

Approximate date of commencement of proposed sale to the public: From time to time following the effectiveness of this registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. "

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ý

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. "

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

Indicate by check mark whether the registrant is a large accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer "

Accelerated filer "

Non-accelerated filer

Smaller reporting company "

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. We may not sell these securities or accept an offer to buy these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED November 3, 2009

PROSPECTUS

MERGE HEALTHCARE INCORPORATED

\$100,000,000
Common Stock
Debt Securities
Preferred Stock
Warrants
Depositary Shares
Stock Purchase Contracts
Stock Purchase Units

From time to time, we may sell up to an aggregate of \$100,000,000 of any combination of the securities described in this prospectus. We will specify the terms of any offering of such securities in a prospectus supplement.

You should read this prospectus, the information incorporated by reference in this prospectus and any prospectus supplement carefully before you invest.

Investing in our securities involves a high degree of risk. You should carefully consider the risk factors described in the applicable prospectus supplement and certain of our filings with the Securities and Exchange Commission, as described under "Risk Factors" on page 3.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

Our common stock is quoted and traded on the Nasdaq Global Market under the symbol "MRGE." On October 29, 2009, the last reported sale price of our common stock on the Nasdaq Global Market was \$3.80. The applicable prospectus supplement will contain information, where applicable, as to any other listing on the Nasdaq Global Market or any securities market or exchange of the securities covered by the prospectus supplement.

The securities may be offered directly by us to investors, to or through underwriters or dealers or through agents. If any underwriters are involved in the sale of any securities offered by this prospectus and any prospectus supplement, their names, and any applicable purchase price, fee, commission or discount arrangement between or among them, and any applicable over-allotment options, will be set forth, or will be calculable from the information set forth, in the applicable prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

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 _____, 2009

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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 process, we may sell the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading “Where You Can Find More Information.” You should rely only on the information contained in or incorporated by reference in this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information other than the information contained or incorporated by reference in this prospectus or any prospectus supplement. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus speaks only as of the date of this prospectus and the information in the documents incorporated or deemed to be incorporated by reference in this prospectus speaks only as of the respective dates those documents were filed with the SEC. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus, the statements made in this prospectus will be deemed modified or superseded by those made in a prospectus supplement. The terms “Merge,” “Merge Healthcare,” the “Company,” “we,” “us,” and “our” refer to Merge Healthcare Incorporated.

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you.

Merge Healthcare Incorporated

Merge Healthcare Incorporated, a Delaware corporation, develops solutions that automate healthcare data and diagnostic workflow to enable a better electronic record of the patient experience, and to enhance product development for health IT, device and pharmaceutical companies and delivers related services. Merge products, ranging from standards-based development toolkits to sophisticated clinical applications, have been used by healthcare providers, vendors and researchers worldwide for over 20 years. Merge Healthcare’s principal executive offices are located at 6737 West Washington Street, Suite 2250, Milwaukee, Wisconsin 53214–5650, and the telephone number there is (414) 977–4000.

Merge Healthcare was founded in 1987 and specialized in the transformation of legacy radiology (film–based) images into filmless digitized images for distribution and diagnostic interpretation. Merge Healthcare acquired eFilm Medical Inc. in June 2002 for its diagnostic medical image workstation software capabilities; RIS Logic, Inc. in July 2003 for its RIS software, which manages business and clinical workflow for imaging centers; AccuImage Diagnostics Corp. in January 2005 for its advanced visualization technologies for clinical specialty medical imaging; and Cedara Software Corp. in June 2005, which significantly enhanced Merge Healthcare’s medical imaging software offerings. In 2009, Merge Healthcare has acquired:

- Certain assets of eko systems, inc. in July for its Surgical Management System capabilities;
- etrials Worldwide, Inc in July in order to provide clinical trial sponsors and contract research organizations (“CROs”) comprehensive and configurable solutions that include both critical imaging technologies and proven eClinical capabilities; and
- Confirma, Inc. in September in order to combine forces in an effort to expand computer aided detection (“CAD”) technology.

Merge Healthcare's business is health IT software, which can involve any aspect of moving medical images and/or information into electronic media. Its major product categories consist of:

- Software development toolkits and platforms, which give software developers resources to accelerate new product development;

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- Diagnostic workstation software applications, which bring specialized reading and review tools to the clinician's desktop;
- RIS and related applications, which manage the business workflow of an imaging enterprise or radiology department;
 - PACS and related applications, which manage the medical image workflow of a healthcare enterprise;
- Surgical Management Systems, which automate the monitoring and recording of anesthesia and perfusion before, during and after a surgery;
- CAD products, which automate the analysis and interventional guidance of studies provided by radiology practices;
- Software-as-a-service ("SaaS"), which includes electronic data capture ("EDC"), interactive voice and Web response ("IVR"/"IWR") and electronic patient diaries ("eDiary") for clinical trial sponsors and CRO's.
- Consultative engineering, which provides customer development teams with added expertise and technology; and
- Managed Services, which extends additional image and remote information management capabilities to Merge Healthcare's customers.

Merge Healthcare generates revenue through licensing software and/or intellectual property, upgrading and/or renewing those licenses, ongoing service and support of the solutions, SaaS delivery of solutions, project or hourly professional services, consultative engineering fees and pay-per-study managed services.

Merge Healthcare's technologies and expertise span all the major digital imaging modalities, including computed tomography ("CT"), magnetic resonance imaging ("MRI"), digital x-ray, mammography, ultrasound, echo-cardiology, angiography, nuclear medicine, positron emission tomography ("PET") and fluoroscopy. Merge Healthcare's offerings are used in all aspects of clinical imaging workflow, including: the display of a patient's digital image; the archiving communication and manipulation of digital images; clinical applications to analyze digital images; and the use of imaging in minimally-invasive surgery. Merge Healthcare has continued to innovate with its product lines and has extended its business into new areas of medical imaging.

Merge Healthcare has its software deployed in hospitals and clinics worldwide through its partner, direct end-user and eCommerce channels and used by clinical trial sponsors and CRO's worldwide. Its software is licensed by many of the world's largest medical device and healthcare information technology companies. With global brand recognition for products such as eFilm Workstation(TM), a downloadable diagnostic imaging application, and MergeCOM-3 DICOM toolkits, Merge Healthcare is able to generate a foothold in new international markets upon which it can expand into additional product lines.

RISK FACTORS

Before you invest in our securities, in addition to the other information, documents or reports incorporated by reference in this prospectus and in any prospectus supplement, you should carefully consider the risk factors set forth in the section entitled "Risk Factors" in any prospectus supplement as well as in "Part I, Item 1A. Risk Factors," in our most recent annual report on Form 10-K, and in "Part II, Item 1A. Risk Factors," in our quarterly reports on Form 10-Q filed subsequent to such Form 10-K, which are incorporated by reference into this prospectus and any prospectus supplement in their entirety, as the same may be updated from time to time by our future filings under the Exchange Act. Each of the risks described in these sections and documents could materially and adversely affect our business,

financial condition, results of operations and prospects, and could result in a loss of your investment.

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FORWARD-LOOKING STATEMENTS

Information both included and incorporated by reference in this Prospectus may contain forward-looking statements, concerning, among other things, Merge Healthcare's outlook, financial projections and business strategies, all of which are subject to risks, uncertainties and assumptions. These forward-looking statements are identified by their use of terms such as "intend," "plan," "may," "should," "will," "anticipate," "believe," "could," "estimate," "expect," "continue," "opportunity," "project" and similar terms. These statements are based on certain assumptions and analyses that each company believes are appropriate under the circumstances. Should one or more of these risks or uncertainties materialize, or should the assumptions prove incorrect, actual results may differ materially from those expected, estimated or projected. Merge Healthcare can not guarantee that it will achieve these plans, intentions or expectations. Forward-looking statements speak only as of the date they are made, and Merge Healthcare undertakes no obligation to publicly update or revise any of them in light of new information, future events or otherwise.

Factors that may impact forward-looking statements include, among others, Merge Healthcare's ability to maintain the technological competitiveness of its current products, develop new products, successfully market its products, respond to competitive developments, develop and maintain partnerships with providers of complementary technologies, manage its costs and the challenges that may come with growth of its business, and attract and retain qualified sales, technical and management employees. Merge Healthcare is also affected by the growth and regulation of the medical technology industry, including the acceptance of enterprise-wide advanced visualization by hospitals, clinics, and universities, product clearances and approvals by the United States Food and Drug Administration and similar regulatory bodies outside the U.S., and reimbursement and regulatory practices by Medicare, Medicaid, and private third-party payer organizations. Merge Healthcare is also affected by the recent downturn in the U.S. and international economies and as such may be further impacted by the lack of credit available to its customers. Merge Healthcare is affected by other factors identified in its filings with the Securities and Exchange Commission, some of which are set forth in the section entitled "Item 1A. Risk Factors" in our most recent Annual Report on Form 10-K and in "Part II, Item 1A. Risk Factors," in our quarterly reports on Form 10-Q filed subsequent to such Form 10-K, which are incorporated by reference into this prospectus and any prospectus supplement in their entirety, as the same may be updated from time to time by our future filings under the Exchange Act. Although Merge Healthcare has attempted to list comprehensively these important factors, it also wishes to caution investors that other factors may prove to be important in the future in affecting its operating results. New factors emerge from time to time, and it is not possible for Merge Healthcare to predict all of these factors, nor can Merge Healthcare assess the impact each factor or combination of factors may have on its business.

These risks and uncertainties, along with the risk factors discussed under "Risk Factors" in this Prospectus, should be considered in evaluating any forward-looking statements contained in this Prospectus. All forward-looking statements speak only as of the date of this Prospectus. All subsequent written and oral forward-looking statements attributable to Merge Healthcare or any person acting on its behalf are qualified by the cautionary statements in this section.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for the periods indicated:

	Nine Months Ended		Year Ended December 31,				
	September 30,		2007	2006	2005	2004	
	2009	2008	2008	2007	2006	2005	2004
Ratio of Earnings to Fixed Charges	1.9	(1)	(2)	(3)	(4)	14.6	3.3

- (1) For the nine months ended September 30, 2008, earnings were insufficient to cover fixed charges by \$25.6 million.
- (2) For the year ended December 31, 2008, earnings were insufficient to cover fixed charges by \$23.7 million.
- (3) For the year ended December 31, 2007, earnings were insufficient to cover fixed charges by \$171.8 million.
- (4) For the year ended December 31, 2006, earnings were insufficient to cover fixed charges by \$249.5 million.

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For purposes of computing these ratios, earnings consists of pre-tax income from continuing operations, plus fixed charges. Fixed charges consist of interest expense and interest portion of rental expense. The ratio is calculated by dividing earnings by the sum of the fixed charges. The interest portion of rental expense is estimated at 23% of rental expense based on net present value analysis.

USE OF PROCEEDS

Unless otherwise indicated in any prospectus supplement, we intend to use the net proceeds from the sale of securities under this prospectus for general corporate purposes, including working capital.

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DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. The debt securities will be our direct general obligations and may include debentures, notes, bonds or other evidences of indebtedness. The debt securities will be either senior debt securities or subordinated debt securities. The debt securities will be issued under one or more separate indentures. Senior debt securities will be issued under a senior debt indenture, and subordinated debt securities will be issued under a subordinated debt indenture. We use the term “indentures” to refer to both the senior indenture and the subordinated indenture. A form of each of the senior indenture and the subordinated indenture is filed as an exhibit to the registration statement of which this prospectus is a part. The indentures will be qualified under the Trust Indenture Act. We use the term “indenture trustee” to refer to either the senior trustee or the subordinated trustee, as applicable.

The following summaries of material provisions of the debt securities and indentures are subject to, and qualified in their entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities and the description thereof contained in the prospectus supplement.

General

We will describe in each prospectus supplement the following terms relating to a series of debt securities:

The title or designation;

Any limit on the principal amount that may be issued;

Whether or not we will issue the series of debt securities in global form, the terms and the Depositary;

The maturity date;

The annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

Whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

The terms of the subordination of any series of subordinated debt;

The place where payments will be payable;

Our right, if any, to defer payment of interest and the maximum length of any such deferral period;

The date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional redemption provisions;

The date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund provisions or otherwise, to redeem, or at the holder’s option to purchase, the series of debt securities;

Whether the indenture will restrict our ability to pay dividends, or will require us to maintain any asset ratios or reserves;

- Whether we will be restricted from incurring any additional indebtedness;
- A discussion on any material or special U.S. federal income tax considerations applicable to the debt securities;
- The denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof; and
 - Any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities.

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Conversion or Exchange Rights

We will set forth in the prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for common stock or other securities. We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of common stock or other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

The indentures will not contain any covenant which restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of our assets must assume all of our obligations under the indentures or the debt securities, as appropriate.

Events of Default Under the Indenture

The following may be events of default under the indentures with respect to any series of debt securities that we may issue:

- If we fail to pay interest when due and our failure continues for a number of days to be stated in the indenture and the time for payment has not been extended or deferred;
- If we fail to pay the principal, or premium, if any, when due and the time for payment has not been extended or delayed;
- If we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for a number of days to be stated in the indenture after we receive notice from the indenture trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and
- If specified events of bankruptcy, insolvency or reorganization occur as to us.

If an event of default with respect to debt securities of any series occurs and is continuing, the indenture trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the indenture trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver will cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture occurs and is continuing, the indenture trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the indenture trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the indenture trustee, or exercising any trust or power conferred on the indenture trustee, with respect to the debt securities of that series, provided that:

- The direction given by the holder is not in conflict with any law or the applicable indenture; and
- Subject to its duties under the Trust Indenture Act, the indenture trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

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A holder of the debt securities of any series will only have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

- The holder has given written notice to the indenture trustee of a continuing event of default with respect to that series;
- The holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request, and such holders have offered reasonable indemnity to the indenture trustee to institute the proceeding as trustee; and
- The indenture trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 60 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the indenture trustee regarding our compliance with specified covenants in the indentures.

Modification of Indenture; Waiver

We and the indenture trustee may change an indenture without the consent of any holders with respect to specific matters, including:

- To fix any ambiguity, defect or inconsistency in the indenture; and
- To change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the indenture trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, we and the indenture trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

- Extending the fixed maturity of the series of debt securities;
- Reducing the principal amount, reducing the rate of or extending the time of payment of interest, or any premium payable upon the redemption of any debt securities; or
- Reducing the percentage of debt securities, the holders of which are required to consent to any amendment.

Discharge

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for obligations to:

- Register the transfer or exchange of debt securities of the series;

Replace stolen, lost or mutilated debt securities of the series;

Maintain paying agencies;

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Hold monies for payment in trust;

Compensate and indemnify the indenture trustee; and

Appoint any successor indenture trustee.

In order to exercise our rights to be discharged, we must deposit with the indenture trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another Depository named by us and identified in a prospectus supplement with respect to that series. See “Book-Entry Issuance” for a further description of the terms relating to any book-entry securities.

Subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series, at its option, can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, no service charge will be required for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- Issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- Register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

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We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check which we will mail to the holder. Unless we otherwise indicate in a prospectus supplement, we will designate the corporate trust office of the indenture trustee in the City of New York as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the indenture trustee for the payment of the principal of or any premium or interest on any debt securities which remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Subordination of Subordinated Notes

The subordinated notes will be unsecured and will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The subordinated indenture does not limit the amount of subordinated notes which we may issue. It also does not limit us from issuing any other secured or unsecured debt.

Regarding the Indenture Trustee

We will name the indenture trustee for debt securities issued under the applicable indenture in the applicable supplement to this prospectus and, unless otherwise indicated in a prospectus supplement, the indenture trustee will also act as Transfer Agent and Paying Agent with respect to the debt securities. The indenture trustee may be removed at any time with respect to the debt securities of any series by act of the holders of a majority in principal amount of the outstanding debt securities of such series delivered to the indenture trustee and to us.

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DESCRIPTION OF COMMON STOCK AND PREFERRED STOCK

Merge Healthcare's authorized capital stock consists of 100,000,000 shares of common stock, par value \$.01 per share, 1,000,000 shares of preferred stock, par value \$.01 per share, and one share of Series 3 Special Voting Stock preferred stock, par value \$.01 per share. As of September 30, 2009, there were 66,127,790 shares of Merge Healthcare Common Stock issued, including 479,997 shares subject to restricted stock awards. There are currently no shares of preferred stock outstanding. The Merge Healthcare Common Stock is held of record by approximately 350 stockholders. On September 30, 2009, 4,853,113 shares of Merge Healthcare Common Stock were subject to outstanding options.

The following description of the terms of the common stock and preferred stock of Merge Healthcare is not complete and is qualified in its entirety by reference to Merge's certificate of incorporation and bylaws, each as amended to date. To find out where copies of these documents can be obtained, see "Where to Obtain More Information."

Common Stock

Holders of Merge Healthcare Common Stock are entitled to receive dividends when, as and if declared by the board of directors, out of funds legally available for the payment of dividends, subject to the rights of holders of preferred stock, if any. On June 19, 2008, Merge Healthcare paid a dividend of \$0.001 on each share of Merge Healthcare Common Stock as part of the termination of a rights plan. Merge Healthcare does not anticipate paying any cash dividends in the foreseeable future. Each holder of Merge Healthcare Common Stock is entitled to one vote per share. Upon any liquidation, dissolution or winding-up of its business, the holders of Merge Healthcare Common Stock are entitled to share equally in all assets available for distribution after payment of all liabilities and provision for liquidation preference of any shares of preferred stock then outstanding. The holders of Merge Healthcare Common Stock have no preemptive rights and no rights to convert their common stock into any other securities. There are also no redemption or sinking fund provisions applicable to the Merge Healthcare Common Stock.

Merge Healthcare Common Stock is listed on the NASDAQ Global Market under the symbol "MRGE."

The transfer agent and registrar for the Merge Healthcare Common Stock is American Stock Transfer and Trust Company LLC.

Preferred Stock

Merge Healthcare's board of directors has the authority, without further action by the stockholders, to issue up to 1,000,001 shares of Merge Healthcare preferred stock in one or more series and to fix the following terms of the preferred stock:

Designations, powers, preferences, privileges;

Relative participating, optional or special rights; and

The qualifications, limitations or restrictions, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences.

Any or all of these rights may be greater than the rights of the Merge Healthcare Common Stock. Of the authorized preferred stock, one share has been designated Series 3 Special Voting Stock preferred stock ("Series 3 Stock"), \$.01 par value per share. The Series 3 Stock ranks senior to Merge Healthcare Common Stock and junior to all other

classes or series of the stock of Merge Healthcare.

Merge Healthcare's board of directors, without stockholder approval, can issue preferred stock with voting, conversion or other rights that could negatively affect the voting power and other rights of the holders of Merge Healthcare Common Stock. Preferred stock could thus be issued quickly with terms calculated to delay or prevent a change in control of Merge Healthcare or make it more difficult to remove Merge Healthcare's management. Additionally, the issuance of Merge Healthcare preferred stock may have the effect of decreasing the market price of Merge Healthcare Common Stock.

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Delaware Law Anti-takeover Provisions

As a Delaware corporation, Merge Healthcare is subject to the provisions of Section 203 of the DGCL. Under Section 203, Merge Healthcare generally would be prohibited from engaging in any business combination with an interested stockholder for a period of three years following the time that the stockholder became an interested stockholder unless:

- Prior to such time, Merge Healthcare's board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder; or
- Upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of Merge Healthcare's voting stock outstanding at the time the transaction commenced, excluding shares owned by persons who are directors and officers, and also by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or at or subsequent to such time, the business combination is approved by Merge Healthcare's board of directors and authorized at an annual or special meeting of Merge Healthcare's stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Under Section 203, a "business combination" includes:

- Any merger or consolidation involving the corporation and the interested stockholder;
- Any sale, transfer, pledge or other disposition of 10% or more of a corporation's assets involving the interested stockholder;
- Any transaction that results in the issuance or transfer by the corporation of any of its stock to the interested stockholder, subject to limited exceptions;
- Any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation's capital stock beneficially owned by the interested stockholder; or the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an "interested stockholder" of Merge Healthcare as any entity or person beneficially owning 15% or more of the outstanding Merge Healthcare voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

The description of Section 203 of the DGCL above is qualified in its entirety by reference to such section.
Certificate of Incorporation and Bylaw Provisions

Various provisions contained in Merge's certificate of incorporation and bylaws, each as amended to date, could delay or discourage some transactions involving an actual or potential change in control of Merge Healthcare or its management and may limit the ability of Merge Healthcare stockholders to remove current management or approve transactions that Merge Healthcare stockholders may deem to be in their best interests. These provisions:

- Authorize Merge Healthcare's board of directors to establish one or more series of undesignated preferred stock, the terms of which can be determined by the board of directors at the time of issuance;

- Require that any action required or permitted to be taken by Merge Healthcare's stockholders must be effected at a duly called annual or special meeting of stockholders and may not be effected by any consent in writing;
- Provide an advanced written notice procedure with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of Merge Healthcare's board of directors or a committee of its board of directors;

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- State that special meetings of Merge Healthcare's stockholders may be called only by the chairman of its board of directors, its chief executive officer or by a majority of its board of directors then in office; and
- Allow Merge Healthcare's directors to fill vacancies on its board of directors, including vacancies resulting from removal or enlargement of the board.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus. The following statements with respect to the warrants are summaries of, and subject to, the detailed provisions of a warrant agreement to be entered into by Merge Healthcare and a warrant agent to be selected at the time of issue (the "warrant agent"), a form of which will be filed with the SEC.

General

The warrants, evidenced by warrant certificates, may be issued under the warrant agreement independently or together with any securities offered by any prospectus supplement and may be attached to or separate from such securities. If warrants are offered, the prospectus supplement will describe the terms of the warrants, including the following:

The offering price, if any;

- If applicable, the designation, aggregate principal amount, and terms of the debt securities purchasable upon exercise of the debt warrants;
- If applicable, the principal amount of debt securities purchasable upon exercise of one debt warrant and the price at which such principal amount of debt securities may be purchased upon such exercise;
- If applicable, the number of shares of preferred stock or common stock purchasable upon exercise of each warrant and the initial price at which such shares may be purchased upon exercise;
- 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;
- If applicable, the date on and after which the warrants and the related securities will be separately transferable;
- The date on which the right to exercise the warrants shall commence and the date on which such right shall expire;

Federal income tax consequences;

Call provisions of such warrants, if any;

Anti-dilution provisions of the warrants, if any;

- Whether the warrants represented by the warrant certificates will be issued in registered or bearer form; and
- Any additional or other terms, procedures, rights, preferences, privileges, limitations and restrictions relating to the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

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The shares of preferred stock or common stock issuable upon the exercise of the warrants will, when issued in accordance with the warrant agreement, be fully paid and non-assessable.

DESCRIPTION OF DEPOSITARY SHARES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the depositary shares that we may offer under this prospectus. The following statements with respect to the depositary shares and depositary receipts are summaries of, and subject to, the detailed provisions of a deposit agreement to be entered into by Merge Healthcare and a depositary to be selected at the time of issue (the “depositary”) and the form of depositary receipt. The form of deposit agreement and the form of depositary receipt will be filed with the SEC.

General

We may, at our option, elect to issue fractional shares of preferred stock, rather than full shares of preferred stock. In the event such option is exercised, we may elect to have a depositary issue receipts for depositary shares, each receipt representing a fraction, to be set forth in the prospectus supplement relating to a particular series of preferred stock, of a share of a particular series of preferred stock as described below.

The shares of any series of preferred stock represented by depositary shares will be deposited under a deposit agreement between us and a bank or trust company that we select. Subject to the terms of the deposit agreement, each owner of a depositary share will be entitled, in proportion to the applicable fraction of a share of preferred stock represented by such depositary share, to all the rights and preferences of the preferred stock represented by the depositary share, including dividend, voting, redemption and liquidation rights.

Depositary Receipts

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Depositary receipts will be distributed to those persons purchasing the fractional shares of preferred stock in accordance with the terms of an offering of the preferred stock.

Withdrawal of Preferred Stock

Upon surrender of depositary receipts at the office of the depositary and upon payment of the charges provided in the deposit agreement, a holder of depositary receipts may have the depositary deliver to the holder the whole shares of preferred stock relating to the surrendered depositary receipts. Holders of depositary shares may receive whole shares of the related series of preferred stock on the basis set forth in the related prospectus supplement for such series of preferred stock, but holders of such whole shares will not after the exchange be entitled to receive depositary shares for their whole shares. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole shares of the related series of preferred stock to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing such excess number of depositary shares.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions received for the preferred stock to the record holders of depositary shares relating to the preferred stock in proportion to the numbers of such depositary shares owned by such holders.

In the event of a distribution other than in cash, the depositary will distribute property received by it to the record holders of depositary shares entitled thereto, unless the depositary determines that it is not feasible to make distribution of the property. In that case the depositary may, with our approval, sell such property and distribute the net proceeds from the sale to such holders.

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Redemption of Depositary Shares

If a series of preferred stock represented by depositary shares is subject to redemption, the depositary shares will be redeemed from the proceeds received by the depositary resulting from the redemption, in whole or in part, of the series of preferred stock held by the depositary. The redemption price per depositary share will be equal to the applicable fraction of the redemption price per share payable with respect to the series of the preferred stock. Whenever we redeem shares of preferred stock held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing shares of preferred stock redeemed by us. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or pro rata as may be determined by the depositary.

Voting the Preferred Stock

Upon receipt of notice of any meeting at which the holders of the preferred stock are entitled to vote, the depositary will mail the information contained in such notice of meeting to the record holders of the depositary shares relating to such preferred stock. Each record holder of such depositary shares on the record date, which will be the same date as the record date for the preferred stock, will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the amount of the preferred stock represented by such holder's depositary shares. The depositary will endeavor, insofar as practicable, to vote the amount of the preferred stock represented by such depositary shares in accordance with such instructions, and we will agree to take all action which may be deemed necessary by the depositary in order to enable the depositary to do so. The depositary will not vote the preferred stock to the extent it does not receive specific instructions from the holders of depositary shares representing such preferred stock.

Amendment and Termination of the Deposit Agreement

We and the depositary at any time may amend the form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement. However, any amendment which materially and adversely alters the rights of the holders of depositary shares will not be effective unless such amendment has been approved by the holders of at least a majority of the depositary shares then outstanding. We or the depositary may terminate the deposit agreement only if all outstanding depositary shares have been redeemed, or there has been a final distribution in respect of the preferred stock in connection with any liquidation, dissolution or winding up of Merge Healthcare and such distribution has been distributed to the holders of depositary receipts.

Charges of Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will pay charges of the depositary in connection with the initial deposit of the preferred stock and any redemption of the preferred stock. Holders of depositary receipts will pay other transfer and other taxes and governmental charges and such other charges as are expressly provided in the deposit agreement to be for their accounts.

Miscellaneous

The depositary will forward to the record holders of the depositary shares relating to such preferred stock all reports and communications from us which are delivered to the depositary.

Neither we nor the depositary will be liable if either one is prevented or delayed by law or any circumstance beyond their control in performing the obligations under the deposit agreement. The obligations of Merge Healthcare and the depositary under the deposit agreement will be limited to performance in good faith of their duties thereunder, and

they will not be obligated to prosecute or defend any legal proceeding in respect of any depositary shares or preferred stock unless satisfactory indemnity is furnished. The depositary may rely upon written advice of counsel or accountants, or information provided by persons presenting preferred stock for deposit, holders of depositary receipts or other persons believed to be competent and on documents believed to be genuine.

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Resignation and Removal of Depositary

The depositary may resign at any time by delivering to us notice of its election to do so, and we may at any time remove the depositary, any such resignation or removal to take effect upon the appointment of a successor depositary and its acceptance of such appointment. Such successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal.

DESCRIPTION OF STOCK PURCHASE CONTRACTS AND STOCK PURCHASE UNITS

We may issue stock purchase contracts, representing contracts obligating holders to purchase from us, and we may sell to the holders, a specified number of shares of common stock at a future date or dates. The price per share of common stock may be fixed at the time the stock purchase contracts are issued or may be determined by reference to a specific formula set forth in the stock purchase contracts. Stock purchase contracts may be issued separately or as a part of units (“stock purchase units”) consisting of a stock purchase contract and either (i) senior debt securities or subordinated debt securities or (ii) debt obligations of third parties, including U.S. Treasury securities, securing the holder’s obligations to purchase the common stock under the stock purchase contracts. The stock purchase contracts may require us to make periodic payments to the holders of the stock purchase units or vice versa, and such payments may be unsecured or prefunded on some basis. The stock purchase contracts may require holders to secure their obligations thereunder in a specified manner and in certain circumstances we may deliver newly issued prepaid stock purchase contracts (“prepaid securities”) upon release to a holder of any collateral securing such holder’s obligations under the original stock purchase contract.

The applicable prospectus supplement will describe the terms of any stock purchase contracts or stock purchase units and, if applicable, prepaid securities. Certain material United States Federal income tax considerations applicable to the stock purchase units and stock purchase contracts will be set forth in the prospectus supplement relating thereto.

BOOK-ENTRY ISSUANCE

Unless otherwise indicated in a prospectus supplement, the debt securities of a series offered by us will be issued in the form of one or more fully registered global securities. We anticipate that these global securities will be deposited with, or on behalf of, the Depository Trust Company and registered in the name of its nominee. Except as described below, the global securities may be transferred, in whole and not in part, only to DTC or to another nominee of DTC.

DTC has advised us that it is:

- A limited-purpose trust company organized under the New York Banking Law;
- A “banking organization” within the meaning of the New York Banking Law;
- A member of the Federal Reserve System;
- A “clearing corporation” within the meaning of the New York Uniform Commercial Code; and
- A “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934.

DTC was created to hold securities for institutions that have accounts with DTC (“participants”) and to facilitate the clearance and settlement of securities transactions among its participants through electronic book-entry changes in participants’ accounts. Participants include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations, some of whom (and/or their representatives) own DTC. Access to DTC’s book-entry

system is also available to others that clear through or maintain a custodial relationship with a participant, either directly or indirectly. DTC administers its book-entry system in accordance with its rules and bylaws and legal requirements.

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Upon issuance of a global security representing offered securities, DTC will credit on its book-entry registration and transfer system the principal amount to participants' accounts. Ownership of beneficial interests in the global security will be limited to participants or to persons that hold interests through participants. Ownership of interests in the global security will be shown on, and the transfer of those ownership interests will be effected only through, records maintained by DTC (with respect to participants' interests) and the participants (with respect to the owners of beneficial interests in the global security). The laws of some jurisdictions may require that certain purchasers of securities take physical delivery of those securities in definitive form. These limits and laws may impair the ability to transfer beneficial interests in a global security.

So long as DTC (or its nominee) is the registered holder and owner of a global security, DTC (or its nominee) will be considered, for all purposes under the applicable indenture, the sole owner and holder of the related offered securities. Except as described below, owners of beneficial interests in a global security will not:

- Be entitled to have the securities registered in their names; or
- Receive or be entitled to receive physical delivery of certificated securities in definitive form.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC's records. The ownership interest of each actual purchaser of each debt security ("beneficial owner") is in turn recorded on the Direct and indirect participants' records. A beneficial owner does not receive written confirmation from DTC of its purchase, but is expected to receive a written confirmation providing details of the transaction, as well as periodic statements of its holdings, from the direct or indirect participants through which such beneficial owner entered into the action. Transfers of ownership interests in securities are accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners do not receive certificates representing their ownership interests in securities, except in the event that use of the book-entry system for the securities is discontinued.

To facilitate subsequent transfers, the securities are registered in the name of DTC's partnership nominee, Cede & Co. The deposit of the securities with DTC and their registration in the name of Cede & Co. will effect no change in beneficial ownership. DTC has no knowledge of the actual beneficial owners of the securities; DTC records reflect only the identity of the direct participants to whose accounts securities are credited, which may or may not be the beneficial owners. The participants remain responsible for keeping account of their holdings on behalf of their customers.

Delivery of notice and other communications by DTC to direct participants, by direct participants to indirect participants, and by direct participants and indirect participants to beneficial owners are governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Neither DTC nor Cede & Co. consents or votes with respect to the securities. Under its usual procedures, DTC mails a proxy (an "Omnibus Proxy") to the issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those direct participants to whose accounts the securities are credited on the record date (identified on a list attached to the Omnibus Proxy).

Redemption proceeds, distributions and dividend payments, if any, on the securities will be made to DTC. DTC's practice is to credit direct participants' accounts on the payment date in accordance with their respective holdings as shown on DTC's records, unless DTC has reason to believe that it will not receive payment on the payment date. Payments by participants to beneficial owners are governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and are the responsibility of such Participant and not of DTC, the trustee or us, subject to any statutory or regulatory requirements

as may be in effect from time to time. Payment of principal and interest, if any, to DTC is our or the trustee's responsibility, disbursement of such payments to direct participants is DTC's responsibility, and disbursement of such payments to the beneficial owners is the responsibility of direct and indirect participants.

DTC may discontinue providing its services as securities depository with respect to the securities at any time by giving reasonable notice to us or the trustee. Under such circumstances, in the event that a successor securities depository is not appointed, debt security certificates are required to be printed and delivered.

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We may decide to discontinue use of the system of book-entry transfers through DTC or a successor securities depository. In that event, debt security certificates will be printed and delivered.

We have obtained the information in this section concerning DTC and DTC's book-entry system from sources that we believe to be reliable, but we take no responsibility for the accuracy of this information.

None of us, any underwriter or agent, the trustee or any applicable paying agent will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial interests in a global security, or for maintaining, supervising or reviewing any records relating to such beneficial interest.

PLAN OF DISTRIBUTION

- Through underwriters or dealers;
- Directly to one or more purchasers;
- Through agents; or
- Through any other methods described in a prospectus supplement.

The prospectus supplement will state the terms of the offering of the securities, including:

- The name or names of any underwriters, dealers or agents;
- The purchase price of such securities and the proceeds to be received by Merge, if any;
- Any underwriting discounts or agency fees and other items constituting underwriters' or agents' compensation;
- Any public offering price;
- Any discounts or concessions allowed or reallocated or paid to dealers; and
- Any securities exchanges on which the securities may be listed.

Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

Securities may also be sold in one or more of the following transactions, or in any transactions described in a prospectus supplement:

- Block transactions in which a broker-dealer may sell all or a portion of the securities as agent but may position and resell all or a portion of the block as principal to facilitate the transaction;
 - Purchase by a broker-dealer as principal and resale by the broker-dealer for its own account;
- A special offering, an exchange distribution or a secondary distribution in accordance with the rules of any exchange on which the securities are listed;
 - Ordinary brokerage transactions and transactions in which a broker-dealer solicits purchasers;

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- Sales “at the market” to or through a market maker or into an existing trading market, on an exchange or otherwise; or
- Sales in other ways not involving market makers or established trading markets, including direct sales to purchasers.

The securities we sell by any of the methods described above may be sold to the public, in one or more transactions, either:

- At a fixed public offering price or prices, which may be changed;
- At market prices prevailing at the time of sale;
- At prices related to prevailing market prices; or
- At negotiated prices.

We may sell the securities through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the securities and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment.

We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the securities from Merge 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 only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Underwriters and agents may be entitled under agreements entered into with Merge to indemnification by Merge against certain civil liabilities, including liabilities under the Securities Act of 1933, or to contribution with respect to payments which the underwriters or agents may be required to make. Underwriters and agents may engage in transactions with, or perform services for Merge and its affiliates in the ordinary course of business. In compliance with the guidelines of the Financial Industry Regulatory Authority ("FINRA"), the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of any offering pursuant to this prospectus and any applicable prospectus supplement, as the case may be.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplements, certain legal matters in connection with the securities will be passed upon for us by McDermott Will & Emery LLP, Chicago, Illinois.

EXPERTS

The financial statements of Merge Healthcare as of December 31, 2008 and for the year then ended incorporated by reference in this Prospectus have been so incorporated in reliance on the report of BDO Seidman, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Merge Healthcare as of December 31, 2007, and for each of the years in the two-year period ended December 31, 2007, have been incorporated by reference herein in reliance upon the report, dated March 31, 2008, of KPMG LLP, an independent registered public accounting firm, incorporated by reference

herein, and upon the authority of KPMG LLP as experts in accounting and auditing. KPMG LLP's report covering the December 31, 2007 consolidated financial statements contains an explanatory paragraph that states that Merge Healthcare's recurring losses from operations and negative cash flows raise substantial doubt about its ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty. KPMG LLP's report covering the December 31, 2007 consolidated financial statements also contains an explanatory paragraph relating to the adoption of Financial Accounting Standards Board Interpretation No. 48, Accounting for Uncertainty in Income Taxes, as of January 1, 2007, and the adoption of Statement of Financial Accounting Standards No. 123 (revised 2004), Share-Based Payment, as of January 1, 2006.

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The consolidated financial statements of etrials Worldwide, Inc. appearing in etrials Worldwide Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2008 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of Confirma, Inc. as of and for the years ended December 31, 2008 and 2007 have been audited by Voldal Wartelle & Co., P.S., independent certified public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference to the Current Report on Form 8-K filed on September 2, 2009, as amended on September 4, 2009 and September 24, 2009. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

Merge Healthcare files annual, quarterly and current reports, proxy statements and other information with the SEC. The public may read and copy any reports, statements or other information that Merge Healthcare files with the SEC 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 regarding the public reference room. Merge Healthcare's public filings also are available to the public from commercial document retrieval services and may be obtained without charge at the SEC's website at www.sec.gov. Merge Healthcare's filings with the SEC are also available on its website at www.merge.com. The contents of this website are not incorporated by reference into this Prospectus.

Merge Healthcare has filed with the SEC a Registration Statement on Form S-3 to register the offer and sale of shares of Merge Healthcare Common Stock (the "Registration Statement"). This Prospectus is a part of that registration statement. Merge Healthcare may also file amendments to such registration statement. As allowed by SEC rules, this Prospectus does not contain all of the information in the Registration Statement or the exhibits to the Registration Statement. You may obtain copies of the Form S-3 (and any amendments to those documents) by contacting the information agent as directed on the back cover of this Prospectus.

INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows Merge Healthcare to incorporate information into this Prospectus "by reference," which means that Merge Healthcare can disclose important information by referring to another document or information filed separately with the SEC. The information incorporated by reference is deemed to be part of this Prospectus, except for any information amended or superseded by information contained in, or incorporated by reference into, this Prospectus. This Prospectus incorporates by reference the documents and information set forth below that Merge Healthcare (File No. 29486) has previously filed (but not furnished) with the SEC. These documents contain important information about Merge Healthcare and its financial condition.

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Merge Healthcare Filings (File No. 29486)

Merge Healthcare Information Incorporated by Reference Period Covered or Date of Filing

Quarterly Report on Form 10-Q for fiscal quarter ended September 30, 2009, as filed with the SEC on October 30, 2009 Fiscal quarter ended September 30, 2009

Quarterly Report on Form 10-Q for fiscal quarter ended June 30, 2009, as filed with the SEC on July 31, 2009 Fiscal quarter ended June 30, 2009

Quarterly Report on Form 10-Q for fiscal quarter ended March 31, 2009, as filed with the SEC on May 8, 2009 Fiscal quarter ended March 31, 2009

Annual Report on Form 10-K for fiscal year ended December 31, 2008, as filed with the SEC on March 11, 2009 Fiscal year ended December 31, 2008

Proxy Statement on Schedule 14A as filed with the SEC on April 24, 2009 (other than such information that is included in the proxy statement but not deemed to be filed with the SEC).

The description of Merge Healthcare Common Stock set forth in Merge Healthcare's Registration Statement on Form 8-A, filed with the SEC on January 9, 1998, including all amendments and reports filed for the purpose of updating such description.

Current Reports on Form 8-K

Filed with the SEC on:

- June 2, 2009
- April 16, 2009
- April 6, 2009
- March 5, 2009
- February 17, 2009
- January 7, 2009
- June 16, 2009
- July 15, 2009
- July 20, 2009
- August 10, 2009
- September 2, 2009 (as amended on September 4, 2009 and September 24, 2009)

The consolidated financial statements of etrials Worldwide, Inc. for the fiscal years ended December 31, 2008 and 2007, as set forth on pages F-15 to F-36 in the Prospectus filed with the SEC pursuant to Rule 424(b)(3) on July 16, 2009

The unaudited pro forma condensed consolidated financial statements of Merge Healthcare Incorporated and etrials Worldwide, Inc. for the three and twelve

month periods ended March 31, 2009 and December 31, 2008, respectively, as set forth on pages 90 to 100 in the Prospectus filed with the SEC pursuant to Rule 424(b)(3) on July 16, 2009

Merge Healthcare does not incorporate portions of any document that is either (a) described in paragraphs (d)(1) through (3) and (e)(5) of Item 407 of Regulation S-K promulgated by the SEC or (b) furnished under Item 2.02 or Item 7.01 of any Current Report on Form 8-K. Merge Healthcare hereby incorporates by reference all future filings by Merge Healthcare made pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date of this prospectus. Nothing in this Prospectus shall be deemed to incorporate information furnished but not filed with the SEC.

Merge Healthcare will provide without charge upon written or oral request, a copy of any or all of the documents which are incorporated by reference to this prospectus, other than exhibits which are specifically incorporated by reference into those documents. Requests should be directed to Corporate Secretary, Merge Healthcare Incorporated, 6737 West Washington Street, Milwaukee, WI 53214-5650, telephone: (414) 977-4000.

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

Our estimated expenses in connection with the distribution of the securities being registered are as set forth in the following table:

SEC Registration Fee	\$6,000	*
Printing and Engraving Expenses	-	*
Legal Fees and Expenses	25,000	*
Accounting Fees and Expenses	30,000	*
Miscellaneous	-	*
Total	\$61,000	

*Estimated to nearest thousand U.S. dollars.

Item 15. Indemnification of Directors and Officers

Merge Healthcare is a Delaware corporation. Reference is made to Section 102(b)(7) of the General Corporation Law of the State of Delaware (the "DGCL"), which enables a corporation in its original certificate of incorporation or an amendment to eliminate or limit the personal liability of a director for violations of the director's fiduciary duty, except:

- For any breach of the director's duty of loyalty to the corporation or its stockholders;
- For acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- Pursuant to Section 174 of the DGCL (providing for liability of directors for unlawful payment of dividends or unlawful stock purchases or redemptions); or
- For any transaction from which a director derived an improper personal benefit.

Reference is also made to Section 145 of the DGCL, which provides that a corporation may indemnify any persons, including officers and directors, who are, or are threatened to be made, parties to any threatened, pending or completed legal action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was a director, officer, employee or agent of such corporation or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such director, officer, employee or agent acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe that the person's conduct was unlawful. A Delaware corporation may indemnify officers and directors in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged

to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses that such officer or director actually and reasonably incurred. The indemnification permitted under the DGCL is not exclusive, and a corporation is empowered to purchase and maintain insurance against liabilities, whether or not indemnification would be permitted by statute.

Article XI of Merge's Bylaws provides in effect that, subject to certain limited exceptions, Merge Healthcare shall indemnify its directors and officers to the extent not prohibited by the DGCL. Merge's directors and officers are insured under policies of insurance maintained by Merge Healthcare, subject to the limits of the policies, against certain losses arising from any claims made against them by reason of being or having been such directors or officers. In addition, Merge Healthcare has entered into contracts with certain of its directors providing for indemnification of such persons by Merge Healthcare to the full extent authorized or permitted by law, subject to certain limited exceptions.

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Item 16. Exhibits and Financial Statement Schedules

Exhibits

1.1*	Form of Underwriting Agreement for Equity Securities
1.2*	Form of Underwriting Agreement for Debt Securities and Related Warrants.
1.3*	Form of Underwriting Agreement for Stock Purchase Contracts and Stock Purchase Units
2.1	Merger Agreement, dated August 7, 2009, between Registrant and Confirma, Inc. (incorporated herein by reference to Exhibit 99.1 to Merge Healthcare's Current Report on Form 8-K filed with the SEC on August 7, 2009).
2.2	Merger Agreement, dated May 30, 2009, between Registrant and etrials Worldwide, Inc. (incorporated herein by reference to Exhibit 99.2 to Merge Healthcare's Current Report on Form 8-K filed with the SEC on May 30, 2009).
3.1	Certificate of Incorporation of Merge Healthcare Incorporated (incorporated herein by reference to Exhibit 3.1 to Merge Healthcare's Annual Report on Form 10-K for the fiscal year ended December 31, 2008)
3.2	Bylaws, (incorporated herein by reference to Exhibit 3.3 to Merge Healthcare's Annual Report on Form 10-K for the fiscal year ended December 31, 2008)
4.1+	Form of Indenture for Senior Debt Securities
4.2+	Form of Indenture for Subordinated Debt Securities
4.3.*	Form of Debt Security
4.4*	Form of Deposit Agreement
4.5*	Form of Depositary Receipt
4.6*	Form of Deposit Agreement
4.7*	Form of Depositary Receipt
4.8*	Form of Stock Warrant Agreement
4.9*	Form of Debt Warrant Agreement
4.10	Term Note, dated June 4, 2008, between Registrant and Merrick RIC, LLC (incorporated by reference to Exhibit 4.1 to Merge Healthcare's Current Report on Form 8-K dated June 6, 2008).
5.1+	Opinion of McDermott Will & Emery LLP
12.1+	Computation of Ratio of Earnings to Fixed Charges
23.1	Consent of BDO Seidman, LLP
23.2	Consent of KPMG LLP
23.3	Consent of Ernst & Young LLP
23.4	Consent of Voldal Wartelle & Co., P.S.
23.5+	Consent of McDermott Will & Emery LLP (included in the opinion filed as Exhibit 5.1)
24+	Powers of Attorney (included on the signature pages hereto)
25*	Statement of Eligibility of the Trustee on Form T-1 with respect to the Indentures for Senior Debt Securities and Subordinated Debt Securities

* To be filed as an exhibit to a Current Report on Form 8-K.

+ Previously filed as exhibit to Registration Statement on Form S-3 filed September 2, 2009

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Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended, or the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended, that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for purposes of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser,

(i) each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i)(x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration

statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

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- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser,
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and;
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (d)(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act will be deemed to be part of this registration statement as of the time it was declared effective.
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- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus will be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time will be deemed to be the initial bona fide offering thereof.
- (e) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC under Section 305(b)(2) of the Trust Indenture Act.
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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Milwaukee, State of Wisconsin on November 3, 2009.

MERGE HEALTHCARE INCORPORATED

By /s/ Justin C. Dearborn
Name: Justin C. Dearborn
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated on November 3, 2009.

Signature	Title
* Michael W. Ferro, Jr.	Chairman
* Justin C. Dearborn	Director and Chief Executive Officer
* Dennis Brown	Director
* Gregg G. Hartemayer	Director
* Richard A. Reck	Director
* Neele E. Stearns, Jr.	Director
/s/ Steven M. Oreskovich Steven M. Oreskovich	Chief Financial Officer and Attorney-in-Fact (principal accounting officer)

* Pursuant to Attorney-in-Fact
