

Form PTO-1594  
(Rev. 10/02)  
OMB No. 0651-0027 (exp. 6/30/2005)

### RECORDATION FORM COVER SHEET TRADEMARKS ONLY

U.S. DEPARTMENT OF COMMERCE  
U.S. Patent and Trademark Office

Tab settings → → →

To the Honorable Commissioner of Patents and Trademarks Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Venture Lending & Leasing III, Inc. (Maryland)

- Individual(s)
- General Partnership
- Corporation-State
- Other
- Association
- Limited Partnership

Additional name(s) of conveying party(ies) attached?  Yes  No

3 Nature of conveyance.

- Assignment
- Security Agreement
- Other
- Merger
- Change of Name

Execution Date: 11/10/2003

2 Name and address of receiving party(ies)

Name: Cayuga Venture Fund II LLC as agent

Internal

Address:

Street Address: 15 Thornwood Drive

City: Ithaca State: NY Zip: 14850

- Individual(s) citizenship
- Association
- General Partnership
- Limited Partnership
- Corporation-State Delaware
- Other

if assignee is not domiciled in the United States, a domestic representative designation is attached:  Yes  No

(Designations must be a separate document from assignment)  
Additional name(s) & address(es) attached?  Yes  No

4 Application number(s) or registration number(s):

A. Trademark Application No. (s) 76/049606

B. Trademark Registration No. (s) 2645366

Additional number(s) attached  Yes  No

5 Name and address of party to whom correspondence concerning document should be mailed

Name: Richard E. Honen

Internal Address:

Street Address: Honen & Wood, P.C.

126 State Street

City: Albany State: NY Zip: 12207

6. Total number of applications and registrations involved:

7

7 Total fee (37 CFR 3.41) \$ 280.00

- Enclosed
- Authorized to be charged to deposit account

8 Deposit account number:

DO NOT USE THIS SPACE

9. Signature.

Richard E. Honen

Name of Person Signing

Signature

12/05/2003

Date

36

Total number of pages including cover sheet, attachments, and document.

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

Continuation of Item 2

Arthur Shull  
110 Highgate Place  
Ithaca, NY 14850

Fred B. Widding  
204 North Sunset Drive  
Ithaca, NY 14850

Kenneth G. Bartels  
38 Close Rd.  
Greenwich CT 06831

Philip H. Bartels  
52 Druid Lane  
Riverside CT 06878

Henry E. Bartels  
35 Canterbury Way  
North Haven CT 06473-1018

Continuation of Item 4

**Trademark Registration Numbers:**

2625844

**Trademark Application Numbers:**

76/049610

76/049671

76/049667

76/244354

## AMENDED AND RESTATED SECURITY AGREEMENT

This Amended and Restated Security Agreement (the "Agreement") is made as of November 10, 2003, between Calient Networks, Inc., a Delaware corporation ("Borrower"), Calient Optical Components, Inc., a Delaware corporation (the "Subsidiary"), and Cayuga Venture Fund II, LLC (the "Agent"), a Delaware limited liability corporation, in its capacity as collateral agent for the parties listed on Schedule "A" hereto (the "Lenders").

### RECITALS

A. Borrower previously established a secured term loan facility with its previous lenders, consisting of, among others, the following documents dated as of May 16, 2001 (the "Original Closing Date"): (i) Loan Agreement (the "Original Loan Agreement"); (ii) Security Agreement; (iii) Intellectual Property Security Agreement; (iv) Note (collectively, the "Original Loan Documents"). As part of that facility, the Subsidiary also executed a Security Agreement and Intellectual Property Security Agreement, among other documents

B. Lenders have agreed to advance certain funds to benefit Borrower, and in exchange to be conveyed certain rights under that secured loan facility.

C. The parties have agreed to amend and restate the Original Loan Documents, including the Original Loan Agreement, which is now titled Amended and Restated Loan Agreement, dated the same date hereof, and referred to herein as the "Loan Agreement".

D. The parties have also agreed to amend and restate, by this document, both Security Agreements and both Intellectual Property Security Agreements dated May 16, 2001, on the terms and conditions set forth herein.

E. Capitalized terms not specifically defined in this Agreement have the meanings stated in the Loan Agreement.

F. For simplicity, the parties have agreed to refer to the Borrower and the Subsidiary jointly throughout the body of this Agreement as the "Borrower" so as to avoid having two separate security agreements. It is understood and agreed that the Borrower and the Subsidiary each make any representations, warranties and agreements only with respect to property owned respectively by each of them.

**NOW THEREFORE**, for good and valuable consideration, the Borrower agrees with the Agent, individually and in its capacity as Agent for each Lender, that the Agent shall have the following rights for the ratable benefit of the Lenders and the Agent:

### ARTICLE 1. CONTINUATION AND GRANT OF SECURITY INTEREST

To secure the timely payment of the Obligations and performance of all of Borrower's obligations to each Lender and the payment and performance of Borrower's obligations under the Loan Documents, Borrower hereby grants, continues and/or reaffirms in the name of Agent,

continuing security interests in all of the Collateral (as defined in the Loan Agreement, and including any items listed on any Exhibits hereto).

## ARTICLE 2. REPRESENTATIONS AND WARRANTIES

Except as may be set forth in the schedule of exceptions delivered to the Agent herewith (the "Schedule of Exceptions"), Borrower represents and warrants that, as of the Closing Date:

**2.01 Title.** Except for the security interests created by this Agreement, (i) Borrower is and will be the sole unconditional legal and beneficial owner of the Collateral (except that with respect to Collateral held by Borrower under a license and specifically listed on Schedule 2.01 of the Schedule of Exceptions, it has the right or license to use such Collateral), and (ii) the Collateral is genuine and subject to no Liens, rights or defenses of others. There exist no prior assignments or encumbrances of record with the U.S. Patent and Trademark Office affecting any Collateral in favor of any third party other than the Agent. Borrower will defend its properties against all claims and demands of all persons at any time claiming an interest therein. All Collateral is and shall remain in good working order and repair, normal wear and tear excepted.

### **2.02 Chief Executive Office; Jurisdiction of Organization.**

Borrower's chief executive office is located at:

5853 Rue Ferrari  
San Jose, CA 95138

Borrower is incorporated under the laws of the State of Delaware.

**2.03 Inventory Location.** Borrower does not have Inventory located at any address other than as set forth in Section 2.03 and on Exhibit "D".

**2.04 Records Location.** Borrower does not have Records located at any address other than as set forth in Section 2.03 and on Exhibit "D".

**2.05 Equipment or Fixtures Location.** Exhibit "D" hereto, as amended from time to time, shall at all times contain a complete list of all locations where Borrower's Equipment is or will be located. So long as any Obligations remain outstanding, no item of Equipment may be located outside of the continental United States.

**2.06 Other Places of Business.** Borrower does not maintain any places of business other than as specifically set forth in this Agreement and Exhibit "D".

**2.07 Business Names.** Borrower has conducted business in the following names other than the name stated in the preamble to this Agreement: Chromisys, Inc. Borrower has not conducted business in any name other than Calient Networks, Inc. as of May 4, 2000.

**2.08 Reaffirmation and Continuing Nature of Representations and Warranties.** These representations and warranties and those contained in the Loan Agreement shall be of a continuing nature and shall survive the termination of this Agreement and full payment and performance of the Obligations.

### **ARTICLE 3. AFFIRMATIVE COVENANTS**

During the term of this Agreement and until satisfaction of all the Obligations under the Loan Documents, Borrower will:

#### **3.01 Maintenance of Collateral.**

(a) Do all things reasonably necessary to maintain, preserve, protect and keep all Collateral in good working order and salable condition, ordinary wear and tear excepted, deal with the Collateral in all ways as are considered good practice by owners of like property, and use the Collateral lawfully and, to the extent applicable, only as permitted by Borrower's insurance policies;

(b) Maintain, or cause to be maintained, complete and accurate Records relating to the Collateral, and notify Agent of any material change occurring in or to any Collateral or in any fact or circumstance warranted or represented by Borrower to Lender, or if any Event of Default occurs; and

(c) At all times keep an accurate and current fixed asset ledger of all material Equipment and maintain an accurate and current list of all other Collateral, and immediately advise Lender in writing of any material loss, diminution of value, or damage to the Collateral.

#### **3.02 Financing Statements and Other Actions.**

(a) Execute and deliver to Agent all financing statements, notices and other documents (including, without limitation, any filings with the United States Patent and Trademark Office and the United States Copyright Office) from time to time reasonably requested by Agent to maintain a first priority perfected security interest in the Collateral in favor of Agent;

(b) Perform such other acts, and execute and deliver to Agent such additional conveyances, assignments, agreements and instruments, as Agent or any Lender may at any time reasonably request in connection with the administration and enforcement of this Agreement or Agent's rights, powers and remedies hereunder; and

(c) Allow, and hereby expressly authorizes, Agent to make such filings, attach such documents or provisions of documents, and generally to the full extent permitted by law to take such steps and perform such acts without further consent of or notice to Borrower as may be required or desired to maintain a first priority perfected security interest in the Collateral.

**3.03 Decals, Markings.** At the request of Agent, to the extent practical, firmly affix a decal, stencil or other marking to designated items of Equipment, indicating thereon the security interest of Agent.

**3.04 Further Assurances.** Execute all such documents and instruments, and perform such acts and pay such sums (including taxes, assessments, insurance premiums, repairs, counsel fees, rent, storage costs and expenses of sale), as Agent may reasonably request to implement the provisions hereof, to protect and preserve the Collateral, and to perfect and protect Lender's security interest in the Collateral, including but not limited to the following:

- (a) **Commercial Tort Claims:** If the Borrower shall at any time hold or acquire a commercial tort claim, the Borrower shall immediately notify the Agent of the details thereof and grant to the Lender in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance satisfactory to the Agent.
- (b) **Deposit Accounts:** For each deposit account that the Borrower at any time opens or maintains, the Borrower shall, at the Agent's request and option, pursuant to an agreement in form and substance satisfactory to the Agent cause the depository bank to agree to comply at any time with instructions from the Agent to such depository bank directing the disposition of funds from time to time credited to such deposit account, without further consent of the Borrower. The Agent agrees with the Borrower that the Agent shall not give any such instructions or withhold any withdrawal rights from the Borrower, unless an Event of Default has occurred and is continuing, or, after giving effect to any withdrawal not otherwise permitted by the Loan Agreement, would occur. The provisions of this paragraph shall not apply to (i) any deposit account for which the Borrower, the depository bank and the Agent have entered into a cash collateral or other custodial agreement specially negotiated among the Borrower, the depository bank and the Agent for the specific purpose set forth therein or (ii) deposit accounts for which any Lender is the depository.
- (c) **Electronic Chattel Paper:** If the Borrower at any time holds or acquires an interest in any electronic chattel paper, the Borrower shall promptly notify the Agent thereof and, at the request of the Agent, shall take such action as the Agent may reasonably request to vest in the Agent control under the UCC of such electronic chattel paper. The Agent agrees with the Borrower that the Agent will arrange, pursuant to procedures satisfactory to the Agent and so long as such procedures will not result in the Agent's loss of control, for the Borrower to make alterations to the electronic chattel paper, unless an Event of Default has occurred and is continuing or would occur after taking into account any action by the Borrower with respect to such electronic chattel paper.
- (d) **Letter of Credit Rights:** If the Borrower is at any time a beneficiary under a letter of credit now or hereafter issued in favor of the Borrower, the Borrower shall, to the extent permitted under the agreement with the beneficiary of the letter of credit, promptly notify the Agent thereof and, at the request and option of the

Agent, the Borrower shall, pursuant to an agreement in form and substance satisfactory to the Agent, either (i) arrange for the issuer of such letter of credit to consent to an assignment to the Agent of the proceeds of any drawing under the letter of credit or (ii) arrange for the Agent to become the transferee beneficiary of the letter of credit, with the Agent agreeing, in each case, that the proceeds of any drawing under the letter to credit are to be applied as provided in the Loan Agreement.

- (e) **Investment Property:** If the Borrower shall at any time hold or acquire any certificated securities, the Borrower shall forthwith endorse, assign and deliver the same to the Agent, accompanied by such instruments of transfer or assignment duly executed in blank as the Agent may from time to time specify. If any securities now or hereafter acquired by the Borrower are uncertificated and are issued to the Borrower directly by the issuer thereof, the Borrower shall immediately notify the Agent thereof and, at the Agent's request and option, pursuant to an agreement in form and substance satisfactory to the Agent, cause the issuer to agree to comply with instructions from the Agent as to such securities, without further consent of the Borrower. If any securities, whether certificated or uncertificated, or other investment property now or hereafter acquired by the Borrower are held by the Borrower through a securities intermediary, the Borrower shall immediately notify the Agent thereof and, at the Agent's request and option, pursuant to an agreement in form and substance satisfactory to the Agent, either (a) cause such securities intermediary to agree to comply with instructions from the Agent to such securities intermediary as to such securities or other investment property, without further consent of the Borrower or (b) in the case of financial assets or other investment property held through a securities intermediary, arrange for the Agent to become the entitlement holder with respect to such investment property, with the Borrower being permitted, only with the consent of the Agent, to exercise rights to withdraw or otherwise deal with such investment property. With respect to Investment Property, the Agent agrees with the Borrower that the Agent shall not give any such instructions or directions, and shall not withhold its consent to the exercise of any withdrawal or dealing rights by the Borrower, unless an Event of Default has occurred and is continuing, or, after giving effect to any such investment and withdrawal rights not otherwise permitted by the Loan Agreement, would occur.
- (f) **Promissory Notes and Tangible Chattel Paper:** If the Borrower shall at any time hold or acquire any promissory notes or tangible chattel paper, the Borrower shall forthwith endorse, assign and deliver the same to the Agent, accompanied by such instruments of transfer or assignment duly executed in blank as the Agent may from time to time specify.
- (g) **Collateral in the Possession of a Bailee:** Except for any products Borrower loans to potential customers or other third parties for the purposes of evaluation, testing or trial, if any goods are at any time in the possession of a bailee, the Borrower shall promptly notify the Agent and, if requested by the Agent, shall



promptly obtain an acknowledgement from the bailee, in form and substance satisfactory to the Agent, that the bailee holds such Collateral for the benefit of the Lender and shall act upon the instructions of the Agent, without the further consent of the Borrower. The Agent agrees with the Borrower that the Agent shall not give any such instructions unless an Event of Default has occurred and is continuing or would occur after taking into account any action by the Borrower with respect to the bailee.

- (h) **Authority to Conduct Business:** At the request of the Lender or Agent the Borrower will obtain necessary authorization(s) to conduct business in such states where the Borrower is deemed to be doing business under the laws of those states, and the laws of such states deny creditors access to their courts in the absence the creditor's qualification to transact business therein.

#### ARTICLE 4. NEGATIVE COVENANTS

During the term of this Agreement and until satisfaction of all the Obligations under the Loan Documents, Borrower will not:

**4.01 Liens.** Create, incur, assume or permit to exist any Lien on any Collateral now owned or hereafter arising or acquired, except for Permitted Liens as permitted under the Loan Agreement.

**4.02 Documents of Title.** Sign or authorize the signing of any financing statement or other similar document naming Borrower as debtor or obligor, or acquiesce or cooperate in issuing any bill of lading, warehouse receipt or other document or instrument of title with respect to any Collateral, except those negotiated to Agent, those naming Agent as Secured Party or as may otherwise be permitted under the Loan Agreement.

**4.03 Disposition of Collateral.** Sell, transfer, lease or otherwise dispose of any Equipment; or dispose of any other Collateral except for fair consideration and in the ordinary course of its business or as may otherwise be permitted under the Loan Agreement.

**4.04 Change in Location or Name.** Prior to or concurrent with written notice to Agent and to each Lender: (a) maintain any Collateral or Records, its chief executive office, at a location other than as specified in Article 2 and Exhibit D hereof; or (b) change its name, mailing address, its legal structure or jurisdiction of incorporation.

**4.05 Certain Agreements on Rights to Payment.** Other than in the ordinary course of business, (a) make or arrange to make any material discount, credit, rebate or other reduction in the original amount owing on a Right to Payment or (b) accept in satisfaction of a Right to Payment less than the original amount thereof.

## ARTICLE 5. ADDITIONAL PROVISIONS WITH RESPECT TO INTELLECTUAL PROPERTY

Except as set forth in the Schedule of Exceptions, and in addition to the representations, warranties and covenants set forth in the Loan Agreement and herein, all of which are incorporated herein by reference, Borrower represents, warrants, covenants and agrees as follows:

**5.01** For purposes of this Agreement, the term "Intellectual Property" shall include, without limitation, the property listed on Exhibits A, B and C hereto;

**5.02** During the term of this Agreement, Borrower will not transfer or otherwise encumber any interest in the Intellectual Property, except for Non-exclusive licenses granted by Borrower in the ordinary course of business or as set forth in this Agreement or the Loan Agreement;

**5.03** To Borrower's knowledge, (a) each of the Patents are valid and enforceable, (b) no part of the Intellectual Property has been judged invalid or unenforceable, in whole or in part, and (c) no part of the Intellectual Property violates the rights of any third party nor is Borrower aware of any claim that any part of the Intellectual Property violates the rights of any third party;

**5.04** Borrower shall deliver to Agent within thirty (30) days of the last day of each fiscal quarter, a report signed by Borrower, in form reasonably acceptable to Agent, listing any applications or registrations that Borrower has made or filed in respect of any patents, copyrights or trademarks and the status of any outstanding applications or registrations. Borrower shall promptly advise Agent of any material change in the composition of the Intellectual Property, including but not limited to any subsequent ownership right of the Borrower in or to any Trademark, Patent or Copyright not specified in this Agreement;

**5.05** Borrower shall (i) protect, defend and maintain the validity and enforceability of the Trademarks, Patents and Copyrights (ii) use reasonable commercial efforts to detect infringements of the Trademarks, Patents and Copyrights and promptly advise Agent in writing of material infringements detected and (iii) not allow any Trademarks, Patents or Copyrights to be abandoned, forfeited or dedicated to the public without the written consent of Lenders, which consent shall not be unreasonably withheld, except with respect to those Trademarks, Patents and Copyrights that Borrower determines in its sole but reasonable commercial judgement need not be protected, defended or maintained.

**5.06** Borrower shall not enter into any agreement that would materially impair or conflict with Borrower's obligations hereunder without Agents' prior written consent, which consent shall not be unreasonably withheld. Borrower shall not permit the inclusion in any material contract to which it becomes a party of any provisions that could or might reasonably be determined to prevent the creation of a security interest in Borrower's rights and interests in any property included within the definition of the Intellectual Property acquired under such contracts.

**5.07** For so long as Borrower owes Obligations under the Loan Agreement, Borrower will use commercially reasonable efforts to make, execute, acknowledge and deliver,

and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements and collateral agreements and filings with the United States Patent and Trademark Office and the Register of Copyrights, and take all such action as may reasonably be deemed necessary or advisable, or as requested by Agent, to perfect Agent's security interest in all Copyrights, Patents and Trademarks and otherwise to carry out the intent and purposes of this Agreement, or for assuring and confirming to Agent the grant or perfection of a security interest in all Intellectual Property.

**5.08** For so long as Borrower owes Obligations under the Loan Agreement, Borrower hereby irrevocably appoints Agent as Borrower's attorney-in-fact, with full authority in the place and stead of Borrower and in the name of Borrower, from time to time in Agent's discretion, to take any action and to execute any instrument which Agent may deem necessary or advisable to accomplish the purposes of this Agreement, including (i) to modify, in its sole discretion, this Agreement without first obtaining Borrower's approval of or signature to such modification by amending Exhibit A, Exhibit B and Exhibit C, hereof, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by Borrower after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which Borrower no longer has or claims any right, title or interest, (ii) to file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Intellectual Property without the signature of Borrower where permitted by law, and (iii) after the occurrence of an Event of Default, to transfer the Intellectual Property into the name of Agent or a third party to the extent permitted under the California Uniform Commercial Code, the United States Patent and Trademark Office and/or the Register of Copyrights.

## ARTICLE 6. EVENTS OF DEFAULT

**6.01 Event of Default.** The occurrence of any one or more of the following shall constitute an "Event of Default" hereunder:

- (a) the occurrence of any Event of Default (as defined in the Loan Agreement or any of the Loan Documents);
- (b) any loss, theft, or destruction of, or damage to, any substantial portion of the Collateral for which there is either no insurance coverage or for which, in the opinion of any Lender or Agent, there is insufficient insurance coverage; or
- (c) if all or any part of the security interest granted hereunder is not or is no longer prior to all other security interests granted by Borrower in the Collateral

**6.02 Acceleration and Remedies.** Upon the occurrence and during the continuance of an Event of Default, all Obligations shall, if Agent so chooses, become forthwith due and payable and Agent shall be entitled to exercise any or all of the rights and remedies available to Agent under the Uniform Commercial Code or any other applicable law; and exercise any or all of its rights and remedies provided for in this Agreement and/or in any other

Loan Document. The obligations of Borrower under this Agreement shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any Obligations is rescinded or must otherwise be returned by Agent or any Lender upon, on account of, or in connection with, the insolvency, bankruptcy or reorganization of Borrower or otherwise, all as though such payment had not been made.

**6.03 Sale of Collateral.** Upon the occurrence and during the continuance of an Event of Default, Agent may sell, lease, assign, give an option to purchase, or otherwise dispose of all or any part of the Collateral, at public or private sales, to any Person, including but not limited to any Lender, a wholesaler, retailer or investor, for cash, upon credit or for future delivery, and at such price or prices as Agent may deem commercially reasonable. To the extent permitted by law, Borrower hereby specifically waives all rights of redemption and any rights of stay or appraisal which it has or may have under any applicable law in effect from time to time. Except as to any Collateral which is perishable or threatens to decline speedily in value or is of a type customarily sold on a recognized market, notice of any sale or other disposition of the Collateral shall be given to Borrower at least ten (10) days before the time of any intended public or private sale or other disposition of the Collateral is to be made, which Borrower hereby agrees shall be reasonable notice of such sale or other disposition. Any such public or private sales shall be held at such times and at such place(s) as Agent may determine, and may be adjourned or continued from time to time with or without notice. In case of the sale of all or any part of the Collateral on credit or for future delivery, the Collateral so sold may be retained by Agent until the selling price is paid by the purchaser, but Agent shall not incur any liability in case of the failure of such purchaser to pay for the Collateral and, in case of any such failure, such Collateral may be resold.

In addition, the Agent may, among other things, (a) execute, deliver and record, in connection with any sale or other disposition of any Collateral, endorsements, assignment or other instruments of conveyance or transfer with respect to such Collateral; (b) notify the post office authorities to change the address for delivery of mail of Borrower to an address designated by Lender and receive, open, and dispose of all mail addressed to Borrower; (c) terminate Borrower's authority to sell, lease, otherwise transfer, manufacture, process, assemble or furnish under contracts of service any Inventory or other Collateral as to which such permission has been given; (d) notify Account Debtors of Lender's security interest and/or to make payments directly to Agent (after which, any payments Borrower receives shall be held in trust for Lender, not commingled with any other property, and shall forthwith be turned over to Agent, with any necessary endorsements and assignments); (e) take control of Proceeds and use them to reduce any part of the Indebtedness; and, (f) take any action Borrower is required to take or otherwise necessary to obtain, preserve, and enforce this security interest, and maintain and preserve the Collateral, without notice to Borrower, and add costs of same to the Obligations, which shall be payable on demand; (g) endorse the name of Borrower upon any instruments of payments (including payments made under any policy of insurance) that may come into the possession of Agent in full or part payment of any amount owing to Lender; and (h) contact Account Debtors directly to verify information furnished by Borrower.

The Agent may comply with any applicable state or federal law requirements in connection with any disposition of Collateral and any such compliance shall not be considered as adversely affecting the commercial reasonableness of a Collateral sale.

**6.04 Additional Remedies.** Agent may, instead of exercising its power of sale, proceed to enforce its security interest in the Collateral by seeking a judgment or decree of a court of competent jurisdiction, and without limiting the generality of the foregoing:

(a) Subject to the rights of any third parties, license, or sublicense, whether general, special or otherwise, and whether on an exclusive or non-exclusive basis, any Copyrights, Patents or Trademarks included in the Collateral throughout the world for such term or terms, on such conditions and in such manner as Agent shall in its sole reasonable discretion determine;

(b) Without assuming any obligations or liability thereunder, at any time and from time to time, enforce (and shall have the exclusive right to enforce) against any licensee or sublicensee all rights and remedies of Borrower in, to and under any Copyright License, Patent Licenses or Trademark Licenses included in the Collateral and take or refrain from taking any action under any thereof, and Borrower hereby releases Agent from, and agrees to hold Agent and Lender free and harmless from and against any claims arising out of, any lawful action so taken or omitted to be taken with respect thereto other than claims arising out of Agent's gross negligence or willful misconduct; and

(c) Direct Borrower to execute and deliver to Agent a power of attorney, in form and substance reasonably satisfactory to Agent for the implementation of any lease, assignment, license, sublicense, grant of option, sale or other disposition of a Copyright, Patent or Trademark included in the Collateral. In the event of any such disposition pursuant to this clause (c), Borrower shall supply its know-how and expertise relating to the products or services made or rendered in connection with such Patents, the manufacture and sale of the products bearing such Trademarks, and its customer lists and other records relating to such Patents or Trademarks and to the distribution of said products, to Agent.

**6.05 Borrower's Obligations Upon Default.** Upon the request of Agent after the occurrence and during the continuance of an Event of Default, Borrower will:

(a) Make available to Agent, and assemble, the Collateral at such place(s) as Agent shall reasonably designate, segregating all Collateral so that each item is capable of identification; and

(b) Subject to the rights of any lessor, permit Agent, by Agent's officers, employees, agents and representatives, to enter any premises where any Collateral is located, to take possession of the Collateral, to complete the processing, manufacture or repair of any Collateral, and to remove the Collateral, or to conduct any public or private sale of the Collateral, all without any liability of Agent or any Lender for rent or other compensation for the use of Borrower's premises.

**6.06 Indemnification.** Borrower hereby indemnifies Agent and all Lenders for, and shall hold them harmless from, any and all costs incurred by them as a result of or in any manner related to Agent or Lenders' taking, receiving, keeping, storing, possessing or selling the Collateral, unless such costs arose from Agent or Lenders' gross, negligence or intentional misconduct.

## ARTICLE 7. SPECIAL COLLATERAL PROVISIONS

**7.01 Compromise and Collection.** Borrower and Agent recognize that setoffs, counterclaims, defenses and other claims may be asserted by obligors with respect to certain of the Rights to Payment; that certain of the Rights to Payment may be or become uncollectible in whole or in part; and that the expense and probability of success of litigating a disputed Right to Payment may exceed the amount that reasonably may be expected to be recovered with respect to such Right to Payment. Borrower hereby authorizes Agent, after and during the continuance of an Event of Default, to compromise with the obligor, accept in full payment of any Right to Payment such amount as Agent shall negotiate with the obligor, or abandon any Right to Payment. Any such action by Agent shall be considered commercially reasonable so long as Agent acts in good faith based on information known to it at the time it takes any such action.

**7.02 Performance of Borrower's Obligations.** Without having any obligation to do so, upon reasonable prior notice to Borrower, Agent may perform or pay any obligation that Borrower has agreed to perform or pay under this Agreement, including, without limitation, the payment or discharge of taxes or Liens levied or placed on or threatened against the Collateral. In so performing or paying, Agent shall determine the action to be taken and the amount necessary to discharge such obligations. Borrower shall reimburse Agent on demand for any amounts paid by Agent pursuant to this Section, which amounts shall constitute Obligations secured by the Collateral and shall bear interest from the date of demand at the highest "post-default" rate of interest provided in the Loan Agreement.

**7.03 Power of Attorney.** For the purpose of protecting and preserving the Collateral and Agent's rights under this Agreement, the Loan Agreement and the other Loan Documents, Borrower hereby irrevocably appoints Agent, with full power of substitution, as its attorney-in-fact with full power and authority, after the occurrence and during the continuance of an Event of Default, to do any act that Borrower is obligated to do hereunder; to exercise such rights with respect to the Collateral as Borrower might exercise; to use such Inventory, Equipment, Fixtures or other property as Borrower might use; to enter Borrower's premises; to give notice of Agent's security interest in, and to collect the Collateral; and before or after an Event of Default to execute and file in Borrower's name any financing statements, amendments and continuation statements necessary or desirable to perfect or continue the perfection of Agent's security interests in the Collateral. Borrower hereby ratifies all that Agent shall lawfully do or cause to be done by virtue of this appointment.

**7.04 Authorization for Lender to Take Certain Action.** The power of attorney created in Section 7.03 is a power coupled with an interest and shall be irrevocable. The powers conferred on Agent hereunder are solely to protect its interests in the Collateral and shall not impose any duty upon Agent to exercise such powers. Agent shall be accountable only for amounts that it actually receives as a result of the exercise of such powers and in no event shall Agent or any of its directors, officers, employees, agents or representatives be responsible to Borrower for any act or failure to act, except for gross negligence or willful misconduct. After the occurrence and during the continuance of an Event of Default, Agent may exercise this power of attorney without notice to or assent of Borrower, in the name of Borrower, or in Agent's own

name, from time to time in Agent's sole reasonable discretion and at Borrower's expense. To further carry out the terms of this Agreement, after the occurrence and during the continuance of an Event of Default, Agent may:

(a) Execute any statements or documents or take possession of, and endorse and collect and receive delivery or payment of, any checks, drafts, notes, acceptances or other instruments and documents constituting Collateral, or constituting the payment of amounts due and to become due or any performance to be rendered with respect to the Collateral.

(b) Sign and endorse any invoices, freight or express bills, bills of lading, storage or warehouse receipts; drafts, certificates and statements under any commercial or standby letter of credit relating to Collateral; assignments, verifications and notices in connection with Accounts; or any other documents relating to the Collateral, including without limitation the Records.

(c) Use or operate Collateral or any other property of Borrower for the purpose of preserving or liquidating Collateral.

(d) File any claim or take any other action or proceeding in any court of law or equity or as otherwise deemed appropriate by Agent for the purpose of collecting any and all monies due or securing any performance to be rendered with respect to the Collateral.

(e) Commence, prosecute or defend any suits, actions or proceedings or as otherwise deemed appropriate by Agent for the purpose of protecting or collecting the Collateral. In furtherance of this right, upon the occurrence and during the continuance of an Event of Default, Agent may apply for the appointment of a receiver or similar official to operate Borrower's business.

(f) Prepare, adjust, execute, deliver and receive payment under insurance claims, and collect and receive payment of and endorse any instrument in payment of loss or returned premiums or any other insurance refund or return, and apply such amounts at Agent's sole discretion, toward repayment of the Obligations or replacement of the Collateral.

**7.05 Application of Proceeds.** Any Proceeds and other monies or property received by Agent pursuant to the terms of this Agreement or any Loan Document may be applied by Agent first to the payment of reasonable expenses of collection, including without limitation reasonable attorneys' fees, and then to the payment of the Obligations, for the ratable benefit of the Lender and in such order of application as Agent may elect.

**7.06 Deficiency.** If the Proceeds of any disposition of the Collateral are insufficient to cover all costs and expenses of such sale and the payment in full of all the Obligations, plus all other sums required to be expended or distributed by Agent, then Borrower shall be liable for any such deficiency.

**7.07 Agent Transfer.** Upon the transfer of all or any part of the Obligations, Agent may transfer all or part of the Collateral and shall be fully discharged thereafter from all liability and responsibility with respect to such Collateral so transferred, and the transferee shall be vested with all the rights and powers of Agent hereunder with respect to such Collateral so

transferred, but with respect to any Collateral not so transferred, Agent shall retain all rights and powers hereby given.

**7.08 Agent's Duties.** Agent shall use reasonable care in the custody and preservation of any Collateral in its possession. Without limitation on other conduct which may be considered the exercise of reasonable care, Agent shall be deemed to have exercised reasonable care in the custody and preservation of such Collateral if such Collateral is accorded treatment substantially equal to that which Agent accords its own property, it being understood that Agent shall not have any responsibility for ascertaining or taking action with respect to calls, conversions, exchanges, maturities, declining value, tenders or other matters relative to any Collateral, regardless of whether Agent has or is deemed to have knowledge of such matters; or taking any necessary steps to preserve any rights against any Person with respect to any Collateral. Under no circumstances shall Agent be responsible for any injury or loss to the Collateral, or any part thereof, arising from any cause beyond the reasonable control of Agent.

**7.09 Termination of Security Interests.** Upon the payment in full of the Obligations, the security interest and the power of attorney granted hereby shall terminate and all rights to the Collateral shall revert to Borrower. Upon any such termination, Agent shall, at Borrower's expense, execute and deliver to Borrower such documents as Borrower shall reasonably request to evidence such termination.

## ARTICLE 8. GENERAL PROVISIONS

**8.01 Notices.** Any notice given by any party under this Agreement shall be given in the manner prescribed in the Loan Agreement.

**8.02 Binding Effect.** This Agreement shall be binding upon Borrower, its permitted successors, representatives and assigns, and shall inure to the benefit of Agent and each Lender and its respective successors and assigns.

**8.03 Rights Cumulative.** All rights and remedies existing under this Agreement are cumulative to, and not exclusive of, any other rights or remedies available under contract or applicable law.

**8.04 Unenforceable Provisions.** Any provision of this Agreement which is prohibited or unenforceable in any jurisdiction shall be so only as to such jurisdiction and only to the extent of such prohibition or unenforceability, but all the remaining provisions of this Agreement shall remain valid and enforceable.

**8.05 Governing Law; Venue.** This Agreement shall be governed by and construed exclusively in accordance with the laws of the State of New York, without regard to choice of law rules, and Borrower hereby submits to exclusive venue in Tompkins County in the State of New York, provided, that solely in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection or priority of, or remedies with respect to, any Lender's Lien on any Collateral is governed by the Uniform Commercial Code as enacted and in effect in a jurisdiction other than the State of New York, then the Uniform Commercial Code as enacted and in effect in such other jurisdiction shall apply solely for purposes of the provisions



thereof relating to such attachment, perfection, priority or remedies and for purposes of definitions related to such provisions

**8.06 Section Headings.** The captions of the Articles or Sections in this Agreement are for convenience only and in no way define, limit, extend or describe the scope or intent of any of the provisions hereof, shall not be deemed part of this Agreement and shall not be used in construing or interpreting this Agreement.

**8.07 Rules of Construction.** Any normal rule of construction providing that ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement.

**8.08 Entire Agreement.** This Agreement, the Loan Agreement are intended by Borrower, Agent and each Lender as the final expression of Borrower's obligations to Agent and Lender in connection with the Collateral and supersede all prior understandings or agreements concerning the subject matter hereof. In the case of any conflict between the provisions of this Agreement and the Loan Agreement, the Loan Agreement shall be controlling. This Agreement may be amended only by a writing signed by Borrower and accepted by Agent in writing.

**8.09 Counterparts.** This Agreement may be executed in any number of counterparts and by facsimile with the same effect as if the parties had all signed the same document in ink. All counterparts shall be construed together and shall constitute one agreement.

**8.10 Replacement of Agreement.** This Agreement amends, restates and replaces that certain security agreement and that certain intellectual property security agreement, both dated as of May 16, 2001 between the Borrower and Venture Lending and Leasing III, Inc. and such other secured parties as are set forth in those referenced security agreements.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date set forth in the preamble.

CALIENT NETWORKS, INC.

By: Charles M. Corbalis  
Name: Charles M. Corbalis  
Title: President and Chief Executive Officer

CALIENT OPTICAL COMPONENTS, INC.

By: Charles M. Corbalis  
Name: Charles M. Corbalis  
Title: President

CAYUGA VENTURE FUND II, LLC

By: AP Management Associates, LLC

By: Technical Transfer Investment Associates, LLC

By: \_\_\_\_\_  
Philip Proujansky, Manager


By: \_\_\_\_\_  
David Ahlers, Executive Director

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date set forth in the preamble.

**CALIENT NETWORKS, INC.**

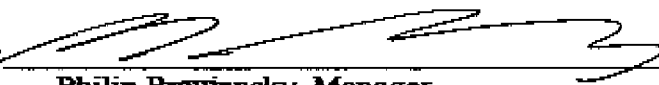

By:   
Name: Charles M. Corbalis  
Title: President and Chief Executive Officer

**CALIENT OPTICAL COMPONENTS, INC.**

By:   
Name: Charles M. Corbalis  
Title: President

**CAYUGA VENTURE FUND II, LLC**

By: AP Management Associates, LLC  
By: Technical Transfer Investment Associates, LLC

By:   
**Philip Proujansky, Manager**  
By:   
**David Ahlers, Executive Director**

## SCHEDULE A

### Lenders

Cayuga Venture Fund II, LLC  
15 Thornwood Drive  
Ithaca, New York 14850

Arthur Shull  
110 Highgate Place  
Ithaca, NY 14850

Fred B. Widding  
204 North Sunset Drive  
Ithaca, NY 14850

Kenneth G. Bartels  
38 Close Rd  
Greenwich CT 06831

Philip H. Bartels  
52 Druid Lane  
Riverside CT 06878

Henry E. Bartels  
35 Canterbury Way  
North Haven CT 06473-1018

**EXHIBIT A**

Copyrights

owner has no registered Copyrights as of the date hereof.

**Exhibit B**  
 Coherent Networks and Client Optical  
 Patents and Patent Applications

A	B	C	D	E	F	G	H
Client Doctel #	Patent WIPO	Doctel Title	US Filing Date (Priority Date)	US Application Serial No	US Issue Date	Patent Number	Owner Client Network=CN Client Optical=CO
1	P003D	A Video-Electro Mechanical System (Mems) Mirror Device For Methods For Fabricating The Same	08/14/01	09/029,900	05/13/03	6,563,106 B1	CN
2	P004	Apparatus For Creating An Optical Fiber Link	03/09/00	09/522,255	04/04/03	6,540,408 B1	CN
3	P006	A Micro Electro Mechanical System (Mems) Mirror Device Having A Large Angular Out Of Phase Mirror Using Strained Combed Fingers Actuation And Method For Fabricating The Same	05/16/00	09/572,979		6,628,041 B2	CN
4	P006	High Uniformity Lens Arrays Having Lens Correction And Methods For Fabricating The Same	05/16/00	09/572,922	09/10/02	6,449,098	CN
5	P007	An Optical Switch Having Mirrors Arranged To Accommodate Freedom Of Movement	06/01/00	09/586,663	05/06/03	6,500,384 B1	CN
6	P007	A Dual Refractionless Costratin For An Optical Switch	06/02/00	09/585,259	11/19/02	6,483,961	CN
7	P008	A Mirror-actuated Apparatus For Improved Reflection Of Light	05/18/00	09/574,660	07/01/03	6,585,363 B2	CN
8	P00501	A Micro-mechanical Apparatus For Improved Reflection Of Light	07/27/01	09/617,420	09/02/03	6,612,706 B2	CN
9	P00607	A Micro-mechanical Apparatus For Improved Reflection Of Light	09/07/01	09/848,801	06/17/03	6,576,974 B2	CN
10	P00603	A Micro-mechanical Apparatus For Improved Reflection Of Light	09/07/01	09/848,843			CN
11	P004	Shaped Electrodes For Micro Electro-Mechanical System (MEMS) Devices To Improve Actuator Performance and Methods For Fabricating The Same	09/28/03	09/676,459			CN
12	P005	Optical Cross-Coupled Switch With Integrated Optical Signal Tap	06/02/00	09/585,991			CN
13	P006	Passive Alignment Method And Apparatus For Fabricating A Lens Device	05/02/03	09/585,527	04/07/03	6,504,967 B1	CN
14	P007	Feedback Equalization Of A Lens Optimized Switch	04/13/00	09/548,597	09/24/02	6,466,751	CN
15	P007D	Feedback Substitution Of A Lens Optimized Switch	05/24/02	10/155,047			CN
16	P007	Maintaining Path Integrity In An Optical Switch	06/06/00	09/588,775	07/01/03	6,587,611 B1	CN
17	P007	Resolving A Mirror Feedback In An Optical Switch	06/05/00	09/586,711	08/25/03	6,610,974 B1	CN
18							

**Exhibit B**  
 Client Networks and Client Optical  
 Patents and Patent Applications

	A	B	C	D	E	F	G	H
	Client Doccket #	Patent W/PTD	Doccket Title	US Filing Date (Priority Date)	US Application Serial No.	US Issue Date	Patent Number	Owner: Client Networks-CN Client Optical=CO
1	P004	Y	A Self Procedure for Mixing Mirrors in An Optical Cross-Connect Switch	06/05/00	09/595,730			CN
1B	P006	Y	Asymmetric Scanning Mirror for Optical Switches	02/26/01	09/784,713			CN
20	P001	Y	Optical Switch Having Switch Mirror Arrays Controlled By Scanning Beams	08/17/00	09/642,241	07/22/03	6,544,825 B1	CN
21	P009	Y	Optical Switching Network Management	06/06/00	09/676,196			CN
22	P005	Y	An Optical Switch with Intra-Membrane Monitoring	03/12/01	09/605,528			CN
23	P003	Y	Simplified Optical Topologizing Architecture for Large Scale Integrated Optical Switch	10/30/01	10/016,314	07/22/03	6,507,825 B1	CN
24	P101	Y	Waveguide Power Equalizer for Attenuation in an Optical Switch	05/14/01	09/855,765			CN
25	P041	Y	A Method of Lancing Semiconductor Wave Having Multiple High Substrate Layers	09/21/01	09/934,783	04/08/03	6,544,863 B1	CN
26	P044	Y	Method and Apparatus to Provide Alternative Paths for Optical Protection Path Switch Arrays	08/13/01	09/929,631			CN
27	P042	Y	Method and Apparatus to Provide Alternative Paths for Optical Protection Path Switch Arrays	03/19/02	10/102,307			CN
28	P046	Y	Automatic Substrate Test Sequence Generation and Methods Thereof	07/01/02	10/186,211			CN
29	P048	Y	Waveguide Selector Optical Switch With Aligned Input and Output Substrates	07/05/01	09/888,899			CN
30	P049	Y	Optical Switch Package	05/21/01	09/862,220			CN
31	P100	Y	Method and Apparatus for Monitoring Optical Switches	07/11/01	09/804,103			CN
32	P004	Y	Method and Apparatus for Infrared Adjustment of Optical Switch Beams	04/15/01	10/015,539			CN
33	P002	Y	Method and Apparatus for Testing Fiber Array Using Free-Space Lenses	08/03/01	09/845,286			CN
34	P103	Y	Electrostatic Actuator for Microelectromechanical Systems and Methods of Fabrication (Proposed Filed on 2/23/00)	02/02/01	09/775,491			CO
35								

**EXHIBIT B**  
 Client Networks and Client Optical  
 Patents and Patent Applications

A	B	C	D	E	F	G	H
Client Doc #	Product / IFTO	Doclet Title	US Filing Date (Priority Date)	US Application Serial No.	US Issue Date	Patent Number	Owner: Client Networks-CN Client Optical=CO
1	P060 D3	Y	Integrated Large Area Microstructures and Microchemical Devices	02/27/02	10/083,600		CO-still in name of Kionix
36	P065	Y	Optical Amplification in Photonic Switched Cross Coupled Systems	04/02/02	10/115660		CN
37	P067	Y	Method and Apparatus for Hermetic Sealing Fiber Array Blocks	02/15/02	10/078,066		CN
38	P068	Y	POLYMERIZATION TREATMENT (PPTM) MULTI-PURPOSE PROTECTIVE SWITCH TESTER	02/06/02	10/072,682		CN
39	P076	Y	Thermally Compensated Optical Filter Block and Lens Array	02/07/02	10/071,362		CN
40	P107	Y	Low Frequency Vibration Isolation and Damping System	10/25/01	10/078,057		CN
41	P076	Y	Truss Length Correction for Lens Arrays of Optic Fiber Switches	08/29/02	10/113,454		CN
42	P004	Y	Optical Switch Mirror Control Using Internal Monitoring	03/05/02	10/081,921		CN
43	P080	Y	Boundary Isolation for Micromechanical Devices	05/03/02	10/139009		CN
44	P084	Y	Optical Switch with Adjustable Output Loss	07/08/03	10/616,244		CN
45	P087	Y	Variable Time Delay Apparatus	05/05/03	10/456436		CN
46	P086	Y	Stated Mesh Fabricator	10/21/02	10/274823		CN
47	P082	Y	Wavelength Dependent Optical Switch	05/30/03	60/484062		CN
48	P3002	Y	Wavelength Routing Optical Switch	06/30/03	60/484112		CN
49	P305	Y	Optical Switch Fabric with Redundancy	05/06/01	09/876,715		CN
50							
51	Y	Multiplexed Unidirectional Camilleensky Sensitive Polarization	07/19/96	8663929	8/13/2000	6073484	CO
52	Y		07/21/00	60218916			CN



**Exhibit B**

Callnet Networks and Callnet Optical  
Patents and Patent Applications

A	B	C	D	E	F	G	H
Callnet Docket #	Perfect WPTO	Docket Title	US Filing Date (Priority Date)	US Application Serial No.	US Issue Date	Patent Number	Division Callnet Network/Callnet Optical/CO
1							
53	Y		10/24/00	9896496			CN
54	Y	Microfabrication Process for Enclosed Microstructures	06/02/97	5567060	7/25/2000 06/23/00	6093330	CO
55	Y	Microfabricated Silicon Probe for Scanning Probe Microscopy	08/19/96	8665369		6066266	CO
56	N	Suspended Moving Channels and Channel Structures for Microfluidic Applications	05/04/96	9090840	1/30/2001	6180586	CO-CRF License
57	N	Transduction Process for Microelectromechanical Devices	01/14/99	9231083			CO - Abandoned
58	N	Microelectromechanical Accelerometers for Automotive Applications	04/03/98	9030641	11/21/2000	6149190	CO - Joint CRF Application
59	N		04/14/92	7868102			Callnet Optical-CRF License
60	N		12/09/91	7603986			Callnet Optical-CRF License
61	N		05/17/95	8445331			Callnet Optical-CRF License
62	N		04/19/96	8588919			Callnet Optical-CRF License
63	N		05/26/93	8087089	04/14/92		Callnet Optical-CRF License
64	N		08/18/98	9135176	12/09/91	5179499	Callnet Optical-CRF License
65	N		02/03/95	8383524		5189917	Callnet Optical-CRF License
65	N		06/21/96	8666378	05/17/95	5506175	Callnet Optical-CRF License
66	N		09/18/91	7762492	01/18/96		Callnet Optical-CRF License
66	N		01/10/93	8002500	05/26/93	5426070	Callnet Optical-CRF License
69	N		07/02/92	7906877	08/18/98	6027851	Callnet Optical-CRF License

**Exhibit B**  
 Callent Networks and Callent Optical  
 Patents and Patent Applications

A	B	C	D	E	F	G	H
Callent Docket #	Patent w/PTO	Docket Title	US Filing Date (Priority Date)	US Application Serial No.	US Issue Date	Patent Number	Owner: Callent Network-SPN Callent Optical-ECO
1					02/03/95		Callent Optical-CRF license
70	N		07/02/92	79106873	06/21/96	5628917	Callent Optical-CRF license
71	N		06/05/95	8464532	09/19/91	5770465	Callent Optical-CRF license
72	N		05/25/93	8067264	04/06/93	5149373	Callent Optical-CRF license
73	N		05/19/94	8246285	07/02/92	5375033	Callent Optical-CRF license
74	N		06/23/95	8484024	07/02/92	5287082	Callent Optical-CRF license
75	N		08/21/87	8915646	06/03/95	5397904	Callent Optical-CRF license
76	N		06/04/93	8071260	05/26/93	5627427	Callent Optical-CRF license
77	N		12/15/95	8573305	05/19/94	5563373	Callent Optical-CRF license
78	N		07/12/93	8089821	06/23/95	5610335	Callent Optical-CRF license
79	N		04/14/92	7868136	08/21/97	5640133	Callent Optical-CRF license
80	N		08/15/93	8076606	06/04/93	5914553	Callent Optical-CRF license
81	N		09/19/94	8308603	12/15/95	5399415	Callent Optical-CRF license
82	N		03/22/94	5310336	07/12/93	5644251	Callent Optical-CRF license
83	N		06/01/93	8089725	04/14/92	5363024	Callent Optical-CRF license
84	N		03/23/98	9045573	05/15/93	5235187	Callent Optical-CRF license
85	N		12/23/96	8771651	09/18/94	5449903	Callent Optical-CRF license
86	N		06/20/96	8667890		5615143	Callent Optical-CRF license

**Exhibit B**  
 Client Networks and Client Optical  
 Patents and Patent Applications

A	B	C	D	E	F	G	H
Client Docket #	Patent #/PTO	Docket Title	US Filing Date (Priority Date)	US Application Serial No.	US Issue Date	Patent Number	Owner/Client Network-Client Optical-CC
87	N		06/21/96	8670725	06/22/94	5847454	Client Optical-CRF license
88	N		12/05/86	5933488	06/01/93	5536989	Client Optical-CRF license
89	N		02/22/86	7158759	03/23/88	6000260	Client Optical-CRF license
90	N		02/21/89	7343206	12/23/86	5856722	Client Optical-CRF license
91	N		01/16/92	7621944	06/20/96	5862003	Client Optical-CRF license
92	N		03/29/93	8038879	06/21/96	5786621	Client Optical-CRF license
93	N		12/22/93	6171965	12/05/86	4748621	Client Optical-CRF license
94	N		09/27/94	8332797	02/22/88	4807066	Client Optical-CRF license
95	N		02/24/97	8804826	02/21/89	5072286	Client Optical-CRF license
96	N		09/11/88	9132254	01/16/92	5198390	Client Optical-CRF license
97	N		12/23/99	8471796	03/29/93	5816979	CN-Abandoned
98	N		02/01/92	9498270	12/22/95	5393375	CN-Abandoned
99	N		12/27/00	9750169	08/27/94	5719073	CN-Abandoned
100	N		06/05/90	9585506	02/24/97	5846849	CN-Abandoned
101	N		06/05/00	9586718	08/11/88	6051866	CN-Abandoned
102	N		06/02/00	9585950			CN-Abandoned
103	N		06/05/00	9586709			CN-Abandoned

**Exhibit B**  
Client Networks and Client Optical  
Patents and Patent Applications

	A	B	C	D	E	F	G	H
	Client Doc #	Perfect w/PTO	Doc # Title	US Filing Date (Priority Date)	US Application Serial No	US Issue Date	Patent Number	Owner Client Network-OR Client Optical-CD
1	POSD1 PCT	N	Integrated Large Area Microstructures and Micromechanical Devices		Japanese Application No 2000-5410687			Foreign/CO still in name of Koon +
104	P660	N	Trench Isolation Process for Microelectromechanical Devices	1/14/1999 Provisional 1/15/99	09/231,082		6,239,473	CRF license
105	P6607	N	Trench Isolation Process for Microelectromechanical Devices	04/17/2000	09/1646,660		6,342,430	CRF license
106	P669 PCT	N	Trench Isolation Process for Microelectromechanical Devices					CRF license
107								

**EXHIBIT C**

Client Docket #	Country	Trademark	Class(es)	Appl. #/ Filing Date	Reg # Issue Date	File w/PTO
TM01	US	CALIENT	009,	76/049606 5/15/2000		y
TM06	US	CALIENT NETWORKS	009,	76/049610 5/15/2000		y
TM09	US	CALIENT NETWORKS & Design	009,	76/049671 6/15/2000		y
TM17	US	DIAMOND WAVE	009,	76/049667 5/15/2000		y
TM21	US	DIAMONDWAVE & DESIGN	009,	76/244356 4/19/2001	2645366 11/5/2002	y
TM22	US	DW & DESIGN	009;	76/244354 4/19/2001		y
TM23	US	WHERE INNOVATION COMES TO LIGHT	009;	75/928342 2/26/2000	2625844 9/24/2002	y

12/3/2003

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is made as of May 16, 2001, by and between CALIENT NETWORKS, INC., a Delaware corporation ("Grantor"), and VENTURE LENDING & LEASING III, INC., as Agent ("Secured Party") for certain lenders as hereinafter described ("Lenders").

RECITALS

A. Pursuant to a Loan Agreement of even date herewith (the "Loan Agreement") among Grantor, as borrower, and Secured Party and Lenders, Lenders have agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in the Loan Agreement. All capitalized terms used herein without definition shall have the meanings ascribed to them in the Loan Agreement.

B. Lenders are willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Secured Party, for the ratable benefit of Lenders, a security interest in substantially all of Grantor's personal property whether presently existing or hereafter acquired. To that end, Grantor has executed in favor of Secured Party a Security Agreement of even date herewith (the "Security Agreement") granting a security interest in all Collateral, and is executing this Agreement with respect to certain items of Intellectual Property, in particular.

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

1. Grant of Security Interest. As collateral security for the prompt and complete payment and performance of all of Grantor's present or future Obligations, Grantor hereby grants a security interest and mortgage to Secured Party, as security, in and to Grantor's entire right, title and interest in, to and under the following Intellectual Property, now owned or hereafter acquired by Grantor or in which Grantor now holds or hereafter acquires any interest (all of which shall collectively be called the "IP Collateral" for purposes of this Agreement):

(a) Any and all copyrights, whether registered or unregistered, held pursuant to the laws of the United States, any State thereof or of any other country, all registrations, applications and recordings in the United States Copyright Office or in any similar office or agency of the United States, and State thereof or any other country, all continuations, renewals, or extensions thereof, and any registrations to be issued under any pending applications, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) All letters patent of, or rights corresponding thereto in, the United States or any other country, all registrations and recordings thereof, and all applications for letters patent of, or rights corresponding thereto in, the United States or any other country, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country, all reissues, continuations, continuations-in-part or extensions thereof, all petty patents, divisionals, and patents of addition; and all patents to be issued under any such applications, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(c) All trademarks, trade names, corporate names, business names, trade styles, service marks, logos, other source or business identifiers, prints and labels on which any of the foregoing have appeared or appear, designs and general intangibles of like nature, now existing or hereafter adopted or acquired, all registrations and recordings thereof, and any applications in connection therewith, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof, and reissues, extensions or renewals thereof, and the entire goodwill of the business of Grantor connected with and

symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(d) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(f) All amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents; and

(g) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Notwithstanding the foregoing the term "IP Collateral" shall not include: (a) "intent-to-use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise or (b) any contract, instrument or chattel paper in which Grantor has any right, title or interest if and to the extent such contract, instrument or chattel paper includes a provision containing a restriction on assignment such that the creation of a security interest in the right, title or interest of Grantor therein would be prohibited and would, in and of itself, cause or result in a default thereunder enabling another person party to such contract, instrument or chattel paper to enforce any remedy with respect thereto; provided, however, that the foregoing exclusion shall not apply if (i) such prohibition has been waived or such other person has otherwise consented to the creation hereunder of a security interest in such contract, instrument or chattel paper, or (ii) such prohibition would be rendered ineffective pursuant to Section 9-318(4) of the UCC or Sections 9-407(a) or 9-408(a) of Revised Article 9 of the UCC, as applicable and as then in effect in any relevant jurisdiction, or any other applicable law (including the Bankruptcy Code) or principles of equity); provided further that immediately upon the ineffectiveness, lapse or termination of any such provision, the term "IP Collateral" shall include, and Grantor shall be deemed to have granted a security interest in, all its rights, title and interests in and to such contract, instrument or chattel paper as if such provision had never been in effect; and provided further that the foregoing exclusion shall in no way be construed so as to limit, impair or otherwise affect Secured Party's unconditional continuing security interest in and to all rights, title and interests of Grantor in or to any payment obligations or other rights to receive monies due or to become due under any such contract, instrument or chattel paper and in any such monies and other proceeds of such contract, instrument or chattel paper.

2. Covenants and Warranties. Except as set forth in the Schedule of Exceptions previously delivered to Secured Party, Grantor represents, warrants, covenants and agrees as follows:

(a) During the term of this Agreement, Grantor will not transfer or otherwise encumber any interest in the IP Collateral, except for Non-exclusive licenses granted by Grantor in the ordinary course of business or as set forth in this Agreement or the Loan Agreement;

(b) To its knowledge, each of the Patents is valid and enforceable, and no part of the IP Collateral has been judged invalid or unenforceable, in whole or in part, and no claim has been made that any part of the IP Collateral violates the rights of any third party;

(c) Grantor shall deliver to Secured Party within thirty (30) days of the last day of each fiscal quarter, a report signed by Grantor, in form reasonably acceptable to Secured Party, listing any applications or registrations that Grantor has made or filed in respect of any patents, copyrights or trademarks and the status of any outstanding applications or registrations. Grantor shall promptly advise Secured Party of any material change in the composition of the IP Collateral, including but not limited to

any subsequent ownership right of the Grantor in or to any Trademark, Patent or Copyright not specified in this Agreement;

(d) Grantor shall (i) protect, defend and maintain the validity and enforceability of the Trademarks, Patents and Copyrights (ii) use reasonable commercial efforts to detect infringements of the Trademarks, Patents and Copyrights and promptly advise Secured Party in writing of material infringements detected and (iii) not allow any Trademarks, Patents or Copyrights to be abandoned, forfeited or dedicated to the public without the written consent of Lenders, which consent shall not be unreasonably withheld, except with respect to those Trademarks, Patents and Copyrights that Grantor determines in its sole but reasonable commercial judgement need not be protected, defended or maintained;

(e) Grantor shall apply for registration (to the extent not already registered) with the United States Patent and Trademark Office or the United States Copyright Office, as applicable: (i) those intellectual property rights listed on Exhibits A, B and C hereto within thirty (30) days of the date of this Agreement; and (ii) those additional intellectual property rights developed or acquired by Grantor from time to time in connection with any product or service, prior to the sale or licensing of such product or the rendering of such service to any third party (including without limitation revisions or additions to the intellectual property rights listed on such Exhibits A, B and C), except with respect to such rights that Grantor determines in its sole but reasonable commercial judgment need not be registered to protect its own business interests. Grantor shall, from time to time, execute and file such other instruments, and take such further actions as Secured Party may reasonably request from time to time to perfect or continue the perfection of Secured Party's interest in the IP Collateral. Grantor shall give Secured Party notice of all such applications or registrations; and

(f) Grantor shall not enter into any agreement that would materially impair or conflict with Grantor's obligations hereunder without Lenders' prior written consent, which consent shall not be unreasonably withheld. Grantor shall not permit the inclusion in any material contract to which it becomes a party of any provisions that could or might reasonably be determined to prevent the creation of a security interest in Grantor's rights and interests in any property included within the definition of the IP Collateral acquired under such contracts.

3. Further Assurances: Attorney in Fact

(a) For so long as Grantor owes obligations under the Loan Agreement, Grantor will make, execute, acknowledge and deliver, and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements and collateral agreements and filings with the United States Patent and Trademark Office and the Register of Copyrights, and take all such action as may reasonably be deemed necessary or advisable, or as requested by Secured Party, to perfect Secured Party's security interest in all Copyrights, Patents and Trademarks and otherwise to carry out the intent and purposes of this Agreement, or for assuring and confirming to Secured Party the grant or perfection of a security interest in all IP Collateral.

(b) For so long as Grantor owes obligations under the Loan Agreement, Grantor hereby irrevocably appoints Secured Party as Grantor's attorney-in-fact, with full authority in the place and stead of Grantor and in the name of Grantor, from time to time in Secured Party's discretion, to take any action and to execute any instrument which Secured Party may deem necessary or advisable to accomplish the purposes of this Agreement, including (i) to modify, in its sole discretion, this Agreement without first obtaining Grantor's approval of or signature to such modification by amending Exhibit A, Exhibit B and Exhibit C, hereof, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by Grantor after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which Grantor no longer has or claims any right, title or interest, (ii) to file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the IP Collateral without the signature of Grantor where permitted by law, and (iii) after the occurrence of an Event of Default, to



transfer the IP Collateral into the name of Secured Party or a third party to the extent permitted under the California Uniform Commercial Code.

4. Events of Default. The occurrence of any of the following shall constitute an Event of Default under this Agreement:

(a) An Event of Default under the Loan Agreement; or

(b) Grantor breaches any warranty or agreement made by Grantor in this Agreement and, as to any breach that is capable of cure, Grantor fails to cure such breach within ten (10) days of the occurrence of such breach.

5. Termination of Security Interest. Upon the payment in full of Grantor's Obligations under the Loan Agreement and if the Lenders have no further obligations under their Commitment under the Loan Agreement, the security interest and the power of attorney granted hereby shall terminate and all rights to the IP Collateral shall revert to Grantor. Upon any such termination, Agent shall, at Grantor's expense, execute and deliver to Grantor such documents as Grantor shall reasonably request to evidence such termination.

6. Amendments. This Agreement may be amended only by a written instrument signed by both parties hereto, except for amendments permitted under Section 3 hereof to be made by Secured Party alone.

7. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute the same instrument.

{Signature Pages Follow}

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

GRANTOR:

Address of Grantor:

5853 Rue Ferrari  
San Jose, CA 95138  
Attn: General Counsel

CALIENT NETWORKS, INC.

By: [Signature]  
Its: VP Finance CFO

SECURED PARTY

Address of Secured Party:

2010 North First Street, Suite 310  
San Jose, CA 95131  
Attn: President

VENTURE LENDING & LEASING III, INC., as Agent  
for Lenders

By: \_\_\_\_\_  
Its: \_\_\_\_\_

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day and year first above written.

GRANTOR:

CALIENT NETWORKS, INC.

Address of Grantor:

5853 Rue Ferrari  
San Jose, CA 95138  
Attn: \_\_\_\_\_

By: \_\_\_\_\_

Its: \_\_\_\_\_

SECURED PARTY

VENTURE LENDING & LEASING III, INC., as Agent  
for Lenders

Address of Secured Party:

2010 North First Street, Suite 310  
San Jose, CA 95131  
Attn: President

By:  \_\_\_\_\_

Its: Ron Swenson  
CEO