

**PATENT ASSIGNMENT**

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
Name	Execution Date
NORTEL DASA NETWORK SYSTEMS GMBH & CO. KG	09/18/2000
<b>RECEIVING PARTY DATA</b>	
Name:	ND SATCOM GESELLSCHAFT FUR SATELLITENKOMMUNIKATIONSSYSTEME MBH
Street Address:	IMMENSTAAD
City:	IMMENSTAAD
State/Country:	GERMANY
Postal Code:	88090
<b>PROPERTY NUMBERS Total: 1</b>	
Property Type	Number
Patent Number:	5812545
<b>CORRESPONDENCE DATA</b>	
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<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>	
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ATTORNEY DOCKET NUMBER:	8563
NAME OF SUBMITTER:	KENNETH L. MITCHELL
<b>Total Attachments: 11</b> source=8563-AS-FILED-ASSIGN-9-20-09#page1.tif source=8563-AS-FILED-ASSIGN-9-20-09#page2.tif source=8563-AS-FILED-ASSIGN-9-20-09#page3.tif source=8563-AS-FILED-ASSIGN-9-20-09#page4.tif source=8563-AS-FILED-ASSIGN-9-20-09#page5.tif	

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**Abtretungserklärung**

z w i s c h e n

**Nortel Dasa  
Network Systems GmbH & Co. KG**

88039 Friedrichshafen

- nachfolgend „Nortel Dasa“ genannt -

u n d

**ND SatCom  
Gesellschaft für Satellitenkommunikationssysteme mbH**


- nachfolgend „ND SatCom“ genannt -

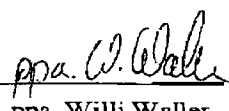
Hiermit tritt Nortel Dasa sämtliche Rechte aus den in Anlage I ersichtlichen Warenzeichen und Patenten an ND SatCom ab.


ND SatCom nimmt diese Abtretung an und verpflichtet sich, im Gegenzuge, ab dem 1. Juli 2000 anfallende Kosten und Gebühren zur Aufrechterhaltung bzw. Verteidigung dieser Warenzeichen bzw. Patente der Nortel Dasa zu erstatten. Auf Wunsch von ND SatCom wird Nortel Dasa jederzeit alle zur Umschreibung der betroffenen Warenzeichen bzw. Patente auf die ND SatCom erforderlichen Massnahmen durchführen. Die hierbei entstehenden Kosten wird Nortel Dasa übernehmen.

Friedrichshafen, den 18. September 2000

**Nortel Dasa  
Network Systems GmbH & Co. KG**

  
ppa. Klaus Mathes

  
ppa. Willi Waller

  
Dr. Karl Claßen

Anlage 1

Abtretungserklärung\_20000918.doc



Anlage 1

Warenzeichen

- Skywan
- Skytrunk
- S@atguard

Patente

- Full Mesh Satellite-Based Multimedia Networking System

Abtretungserklärung\_20000918.doc



Sworn translation from the German language

Commercial Register B of the County Court Ulm      Official Copy      Company number: HRB 720819  
 Dated 2/21/2007 13:29      Page 1 of 1

This hardcopy serves as the certified copy and will not be signed						
Number of entry	a) Company b) Registered office, branch, subsidiaries c) Company purpose	Equity or nominal capital	a) General representation b) Executive board, managerial body, managing directors, personally liable shareholders, directors, authorised representatives and special power of representation	Power of attorney	a) Legal structure, commencement, Articles of Association or articles of partnership b) Other legal relationships	a) Date of entry b) Remarks
1	a) ND SatCom GmbH b) Immenstaad c) The development, production and worldwide marketing of systems, products and services for satellite-based voice and data communication solutions for private and public customers, including their installation and maintenance.	EUR 6.608.050,00	a) If only one managing director has been appointed, the company will only be represented by him. If several managing directors have been appointed, the company will be represented by two managing directors or by one managing director together with a proxy. b) Managing director: Dr. Claden, Karl, Fronreute, born on November 26, 1935 Managing director: Dr. Bonmas, Gerhard, Immenstaad/Lake Constance born on January 23, 1943	Collective power of attorney together with a managing director or another proxy: Schauffler, Michael, Friedrichshafen, born on January 18, 1958	a) Unlimited liability company Articles of Association of Nov. 27, 2006 b) The company came into existence by the modifying conversion of the stock corporation "ND SatCom AG", Immenstaad/Lake Constance County Court Ulm, HRB 681737 according to § 189 ff. UmWG (Conversion Law)	a) Jan. 29, 2007 b) Schorowski

(Seal of the County Court Ulm)  
 Ulm, February 21, 2007  
 This copy certifies the contents of the commercial register.  
 Meikle, court secretary  
 Registrar of the court

The foregoing translation of a document presented to me in the German language is correct and complete.



**Immenstaad (Bodensee) 19 APR 2007**

*Christina Roth*

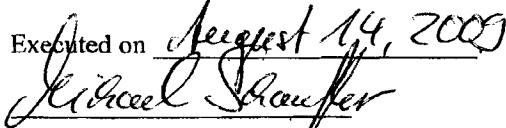
**DECLARATION**

"I, Michael Schaufler, General Counsel being advised, do hereby state:

1. I am General Counsel of assignee, ND SatCom Gesellschaft für Satellitenkommunikationssysteme mbH and I am authorized to make this declaration.
2. I have personal knowledge in regard to the attached ASSIGNMENT dated September 18, 2000.
3. Specifically, the patent entitled Full Mesh Satellite-Based Multimedia Networking System recited in the attached German assignment document (Exhibit 1) is, in fact, United States Patent No. 5,812,545 (Appl. No. 08/589,255) attached hereto (Exhibit 2).
4. The assignment dated September 18, 2000, conveyed all rights of Nortel Dasa Network Systems GmbH & Co. KG to the patent entitled Full Mesh Satellite-Based Multimedia Networking System which is in fact United States Patent No. 5,812,545 to ND SatCom Gesellschaft für Satellitenkommunikationssysteme mbH as assignee.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct."

Executed on August 14, 2000



Michael Schaufler  
General Counsel of ND SatCom Gesellschaft für Satellitenkommunikationssysteme mbH.  
(An Officer)

**Abtretungserklärung**

zwischen

**Nortel Dasa  
Network Systems GmbH & Co. KG**

88039 Friedrichshafen

- nachfolgend „Nortel Dasa“ genannt -

und

**ND SatCom  
Gesellschaft für Satellitenkommunikationssysteme mbH**


- nachfolgend „ND SatCom“ genannt -

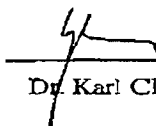
Hiermit tritt Nortel Dasa sämtliche Rechte aus den in Anlage 1 ersichtlichen Warenzeichen und Patenten an ND SatCom ab.

ND SatCom nimmt diese Abtretung an und verpflichtet sich, im Gegenzuge, ab dem 1. Juli 2000 anfallende Kosten und Gebühren zur Aufrechterhaltung bzw. Verteidigung dieser Warenzeichen bzw. Patente der Nortel Dasa zu erstatten. Auf Wunsch von ND SatCom wird Nortel Dasa jederzeit alle zur Umschreibung der betroffenen Warenzeichen bzw. Patente auf die ND SatCom erforderlichen Massnahmen durchführen. Die hierbei entstehenden Kosten wird Nortel Dasa übernehmen.

Friedrichshafen, den 18. September 2000

**Nortel Dasa  
Network Systems GmbH & Co. KG**

 ppa. Willi Waller  
ppa. Klaus Mathes ppa. Willi Waller

  
Dr. Karl Claßen

Anlage 1

Abtretungserklärung\_20000918.doc



**Anlage 1**

**Warenzeichen**

- Skywan
- Skytrunk
- S@atguard

**Patente**

- Full Mesh Satellite-Based Multimedia Networking System

Abrechnung\_20000918.doc

A handwritten signature in black ink, consisting of stylized initials or a name, located in the lower right quadrant of the page.



Sworn translation from the German language

Commercial Register B of the County Court Ulm

Official Copy  
Dated 2/21/2007 13:29

Company number:  
Page 1 of 1  
HRB 720519

This hardcopy serves as the certified copy and will not be signed

Number of entry	a) Company b) Registered office, branch, subsidiaries c) Company purpose	Equity or nominal capital	a) General representation b) Executive board, managerial body, managing officers, personally liable shareholders, directors, authorised representatives and special power of representation	Power of attorney	a) Legal structure, commencement, Articles of Association or articles of partnership b) Other legal relationships	a) Date of entry b) Remarks
1	a) ND SatCom GmbH b) Immenstaad c) The development, production and worldwide marketing of systems, products and services for satellite-based voice and data communication solutions for private and public customers, including their installation and maintenance.	EUR 6.608.050,00	a) If only one managing director has been appointed, the company will only be represented by him. If several managing directors have been appointed, the company will be represented by two managing directors or by one managing director together with a proxy. b) Managing director: Dr. Cläßen, Karl, Fronreute, born on November 20, 1956 Managing director: Dr. Borrmann, Gerhard, Immenstaad/Lake Constance born on January 23, 1943	Collective power of attorney together with a managing director or another proxy: Schaufier, Michael, Friedrichshafen, born on January 18, 1956	a) Limited liability company Articles of Association of Nov. 27, 2006 b) The company came into existence by the modifying conversion of the stock corporation "ND SatCom AG", Immenstaad/Lake Constance County Court Ulm, HRB 631737) according to § 199 ff. UmwG (Conversion Law).	a) Jan 29, 2007 b) Schnowski

(seal of the County Court Ulm)

Ulm, February 21, 2007

This copy testifies the contents of the commercial register.

Merkle, court secretary

Registrar of the court

The foregoing translation of a document presented to me in the German language is correct and complete.



Immenstaad (Bodensee) 19 APR 2007

*Christa Roth*



US005812545A

# United States Patent [19]

[11] Patent Number: **5,812,545**

Liebowitz et al.

[45] Date of Patent: **Sep. 22, 1998**

- [54] **FULL MESH SATELLITE-BASED MULTIMEDIA NETWORKING SYSTEM**
- [75] Inventors: **Burt Liebowitz**, North Bethesda; **Steven Sweeney**, Silver Spring, both of Md.; **Heinrich Arens**, Oberteuringen; **Franz Thaller**, Bermatingen, both of Germany
- [73] Assignees: **Orion Atlantic, L.P.**, Rockville, Md.; **Nortel Dasa Network Systems GmbH & Co.**, Germany
- [21] Appl. No.: **589,255**
- [22] Filed: **Jan. 23, 1996**

5,072,445	12/1991	Nawata	370/324
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### FOREIGN PATENT DOCUMENTS

0324363	1/1989	European Pat. Off.	H04B 7/185
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### OTHER PUBLICATIONS

Muller, Nathan J., "The Management Aspects of Frame Relay", International Journal of Network Management, Jun. 1992, pp. 87-99.

(List continued on next page.)

### Related U.S. Application Data

- [63] Continuation-in-part of Ser. No. 582,753, Jan. 4, 1996, abandoned.
- [51] Int. Cl.<sup>6</sup> ..... **H04J 3/16**
- [52] U.S. Cl. .... **370/337; 370/348; 370/444; 370/468**
- [58] Field of Search ..... **370/315, 314, 370/316, 319, 321, 322, 324, 326, 328, 329, 336-338, 345, 347, 348, 350, 431, 442, 443, 444, 501, 514, 464, 468, 498, 476, 474; 340/825.5, 825.51; 455/12.1, 13.1, 13.2, 53.1**

### References Cited

#### U.S. PATENT DOCUMENTS

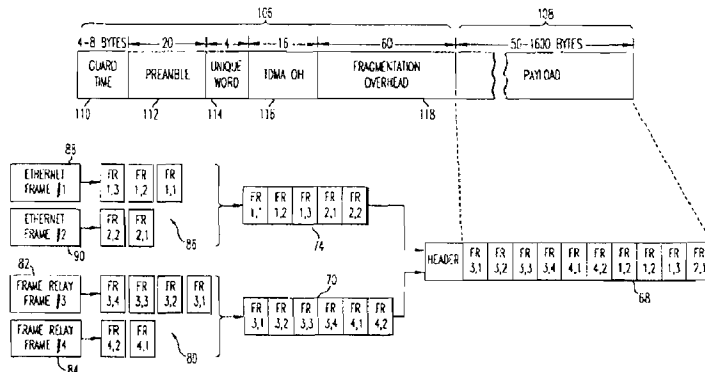
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5,012,469	4/1991	Sardana	370/322

*Primary Examiner*—Benedict V. Safourek  
*Assistant Examiner*—Seema S. Rao  
*Attorney, Agent, or Firm*—Roylance, Abrams, Berdo & Goodman, L.L.P.

### [57] ABSTRACT

A satellite communications system is provided for full mesh connectivity between a number of earth terminals via a satellite link. The earth terminals are connected to user access devices to receive and transmit voice, video and data and are operable to generate bursts to transmit user data via a satellite, and to process data received from the satellite and transmit it to the addressed user access devices. The terminals each comprise a programmable computing device which prioritizes data into bursts using a fragmentation protocol. The programmable computing device also organizes bursts in at least one of a plurality of slots constituting a time division multiple access frame in accordance with a burst plan. Each terminal has access to a guaranteed number of the slots. The allocation of the remaining slots among the terminals varies dynamically to increase or decrease the burst transmission rates of the terminals as needed. Dynamic assignment of slots depends on committed information rates, the lengths of data queues in the terminals and the type of data to be transmitted. Terminals need not be assigned consecutive ones of the dynamically assignable slots.

34 Claims, 10 Drawing Sheets



English translation of Assignment of US Patent dated September 18, 2000

**ASSIGNMENT of US Patent**

Between

**Nortel Dasa  
Network Systems GmbH & Co. KG**

88039 Friedrichshafen

- in the following "**Nortel Dasa**" -

and

**ND SatCom  
Gesellschaft für Satellitenkommunikationssysteme mbH**

- in the following "**ND SatCom**".

Hereby Nortel Dasa transfers all rights to the registered trade marks and patents as listed in enclosure 1 to ND SatCom.

ND SatCom accepts this transfer and in return commits to refunding Nortel Dasa the costs and fees arising for maintaining or defending these trademarks and/or patents as of July 1, 2000. If desired by ND SatCom, Nortel Dasa will all take all necessary steps for having the trademarks and/or patents in question assigned to ND SatCom. The costs arising from the assignments are to be borne by Nortel Dasa.

Friedrichshafen, September 18, 2000

Nortel Dasa  
Network Systems GmbH & Co. KG

\_\_\_\_\_  
ppa. Klaus Mathes

\_\_\_\_\_  
ppa. Willi Waller

\_\_\_\_\_  
Dr. Karl Claßen

**Enclosure**

**Trademarks**

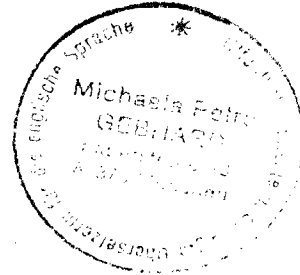
- Skywan
- Skytrunk
- S@atguard

**Patents**

- "Full Mesh Satellite-Based Multimedia Networking System"

I, Michaela Petra GEBHARD, of Faberstr. 10, 81373 München, Germany sworn translator,  
hereby certify that the attached document is a true translation to the best of my knowledge and  
belief.

Signed this 11<sup>th</sup> day of September 2009



Michaela Petra Gebhard

**Michaela Petra GEBHARD**

(sworn translator)