

GLOWPOINT, INC.
Form 424B5
September 16, 2014

Prospectus Supplement
(To prospectus dated January 22, 2013)

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-185739

Glowpoint, Inc.

\$8,000,000 Common Stock

We have entered into a sales agreement with MLV & Co. LLC, or MLV, relating to shares of our common stock, par value \$0.0001 per share, offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$8,000,000 from time to time through MLV acting as agent.

Our common stock is listed on the NYSE MKT under the symbol "GLOW." The last reported sale price of our common stock on the NYSE MKT on September 15, 2014 was \$1.34 per share. The aggregate market value of our common stock held by non-affiliates is approximately \$25.3 million based on the closing price of such common stock on the NYSE MKT of \$1.34 per share on September 15, 2014. We have not sold any shares of our common stock during the 12-month period preceding the date of this prospectus supplement.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus will be made by any method that is deemed an "at the market offering" as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, including by means of ordinary brokers' transactions at market prices, in block transactions or as otherwise agreed by MLV and us. MLV will act as sales agent using its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the NYSE MKT. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

We will pay MLV a commission for its services in acting as agent in the sale of our common stock equal to 3% of the gross proceeds from each sale of shares sold through it under the sales agreement. In connection with the sale of common stock on our behalf, MLV may be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of MLV may be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution with respect to certain liabilities, including liabilities under the Securities Act.

Investing in our common stock involves significant risks. See "Risk Factors" on page S-3 of this prospectus supplement and in our periodic reports filed with the Securities and Exchange Commission and incorporated by reference herein for a discussion of the material risks you should consider before making an investment in our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is September 16, 2014.

TABLE OF CONTENTS
PROSPECTUS SUPPLEMENT

	Page
ABOUT THIS PROSPECTUS SUPPLEMENT	S-1
SUMMARY	S-2
RISK FACTORS	S-3
CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS	S-3
USE OF PROCEEDS	S-4
PLAN OF DISTRIBUTION	S-4
LEGAL MATTERS	S-5
EXPERTS	S-5
WHERE YOU CAN FIND MORE INFORMATION	S-5

PROSPECTUS

	Page
ABOUT THIS PROSPECTUS	4
GLOWPOINT, INC	5
RISK FACTORS	5
CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS	5
THE SECURITIES WE AND THE SELLING STOCKHOLDERS MAY OFFER	6
USE OF PROCEEDS	7
SELLING STOCKHOLDERS	7
DESCRIPTION OF OUR CAPITAL STOCK	9
DESCRIPTION OF WARRANTS	15
DESCRIPTION OF UNITS	16
LEGAL OWNERSHIP OF SECURITIES	17
PLAN OF DISTRIBUTION	20
LEGAL MATTERS	23
EXPERTS	24
WHERE YOU CAN FIND MORE INFORMATION	24

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, including the documents incorporated by reference herein, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to this prospectus supplement, we are referring to both parts of this document combined. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus, all information incorporated by reference herein and therein, as well as the additional information described under “Where You Can Find More Information” on page S-5 of this prospectus supplement. These documents contain information you should consider when making your investment decision. This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent that any statement that we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference therein, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference therein. You should not assume that the information appearing in this prospectus supplement, the accompanying prospectus or information we previously filed with the Securities and Exchange Commission, or the SEC, and incorporated by reference herein is accurate as of any date other than their respective dates, even though this prospectus supplement and any accompanying prospectus is delivered or shares of our common stock are sold on a later date. Our business, financial condition, results of operations and prospects may have changed since those dates.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectuses we may provide to you in connection with this offering. We have not, and MLV has not, authorized any other person to provide you with any information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

SUMMARY

This summary highlights selected information concerning our business and this offering of shares of our common stock. It is not complete and does not contain all of the information that may be important to you and your investment decision. The following summary is qualified in its entirety by the more detailed information and consolidated financial statements and notes thereto included elsewhere or incorporated by reference into this prospectus supplement and the accompanying prospectus. You should carefully read this entire prospectus supplement and the accompanying prospectus, including the information incorporated by reference herein and therein, and should consider, among other things, the matters set forth in “Risk Factors” before making an investment decision. References to the terms “Glowpoint,” the “Company” and “we,” “us,” “our” or similar terms, refer to Glowpoint, Inc. and its subsidiaries on a consolidated basis, unless we state or the context implies otherwise.

The Company

We are a provider of video collaboration services and network solutions. Our services enable our customers to use videoconferencing as an efficient and effective method of communication for their business meetings. Our customers include Fortune 1000 companies, along with small and medium enterprises in a variety of industries. We market our services globally through a multi-channel sales approach that includes direct sales and channel partners.

Glowpoint was formed as a Delaware corporation in May 2000. In October 2012, we acquired Affinity VideoNet, Inc., or Affinity, a service provider for public videoconference suites and managed videoconferencing. Our principal executive office is located at 1776 Lincoln Street, Suite 1300, Denver, Colorado 80203 and our telephone number is (303) 640-3838. Our website can be found at www.glowpoint.com. The information on our website is not a part of this prospectus supplement.

The Offering

Common stock offered	Shares of our common stock having an aggregate offering price of up to \$8,000,000.
Manner of offering	“At the market offering” that may be made from time to time on the NYSE MKT or other market for our common stock in the United States through our agent, MLV. See the section entitled “Plan of Distribution” below.
Use of proceeds	We expect to use the net proceeds from any sale of shares of common stock offered by this prospectus supplement for general corporate purposes, which may include capital expenditures, improvement in working capital and the payment or reduction of outstanding indebtedness.
Risk factors	Investing in our common stock involves significant risks. See “Risk Factors” on page S-3 of this prospectus supplement and in our periodic reports filed with the SEC and incorporated by reference herein for a discussion of the material risks you should consider before making an investment in our common stock.
NYSE MKT symbol	GLOW

RISK FACTORS

An investment in shares of our common stock involves significant risks. Before you decide to invest in shares of our common stock, you should consider carefully all of the information in this prospectus supplement and the accompanying prospectus, including the risks and uncertainties described below, as well as other information included in or incorporated by reference into this prospectus supplement and the accompanying prospectus, particularly the specific risk factors discussed in the sections titled “Risk Factors” contained in our filings with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, before deciding whether to invest in shares of our common stock. Any of these risks could have a material adverse effect on our business, prospects, financial condition and results of operations. In any such case, the trading price of our common stock could decline and you could lose all or part of your investment.

Management may invest or spend the proceeds of this offering in ways with which you may not agree and in ways that may not yield a return to our stockholders.

We will retain broad discretion over the use of proceeds from this offering. We expect to use the net proceeds from this offering for general corporate purposes, which may include capital expenditures, improvement in working capital and the payment or reduction of outstanding indebtedness. A number of variables will influence our actual use of the proceeds from this offering, and our actual uses of the proceeds of this offering may vary substantially from our currently planned uses. Management could choose to spend the net proceeds from this offering in ways in which stockholders may not deem desirable, or in ways that do not improve our operating results or result in a significant return or any return at all for our stockholders.

Our stockholders will experience dilution as a result of this offering and they may experience further dilution if we issue additional common stock.

The issuance of common stock in this offering will have a dilutive effect on our earnings per share. Any additional future issuances of common stock will reduce the percentage of our common stock owned by investors purchasing shares in this offering who do not participate in those future issuances. Stockholders generally will not be entitled to vote on whether or not we issue additional common stock. In addition, depending on the terms and pricing of an additional offering of our common stock and the value of our properties, our stockholders may experience dilution in both the book value and fair value of their shares.

CAUTIONARY STATEMENT REGARDING FORWARD LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein contain statements that are considered forward-looking statements within the meaning of Section 27A of the Securities Act and its rules and regulations and Section 21E of the Exchange Act and its rules and regulations. These forward-looking statements include, but are not limited to, statements about our plans, objectives, expectations and intentions. All statements other than statements of current or historical fact contained in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein, including statements regarding our future financial position, business strategy, budgets, projected costs and plans and objectives of management for future operations, are forward-looking statements. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan” and similar expressions, as they relate to Glowpoint, are intended to identify forward-looking statements. These statements are based on our current plans, and our actual future activities and results of operations may be materially different from those set forth in the forward-looking statements. These forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from the statements made. Any or all of the forward-looking statements in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein may turn out to be inaccurate. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business

strategy and financial needs. The forward-looking statements can be affected by inaccurate assumptions or by known or unknown risks, uncertainties and assumptions. There are important factors that could cause actual results to differ materially from those expressed or implied by these

S-3

forward-looking statements, including our plans, objectives, expectations and intentions and other factors that are discussed under the section entitled “Risk Factors.” We undertake no obligation to publicly revise these forward-looking statements to reflect events occurring after the date hereof. All subsequent written and oral forward-looking statements attributable to Glowpoint or persons acting on its behalf are expressly qualified in their entirety by the cautionary statements contained in this prospectus supplement.

Forward-looking statements in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein include, among other things: our ability to meet commercial commitments; our projection of revenue, expenses and cash flows; estimated 2014 principal payments on our debt arrangements; our ability to service debt obligations and fund operations; our ability to raise capital in private placements or otherwise; our beliefs about inflation; statements about businesses increasingly seeking out managed services and hosted, cloud-based infrastructure to support and power their user community and video technologies; our beliefs about the service offerings of our competitors and our ability to differentiate Glowpoint’s services; beliefs about the strength of our patents and pending patents; and our plans to seek acquisition opportunities that complement and expand Glowpoint’s current business.

USE OF PROCEEDS

We expect to use the net proceeds from any sale of shares of common stock offered by this prospectus supplement for general corporate purposes, which may include capital expenditures, improvement in working capital and the payment or reduction of outstanding indebtedness. As of June 30, 2014, we had outstanding borrowings under our senior secured term loan facility and our revolving loan facility of \$9,000,000 and \$197,000, respectively. Borrowings under our senior secured term loan facility and our revolving loan facility bear interest at 12% and 8%, respectively, per annum and mature on October 17, 2018 and October 17, 2015, respectively. In addition, as of June 30, 2014, we had \$1,885,000 outstanding under our promissory note issued to Shareholder Representative Services LLC for the benefit of the prior stockholders of Affinity in connection with the acquisition of Affinity, which note bears interest at 10% per annum and matures on January 4, 2016.

PLAN OF DISTRIBUTION

We have entered into an At Market Issuance Sales Agreement, or the sales agreement, with MLV & Co. LLC, or MLV, under which we may issue and sell shares of our common stock having aggregate sales proceeds of up to \$8.0 million from time to time on the NYSE MKT or other market for our common stock in the United States through MLV acting as agent. The form of the sales agreement will be filed as an exhibit to a report filed under the Exchange Act and incorporated by reference in this prospectus supplement. MLV may sell the common stock by any method that is deemed to be an “at the market offering” as defined in Rule 415 promulgated under the Securities Act, including by means of ordinary brokers’ transactions at market prices, in block transactions or as otherwise agreed by MLV and us. We may instruct MLV not to sell our common stock if the sales cannot be effected at or above the price designated by us from time to time. We or MLV may suspend the offering of our common stock upon notice and subject to other conditions. As an agent, MLV will not engage in any transactions that stabilize the price of our common stock.

We will pay MLV commissions for its services in acting as agent in the sale of our common stock. MLV will be entitled to compensation at a commission rate equal to 3% of the gross sales price per share sold. Because there is no minimum offering amount required as a condition to closing this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time.

We estimate that the total expenses for the offering, excluding compensation payable to MLV under the terms of the sales agreement, will be approximately \$135,000. In addition, we have agreed to reimburse certain expenses of MLV in connection with this offering up to a maximum of \$25,000.

Settlement for sales of our common stock will occur on the third business day following the date on which any sales are made, or on some other date that is agreed upon by us and MLV in connection with a particular

S-4

transaction, in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

MLV will act as sales agent on a commercially reasonable efforts basis consistent with its normal trading and sales practices. In connection with the sale of the common stock on our behalf, MLV may, and will with respect to sales effected in an “at the market offering,” be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of MLV may be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to MLV against certain civil liabilities, including liabilities under the Securities Act.

The offering pursuant to the sales agreement will terminate upon the earlier of (i) the issuance and sale of all shares of our common stock subject to the sales agreement, or (ii) the termination of the sales agreement as permitted therein.

Our common stock is listed on the NYSE MKT and trades under the symbol “GLOW.” The transfer agent of our common stock is American Stock Transfer & Trust Company, LLC.

LEGAL MATTERS

Certain legal matters with respect to the validity of the securities offered under this prospectus supplement will be passed upon for us by Davis Graham & Stubbs LLP, Denver, Colorado. Certain legal matters will be passed upon for MLV by LeClairRyan, A Professional Corporation, New York, New York.

EXPERTS

The consolidated balance sheets of Glowpoint, Inc. as of December 31, 2013 and 2012 and the related consolidated statements of operations, stockholders’ equity and cash flows for each of the years in the two-year period ended December 31, 2013, have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file current, quarterly and annual reports, proxy statements and other information required by the Exchange Act with the SEC. You may read and copy any of these filed documents at the SEC’s Public Reference Room located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public on the website maintained by the SEC at <http://www.sec.gov>. You may also obtain free copies of the documents that we file with the SEC by going to the Investors section of our website, www.glowpoint.com. The information provided on our website is not part of this prospectus supplement, and therefore is not incorporated by reference.

We have filed with the SEC a shelf registration statement on Form S-3 (Registration File No. 333-185739) under the Securities Act with respect to the securities offered by this prospectus supplement. This prospectus supplement does not include all the information contained or incorporated by reference in that registration statement and its exhibits. For further information with respect to us and our securities, you should consult the registration statement and its exhibits.

The SEC allows us to “incorporate by reference” the information we file with the SEC, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this prospectus supplement. Any information incorporated by reference into this prospectus supplement is considered to be part of this

prospectus supplement from the date we file that document.

S-5

The following documents, which were previously filed with the SEC pursuant to the Exchange Act, are hereby incorporated by reference, which shall not include, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules:

• our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed with the SEC on March 6, 2014;

• our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2014, filed with the SEC on May 7, 2014;

• our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2014, filed with the SEC on August 6, 2014;

• our Current Reports on Form 8-K, filed with the SEC on February 25, 2014, April 7, 2014 and June 2, 2014; and

• the description of our common stock contained in our Registration Statement on Form S-1 (File No. 333-42518), filed with the SEC on July 28, 2000, including any amendment or report filed for the purpose of updating such description.

Any information in any of the foregoing documents will automatically be deemed to be modified or superseded to the extent that information in this prospectus supplement or in a later filed document or other report that is incorporated or deemed to be incorporated herein by reference modifies or replaces such information.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, until we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus supplement. Information in such future filings updates and supplements the information provided in this prospectus supplement. These documents include proxy statements and periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and, to the extent they are considered filed and except as described above, Current Reports on Form 8-K. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

You may receive a copy of any document incorporated herein by reference (excluding exhibits to those documents unless they are specifically incorporated by reference in those documents), at no cost, by writing or calling Glowpoint, Inc., 1776 Lincoln Street, Suite 1300, Denver, Colorado 80203, Attention: Corporate Secretary. Our telephone number is (303) 640-3838.

Filed pursuant to Rule 424(b)(3)

Registration No. 33-185739

PROSPECTUS

Glowpoint, Inc.

\$25,000,000

Common Stock

Preferred Stock

Warrants

Units

2,941,329 Shares of Common Stock Offered by the Selling Stockholders

From time to time, we may offer, issue and sell up to \$25,000,000 of any combination of the securities described in this prospectus, either individually or in units and in one or more transactions. We may also offer common stock or preferred stock upon conversion of preferred stock, or common stock or preferred stock upon the exercise of warrants.

In addition, the selling stockholders set forth in this prospectus under the heading "Selling Stockholders" beginning on page 4 of this prospectus may, from time to time, use this prospectus to sell in one or more offerings an aggregate of up to 2,941,329 shares of our common stock, sometimes referred to as "resale shares," in the amounts and at the times determined solely by the selling stockholders. We will not receive any proceeds from the sale of these shares. The selling stockholders, other than Escalate Capital Partners SBIC I, L.P., are subject to certain contractual restrictions which prevent them from selling shares prior to July 1, 2013. On or after July 1, 2013, such selling stockholders may sell shares, the number of which will be determined based on the trading volume of our common stock on the NYSE MKT at the time of any such proposed sales.

This prospectus provides you with a general description of the securities that we and the selling stockholders may offer in one or more offerings. Each time we offer securities, we will provide the specific terms of the offering and securities in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with the offerings. The prospectus supplement and any related free writing prospectus, and any documents incorporated by reference therein, may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, carefully before buying any of the securities being offered.

Our common stock is traded on the NYSE MKT under the symbol "GLOW." On January 18, 2013, the last reported sale price of our common stock on the NYSE MKT was \$1.94. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the NYSE MKT or any securities market or other exchange of the securities covered by the applicable prospectus supplement.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" on page 2 and contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are

incorporated by reference into this prospectus. This prospectus may not be used to consummate a sale of any securities by us unless accompanied by a prospectus supplement.

The securities may be sold directly by us or the selling stockholders to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any securities by us with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities by us and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

As of January 17, 2013, the aggregate market value of our outstanding common stock held by non-affiliates was approximately \$35,070,000, which was calculated based on approximately 16,700,000 shares of outstanding common stock held by non-affiliates as of such date at a price per share of \$2.10, the closing sale price of our common stock on November 21, 2012. We have not sold any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to, and including, the date of this registration statement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is January 22, 2013.

TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	4
GLOWPOINT, INC.	5
RISK FACTORS	5
CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS	5
THE SECURITIES WE AND THE SELLING STOCKHOLDERS MAY OFFER	6
USE OF PROCEEDS	7
SELLING STOCKHOLDERS	7
DESCRIPTION OF OUR CAPITAL STOCK	9
DESCRIPTION OF WARRANTS	15
DESCRIPTION OF UNITS	16
LEGAL OWNERSHIP OF SECURITIES	17
PLAN OF DISTRIBUTION	20
LEGAL MATTERS	23
EXPERTS	24
WHERE YOU CAN FIND MORE INFORMATION	24

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may offer shares of our common stock or preferred stock, and/or warrants to purchase any of such securities, either individually or in units, in one or more offerings, up to a total dollar amount of \$25,000,000, and the selling stockholders may offer up to 2,941,329 shares of our common stock. This prospectus provides you with a general description of the securities we or the selling stockholders may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of those securities. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. We may also add or update in the prospectus supplement (and in any related free writing prospectus that we may authorize to be provided to you) any of the information contained in this prospectus or in the documents we have incorporated by reference into this prospectus. We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Where You Can Find More Information,” before buying any of the securities being offered.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES BY US UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you. We have not authorized anyone to provide you with different information in addition to or different from that contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. We or the selling stockholders will not make an offer to sell our securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information in this prospectus, any applicable prospectus supplement, any related free writing prospectus, is accurate only as of the date on the front cover of this prospectus and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since that date.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find More Information.”

GLOWPOINT, INC.

Glowpoint, Inc. (“Glowpoint” or “we” or “us” or the “Company”), is a provider of cloud managed video services. We are dedicated to providing hosted, managed and cloud based services to enterprise users of video conferencing and telepresence and also offer public video room rentals. Our services, delivered via our cloud-based OpenVideo™ platform, are securely accessible via any network (private or public) and are technology-agnostic. The Company pursues its recurring revenue business model by delivering services to more than 500 different enterprises in over 35 countries supporting thousands of video endpoints, immersive telepresence rooms, and infrastructure for business-quality, real-time, two-way visual communications. Glowpoint’s managed services solve the challenges associated with achieving consistent high-quality video experiences and controlling the total cost of ownership related to technology and support, while increasing the return on investment (ROI) of its end users’ video equipment by providing seamless access to video equipment outside of their immediate enterprise network.

Glowpoint provides wholesale programs and private-labeled resale options for hardware manufacturers, network operators and systems integrators seeking to offer video services as a value-added addition to their collaboration and communications offerings. The Company maintains multiple strategic partnerships that are core to its global go to market strategy.

Glowpoint was formed by the merger of All Communications Corporation and View Tech, Inc. in May 2000, and acquired Affinity VideoNet, Inc., a provider of public video room rentals and managed services, on October 1, 2012. Our principal executive offices are located at 430 Mountain Avenue, Suite 301, Murray Hill, NJ 07974, and our telephone number is (973) 855-3411. Our web site address is www.glowpoint.com.

In this prospectus, we refer to common stock, preferred stock, warrants and units collectively as “securities.”

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in, or incorporated into, the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents, including our most recent annual report on Form 10-K, any subsequent quarterly reports on Form 10-Q or any current reports on Form 8-K we file after the date of this prospectus, that are incorporated by reference into this prospectus. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus are “forward-looking statements.” These forward-looking statements include, but are not limited to, statements about the plans, objectives, expectations and intentions of Glowpoint, and other statements contained in this prospectus that are not historical facts. Forward-looking statements in this prospectus or hereafter included in other publicly available documents filed with the Securities and Exchange Commission (the “SEC”), reports to our stockholders and other publicly available statements issued or released by us involve known and unknown risks, uncertainties and other factors that could cause our actual results, performance (financial or operating) or achievements to differ from the future results, performance (financial or operating) or achievements expressed or implied by such forward-looking statements. Such future results are based upon management’s best estimates based upon current conditions and the most recent results of operations. When used in this prospectus, the words “expect,” “anticipate,” “intend,” “plan,” “believe,” “seek,” “estimate” and similar expressions are generally intended to identify forward-looking statements, because these forward-looking statements involve risks and uncertainties. There are important factors that could cause actual results to differ materially from those expressed or implied by these forward-looking statements, including, among other risks: availability of and costs associated with raising additional

capital to fund our operations; volatility in the price of our common stock; difficulty in funding our operations due to our history of substantial losses; the evolution of the market for video communication services and general economic conditions; our exposure to the credit and other counterparty risk of our customers; our ability to attract and retain key personnel; difficulty managing our growth; failure to obtain, maintain or protect the rights to our intellectual property; failure of our network or the denial or limitation of access to the network of

telecommunications carriers upon whom we rely; the highly competitive market in which we compete; limited market awareness of our managed video services; our ability to adequately respond to rapid changes in technology; accounting and other control costs; loss of key customers; and failure to properly manage the distribution of our services.

Please also see the discussion of risks and uncertainties under the heading “Risk Factors” above.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus or in any document incorporated by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus or the date of the document incorporated by reference in this prospectus. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise.

THE SECURITIES WE AND THE SELLING STOCKHOLDERS MAY OFFER

We may offer shares of our common stock or preferred stock, and/or various series of warrants to purchase any of such securities, as individually or in units, as well as, in one or more offerings, with a total value of up to \$25,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of any offering. Additionally, selling stockholders identified in this prospectus may sell up to 2,941,329 shares of our common stock. This prospectus provides you with a general description of the securities we or the selling stockholders may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities including, to the extent applicable:

• designation or classification;

- aggregate offering price;

• rates and times of payment of dividends, if any;

• redemption, conversion, exercise, exchange or sinking fund terms, if any;

• ranking;

• restrictive covenants, if any;

• voting or other rights, if any;

• conversion prices, if any; and

• important United States federal income tax considerations.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add or update information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part.

We or the selling stockholders may sell the securities directly to investors or to or through agents, underwriters or dealers. We and the selling stockholders, and our or their agents, or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we or the selling stockholders do offer securities to or through agents or underwriters, we will include in the applicable prospectus supplement:

6

- the names of those agents or underwriters;
- the terms of the offering;
- applicable fees, discounts, concessions and commissions to be paid to them;
- the anticipated date of delivery of the securities;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

USE OF PROCEEDS

Unless we indicate otherwise in the applicable prospectus supplement, we currently intend to use the net proceeds from this offering for general corporate purposes.

We have not determined the amounts we plan to spend or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending application of the net proceeds as described above, we intend to invest the net proceeds of the offering in short-term, investment-grade, interest-bearing securities.

We may set forth additional information on the use of net proceeds from the sale of securities we offer under this prospectus in a prospectus supplement relating to the specific offering.

We will not receive any proceeds from the sale of stock by the selling stockholders. The selling stockholders will receive any and all proceeds from the sale of stock sold by such selling stockholders. See “Selling Stockholders” and “Plan of Distribution” below.

SELLING STOCKHOLDERS

Pursuant to a registration rights agreement between us and the selling stockholders, we are required to file, within ninety (90) days of the completion of our acquisition of Affinity VideoNet, Inc. (“Affinity”), a registration statement to register for resale shares of our common stock issued to such stockholders of Affinity and use our reasonable best efforts to have such registration statement declared effective as soon as possible. The registration statement containing this prospectus will satisfy our obligations pursuant to the registration rights agreement.

Pursuant to the terms of a stock purchase and registration rights agreement between us and Escalate Capital Partners SBIC I, L.P. (“Escalate”), we have granted Escalate the right to have its 295,000 shares covered by this prospectus. The registration statement containing this prospectus will satisfy our obligations pursuant to the stock purchase and registration rights agreement.

The selling stockholders, other than Escalate, are subject to certain contractual restrictions which prevent them from selling shares prior to July 1, 2013. On or after July 1, 2013, such selling stockholders may sell shares, the number of which will be determined based on the trading volume of our common stock on the NYSE MKT at the time of any such proposed sales.

On January 13, 2013, we appointed Peter J. Holst as our President and Chief Executive Officer and entered into an employment agreement with Mr. Holst in connection therewith (the “Employment Agreement”). Pursuant to the

Employment Agreement, we issued to Mr. Holst, under our 2007 Stock Incentive Plan, (i) 875,000 options to purchase shares of our common stock and (ii) 100,000 shares of our restricted common stock. The options and the restricted stock will each vest as to 25% on the first anniversary of the grant date, with the remainder of each vesting in equal monthly installments for 36 months thereafter on the monthly anniversary date of the grant date;

7

provided however, that the options and the restricted stock will vest in full upon a Change in Control or Corporate Transaction, as each term is defined in our 2007 Stock Incentive Plan. In addition, in connection with our acquisition of Affinity, should Affinity achieve certain performance milestones, we will be obligated to issue to Mr. Holst up to 150,000 shares of our common stock, pursuant to our 2007 Stock Incentive Plan.

This prospectus covers 2,941,329 shares of common stock offered by the selling stockholders.

The following table sets forth the names of the selling stockholders, their current beneficial ownership of our securities, the number of shares offered for each stockholder's account, and the amount and percentage of their beneficial ownership after this offering. The selling stockholders may from time to time offer and sell any or all of the shares pursuant to this prospectus. Because the selling stockholders are not obligated to sell the shares, we cannot estimate how many shares they will hold upon consummation of any such sales. "Beneficial ownership" here means direct or indirect voting or investment power over outstanding stock and stock which a person currently has the right to acquire or has the right to acquire within 60 days after the date of this prospectus. The information in the table is from the selling stockholders, reports furnished to us under rules of the SEC and our stock ownership records, as of the date of this prospectus. Information concerning the selling stockholders may change from time to time and any changed information will be set forth in supplements to this prospectus to the extent required.

Name of Selling Stockholder	Shares Beneficially Owned Before the Offering	Shares Offered	Shares Beneficially Owned After the Offering	Percentage of Common Stock Beneficially Owned After the Offering
Peter J. Holst	791,305	691,305	100,000 (1)	*
Douglas S. Robinson	11,878	11,878	0	0%
James P. Geis	9,898	9,898	0	0%
Laurence Jones	19,796	19,796	0	0%
Fred Birner	39,592	39,592	0	0%
Mark A. Birner	39,592	39,592	0	0%
Bryce Ambraziunas	691,305	691,305	0	0%
Andrew Drenick	39,592	39,592	0	0%
Dennis Genty	39,592	39,592	0	0%
Michael Franson	79,185	79,185	0	0%
Mark Peter de Lone Feer	19,796	19,796	0	0%
Wesley A. Brown	79,185	79,185	0	0%
Scott E. Paine	19,796	19,796	0	0%
Ron Huston	77,205	77,205	0	0%
Tamarack Connection, Inc.	521,787	521,787	0	0%
Profundix LLC	79,185	79,185	0	0%
Hercules Technology Growth Capital, Inc.	114,192	114,192	0	0%
Main Street Capital Corporation	7,345	7,345	0	0%
Main Street Capital II, L.P.	18,362	18,362	0	0%
Main Street Mezzanine Fund, LP	47,741	47,741	0	0%
Escalate Capital Partners SBIC I, L.P.	295,000	295,000	0	0%

(1) Reflects shares of restricted stock granted to Mr. Holst in connection with his appointment as our President and Chief Executive Officer on January 13, 2013. The shares of restricted stock will vest as to 25% on the first

anniversary of the grant date, with the remainder vesting in equal monthly installments for 36 months thereafter on the monthly

8

anniversary date of the grant date; provided however, that the options and the restricted stock will vest in full upon a Change in Control or Corporate Transaction, as each term is defined in our 2007 Stock Incentive Plan.

* Less than 1% ownership.

DESCRIPTION OF OUR CAPITAL STOCK

The following summary description of our capital stock is based on the applicable provisions of the General Corporation Law of the State of Delaware, or DGCL, and on the provisions of our certificate of incorporation, as amended, and our restated bylaws, as amended, and is qualified entirely by reference to the applicable provisions of the DGCL, our certificate of incorporation, and our bylaws. For information on how to obtain copies of such documents, please refer to the heading “Where You Can Find More Information” in this prospectus.

Common Stock

The holders of our common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. There are no cumulative voting rights, so the holders of a majority of the outstanding shares have the ability to elect all of the directors. Subject to preferences that may be applicable to any outstanding preferred stock, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by our board of directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to prior distribution rights of preferred stock then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are fully paid and non-assessable, and shares of common stock to be issued upon the closing of this offering will be fully paid and nonassessable.

As of January 17, 2013, of the 150,000,000 shares of common stock currently authorized, there are approximately 28,731,139 shares of common stock issued and outstanding and approximately an additional 2,261,832 shares reserved for issuance in connection with (i) options outstanding to acquire approximately 2,103,192 shares of common stock, which include (but are not limited to) options issued under our 2000 Stock Incentive Plan, the four stock option plans maintained by VTI and assumed by the Company, and our 2007 Stock Incentive Plan (collectively, the “Option Plans”), (ii) warrants outstanding to acquire approximately 26,666 shares of common stock and (iii) approximately 131,974 shares of common stock issuable upon conversion of our outstanding Series A-2 Preferred Stock (defined below).

Preferred Stock

Our board of directors has the authority, without action by our stockholders, to designate and issue up to 5,000,000 shares of preferred stock in one or more series, and to fix for each series voting rights, if any, designations, preferences and relative, participating, optional or other special rights and such qualifications, limitations or restrictions as provided in a resolution or resolutions adopted by our board of directors. Prior to the issuance of shares of each series, our board of directors is required by the DGCL and our certificate of incorporation, as amended, to adopt resolutions and file a certificate of designation with the Secretary of State of the State of Delaware. The certificate of designation fixes for each class or series the designations, powers, preferences, rights, qualifications, limitations and restrictions, which includes one or more of the following:

- the number of shares constituting each class or series;
- voting rights;
- rights and terms of redemption, including sinking fund provisions;

• dividend rights and rates;
• dissolution;
• terms concerning the distribution of assets;

9

conversion or exchange terms;
redemption prices; and
liquidation preferences.

We will describe in a prospectus supplement relating to the class or series of preferred stock being offered the designation of the class or series and the specific powers, preferences, rights, qualifications, limitations and restrictions that apply to the preferred stock being offered.

Unless we specify otherwise in the applicable prospectus supplement, the preferred stock will rank, relating to dividends and upon our liquidation, dissolution or winding up:

senior to all classes or series of our common stock and to all of our equity securities ranking junior to the preferred stock;
on a parity with all of our equity securities the terms of which specifically provide that the equity securities rank on a parity with the preferred stock; and
junior to all of our equity securities the terms of which specifically provide that the equity securities rank senior to the preferred stock.

Currently, we have:

7,500 shares of Series A Convertible Preferred Stock, par value \$0.0001 per share (the "Series A Preferred Stock") authorized, none of which are issued;
7,500 shares of Series A-1 Convertible Preferred Stock, par value \$0.0001 per share (the "Series A-1 Preferred Stock") authorized, none of which are issued;
7,500 shares of Series A-2 Convertible Preferred Stock, par value \$0.0001 per share (the "Series A-2 Preferred Stock") authorized, 53 of which are issued and outstanding;
100 shares of Perpetual Series B Preferred Stock, par value \$0.0001 per share (the "Series B Preferred Stock") authorized, none of which are issued;
100 shares of Perpetual Series B-1 Preferred Stock, par value \$0.0001 per share (the "Series B-1 Preferred Stock") authorized, 100 shares of which are issued and outstanding;
1,500 shares of Series C Convertible Preferred Stock, par value \$0.0001 per share (the "Series C Preferred Stock") authorized, none of which are issued; and
4,000 shares of Series D Convertible Preferred Stock, par value \$0.0001 per share (the "Series D Preferred Stock") authorized, none of which are issued.

We have no other classes of preferred stock. All outstanding shares of preferred stock are fully paid and non-assessable, and shares of preferred stock to be issued upon the closing of this offering will be fully paid and non-assessable.

Series A Convertible Preferred Stock

Currently, there are no shares of our Series A Preferred Stock outstanding. Our Series A Preferred Stock is senior to all other classes of equity, except the Series A-1 Preferred Stock, the Series A-2 Preferred Stock, the Series B Preferred Stock and the Series B-2 Preferred Stock. Holders of our Series A Preferred Stock are entitled to cumulative dividends at a rate of 5 percent per annum, payable quarterly in cash, based on the stated value of \$7,500 per share. The Series A Preferred Stock has a liquidation preference equal to its stated value. So long as shares of the Series A Preferred Stock remain outstanding, we cannot generally, without the affirmative vote or consent of the holders of at least 2/3 of the shares of the Series A Preferred Stock outstanding at the time, voting separately as a class, (i) authorize, create, issue or increase the authorized or issued amount of any class of debt or equity securities, ranking

pari passu or senior to the Series A Preferred Stock; (ii) amend, alter or repeal the provisions of the Series A Preferred Stock to adversely affect the rights of the holders of Series A Preferred Stock; (iii) repurchase, redeem or pay dividends on, shares of our common stock or any other shares of our stock ranking junior to the Series A Preferred Stock, with certain exceptions; (iv) amend our certificate of incorporation or bylaws to materially and adversely affect the rights

10

of the holders of Series A Preferred Stock; (v) effect any distribution with respect to our stock which is junior to the Series A Preferred Stock; (vi) liquidate, dissolve or wind up our affairs, subject to our fiduciary duties under Delaware law; (vii) incur any indebtedness, with certain exceptions; or (viii) issue additional shares of Series A Preferred Stock. Each holder of Series A Preferred Stock is entitled to vote on all matters together with the holders of our common stock on an as converted basis up to 9.99 percent of (i) the common stock issuable upon conversion of such holder's shares of Series A Preferred Stock, plus (ii) all other shares of our common stock beneficially owned by such holder. Each share of Series A Preferred Stock is convertible at the holder's election into common stock at a price of \$0.75 per share, subject to provisions providing weighted average anti-dilution protection. The Series A Preferred Stock will automatically convert to common stock at a price of \$0.75 per share, subject to provisions providing weighted average anti-dilution protection, on the first day (i) the closing bid and ask prices exceed \$1.50 (as adjusted for stock splits, stock dividends, combinations and similar transactions) and (ii) the value of the average daily trading volume for our common stock for a period of ten consecutive trading days equals or exceeds \$1 million. Under the terms of the Series A Preferred Stock, we have the right to redeem all or a portion of the Series A Preferred Stock (i) upon a change of control, at a price per share equal to the liquidation preference, plus all accrued and unpaid dividends or (ii) at any time, at a price per share equal to 110 percent of the liquidation preference, plus all accrued and unpaid dividends. Subject to the rights of any series of preferred stock that ranks senior to our Series A Preferred Stock as to liquidation rights, in the event of our liquidation, dissolution or winding up, the holders of Series A Preferred Stock will be entitled to receive, out of our assets legally available for distribution to our stockholders, per share, the liquidation preference, plus any accrued and unpaid dividends before we distribute any assets to holders of shares of our common stock or any other class or series of our capital stock that ranks junior to the shares of our Series A Preferred Stock as to liquidation rights. Holders of our Class A Preferred Stock have no preemptive or mandatory redemption rights and there are no sinking fund provisions applicable to our Series A Preferred Stock.

Series A-1 Preferred Stock

Currently, there are no shares of our Series A-1 Preferred Stock outstanding. Our Series A-1 Preferred Stock is senior to all other classes of equity, except the Series A-2 Preferred Stock, the Series B Preferred Stock and the Series B-1 Preferred Stock. Holders of our Series A-1 Preferred Stock are entitled to cumulative dividends at a rate of 5 percent per annum, payable quarterly, at the option of the holder, in cash or through the issuance of a number of additional shares of Series A-1 Preferred Stock with an aggregate liquidation preference equal to the dividend amount payable on the applicable dividend payment date, based on the stated value per share of \$7,500. Except for terms related to the payment of dividends, the terms of the Series A-1 Preferred Stock are materially the same as the terms of the Series A Preferred Stock.

Series A-2 Preferred Stock

Currently, there are 53 shares of our Series A-2 Preferred Stock outstanding. Our Series A-2 Preferred Stock is senior to all other classes of equity, except Series B Preferred Stock and the Series B-1 Preferred Stock. Commencing on January 1, 2013, holders of our Series A-2 Preferred Stock are entitled to cumulative dividends at a rate of 5 percent per annum, payable quarterly, based on the stated value per share of \$7,500. Once dividend payments commence, all dividends are payable at the option of the holder in cash or through the issuance of a number of additional shares of Series A-2 Preferred Stock with an aggregate liquidation preference equal to the dividend amount payable on the applicable dividend payment date. Except for when the payment of dividends commence, the terms of the Series A-2 Preferred Stock are materially the same as the terms of the Series A-1 Preferred Stock and the Series A Preferred Stock.

Series B Preferred Stock

Currently, there are no shares of our Series B Preferred Stock outstanding. Our Series B Preferred Stock is senior to all other classes of equity, except Series B-1 Preferred Stock. Commencing on January 1, 2013, holders of our Series B Preferred Stock are entitled to cumulative dividends at a rate of 4 percent per annum, payable quarterly, based on the stated value of \$100,000 per share. Commencing January 1, 2014, the cumulative dividend rate increases to 12 percent per annum, payable quarterly, based on the stated value. So long as shares of the Series B Preferred Stock remain outstanding, we cannot generally, without the affirmative vote or consent of the holders of at least 90

percent of the shares of the Series B Preferred Stock outstanding at the time, voting separately as a class, (i) authorize or create, or increase the authorized amount of any shares of any class or series of capital stock, ranking pari passu or senior to the Series B Preferred Stock; (ii) amend, alter or repeal the provisions of the Series B Preferred Stock to adversely affect the rights of the holders of Series B Preferred Stock; (iii) effect any distribution with respect to our stock which is junior to the Series B Preferred Stock; (iv) incur any indebtedness, with certain exceptions; or (v) exchange or convert of any shares of Series B Preferred Stock into our common stock. Other than the voting rights identified in the preceding sentence and as otherwise required by Delaware law, the Series B Preferred Stock has no voting rights. The Series B Preferred Stock is not convertible into common stock. Under the terms of the Series B Preferred Stock, we have the right to redeem all or a portion of the Series B Preferred Stock by paying the stated value per share, together with all accrued and unpaid dividends. Subject to the rights of any series of preferred stock that ranks senior to our Series B Preferred Stock as to liquidation rights, in the event of our liquidation, dissolution or winding up, the holders of Series B Preferred Stock will be entitled to receive, out of our assets legally available for distribution to our stockholders, \$100,000 per share, plus any accrued and unpaid dividends before we distribute any assets to holders of shares of our common stock or any other class or series of our capital stock that ranks junior to the shares of our Series B Preferred Stock as to liquidation rights. Holders of our Class B Preferred Stock have no preemptive or mandatory redemption rights and there are no sinking fund provisions applicable to our Series B Preferred Stock.

Series B-1 Preferred Stock

Currently, there are 100 shares of our Series B-1 Preferred Stock outstanding. Our Series B-1 Preferred Stock is senior to all other classes of equity. Commencing on January 1, 2013, holders of Series B-1 Preferred Stock are entitled to cumulative dividends at a rate of 4 percent per annum, payable quarterly, based on the stated value of \$100,000 per share. Commencing January 1, 2014, the cumulative dividend rate increases to 6 percent per annum, payable quarterly, based on the stated value. Except for the dividend rate commencing on January 1, 2014, the terms of the Series B-1 Preferred Stock are materially the same as the terms of the Series B Preferred Stock.

Series C Preferred Stock

Currently, there are no shares of our Series C Preferred Stock outstanding. Our Series C Preferred Stock is senior to our common stock and the Series D Preferred Stock. The Series C Preferred Stock has a liquidation preference equal to \$10,000 per share. So long as shares of the Series C Preferred Stock with a value of at least \$2 million remain outstanding, we cannot generally, without the affirmative vote or consent of the holders of at least 75 percent of the shares of the Series C Preferred Stock outstanding at the time, voting separately as a class, (i) authorize, create, issue or increase the authorized or issued amount of any class of debt or equity securities, ranking pari passu or senior to the Series A Preferred Stock; (ii) amend, alter or repeal the provisions of the Series C Preferred Stock to adversely affect the rights of the holders of Series A Preferred Stock; (iii) repurchase, redeem or pay dividends on, shares of our common stock or any other shares of our stock ranking junior to the Series C Preferred Stock, with certain exceptions; (iv) amend our certificate of incorporation or bylaws to materially and adversely affect the rights of the holders of Series C Preferred Stock; (v) effect any distribution with respect to our stock which is junior to the Series C Preferred Stock; (vi) reclassify our outstanding securities; (vii) materially change the nature of our business; or (viii) issue additional shares of Series C Preferred Stock. Other than the voting rights identified in the preceding sentence and as otherwise required by Delaware law, the Series C Preferred Stock has no voting rights. Each share of Series C Preferred Stock is convertible at the holder's election into common stock at a price of \$1.00 per share, subject to provisions providing weighted average anti-dilution protection. The Series C Preferred Stock will automatically convert to common stock at a price of \$1.00 per share, subject to provisions providing weighted average anti-dilution protection, on the first day the closing bid and ask prices has exceeded \$2.00 (as adjusted for stock splits, stock dividends, combinations and similar transactions) for a period of ten consecutive trading days. Under the terms of the Series C Preferred Stock, we have the right to redeem, or a holder of Series C Preferred Stock has the right to force the

Company to redeem, all or a portion of the Series C Preferred Stock, upon a change of control, at a price per share equal to the liquidation preference. We have the right to redeem all or a portion of the Series C Preferred Stock, at any time, at a price per share equal to 110 percent of the liquidation preference. Subject to the rights of any series of preferred stock that ranks senior to our Series C Preferred Stock as to liquidation rights, in the event of our liquidation,

12

dissolution or winding up, the holders of Series C Preferred Stock will be entitled to receive, out of our assets legally available for distribution to our stockholders, per share, the liquidation preference, before we distribute any assets to holders of shares of our common stock or any other class or series of our capital stock that ranks junior to the shares of our Series C Preferred Stock as to liquidation rights. Holders of our Class C Preferred Stock have no preemptive rights and there are no sinking fund provisions applicable to our Series C Preferred Stock. No dividends shall accrue or be payable on any shares of Series C Preferred Stock.

Series D Preferred Stock

Currently, there are no shares of our Series D Preferred Stock outstanding. Our Series D Preferred Stock is senior to our common stock. Holders of our Series D Preferred Stock are entitled to dividends when declared on our common stock in an amount equal to such dividend declared on one share of common stock multiplied by the number of shares of common stock each holder's shares of Series D Preferred Stock are convertible into. So long as any shares of Series D Preferred Stock remains outstanding, we cannot, without the affirmative vote of 3/4 of the shares of Series D Preferred Stock outstanding at the time, voting separately as a class, amend, alter or repeal the provisions of the Series D Preferred Stock to adversely affect the rights of the holder of Series D Preferred Stock. Any holder of Series D Preferred Stock may convert such shares into shares of our common stock at a conversion rate of 10,000 shares of common stock per shares of Series D Preferred Stock, subject to provisions providing weighted average anti-dilution protection. Subject to the rights of any series of preferred stock that ranks senior to our Series D Preferred Stock as to liquidation rights, in the event of our liquidation, dissolution or winding up, the holders of Series D Preferred Stock will be entitled to receive, out of our assets legally available for distribution to our stockholders, per share, a liquidation preference calculated by taking the total amount available for distribution to holders of our common stock and dividing it by the total number of shares of common stock, including shares of common stock into which shares of our Series D Preferred Stock could be converted, before we distribute any assets to holders of shares of our common stock or any other class or series of our capital stock that ranks junior to the shares of our Series D Preferred Stock as to liquidation rights. Holders of our Class D Preferred Stock have no preemptive or mandatory redemption rights and there are no sinking fund provisions applicable to our Series D Preferred Stock.

Anti-Takeover Effect

Provisions of our certificate of incorporation and bylaws could make the acquisition of our company through a tender offer, a proxy contest or other means more difficult and could make the removal of incumbent officers and directors more difficult. We expect these provisions to discourage coercive takeover practices and inadequate takeover bids and to encourage persons seeking to acquire control of our company to first negotiate with our board of directors. We believe that the benefits provided by our ability to negotiate with the proponent of an unfriendly or unsolicited proposal outweigh the disadvantages of discouraging these proposals. We believe the negotiation of an unfriendly or unsolicited proposal could result in an improvement of its terms.

Our certificate of incorporation authorizes the issuance of up to 5,000,000 shares of preferred stock, par value \$0.0001 per share. Our board of directors has the authority, without the further approval of the stockholders, to issue and determine the rights and preference of any series of preferred stock. Our board of directors could issue one or more series of preferred stock with voting, conversion, dividend, liquidation or other rights that would adversely affect the voting power and ownership interest of holders of common stock. This authority may have the effect of deterring hostile takeovers, delaying or preventing change in control, and discouraging bids for our common stock at a premium over market price.

Our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors. At an annual meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or brought

before the meeting by or at the direction of our board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to our Secretary timely written notice, in proper form, of his or her intention to bring that business before the meeting. The bylaws do not give our board of directors the power to approve or disapprove

stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However, our bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed. These provisions may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

Under Delaware law, a special meeting of stockholders may be called by the board of directors or by any other person authorized to do so in the certificate of incorporation or the bylaws. Our bylaws authorize the Chairman of our board of directors or a majority of our board of directors to call a special meeting of stockholders. Further, our certificate of incorporation and bylaws do not permit our stockholders to act by written consent. As a result, any action to be effected by our stockholders must be effected at a duly called annual or special meeting of the stockholders. Because our stockholders do not have the right to call a special meeting, stockholders could not force stockholder consideration of a proposal over the opposition of our board of directors by calling a special meeting of stockholders prior to such time as a majority of our board of directors believed or the Chairman of our board of directors believed the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next annual meeting.

Anti-takeover Effects of Delaware Law Provisions

Section 203 of the Delaware General Corporation Law contains provisions that may make the acquisition of control of us by means of a tender offer, open market purchase, proxy fight or otherwise, more difficult. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. Section 203 defines a "business combination" as a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder. Section 203 defines an "interested stockholder" as a person who, together with affiliates and associates, owns, or, in some cases, within three years prior, did own, 15 percent or more of the corporation's voting stock. Under Section 203, a business combination between us and an interested stockholder is prohibited unless:

our Board of Directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder prior to the date the person attained the status;

upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of our voting stock outstanding at the time the transaction commenced, excluding, for purposes of determining the number of shares outstanding, shares owned by persons who are directors and also officers and issued employee stock plans, under which employee participants do not have the right to determine confidentiality whether shares held under the plan will be tendered in a tender or exchange offer; or

the business combination is approved by our Board of Directors on or subsequent to the date the person became an interested stockholder and authorized at an annual or special meeting of the stockholders by the affirmative vote of the holders of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Transfer Agent and Registrar

The Transfer Agent and Registrar for the common stock is American Stock Transfer & Trust Company, New York, New York.

Trading

Our common stock is traded on the NYSE MKT under the symbol "GLOW".

14

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock, and the warrants may be attached to or separate from these securities. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement that describes the terms of the particular series of warrants we are offering before the issuance of the related series of units. The following summary of material provisions of the warrants and the warrant agreements is subject to, and qualified in its entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of units that it may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered, including:

- the offering price of securities that include such warrants and aggregate number of warrants offered;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security;
- the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements may be modified;
- a discussion of any material or special United States federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities at the price that we specify in the applicable prospectus supplement. Holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void. Holders of the warrants may exercise the warrants by delivering the warrant agreement or certificate representing the warrants to be exercised together with specified information, and paying the required amount to us, as provided in the applicable prospectus supplement. Upon receipt of the required payment and the warrant agreement or certificate properly completed and duly executed at our or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant agreement are exercised, then we will issue a new warrant agreement for the remaining amount of warrants.

Governing Law

The warrants and any warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank, trust, or transfer company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

Outstanding Warrants

As of January 17, 2013, there were 33,333 outstanding warrants to purchase 26,666 shares of our common stock with an exercise price of \$1.60 per share. The warrants may be exercised for cash or, under certain circumstances, on a cashless basis, in which case we will deliver, upon exercise, the number of shares with respect to which the warrant is being exercised reduced by a number of shares having a value (as determined in accordance with the terms of the applicable warrant) equal to the aggregate exercise price of the shares with respect to which the warrant is being exercised.

DESCRIPTION OF UNITS

We may issue, in one more series, units consisting of common stock, preferred stock and/or warrants for the purchase of common stock and/or preferred stock in any combination. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summary

16

of material terms and provisions of the units is subject to, and qualified in its entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we may offer under this prospectus, as well as any related free writing prospectuses and the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. We may issue units in such amounts and in such numerous distinct series as we determine.

We will describe in the applicable prospectus supplement the terms of the series of units being offered, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

- any provisions of the governing unit agreement that differ from those described below; and

- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under "Description of Our Capital Stock" and "Description of Warrants" will apply to each unit to the extent comprised of any such security included in each unit, as well as the underlying, relevant securities, respectively.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank, trust, or transfer company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form to "holders" and "indirect holders" or as global securities. We refer to those persons who have securities registered in their own names on the books that we or depositary maintain for this purpose as the "holders" of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as "indirect holders" of those securities. As discussed below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only as we specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system.

These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depository or its participants. Consequently, for securities issued in global form, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depository's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in "street name." Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and will make all payments, if any, on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any third parties employed by us, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment, if any, or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depository participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend the terms of a warrant agreement or agreement governing units. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

how it handles securities payments and notices;

whether it imposes fees or charges;

how it would handle a request for the holders' consent, if ever required;

18

• whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;

• how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and

• if the securities are in book-entry form, how the depository's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depository. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depository. Unless we specify otherwise in the applicable prospectus supplement, The Depository Trust Company, New York, New York, known as DTC, will be the depository for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depository, its nominee or a successor depository, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depository, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

The rights of an indirect holder relating to a global security will be governed by the account rules of the investor's financial institution and of the depository, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities but instead deal only with the depository that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in its name, and cannot obtain non-global certificates for its interest in the securities, except in the special situations described below;
- an investor will be an indirect holder and must look to its bank or broker for payments on the securities and protection of its legal rights relating to the securities, as described above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own its securities in non-book-entry form;

an investor may not be able to pledge its interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;

the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security;

we have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security, nor do we supervise the depositary in any way;

the depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and

financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days; or

if an event of default occurs with regard to securities represented by that global security and it is not cured or waived.

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the applicable prospectus supplement. When a global security terminates, the depositary, and not us, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may, from time to time, offer the securities registered hereby up to the maximum amount listed on the cover of this prospectus. Each selling stockholder of common stock and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock covered hereby on the NYSE MKT or any other stock exchange, market or trading facility on which the shares are traded or in private transactions from time to time directly or through one or more underwriters, broker-dealers or agents. We and the selling stockholders may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a

combination of these methods. We or the selling stockholders may sell the securities to or through underwriters or dealers, with or without an underwriting syndicate, through agents, or directly to one or more purchasers or a

20

combination of these methods, or any other method permitted pursuant to applicable law. We and the selling stockholders may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
 - at prices related to such prevailing market prices; or
- at negotiated prices or in competitive bid transactions.

Each time we offer securities, a prospectus supplement or supplements will describe the terms of the offering of the securities, including:

- the name or names of the underwriters, dealers or agents, if any, and the types and amounts of securities underwritten or purchased by each of them;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

If required by applicable law, the selling stockholders will file a prospectus supplement in connection with the sale of the securities pursuant to this prospectus. The selling stockholders may also sell shares under Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"), if available, rather than under this prospectus.

Only underwriters named in the prospectus supplement will be underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We or the selling stockholders may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We or the selling stockholders may use underwriters with whom we or the selling stockholders have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship.

If we or the selling stockholders use dealers in the sale of securities, we or the selling stockholders will sell securities to such dealers as principals. The dealers may then resell the securities to the public at varying prices to be determined by such dealers at the time of resale. We or the selling stockholders may solicit offers to purchase the securities directly, and we or the selling stockholders may sell the securities directly to institutional or other investors, who may be deemed underwriters within the meaning of the Securities Act with respect to any resales of those securities. The terms of these sales will be described in any applicable prospectus supplement. If we or the selling stockholders use

agents in the sale of securities, unless otherwise indicated in the prospectus supplement, they will use their reasonable best efforts to solicit purchases for the period of their appointment. Unless otherwise indicated in a prospectus supplement, if we or the selling stockholders sell directly, no underwriters, dealers or agents would be involved. We or the selling stockholders will not make an offer of securities in any jurisdiction that does not permit such an offer.

We or the selling stockholders may sell securities directly or through agents we or the selling stockholders designate from time to time. We or the selling stockholders will name any agent involved in the offering and sale of securities and will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We or the selling stockholders may authorize underwriters, dealers, or agents to solicit offers by certain types of institutional investors or other purchasers to purchase our securities from them at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions or discounts we or the selling stockholders pay for solicitation of these contracts.

We or the selling stockholders may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us or the selling stockholders in the ordinary course of business.

The selling stockholders may pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending, if necessary, the list of selling stockholder to include the pledgee, transferee or other successors in interest as selling shareholders under this prospectus. The selling stockholders also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

We are required to pay certain fees and expenses we have incurred incident to the registration of the shares on behalf of the selling stockholders. We have also agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date that is two (2) years after the effectiveness of the registration statement, of which this prospectus forms a part, (ii) the date on which the shares may be resold by the selling stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for us to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (iii) all of the shares have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares of our common stock covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Unless otherwise specified in an applicable prospectus supplement, each class or series of securities we offer will be a new issue with no established trading market, other than our common stock, which is listed on the NYSE MKT under the symbol "GLOW." Any common stock sold pursuant to a prospectus supplement will be listed on the NYSE MKT,

subject to official notice of issuance. We may elect to list any other class or series of securities on any exchange, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time

without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities. We cannot guarantee the liquidity of the trading markets for any securities.

In connection with any offering, the underwriters may purchase and sell securities in the open market. Any underwriter may engage in short sales, over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Short sales involve the sale by the underwriters of a greater number of securities than they are required to purchase in an offering. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price and are made for the purpose of preventing or retarding a decline in the market price of the securities while an offering is in progress. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. These activities by the underwriters may stabilize, maintain or otherwise affect the market price of the securities. As a result, the price of the securities may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued by the underwriters at any time. These transactions may be effected on an exchange or automated quotation system, if the securities are listed on an exchange or admitted for trading on an automated quotation system, in the over-the-counter market, or otherwise.

Any underwriters that are qualified market makers on the NYSE MKT may engage in passive market making transactions in our common stock on the NYSE MKT in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8 percent of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

We or the selling stockholders may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates in connection with those derivatives then the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or the selling stockholders or borrowed from us or the selling stockholders or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of securities. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment).

LEGAL MATTERS

Thompson Hine LLP, New York, New York, will provide us with an opinion as to the legal matters in connection with the securities we are offering. Any underwriter, dealer or agent may be advised about issues relating to any offering by its own legal counsel. The name of the law firm or law firms advising any underwriters, dealers or agents with respect to certain issues relating to any offering will be set forth in the applicable prospectus supplement.

EXPERTS

The consolidated balance sheets of Glowpoint, Inc. as of December 31, 2011 and 2010 and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2011 have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated by reference herein in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

The financial statements of Affinity VideoNet, Inc. as of December 31, 2011 and 2010 and for each of the years then ended, have been incorporated in this prospectus by reference from the Company's Current Report on Form 8-K/A filed on December 17, 2012, have been audited by Anton Collins Mitchell LLP, independent auditors, as stated in their report incorporated by reference, and is incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any reports, statements or other information that we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available to the public from commercial document retrieval services and on the website maintained by the SEC at <http://www.sec.gov>. Reports, proxy statements and other information concerning us also may be inspected at the offices of the Financial Industry Regulatory Authority, Inc., Listing Section, 1735 K Street, Washington, D.C. 20006. You may also obtain free copies of the documents that we file with the SEC by going to the Investors section of our website, www.glowpoint.com. The information provided on our website is not part of this prospectus, and therefore is not incorporated by reference.

We have filed with the SEC a registration statement on Form S-3 relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all the information in the registration statement. Whenever a reference is made in this prospectus to a contract or other document, the reference is only a summary and you should refer to the exhibits that are a part of the registration statement for a copy of the contract or other document. You may review a copy of the registration statement at the SEC's Public Reference Room in Washington, D.C., as well as through the SEC's internet website.

The SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this prospectus. Any information incorporated by reference into this prospectus is considered to be part of this prospectus from the date we file that document. We incorporate by reference the following information or documents that we have filed with the SEC (Commission File No. 0-25940) which shall not include, in each case, documents, or information deemed to have been furnished and not filed in accordance with SEC rules:

• Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the SEC March 8, 2012;

• Quarterly Report on Form 10-Q for the period ended March 31, 2012, filed with the SEC May 10, 2012;

• Quarterly Report on Form 10-Q for the period ended June 30, 2012, filed with the SEC August 14, 2012;

• Quarterly Report on Form 10-Q for the period ended September 30, 2012, filed with the SEC November 8, 2012;

Current report on Form 8-K filed with the SEC March 15, 2012, as amended by our report on Form 8-K/A filed with the SEC March 16, 2012;

Current report on Form 8-K filed with the SEC May 2, 2012;

Current report on Form 8-K filed with the SEC May 10, 2012;

Current report on Form 8-K filed with the SEC June 11, 2012;

Current report on Form 8-K filed with the SEC June 14, 2012;

Current report on Form 8-K filed with the SEC July 20, 2012;

Current report on Form 8-K filed with the SEC August 13, 2012;

Current report on Form 8-K filed with the SEC August 16, 2012;

Current report on Form 8-K filed with the SEC August 27, 2012; Current report on Form 8-K filed with the SEC October 5, 2012, as amended by our report on Form 8-K/A filed with the SEC December 17, 2012; and

Current report on Form 8-K filed with the SEC January 17, 2013.

Any information in any of the foregoing documents will automatically be deemed to be modified or superseded to the extent that information in this prospectus or in a later filed document or other report that is incorporated or deemed to be incorporated herein by reference modifies or replaces such information.

We also incorporate by reference any future filings (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act subsequent to the date of the initial registration statement and prior to effectiveness of the registration statement, and subsequent to effectiveness of the registration statement and prior to such time as we file a post-effective amendment that indicates the termination of the offering of the securities made by this prospectus. Information in such future filings updates and supplements the information provided in this prospectus. These documents include proxy statements and periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and, to the extent they are considered filed and except as described above, Current Reports on Form 8-K. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. If you would like to request documents from us, please send a request in writing or by telephone to us at the following address:

Glowpoint, Inc.
Attn: Corporate Secretary
430 Mountain Avenue, Suite 301
Murray Hill, NJ07974 (973) 855-3411

Information on Our Website

Information on any Glowpoint website, any subsection, page, or other subdivision of any Glowpoint website, or any website linked to by content on any Glowpoint website, is not part of this prospectus and you should not rely on that information unless that information is also in this prospectus or incorporated by reference in this prospectus.

PROSPECTUS

Glowpoint, Inc.

\$25,000,000

Common Stock
Preferred Stock
Warrants
Units

2,941,329 Shares of Common Stock Offered by the Selling Stockholders

January 22, 2013

26

\$8,000,000

Common Stock

Prospectus Supplement

September 16, 2014