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1-31-92		PATEN	101489910	Patent and Trademark Office					
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To the Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.									
1. Nam	e of conveying party(ies):		2. Name and address of receiving party	(ies):					
	n Boucart, Constance Chang en, Rashit Nabiev, Wupen Y		Name: Bandwidth9, Inc.						
Additional name(s) of conveying party(ies) attached?			Street Address: 46410 Fremont Boulevard						
	🗌 Yes 🔀 N	00.01.01	City/State/Zip: Fremont, CA 94	538					
3. Natu	re of conveyance:	,	Additional name(s) & address(es) attached?						
	Assignment Security Agreement Other] Merger] Change of Name	O 1 0 2000 °	0					
Execution Date:									
4. Application number(s) or patent number(s): 09/602,454									
If this do	cument is being filed togethe	r with a new application	, the execution date of the application is:						
A. 1	Patent Application No.(s): 0	9/602,454	B. Patent No.(s):						
Additional numbers attached? 🗌 Yes 🔀 No									
	e and address of party to whe erning document should be r		6. Total number of applications and pate involved: [1]	ents					
Inte Wil 650	ne: Paul Davis ernal Address: FH 1-2 son Sonsini Goodrich & Re Page Mill Road o Alto, CA 94304-1050	osati	 7. Total fee (37 CFR 3.41)						
	,		8. Deposit account number: <u>23-2415</u> (Attorney Docket No.: 21123-733)						
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9. Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.									
Paul Davis, Reg. No. 29,294Image: Accurate SignatureImage: Accurate SignatureImage: Accurate SignatureName of Person SigningSignatureDate									
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ASSIGNMENT OF APPLICATION

Docket Number 21123-733

Whereas, the undersigned:

BOUCART, Julien	CHANG-HASNAIN, Constance	JANSEN, Mitch	NABIEV, Rashit	WUPEN, Yuen
Milpitas, CA	Union City, CA	Palo Alto, CA	Palo Alto, CA	Stanford, CA

hereinafter termed "Inventors", have invented certain new and useful improvements in

VERTICAL CAVITY APPARATUS WITH TUNNEL JUNCTION

for which an application for United States Patent was filed on <u>06/23/2000</u>, Application No. <u>09/602,454</u> for which an application for a United States Patent was executed on ____, and

WHEREAS, <u>BANDWIDTH9</u>, Inc., a corporation having a place of business at <u>46410 Fremont Boulevard</u>, Fremont, CA <u>94538</u>, (hereinafter termed "Assignee"), is desirous of acquiring the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered jointly or severally by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Inventors to have been received in full from said Assignee:

1. Said Inventors do hereby sell, assign, transfer and convey unto said Assignee the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a divisional, substitution, continuation, or continuation-in-part of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.

2. Said Inventors hereby jointly and severally covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and foreign countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation reissues and reexaminations, opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.

3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, their respective heirs, legal representatives and assigns.

4. Said Inventors hereby jointly and severally warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, said Inventors have executed and delivered this instrument to said Assignee as of the dates written below:

Date: <u>08/03/00</u>

Date:

S/3/00 Date: _____

Date:

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RECORDED: 10/10/2000

Julien BONC CHANG-HASN Constance Rashit NABIEV

Wupen YUE

PATENT REEL: 011152 FRAME: 0880