

08-02-2001

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Execution Date: 16 July 2001

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: 16 July 2001

A. Patent Application No(s).

B. Patent No(s).

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

Name: Stanley D. Ference III

FERENCE & ASSOCIATES

Address: 129 Oakhurst Road

City: Pittsburgh State: PA Zip: 15215

6. Total number of applications and patents involved: 1

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

- ☐ Enclosed  
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To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true and copy of the original document.

Stanley D. Ference III  
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16 July 2001  
 Date

Total number of pages including cover sheet, attachments, and document: 2

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 Commissioner of Patents & Trademarks, Box Assignments  
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PATENT  
 REEL: 012021 FRAME: 0031

## Assignment

Whereas, I

INVENTOR  
AND CITY

Marcos N. Novaes  
County of Dutchess

of Hopewell Junction,  
and State of New York

TITLE

have invented certain improvements in  
METHODS AND APPARATUS FOR THE PROPAGATION OF MULTICAST  
TRANSMISSIONS IN A COMMUNICATIONS NETWORK

executed, respectively, a United States patent application therefor on even date herewith.

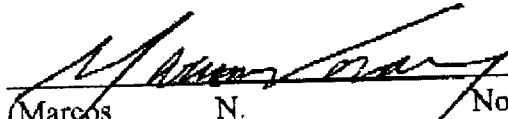
Whereas, INTERNATIONAL BUSINESS MACHINES CORPORATION, a corporation of New York, having a place of business at Armonk, New York 10504, (hereinafter called IBM), desires to acquire the entire right, title and interest in the said application and invention, and to any United States and foreign patents to be obtained therefor;

Now therefore, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby sell, assign, and transfer to IBM, its successors and assigns, the entire right, title and interest in the said application and invention therein disclosed for the United States and foreign countries, and all rights of priority resulting from the filing of said United States application, and I request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said applications to IBM, its successors and assigns; and I hereby agree that IBM may apply for foreign Letters Patent on said invention and I will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed and sealed

CITY AND  
DATE

at Hawthorne  
on *July 16*, 2001,

  
(Marcos N. Novaes) SIGNATURE  
INVENTOR  
FIRST NAME MIDDLE INITIAL LAST NAME