REC		
To the Director of the U.S. Patent and Tic 1029	Jcuments or the new address(es) below.	
I. Name of conveying party(ies)/Execution Date(s): 2. Name and address of receiving party(ies)	
CHIANG YEH	Name: ALCATEL	
HARPAL MANN	Internal Address:	
	→B0 3.6 4.7	
Execution Date(s) December 30, 2004	– Street Address:	
Additional name(s) of conveying party(ies) attached? Yes 🗸	No	
8. Nature of conveyance:	54 rue La Boetie	
✓ Assignment Merger	City: Paris	
Security Agreement Change of Name	State:	
Government Interest Assignment		
Executive Order 9424, Confirmatory License	Country: France Zip: 75008	
Other		
A. Patent Application No.(s)		
4. Application or patent number(s): A. Patent Application No.(s) 2005 MBELETE1 00000038 11028347 8021 40.00 BP		
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A. Application or patent number(s): A. Patent Application No.(s) Cools MBELETE1 00000038 11028347 B021 40.00 DP Additional number Additional number Additional number Additional number Additional number Additional number Concerning document should be mailed: Name:ALCATEL INTERNETWORKING, INC. Internal Address: Street Address: M/S LEGL 2 3400 WEST PLANO PARKWAY City: PLANO State: TX Zip: 75075 Phone Number: 972-519-5143 Fax Number: 972-477-9328	his document is being filed together with a new application. B. Patent No.(s) s attached? Yes ✓No 6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 1.21(h) & 3.41) \$_40.00 Authorized to be charged by credit card Authorized to be charged to deposit account ✓ Enclosed None required (government interest not affecting title 8. Payment Information a. Credit Card Last 4 Numbers Expiration Date	
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Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to: Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

ASSIGNMENT

This ASSIGNMENT is made and entered into, as of the date set forth below, by the undersigned in favor of Alcatel, a corporation organized under the laws of France and having its principal place of business at 54, rue La Boétie, 75008 Paris, France ("Assignee")

WITNESSETH:

WHEREAS, pursuant to one or more invention, patent, proprietary information or intellectual property agreements or other similar agreements, the undersigned is obligated to assign and transfer to a subsidiary of Assignee all of the undersigned's right, title and interest in and to intellectual property described in the agreements;

WHEREAS, such subsidiary and certain other subsidiaries of Assignee are ultimately obligated, by certain inter-company agreements (including the General Relations Agreement between Assignee and such subsidiaries), to assign to Assignee the intellectual property that is to be assigned by the undersigned under this Assignment; and

WHEREAS, such subsidiaries have, for convenience, implemented a process in which the undersigned is to execute and deliver this Assignment directly in favor of Assignee, with the understanding that the assignments and transfers of this Assignment shall be deemed to have been made through the relevant subsidiaries in accordance with their assignment obligations in the inter-company agreements referred to above;

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby agrees as follows:

- 1. The undersigned does hereby assign and transfer to Assignee, its successors, assigns and legal representatives, the entire right, title and interest in and to any and all inventions which are described in the application for United States Patent identified below and to any and all improvements thereto.
- 2. The undersigned does hereby assign and transfer to Assignee the entire right, title and interest to all applications (including provisional, divisional, continuations, substitutions, reissues, and extensions), which have been or shall be filed in the United States and all foreign countries and under the terms of any treaties or conventions (including the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and the European Patent Convention) relating to said invention and any of said improvements; and in and to all rights of priority resulting from the filing of any such applications.
- 3. The undersigned agrees that Assignee may apply for and receive patents for said invention and improvements in its own name; and that, when requested, without charge to, but at the expense of, Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional, divisional, continuations, substitutions, reissues, extensions, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said inventions and improvements and the history thereof; and generally do everything possible which Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and improvements, and for vesting title to said invention and improvements, and all applications for patents and all patents on said invention and improvements, in Assignee, its successors, assigns and legal representatives.

Assignment – Page 1

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Attorney Docket No.: 134157

4. The undersigned represents and warrants to Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

The Application for U.S. Patent entitled ECHO CANCELLATION USING ADAPTIVE IIR AND FIR FILTERS

	has been executed by the undersigned on,,	
	A has been executed by the undersigned concurrently herewith.	
	was filed on, and assigned Serial No	[.]
IN WITNE	SS WHEREOF, the undersigned has duly executed this Assignment	on the date indicated
below:		
Signature:	Chiang Yeh	Date: 12/29/2004
	516 Sierra Keys Drive, Sierra Madre, CA., 91024	· · · ·
Signature:		Date:
	Harpal Mann	
Signature:		Date:
Signature:		Date:

.

ASSIGNMENT

This ASSIGNMENT is made and entered into, as of the date set forth below, by the undersigned in favor of Alcatel, a corporation organized under the laws of France and having its principal place of business at 54, rue La Boétie, 75008 Paris, France ("Assignee")

WITNESSETH:

WHEREAS, pursuant to one or more invention, patent, proprietary information or intellectual property agreements or other similar agreements, the undersigned is obligated to assign and transfer to a subsidiary of Assignee all of the undersigned's right, title and interest in and to intellectual property described in the agreements;

WHEREAS, such subsidiary and certain other subsidiaries of Assignee are ultimately obligated, by certain inter-company agreements (including the General Relations Agreement between Assignee and such subsidiaries), to assign to Assignee the intellectual property that is to be assigned by the undersigned under this Assignment; and

WHEREAS, such subsidiaries have, for convenience, implemented a process in which the undersigned is to execute and deliver this Assignment directly in favor of Assignee, with the understanding that the assignments and transfers of this Assignment shall be deemed to have been made through the relevant subsidiaries in accordance with their assignment obligations in the inter-company agreements referred to above;

NOW, THEREFORE, in consideration of the premises and the mutual promises set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby agrees as follows:

- 1. The undersigned does hereby assign and transfer to Assignee, its successors, assigns and legal representatives, the entire right, title and interest in and to any and all inventions which are described in the application for United States Patent identified below and to any and all improvements thereto.
- 2. The undersigned does hereby assign and transfer to Assignee the entire right, title and interest to all applications (including provisional, divisional, continuations, substitutions, reissues, and extensions), which have been or shall be filed in the United States and all foreign countries and under the terms of any treaties or conventions (including the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, and the European Patent Convention) relating to said invention and any of said improvements; and in and to all rights of priority resulting from the filing of any such applications.
- 3. The undersigned agrees that Assignee may apply for and receive patents for said invention and improvements in its own name; and that, when requested, without charge to, but at the expense of, Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute all provisional, divisional, continuations, substitutions, reissues, extensions, and all other patent applications on any and all said improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to Assignee, its successors, assigns, and representatives, all facts known to undersigned relating to said inventions and improvements and the history thereof; and generally do everything possible which Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and improvements, and all applications for patents and all patents on said invention and improvements, in Assignee, its successors, assigns and all applications for patents and all patents on said invention and improvements, in Assignee, its successors, assigns and legal representatives.

Assignment - Page 1

PATENT REEL: 016151 FRAME: 0434

4. The undersigned represents and warrants to Assignee, its successors, assigns and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

The Application for U.S. Patent entitled ECHO CANCELLATION USING ADAPTIVE IIR AND FIR FILTERS

has been executed by the undersigned on ______, ____.
 has been executed by the undersigned concurrently herewith.

was filed on _____, ___, and assigned Serial No. _____.

IN WITNESS WHEREOF, the undersigned has duly executed this Assignment on the date indicated below:

Signature:		Date:	
_	Chiang Yeh		
	516 Sierra Keys Drive, Sierra Madre, CA., 91024		
Signature:	Harpal Mann	Date: 12 3 0/0	4
	Harpal Mann		7
Signature:		Date:	
Signature:		Date:	

Assignment – Page 2

PATENT REEL: 016151 FRAME: 0435

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RECORDED: 12/30/2004