PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| Sedat Oelcer | 04/13/2007 |

RECEIVING PARTY DATA

| Name: | International Business Machines Corporation |
|-----------------|---|
| Street Address: | New Orchard Road |
| City: | Armonk |
| State/Country: | NEW YORK |
| Postal Code: | 10504 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 09585027 |

CORRESPONDENCE DATA

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| ATTORNEY DOCKET NUMBER: | CH919980053US1 |
|-------------------------|--------------------|
| NAME OF SUBMITTER: | Douglas W. Cameron |

Total Attachments: 1

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CH \$40.00

PATENT REEL: 019183 FRAME: 0455

Assignment

Whereas, we

Inventor and City

(1) Sedat Oelcer

Bahnhofstrasse 11, CH-8802

of Kilchberg, Switzerland

Switzerland

have invented certain improvements in

TITLE

DISCRETE MULTITONE TRANSMISSION SYSTEMS

and executed, respectively, a United States patent application therefor on

DATES THAT

(1) December 11th 2000

INVENTORS SIGNED THE **DECLARATION**

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, we, 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 filling of said United States application, and we request the Commissioner of Patents to issue any Letters Patent granted upon the inventions set forth in said application to IBM, its successors and assigns; and we hereby agree that IBM may apply for foreign Letters Patent on said invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by IBM.

Signed

CITY (1) at

DATE

on 13 April

2007.

Sedat Begon

SIGNATURE

(Sedat

Oelcer) INVENTOR FIRST NAME MIDDLE INITIAL LAST NAME

PATENT

RFFL: 019183 FRAME: 0456