

CYALUME TECHNOLOGIES HOLDINGS, INC.

FORM DEF 14A (Proxy Statement (definitive))

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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**SCHEDULE 14A
(Rule 14a-101)**

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

**Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934
(Amendment No. __)**

Filed by the Registrant

Filed by a party other than the
Registrant

Check the appropriate box:

- Preliminary proxy statement
- Confidential, For use of the Commission only (as permitted by Rule 14a-6(e)(2))**
- Definitive proxy statement
- Definitive additional materials
- Soliciting material pursuant to Section 240.14a-12

Cyalume Technologies Holdings, Inc.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of filing fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11
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(4) Proposed maximum aggregate value of transaction:

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- Fee paid previously with preliminary materials:
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing.

(1) Amount previously paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

CYALUME TECHNOLOGIES HOLDINGS, INC.

96 Windsor Street
West Springfield, Massachusetts 01089

**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To be held June 16, 2011**

To the Stockholders of
Cyalume Technologies Holdings, Inc.

Notice is hereby given that the Annual Meeting of the Stockholders of Cyalume Technologies Holdings, Inc. (the "Company") will be held on June 16, 2011 at 9:00 a.m. local time at the offices of Loeb & Loeb LLP, 345 Park Avenue, New York, NY 10154. The annual meeting is called for the following purposes:

1. To elect a board of nine directors;
2. To ratify the appointment of CCR LLP as the independent auditors of the Company for the fiscal year ending December 31, 2011; and
3. To consider and take action upon such other matters as may properly come before the meeting or any adjournment or adjournments thereof.

The close of business on April 21, 2011 has been fixed as the record date for the determination of stockholders entitled to notice of, and to vote at, the annual meeting. The stock transfer books of the Company will not be closed. A list of the stockholders entitled to vote at the meeting may be examined at the Company's offices during the 10-day period preceding the meeting.

All stockholders are cordially invited to attend the annual meeting. Whether or not you expect to attend, you are respectfully requested by the Board of Directors to sign, date and return the enclosed proxy card promptly. Stockholders who execute proxies retain the right to revoke them at any time prior to the voting thereof, and may nevertheless vote in person at the annual meeting. A return envelope which requires no postage if mailed in the United States is enclosed for your convenience. You may obtain directions to the meeting by calling our offices at (888) 858-7881. This Proxy Statement, a form of proxy and our most recent Annual Report are available to view online at the following internet address: <http://investor.cyalume.com/annual-proxy.cfm>.

Please note: If your shares are held in street name, your broker bank, custodian or other nominee holder cannot vote your shares in the election of directors, unless you direct the nominee holder how to vote, by marking your proxy card.

By Order of the Board of Directors,
/s/ Derek Dunaway

Derek Dunaway
President, Chief Executive Officer

Dated: April 28, 2011

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CYALUME TECHNOLOGIES HOLDINGS, INC.
96 Windsor Street
West Springfield, Massachusetts 01089

PROXY STATEMENT
for
Annual Meeting of Stockholders
to be held June 16, 2011

PROXY SOLICITATION

This Proxy Statement is furnished in connection with the solicitation of proxies by the Board of Directors of Cyalume Technologies Holdings, Inc. (the “Company,” “Cyalume,” “we,” “us,” or “our”) for the Annual Meeting of Stockholders to be held at the offices of Loeb & Loeb LLP, 345 Park Avenue, New York, NY 10154 on June 16, 2011, at 9:00 a.m. local time and for any adjournment or adjournments thereof, for the purposes set forth in the accompanying Notice of Annual Meeting of Stockholders. Any stockholder giving such a proxy has the power to revoke it at any time before it is voted. Written notice of such revocation should be forwarded directly to the Secretary of the Company, at the above stated address. Proxies may be solicited through the mails or direct communication with certain stockholders or their representatives by Company officers, directors, or employees, who will receive no additional compensation therefor. You may obtain directions to the meeting by calling our offices at (888) 858-7881.

If the enclosed proxy is properly executed and returned, the shares represented thereby will be voted in accordance with the directions thereon and otherwise in accordance with the judgment of the persons designated as proxies. Any proxy on which no direction is specified will be voted in favor of the actions described in this Proxy Statement and for the election of the nominees set forth under the caption “Election of Directors.”

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting

Pursuant to rules adopted by the Securities and Exchange Commission, or the SEC, we have elected to provide access to our proxy materials both by sending you this full set of proxy materials, including the notice of our annual meeting, this proxy statement, a proxy card and our 2010 Annual Report to Stockholders, and by notifying you of the availability of our proxy materials on the Internet. The notice of annual meeting, proxy statement, form of proxy and our 2010 Annual Report are also available at <http://investor.cyalume.com/annual-proxy.cfm> . In accordance with SEC rules, the materials on the site are searchable, readable and printable, and the site does not use “cookies” or other tracking devices that identify visitors.

Your vote is important. Accordingly, you are urged to sign and return the accompanying proxy card whether or not you plan to attend the meeting. If you do attend, you may vote by ballot at the meeting and cancel any proxy previously given.

**QUESTIONS AND ANSWERS ABOUT THIS PROXY MATERIAL,
ANNUAL MEETING AND VOTING**

The following is information regarding the proxy material, annual meeting and voting is presented in a question and answer format.

What is the purpose of the Annual Meeting?

At the Annual Meeting, stockholders of record at the close of business on April 21, 2011 (the “record date”) will vote on the items of business outlined in the Notice of Annual Meeting of Stockholders (the “Meeting Notice”).

Why am I receiving these materials?

We have sent you this proxy statement and the enclosed proxy card because the Board of Directors of Cyalume Technologies Holdings, Inc. is soliciting your proxy to vote at the 2011 Annual Meeting of Stockholders (“Annual Meeting”), including at any adjournments or postponements of the meeting. You are invited to attend the Annual Meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card.

When you sign the enclosed proxy card, you appoint the proxy holder as your representative at the meeting. The proxy holder will vote your shares as you have instructed in the proxy card, thereby ensuring that your shares will be voted whether or not you attend the meeting. Even if you plan to attend the meeting, you should complete, sign and return your proxy card in advance of the meeting just in case your plans change.

If you have signed and returned the proxy card and an issue comes up for a vote at the meeting that is not identified on the card, the proxy holder will vote your shares, pursuant to your proxy, in accordance with his or her judgment.

The Company intends to mail this proxy statement and accompanying proxy card on or about May 13, 2011 to all stockholders of record entitled to vote at the Annual Meeting.

Who may vote and how many votes may I cast?

Only stockholders of record at the close of business on the record date, April 21, 2011, will be entitled to vote at the Annual Meeting. On this record date, there were 16,743,553 shares of common stock outstanding and entitled to vote. Each share of common stock is entitled to one vote on each matter. There are no other classes of capital stock outstanding.

What am I voting on?

You are being asked to vote to on the following matters:

1. to elect the directors named in the accompanying proxy statement to serve until the next annual meeting of stockholders, and until their respective successors are elected and qualified;
2. to ratify the appointment of CCR LLP as the independent auditors of the Company for the fiscal year ending December 31, 2011; and
3. to transact such other business as may properly come before the meeting.

If any nominee for director is unable to serve or for good cause will not serve, or if an item properly comes up for vote at the Annual Meeting, or at any postponement or adjournment of the Annual Meeting, that is not described in the Meeting Notice, your Proxy will vote the shares as recommended by the Board of Directors pursuant to the discretionary authority granted in the proxy. At the time this proxy statement was printed, we were not aware of any matters to be voted on which are not described in this proxy statement.

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How do I vote?

You may either vote “For” each of the nominees to the Board of Directors named herein or you may “Withhold” your vote for any nominee you specify. To ratify the appointment of CCR LLP as the independent auditors of the Company for the fiscal year ending December 31, 2011, you may vote “For” or “Against” or abstain from voting. The procedures for voting are fairly simple:

Stockholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person at the Annual Meeting or vote by proxy using the enclosed proxy card.

- To vote in person, come to the Annual Meeting and we will give you a ballot when you arrive; or
- To vote using the proxy card, simply complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us by 11:59 p.m. EST on the day before the Annual Meeting, we will vote your shares as you direct.

Beneficial Owner: Shares Registered in the Name of Broker, Bank or other Fiduciary

If you received this proxy statement from your broker, bank or other fiduciary, your broker, bank or fiduciary should have given you instructions for directing how that person or entity should vote your shares. It will then be your broker, bank or fiduciary’s responsibility to vote your shares for you in the manner you direct. Please complete, execute and return the proxy card in the envelope provided by your broker.

Under the rules of various national and regional securities exchanges, brokers generally may vote on routine matters, such as the ratification of the engagement of an independent public accounting firm, but may not vote on non-routine matters unless they have received voting instructions from the person for whom they are holding shares. The election of directors is a non-routine matter, and, consequently, your broker, bank or fiduciary will not have discretionary authority to vote your shares on these matters. If your broker, bank or fiduciary does not receive instructions from you on how to vote on these matters, your broker, bank or fiduciary will return the proxy card to us, indicating that he or she does not have the authority to vote on these matters. This is generally referred to as a “Broker Non-Vote” and may affect the outcome of the voting on those matters.

We therefore encourage you to provide directions to your broker, bank or fiduciary as to how you want your shares voted on all matters to be brought before the Annual Meeting. You should do this by carefully following the instructions your broker gives you concerning its procedures. This ensures that your shares will be voted at the Annual Meeting.

You are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote your shares in person at the meeting unless you request and obtain a valid proxy from your broker or other agent.

How does the Board recommend I vote?

Our Board of Directors recommends that you vote:

- **FOR** election of our nine nominees for director; and
- **FOR** ratification of the appointment of CCR LLP as the independent auditors of the Company for the fiscal year ending December 31, 2011.

What if I change my mind after I vote via proxy?

If you hold your shares in your own name, you may revoke your proxy at any time before your shares are voted by:

- mailing a later dated proxy prior to the Annual Meeting;
- delivering a written request in person to return the executed proxy;
- voting in person at the Annual Meeting; or
- providing written notice of revocation to the Corporate Secretary of the Company at: 96 Windsor Street, West Springfield, Massachusetts 01089.

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If you hold your shares in the name of your broker, bank, or other fiduciary, you will need to contact that person or entity to revoke your proxy.

What does it mean if I receive more than one proxy card or voting instruction form?

It means that you have multiple accounts at our transfer agent or with brokers, banks, or other fiduciaries. Please complete and return all proxy cards and voting instruction forms to ensure that all of your shares are voted.

How many shares must be present to hold a valid Meeting?

For us to hold a valid Annual Meeting, we must have a quorum, which means that a majority of the outstanding shares of our common stock that are entitled to cast a vote are present in person or by proxy at the Annual Meeting. Proxies received but marked as abstentions and Broker Non-Votes will be treated as shares that are present and entitled to vote for purposes of determining a quorum. Your shares will be counted as present at the Annual Meeting if you:

- properly submit a proxy card (even if you do not provide voting instructions); or
- attend the Meeting and vote in person.

On April 21, 2011, the record date, there were 16,743,553 shares of common stock outstanding. Therefore, at least 8,371,777 shares need to be present in person or by proxy at the Annual Meeting in order to hold the meeting and conduct business.

How many votes are required to approve an item of business?

Our directors are elected by a plurality and the nine individuals receiving the highest number of votes cast “For” their election will be elected as directors of Cyalume. There is no cumulative voting for the Company’s directors. Abstentions and Broker Non-Votes are not considered “votes cast,” and have no effect on the vote to elect our directors. A share otherwise present at the meeting as to which a stockholder gives no authority or direction to vote is also not considered a “vote cast.”

The proposal to ratify the appointment of CCR LLP as the independent auditors of the Company for the fiscal year ending December 31, 2011 will be approved if the number of votes cast “For” the matter exceeds the number of votes cast “Against” or abstaining on the matter. Abstaining from voting on the ratification of the appointment of CCR LLP as our independent auditors is equivalent to a vote against such proposal, but broker non-votes do not affect the outcomes of the votes on such proposal.

Where can I find the voting results of the Meeting?

We will announce preliminary voting results at the Annual Meeting. We plan to publish the final voting results in a Current Report on Form 8-K (“Form 8-K”) filed within four business days of the Annual Meeting. If final voting results are not available within the four business day timeframe, we plan to file a Form 8-K disclosing preliminary voting results within the required four business days, to be followed as soon as practicable by an amendment to the Form 8-K containing final voting results.

Who pays the cost for soliciting proxies?

We will pay the cost for the solicitation of proxies by the Board of Directors. Our solicitation of proxies will be made primarily by mail. Proxies may also be solicited personally, by telephone, fax or e-mail by our officers, directors, and regular supervisory and executive employees, none of whom will receive any additional compensation for their services. We will also reimburse brokers, banks, custodians, other nominees and fiduciaries for forwarding these materials to beneficial holders to obtain the authorization for the execution of proxies.

Where can I find additional information about Cyalume?

Our reports on Forms 10-K, 10-Q and 8-K, and other publicly available information should be consulted for other important information about Cyalume. You can also find additional information about us on our web site at www.cyalume.com. The principal executive office of the Company is located at 96 Windsor Street, West Springfield, Massachusetts 01089. The mailing address of the principal executive office is 96 Windsor Street, West Springfield, Massachusetts 01089. The telephone number for the Company is (413) 858-2500.

THE BOARD AND BOARD COMMITTEES

During the year ended December 31, 2010, the Board of Directors met four times and took action by written consent on one occasion. All of the directors attended at least 75% of the meetings, except a former director, John Keane, who resigned on March 25, 2011. Each director is expected to participate, either in person or via teleconference, in meetings of our Board of Directors and meetings of committees of our Board of Directors in which each director is a member, and to spend the time necessary to properly discharge such director’s respective duties and responsibilities. We do not have a written policy with regard to directors’ attendance at annual meetings of stockholders; however, all directors are encouraged to attend the annual meeting. The Board of Directors has determined that the directors standing for election, other than Mr. Dunaway, namely Messrs. Churchill, Eitan, Epstein, Intrater, Kline, Meyer, Rebar and Shamir, are each independent directors as defined in Rule 5605(a)(2) of the Listing Rules of the NASDAQ Stock Market LLC (the “Listing Rules”).

Name	Current Committee Composition ⁽¹⁾				
	Audit	Nominating and Governance	Compensation	Executive	Military Advisory
Winston J. Churchill ⁽²⁾		C		M	
Archie Clemins ⁽³⁾			M		M
Doron Cohen ⁽³⁾		M			
Yaron Eitan			C	C	M
Jason Epstein		M		M	
Joseph Gorman ⁽³⁾	M				
Andrew Intrater					
Frank Kline			M	M	
Thomas G. Rebar	C				
Yair Shamir	M				M

(1) Immediately after the Annual Meeting of Stockholders, the newly appointed slate of Directors will meet to establish the composition of Committees.

(2) Chairman of the Board of Directors.

(3) Not standing for re-election.

“C” Indicates committee chair.

“M” Indicates committee member.

Audit Committee . The Audit Committee is established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934. Thomas Rebar (Chairman), Yair Shamir and Joseph Gorman serve on this committee. The Audit Committee held five meetings during 2010. The Board of Directors has determined that Thomas Rebar is an “audit committee financial expert”. The Board of Directors has determined that each of the members of the Audit Committee are independent as defined in Rule 5605(a)(2) of the Listing Rules.

The Audit Committee operates under a written charter adopted by the Board of Directors and assists the Board of Directors by overseeing the performance of the independent auditors and the quality and integrity of our internal accounting, auditing and financial reporting practices. The Audit Committee is responsible for retaining and, as necessary, terminating, the independent auditors, annually reviews the qualifications, performance and independence of the independent auditors and the audit plan, fees and audit results, and pre-approves audit and non-audit services to be performed by the auditors and related fees. The Audit Committee charter is available on our website, www.cyalume.com .

Nominating Committee . On January 13, 2009, the Board of Directors formed the Nominating Committee and adopted a written charter. Winston Churchill (Chairman), Doron Cohen and Jason Epstein, each of whom is independent as defined in Rule 5605(a)(2) of the Listing Rules, serve on this committee. The Nominating Committee’s charter is available to security holders on

our website, www.cyalume.com . The Nominating Committee did not meet during 2010.

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The Nominating Committee will consider director candidates recommended by security holders. Potential nominees to the Board of Directors are required to have such experience in business or financial matters as would make such nominee an asset to the Board of Directors and may, under certain circumstances, be required to be “independent”, as such term is defined under Rule 5605 of the Listing Rules and applicable SEC regulations. Stockholders wishing to submit the name of a person as a potential nominee to the Board of Directors must send the name, address, and a brief (no more than 500 words) biographical description of such potential nominee to the Nominating and Corporate Governance Committee at the following address: Nominating Committee of the Board of Directors, c/o Cyalume Technologies Holdings, Inc., 96 Windsor Street, West Springfield, Massachusetts 01089. Potential director nominees will be evaluated by personal interview, such interview to be conducted by one or more members of the Nominating Committee, and/or any other method the Nominating Committee deems appropriate, which may, but need not, include a questionnaire. Those suggesting a nominee should include evidence that the writer is a Company stockholder, the name and contact information of the candidate and a statement signed by the candidate that the candidate is willing to be considered for nomination by the committee and willing to serve as a director, if nominated and elected. The Nominating Committee may solicit or receive information concerning potential nominees from any source it deems appropriate. The Nominating Committee need not engage in an evaluation process unless (i) there is a vacancy on the Board of Directors, (ii) a director is not standing for re-election, or (iii) the Nominating Committee does not intend to recommend the nomination of a sitting director for re-election. A potential director nominee recommended by a security holder will not be evaluated differently from any other potential nominee. Although it has not done so in the past, the Nominating Committee may retain search firms to assist in identifying suitable director candidates.

The Board does not have a formal policy on Board candidate qualifications. The Board may consider those factors it deems appropriate in evaluating director nominees made either by the Board or stockholders, including judgment, skill, strength of character, experience with businesses and organizations comparable in size or scope to the Company, experience and skill relative to other Board members, and specialized knowledge or experience. Depending upon the current needs of the Board, certain factors may be weighed more or less heavily. In considering candidates for the Board, the directors evaluate the entirety of each candidate’s credentials and do not have any specific minimum qualifications that must be met. “Diversity,” as such, is not a criterion that the Committee considers. The directors will consider candidates from any reasonable source, including current Board members, stockholders, professional search firms or other persons. The directors will not evaluate candidates differently based on who has made the recommendation.

The Company has entered into an investor rights agreement with certain former owners of Cyalume Technologies, Inc. (“CTI”), a wholly-owned subsidiary of the Company as a result of the acquisition of CTI on December 19, 2008, which allows certain beneficial owners to nominate up to three persons for election to the Board of Directors for so long as a minimum percentage of the Company’s outstanding common stock are owned by such security holders. The terms of the agreement are as follows:

(i) the holders of Cova Small Cap Holdings, LLC’s (“Cova”) investment have the right to nominate (a) two persons for election to the Board of Directors as long as Cova owns 12.5% of the outstanding stock of the Company, and (b) one person to the Board of Directors as long as Cova owns over 10% but less than 12.5% of the outstanding common stock of the Company; and

(ii) the holders of Kline Hawkes Pacific Friends Fund, LLC and Kline Hawkes Pacific, L.P. (“Kline Hawkes”) have the right to nominate one person for election to the Board of Directors as long as Kline Hawkes owns 10% of the outstanding common stock of the Company.

Andrew Intrater and Jason Epstein are Cova’s current nominees to the Board of Directors and Frank Kline is Kline Hawkes’ current nominee to the Board of Directors.

Compensation Committee . On January 13, 2009, the Board of Directors formed a Compensation Committee and adopted a written charter. Serving on the Compensation Committee are Yaron Eitan, Archie Clemins and Frank Kline, each of whom is independent as defined in Rule 5605(a)(2) of the Listing Rules. The Compensation Committee held two meetings and took action by written consent on one occasion during 2010. The charter is available to security holders on our website, www.cyalume.com . The charter sets forth responsibilities, authority and specific duties of the Compensation Committee. The Compensation Committee

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reviews and recommends to the board the compensation for the CEO and non-employee directors of our Company, and reviews the CEO's compensation recommendations for all other corporate officers. It also reviews the general policy relating to compensation and benefits for all employees. The Compensation Committee has been designated by the Board of Directors to administer the Cyalume Technologies Holdings, Inc. 2009 Omnibus Securities and Incentive Plan (the "2009 Plan").

Executive Committee . On January 13, 2009, the Board of Directors formed an Executive Committee. Yaron Eitan (Chairman), Winston Churchill, Jason Epstein and Frank Kline serve on this committee. The Executive Committee exercises the powers of the Board between meetings of the full Board of Directors. The Executive Committee did not meet during 2010.

Military Advisory Committee . On January 13, 2009, the Board of Directors formed a Military Advisory Committee. Archie Clemins, Yair Shamir and Yaron Eitan serve on this committee. The Military Advisory Committee did not meet during 2010 but certain members were consulted with on an as needed basis. The Military Advisory Committee provides strategic guidance and advice on matters relating to the Company's military business.

Board Operations

The positions of principal executive officer and chairman of the Board of Directors of the Company are held by different persons. The chairman of the Board of Directors, an independent director, chairs Board of Director and stockholder meetings and participates in preparing their agendas. The chairman of the Board of Directors also calls, plans, and chairs the independent directors' executive sessions and serves as a focal point for communication between management and the Board of Directors between Board of Director meetings, although there is no restriction on communication between directors and management. We believe that these arrangements afford the independent directors sufficient resources to supervise management effectively, without being overly engaged in day-to-day operations.

The Board of Directors is responsible for overall supervision of the Company's risk oversight efforts as they relate to the key business risks facing the organization. Management identifies, assesses, and manages the risks most critical to the Company's operations on a day-to-day basis and routinely advises the Board of Directors on those matters as the President/CEO and CFO have access to the Board of Directors, attend regular meetings as well as the audit committee meetings. The Board's role in risk oversight of the Company is consistent with the Company's leadership structure, with senior management having responsibility for assessing and managing the Company's risk exposure, and the Board and its Committees, providing oversight as necessary in connection with those efforts.

DIRECTOR COMPENSATION

Director Compensation

Our director compensation policy for 2010 was to provide each Director with an award of 7,500 options to purchase common stock at \$3.65 per share as compensation for services rendered in 2010. Otherwise no compensation was paid to non-employee directors except that Directors are reimbursed for travel and other expenses directly related to activities as directors.

The following table provides compensation information for our non-employee directors for 2010.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$) ⁽¹⁾	Total (\$)	Total Number of Option Awards Outstanding at December 31, 2010 (#)
Winston Churchill	—	—	13,950	13,950	15,000
Archie Clemins ⁽²⁾	—	—	13,950	13,950	15,000
Doron Cohen ⁽²⁾	—	—	13,950	13,950	15,000
Yaron Eitan	—	—	13,950	13,950	15,000
Jason Epstein	—	—	13,950	13,950	15,000
Joseph T. Gorman ⁽²⁾	—	—	13,950	13,950	15,000
Andrew Intrater	—	—	13,950	13,950	7,500
General (Ret.) Jack Keane ⁽³⁾	—	—	13,950	13,950	165,000
Frank Kline	—	—	13,950	13,950	15,000
Thomas Rebar	—	—	13,950	13,950	15,000
Yair Shamir	—	—	13,950	13,950	15,000

(1) The amounts reflect the amounts recognized in accordance with ASC 718, *Compensation — Stock Compensation*. Assumptions used in the calculation of these amounts are included in Note 17 to our audited financial statements for the year ended December 31, 2010 included in our annual report on Form 10-K for the year ended December 31, 2010.

(2) Messrs. Clemins, Cohen and Gorman are not standing for re-election on June 16, 2011.

(3) General Keane resigned from the Board on March 25, 2011, advising the Company that his resignation was not the result of any disagreement with the Company on any matter relating to the Company's operations, policies or practices.

ELECTION OF DIRECTORS

PROPOSAL NO. 1

The Board of Directors, upon recommendation from the Nominating Committee, has nominated Winston Churchill, Derek Dunaway, Yaron Eitan, Jason Epstein, Andrew Intrater, Frank Kline, John G. Meyer, Jr., Thomas G. Rebar and Yair Shamir for election as directors to serve until the next annual meeting of stockholders or until their successors are elected and shall qualify. Archie Clemins, Doron Cohen and Joseph T. Gorman are not standing for re-election. It is intended that the accompanying proxy will be voted for the election, as directors, of the nine nominees, unless the proxy contains contrary instructions.

The Company has no reason to believe that any of the nominees will not be a candidate or will be unable to serve. However, in the event that any of the nominees should become unable or unwilling to serve as a director, the persons named in the proxy have advised that they will vote for the election of such person or persons as shall be designated by the directors.

If a quorum is present at the annual meeting, the nine nominees for director receiving a plurality of the votes properly cast for the election of directors at the annual meeting will be elected to our Board of Directors.

Our Board of Directors recommends that you vote FOR the election of Winston Churchill, Derek Dunaway, Yaron Eitan, Jason Epstein, Andrew Intrater, Frank Kline, John G. Meyer, Jr., Thomas G. Rebar and Yair Shamir to our Board of Directors.

The following pages set forth the names, ages and director start dates of the nominees to the Board of Directors, their respective principal occupations or brief employment history for the past five years and the names of other publicly-held companies of which each serves or has served as a director during the past five years.

Winston Churchill, 70, has been our Chairman of the Board since May 2006 and was our Secretary from June 2007 through December 2008. Mr. Churchill has been a member of SCP Private Equity Management Company, LLC since 2000. From 1993 to the present he has been the President of CIP Capital Management, Inc., a management company, and Chairman of CIP Capital, Inc., an investment company and a director of both. He is currently a Director of Innovative Solutions and Support, Inc. (NASDAQ: ISSC), a company engaged in the design, manufacture, and sale of flight information computers, flat panel displays, and monitoring systems; Amkor Technology, Inc. (NASDAQ: AMKR), a supplier of semiconductor packaging and test services, Rodman & Renshaw Capital Group (NASDAQ: RODM), a full-service investment bank providing corporate finance, strategic advisory and related services and Griffin Land & Nurseries, Inc. (NASDAQ: GRIF), a real estate and landscape nursery business. Mr. Churchill is a past director (2000 – 2007) of Auxilium Pharmaceuticals, Inc. (NASDAQ: AUXL), a company that develops and commercializes pharmaceutical products for urologic and sexual health disorders. Mr. Churchill holds a B.S. in Physics, Summa Cum Laude, from Fordham University, an MA in Economics from Oxford University, where he was a Rhodes Scholar, and a JD law degree from Yale Law School. Mr. Churchill's extensive leadership, business and financial experience qualify him to serve as a director.

Admiral (Ret.) Archie Clemins, 67, has served as a Director of Cyalume since August 2005 and is not standing for re-election. Admiral Clemins has been President of Caribou Technologies, Inc., an international consulting firm he founded, since January 2000. Since January 2005, he has also been a Venture Partner with Highway 12 Ventures. Admiral Clemins retired from the U.S. Navy in December 1999 after serving as the Commander in Chief of the U.S. Pacific Fleet; previous commands included Command of the U.S. Seventh Fleet, Command of the Pacific Fleet Training Command, Command of Submarine Group Seven and Command of the submarine USS Pogy (SSN 647). Admiral Clemins currently serves on the Board of Directors for Global Crossing, Ltd. (NASDAQ: GLBC), Extended Systems, Inc. (NASDAQ: NTD) and several privately-held companies. Admiral Clemins received a Bachelor's of Science degree and Masters of Science degree from the University of Illinois. Admiral Clemins' business and military leadership experience qualify him to serve as a director.

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Doron Cohen , 58, has served as a Director of Cyalume since August 6, 2007 and is not standing for re-election. Mr. Cohen is the founder and has been a Senior Partner of Doron Cohen & Co. Law Offices since 1985. Mr. Cohen is also a member of the Executive Committee and was Chairman of the Audit Committee from November 2001 to November 2008 of the Weizmann Institute of Science in Israel since 1999. Mr. Cohen serves or has served on various boards of directors of privately-held companies as well as public companies. Mr. Cohen received his LLB from Tel Aviv University. Mr. Cohen's leadership and business experience qualify him to serve as a director.

Derek Dunaway , 41, has been our President and Chief Executive Officer since December 2008. He was a consultant to us from May 2007 until he became the President and Chief Executive Officer of CTI in February 2008. Mr. Dunaway came to us from WNL Associates, where he was a digital media industry consultant involved in due diligence, strategic consulting and fund raising, from 2006 to 2008. Prior to that, from 2000 to 2006, he was the CEO and President of Techonline, a provider of online education and online media services to the electronics industry. Mr. Dunaway holds an M.B.A. from the Wharton School of Business of the University of Pennsylvania and received his B.A. from Southern Methodist University. Mr. Dunaway's experience as a chief executive officer, including serving as President of CTI, qualifies him to serve as a director.

Yaron Eitan , 54, has been our Vice Chairman of the Board since December 2008 and was our Chief Executive Officer and President from May 2006 through December 2008. In 1998, Mr. Eitan founded Selway Partners LLC, a holding company focused on technology investments, and has been its President and Chief Executive Officer since that time. From July 2002 to the present, Mr. Eitan has been a member of SCP Private Equity Management Company, LLC, a private equity and venture capital management company. Mr. Eitan is the Chairman and/or board member of several privately-held technology companies. Mr. Eitan holds an M.B.A. from the Wharton School of Business of the University of Pennsylvania. Mr. Eitan's leadership, business and technology experience qualify him to serve as a director.

Jason Epstein , 37, has been our Director since December 2008. Mr. Epstein has been a Senior Partner of Columbus Nova since 2002. He is currently a Director of Deerfield Capital Corp. (NASDAQ: DFR), a company engaged in investment management and other investing activities. Mr. Epstein received his B.A. from Tufts University in 1996 and currently serves on the Tufts Board of Overseers. Mr. Epstein is one of Cova's two designees to the Board of Directors. We believe that Mr. Epstein's leadership and business experience qualify him to serve as a director.

Joseph T. Gorman , 73, has served as a Director of Cyalume since August 2005 and is not standing for re-election. Mr. Gorman is the retired Chairman and Chief Executive Officer of TRW Inc. (NYSE: TRW), a provider of advanced technology products and services. He joined TRW in 1968, becoming President and Chief Operating Officer in 1985 and serving as Chairman and Chief Executive Officer from December 1988 through January 2001. Mr. Gorman is a past chairman of the U.S.-Japan Business Council and he has also served on the boards of the U.S.-China Business Council and the Prince of Wales International Business Leaders Forum and was a trustee of the Center for Strategic and International Studies. Mr. Gorman currently serves on the Board of Directors of Alcoa, Inc. (NYSE: AA) and is a recently retired Director of Procter & Gamble (NYSE: PG), Imperial Chemical Industries, and National City Corp. (NYSE: NCC). Mr. Gorman received a bachelor's degree from Kent State University and a JD from Yale Law School. Mr. Gorman's leadership, global, business and technology experience qualify him to serve as a director.

Andrew Intrater , 49, has been our Director since September 2009. Mr. Intrater is the CEO and Senior Managing Partner of Columbus Nova and serves on the Executive and Investment Committees for Columbus Nova. Mr. Intrater also serves on the Board of Directors for Deerfield Capital Corp. (NASDAQ: DFR), a company engaged in investment management and other investing activities. Mr. Intrater served on the Board of Directors (2007 – 2011) for HQ Sustainable Maritime Industries, Inc. (AMEX: HQS), an integrated aquaculture and aquatic product processing company, with operations based in China's South Sea. Mr. Intrater completed his B.S. in Chemical Engineering at the Rutgers University College of Engineering and graduate studies in Materials Science at the Columbia University School of Mines. Mr. Intrater is one of Cova's two designees to the Board of Directors. We believe that Mr. Intrater's leadership, global and business experience qualify him to serve as a director.

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Frank R. Kline, 60, has been our Director since December 2008. Mr. Kline founded Los Angeles based venture capital firm Kline Hawkes & Co. in 1994 to manage investment capital for institutional investors, and has been its managing partner since that time. Mr. Kline serves as Managing Partner of Kline Hawkes California, L.P.; Kline Hawkes California SBIC, L.P.; and Kline Hawkes Pacific, L.P. Mr. Kline directs the firm's venture investments in communications, information technology, healthcare services and enterprise solutions. Mr. Kline is currently a member of the boards of several privately-held companies. For many years he served as a member of the Board of Governors for the National Association of Small Business Investment Companies (NASBIC). Mr. Kline received a Bachelor's degree from Rider College and a Masters Degree from the University of Massachusetts at Amherst. Mr. Kline is Kline Hawke's designee to the Board of Directors. We believe that Mr. Kline's leadership, business and financial experience qualify him to serve as a director.

John G. Meyer, Jr., 66, a nominee to the Board of Directors, has been since 2003, a Director of The Allied Defense Group, Inc. (OTCQB: ADGI), a multinational defense business, which prior to the sale of substantially all its assets, was focused on the manufacture and sale of ammunition and ammunition related products for use by the U.S. and foreign governments. He was also the Chief Executive Officer of Heckler & Koch, a German small arms manufacturing company, from June 2005 to August 2007; and the Chief Executive Officer of The Allied Defense Group, Inc. from June 2003 to June 2005. Prior to his business career, Mr. Meyer served in the United States Army as its most senior Public Affairs Officer and retiring as a Major General. Mr. Meyer received a Bachelor's degree from Florida State University and a Masters Degree from Sam Houston State University. Mr. Meyer has proven business acumen, having served as the chief executive officer of several defense industry companies and his military background provides the Board with relevant industry experience which qualify him to serve as a director.

Thomas G. Rebar, 48, has served as our Director since August 2007. Mr. Rebar has served as the chair of our audit committee since January 2009. Mr. Rebar has been a Partner of SCP Private Equity Management, LLC since 1996. Mr. Rebar is currently a Director of several privately-held companies. Mr. Rebar received his B.S. summa cum laude from the University of Scranton and an M.B.A. from New York University Graduate School of Business Administration. Mr. Rebar's leadership, business and financial experience qualify him to serve as a director.

Yair Shamir, 65, has been our Director since December 2008. Mr. Shamir is the Chairman and Managing Partner of Catalyst Investments and the Chairman of IAI, Israeli Aerospace Industries. Mr. Shamir served in the Israeli Air Force as a pilot and commander from 1963 to 1988. During his term in the Air Force, Mr. Shamir attained the rank of colonel and served as head of the electronics department, the highest professional electronics position within the Air Force. He currently serves as a Director of several publicly traded companies such as DSP Group Corporation (NASDAQ: DSGP) since October 1996, Orkit Communications Ltd. (NASDAQ: ORCT) since July 2008 and Commtouch Software Ltd. (NASDAQ: CTCH) since March 2008 and also serves as Director of a few private hi-tech companies. Mr. Shamir holds a B.Sc. Electronics Engineering from the Technion, Israel Institute of Technology. Mr. Shamir's leadership, global, business and military experience qualify him to serve as a director.

Mr. Shamir also served as a member of the Board of Directors of Mercury Interactive, LLC from 1997 to 2005. In September 2008, Mr. Shamir settled a complaint filed by the SEC which alleged that certain independent Directors of Mercury (including Mr. Shamir) recklessly approved backdated stock option grants and reviewed and signed public filings that contained materially false and misleading disclosures about Mercury's stock option grants and company expenses. Without admitting or denying the allegations in the SEC's complaint, in order to settle the charges against them, each of the independent Directors implicated (including Mr. Shamir) agreed to permanent injunctions against violating certain provisions of the securities laws, paid a financial penalty, and retained the ability to serve as a Director or officer of U.S. public companies.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF EACH OF THE ABOVE NOMINEES.

EXECUTIVE OFFICERS

The following sets forth the names and ages of our executive officers, their respective positions and offices, and their respective principal occupations or brief employment history.

Name	Age	Office
Derek Dunaway	41	President and Chief Executive Officer
Michael Bielonko	58	Chief Financial Officer & Secretary
Edgar (Earl) Cranor	53	Vice-President — Technology — CTI

Derek Dunaway 's biological information is provided on page 10 .

Michael Bielonko has been our Chief Financial Officer and Secretary since December 2008 and Chief Financial Officer and Secretary of CTI since January 2006. From 2005 until he joined CTI, he was employed as the Chief Financial Officer of CTM Group, Inc., a New Hampshire based company servicing equipment in malls and at tourist sites. From September 1999 until December 2004, Mr. Bielonko served as the Chief Financial Officer of Omni Facility Services, a New York City based provider of facility maintenance services. Mr. Bielonko served as a Director of Omni Facility Services Canada, Ltd., a Toronto based facility maintenance company from May 2006 to June 2008. Mr. Bielonko has a B.S. and an M.B.A. from the University of Connecticut.

Edgar (Earl) Cranor has been the Vice President — Technology of CTI since January 2006. Previously, he was employed by CTI in a variety of positions, including serving as the Vice President of Research and Development. Mr. Cranor joined CTI in 1993 with the acquisition of the Chemical Light Division of American Cyanamid, where he had served as Director of Operations. Mr. Cranor has a B.S. in Chemical Engineering from Auburn University. He is responsible for nearly all of CTI's current patents.

EXECUTIVE COMPENSATION

Overview

Our “Named Executive Officers” are: Derek Dunaway, who has been President and Chief Executive Officer since December 19, 2008; Michael Bielonko, who has been Chief Financial Officer and Secretary since December 19, 2008; and Edgar (Earl) Cranor, who has been vice President of Technology since January 2006

Compensation Philosophy

The overriding goal of our executive compensation program is to recruit and retain key executives and motivate them to achieve maximum results. To this end, we design and manage our programs with the following objectives in mind:

- Generating significant stockholder value, while practicing good corporate governance,
- Maximizing the alignment between our short-term and long-term results and executive pay, and
- Providing market-competitive compensation, while considering our financial resources.

Administration of Executive Compensation Programs

In January 2009, we formed a Compensation Committee of the Board of Directors comprised of three outside, independent Directors which will administer all compensation programs for its officers, key employees, and outside Directors. This Committee worked with management throughout 2010 to design key compensation policies and programs, as well as sound governance practices, to ensure that our compensation programs reflect best practices and strongly contribute to our growth and success. The named Executive Officers entered into employment agreements during 2009 and 2010.

The compensation for senior executives is comprised of four elements: a base salary, an annual performance bonus, equity awards and benefits. On March 3, 2009, our Board of Directors adopted the 2009 Plan, which applies to employees and Directors, and which is administered by the Compensation Committee. Awards granted pursuant to the 2009 Plan are described below.

In developing salary ranges, potential bonus payouts, equity awards and benefit plans, the Compensation Committee takes into account: 1) competitive compensation among comparable companies and for similar positions in the market, 2) relevant incentives and rewards for senior management for improving stockholder value while building us into a successful company, 3) individual performance, 4) how best to retain key executives, 5) our overall performance, 6) our ability to pay and 7) other relevant factors.

All of our executives were involved in decisions relating to their compensation. We believe that, for the most part, executives believe they are fairly compensated.

Employment Agreements

The following discussion summarizes the material terms of current employment agreements with our Named Executive Officers:

Derek Dunaway Mr. Dunaway’s employment agreement, effective April 1, 2009, provides that Mr. Dunaway will be employed as CTI’s Chief Executive Officer. The contract has an initial term of three years and shall continue for successive one-year periods unless terminated by either party upon 30 days written notice prior to the anniversary/expiration date or terminated pursuant to certain events or for cause. Mr. Dunaway receives an annual base salary of \$350,000, subject to annual adjustments at the sole discretion of the board of directors. Mr. Dunaway is entitled to equity compensation of up to 50,000 shares of restricted stock and 200,000 restricted options subject to the discretion of the board of directors. Annually, Mr. Dunaway is entitled to a cash bonus of up to \$150,000 based on the achievement of revenue targets, EBITDA targets and specific objectives, all determined by the board of directors. Mr. Dunaway is also eligible to receive annually up to an additional 10,000 restricted shares and 20,000 restricted options subject to achieving specific objectives. If Mr. Dunaway voluntarily resigns or is terminated for cause during the period of employment, then he is not entitled to receive any benefit or compensation following the date of termination. If terminated without cause during his initial term, Mr. Dunaway is entitled to severance of an amount equal to his annual

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base salary plus the remainder of compensation due him through the end of his initial term. If terminated without cause subsequently to his initial term, Mr. Dunaway is entitled to receive severance of an amount equal to his annual base salary. If Mr. Dunaway is terminated without cause pursuant to a change in control, he is entitled to receive an amount equal to his annual base salary in addition to his other severance benefits.

Michael Bielonko Mr. Bielonko's employment agreement, effective May 15, 2009, provides that Mr. Bielonko will be employed as CTI's Chief Financial Officer. The contract has an initial term of three years and shall continue for successive one-year periods unless terminated by either party upon 30 days written notice prior to the anniversary/expiration date or terminated pursuant to certain events or for cause. Mr. Bielonko receives an annual base salary of \$220,000, subject to annual adjustments at the sole discretion of the board of directors. Annually, Mr. Bielonko is entitled to a cash bonus of up to 40% of annual base salary based on the achievement of revenue targets, EBITDA targets and specific objectives, all determined by the board of directors. Mr. Bielonko is also eligible to receive annually an equity bonus of up to 50% of annual base pay subject to achieving the same criteria for the cash bonus. If Mr. Bielonko voluntarily resigns or is terminated for cause during the period of employment, then he is not entitled to receive any benefit or compensation following the date of termination. If terminated without cause during his initial term, Mr. Bielonko is entitled to severance of an amount equal to his annual base salary plus the remainder of compensation due him through the end of his initial term. If terminated without cause subsequently to his initial term, Mr. Bielonko is entitled to receive severance of an amount equal to his annual base salary. If Mr. Bielonko is terminated without cause pursuant to a change in control, he is entitled to receive an amount equal to his annual base salary in addition to his other severance benefits.

Earl Cranor Mr. Cranor's employment agreement, effective May 1, 2009, provides that Mr. Cranor will be employed as CTI's Technology Vice President. The contract has an initial term of three years and shall continue for successive one-year periods unless terminated by either party upon 30 days written notice prior to the anniversary/expiration date or terminated pursuant to certain events or for cause. Mr. Cranor receives an annual base salary of \$215,000, subject to annual adjustments at the sole discretion of the board of directors. Mr. Cranor was entitled to equity compensation of up to 40,000 shares of restricted stock and 110,000 restricted options subject to the discretion of the board of directors. Annually, Mr. Cranor is entitled to a cash bonus of up to 45% of annual base salary based on the achievement of revenue targets, EBITDA targets and specific objectives, all determined by the board of directors. Mr. Cranor is also eligible to receive annually up to an additional 4,000 restricted shares and 15,000 restricted options subject to achieving specific objectives. If Mr. Cranor voluntarily resigns or is terminated for cause during the period of employment, then he is not entitled to receive any benefit or compensation following the date of termination. If terminated without cause during his initial term, Mr. Cranor is entitled to severance of an amount equal to his annual base salary plus the remainder of compensation due him through the end of his initial term. If terminated without cause subsequently to his initial term, Mr. Cranor is entitled to receive severance of an amount equal to his annual base salary. If Mr. Cranor is terminated without cause pursuant to a change in control, he is entitled to receive an amount equal to his annual base salary in addition to his other severance benefits.

Employee Benefits Plans

Pension Benefits

We do not sponsor any qualified or non-qualified pension benefit plans.

Nonqualified Deferred Compensation

We do not maintain any non-qualified defined contribution or deferred compensation plans. We sponsor a tax qualified defined contribution 401(k) plan in which employees of CTI who have reached the age of 18 are eligible for participation after completing the earlier of (i) three consecutive months of service or (ii) one year of service may participate.

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Severance Arrangements

Assuming the employment of our named executive officers were to be terminated without cause, each as of December 31, 2010, the following individuals would be entitled to payments in the amounts set forth opposite to their name in the below table:

	Cash Severance	
	No Change in Control	Change in Control
Derek Dunaway	\$ 787,500	\$ 1,137,500
Michael Bielonko	\$ 522,500	\$ 742,500
Earl Cranor	\$ 501,667	\$ 716,667

We are not obligated to make any cash payments to these executives if their employment is terminated by us for cause or by death or disability, other than the payment of accrued but unpaid annual salary and bonus, if any, and reimbursement of accrued but unpaid business expenses

Assuming the employment of our named executive officers were to be terminated without cause or for good reason, each as of December 31, 2010, the following individuals would be entitled to accelerated vesting of their outstanding stock options and common stock awards described in the table below:

	Value of Equity Awards: Termination Without Cause ⁽¹⁾	Value of Equity Awards: In Connection With a Change in Control ⁽¹⁾
Derek Dunaway	\$ 1,029,372	\$ 1,029,372
Michael Bielonko	\$ 212,625	\$ 212,625
Earl Cranor	\$ 708,750	\$ 708,750

(1) The market price of our common stock on the OTCBB on December 31, 2010 was \$4.05 per share.

2010 SUMMARY COMPENSATION TABLE

The following table shows information concerning the annual compensation for services provided to CTI by its Chief Executive Officer and our two other most highly compensated employees during 2010 and 2009.

Name and Principal Position	Year	Salary (\$)	Earned Bonus (\$)	Stock Awards (\$) ⁽¹⁾	Option Awards (\$) ⁽¹⁾	All Other Compensation (\$) ⁽²⁾	Total Compensation (\$)
Derek Dunaway, President & CEO	2010	350,000	150,000	205,125	37,200	12,814	755,139
	2009	311,923	—	297,000	470,000	12,788	1,091,711
Michael Bielonko, CFO Secretary	2010	220,000	88,000	201,525	—	12,162	521,687
	2009	212,385	—	6,000	—	11,573	229,958
Edgar (Earl) Cranor, VP — Technology of CTI	2010	215,000	96,750	144,975	46,500	9,000	512,225
	2009	209,866	—	160,200	223,300	9,000	602,366

(1) In accordance with the Securities and Exchange Commission's changed reporting requirements, we report all equity awards at full grant date fair value of each award calculated in accordance with ASC Topic 718, *Compensation — Stock Compensation*. Previously, we allocated the fair value of equity awards to reporting years in proportion to the awards vesting period. Prior years' equity compensation data have been recalculated in accordance with the new rule. For restricted stock, the fair value per share is equal to the closing price of our stock on the date of the grant. For stock options, the fair value per share is based on certain assumptions included in Note 17 to our audited financial statements for the year ended December 31, 2010 included in our annual report on Form 10-K for the year ended December 31, 2010.

(2) Consists of an automobile and gas allowance.

EQUITY COMPENSATION AWARDS

On March 3, 2009, the Board of Directors authorized the following: 144,000 restricted shares of common stock and 310,000 restricted options to certain of our officers and other members of management. The 2009 Plan was approved by stockholders at the 2009 Annual Meeting of Stockholders and we filed Form S-8 with the SEC to register the shares under the 2009 Plan on August 27, 2009.

On February 4, 2010, the Compensation Committee of the Board of Directors authorized the following: 72,500 restricted shares of common stock and 45,000 restricted options to certain of our officers.

On December 16, 2010, the Compensation Committee of the Board of Directors authorized 107,500 restricted shares of common stock to certain of our officers.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2010

Name	Option Awards					Stock Awards				
	Equity Incentive Plan Awards:					Equity Incentive Plan Awards:				
	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Number of securities underlying unexercised unearned options (#)	Option exercise price (\$)	Option expiration date	Number of shares of stock that have not vested (#)	Market value of shares of stock that have not vested (\$) ⁽¹⁾	Number of unearned shares that have not vested (#)	Market or payout value of unearned shares that have not vested (\$) ⁽¹⁾	
Derek Dunaway	66,667	133,333 ⁽²⁾	—	\$ 3.00	3/3/2019	—	—	—	—	
	—	20,000 ⁽³⁾	—	\$ 3.65	3/3/2020	—	—	—	—	
	—	—	—	—	—	100,833 ⁽⁶⁾	408,374	—	—	
Michael Bielonko	—	—	—	—	—	—	—	—	—	
	—	—	—	—	—	52,500 ⁽⁷⁾	212,625	—	—	
Edgar (Earl) Cranor	27,500	82,500 ⁽⁴⁾	—	\$ 3.93	7/17/2020	—	—	—	—	
	—	25,000 ⁽⁵⁾	—	\$ 3.65	2/4/2020	—	—	—	—	
	—	—	—	—	—	67,500 ⁽⁸⁾	273,375	—	—	

(1) The market price of our common stock (OTCBB: CYLU) on December 31, 2010 was \$4.05 per share.

(2) These options vest in the following increments: 66,667 on 3/3/2011 and 66,666 on 3/3/2012.

(3) These options vest in the following increments: 6,667 on 1/1/2011, 6,667 on 1/1/2012 and 6,666 on 1/1/2013.

(4) These options vest in the following increments: 27,500 on 7/17/2011, 27,500 on 7/17/2012 and 27,500 on 7/17/2013.

(5) These options vest in the following increments: 6,250 on 1/1/2011, 6,250 on 1/1/2012, 6,250 on 1/1/2013 and 6,250 on 1/1/2014.

(6) These restricted shares vest in the following increments: 5,000 on 1/1/2011, 31,667 on 3/3/2011, 17,500 on 1/1/2012, 16,666 on 3/3/2012, 17,500 on 1/1/2013 and 12,500 on 1/1/2014.

(7) These restricted shares vest in the following increments: 8,334 on 1/1/2011, 17,500 on 1/1/2012, 17,500 on 1/1/2013 and 9,166 on 1/1/2014.

(8) These restricted shares vest in the following increments: 3,750 on 1/1/2011, 10,000 on 7/17/2011, 11,250 on 1/1/2012, 10,000 on 7/17/2012, 11,250 on 1/1/2013, 10,000 on 7/17/2013 and 11,250 on 1/1/2014.

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of April 21, 2011, certain information as to the stock ownership of (i) each person known by the Company to own beneficially more than five percent of the Company's Common Stock, (ii) each of the Company's current directors and those nominees standing for election, (iii) each of the Company's named executive officers, and (iv) the Company's named executive officers and directors as a group. Except otherwise set forth in the notes to the table, the business address of each stockholder is c/o the Company, 96 Windsor Street, West Springfield, Massachusetts 01089. Information provided as to 5% stockholders other than our employees or management is based solely on forms 13D or 13G filed with the Securities and Exchange Commission and subsequent issuances by the Company.

Shares of common stock which an individual or group has a right to acquire within 60 days pursuant to the exercise or conversion of options, warrants or other similar convertible or derivative securities are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or group, but are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person shown in the table.

The applicable percentage of ownership is based on 16,743,553 shares outstanding as of April 21, 2011.

Name and Address of Beneficial Owner ⁽¹⁾	Amount and Nature of Beneficial Ownership	Percentage of Common Stock
Winston J. Churchill ⁽²⁾	1,520,790	9.1%
Archie Clemins ⁽³⁾	108,750	*
Doron Cohen ⁽⁴⁾	15,000	*
Derek Dunaway ⁽⁵⁾	358,667	2.1%
Yaron Eitan ⁽⁶⁾	1,122,140	6.7%
Jason Epstein ⁽⁷⁾	15,000	*
Joseph T. Gorman ⁽⁸⁾	108,750	*
Andrew Intrater ⁽⁹⁾	7,500	*
Frank Kline ⁽¹⁰⁾	2,335,816	14.0%
John G. Meyer, Jr. ⁽¹¹⁾	25,000	*
Thomas G. Rebar ⁽¹²⁾	324,006	1.9%
Yair Shamir ⁽¹³⁾	908,866	5.4%
Michael Bielonko ⁽¹⁴⁾	92,956	*
Earl Cranor ⁽¹⁵⁾	254,873	1.6%
Kline Hawkes Pacific Advisors, LLC ⁽¹⁰⁾	2,320,816	13.9%
Cova Small Cap Holdings, LLC ⁽⁷⁾	3,826,721	22.9%
Wellington Management Company, LLP ⁽¹⁶⁾	871,823	5.2%
All Directors and Executive Officers as a group and their affiliates	6,729,365	40.2%

* Less than 1%.

(1) The business address of each of our current officers and Directors is 96 Windsor Street, West Springfield, Massachusetts 01089

(2) Based on information contained in a Schedule 13G filed by Winston Churchill on February 14, 2011. Consists of (i) 1,271,416 shares of common stock held directly, (ii) options to purchase 15,000 shares of common stock held directly and (iii) 234,374 shares of common stock held by SCP Private Equity Management Company, LLC. Winston Churchill, Yaron

Eitan, Thomas G. Rebar and Wayne B. Weisman are joint and equal owners of SCP Private Equity Management Company, LLC, each with equivalent rights as a member therein and each with a pecuniary interest in only 25% of such shares. The business address of SCP Private Equity Management Company, LLC is 1200 Liberty Ridge Drive, Suite 300, Wayne, PA 19087.

- (3) Includes stock options to purchase 15,000 shares of common stock held of record by Mr. Clemins.
- (4) Consists of stock options to purchase 15,000 shares of common stock held of record by Mr. Cohen.
- (5) Consists of: (i) 138,667 shares of common stock, of which 100,833 shares vest in various increments starting on January 1, 2011 and (ii) options to purchase 220,000 shares of common stock, of which 66,667 options vest on March 3, 2011, 66,666 options vest on March 3, 2012 and 20,000 vest in three equal, annual installments beginning January 1, 2011.

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- (6) Based on information contained in a Schedule 13G filed by Yaron Eitan on February 14, 2011. Consists of (i) 677,766 shares of common stock held directly, (ii) options to purchase 15,000 shares of common stock held directly, (iii) 234,374 shares of common stock held by SCP Private Equity Management Company, LLC, (iv) 165,000 shares of common stock held by Selway Capital, LLC, Mr. Eitan is the Manager of Selway Capital, LLC and (v) 30,000 shares of common stock held by Mr. Eitan's children. Yaron Eitan, Winston Churchill, Thomas G. Rebar and Wayne B. Weisman are joint and equal owners of SCP Private Equity Management Company, LLC, each with equivalent rights as a member therein and each with a pecuniary interest in only 25% of such shares.
- (7) Based on information contained in a Schedule 13D/A filed by GMS Acquisition Partners Holdings, LLC, Cova Small Cap Holdings, LLC ("Cova"), Jason Epstein, Andrew Intrater, Renova US Holdings Ltd, Columbus Nova Investments IV Ltd, CN Special Opportunity Fund Ltd. and CN Credit Opportunities Fund 2007-1 Ltd on August 12, 2009, as well as subsequent issuances by us. Mr. Epstein directly holds an option to purchase 15,000 shares of our Common Stock; however, pursuant to a privately negotiated agreement with Cova, Mr. Epstein has agreed to transfer ownership of all common stock underlying the stock option to Cova upon exercise of the stock option. Cova is an affiliate of Renova U.S. Management LLC, in which Mr. Epstein serves as a Manager and participates in a profit sharing plan. Mr. Epstein disclaims beneficial ownership over the 3,826,721 shares of common stock held of record by Cova. Cova may be deemed to own an aggregate of 5,332,367 shares of common stock by virtue of their having entered into in an Investors Rights Agreement with GMS Acquisition Partners Holdings, LLC, an entity controlled by Cova. Andrew Intrater has voting and dispositive power over the shares of common stock held by Cova. Cova's business address is Citigroup Center, 153 E. 53rd St., 58th Floor, New York, NY 10022.
- (8) Includes stock options to purchase 15,000 shares of common stock held of record by Mr. Gorman.
- (9) Consists of a stock option to purchase 7,500 shares of common stock held of record by Mr. Intrater. Cova is an affiliate of Renova U.S. Management LLC, in which Mr. Intrater serves as the Managing Partner and participates in a profit sharing plan. Mr. Intrater disclaims beneficial ownership over the 3,826,721 shares of common stock held of record by Cova.
- (10) Based on information contained in a Schedule 13D/A filed by Frank R. Kline ("Mr. Kline"), Kline Hawkes Pacific Advisors LLC ("KH Advisors"), Kline Hawkes Pacific L.P. and Kline Hawkes Pacific Friends Fund L.P. on January 22, 2009, as well as subsequent issuances by us. Mr. Kline directly holds an option to purchase 15,000 shares of our common stock. As managing member of KH Advisors, Mr. Kline has voting and dispositive power over its 2,320,816 shares of common stock. Mr. Kline and KH Advisors may be deemed to own an aggregate of 3,826,462 shares of common stock by virtue of their having entered into in an Investors Rights Agreement with GMS Acquisition Partners Holdings, LLC, an entity controlled by Cova Small Cap Holdings, LLC.
- (11) Consists of a stock option to purchase 25,000 shares of common stock held of record by Mr. Meyer. Mr. Meyer's business address is 11109 Chessington Place, Reston, VA 20194.
- (12) Includes: (i) options to purchase 15,000 shares of common stock held directly and (ii) 234,374 shares of common stock held of record by SCP Private Equity Management Company, LLC. Mr. Rebar shares voting and dispositive power over the warrants and shares of common stock held by SCP Private Equity Management Company, LLC and has a pecuniary interest in only 25% of such shares.
- (13) Consists of (i) options to purchase 15,000 shares of common stock held directly, (ii) 775,116 shares of common stock owned by Catalyst Private Equity Partners (Israel) II LP, over which Yair Shamir has voting and dispositive power, and (iii) 118,750 warrants to purchase shares of common stock owned by Catalyst Private Equity Partners (Israel) II LP, over which Yair Shamir has voting and dispositive power.
- (14) Consists of 92,956 shares of common stock, of which 52,500 shares vest in various increments starting on January 1, 2011.
- (15) Consists of: (i) 119,873 shares of common stock, of which 67,500 shares vest in various increments starting on January 1, 2011, and (ii) options to purchase 135,000 shares of common stock, of which 25,000 options vest in four equal, annual installments beginning on January 1, 2011 and 82,500 options vest in three equal, annual installments beginning on July 17, 2011.
- (16) Wellington Management is an investment adviser registered under the Investment Advisers Act. Wellington Management, in such capacity, may be deemed to share beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) over the shares held by its client accounts. The business address of Wellington Management is 280 Congress Street, Boston, MA 02210.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Related Party Debt

There are five unsecured notes payable to four stockholders at December 31, 2010.

Four of these notes were entered into December 19, 2008, and are payable to Messrs. Yaron Eitan, Winston Churchill, Thomas Rebar and Wayne Weisman, partners of SCP Private Equity Management Company, LLC (“SCP”), which owns stock in Cyalume and of which three of our Directors are members, in principal amounts of \$150,000, \$650,000, \$100,000 and \$100,000, respectively. Subsequently, on June 10, 2009, Yaron Eitan assigned to Winston Churchill his entire right, title and interest in and to the unsecured promissory note in the amount of \$150,000. Each note bears interest at 6%, which is calculated quarterly and paid in-kind (added to the unpaid principal balance). These notes are payable in one combined installment of \$1.0 million, plus all paid-in-kind interest on June 19, 2014. At December 31, 2010 and 2009, outstanding principal on these notes totaled \$1.1 million and \$1.1 million, respectively.

Management Agreement with Board Member

On October 1, 2009, we entered into a management agreement with Selway Capital, LLC (“Selway”) that provides for (but is not limited to) the following services to be performed by Selway on our behalf:

- Strategic development and implementation as well as consultation with our chief executive officer on a regular basis as per his reasonable requests;
- Identifying strategic partnerships with companies with which Selway has relationships and access, including building partnerships with companies in Israel, Singapore, India and Europe. The focus will be on the expansion of our munitions business;
- Advise and support us investor relations strategy;
- Advise and support future fund raising, including identifying sources of capital in the United States; and
- Support our mergers and acquisitions strategy and play an active role in due diligence and analysis.

The management agreement stipulated that these services would be performed by Yaron Eitan, an employee of Selway and a member of our Board of Directors, with assistance, as needed, from other employees of Selway. The management agreement was retroactive to August 1, 2009, expires on October 1, 2012 and could be terminated by either us or Selway upon 30-days written notice or upon our default in payment or Selway’s failure to perform services under the management agreement. Under the management agreement, we indemnified Selway and Selway indemnified us against certain losses that could have been incurred while carrying out its obligations under the management agreement. Through July 2010, Selway’s compensation for these services was \$41,667 per month. However, we were only required to pay \$16,000 per month, with the balance of \$25,667 per month remaining unpaid until our senior lender consented to such payment. We also reimbursed Selway for costs incurred specifically on our behalf for these services.

Additionally, Selway was able to earn a \$210,000 bonus, payable in cash or common stock at the discretion of our Board of Directors. That bonus for the year ended December 31, 2009 was approved by our Board of Directors on March 17, 2010 and is reflected in the 2009 consolidated financial statements. Accordingly, 60,000 shares of common stock, valued at \$210,000, were issued to Selway in 2010 for this bonus.

On July 29, 2010 we amended our management agreement (the “Amended Management Agreement”) with Selway. Pursuant to the Amended Management Agreement, (i) the compensation payable to Selway was reduced to \$11,667 and (ii) we issued to Selway 45,000 shares of common stock in full satisfaction of all accrued and unpaid liabilities (including all management fees) owed to Selway pursuant to the management agreement through July 2010. Those 45,000 shares were issued in July 2010. There is no provision for an additional bonus in the Amended Management Agreement. Other terms and conditions of the management agreement remained unchanged.

It is Company’s policy to not enter any transaction (other than compensation arrangements in the ordinary course) with any director, executive officer, employee, or principal stockholder or party related to them, unless authorized by a majority of the directors having no interest in the transaction, upon a favorable recommendation by the Audit Committee (or a majority of its disinterested members).

REPORT OF THE AUDIT COMMITTEE

The Audit Committee assists the Board of Directors in providing oversight of the systems and procedures relating to the integrity of the Company's financial statements, the Company's financial reporting process, its systems of internal accounting and financial controls, the annual independent audit process of the Company's annual financial statements, the Company's compliance with legal and regulatory requirements and the qualification and independence of the Company's independent registered public accounting firm. Management has the responsibility for the implementation of these activities. In fulfilling its oversight responsibilities, the Audit Committee reviewed and discussed with management the audited financial statements in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, including a discussion of the quality and the acceptability of the Company's financial reporting and controls.

The Company's independent registered public accounting firm is responsible for expressing an opinion on the conformity of those audited financial statements with U.S. generally accepted accounting principles and on the effectiveness of the Company's internal control over financial reporting. With respect to the audit of Company's financial statements for the year ended December 31, 2010, the Audit Committee has reviewed and discussed the audited financial statements with management; has discussed with Company's independent accountants the matters required to be discussed by the Statement on Auditing Standards No. 61, as amended (AICPA, Professional Standards, Vol. 1, AU section 380), as adopted by the Public Company Accounting Oversight Board in Rule 3200T; and has received the written disclosures and the letter from the independent accountant required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant's communications with the Audit Committee concerning independence and has discussed with the independent accountant the independent accountant's independence.

Based on these reviews and discussions, the Audit Committee recommended to the Board of Directors that the audited financial statements be included in the company's annual report on Form 10-K for the fiscal year ended December 31, 2010. The Audit Committee also reappointed CCR LLP as the Company's independent registered public accounting firm for fiscal 2011.

The members of the Audit Committee are: Thomas Rebar (Chairman), Joseph Gorman and Yair Shamir.

RATIFICATION OF INDEPENDENT AUDITORS

PROPOSAL NO. 2

The Audit Committee has appointed CCR LLP as independent auditors to audit the financial statements of the Company for the year-ending December 31, 2011, and the Board of Directors is asking stockholders to ratify that appointment.

A representative of CCR LLP is expected to be present at the Annual Meeting, with the opportunity to make a statement, if he or she desires to do so, and is expected to be available to respond to appropriate questions.

The Audit Committee is not required to take any action as a result of the outcome of the vote on this proposal. In the event stockholders fail to ratify the appointment, the Audit Committee will reconsider this appointment. Even if the appointment is ratified, the Audit Committee, in its discretion, may direct the appointment of a different independent accounting firm at any time during the year if the Audit Committee determines that such a change would be in the Company's and the stockholders' best interests.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE RATIFICATION OF THE APPOINTMENT OF CCR LLP AS CYALUME'S INDEPENDENT AUDITORS FOR THE YEAR ENDING DECEMBER 31, 2011.

Principal Accountant Fees and Services

CCR LLP audited our consolidated financial statements for the years ended December 31, 2010 and 2009. CCR LLP is our principal accountant as of December 31, 2010.

	2010	2009
Audit fees ⁽¹⁾	\$ 228,000	\$ 260,000
Audit-related fees ⁽²⁾	3,000	—
Tax fees ⁽³⁾	—	—
All other fees ⁽⁴⁾	—	—
Total fees	\$ 231,000	\$ 260,000

(1) Audit fees were primarily related to our financial statement audits, related quarterly reviews and review of various SEC Forms filed during the period.

(2) Fees billed for audit-related services in 2010 were \$3,000. There were no fees for audit-related services provided in 2009.

(3) There were no tax related services provided during the period.

(4) There were no other services provided during the period.

Pre-Approval Policies and Procedures

In accordance with the SEC's auditor independence rules, the Audit Committee has established the following policies and procedures by which it approves in advance any audit or permissible non-audit services to be provided to us by our independent auditor:

- Prior to the engagement of the independent auditors for any year's audit, management submits to the Audit Committee for approval lists of recurring audit, audit-related, tax and other services expected to be provided by the independent auditors during that year. The Audit Committee adopts pre-approval schedules describing the recurring services that it has pre-approved, and is informed on a timely basis, and in any event by the next scheduled meeting, of any such services rendered by the independent auditor and the related fees.
- The fees for any services listed in a pre-approval schedule are budgeted, and the Audit Committee requires the independent auditor and management to report actual fees versus the budget periodically throughout the year. The Audit Committee will require additional pre-approval if circumstances arise where it becomes necessary to engage the independent auditor for additional services above the amount of fees originally pre-approved. Any audit or non-audit

service not listed in a pre-approval schedule must be separately pre-approved by the Audit Committee on a case-by-case basis.

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- Every request to adopt or amend a pre-approval schedule or to provide services that are not listed in a pre-approval schedule must include a statement by the independent auditors as to whether, in their view, the request is consistent with the SEC's rules on auditor independence. All of the services described under the caption Principal Accountant Fees and Services were pre-approved.
- The Audit Committee will not grant approval for:
 - any services prohibited by applicable law or by any rule or regulation of the SEC or other regulatory body applicable to us;
 - provision by our independent auditors of strategic consulting services of the type typically provided by management consulting firms; or
 - the retention of the independent auditors in connection with a transaction initially recommended by the independent auditors, the tax treatment of which may not be clear under the Internal Revenue Code and related regulations and which it is reasonable to conclude will be subject to audit procedures during an audit of our financial statements.
- Tax services proposed to be provided by the auditor to any of our directors, officers or employees who is in an accounting role or financial reporting oversight role must be approved by the Audit Committee on a case-by-case basis where such services are to be paid for by us, and the Audit Committee will be informed of any services to be provided to such individuals that are not to be paid for by us.
- In determining whether to grant pre-approval of any non-audit services in the "all other" category, the Audit Committee will consider all relevant facts and circumstances, including the following four basic guidelines:
 - whether the service creates a mutual or conflicting interest between the auditor and us;
 - whether the service places the auditor in the position of auditing his or her own work;
 - whether the service results in the auditor acting as management or an employee of ours; and
 - whether the service places the auditor in a position of being an advocate for us.

OTHER MATTERS

General

Management does not know of any matters other than those stated in this Proxy Statement that are to be presented for action at the Annual Meeting. If any other matters should properly come before the Annual Meeting, it is intended that proxies in the accompanying form will be voted on any such other matters in accordance with the judgment of the persons voting such proxies. Discretionary authority to vote on such matters is conferred by such proxies upon the persons voting them.

We will bear the cost of preparing, printing, assembling and mailing the proxy, Proxy Statement and other material which may be sent to stockholders in connection with this solicitation. It is contemplated that brokerage houses will forward the proxy materials to beneficial owners at our request. In addition to the solicitation of proxies by use of the mails, our officers and regular employees may solicit proxies without additional compensation, by telephone, facsimile or other electronic communications. We may reimburse brokers or other persons holding stock in their names or the names of their nominees for the expenses of forwarding soliciting material to their principals and obtaining their proxies.

A copy of our Annual Report on Form 10-K for the year ended December 31, 2010 (as filed with the SEC) including the financial statements thereto, is being provided with the proxy statement. Requests for additional copies should be directed to Michael Bielonko, CFO, c/o Cyalume Technologies Holdings, Inc., 96 Windsor Street, West Springfield, Massachusetts 01089. Proxy materials are also available on the Company website at: <http://investor.cyalume.com/annual-proxy.cfm> .

Communications with the Board of Directors

The Board of Directors maintains a process for stockholders to communicate with the Board of Directors. Stockholders wishing to communicate with the Board of Directors or any individual director must mail a communication addressed to the Board of Directors or the individual director to the Board of Directors, c/o Cyalume Technologies Holdings, Inc., 96 Windsor Street, West Springfield, Massachusetts 01089. Any such communication must state the number of shares of common stock beneficially owned by the stockholder making the communication. All such communications will be forwarded to the full Board of Directors or to any individual director or directors to whom the communication is directed unless the communication is clearly of a marketing nature or is unduly hostile, threatening, illegal, or similarly inappropriate, in which case the Company has the authority to discard the communication or take appropriate legal action regarding the communication.

Where You Can Find More Information

We file annual, quarterly and current reports, proxy statements and other documents with the SEC under the Exchange Act. Our SEC filings made electronically through the SEC's EDGAR system are available to the public at the SEC's website at <http://www.sec.gov> . You may also read and copy any document we file with the SEC at the SEC's public reference room located at 100 F Street, NE, Room 1580, Washington, DC 20549. Please call the SEC at (800) SEC-0330 for further information on the operation of the public reference room.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics that applies to our directors, officers and employees, including our Chief Executive Officer and Chief Financial Officer (our principal executive officer and principal financial and accounting officer, respectively). A copy of the Code of Ethics is available on our website, www.cyalume.com .

Changes in Director Nomination Process for Stockholders

There were no changes in the director nomination process from January 1, 2010 through the present.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our executive officers, directors and persons who beneficially own more than 10% of a registered class of our equity securities to file with the SEC initial reports of ownership and reports of changes in ownership of our common stock and other equity securities. Such executive officers, directors, and greater than 10% beneficial owners are required by SEC regulation to furnish us with copies of all Section 16(a) forms filed by such reporting persons.

Based solely on our review of such forms furnished to us and written representations from certain reporting persons, we believe that all stockholders have complied with all filing requirements applicable to 10% beneficial owners during the year-ended December 31, 2010, except that Yaron Eitan and Andrew Intrater filed two reports that were not timely with respect to five and two transactions, respectively, and Winston Churchill, Archie Clemins, Doron Cohen, Jason Epstein, Joseph T. Gorman, General (Ret.) Jack Keane, Thomas G. Rebar, Yair Shamir, Michael Bielonko and Derek Dunaway each filed one report that was not timely, each with respect to one transaction.

STOCKHOLDER PROPOSALS AT THE NEXT ANNUAL MEETING

The annual meeting of stockholders for the year ending December 31, 2011 is expected to be held in June 2012. Any stockholder proposal intended to be included in the Company's proxy statement and form of proxy for presentation at the 2012 annual meeting of stockholders pursuant to Rule 14a-8 ("Rule 14a-8"), as promulgated under the Securities Exchange Act of 1934, must be received by the Company not later than January 12, 2012. As to any proposals submitted for presentation at the next annual meeting outside the processes of Rule 14a-8, the proxies named in the form of proxy for the next annual meeting will be entitled to exercise discretionary authority on that proposal unless the Company receives notice of the matter on or before March 27, 2012.

By Order of the Board of Directors,

/s/ Derek Dunaway

Chief Executive Officer and President

April 28, 2011

ANNUAL MEETING OF STOCKHOLDERS OF
CYALUME TECHNOLOGIES HOLDINGS, INC.

JUNE 16, 2011

NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL:

The Notice of Meeting, Proxy Statement and Proxy Card are available at:
investor.cyalume.com/annual-proxy.cfm

Please sign, date and mail your proxy card in the envelope provided promptly.

THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF DIRECTORS AND "FOR" PROPOSAL 2.

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE

This Proxy is Solicited on Behalf of the Board of Directors

The undersigned hereby appoints Derek Dunaway or Michael Bielonko, individually, as proxy to represent the undersigned at the Annual Meeting of Stockholders to be held at the offices of Loeb & Loeb LLP, 345 Park Avenue, New York, NY 10154 on June 16, 2011 at 9:00 a.m., local time, and at any adjournments thereof, and to vote the shares of Common Stock the undersigned would be entitled to vote if personally present, as indicated below.

1. ELECTION OF DIRECTORS:

NOMINEES:

- | | | |
|---|--|--|
| <input type="checkbox"/> FOR ALL NOMINEES

<input type="checkbox"/> WITHHOLD AUTHORITY FOR ALL NOMINEES

<input type="checkbox"/> FOR ALL EXCEPT (See instructions below) | <ul style="list-style-type: none"> ◦ Winston Churchill ◦ Yaron Eitan ◦ Andrew Intrater ◦ John G. Meyer, Jr. ◦ Yair Shamir | <ul style="list-style-type: none"> ◦ Derek Dunaway ◦ Jason Epstein ◦ Frank Kline ◦ Thomas G. Rebar |
|---|--|--|

INSTRUCTIONS: To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the circle next to each nominee you wish to withhold, as shown here: ●

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 2. RATIFICATION OF INDEPENDENT AUDITORS | FOR | AGAINST | ABSTAIN |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If any other business is presented at the meeting, this proxy will be voted by those named in this proxy in their best judgment. At the present time, the Board of Directors knows of no other business to be presented at the meeting.

The shares of Common Stock represented by this proxy, when properly executed, will be voted as directed; however, abstentions will have no effect on the election of directors (Item 1). Abstentions will be treated as being present and entitled to vote on the other Items presented at the annual meeting. If you do not provide your broker or other nominee with instructions on how to vote your "street name" shares, your broker or nominee will not be permitted to vote them on non-routine matters (a broker "non-vote") such as Item 1. Shares subject to a broker "non-vote" will not be considered entitled to vote with respect to Item 1, and will not affect the outcome on that Item. Brokers may not vote your shares on the election of directors in the absence of your specific instructions as to how to vote. We encourage you to provide instructions to your broker regarding the voting of your shares.

Signature of Stockholder _____ Date _____
Signature of Stockholder _____ Date _____

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer, giving full title as such. If signer is a partnership, please sign in partnership name by authorized person.
