****(1) Name of conveying parties****Execution Dates**

1)Mikael ISAKSSON	April 16, 1999
2)Magnus JOHANSSON	April 16, 1999
3)Harry TONVALL	April 30, 1999
4)Lennart OLSSON	April 19, 1999
5)Tomas STEFANSSON	April 19, 1999
6)Hans OHMAN	April 22, 1999
7)Gunnar BAHLENBERG	April 19, 1999
8)Anders ISAKSSON	April 19, 1999
9)Goran OKVIST	April 19, 1999
10)Lis-Marie LJUNGGREN	April 20, 1999
11)Tomas NORDSTROM	April 19, 1999
12)Lars-Ake ISAKSSON	April 20, 1999
13)Daniel BENGTTSSON	April 20, 1999
14)Siwert HAKANSSON	April 27, 1999
15)Ye WEN	May 5, 1999

# Assignment Of Application

Page 1 of 3

INSERT NAMES  
AND RESIDENCE  
ADDRESSES OF  
THE INVENTORS:

WHEREAS, I (WE) 1) Mikael ISAKSSON, 2) Magnus JOHANSSON, 3) Harry  
TONVALL, 4) Lennart OLSSON, 5) Thomas STEFANSSON, 6) Hans OHMAN, 7) Gunnar  
BAHLENBERG, 8) Anders ISAKSSON, 9) Goran OKVIST, 10) Lis-Marie LJUNGGREN,  
11) Tomas NORDSTROM, 12) Lars-Ake ISAKSSON, 13) Daniel BENGTSSON,  
14) Siwert HAKANSSON, 15) Ye WEN all of:  
(1-15) Telia Research AB, Aurorum 6, S-977 75 Lulea, SWEDEN

INSERT TITLE  
OF INVENTION:

have invented certain new and useful improvements in: IMPROVEMENTS IN, OR  
RELATING TO, MULTI-CARRIER TRANSMISSION SYSTEMS

INSERT DATE IN-  
VENTORS SIGNED  
DECLARATION:

for which an application for Letters Patent was executed on \_\_\_\_\_  
(Application No. 09/147,749 , filed June 1, 1999 ), and

INSERT NAME  
AND ADDRESS OF  
COMPANY OR  
OTHER ASSIGNEE:

WHEREAS, TELIA AB  
(hereinafter referred to as "ASSIGNEE") having a place of business at: Marbackagatan 11,  
S-123 86 Farsta, SWEDEN

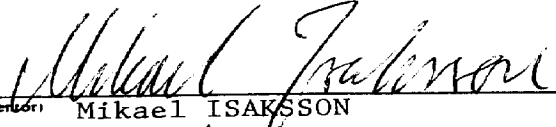
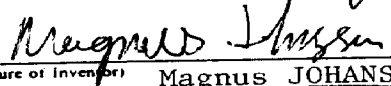
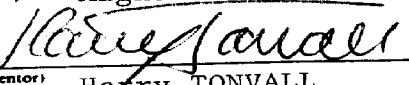
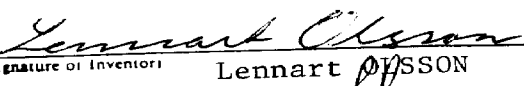
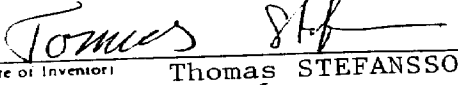

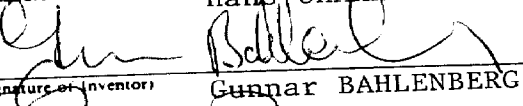

is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in any and all foreign countries:

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.


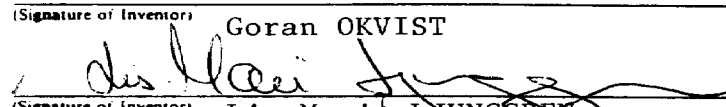
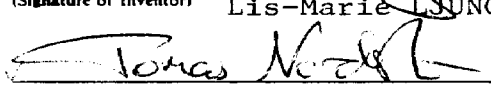

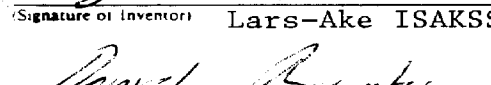
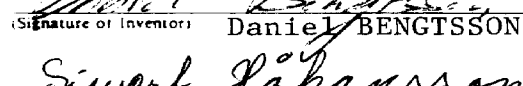
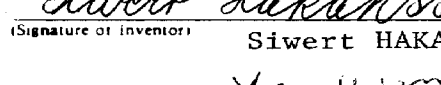
✓ Date: 990416	 (Signature of Inventor) Mikael ISAKSSON
• Date: 1999-04-16	 (Signature of Inventor) Magnus JOHANSSON
• Date: 1999-04-30	 (Signature of Inventor) Harry TONVALL
Date: 1999-04-19	 (Signature of Inventor) Lennart JOHANSSON
Date: 1999-04-19	 (Signature of Inventor) Thomas STEFANSSON
Date: 990422	 (Signature of Inventor) Hans OHMAN
Date: 990419	 (Signature of Inventor) Gunnar BAHLENBERG
Date: 990419	 (Signature of Inventor) Anders ISAKSSON

**OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.**  
ATTORNEYS AT LAW  
FOURTH FLOOR  
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ARLINGTON, VIRGINIA 22202

I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date: 990419	 (Signature of Inventor) Goran OKVIST
Date: 1999-04-20	 (Signature of Inventor) Lis-Marie LJUNGREN
Date: 1999-04-19	 (Signature of Inventor) Tomas NORDSTROM
Date: 1999-04-20	 (Signature of Inventor) Lars-Ake ISAKSSON
Date: 1999-04-20	 (Signature of Inventor) Daniel BENGTSSON
Date: 99 04 27	 (Signature of Inventor) Siwert HAKANSSON
Date: 1999-05-05	 (Signature of Inventor) Ye WEN
Date: _____	_____ (Signature of Inventor)

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