

CYALUME TECHNOLOGIES HOLDINGS, INC.

FORM DEF 14A (Proxy Statement (definitive))

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**UNITED STATES
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

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:

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(1) Amount previously paid:

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

(3) Filing Party:

(4) Date Filed:

TABLE OF CONTENTS

CYALUME TECHNOLOGIES HOLDINGS, INC.

TABLE OF CONTENTS

	Page
Notice of Annual Meeting of Stockholders	1
Proxy Statement	2
Election of Directors (Proposal No. 1)	3
The Board and Board Committees	7
Director Compensation	10
Executive Officers	11
Executive Compensation Discussion and Analysis	12
2009 Summary Compensation Table	16
Equity Compensation Awards	17
Outstanding Equity Awards at December 31, 2009	17
Securities Ownership	18
Certain Relationships and Related Transactions	21
Report of the Audit Committee	22
Ratification of Selected Independent Auditor (Proposal No. 2)	23
Other Matters	25
Section 16(a) Beneficial Ownership Reporting Compliance	26
Stockholder Proposals	26

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

CYALUME TECHNOLOGIES HOLDINGS, INC.

96 Windsor Street
West Springfield, Massachusetts 01089

To be held June 17, 2010

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 17, 2010 at 9:00 a.m. local time at the offices of Loeb & Loeb LLP, 345 Park Avenue, New York, NY 10154. The meeting is called for the following purpose:

1. To elect a board of eleven directors;
2. To ratify the appointment of CCR LLP as the independent auditors of the Company for the fiscal year ending December 31, 2010; 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 27, 2010 has been fixed as the record date for the determination of stockholders entitled to notice of, and to vote at, the 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 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. 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>.

By Order of the Board of Directors,



Derek Dunaway
President, Chief Executive Officer

Dated: April 30, 2010

CYALUME TECHNOLOGIES HOLDINGS, INC.

96 Windsor Street

West Springfield, Massachusetts 01089

PROXY STATEMENT

ANNUAL MEETING OF STOCKHOLDERS

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 17, 2010, 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.

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.”

The approximate date on which this Proxy Statement and the accompanying form of proxy will first be mailed to the Company’s stockholders is May 11, 2010.

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.

VOTING SECURITIES

Only holders of shares of common stock, \$.001 par value per share (the “Shares”), of record at the close of business on April 27, 2010 are entitled to vote at the meeting. On the record date, the Company had outstanding and entitled to vote 15,583,737 Shares. For purposes of voting at the meeting, each Share is entitled to one vote upon all matters to be acted upon at the meeting. A majority in interest of the outstanding Shares represented at the meeting in person or by proxy shall constitute a quorum. The affirmative vote of a plurality of the votes present in person or represented by proxy at the Annual Meeting and entitled to vote on the election of directors is required for the election of our directors. The affirmative vote of a majority of the votes present in person or represented by proxy at the Annual Meeting and entitled to vote is required to ratify the appointment of CCR LLP, independent certified public accountants, as our independent auditors.

Any Shares not voted (whether by abstention, broker non-vote or otherwise) will have no impact on the election of directors, except to the extent that the failure to vote for any individual may result in another individual’s receiving a larger proportion of votes. Abstaining from voting on the ratification of CCR LLP is equivalent to a vote against such proposals but broker non-votes do not affect the outcomes of the votes on such proposal. Except for determining the presence or absence of a quorum for the transaction of business, broker non-votes are not counted for any purpose in determining whether a matter has been approved.

VOTING

If you are a stockholder of record, you may vote in person at the annual meeting. We will give you a ballot when you arrive. If you do not wish to vote in person or you will not be attending the annual meeting, you may vote by proxy. If you received a printed copy of these proxy materials by mail, you may vote by proxy using the enclosed proxy card. To vote by proxy using the enclosed proxy card (only if you received a printed copy of these proxy materials by mail), complete, sign and date your proxy card and return it promptly in the envelope provided.

If you vote by proxy, your vote must be received by 12:00 a.m. Eastern Time on June 17, 2010 to be counted.

If you are not a stockholder of record, please follow the directions provided to you by your bank or broker. If you wish to vote in person at the meeting, please contact your bank or broker to learn the procedures necessary to allow you to vote your shares in person.

ELECTION OF DIRECTORS

PROPOSAL NO. 1

The Board of Directors has nominated the current eleven directors for re-election as directors to serve until the next Annual Meeting of Stockholders or until their successors are elected and shall qualify. It is intended that the accompanying proxy will be voted for the election, as directors, of the eleven persons named below, 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.

The following pages set forth the names, ages and director start dates of the eleven nominees for re-election 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, 69, has been our Chairman of the Board since May 31, 2006 and was our Secretary from June 22, 2007 through December 19, 2008. Mr. Churchill is also a member of the Board of Directors of Cyalume Technologies, Inc. (“CTI”), a wholly-owned subsidiary of the Company. Since 1996, Mr. Churchill has been a member of SCP Private Equity Management, LLC. From 1993 to the present he has been the Co-Chairman of CIP Capital Management, Inc., a management company, and a Director of CIP Capital, Inc., an investment company. 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.

Yaron Eitan, 53, has been our Vice Chairman of the Board since December 19, 2008 and was our Chief Executive Officer and President from May 31, 2006 through December 19, 2008. Mr. Eitan is also a member of the Board of Directors of CTI. Mr. Eitan founded Selway Partners LLC; a holding company focused on technology investments, in 1998 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. From 1989 to 1998, Mr. Eitan was the Chief Executive Officer of Geotek Communications, Inc., a wireless technology and services company. Mr. Eitan is the Chairman of the Board of DVTel, Inc., a software and hardware provider of IP-centric solutions for the protection of assets and facilities, the Chairman of STI, a provider of education data management solutions, Magnolia Broadband, a developer of semiconductors for the wireless industry and the first company to provide mobile transmit diversity technology and XVionics, Inc. a global provider of integrated, combat-proven enterprise resource planning and operations management systems. 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.

Admiral (Ret.) Archie Clemins, 66, has been our Director since August 2005. 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).

TABLE OF CONTENTS

Admiral Clemins currently serves on the Board of Directors for Global Crossing, Ltd. (NASDAQ: GLBC), Extended Systems, Inc., Healthwise, the Software Revolution and Advanced Electron Beams. Admiral Clemins received a Bachelors of Science degree and Masters of Science degree from the University of Illinois. Admiral Clemins's leadership and military experience qualify him to serve as a director.

Thomas G. Rebar, 47, has served as our Director since August 6, 2007. Mr. Rebar has been a Partner of SCP Private Equity Management, LLC since 1996. Mr. Rebar is currently a Director of several companies, including Magnolia Broadband and Pentech Financial Services, Inc. Prior to joining SCP, Mr. Rebar was a Senior Vice President at Charterhouse Inc. from 1989 to 1996, the U.S. investment banking arm of Charterhouse PLC, a U.K. merchant bank. Before joining Charterhouse, Mr. Rebar was a member of the corporate finance department at Bankers Trust Company from 1987 to 1989. 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.

Doron Cohen, 56, has served as our Director since August 6, 2007. 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 is Chairman of the Audit Committee of the Weizmann Institute of Science in Israel since 1999. Mr. Cohen received his LLB from Tel Aviv University. Mr. Cohen's leadership and business experience qualify him to serve as a director.

Joseph T. Gorman, 72, has served as our Director since August 2005. 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 received Japan's 1994 Prime Minister's Trade Award for his contributions to promoting improved U.S.-Japan trade relations. 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 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.

Jason Epstein, 36, has been our Director since December 19, 2008 and is also a Director of CTI, a position held since 2007. Mr. Epstein has been a Senior Partner of Columbus Nova Partners since 2002. Cova Small Cap Holdings LLC is a subsidiary of Columbus Nova Partners. Mr. Epstein is a member of Columbus Nova's Executive and Investment Committees and co-leads Columbus Nova's three primary investment vehicles: Columbus Nova Credit Investment Managers ("CNCI"), CN Private Equity and Columbus Nova Real Estate Acquisition Group. Prior to Columbus Nova, Mr. Epstein co-founded eLink Communications and served as its Chief Executive Officer for three years from 1998 to 2001. While at eLink, Mr. Epstein was twice a finalist for the Ernst & Young Entrepreneur of the Year Award and was named one of the "Forty Under 40 Rising Stars", by The Washington Post's annual Business Forward. Mr. Epstein received his B.A. from Tufts University in 1996 and currently serves on the Tufts Board of Overseers. Mr. Epstein's leadership and business experience qualify him to serve as a director.

Frank R. Kline, 59, has been our Director since December 19, 2008 and is also a Director of CTI, a position held since January 23, 2006. 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. Some of Kline Hawkes' largest limited partners include CalPERS, LA County, and Pennsylvania State Employees'. 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. Prior to forming Kline Hawkes & Co., Mr. Kline was the West Coast General Manager of Lambda Funds, a private equity fund based in New York and Los Angeles. Earlier, he was a Partner at Pacific Technology Venture Fund, which he co-founded with Patrick J. McGovern, founder of IDG and publisher of

TABLE OF CONTENTS

Computerworld. Mr. Kline is currently a member of the boards of Rayne Corporation and CaseStack, Inc. 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, Lawrenceville, N.J. in 1972 and a Masters Degree from the University of Massachusetts at Amherst in 1974. Mr. Kline's leadership, business and financial experience qualify him to serve as a director.

Yair Shamir, 64, has been our Director since December 19, 2008. Mr. Shamir is the Chairman and Managing Partner of Catalyst Investments and the Chairman of IAI, Israeli Aerospace Industries. From 2004 – 2005, Mr. Shamir was Chairman of El Al, Israeli Airlines and lead the privatization process of the firm. From 1997 – 2005 Served as Chairman and CEO of VCON Telecommunications Ltd. From 1995 to 1997, Mr. Shamir served as Executive Vice President of the Challenge Fund-Etgar L.P. From 1994 to 1995, he served as Chief Executive Officer of Elite Food Industries, Ltd. From 1988 to 1993, Mr. Shamir served as Executive Vice President and General Manager of Scitex Corporation, Ltd. 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 the company'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.

General (Ret.) Jack Keane, 67, has been our Director and a Director of CTI since December 19, 2008. General Keane is the Senior Managing Director and co-founder of Keane Advisors, LLC. He has been elected to the Board of Directors of MetLife (NYSE: MET), General Dynamics Corp (NYSE: GD) and Allied Barton Security. He is a senior advisor to Kohlberg, Kravis and Roberts, one of the nation's largest private equity firms and is an advisor to the Chairman & CEO of URS Corporation. He is also a member of the Secretary of Defense's Policy Board, a trustee of the Rand Corporation, a member of the Council on Foreign Relations, Director of the George C. Marshall Foundation, Chairman of the Knollwood Foundation and chairman of Senior Executive Committee, Army Aviation Association of America. General Keane, a four-star general, completed 37 years in public service in December 2003, culminating as acting Chief of Staff and Vice Chief of Staff of the US Army. As the chief operating officer of the Army for 4.5 years, he directed one million five hundred thousand soldiers and civilians in 120 countries, with an annual operating budget of 110 billion dollars. General Keane was in the Pentagon on 9/11 and provided oversight and support for the wars in Afghanistan and Iraq. He serves as a national security analyst for ABC News and speaks throughout the nation on national security and leadership. Still active in national security, General Keane conducts frequent trips to Iraq for senior defense officials having completed multiple visits in 2007 and 2008. General Keane is a career paratrooper, a combat veteran of Vietnam, deco-rated for valor, who spent much of his military life in operational commands where his units were employed in Somalia, Haiti, Bosnia and Kosovo. He commanded the famed 101st Airborne Division (Air Assault) and the legendary 18th Airborne Corps, the Army's largest war fighting organization. General Keane graduated from Fordham University with a Bachelor of Science degree in Accounting and a Master of Arts degree in Philosophy from Western Kentucky University. He is a graduate of the Army War College and the Command and General Staff College. General Keane's leadership, military and business experience qualify him to serve as a director.

TABLE OF CONTENTS

Andrew Intrater, 47, has been our Director since September 1, 2009. Mr. Intrater is the CEO and Senior Managing Partner of Columbus Nova and serves on the Executive and Investment Committees for Columbus Nova. Prior to joining Columbus Nova, from 1985 to 2000, Mr. Intrater served as President and Chief Operating Officer of Oryx Technology Inc., a scientific test equipment and advanced materials design and manufacturing company. Mr. Intrater is still a significant shareholder and serves as a member of their Board of Directors. Mr. Intrater also serves on the Board of Directors for HQ Sustainable Maritime Industries, Inc. (AMEX: HQS), an integrated aquaculture and aquatic product processing company, with operations based in the environmentally pristine island province of Hainan, 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's leadership, global and business experience qualify him to serve as a director.

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

THE BOARD AND BOARD COMMITTEES

During the year ended December 31, 2009, the Board of Directors met five times and took action by written consent on three occasions. All of the directors attended more than 75% of the meetings except for Mr. Epstein. 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 Messrs. Churchill, Eitan, Clemins, Gorman, Rebar, Cohen, Shamir, Keane, Kline, Epstein, Intrater, and are each independent directors as defined in Rule 5605(a)(2) of the Listing Rules of the NASDAQ Stock Market LLC (the "Listing Rules").

On August 20, 2009, Daniel Gaspar resigned for personal reasons from the Board of Directors and the Audit Committee. Mr. Gaspar held one of two director positions assigned to Cova Small Cap Holdings, LLC ("Cova") that were obtained by Cova in the acquisition of Cyalume Technologies, Inc. on December 19, 2008. Under the investor rights agreement, the holders of Cova's investment have the right to nominate two persons for election to the Board of Directors as long as Cova owns 12.5% of the outstanding stock of the Company. On September 1, 2009, the Board of Directors approved Mr. Andrew Intrater joining the Board of Directors as Mr. Gaspar's replacement to join Jason Epstein, who is the other member of the Board of Directors nominated by Cova.

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

(1) Chairman of the Board of Directors

C Committee Chair

M Committee Member

Audit Committee. On January 13, 2009, the Board of Directors formed an Audit Committee 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 seven meetings during 2009.

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 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 adopted a

TABLE OF CONTENTS

written charter on March 3, 2009, to set forth the responsibilities, authority and specific duties of the Audit Committee. The Audit Committee charter is available on our website, www.cyalume.com.

Nominating Committee. On January 13, 2009, the Board of Directors formed a Nominating Committee and adopted a written charter on that date. 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 charter is available to security holders on our website, www.cyalume.com. The Nominating Committee held one meeting during 2009.

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. 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 CTI 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’s 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. 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.

TABLE OF CONTENTS

Compensation Committee. On January 13, 2009, the Board of Directors formed a Compensation Committee and adopted a written charter on that date. Serving on the Compensation Committee are Yaron Eitan, Admiral 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 during 2009. 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 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.

Executive Committee. On January 13, 2009, the Board of Directors formed an Executive Committee. Yaron Eitan (Chairman), Winston Churchill, Jason Epstein, Frank Kline and General Jack Keane serve on this committee. The Executive Committee exercises the powers of the Board between meetings of the full Board of Directors. The Executive Committee met three times during 2009.

Military Advisory Committee. On January 13, 2009, the Board of Directors formed a Military Advisory Committee. General Jack Keane, Admiral Archie Clemins, Yair Shamir and Yaron Eitan serve on this committee. The Military Advisory Committee did not formally meet during 2009 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 Company are held by different persons. The chairman of the Board, an independent director, chairs Board and stockholder meetings and participates in preparing their agendas. The chairman of the Board also calls, plans, and chairs the independent directors' executive sessions and serves as a focal point for communication between management and the Board between Board 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 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 2009 was to provide each Director with an award of 7,500 options to purchase common stock at \$4.80 per share as compensation for services rendered in 2009. General Keane also received an award of 150,000 options to purchase common stock at \$3.50 per share as compensation for additional services rendered in 2009. 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 2009.

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$) ⁽³⁾	Total (\$)	Total Number of Option Awards at December 31, 2009 Year-End (#)
Winston Churchill	—	—	8,025	8,025	7,500
Yaron Eitan	—	—	8,025	8,025	7,500
Archie Clemins	—	—	8,025	8,025	7,500
Thomas Rebar	—	—	8,025	8,025	7,500
Doron Cohen	—	—	8,025	8,025	7,500
Joseph T. Gorman	—	—	8,025	8,025	7,500
Jason Epstein	—	—	8,025	8,025	7,500
Frank Kline	—	—	8,025	8,025	7,500
Yair Shamir	—	—	8,025	8,025	7,500
General (Ret.) Jack Keane	—	—	118,371	118,371	157,500
Andrew Intrater ⁽¹⁾	—	—	—	—	—
Daniel Gaspar ⁽²⁾	—	—	8,025	8,025	7,500

(1) Andrew Intrater was appointed to serve as our director on September 1, 2009.

(2) Daniel Gaspar served as our director from December 19, 2008 until his resignation on August 20, 2009.

(3) 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, 2009 included in our annual report on Form 10-K for the year ended December 31, 2009.

On February 4, 2010, each Director received an award of 7,500 options to purchase common stock at \$3.65 per share as compensation for services rendered in 2010.

CTI did not pay its Directors any compensation other than the repayment of expenses incurred in performing their functions as a Director.

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	40	President and Chief Executive Officer
Michael Bielonko	57	Chief Financial Officer & Secretary
Edgar (Earl) Cranor	52	Vice-President — Technology — CTI
Thomas McCarthy	53	Vice-President — Government & Military Divisions — CTI
Tomas Ogas	53	Vice-President — Operations — CTI

Derek Dunaway has been our President and Chief Executive Officer since December 19, 2008. He was a consultant to us from May 2007 until he became the President and Chief Executive Officer of CTI on February 29, 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, of which SCP Partners and Selway Partners were majority stockholders (Techonline was considered to be a portfolio company of both Selway and SCP). In 2000 he was the Vice President of Business Development for Selway Partners. 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.

Michael Bielonko has been our Chief Financial Officer and Secretary since December 19, 2008 and Chief Financial Officer and Secretary of CTI since January 23, 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 23, 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.

Thomas McCarthy has been the Vice President — Government & Military Division of CTI since 1998. Mr. McCarthy joined CTI upon his retirement from the military. Mr. McCarthy is a Lieutenant Colonel (retired) with 20 years distinguished service in the U.S. Army. His last position was as Battalion Commander. Mr. McCarthy has a B.A. in International Relations from Cornell University and an M.S. in Business Administration from Boston University. Mr. McCarthy is a graduate of the Command and General Staff College and has a Masters in Military Arts and Sciences from the School of Advanced Military Studies.

Tomas Ogas has been the Vice President — Operations of CTI since May 1, 2007. From 1979 to 2007, Mr. Ogas was employed by Pitney Bowes, Inc., where he served as a director of operations for Latin America.

EXECUTIVE COMPENSATION DISCUSSION AND ANALYSIS

Overview

Our named Executive Officers are: Derek Dunaway, who has been President and Chief Executive Officer since December 19, 2008 and had been a consultant to us from May 2007 through February 2008, and Michael Bielonko, who has been Chief Financial Officer and Secretary since December 19, 2008.

CTI's named Executive Officers are: Mr. Dunaway, who has been the President and Chief Executive Officer since February 2008 and Mr. Bielonko, who has been the Treasurer, Secretary and Chief Financial Officer since January 2006.

CTI's Key Employees are: Edgar (Earl) Cranor, who been Vice President of Technology since January 2006, Thomas McCarthy, who has been Vice President of Government Sales since January 2006 and Tomas Ogas who has been CTI's Vice President of Operations since May 2007.

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 2009 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 two named Executive Officers and three Key Employees all entered into employment agreements during 2009.

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 Cyalume 2009 Omnibus Securities and Incentive Plan for employees and Directors, which is administered by the Compensation Committee. Awards granted pursuant to the stock incentive 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 CTI 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 Executive Officers and Key Employees:

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

TABLE OF CONTENTS

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 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.

Thomas McCarthy Mr. McCarthy's employment agreement, effective May 15, 2009, provides that Mr. McCarthy will be employed as CTI's Government Sales 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. McCarthy receives an annual base salary of \$210,000, subject to annual adjustments at the sole discretion of the board of directors. Annually, Mr. McCarthy is entitled to a cash bonus of up to 30% of annual base salary based on the achievement of revenue targets, EBITDA targets and specific objectives, all determined by the board of directors. Mr. McCarthy is also eligible to receive annually an equity bonus of up

TABLE OF CONTENTS

to 10% of annual base pay subject to achieving the same criteria for the cash bonus. If Mr. McCarthy 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. McCarthy 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. McCarthy is entitled to receive severance of an amount equal to his annual base salary. If Mr. McCarthy 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.

Tomas Ogas Mr. Ogas's employment agreement, effective May 15, 2009, provides that Mr. Ogas will be employed as CTI's Operations 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. Ogas receives an annual base salary of \$200,000, subject to annual adjustments at the sole discretion of the board of directors. Annually, Mr. Ogas is entitled to a cash bonus of up to 25% of annual base salary based on the achievement of revenue targets, EBITDA targets and specific objectives, all determined by the board of directors. Mr. Ogas is also eligible to receive annually an equity bonus of up to 10% of annual base pay subject to achieving the same criteria for the cash bonus. If Mr. Ogas 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. Ogas 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. Ogas is entitled to receive severance of an amount equal to his annual base salary. If Mr. Ogas 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.

Severance Arrangements

Assuming the employment of our named executive officers were to be terminated without cause, each as of December 31, 2009, 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	\$ 1,137,500	\$ 1,487,500
Michael Bielonko	\$ 742,500	\$ 962,500
Earl Cranor	\$ 716,667	\$ 931,667
Thomas McCarthy	\$ 708,750	\$ 918,750
Tomas Ogas	\$ 675,029	\$ 875,029

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.

TABLE OF CONTENTS

Assuming the employment of our named executive officers were to be terminated without cause or for good reason, each as of December 31, 2009, 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	\$ 1,001,650	\$ 1,001,650
Michael Bielonko	\$ 57,764	\$ 57,764
Earl Cranor	\$ 537,675	\$ 537,675
Thomas McCarthy	\$ 3,350	\$ 3,350
Tomas Ogas	\$ 12,921	\$ 12,921

(1) The market price of our common stock on the OTCBB on December 31, 2009 was \$3.35 per share.

2009 SUMMARY COMPENSATION TABLE

The following table shows information concerning the annual compensation for services provided to CTI by its Chief Executive Officer, the Chief Financial Officer and our three other most highly compensated employees during 2009, 2008 and 2007.

Name and Principal Position	Year	Salary (\$)	Earned Bonus (\$)	Stock Awards (\$) ⁽⁴⁾	Option Awards (\$) ⁽⁵⁾	All Other Compensation (\$) ⁽⁶⁾	Total Compensation (\$)
Derek Dunaway, President & CEO ⁽¹⁾	2009	311,923	—	79,085	36,260	12,788	440,056
	2008	202,803	50,000	12,000	—	10,866	275,669
	2007	—	—	—	—	—	—
Michael Bielonko, Chief Financial Officer and Secretary ⁽²⁾	2009	212,385	—	55,637	—	11,573	279,595
	2008	203,846	30,000	6,000	—	13,502	253,348
	2007	173,077	70,000	—	—	11,060	254,137
Edgar (Earl) Cranor, Vice President – Technology of CTI	2009	209,866	—	43,800	7,131	9,000	269,797
	2008	203,750	30,000	3,000	—	9,000	245,750
	2007	181,612	127,750	—	—	—	309,362
Thomas McCarthy, Vice President – Government Sales of CTI	2009	206,193	—	—	—	9,000	215,193
	2008	203,846	30,000	3,000	—	88,931 ⁽⁷⁾	325,777
	2007	152,769	81,310	—	—	9,000	243,079
Tomas Ogas, Vice President – Operations of CTI ⁽³⁾	2009	200,000	—	10,428	—	12,623	223,051
	2008	194,904	30,000	3,000	—	13,891	241,795
	2007	113,754	46,663	—	—	6,000	166,417

(1) Mr. Dunaway became our President and CEO on December 19, 2008. Mr. Dunaway was appointed as the President and CEO of CTI on February 21, 2008.

(2) Mr. Bielonko became our CFO and Secretary on December 19, 2008. Mr. Bielonko has been CFO and Secretary of CTI since January 23, 2006.

(3) Mr. Ogas joined CTI on May 1, 2007.

(4) The amounts in this column reflect the fair value for unrestricted and restricted stock determined by using the grant date closing price for the common stock.

(5) 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, 2009 included in our annual report on Form 10-K for the year ended December 31, 2009.

(6) Consists of an automobile and gas allowance.

(7) In addition to the automobile and gas allowance, it includes expenses incurred in connection with Mr. McCarthy's approximate one-year relocation to Europe.

EQUITY COMPENSATION AWARDS

On March 3, 2009, the Board of Directors authorized the following: 114,000 restricted shares of common stock and 200,000 restricted options to certain of our officers and other members of management. The Plan was approved by shareholders at the 2009 Annual Meeting of Shareholders and we filed Form S-8 with the SEC to register the shares under the Plan on August 27, 2009.

On February 4, 2010, the Compensation Committee of the Board of Directors authorized the following: 35,100 restricted shares of common stock and 45,000 restricted options to certain of our officers.

OUTSTANDING EQUITY AWARDS AT DECEMBER 31, 2009

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 ⁽²⁾	133,333	\$ 3.00	3/3/2019	—	—	—	—
	—	10,000 ⁽³⁾	—	\$ 3.65	3/3/2020	—	—	—	—
	—	—	—	—	—	55,667 ⁽⁵⁾	186,484	33,333	111,666
Michael Bielonko	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	17,243 ⁽⁶⁾	57,764	—	—
Edgar (Earl) Cranor	—	27,500 ⁽²⁾	82,500	\$ 3.93	7/17/2020	—	—	—	—
	—	7,500 ⁽⁴⁾	—	\$ 3.65	2/4/2020	—	—	—	—
	—	—	—	—	—	13,000 ⁽⁷⁾	43,550	30,000	100,500
Thomas McCarthy	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	1,000 ⁽⁸⁾	3,350	—	—
Tomas Ogas	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	3,857 ⁽⁹⁾	12,921	—	—

(1) The market price of our common stock (OTCBB: CYLU) on December 31, 2009 was \$3.35 per share.

(2) These options vest on 3/3/2010.

(3) These options vest in the following increments: 3,334 on 1/1/2011, 3,333 on 1/1/2012 and 3,333 on 1/1/2013.

(4) These options vest in the following increments: 1,875 on 1/1/2011, 1,875 on 1/1/2012, 1,875 on 1/1/2013 and 1,875 on 1/1/2014.

(5) These restricted shares vest in the following increments: 4,000 on 2/4/2010, 31,667 on 3/3/2010, 1,667 on 1/1/2011, 15,000 on 3/3/2011, 1,667 on 1/1/2012 and 1,666 on 1/1/2013.

(6) These restricted shares vest in the following increments: 2,000 on 2/4/2010, 5,081 on 1/1/2011, 5,081 on 1/1/2012 and 5,081 on 1/1/2013.

(7) These restricted shares vest in the following increments: 1,000 on 2/4/2010, 10,000 on 7/17/2010, 500 on 1/1/2011, 500 on 1/1/2012, 500 on 1/1/2013 and 500 on 1/1/2014.

(8) These restricted shares vest on 2/4/2010.

(9) These restricted shares vest in the following increments: 1,000 on 2/4/2010, 953 on 1/1/2011, 952 on 1/1/2012 and 952 on 1/1/2013.

TABLE OF CONTENTS

SECURITIES OWNERSHIP

The following table sets forth, as of April 27, 2010, 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 directors, (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 shareholder is c/o the Company, 96 Windsor Street, West Springfield, Massachusetts 01089. Information provided as to 5% shareholders 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 15,583,737 shares outstanding as of April 27, 2010.

Name and Address of Beneficial Owner ⁽¹⁾	Amount and Nature of Beneficial Ownership	Approximate Percentage of Common Stock
Winston J. Churchill ⁽²⁾	1,747,190	11.21%
Yaron Eitan ⁽³⁾	1,241,040	7.96%
Derek Dunaway ⁽⁴⁾	334,000	2.14%
Michael Bielonko	68,373	*
Earl Cranor ⁽⁵⁾	119,873	*
Thomas McCarthy	42,373	*
Tomas Ogas	11,000	*
Archie Clemins	108,750	*
Joseph T. Gorman	108,750	*
Thomas G. Rebar ⁽⁶⁾	547,906	3.52%
Doron Cohen	15,000	*
Yair Shamir ⁽⁷⁾	908,866	5.83%
General (Ret.) Jack Keane	165,000	1.06%
Frank Kline ⁽⁸⁾	2,335,816	14.99%
Jason Epstein ⁽⁹⁾	15,000	*
Andrew Intrater ⁽¹⁰⁾	7,500	*
Kline Hawkes Pacific Advisors, LLC ⁽⁸⁾	2,320,816	14.89%
Cova Small Cap Holdings, LLC ⁽⁹⁾	3,826,721	24.56%
Stanford Financial Group, Ltd ⁽¹¹⁾	1,018,230	6.53%
Wellington Management Company, LLP ⁽¹²⁾	1,070,500	6.87%
Nicusa Capital Partners, L.P. ⁽¹³⁾	795,549	5.10%
All Directors and Executive Officers as a group and their affiliates	6,718,125	43.11%

* Less than 1%.

- (1) The business address of each of our officers and directors is 96 Windsor Street, West Springfield, Massachusetts 01089.
- (2) Consists of (i) 1,196,784 shares of common stock held directly, (ii) options to purchase 17,500 shares of common stock held directly and (iii) 532,906 shares of common stock held by SCP Private Equity Management Company, LLC. 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.

TABLE OF CONTENTS

- (3) Consists of (i) 633,134 shares of common stock held directly, (ii) options to purchase 15,000 shares of common stock held directly, (iii) 60,000 shares of common stock held by Selway Capital, LLC, an entity solely owned by Mr. Eitan, and (iv) 532,906 shares of common stock held by SCP Private Equity Management Company, LLC. 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. The business address of SCP Private Equity Management Company, LLC is 1200 Liberty Ridge Drive, Suite 300, Wayne, PA 19087.
- (4) Consists of: (i) 114,000 shares of common stock, of which 50,000 shares vest in three equal installments beginning March 3, 2010, subject to the Company's achievement of certain performance objectives determined by the Company's Board of Directors, and 15,000 vest in three equal installments beginning January 1, 2011, and (ii) options to purchase 220,000 shares of common stock, of which 200,000 options vest in three equal installments beginning March 3, 2010 and 20,000 vest in three equal installments beginning January 1, 2011.
- (5) Consists of: (i) 67,373 shares of common stock, of which 15,000 shares vest in four equal installments beginning January 1, 2011, and (ii) options to purchase 52,500 shares of common stock, of which 25,000 options vest in four equal installments beginning January 1, 2011.
- (6) Consists of: (i) options to purchase 15,000 shares of common stock held directly and (ii) 532,906 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.
- (7) 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.
- (8) 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 LLC on January 22, 2009, as well as subsequent issuances by the Company. Mr. Kline directly holds an option to purchase 15,000 shares of the Company's 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 7,955,815 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.
- (9) 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 the Company. Mr. Epstein directly holds an option to purchase 15,000 shares of the Company's 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 7,955,815 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.
- (10) Includes a stock option to purchase 7,500 shares of common stock held of record by Mr. Intrater, however, pursuant to a privately negotiated agreement with Cova, Mr. Intrater 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. 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.
- (11) Based on information contained in a Schedule 13G filed by Stanford Financial Group Ltd. on October 6, 2008. Includes warrants to purchase up to 498,230 shares of our common stock which became exercisable upon our acquisition of CTI. James M. Davis has voting and dispositive power over the

TABLE OF CONTENTS

shares of our common stock owned by Stanford Financial Group. The business address of Stanford Financial Group Ltd. is No. 11 Pavilion Drive, St. John's, Antigua — Barbuda, West Indies.

(12)Based on information contained in a Schedule 13G filed by Wellington Management Company, LLP on February 12, 2010. The business address of Wellington Management Company, LLP is 75 State Street, Boston, MA 02109.

(13)Based on information contained in a Schedule 13G filed by Nicusa Capital Partners, L.P. on February 16, 2010. The business address of Nicusa Capital Partners, L.P. is 17 State Street, Suite 1650 New York, N.Y. 10004.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Related Party Debt

There are five unsecured notes payable to four stockholders at December 31, 2009.

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 is a stockholder 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, 2009 and 2008, outstanding principal on these notes totaled \$1.1 million and \$1.0 million, respectively.

Management Agreement with Board Member

On October 1, 2009, we entered into a Management Agreement with Selway Capital, LLC (“Selway”), an entity that is solely owned by Yaron Eitan, the Vice-Chairman of our Board of Directors. Mr. Eitan and two other of our Directors are members of SCP, a stockholder. The agreement 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 to our chief executive officer on a regular basis as per his reasonable requests;
- Identifying strategic partners with companies with which Selway has relationships and access. In this connection, Selway will focus on building partnerships with companies in Israel, Singapore, India and Europe. The focus will be on the expansion of our munitions business;
- Advice related to our investor relations strategy;
- Advice related to our 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 our due diligence and analysis.

The Management Agreement stipulates that these services will be performed by Yaron Eitan, with assistance as needed from other employees of Selway and consultants. The Management Agreement is retroactive to August 1, 2009, expires on October 1, 2012 and can 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. Selway’s compensation for these services will be \$41,666.67 per month for the duration of the Management Agreement. However, we are only required to pay \$11,000 per month through January 31, 2010 with the balance of \$31,666.67 per month remaining unpaid until our senior lender consents to such payment. Additionally, Selway can earn a \$210,000 bonus, payable in cash or our common stock at the discretion of our Board of Directors. That bonus was approved by our Board of Directors on March 17, 2010 and paid to Selway, in common stock, in April 2010. We will also reimburse Selway for costs incurred specifically on our behalf for these services. Under the Management Agreement, we indemnify Selway and Selway indemnifies us against certain losses that may be incurred while carrying out its obligations under the Management Agreement.

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 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, 2009, 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, 2009, 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, 2009. The Audit Committee also reappointed CCR LLP as the Company's independent registered public accounting firm for fiscal 2010.

AUDIT COMMITTEE

Thomas Rebar, Chairman
Joseph Gorman
Yair Shamir

RATIFICATION OF INDEPENDENT AUDITORS

PROPOSAL NO. 2

The Audit Committee has appointed CCR as independent auditors to audit the financial statements of the Company for the year-ending December 31, 2010, and the Board of Directors is asking stockholders to ratify that appointment.

A representative of CCR 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, 2010.

Principal Accountant Fees and Services

CCR LLP audited our consolidated financial statements for the years ended December 31, 2009 and 2008. CCR LLP also audited the Predecessor (CTI) for the period from January 1, 2008 to December 19, 2008. CCR LLP is our principal accountant as of December 31, 2009. Miller, Ellin and Company LLP was our principal accountant in 2008 until December 19, 2008.

	2009		2008	
	CCR LLP	CCR LLP	Miller, Ellin and Company	
Audit fees ⁽¹⁾	\$ 260,000	\$ 382,000	\$ 13,000	
Audit-related fees ⁽²⁾	—	3,000	—	
Tax fees ⁽³⁾	—	—	—	
All other fees ⁽⁴⁾	—	—	—	
Total fees	\$ 260,000	\$ 350,000	\$ 350,000	

(1) Audit fees were primarily related to our financial statement audits, related quarterly reviews and review of various SEC Forms. CCR LLP for 2008 includes \$32,000 related to CTI financial statements audits.

(2) Audit-related services principally include advice on compliance with Sarbanes-Oxley.

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

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

Change in the Company's Principal Accountant

On December 19, 2008, we engaged CCR as its principal accountant and dismissed Miller Ellin from that role. The change in accountants was approved by the Board of Directors of the Company and did not result from any dissatisfaction with the quality of professional services rendered by Miller Ellin.

Miller Ellin served as our independent public accountant from July 23, 2007 until December 19, 2008. During such period, there were no disagreements with Miller Ellin on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures. The audit report on our financial statements as of and for the periods ended December 31, 2007 and the related statements of income, stockholders' equity and cash flows for the years ended December 31, 2007 and the period from July 19, 2005 (inception) to December 31, 2007 did not contain any adverse opinion or disclaimer of opinion, nor were any qualified or modified as to uncertainty, audit scope, or accounting principles.

During the year-ended December 31, 2007 and in the subsequent interim period, we did not consult with CCR regarding (i)

the application of accounting principles to a specific completed or contemplated transaction,

TABLE OF CONTENTS

or the type of audit opinion that might be rendered on our consolidated financial statements and no written or oral advice was provided by CCR that was an important factor considered by us in reaching a decision as to any accounting, auditing or financial reporting issue or (ii) any matter that was either the subject of a disagreement or event, as set forth in Item 304(a)(1)(iv) or Item 304(a)(1)(v) of Regulation S-K.

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.

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 meeting. If any other matters should properly come before the 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, 2009 (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 Derek Dunaway, 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 changes in the director nomination process from January 1, 2009 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 shareholders have complied with all filing requirements applicable to 10% beneficial owners during the year-ended December 31, 2009, except that Winston Churchill filed four reports that were not timely, General (Ret.) Jack Keane filed three reports that were not timely, Yaron Eitan and Yair Shamir filed two reports that were not timely and Archie Clemins, Thomas G. Rebar, Doron Cohen, Joseph T. Gorman, Jason Epstein, Daniel Gaspar, Derek Dunaway and Michael Bielonko each filed one report that was not timely.

STOCKHOLDER PROPOSALS

The Annual Meeting of Stockholders for the year ending December 31, 2010 is expected to be held in June 2011. Any stockholder proposal intended to be included in the Company's proxy statement and form of proxy for presentation at the 2010 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 December 31, 2010. As to any proposals submitted for presentation at the Annual Meeting outside the processes of Rule 14a-8, the proxies named in the form of proxy for the Annual Meeting will be entitled to exercise discretionary authority on that proposal unless the Company receives notice of the matter on or before April 16, 2011.

By Order of the Board of Directors,



Derek Dunaway
Chief Executive Officer and President

April 30, 2010

ANNUAL MEETING OF STOCKHOLDERS OF
CYALUME TECHNOLOGIES HOLDINGS, INC.

JUNE 17, 2010

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 17, 2010 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 | ◦ Winston Churchill | ◦ Yaron Eitan |
| | | ◦ Archie Clemins | ◦ Thomas G. Rebar |
| | <input type="checkbox"/> WITHHOLD AUTHORITY FOR ALL NOMINEES | ◦ Doron Cohen | ◦ Joseph T. Gorman |
| | | ◦ Jason Epstein | ◦ Frank Kline |
| | | ◦ Yair Shamir | ◦ Andrew Intrater |
| | <input type="checkbox"/> FOR ALL EXCEPT (See instructions below) | ◦ General (Ret.) Jack Keane | |

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 and, therefore, will have the effect of votes against such proposals. 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. Please note that this year the rules regarding how brokers may vote your shares have changed. Brokers may no longer 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 Shareholder _____ Date _____

Signature of Shareholder _____ 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.
