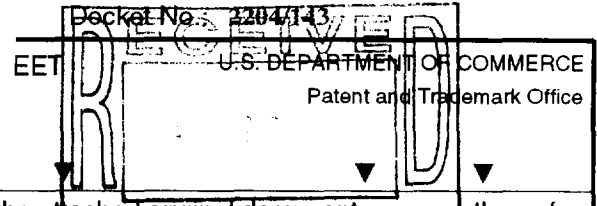


08-24-1999



101126234



Tab settings

To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):  
**Thomas Hardjono**  
**Bradley Cain**

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

Name: Nortel Networks Corporation  
Internal Address: World Trade Center of Montreal

Additional names(s) of conveying party(ies)  Yes  No

3. Nature of conveyance:

- Assignment  Merger
- Security Agreement  Change of Name
- Other

Street Address: 380 St. Antoine Street West, 8th Floor  
Montreal, Quebec H2Y 3Y4, Canada

City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

Execution Date: August 17, 1999

Additional name(s) & address(es) attached?  Yes  No

4. Application number(s) or registration numbers(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

B. Patent No.(s)

09/290,753

Additional numbers attached?  Yes  No

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

Name: Steven G. Saunders  
Internal Address: BROMBERG & SUNSTEIN LLP

6. Total number of applications and patents involved: 1

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

- Enclosed - Any excess or insufficiency should be credited or debited to deposit account
- Authorized to be charged to deposit account

Street Address: 125 Summer Street

8. Deposit account number:

19-4972

City: Boston State: MA ZIP: 02110

08/23/1999 NTHA11 00000330 09290753

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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.*

Steven G. Saunders

August 18, 1999

Name of Person Signing

Signature

Date

Total number of pages including cover sheet, attachments, and document:

4

## ASSIGNMENT

ASSIGNOR: Thomas Hardjono  
Bradley Cain

ASSIGNEE: Nortel Networks Corporation  
World Trade Center of Montreal  
380 St. Antoine Street West, 8th Floor  
Montreal, Quebec H2Y 3Y4  
Canada

STATE OF INCORPORATION OF ASSIGNEE: N/A

INVENTION: APPARATUS AND METHOD FOR TRANSMITTING MESSAGES  
ACROSS DIFFERENT MULTICAST DOMAINS

ATTORNEY DOCKET: 2204/143

SERIAL NO: 09/290,753

FILED: April 13, 1999

Assignor is the sole inventor (if only one inventor is listed above) or a joint inventor (if more than one inventor is listed above) of the above invention (the "Invention") described in a United States patent application (the "Application") bearing the above attorney docket number and having as a title the above name for the Invention. The Application has a Patent and Trademark Office filing date and serial number as indicated above, or if no filing date and serial number are shown, has a Declaration executed by Assignor contemporaneously with this Assignment.

For valuable consideration, receipt of which is acknowledged, each Assignor hereby assigns to Assignee (which term shall include Assignee's successors and assigns), all of Assignor's right, title and interest in the Invention, all improvements therein, the Application and

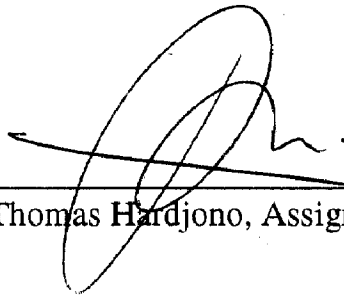
all priority rights arising therefrom, and any patents, and any reissues and extensions thereof, which issue in any country upon any patent applications which correspond with any of the following: the Application, any divisional, continuation-in-whole, or substitute United States application which is based on the Application; or any continuation-in-part United States application (including divisions, continuations-in-whole or -in-part, and substitutions thereof or therefor) based in-part on any of the above described applications.

Each Assignor further agrees that such Assignor and Assignor's heirs and legal representatives will, without further consideration, cooperate with Assignee in the prosecution of all of the above applications, execute, verify, acknowledge and deliver all such further papers, including applications for patents and for reissues and extensions therefor, and instruments of assignment and transfer thereof, and will communicate any facts known to Assignor relating to the Invention, to obtain or maintain or enforce patents for the Invention and improvements therein in any and all countries and to vest title thereto in Assignee. Each Assignor further agrees that such Assignor will, without further compensation to Assignor during the term of such Assignor's employment by Assignee and thereafter for reasonable compensation as determined by Assignee, perform such other acts as may be reasonably required when requested by Assignee, including attending depositions, preparing and executing declarations and affidavits and testifying as a witness, to obtain or maintain or enforce patents for the Invention and improvements therein in any and all countries and to vest title thereto in Assignee.

IN WITNESS WHEREOF, each Assignor hereby executes this instrument on the date set

forth below.

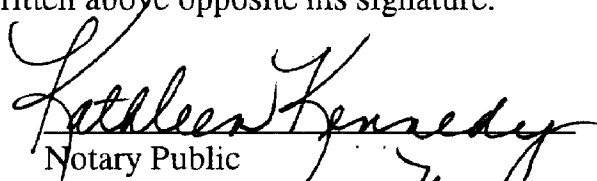
Date: Aug. 17, 1999

  
Thomas Hardjono, Assignor

STATE OF Massachusetts  
COUNTY OF Middlesex

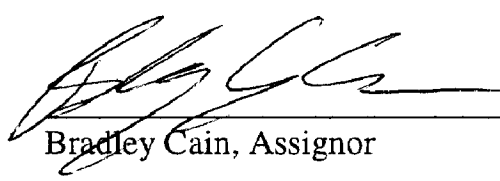
)  
) ss.  
)

Before me, a notary public in and for said county and state, personally appeared Thomas Hardjono, to me known to be the person described in the foregoing instrument, who, being first duly sworn, acknowledged his signature on the foregoing instrument in my presence and declared the same to be his free act and deed on the date written above opposite his signature.

  
Kathleen Kennedy  
Notary Public  
My Commission Expires: Nov. 15, 2002

(seal)

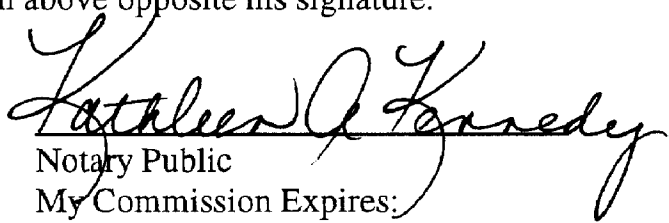
Date: 8/17/99

  
Bradley Cain, Assignor

STATE OF Massachusetts  
COUNTY OF Middlesex

)  
) ss.  
)

Before me, a notary public in and for said county and state, personally appeared Bradley Cain, to me known to be the person described in the foregoing instrument, who, being first duly sworn, acknowledged his signature on the foregoing instrument in my presence and declared the same to be his free act and deed on the date written above opposite his signature.

  
Kathleen Kennedy  
Notary Public  
My Commission Expires:

(seal)

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