Patent Application Attorney Docket No.: 57983.000058 Client Reference No.: 14875ROUS01U

FORM COVER SHEET

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

(Rev. 6-93)

FORM PTO-1595

102232680

PATENTS ONLY

OMB No. 0651-0011 (exp. 4/94) PATENT	'S ONLY	
To the Commissioner of Patents and Trademarks: Please reco	ord the attached original documents or copy thereof.	
1. Name of conveying party(ies): James Aweya; Michel Ouellette; Delfin Y. Montuno; and Kent E. Felske Additional name(s) of conveying party(ies) attached? Yes X No 3. Nature of conveyance: X Assignment Merger Security Agreement Change of Name Other	2. Name and address of receiving party(ies): Name: Nortel Networks Limited Address: 2351 Boulevard Alfred-Nobel St. Laurent, Quebec H4S 2A9 Additional name(s) & address(es) attached? Yes X No	
Execution Dates: September 16, 2002	1	
4. Application number(s) or patent number(s):	10246399	
If this document is being filed together with a new application, the execution date of the application is: $\frac{9}{17}/02$; $\frac{9}{16}/02$; $\frac{9}{17}/02$; and $\frac{9}{16}/02$.		
A. Patent Application No.(s)	B. Patent No.(s)	
To Be Assigned Additional numbers attac	ched? Yes _X_No	
5. Name and address of party to whom correspondence concerning document should be mailed: Thomas E. Anderson Hunton & Williams 1900 K Street, NW Washington DC 20006	6. Total number of applications and patents involved: _1 7. Total fee (37 CFR 3.41): \$_40.00 X Enclosed Authorized to be charged to deposit account	
40.00 3F	8. Deposit account number: 50-0206 (Attach duplicate copy of this page if paying by deposit account)	
DO NOT USE THIS SPACE		
9. Statement and signature. To the best of my knowledge and belief, the any attached copy is a true copy of the original than a signature. Thomas E. Anderson Name of Person Signing Total number of pages including cover sheet, as the recorded with a signature.	September 19, 2002 Date ttachments, and document: 8	

Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

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ASSIGNMENT

WHEREAS, the undersigned, to wit:

- (1) James Aweya;
- (2) Michel Ouellette;
- (3) Delfin Montuno; and
- (4) Kent E. Felske

(hereinafter collectively ASSIGNOR), has/have made a certain new and useful invention as set forth in an application for United States Letters Patent, entitled:

"CLOCK RECOVERY USING A DIRECT SMOOTHING PROCESS"

(X only one)	(a) <u>X</u>	which was executed concurrently herewith and is being filed herewith in the United States Patent and Trademark
		Office;
(C)	which was executed on, 20, and	
	is being filed herewith in the United	
	States Patent and Trademark Office;	
	which was filed as U.S. Patent	
	Application No on;	

AND WHEREAS, Nortel Networks Limited (hereinafter ASSIGNEE), a Canadian company having its principal place of business at 2351 Boulevard Alfred-Nobel, St. Laurent, Quebec, H4S 2A9, Canada, is desirous of acquiring the entire right, title, and interest in and to said invention and any and all patents that may be obtained therefor, and in and to said application and any and all patents that may issue therefrom;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR does hereby sell, assign, transfer, and set over unto said ASSIGNEE, its successors, assigns, and legal representatives, all right, title, and interest in and to said invention throughout the world, and any and all patents of the United States and foreign countries that may be obtained therefor, and in and to said application, including any and all continuations, continuations—in—part, divisionals, reissues, reexaminations, substitutions, and extensions thereof, and any and all patents of the United States and foreign countries that may issue therefrom, such right, title, and interest including the right to file applications and obtain patents, utility models,

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industrial models, and designs for said invention in the name of said ASSIGNEE, its successors, assigns, and legal representatives, throughout the world, including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention, and all rights to register said invention in appropriate registries;

ASSIGNOR also does hereby covenant that it has the full right to convey the entire right, title, and interest herein assigned, and that it has not and will not execute any agreement in conflict herewith;

ASSIGNOR also does hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all Letters Patent of the United States on said invention or resulting from said application, including any continuations, continuations-in-part, divisions, reissues, re-examinations, substitutions, and extensions thereof, to said ASSIGNEE, its successors, assigns, and legal representatives as the ASSIGNEE of the entire right, title, and interest herein assigned;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration but at the expense of said ASSIGNEE, its successors, assigns, or legal representatives, execute and deliver any and all papers, make all rightful oaths, and do all lawful acts that may be necessary or desirable to perfect the entire right, title, and interest herein assigned in said ASSIGNEE, its successors, assigns, and legal representatives, and generally do everything possible to vest the entire right, title, and interest herein assigned in said ASSIGNEE, its successors, assigns, and legal representatives;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration but at the expense of said ASSIGNEE, its successors, assigns, or legal representatives, execute and deliver any and all papers, make all rightful oaths, and do all lawful acts that may be necessary or desirable to make application for and obtain any and all continuations, continuations—in—part, divisionals, reissues, reexaminations, substitutions, or extensions of said application, or any application on said invention, or any patent issuing therefor or therefrom;

ASSIGNOR also does hereby agree to, at any time, upon request, without further or additional consideration but at the

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expense of said ASSIGNEE, its successors, assigns, or legal representatives, communicate to said ASSIGNEE, its successors, assigns, and legal representatives, any known facts relating to said invention or said application or any patent issuing therefor or therefrom, and testify as to the same in any interference or other litigation proceeding when requested to do so, and aid said ASSIGNEE, its successors, assigns, and legal representatives, in obtaining and enforcing proper protection for said invention in all countries:

ASSIGNOR also does hereby grant the firm of Hunton & Williams of 1900 K Street, N.W., Washington, D.C., 20006-1109, or its agents, the power to insert on this assignment any further information, including but not limited to application number(s) and filing date(s), which may be necessary or desirable in order to comply with any rule or request of the United States Patent and Trademark office for the purposes of recording this document.

ASSIGNOR also does now hereby execute this document on the date(s) indicated below:

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(1) IN WITNESS WHEREOF, I have hereunto set my hand and seal this 16 day of _____, 2002

Print Name: James

Print Address: 24 Stikine Drive

Kanata, Ontario Canada K2T 1H1

Before me did personally appear the above-named James Aweya, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this 16 day of Sept, 2002

Print Name: Print Address:

Ottawa, Ont. Canada KRC 3113

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(2) IN WITNESS WHEREOF, I have hereunto set my hand and seal this 16 day of September, 2002.

Print Name: Michel Ouellette Print Address: 865 Concession 1

> Plantagenet, ON Canada KOB 1L0

Before me did personally appear the above-named Michael Ouellette, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this \(\lambda \) day of \(\frac{Sept}{} \), 20___.

Print Name: Jeganation Markandy Print Address: 1010-1300 Pinecrest Rd

Ottawa, Ont. Canada 1220 3115

Attorney Docket No.: 57983.000058 Client Reference No.: 14875ROUS01U

(3) IN WITNESS WHEREOF, I have hereunto set my hand and seal this 16 day of Lept , 2002.

Print Address: 122 Knudson Drive

Kanata, ON

Canada K2K 2L8

Before me did personally appear the above-named Delfin Y. Montuno, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this \(\lambda \) day of \(\lambda \) ept , 2002

Sign:

Print Name: Jegarathan Markander

Print Address: 1010-1300 Pinecrost Rd

Ottawa Ont. Canada K2C3MS

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(4) IN WITNESS WHEREOF, I have hereunto set my hand and seal this 16 day of ______, 200c.

Sign:

Print Name: Kent E. Felske Print Address: 99 Shearer Cres.

> Kanata, ON Canada K2L 3V6

Before me did personally appear the above-named Kent E. Felske, personally known to me and/or proved to me on the basis of satisfactory evidence to be the person who signed and sealed the foregoing instrument and acknowledged the same to be his or her own free act and deed, this b day of

Sign:

Print Name:

Print Address:

1-70 Bollon

GHOWA ON KINSAS