VITAL IMAGES INC
Form 10-K
March 16, 2009
Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2008

OR

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 0-22229

Vital Images, Inc.

(Exact name of registrant as specified in its charter)

Minnesota (State or other jurisdiction of incorporation or organization)	**42-1321776** (I.R.S. Employer Identification No.)
5850 Opus Parkway, Suite 300 **Minnetonka, MN 55343-4414** (Address of principal executive offices)	**55343-4414** (Zip Code)

(952) 487-9500

(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, $.01 par value	NASDAQ Global Select Market

Securities registered pursuant to Section 12(g) of the Act: **None**

Not applicable.

(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.

Yes o No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is a large accelerated filer, an 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 o

Accelerated filer x

Non-accelerated filer o
(Do not check if a smaller reporting company)

Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

As of June 30, 2008, the last day of the registrant s most recently completed second fiscal quarter, the aggregate market value of the registrant s common stock held by non-affiliates of the registrant was $213,381,914. The common stock is the registrant s only class of voting stock.

The number of shares outstanding of the issuer s class of common stock as of March 9, 2009 was 14,552,991 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of registrant s definitive Proxy Statement in connection with the Annual Meeting of Stockholders to be held May 14, 2009 (2009 Proxy Statement) are incorporated by reference into Part III of this Form 10-K, as indicated in Items 10 through 14 of Part III.

Table of Contents

Vital Images, Inc.

Form 10-K

Table of Contents

Table of Contents

Part I

Cautionary Statement Regarding Forward-Looking Information

Vital Images desires to take advantage of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 (the Reform Act) and is filing this cautionary statement in connection with the Reform Act. This Annual Report on Form 10-K and any other written or oral statements made by us or on our behalf may include forward-looking statements that reflect our current views with respect to future events and future financial performance. Certain statements in this Annual Report on Form 10-K are forward-looking statements within the meaning of Section 27(a) of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. You can identify these forward-looking statements by our use of the words believes, anticipates, forecasts, projects, could, plans, expects, may, will, would, intends, estimates and similar expressions, whether in the negative or affirmative. We wish to caution you that any forward-looking statements made by us or on our behalf are subject to uncertainties and other factors that could cause such statements to be wrong. We cannot guarantee that we actually will achieve these plans, intentions or expectations. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements that we make. These statements are only predictions and speak only of our views as of the date the statements were made. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, and/or performance of achievements. We do not assume any obligation to update or revise any forward-looking statements that we make, whether as a result of new information, future events or otherwise.

Factors that may impact forward-looking statements include, among others, our abilities to maintain the technological competitiveness of our current products, develop new products, successfully market our products, respond to competitive developments, develop and maintain partnerships with providers of complementary technologies, manage our costs and the challenges that may come with growth of our business, and attract and retain qualified sales, technical and management employees. We are also affected by the growth and regulation of the medical technology industry, including the acceptance of 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 United States, and reimbursement and regulatory practices by Medicare, Medicaid, and private third-party payer organizations. We are also affected by other factors identified in our filings with the Securities and Exchange Commission, some of which are set forth in the section entitled Item 1A. Risk Factors in this Annual Report on Form 10-K (and many of which we have discussed in prior filings). Although we have attempted to list comprehensively these important factors, we also wish to caution investors that other factors may prove to be important in the future in affecting our operating results. New factors emerge from time to time, and it is not possible for us to predict all of these factors, nor can we assess the impact each factor or combination of factors may have on our business.

Item 1. Business

Our Business

Vital Images, Inc. (Vital Images, we, us, or our) is a leading provider of advanced visualization and image analysis solutions for use by medical professionals in clinical analysis and therapy planning for medical conditions. We provide software, customer education, software maintenance and support, professional services and, on occasion, third-party hardware to our customers. Our technology rapidly transforms complex data generated by diagnostic imaging equipment into functional digital images that can be manipulated and analyzed using our specialized applications to better understand internal anatomy and pathology. Our solutions are designed to improve physician workflow and productivity, enhance the ability to make clinical decisions, facilitate less invasive patient care, and complement often significant capital investments in diagnostic imaging equipment made by our customers. Our software is compatible with equipment from all major manufacturers of diagnostic imaging equipment, such as computed tomography (CT) scanners, and can be integrated into picture archive and communication systems (PACS). Many hospitals use PACS to acquire, distribute and archive medical images and diagnostic reports, reducing the need for film and increasing reliance on advanced visualization solutions such as ours. We also offer a Web-based solution that provides physicians with anywhere, anytime access to medical images and visualization tools through any Internet-enabled computer.

We were founded and incorporated in Iowa in September 1988, and we re-incorporated in Minnesota in March 1997. Our principal executive offices are located at 5850 Opus Parkway, Suite 300, Minnetonka, MN 55343 (telephone (952) 487-9500, facsimile (952) 487-9510, e-mail info@vitalimages.com). From May 24, 1994

Table of Contents

through May 11, 1997, we were a wholly-owned subsidiary of Bio-Vascular, Inc., which is now known as Synovis Life Technologies, Inc.

Our corporate website address is www.vitalimages.com. To access our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, other reports and documents filed with or furnished to the United States Securities and Exchange Commission (the SEC) and amendments to these reports free of charge, go to the Investors section of our website, then to the Financial Info & Filings category, and then to the SEC Filings subcategory, where we make such filings available as soon as reasonably practicable after they are filed with or furnished to the SEC. The Corporate Governance category of the Investors section of our website also contains free copies of the Charters for the Audit Committee, Compensation Committee, and Governance Committee of our Board of Directors, as well as our Code of Business Conduct and Ethics, which is our written code of ethics under Section 406 of the Sarbanes-Oxley Act of 2002. Each of the above referenced documents can also be obtained free of charge (other than a reasonable charge for copying exhibits to our reports on Forms 10-K, 10-Q or 8-K) in print by any shareowner who requests them from our investor relations department. The investor relations department s email address is investorrelations@vitalimages.com and its mail address is: Investor Relations, Vital Images, Inc., 5850 Opus Parkway, Suite 300, Minnetonka, MN 55343. Information available on our website is not incorporated by reference into this Annual Report on Form 10-K.

You may also obtain copies of our SEC filings on the SEC s website at www.sec.gov or at the SEC s Public Reference Room at 100 F Street N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

ViTAL Enterprise, introduced in May 2008, enables unlimited enterprise access to the complete ViTAL solution offering, including *Vitrea*, *Vitrea Web*, *ViTALConnect* and our specialized clinical options. *ViTAL Enterprise* provides customers with full access to our best-in-class clinical solutions and comprehensive services, including education, consulting and maintenance. *ViTAL Enterprise* has the flexibility to scale to the size of the customer s enterprise by providing access to the complete ViTAL solution based on unlimited users or concurrent users. Additionally, *ViTAL Enterprise* offers customers the ability to license the solution through capital or subscription pricing, and it is available to our worldwide installed base of existing customers. Going forward, we anticipate an increasing percentage of license fee revenue will be from sales of *ViTAL Enterprise*.

Vitrea® software, our flagship software product, is an easy-to-use, intuitive, high-speed volume rendering technology that creates interactive two-dimensional, or 2D, three-dimensional, or 3D, and four-dimensional, or 4D, images from information generated by standard CT scanners. *Vitrea* is commonly deployed on standalone workstations, as well as on PACS, using standard computer hardware, and provides advanced visualization for radiological, cardiac, oncological and surgical applications. *Vitrea* renders vibrant, clear, color images at high speeds and enables users to interactively navigate within these images to visualize, measure and understand internal structures and disease conditions. We believe our user interfaces are intuitive, and they are specifically configured to assist physicians in optimizing their clinical workflow.

Vitrea Web provides users with everywhere access to Vital Images powerful advanced clinical applications via the Web. With *Vitrea Web*, customers have the same capabilities of a standalone workstation to review, analyze, and communicate findings, all from any PC. *Vitrea Web* enables advanced best of breed clinical applications access

throughout the healthcare enterprise.

ViTALConnect® software allows multiple physicians to collaboratively use advanced visualization in their medical practices. It provides radiologists and referring physicians anywhere, anytime access to interactive 2D, 3D and 4D medical images and the ability to measure, rotate, analyze and segment those images. Our latest release includes features previously available only on multimodality workstations, such as a variety of multi-planar reformat, or MPR, modes, thick slab rendering in MPR, 3D volumetric visualization with simple point of interest navigation, 4D dataset visualization, CT/positron emission tomography, or PET, fusion and advanced analysis tools.

Table of Contents

Advanced visualization options expand the relevance of our products beyond the radiology department to referring physicians and surgical specialists, particularly in the areas of cardiology, cardiovascular, oncology, neurology and gastroenterology. Our advanced visualization options allow physicians to customize their software according to their unique requirements. Most options are proprietary; however, *ViTAL Enterprise* and *Vitrea* also serve as an integration platform for applications offered by our visualization technology partners. Our options include:

Vitrea Option	Clinical Use
•Vscore	Quantifies calcium in the four major coronary arteries
•CT Brain Perfusion	Analyzes the blood flow of stroke victims
•Innerview GI (virtual colonoscopy)	Locates and analyzes polyps in the colon
•Automated Vessel Measurements	Characterizes the course and dimensions of diseased blood vessels
•CT Cardiac	Determines the extent of obstructive coronary artery disease
•SUREPlaque	Aids in evaluating, characterizing and quantifying plaque inside the coronary arteries
•Vessel Probe	Defines vascular anatomy and the extent of obstruction in vessels other than the coronary arteries
•CT Lung and Lung Tools	Visualizes and measures nodules in the lungs
•ImageChecker® CT	Detects pulmonary nodules in the chest
•Fusion7D	Visualizes images and fuse studies from multiple modalities, such as magnetic resonance, or MR, and PET
•CADstream	Analyzes MR breast exams
•QMass MR	Analyzes MR cardiac images
•EP Planning	3D advanced visualization and modeling tool for the electrophysiology lab
•Collaboration	Enables two users to collaborate while viewing the same study at the same time
•PET/CT Overlay	Provides the ability to overlay PET and CT images with Standardized Uptake Value (SUV) calculations

Our software solutions are used with medical diagnostic equipment, primarily in clinical analysis and therapy planning. Our software applies proprietary technologies to a variety of data supplied by CT scanners to allow medical clinicians to create 2D, 3D and 4D views of human anatomy and to non-invasively navigate within these images to better visualize and understand internal structures and pathologies. Our main customers are hospitals and clinics, university medical schools and diagnostic imaging centers. We market our products and services to these customers both directly through our own sales force and indirectly through digital imaging equipment manufacturers and PACS companies, who sell our products with other products they either manufacture or acquire from third parties.

Our products work with equipment from all major manufacturers of diagnostic imaging systems, including Toshiba Medical Systems Corporation (Toshiba), GE Healthcare (GE), Siemens Medical Systems, Inc. (Siemens) and Philips Medical Systems (Philips). Our products may also be integrated into PACS, such as those marketed by McKesson Corporation (McKesson) and Sectra AB (Sectra), and run on off-the-shelf third-party computer hardware.

Maintenance and Services

In addition to software products, we provide maintenance and support services, as well as certain other services, such as installation and customer education. We offer maintenance and support services for our software solutions pursuant to which we provide error correction, software enhancements, updates and upgrades, telephone support and other general support services.

Market Opportunity

We believe the number and complexity of advanced medical imaging examinations creates a substantial opportunity for us in the medical imaging market. Diagnostic CT scanning equipment today is capable of quickly generating thousands of discrete images in a single imaging exam, which is many times more than were generally attained in such exams as few as five years ago. This substantial data output cannot be analyzed in a timely or cost-effective manner without the use of digital solutions capable of handling these large data sets efficiently and accurately. Physicians require advanced visualization solutions that can quickly render 2D, 3D and 4D images to improve their

Table of Contents

clinical efficiency and efficacy as healthcare organizations search for ways to increase throughput and gain operational efficiencies in their day-to-day practices.

While advanced visualization applications are commonly used by radiologists, usage is becoming more widespread among non-radiology specialties. In general, we expect to benefit as advanced visualization software is used increasingly throughout the healthcare enterprise by non-radiology clinicians and physicians. Non-radiology clinical specialties are using advanced visualization and analysis tools to improve productivity and facilitate less invasive patient care. Expanding usage of our products in other clinical specialties, including cardiology, neurology, women s health, respiratory pulmonary medicine, gastroenterology and surgery, will serve to expand our user base across the healthcare enterprise. In addition, images are now being used by referring physicians to educate patients, plan treatment and monitor patient progress.

This shift has created demand for advanced visualization solutions that can be accessed throughout the enterprise. We facilitate enterprise-wide advanced visualization by distributing images and certain analysis tools directly using *VitreaWeb* and *ViTALConnect* which allow remote access to *Vitrea s* toolset, as well as through our ability to integrate with PACS and other healthcare information technology systems.

In general, we believe that several macro market trends will drive long-term demand for our products:

- increasing number of imaging exams performed due to the expanded use of CT imaging procedures by physicians and an aging U.S. population;
- technological advancements enabling CT scanners to generate thousands of images per exam;
- demand from radiologists, non-radiologists and other referring physicians for advanced visualization solutions that can improve productivity, optimize clinical workflow and enhance treatment planning;
- international markets are still in the early phases of adopting advanced healthcare technology and will continue to purchase increasingly more advanced healthcare technology as healthcare infrastructure and demand for advanced services increase;
- increasing use of imaging technology throughout the healthcare enterprise, in part due to the integration of advanced visualization with healthcare information technology systems; and
- growing importance of integrating advanced visualization and analysis tools into the clinical enterprise to facilitate collaboration among clinicians and physicians, increase access to information and improve workflow productivity.

In 2008, as was the case in 2007, market demand for advanced visualization solutions decreased. We believe the decrease in market demand in 2008 was caused primarily by the following factors:

- a general slowdown in hospital purchasing as a result of the global credit crisis and other macroeconomic factors;

- a reduction in purchases of CT scanners and other imaging related healthcare information technology, as a result of the broader economic slowdown and its related effect on imaging spending;

- decreases in reimbursement for imaging procedures, typified by the reductions of reimbursement to imaging centers resulting from the Deficit Reduction Act of 2005;

- reductions in purchases by medical imaging facilities due to reduced profitability for that industry resulting from increased regulatory requirements and reductions in reimbursement; and

- a maturing of the PACS market, as most large hospitals have previously installed PACS, resulting in the PACS market being a replacement market instead of a new installation market.

We expect many of the factors affecting the market in 2008 to continue into 2009. Based on current and anticipated 2009 hospital spending patterns and the condition of the overall economy in the U.S., we expect a decrease in the imaging equipment market and advanced visualization market in 2009. These factors will affect not only our core customer base of radiologists but all potential users of advanced visualization. At this time, it is difficult to predict market growth rates beyond 2009. However, until there are improvements in the credit markets and general availability of debt instruments to help hospitals fund healthcare technology purchases, we expect that the environment will remain challenging.

Strengths

One of our key competitive differentiators from other advanced visualization providers is our focus on, and investment in, developing intuitive, user-friendly software. Our software is designed to automate common elements

Table of Contents

of physician visualization workflow, which makes our software simple to use and facilitates user adoption across a broad range of constituents in the healthcare enterprise. We believe that workflow automation and general ease-of-use are important factors that customers consider when choosing our solutions. In addition, we believe that the following additional competitive strengths also contribute to our success:

- our compatibility with all major diagnostic imaging scanners and with many different healthcare information technologies, including PACS and Electronic Medical Records (EMRs);
- our ability to render integrated 2D, 3D and 4D images at high speeds and with interactive navigation capabilities using a relatively low-cost standard computer;
- our large installed base of customers and our related commitment to service excellence, which contributes to our strong recurring revenue stream in the form of ongoing maintenance and support revenue;
- our relationship with Toshiba, through which our products are distributed globally;
- our modular products for digital equipment manufacturers, PACS vendors and end-user customers that can easily be segmented or integrated into the healthcare information technology environment; and
- our ability to distribute our applications throughout a healthcare enterprise through our Web-based solutions and extensible infrastructure platform.

Strategy

Our goal is to be a leading provider of advanced visualization and image analysis solutions that we believe can improve clinical outcomes and reduce the overall cost of healthcare for our customers by improving both physician productivity and patient outcomes. To achieve this goal, we intend to continue advancing via the following key strategies:

- develop and maintain leading-edge, advanced visualization technology;
- increase penetration of our existing customer base and provide excellent customer service;
- expand our software functionality to appeal to a broader base of users;
- expand our presence in the advanced visualization market by continuing to make our products easy to integrate with other healthcare information technologies;
- build on and grow our relationship with Toshiba and McKesson;
- grow our business internationally;

- grow our collaborative partnerships with leading medical technology companies; and
- selectively pursue strategic acquisitions.

Marketing and Distribution

We market our products both as standalone software packages and as part of integrated software and hardware systems to radiologists, surgeons, primary care physicians and medical researchers. We market our products directly to end-user customers and through business partners, including diagnostic imaging equipment manufacturers, PACS companies, and software developers, all of whom sell our products with products they either manufacture or acquire from third parties.

Our marketing partners include Toshiba, which markets our software to its customers through its subsidiaries and distributors in more than 50 countries throughout the world. Our agreement with Toshiba commenced in 2001, and it has been extended four times, most recently through December 31, 2013. Sales through Toshiba are a material portion of our revenues, comprising approximately 52% of our 2008 revenues, 47% of our 2007 revenues, and 41% of our 2006 revenues. See Item 1A. Risk Factors - Dependence on Major Customers.

Table of Contents

We also have marketing and reseller agreements with several other companies, such as McKesson, Sectra and Cerner Corp., under which these companies may resell our products to their customers as add-on components to their products.

As of December 31, 2008, we had 24 salespeople in the U.S., four salespeople in Europe, one salesperson supporting national accounts, and two salespeople supporting our international resellers outside of Europe.

Collaborative Relationships

From time to time, we work with leading physicians in our industry to develop advanced clinical applications. These physicians, as well as information technology professionals who work for our customers, also give us advice and guidance about how we can develop our products to most effectively operate with other technologies within their enterprises. Further, we typically obtain significant input from our leading customers about the clinical value of our clinical solutions for given applications.

Competition

The advanced visualization market is highly competitive, subject to rapid change and is significantly affected by new product introductions and other market activities of industry participants. Our products compete based on a multitude of factors, including quality, performance, functionality, clinical features, quality of support and service, reputation, brand and price. Our primary competitors are diagnostic imaging system suppliers, which are typically large, multinational companies with far greater financial and technical resources. They also have well-established sales and distribution networks for their products. These companies, including GE, Siemens, and Philips, develop and market medical imaging systems, such as CT and MR equipment, which may be purchased with integrated medical imaging capabilities. Our software works on the products offered by each of these companies. To win business against equipment manufacturers, we must convince customers to buy our solution separately from their purchase of imaging equipment instead of buying integrated systems from our competitors. We believe that we have the largest organization in the world dedicated to developing advanced visualization solutions, as the groups working on competitive technologies at the equipment manufacturers mentioned above are smaller in relation to our company s operations.

We also face competition from PACS vendors and other suppliers of medical imaging systems and software. PACS companies sometimes provide medical imaging capability in addition to their image archiving and networking products. Some of the diagnostic equipment manufacturers, including GE and Philips, also offer PACS. Vendors of hospital, clinical and radiology information systems have also diversified into the PACS and medical imaging product lines, either through internal development or business development and partnership channels. These companies, which may be large or small, attempt to offer an integrated system covering a full range of administrative, clinical and radiology information management capabilities to healthcare providers. Other suppliers of medical imaging systems and software, such as TeraRecon, Inc., compete on the basis of volume rendering or other visualization technologies, specific applications or market niches. We are seeing additional competitors enter our market, but have yet to see these competitors attain a meaningful share of the market.

Our competitive strength is based on several factors, including our ability to do the following:

- provide differentiated solutions that operate in multi-vendor network and image source environments;
- provide clinical quality, integrated 2D, 3D and 4D images at a high speed with interactive navigation;
- provide solutions that run on commercial, off-the-shelf computer hardware;
- build user interfaces that are easy for physicians and clinicians to use so that they can easily derive value from our products;
- integrate clinical knowledge from our collaborative clinical partners into our products;
- leverage our visualization and analysis technology across multiple clinical disciplines;
- serve original equipment manufacturers (OEMs), PACS vendors and end-user customers through the development of a modular end-user product that can easily be segmented for OEM customers or integrated into various healthcare information technology environments; and
- offer our market-leading clinical applications into the broadening clinical enterprise through a Web-based architecture.

We believe that product quality, performance, functionality and features, quality of support and service, reputation, brand and price are also important competitive factors. We believe that customers will prefer our solutions because they are the best-in-class productivity tools for doctors. Although price has been less significant than other factors, increasing competition in the market may result in price reductions and reduced gross margins. In particular, if one or more of the diagnostic imaging system suppliers or PACS vendors, many of which have greater scale and

Table of Contents

resources than we do, provides or distributes more competitive medical imaging products than ours, our business, financial condition and results of operations could be materially adversely affected.

Customers and Customer Support

Through December 31, 2008, we had a customer install base of approximately 3,600, principally consisting of hospitals and teaching hospitals, clinics and imaging centers in major cities and smaller population areas.

We are committed to rapid response to customer service requests. Customer support representatives are available during business hours and on an on-call basis to answer questions about the operation, maintenance and repair of our products.

Intellectual Property

We rely primarily on a combination of trade secret and copyright law, employee and third-party nondisclosure agreements and other protective measures to protect intellectual property rights pertaining to our products and technologies. Because of the rapid pace of technological change in the medical software industry, we believe that the knowledge, ability and experience of our personnel; new product developments and enhancements; and ongoing, reliable product maintenance and support will enhance our competitive position.

We do not own all of the software and other technologies used in our products, but we believe we have the necessary licenses from third parties to use that technology in our current products. It may be necessary to renegotiate with such third parties for any new versions of current products or any new products. Such third-party licenses may not be available on reasonable terms, or at all.

Manufacturing and Service

Our manufacturing efforts are limited to the production, quality assurance and distribution of our software, which is distributed on CD-ROM and through password-protected downloads. After we send software to our customers, it is loaded into hardware, either by our personnel, personnel from one of our authorized resellers, or our customers personnel. If our personnel load the software, it is as part of our installation services. In addition to loading software into the hardware, our installation services generally include implementation of our software into customers computer networks, configuring the network requirements and verifying software operability on site.

We provide customer education services for our customers, both in connection with their acquisition of our software and as independent purchases. We conduct customer education programs for our software at our headquarters in Minnetonka, Minnesota, at customers locations and at various designated locations through the United States.

We rely primarily on our own software development as our core competence. We obtain certain application and utility software from third parties (see Intellectual Property above) and use a third-party operating system for integrated computer workstations. In addition, we obtain systems components, computers and computer peripherals from third-party suppliers.

We have also signed reseller distribution agreements that allow us to distribute products from certain third parties. These third-party products include MeVis Medical Solutions Inc. s ImageChecker® CT software applications for the detection of lung nodules; Mirada Solutions Ltd. s Fusion 7D software application for the anatomical alignment of two different image data sets from two different types of diagnostic equipment, such as combining images from CT and PET scanners; Confirma Inc. s CADstream breast MRI software; and Medis Inc. s QMass® MR software.

Governmental Regulation

As medical devices, our software solutions are subject to extensive and rigorous regulation by numerous governmental authorities, principally the U.S. Food and Drug Administration (FDA) and corresponding foreign agencies. In the United States, the FDA administers the Federal Food, Drug, and Cosmetic Act, its amendments (the FD&C Act) and its related regulations. The FD&C Act and these regulations classify medical devices as Class I, II or III devices, which are subject to general controls, special controls or pre-market approval requirements, respectively. Most Class I and II devices, as well as some Class III devices, can be cleared for marketing pursuant to a 510(k) pre-market notification. The process of obtaining a 510(k) clearance typically can take several months to a year or longer.

Class III devices generally require more stringent clinical investigation and pre-market clearance requirements. In such cases, the FDA will require that the manufacturer submit a pre-market approval (PMA) application that must

Table of Contents

be reviewed and approved by the FDA prior to the sale and marketing of the device in the United States. The process of obtaining a PMA can be expensive, uncertain and lengthy, frequently requiring anywhere from one to several years from the date of FDA submission, if approval is obtained at all. Moreover, a PMA, if granted, may include significant limitations on the indicated uses for which a product may be marketed.

Our software is classified as a Class II medical device and has received marketing clearances from the FDA as the result of 510(k) pre-market notifications. Specifically, our software in general release has been cleared to be marketed for use with CT, MR and PET scanners. Future products, add-on options to existing software, and expanded claims of efficacy will likely require additional 510(k) pre-market notifications.

There can be no assurance that future FDA review processes will not involve delays or that clearances will be granted on a timely basis. In recent years, the FDA has increased its level of scrutiny of medical devices involving software, which requires us to produce additional documentation about the safety and effectiveness of our devices in order to obtain regulatory clearance, and which can lengthen the time required to obtain such clearance. Further, if any of our current or future products become classified as Class III devices, they could be subject to an even more expensive, uncertain and lengthy approval process, and approval, if granted, could include significant limitations on the indicated uses for which a product may be marketed.

We are also subject to regulation in foreign countries in which we sell our products. Many of the regulations applicable to our products in such countries are similar to those of the FDA, but the regulations in several countries, particularly in Asia, may be more particular than those of the FDA, and significantly greater time and resources may be required to obtain approval in those countries. Our ability to successfully market and sell our products in foreign markets depends in large part on our ability to comply with such foreign regulatory requirements. Our products have been Conformitee Europeene (CE) marked, indicating conformance with applicable sections of the Medical Device Directive 93/42/EEC, which allows the products to be marketed in the member countries of the European Communities.

We are also subject to periodic inspections by the FDA and similar foreign regulatory agencies, whose primary purpose is to audit our compliance with quality system regulations established by the FDA and other applicable government standards. Regulatory action may be initiated in response to audit deficiencies or product performance problems. We believe that our manufacturing and quality control procedures comply with all applicable requirements of the FDA and foreign regulatory agencies in countries in which we sell our products. We have received and maintain ISO 13485: 2007 Certification.

Medicare and Medicaid laws and regulations may impact the financial arrangements through which we market, sell and distribute our products and services to patients who are Medicare or Medicaid beneficiaries. Violations of these laws and regulations may result in civil and criminal penalties, including substantial fines and imprisonment. In a number of states, the scope of these laws and regulations has been extended to include the provision of services or products to all patients, regardless of the source of payment, although there is variation from state to state as to the exact provisions of such laws or regulations. In other states, and on a national level, several health care reform initiatives have been proposed which would have a similar impact. We believe that our operations and our marketing, sales and distribution practices currently comply with all current applicable fraud and abuse and physician anti-referral laws and regulations.

Third-Party Reimbursement and Cost Containment

Our products are purchased primarily by hospitals, clinics, imaging centers and other users that bill various third-party payers for the services provided to the patients. These payers, which include Medicare, Medicaid, private insurance companies and managed care organizations, reimburse part or all of the costs and fees associated with the diagnostic procedures utilizing our products. The medical imaging services performed using our software, except for disease screening procedures, are covered by current CPT codes (Current Procedural Terminology, as defined by the Centers for Medicare & Medicaid Services). As such, hospitals providing services using our advanced visualization solutions can seek reimbursement for such services by using existing approved CPT codes. Medicare and Medicaid reimbursement for hospitals is based on a fixed amount for treating a patient with a specific diagnosis. Because of this fixed reimbursement method, hospitals have incentives to use less costly methods in treating Medicare and Medicaid patients, and they will frequently make capital expenditures to take advantage of less costly treatment technologies. Often, reimbursement is reduced to reflect the availability of a new procedure or technique and, as a result, hospitals are generally willing to implement new cost-saving technologies before these downward adjustments take effect. Likewise, because the rate of reimbursement for certain physicians who perform certain procedures has been, and may in the future be, reduced in the event of changes in the resource-based relative value scale method of payment calculation, physicians may seek greater cost efficiency in treatment to minimize any

Table of Contents

negative impact of reduced reimbursement. Any amendments to existing reimbursement rules and regulations that restrict or terminate the reimbursement eligibility (or the extent or amount of coverage) of medical procedures using our products or the eligibility (or the extent or amount of coverage) of our products could have a material adverse impact on our business.

In response to the focus of national attention on rising health care costs, a number of changes to reduce costs have been proposed or have begun to emerge. There have been, and may continue to be, proposals by legislators and regulators and third-party payers to reduce these costs. There has also been a significant increase in the number of Americans enrolling in some form of managed care plan and, in addition, many hospitals participate in or have agreements with HMOs (health maintenance organizations). It has become a typical practice for hospitals to affiliate themselves with as many managed care plans as possible. Higher managed care penetration typically drives down the prices of healthcare procedures, which in turn places pressure on medical supply prices. This causes hospitals to implement tighter vendor selection and certification processes by reducing the number of vendors used, purchasing more products from fewer vendors and trading discounts on price for guaranteed higher volumes to vendors. Hospitals have also sought to control and reduce costs over the last decade by joining group purchasing organizations or purchasing alliances. We cannot predict what continuing or future impact these practices, the existing or proposed legislation, or such third-party payer measures may have on our future business.

Health Insurance Portability and Accountability Act of 1996 (HIPAA)

The HIPAA regulations require our customers to observe several requirements for the privacy and security of the protected health information (PHI) of their patients. Although the products and services we provide may technically not be covered under the HIPAA regulations, we may have access to PHI while working with our customers and they therefore routinely request that we sign business associate agreements with them. A business associate is a person or entity that performs certain functions or activities that involve the use or disclosure of protected health information on behalf of, or provides services to, a covered entity. By law, the HIPAA Privacy Rule applies only to covered entities health plans, health care clearinghouses, and certain health care providers. However, most health care providers do not carry out all of their health care activities and functions by themselves. Instead, they often use the services of a variety of other persons or businesses. The Privacy Rule allows covered providers and health plans to disclose protected health information to these business associates if the providers or plans obtain satisfactory assurances that the business associate will use the information only for the purposes for which it was engaged by the covered entity, will safeguard the information from misuse, and will help the covered entity comply with some of the covered entity s duties under the Privacy Rule. Covered entities may disclose protected health information to an entity in its role as a business associate only to help the covered entity carry out its health care functions not for the business associate s independent use or purposes, except as needed for the proper management and administration of the business associate.

Employees

As of December 31, 2008, we had 280 full-time employees, with 102 involved in research and development, 78 in sales and marketing, 53 in technical support functions and 47 in administrative functions. We believe our relationship with our employees is good.

Item 1A. Risk Factors

The discussion of our business and operations included in this annual report on Form 10-K should be read together with the risk factors set forth below. They describe various risks and uncertainties to which we are or may become subject. These risks and uncertainties, together with other factors described elsewhere in this report, have the potential to affect our business, financial condition, results of operations, cash flows, strategies or prospects in a material and adverse manner. New risks may emerge at any time, and we cannot predict those risks or estimate the extent to which they may affect financial performance. Each of the risks described below could adversely impact the value of our securities. These statements, like all statements in this report, speak only as of the date of this report (unless another date is indicated), and we undertake no obligation to update or revise the statements in light of future developments.

We offer only one line of products, which is advanced visualization software, related services and hardware, and if our products do not continue to gain market acceptance, our financial results would be adversely affected.

Our success depends on our ability to successfully market advanced visualization software for clinical use, and on the ability and willingness of physicians to use enterprise-wide advanced visualization medical imaging software in clinical analysis and therapy planning. Our enterprise-wide advanced visualization software products are alternatives to the conventional methods traditionally used for viewing medical images in the clinical setting. Often, a purchase

Table of Contents

by a customer of our products means that it has chosen not to utilize software that was provided in connection with the customer s purchase of a scanner, which means that the customer may pay additional amounts to obtain our products. The acceptance of our products by physicians and other clinicians will depend on our ability to educate those users as to the speed, ease-of-use and other benefits offered by our products and systems, as well as our timely introduction of new features and functions. There can be no assurance that users will prefer advanced visualization and analysis software solutions over less expensive 2D medical imaging software or that we will succeed in our efforts to further develop, commercialize and achieve market acceptance for our products or for any other product in the clinical setting. Further, most of our business in markets outside the United States is provided through third parties with whom we have marketing agreements. There can be no assurance that these third parties will wish to continue our relationships on an indefinite basis or under the same terms as the business is currently conducted. Further, although we have undertaken efforts to develop direct relationships with customers in markets outside the United States, we may not be successful in doing so at a sufficient level. The loss of or adverse changes in our relationships with our third-party business partners, and our failure to establish sufficient direct relationships with customers outside the United States, would have a material adverse impact on our business, financial condition and results of operations.

A substantial portion of our revenue is derived from sales of our software in connection with customer purchases of CT scanners, and any decline in the purchase of CT scanners or any difficulty we have in growing sales separately from sales of CT scanners could have a material adverse effect on our results of operations and financial condition.

Our business historically was tied to sales of our *Vitrea* advanced visualization software and related software options (which includes software, hardware and maintenance and services), which were typically purchased concurrently with a customer s purchase of CT imaging equipment. Forecasts for 2009 suggest that the market for CT imaging equipment will be down significantly. In order to improve the marketability of our products separately from sales of CT imaging equipment, during 2008, we evolved our business model into sales throughout a customer s enterprise when we launched *ViTAL Enterprise* in May. *ViTAL Enterprise* includes *Vitrea* and *ViTALConnect* software, as well as all options that we manufacture for such products. *ViTAL Enterprise* makes all of our clinical functionality available throughout a hospital enterprise to better enable specialists to take advantage of our tools. We intend for *ViTAL Enterprise* to be sold both with purchases of CT equipment as well as in the absence of such purchases. There can be no assurance that *ViTAL Enterprise* will meet with acceptance by a wide range of hospitals or that specialists throughout hospitals will wish to use our tools. If *ViTAL Enterprise* does not meet with market acceptance, it would have a material adverse impact on our business, financial condition and results of operations.

We presently depend on Toshiba for a significant portion of our total revenues. A reduction in the business from Toshiba could adversely affect our revenues and could seriously harm our business.

A limited number of large customers may continue to account for a significant portion of our revenue during any given period for the foreseeable future. One of our principal distribution channels is to sell our medical imaging software in connection with medical imaging equipment sold by Toshiba. Sales to Toshiba accounted for 52% of our total revenue for the year ended December 31, 2008, 47% of our total revenue for the year ended December 31, 2007 and 41% of our total revenue for the year ended December 31, 2006. Toshiba s accounts receivable represented 42% of our accounts receivable at December 31, 2008 and 34% at December 31, 2007. Except for our agreement with Toshiba, we have no significant purchase commitments from any of our customers or business partners, and we generally make sales pursuant to individual transactions. Our joint distribution agreement with Toshiba commenced in 2001 and has been extended five times, most recently through December 31, 2013. A reduction, delay, or cancellation of orders from Toshiba, or our inability to collect accounts receivable from Toshiba, likely would have a material adverse effect on our financial condition and operating results.

In February 2009, Toshiba announced that via its wholly-owned subsidiary, Toshiba Medical Visualization Systems Europe, Ltd., it had completed its acquisition of the Advanced Visualization Imaging System Division (AVIS) of Barco nv, Edinburgh, Scotland. This acquisition enables Toshiba to conduct in-house development of 3D volume rendering and advanced visualization capabilities for all Toshiba modalities.

For the past 10 years, Toshiba has used Voxar 3D visualization core software, a product of AVIS, in its medical imaging products and PACS. AVIS, as part of Barco, provided advanced visualization solutions for the medical imaging and PACS markets.

We believe that due to Toshiba s renewal in November 2008 of its agreement with us to resell our products and its execution in January 2009 of an agreement to fund our development of advanced visualization software, the acquisition of AVIS by Toshiba will not have a material negative impact on our sales to Toshiba. However, there can be no assurance that Toshiba will not use AVIS to develop technologies that are competitive to our products, particularly to work with lower-end CT imaging equipment. If Toshiba does develop technologies that are

Table of Contents

competitive to our products, it could choose to sell its own products in place of ours, which likely would have a material adverse effect on our business, financial condition and results of operations.

We operate in a single industry and are therefore dependent upon growth in the advanced visualization market. If that market does not grow as we expect, our business, results of operations and financial condition will be adversely affected.

The advanced visualization industry in which we market our products is currently faced with regulatory, technical and market challenges. State and federal governmental agencies and private payors are putting pressure on reimbursement rates for advanced visualization examinations, which can negatively affect demand for our products. Many of the major hospitals and medical research centers within the United States have already purchased scanners, PACS and advanced visualization technologies, causing future sales to be upgrades or replacements instead of new installations, potentially lengthening the sales cycles as customers feel less urgency to purchase and implement new systems. We believe that the market for advanced visualization technologies is still developing, with growth opportunities outside the United States and among specialists beyond radiology.

However, given the uncertainties associated with the developing stage of many of these markets, there can be no assurance that they will develop in the manner we anticipate or that they will not require a level of investment greater than we expect. Additionally, some of our customers finance their acquisitions through third-party lenders. With the recent tightening in the lending market, some customers who would otherwise purchase our products may not be able to obtain sufficient financing and therefore will not complete their purchases. Accordingly, there can be no assurance that the advanced visualization industry will provide growth opportunities for us and our software products or that our business strategies will be successful as the industry continues to evolve. Ultimately, if the advanced visualization industry fails to develop as we expect, our business, results of operations and financial condition will be materially and adversely affected.

We participate in a highly competitive industry. If we fail to compete effectively, our results of operations and financial condition would be adversely affected.

We face intense competition in the advanced visualization industry. We expect technology to continue to develop rapidly, and our success will depend to a large extent on our ability to maintain a competitive position with our products. Our competitors in the advanced visualization industry include large, established manufacturers of CT and MR imaging equipment. Companies such as GE, Siemens and Philips typically offer their own advanced visualization software and workstations as part of their integrated imaging and scanner systems. Our software works on the products offered by each of these companies. To win business against equipment manufacturers, we must convince customers to buy our software solutions separately from their purchase of imaging equipment instead of buying integrated systems from our competitors.

In addition to having a competitive advantage in marketing advanced visualization tools as an integrated part of their imaging products, our competitors have significantly greater capital and staffing resources for research and development that are critical to success in the dynamic advanced visualization industry, more recognizable brand names, and more well-established marketing and distribution networks. Although price has been less significant than other factors, increasing competition may result in price reductions and reduced gross margins. Additionally, we face competition from other entities, such as PACS vendors and developers of competitive or ancillary software packages. We may not be able to compete effectively with such manufacturers or competing entities on each or any particular factor, including price, features and service.

Our products may become obsolete or non-competitive, or we may develop non-competitive products, which would result in reduced revenue and profit margins.

The advanced visualization market is characterized by rapid innovation and technological change. For example, as scanners become faster and generate increasingly more slices, our software must maintain its capability to handle the increased data volumes generated by the more powerful scanners. We may devote time and resources to develop products that do not obtain market acceptance or for which the market is much smaller than we expected when we planned the products, and we may be otherwise unable to compete effectively in the marketplace. Products developed by our competitors may render our products obsolete or non-competitive. Similarly, our competitors may succeed in developing or marketing products that are viewed as providing superior clinical performance or are less expensive than our current or future products.

Table of Contents

As our products are accessed by additional medical professionals throughout an enterprise, the satisfaction of our customers may decrease.

Historically, our products were used by radiologists who received education on the use of imaging products in medical school and continuing education programs and to whom we provided training in connection with their purchases. Further, use of medical imaging products is a relatively routine activity for radiologists. As our products are used by additional medical professionals throughout an enterprise, however, they will be used by persons with less training and familiarity with imaging technologies. Occasional and less-trained users of imaging technology may find use of our products to be more difficult than do radiologists, which could increase our time and expenses supporting these users, thus negatively affecting our gross margins for support services. Further, these users may realize less satisfaction than do our historical customers, negatively affecting the adoption of our products elsewhere in the enterprise. Finally, occasional and less-trained users are more likely to use our products incorrectly. Although our products are intended to be secondary analytical devices, their incorrect use could result in errors by medical professionals in their treatment of patients, lowering their satisfaction with our products and potentially exposing us to legal and regulatory liability, which could affect our results of operations and ability to market our products.

We may make future acquisitions, which may be difficult to integrate, divert management resources, result in unanticipated costs or dilute our shareholders.

Part of our continuing business strategy is to make acquisitions of, or investments in, companies, products or technologies that complement our current products, enhance our market coverage or technical capabilities, or offer growth opportunities. Future acquisitions could pose numerous risks to our operations, including:

- we may have difficulty integrating the purchased operations, technologies or products;
- we may incur substantial unanticipated integration costs;
- assimilating the acquired businesses may divert significant management attention and financial resources from our other operations and could disrupt our ongoing business;
- acquisitions could result in the loss of key employees, particularly those of the acquired operations;
- we may have difficulty retaining or developing the acquired businesses customers;
- acquisitions could adversely affect our existing business relationships with suppliers and customers;
- we may fail to realize the potential cost savings or other financial benefits and/or the strategic benefits of the acquisitions; and
- we may incur liabilities from the acquired businesses for infringement of intellectual property rights or other claims, and we may not be successful in seeking indemnification for such liabilities or claims.

Further, we may not receive the returns from an acquisition that were expected at the time of acquisition. In connection with any acquisition or investment, we could incur debt, be required to amortize expenses related to intangible assets, incur large and immediate write-offs, experience volatility in future earnings resulting from contingent consideration, assume liabilities, or issue stock that would dilute our current shareholders percentage of ownership. We may not be able to complete acquisitions or integrate the operations, products or personnel gained through any such acquisition without a material adverse effect on our business, financial condition and results of operations.

We sell our products internationally and are subject to various risks relating to such international activities, which could harm our international sales and profitability.

During the years ended December 31, 2008, 2007 and 2006, 29%, 19% and 15% of our total revenues, respectively, were attributable to international sales. Toshiba has been the primary source of our international sales. We are also developing direct international sales and marketing efforts. By doing business in international markets, we are exposed to risks separate and distinct from those we face in our domestic operations. Our international business may be adversely affected by changing economic conditions in foreign countries. Because most of our sales are currently denominated in U.S. dollars, if the value of the U.S. dollar increases relative to foreign currencies, our products could become more costly to the international consumer and therefore less competitive in international markets, which could adversely affect our profitability. Furthermore, the percentage of sales denominated in non-U.S. currencies may increase in the future, in which case fluctuations in exchange rates could affect demand for our products. Engaging in international business inherently involves a number of other difficulties and risks, including:

- export restrictions and controls relating to technology;

Table of Contents

- the availability and level of reimbursement within prevailing foreign healthcare payment systems;
- pricing pressure that we may experience internationally;
- required compliance with existing and new foreign regulatory requirements and laws;
- business customs in other countries that violate U.S. laws, such as the Foreign Corrupt Practices Act;
- laws and business practices favoring local companies;
- longer payment cycles;
- difficulties in enforcing agreements and collecting receivables through foreign legal systems;
- political and economic instability;
- potentially adverse tax consequences, tariffs and other trade barriers;
- international terrorism and anti-American sentiment;
- difficulties and costs of staffing and managing foreign operations;
- changes in currency exchange rates; and
- difficulties in enforcing intellectual property rights.

Our exposure to each of these risks may increase our costs, lengthen our sales cycle and require significant management attention. We cannot assure you that one or more of these factors will not harm our business.

If our internal control over financial reporting is found to be inadequate, our financial results may not be accurate, raising concerns for investors and potentially adversely affecting our stock price.

Under Section 404 of the Sarbanes-Oxley Act of 2002, we are required to evaluate and determine the effectiveness of our internal controls over financial reporting. We have dedicated a significant amount of time and resources to ensure compliance with this legislation for the years ended December 31, 2008, 2007 and 2006 and will continue to do so for future periods. We may encounter problems or delays in completing the review and evaluation, the implementation of improvements, and the receipt of a positive attestation, or any attestation at all, from our independent registered public accounting firm. In addition, our assessment of our internal controls may identify deficiencies that need to be addressed in our internal controls over financial reporting or other matters that may raise concerns for investors and therefore adversely affect our stock price.

We may experience fluctuations in operating results, which may result in volatility in the price of our common stock.

We have in the past experienced, and may in the future experience, significant fluctuations in annual and quarterly operating results. If these fluctuations occur, they may result in volatility in the price of our common stock. Quarterly revenue and operating results may fluctuate as a result of a variety of factors that are outside of our control including, but not limited to, the timing of significant orders, the timing of product enhancements and new product introductions by us or our competitors, the pricing of our products, changes in customers budgets and competitive conditions. Our quarterly license and services revenue may fluctuate and may be difficult to forecast for a variety of reasons, including the following:

- a significant number of our existing and prospective clients decisions regarding whether to enter into license agreements with us are made within the last few weeks or days of each quarter;

- the size and number of license transactions can vary significantly;

- our dependence on Toshiba or any other major customer for a significant portion of our revenues;

- a decrease in license fee revenue which may likely result in a decrease in services revenue in the same or subsequent quarters;

- clients unexpectedly postponing or cancelling projects due to changes in their strategic priorities, project objectives, budget or personnel;

- the uncertainty caused by potential business combinations in the software industry, causing clients and prospective clients to cancel, postpone or reduce capital spending projects on software;

- client evaluations and purchasing processes that vary significantly from company to company, and a client s internal approval and expenditure authorization process that is difficult and time consuming to complete, even after selection of a vendor;

- the number, timing and significance of software product enhancements and new software product announcements by us or our competitors;

- existing clients declining to renew support for our products, and market pressures that limit our ability to increase support fees or require clients to upgrade from older versions of our products; or

- prospective clients declining or deferring the purchase of new products or releases if we do not have sufficient client references for those products.

Table of Contents

If we do not achieve a substantial improvement in pretax results in 2009 over 2008, we may need to establish a valuation allowance for some or all of our deferred tax assets, which could materially impact our income tax provision, results of operations and financial condition.

As of December 31, 2008, we had $14.6 million of deferred tax assets. Considerations for determining the realizability of our deferred tax assets primarily involve cumulative pre-tax income for financial reporting purposes, cumulative taxable income for the past three years, estimated future pre-tax income for financial reporting purposes and estimated future taxable income from our core business. We also consider the expiration dates and amounts of net operating loss carryforwards and other tax credits, and estimate the impact of future tax deductions from the exercise of stock options. If we do not achieve a substantial improvement in pretax results in 2009 over 2008, it is reasonably possible that we may need to establish additional valuation allowances for some or all of our deferred tax assets, which could materially impact our income tax provision, financial position and results of operations.

We are subject to government regulation, which can result in additional costs or restrict our ability to market our products.

Our products are subject to regulation by the FDA and by comparable agencies in foreign countries. In the United States, the FDA regulates the development, introduction, manufacturing, labeling and record keeping procedures for medical devices, including 3D medical imaging software and systems. Our medical devices require clearance or approval by the FDA before they can be commercially distributed in the United States. Modifications and enhancements to a medical device also require a new FDA clearance or approval if they could significantly affect its safety or effectiveness or would constitute a major change in its intended use, design or manufacture. The FDA requires every manufacturer to make this determination in the first instance, but the FDA may review any manufacturer s decision and may require a new clearance or approval for the modification if it disagrees with the manufacturer s decision. If the FDA requires us to seek clearance or approval for the modification of a previously cleared product for which we have concluded that new clearances or approvals are unnecessary, we may be required to cease marketing or to recall the modified product until we obtain clearance or approval, and we may be subject to significant regulatory fines or penalties, which could have a material adverse effect on our financial results and competitive position. The process of obtaining marketing clearance from the FDA for new products and new applications for existing products can be time-consuming and expensive. All of our current products are marketed pursuant to 510(k) pre-market clearance from the FDA. Our products have been cleared to be marketed for use with CT, MR and PET scanners. The FDA may not grant clearance with respect to our future products or enhancements, or future FDA review may involve delays that could adversely affect our ability to market such future products or enhancements. In addition, our future products or enhancements may be subject to a more lengthy and expensive pre-market approval process with the FDA.

Even if we obtain regulatory clearances and approvals to market a product from the FDA, these approvals may entail limitations on the indicated uses of the product. Product clearances and approvals by the FDA can also be withdrawn due to failure to comply with regulatory standards or the occurrence of unforeseen problems following initial approval. The FDA could also limit or prevent the distribution of our products and has the power to require the recall of such products. FDA regulations depend heavily on administrative interpretation, and future interpretations made by the FDA or other regulatory bodies may adversely affect us. The FDA may inspect our facilities and operations to determine whether we are in compliance with various regulations relating to specification, development, documentation, validation, testing, quality control and product labeling. If the FDA determines that we are in violation of such regulations, it could impose civil penalties, including fines, recall or seize products and, in extreme cases, impose criminal sanctions.

We market our products both domestically and internationally. International regulatory bodies have established varying regulations governing product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. Our inability or failure to comply with the varying regulations, or the imposition of new regulations, could restrict our ability to sell our products internationally and could adversely affect our business.

The imposition of requirements under the Health Insurance Portability and Accountability Act of 1996, or HIPAA, could adversely affect our business.

The HIPAA regulations require our customers to observe several requirements for the privacy and security of the protected health information (PHI) of their patients. Although the products and services we provide may technically not be covered under the HIPAA regulations, we may have access to PHI while working with our customers and they therefore routinely request that we sign business associate agreements with them. A business associate is a person or entity that performs certain functions or activities that involve the use or disclosure of protected health

Table of Contents

information on behalf of, or that provides services to, a covered entity. By law, the HIPAA Privacy Rule applies only to covered entities health plans, healthcare clearinghouses, and certain healthcare providers. However, most healthcare providers do not carry out all of their healthcare activities and functions by themselves. Instead, they often use the services of a variety of other persons or businesses. The Privacy Rule allows covered providers and health plans to disclose protected health information to these business associates if the providers or plans obtain satisfactory assurances that the business associate will use the information only for the purposes for which it was engaged by the covered entity, will safeguard the information from misuse, and will help the covered entity comply with some of the covered entity s duties under the Privacy Rule. Covered entities may disclose protected health information to an entity in its role as a business associate only to help the covered entity carry out its healthcare functions not for the business associate s independent use or purposes, except as needed for the proper management and administration of the business associate. These agreements are necessary for us in the normal course of servicing and supporting our products and may require us to incur liabilities if we disclose protected health information in a manner not allowed under any respective agreement. Our potential liabilities may include indemnifying our customer against any damages resulting from the disclosure. If we are not willing to or are unable to enter into a business associate agreement with current and potential customers, such customers may not purchase our products or services, which would have a material adverse effect on our business, financial condition, or results of operations.

We are subject to various federal and state fraud and abuse laws, and if we are unable to fully comply with such laws, we could face substantial penalties, which may adversely affect our business.

We are subject to various federal and state laws pertaining to health care fraud and abuse, including the following:

- the federal Anti-Kickback Statute, which prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce either the referral of an individual, or furnishing or arranging for a good or service, for which payment may be made under federal health care programs (such as Medicare and Medicaid);

- the federal False Claims Act, which prohibits anyone from knowingly presenting or causing to be presented a false or fraudulent claim for payment to the federal government;

- HIPAA, which prohibits executing a scheme to defraud any health care benefit program;

- the federal False Statements Statute, which prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for health care benefits, items or services; and

- state law equivalents to these federal laws, which may not be limited to government reimbursed items, and may not contain identical exceptions.

If our past or present operations are found to be in violation of any of the laws described above or the other similar governmental regulations to which we are subject, we may be subject to the applicable penalty associated with the violation, including civil and criminal penalties, damages, fines, exclusion from federal health care programs and/or the curtailment or restructuring of our operations. Similarly, if the physicians or other providers or entities with which we do business are found to be non-compliant with applicable laws, they may be subject to sanctions, which could also have a negative impact on us. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. The risk of our being found in violation of these laws is increased by the fact that their provisions are open to a variety of interpretations and are subject to further legal or regulatory change. Any action against us for violation of

these laws, even if we successfully defend against it, could cause us to incur significant legal expenses, fines and other penalties, divert our management s attention from the operation of our business and damage our reputation.

The protection of our intellectual property may be uncertain, and we may face possible claims of others.

Although we have received patents and have filed patent applications with respect to certain aspects of our technology, we generally do not rely principally on patent protection with respect to our products and technologies. Instead, we rely primarily on a combination of trade secret and copyright law, employee and third-party nondisclosure agreements and other protective measures to protect intellectual property rights pertaining to our products and technologies. Such measures may not provide meaningful protection of our trade secrets, know-how or other intellectual property in the event of any unauthorized use, misappropriation or disclosure. Others may independently develop similar technologies or duplicate our technologies. In addition, to the extent that we apply for any patents, such applications may not result in issued patents or, if issued, such patents may not be valid or of value. Third parties could, in the future, assert infringement or misappropriation claims against us with respect to our current or future products and technologies, or we may need to assert claims of infringement against third

Table of Contents

parties. Any infringement or misappropriation claim by us or against us could place significant strain on our financial resources, divert management s attention from our business and harm our reputation. The costs of prosecuting or defending an intellectual property claim could be substantial and could adversely affect our business, even if we are ultimately successful in prosecuting or defending any such claims. If our products or technologies are found to infringe the rights of a third party, we could be required to pay significant damages or license fees or cease production, any of which could have a material adverse effect on our business.

We face the risk of product liability claims, and our product liability and errors and omissions insurance coverage may not be adequate to pay products liability claims, which could have a material adverse effect on our financial condition.

Our business exposes us to the risk of product liability claims that is inherent in the manufacturing and marketing of medical devices, including those which may arise from the misuse or malfunction of, or design flaws in, our products. We may be subject to product liability claims if our products cause, or merely appear to have caused, an injury. Claims may be made by patients, healthcare providers or others selling our products. Although we have product liability and errors and omissions insurance that we believe is appropriate, this insurance is subject to deductibles and coverage limitations. Our current product liability insurance may not continue to be available to us on acceptable terms, if at all, and, if available, the coverages may not be adequate to protect us against any future product liability claims. Further, if additional products are approved for marketing, we may seek additional insurance coverage. If we are unable to obtain insurance at an acceptable cost or on acceptable terms with adequate coverage or otherwise protect against potential product liability claims, we will be exposed to significant liabilities, which may harm our business. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could result in significant costs and significant harm to our business.

If we fail to attract and retain qualified personnel, our business would be harmed.

Recruiting and retaining talented personnel in the future will be critical to our success. There is intense competition from other companies, research and academic institutions, government entities and other organizations for qualified personnel in the areas of our activities. If we fail to identify, attract, retain and motivate these highly skilled personnel, we may be unable to continue our marketing and development activities.

If we do not effectively manage changes in our business, these changes could place a significant strain on our management and operations and, as a result, our business might not succeed.

Our ability to grow successfully requires an effective planning and management process. The expansion and growth of our business could place a significant strain on our management systems, infrastructure and other resources. To manage our growth successfully, we must continue to improve and expand our systems and infrastructure in a timely and efficient manner. Our controls, systems, procedures and resources may not be adequate to support a changing and growing company. If our management fails to respond effectively to changes and growth in our business, including acquisitions, such failure could have a material adverse effect on our business.

We depend on third-party reimbursement. A reduction or other change in reimbursement from third parties could negatively affect our business.

Our products are purchased by hospitals, clinics, imaging centers and other users, which bill various third-party payers, such as government health programs, private health insurance plans, managed care organizations and other similar programs, for the healthcare goods and services provided to their patients. There are currently Current Procedural Terminology, or CPT, reimbursement codes that describe most of the diagnostic procedures that use our products. However, the amount of reimbursement from third-party payers varies by site of service and geographic location and is subject to change. Payers may deny reimbursement if they determine that a product used in a procedure was not used in accordance with established payer protocol regarding cost-effective treatment methods or was used for an unapproved indication. Third-party payers are increasingly challenging the prices charged for medical services and, in some instances, have put pressure on service providers to lower their prices or reduce their services. We are unable to predict what changes will be made in the reimbursement methods used by third-party healthcare payers. Third-party payers may not consider as cost effective the procedures in which our products are used. Reimbursement for such procedures may not be available or, if available, payers low reimbursement levels may adversely affect our ability to sell our products on a profitable basis. In addition, there have been and may continue to be changes and proposals by legislators, regulators and third-party payers to curb further these costs in the future. For example, the Deficit Reduction Act of 2005, or the DRA, which was signed into law on February 8, 2006, imposes caps on Medicare payment rates for certain imaging services, including MR and PET, furnished in

Table of Contents

physicians offices and other non-hospital based settings. Under the caps, payments for specified imaging services cannot exceed the hospital outpatient payment rates for these services. This change applies to services furnished on or after January 1, 2007. The DRA also codifies a reduction in Medicare payments for certain multiple images performed on contiguous body parts, which was previously established in the 2006 Physician Fee Schedule final rule. A failure by hospitals and other users of our products to obtain reimbursement from third-party payers, changes in third-party payers policies toward reimbursement for procedures using our products, or legislative action could have a material adverse effect on our business, financial condition and results of operations.

Healthcare reform may negatively impact our business.

The levels of revenue and profitability of medical technology companies may be affected by the efforts of government and third-party payers to contain or reduce the costs of healthcare through various means. In the United States, there has been, and we expect that there will continue to be, a number of federal, state and private proposals to control healthcare costs. These proposals include legislative, regulatory and other initiatives and may contain measures intended to control public and private spending on healthcare as well as to provide universal public access to the healthcare system. If enacted, these proposals may result in a substantial restructuring of the healthcare delivery system. For example, the Congressional Budget Office has issued a report suggesting that radiology benefit managers could require pre-authorization, which could decrease the demand for imaging services. Significant changes in the nation s healthcare system could have a substantial impact on the manner in which we conduct business and could have a material adverse effect on our business, financial condition and results of operations.

Consolidation in the healthcare industry could lead to demands for price concessions or limit or eliminate our ability to sell to certain of our significant market segments.

The cost of healthcare has risen significantly over the past decade, and numerous initiatives and reforms initiated by legislators, regulators and third-party payors to curb these costs have resulted in a consolidation trend in the medical device industry as well as among our customers, including healthcare providers. This in turn has resulted in greater pricing pressures and limitations on our ability to sell to important market segments, as group purchasing organizations, independent delivery networks and large single accounts, such as the Veterans Administration in the United States, continue to consolidate purchasing decisions for some of our healthcare provider customers. We expect that market demand, government regulation, third-party reimbursement policies and societal pressures will continue to change the worldwide healthcare industry, resulting in further business consolidations and alliances which may exert further downward pressure on the prices of our products and adversely impact our business, financial condition and results of operations.

We may incur goodwill impairment charges that adversely affect our operating results.

We review goodwill for impairment annually and more frequently if events and circumstances indicate that the asset may be impaired and that the carrying value may not be recoverable. We operate as one reporting unit and therefore compare our book value to our market value (consisting of market capitalization plus a control premium of 25%). If the market value exceeds the book value, goodwill is generally considered not to be impaired. After December 31, 2008, declines in our stock price have resulted in our book value at times exceeding our market value. If such a condition continues for a sustained period, our goodwill may be impaired. The balance of goodwill was $9.1 million as of December 31, 2008, which if impaired would have an adverse affect on our financial position and operating results.

If we do not reach certain milestones in the implementation of our enterprise resource planning (ERP) system, we may incur impairment charges for all or a portion of the amounts we have capitalized, which could adversely affect our operating results.

In 2007, we began the implementation of an ERP system. The ERP system is intended to replace numerous disconnected business management software applications and link the data contained within these disconnected systems to enable better management of our business and derive more useful data for various business functions, such as sales, marketing, finance and customer support.

Phase 1 of the implementation, which related to the replacement of our general ledger, was completed in 2007. The related capitalized costs are being depreciated over seven years and, as of December 31, 2008, the net book value of Phase 1 was $1.0 million. Phase 2 of the implementation, which consists of replacing our various customer relationship management and order processing systems, has yet to be completed or placed in service. As of December 31, 2008, Phase 2 capitalized costs were $2.9 million. We will continue implementation of the ERP during 2009, and upon

Table of Contents

completion of the implementation, the cost will be depreciated over seven years. If we do not reach certain milestones in the implementation schedule, we may be required to write-off all or a portion of the amounts capitalized, which could negatively affect our operating results.

The disruption in the global financial markets and the economic downturn may adversely impact customer purchasing and payment patterns.

During 2008, we were affected by the general decline in the U.S. economy, which resulted in contracted capital spending by U.S. hospitals and lower interest rates on our cash and investments. Disruptions in the financial markets and the related economic downturn could also negatively impact customer purchasing and payment patterns and have a material adverse effect on our financial condition and results of operations. There can be no assurances as to the length or severity of this period of disruption and the related economic downturn.

We may issue shares of preferred stock without the consent of our holders of common stock, which could adversely affect the rights of the holders of our common stock.

Our Articles of Incorporation authorize our Board of Directors, without any action by the holders of our common stock, to establish the rights and preferences of up to 5,000,000 shares of currently undesignated preferred stock. These shares of preferred stock could possess voting and conversion rights that could adversely affect the voting power of the holders of the common stock or dilute their ownership rights, and it may have the effect of delaying, deferring or preventing a change in control of Vital Images. No shares of preferred stock or other senior equity securities are currently designated, and currently we have no plan to designate or issue any such securities.

We are subject to certain laws and plans which may discourage takeover attempts that could be beneficial for shareholders.

We are subject to anti-takeover provisions of the Minnesota Business Corporation Act. These provisions may deter or discourage takeover attempts and other changes in control that are not approved by our Board of Directors, and they may have a depressive effect on any market for our stock. As a result, our shareholders may lose opportunities to dispose of their shares at the higher prices typically available in takeover attempts or that may be available under a merger proposal. In addition, these provisions may have the effect of permitting our current directors to retain their positions and place them in a better position to resist changes that our shareholders may wish to make if they are dissatisfied with the conduct of our business.

We have never paid any cash dividends and, therefore, our shareholders only opportunity to achieve a return on their investment in our common stock is if the price of our common stock appreciates.

We have not paid cash dividends on our common stock in the past, and we do not intend to do so in the foreseeable future. Consequently, our shareholders only opportunity to achieve a return on their investment in our common stock will be if the market price of our common stock appreciates and they sell their shares at a profit.

Our directors may not be held personally liable for certain actions, which could discourage shareholder suits against them.

As permitted by Minnesota law, our Articles of Incorporation provide that members of our Board of Directors shall not be personally liable to our company or our shareholders for monetary damages for breach of fiduciary duty as a director, with certain exceptions. These provisions may discourage shareholders from bringing suit against a director for breach of fiduciary duty and may reduce the likelihood of derivative litigation brought by shareholders on behalf of our company against a director. In addition, our Bylaws provide for mandatory indemnification of directors and officers to the fullest extent permitted by Minnesota law.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our principal office is located in an office building in Minnetonka, Minnesota, where we currently occupy approximately 72,000 square feet under a lease that expires January 31, 2012. We also lease small offices in Den Haag, the Netherlands, and Beijing, China, for our operations in those countries. We consider our current facilities adequate for our current needs.

Table of Contents

Item 3. Legal Proceedings

We are involved in various claims and legal actions in the normal course of business. We are of the opinion that the outcome of such legal actions will not have a significant adverse effect on our financial position, results of operations or cash flows. Notwithstanding our belief, an unfavorable resolution of some or all of these matters could materially affect our future results of operations or cash flows.

Item 4. Submission of Matters to a Vote of Security Holders

There was no matter submitted to the vote of security holders during the fourth quarter of the fiscal year ended December 31, 2008.

Table of Contents

Part II

Item 5. Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Vital Images, Inc. s common stock is quoted on The NASDAQ Global Select Market under the symbol VTAL. The table below reflects the high and low per share closing sale prices of our common stock as reported by The NASDAQ Global Select Market for each of the periods indicated. Such prices reflect inter-dealer prices, do not include adjustments for retail mark-ups, markdowns or commissions, and may not necessarily represent actual transactions.

	High	Low
2008		
Fourth Quarter	$ 15.02	$ 10.60
Third Quarter	$ 16.33	$ 12.19
Second Quarter	$ 16.36	$ 12.44
First Quarter	$ 18.00	$ 14.46
2007		
Fourth Quarter	$ 23.05	$ 16.18
Third Quarter	$ 27.74	$ 17.30
Second Quarter	$ 33.51	$ 25.44
First Quarter	$ 36.48	$ 30.16

We have never paid or declared any cash dividends on our common stock and do not intend to pay dividends on our common stock in the foreseeable future. We expect to retain our future anticipated earnings to finance development and expansion of our business. As of March 9, 2009, there were approximately 6,400 beneficial owners and approximately 600 registered holders of record of our common stock.

On May 8, 2008, we announced a share repurchase program of up to $25.0 million of our common stock. On August 7, 2008, we announced additional repurchases of up to $15.0 million of our common stock, allowing for total repurchases of up to $40.0 million of our common stock under the share repurchase program. We completed this share repurchase program on February 6, 2009 through only open market transactions. Between the inception of this share repurchase program and December 31, 2008, we repurchased 2.8 million shares of our common stock for $38.2 million. On March 4, 2009, we announced a new share repurchase program, under which we will repurchase up to 1.0 million shares of our common stock. The new share repurchase program expires on February 28, 2010.

The following table presents information with respect to purchases of our common stock made during the quarter ended December 31, 2008 by us or our affiliated purchaser, as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or

				Programs		Programs (in millions)
October 1-31, 2008	353,549	$	13.02	4,601,722	$	10.0
November 1-30, 2008	363,425	$	12.75	4,632,602	$	5.4
December 1-31, 2008	295,712	$	12.06	3,566,782	$	1.8
	1,012,686	$	12.64	12,801,106	$	1.8

Performance Graph

Since April 24, 2007, our common stock has been quoted on The NASDAQ Global Select Market. From June 9, 2003 through April 23, 2007, our stock was quoted on The NASDAQ Global Market. From September 29, 2000 through June 6, 2003, our common stock was quoted on The NASDAQ SmallCap Market (now known as The NASDAQ Capital Market). The following graph shows changes during the period from December 31, 2003 to

Table of Contents

December 31, 2008 in the value of $100 invested in: (1) Vital Images, Inc. s common stock; (2) the CRSP Total Return Index for The NASDAQ Composite; and (3) NASDAQ Non-Financial Stocks. The values of each investment as of the dates indicated are based on share prices plus any dividends paid in cash, with the dividends reinvested on the date they were paid. The calculations exclude trading commissions and taxes.

Notwithstanding anything to the contrary set forth in any of our previous or future filings under the Securities Act of 1933 or the Securities Exchange Act of 1934 that might incorporate future filings by reference, including this Annual Report on Form 10-K, in whole or in part, the following performance graph shall not be deemed to be incorporated by reference into any such filings and shall not otherwise be deemed filed under such acts.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Vital Images, Inc., The NASDAQ Composite Index

And The NASDAQ Non-Financial Index

*$100 invested on 12/31/03 in stock & index-including investment of dividends. Fiscal year ending December 31.

	12/31/03	12/31/04	12/31/05	12/31/06	12/31/07	12/31/08
Vital Images, Inc.	$ 100.00	$ 93.78	$ 146.42	$ 194.85	$ 101.18	$ 77.88
NASDAQ Composite	$ 100.00	$ 110.08	$ 112.88	$ 126.51	$ 138.13	$ 80.47

NASDAQ Non-Financial	$ 100.00	$ 108.59	$ 109.34	$ 120.07	$ 132.52	$ 77.34

Table of Contents

Item 6. **Selected Financial Data (in thousands, except per share data)**

Years ended December 31:	2008(1)	2007(1)	2006(1)	2005(1)	2004(1)
Revenue	$ 68,141	$ 70,176	$ 70,512	$ 51,717	$ 36,122
Gross profit	52,268	54,587	56,302	40,157	25,675
Operating expenses	62,093(2)	61,755(3)	49,371	32,592(4)	25,161(5)
Operating (loss) income	(9,825)	(7,168)	6,931	7,565	514
Net (loss) income	$ (2,800)	$ 1,367	$ 6,583	$ 5,801	$ 296
Net (loss) income per share-basic	$ (0.17)	$ 0.08	$ 0.49	$ 0.47	$ 0.03
Weighted average common shares	16,155	16,972	13,463	12,379	11,632
Net income per share-diluted	$ (0.17)	$ 0.08	$ 0.46	$ 0.44	$ 0.02
Weighted average common shares	16,155	17,457	14,259	13,283	12,536
At December 31:					
Working capital	$ 135,417	$ 173,905	$ 162,202	$ 45,604	$ 30,996
Total assets	$ 198,193	$ 230,996	$ 219,730	$ 91,151	$ 69,284
Long-term debt	$	$	$	$	$
Total stockholders equity	$ 168,691	$ 202,216	$ 190,902	$ 68,789	$ 54,554

(1) Includes equity-based compensation of $5,007, $5,987, $5,063, $335 and $12 for the fiscal years 2008, 2007, 2006, 2005 and 2004, respectively.

(2) Includes a $660 restructuring charge related to a reduction in workforce of approximately 11% in November 2008.

(3) Includes an $885 charge related to the separation of Jay D. Miller, our former Chief Executive Officer, in the fourth quarter of 2007.

(4) Includes a loss on operating lease of $493 related to the relocation of our corporate headquarters in the first quarter of 2005.

(5) Includes $1,000 of acquired in-process research and development charge relating to the acquisition of HInnovation, Inc. in February 2004.

Table of Contents

Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations

Executive summary

Since the second quarter of 2007, financial results for Vital Images, Inc. (also referred to as we , us and our) have been significantly affected by weakness in the computed tomography, or CT, and picture archiving and communication systems, or PACS, markets and by the broad impact of the Deficit Reduction Act.

Vital Images, Inc. summary 2008 results were as follows:

- Total revenue of $68.1 million, compared to $70.2 million for 2007.
- Gross margin of 77%, compared to 78% for 2007.
- Operating expenses of $62.1 million, compared to $61.8 million for 2007.
- Net loss of $(2.8) million, or $(0.17) loss per diluted share, compared to 2007 net income of $1.4 million, or $0.08 per diluted share.

Total cash, cash equivalents and marketable securities were $147.0 million as of December 31, 2008, compared to $178.4 million as of December 31, 2007. Working capital (defined as current assets less current liabilities) was $135.4 million as of December 31, 2008, compared to $173.9 million as of December 31, 2007. The decrease in cash and working capital during 2008 was primarily the result of repurchases of our common stock totaling $38.2 million under a share repurchase program authorized by our Board of Directors in 2008.

During 2008, we continued to experience the effects of the industry-wide slowdown in the high-end CT market and the Deficit Reduction Act that significantly impacted our 2007 results. Additionally, in 2008 we were impacted by the general decline in the U.S. economy, which resulted in contracted capital spending by U.S. hospitals and lower interest rates on our cash and investments. We generated $4.6 million of interest income in 2008, compared to $8.9 million in 2007. A decline in interest rates resulted in a 2.9% return on investments in 2008 compared to a 5.1% return on investments in 2007.

We partially mitigated these negative factors by making progress on our transition to an enterprise company, as demonstrated by our introduction of *ViTAL Enterprise* in the 2008 second quarter, and by implementing significant cost-control measures, including an 11% workforce reduction in the 2008 fourth quarter. We also responded by implementing a $40.0 million share repurchase program, resulting in the repurchase of 2.8 million shares of our common stock for $38.2 million during 2008.

We further strengthened our strategic relationship with Toshiba in 2008, renewing our global distribution agreement through December 31, 2013 and, in January 2009, entering into an agreement under which we will jointly develop applications. Our revenue from international sales grew 45% in 2008, and Toshiba has been the primary source of our international growth.

Although we expect the negative market factors that affected our 2007 and 2008 results to continue into 2009 and beyond, we remain committed to developing the best software solutions for the enterprise and taking exceptional care of our customers.

Overview

We are a leading provider of advanced visualization and analysis solutions for use by medical professionals in clinical analysis and therapy planning. We provide software, customer education, software maintenance and support, professional services and, on occasion, third-party hardware to our customers. Our technology rapidly transforms complex data generated by diagnostic imaging equipment into functional digital images that can be manipulated and analyzed using our specialized applications to better understand internal anatomy and pathology. Our solutions are designed to improve physician workflow and productivity, enhance the ability to make clinical decisions, facilitate less invasive patient care, and complement often significant capital investments in diagnostic imaging equipment made by our customers. Our software is compatible with equipment from all major manufacturers of diagnostic imaging equipment, such as CT scanners, and can be integrated into PACS. Many hospitals use PACS to acquire, distribute and archive medical images and diagnostic reports, reducing the need for film and increasing reliance on advanced visualization solutions such as ours. We also offer a Web-based solution that provides physicians with anywhere, anytime access to medical images and visualization tools through any Internet-enabled computer.

Table of Contents

We operate and manage our business as a single business segment the development and marketing of software and related services for advanced visualization and analysis solutions for use by medical professionals in clinical analysis and therapy planning. We market our products and services through a direct sales force, resellers and independent distributors in the United States and in international markets. Our common stock is currently traded on The NASDAQ Global Select Market under the symbol VTAL.

Critical accounting policies and estimates

Our discussion and analysis of financial condition and results of operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The notes to the Consolidated Financial Statements contained in this Annual Report describe our significant accounting policies used in the preparation of the Consolidated Financial Statements. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates. We continually evaluate our critical accounting policies and estimates.

We believe the critical accounting policies listed below reflect significant judgments, estimates and assumptions used in the preparation of our Consolidated Financial Statements.

Allowance for doubtful accounts

We maintain an allowance for doubtful accounts in an amount estimated to be sufficient to provide adequate protection against losses resulting from extending credit to our customers. In judging the adequacy of the allowance for doubtful accounts, we consider multiple factors, including historical bad debt experience, the general economic environment, the need for specific client reserves and the aging of our outstanding receivables. A portion of this provision is included in operating expenses as a general and administrative expense and a portion of this provision is included as a reduction of license revenue. A considerable amount of judgment is required in assessing these factors. If the factors utilized in determining the allowance do not reflect future performance, then a change in the allowance for doubtful accounts would be necessary in the period such determination has been made, which would impact future results of operations. As of December 31, 2008, the allowance for doubtful accounts was $638,000 for gross accounts receivable of $13.7 million.

Deferred taxes

Significant judgment is required in determining the realizability of our deferred tax assets. We must assess the likelihood that our net deferred tax assets will be recovered from future taxable income, and to the extent we believe that recovery is not likely, we must establish a valuation allowance. To the extent that we establish a valuation allowance, we must include an expense within the tax provision in the statement of operations. As of December 31, 2008, the consolidated balance sheet included net deferred tax assets of $14.6 million.

Considerations for determining the realizability of our deferred tax assets primarily involve cumulative pre-tax income for financial reporting purposes, cumulative taxable income for the past three years, estimated future pre-tax income for financial reporting purposes and estimated future taxable income from our core business. We also consider the expiration dates and amounts of net operating loss carryforwards and other tax credits, and estimate the impact of future tax deductions from the exercise of stock options. These estimates are projected through the life of the related deferred tax assets based on assumptions which we believe to be reasonable and consistent with current operating results.

As of December 31, 2008, the significant components of our deferred tax assets were as follows:

- Deferred tax assets for net operating loss carryforwards and other tax credits of $8.7 million, which is net of a valuation allowance of $221,000 relating to tax credits and certain state net operating loss carryforwards that expire prior to 2013. We will require approximately $18.0 million in cumulative future taxable income to be generated at various times over the next 18 years to realize the related deferred tax assets prior to expiration.

- Deferred tax asset related to equity based compensation of $3.7 million. Many of the stock options related to this deferred tax asset are currently significantly out-of-the money and may expire unutilized during the next six years. Our projections of future taxable income have taken into consideration our expectations that a portion of these out-of-the money options will not result in future tax deductions and will not reduce future taxable income.

After giving consideration to the above factors, we concluded that the net deferred tax assets of $14.6 million as of December 31, 2008 do not require any additional valuation allowance. However, if we do not achieve a substantial improvement in pretax results in 2009 over 2008, it is reasonably possible that we may need to establish additional valuation allowances for some or all of our deferred tax assets, which could materially impact our income tax provision, financial position and results of operations.

Table of Contents

Long-lived assets

We review long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable, in accordance with Statement of Financial Accounting Standard (SFAS) No. 144, Accounting for the Impairment or Disposal of Long-Lived Assets. Events or changes in circumstances that indicate the carrying amount may not be recoverable include, but are not limited to, a significant decrease in the market value of the business or asset acquired, a significant adverse change in the extent or manner in which the business or asset acquired is used, or a significant adverse change in the business climate. If such events or changes in circumstances are present, the undiscounted cash flows method is used to determine whether the asset is impaired. Cash flows would include the estimated terminal value of the asset and exclude any interest charges. To the extent the carrying value of the asset exceeds the undiscounted cash flows over the estimated remaining life of the asset or asset groups, the impairment is measured as the difference between the carrying value of the asset and its fair value, determined using the discounted cash flows. The discount rate utilized would be based on our best estimate of the related risks and return at the time the impairment assessment is made.

Our long-lived assets consist of property and equipment of $11.5 million and other intangible assets subject to amortization of $808,000 as of December 31, 2008. A patent acquired in the HInnovation, Inc. acquisition having a $594,000 net book value as of December 31, 2008 is currently under review by the United States Patent and Trademark Office (USPTO).

Goodwill

We account for goodwill in accordance with the provisions of SFAS No. 142, Goodwill and Other Intangible Assets. Under SFAS No. 142, goodwill and intangible assets with indefinite lives are reviewed for impairment annually or more frequently if events or changes in circumstances indicate that the asset might be impaired. The first step of the goodwill impairment test, used to identify potential impairment, compares the fair value of a reporting unit with its carrying amount, including goodwill. We operate as one reporting unit and therefore compare the book value to the market value (consisting of market capitalization plus a control premium of 25%). As of December 31, 2008, we had 14.7 million shares outstanding, a closing stock price of $13.91 per share, a market value of $255.1 million, and a book value of $168.7 million, which would indicate that our goodwill was not impaired. Furthermore, based on December 31, 2008 data including 14.7 million shares outstanding, our book value of $168.7 million, and a control premium of 25%, our stock price would need to trade below $9.20 per share for a sustained period of time to indicate that our goodwill may be impaired. If the market value exceeds the book value, goodwill is considered not impaired, and thus the second step of the impairment test is not necessary. If our book value exceeds the market value, the second step of the goodwill impairment test is performed to measure the amount of impairment loss, if any. The second step of the goodwill impairment test, used to measure the amount of impairment loss, compares the implied fair value of the goodwill with the book value of the goodwill. If the carrying value of the goodwill exceeds the implied fair value of the goodwill, an impairment loss would be recognized in an amount equal to the excess. We completed the annual goodwill impairment assessment as of December 31, 2008, in which no impairment was identified. Goodwill was $9.1 million as of December 31, 2008. If market conditions continue to fluctuate, we may incur goodwill impairment charges that adversely affect our financial position and operating results.

Revenue Recognition

We follow specific and detailed guidelines in determining the proper amount of revenue to be recorded; however, certain judgments affect the application of our revenue recognition policy.

We recognize revenue in accordance with American Institute of Certified Public Accountants (AICPA) Statement of Position (SOP) 97-2, Software Revenue Recognition, as amended by SOP 98-4 and SOP 98-9, as well as Technical Practice Aids issued from time to time by the AICPA, and SEC Staff Accounting Bulletin (SAB)

Table of Contents

No. 104. We recognize revenue when it is realized or realizable and earned. We consider revenue realized or realizable and earned when we have persuasive evidence of an arrangement, the product has been shipped or the services have been provided to the customer, the sales price is fixed or determinable, and collectability is probable.

Revenue results are difficult to predict, and any shortfall in revenue or delay in recognizing revenue could cause our operating results to vary significantly from period to period. The significant judgments for revenue recognition typically involve whether collectability can be considered probable and whether fees are fixed or determinable. Significant judgment is also required when evaluating and assessing revenue recognition relating to our distribution agreements with original equipment manufacturers, value-added resellers and independent distributors (collectively, Resellers). In addition, our transactions often consist of multiple element arrangements, which must be analyzed to determine the fair value of each element, the amount of revenue to be recognized upon shipment, if any, and the period and conditions under which deferred revenue should be recognized. As a result, if facts and circumstances change that affect our current judgments, our revenue could be materially different in the future.

Equity-based compensation

We recognize equity-based compensation expense under the fair value recognition provisions of SFAS No. 123(R), Share-Based Payment. We recognize equity-based compensation net of an estimated forfeiture rate and recognize compensation cost only for those shares expected to vest over the requisite service period of the award.

The fair value of each option award is estimated as of the date of grant using the Black-Scholes option valuation model. The Black-Scholes option valuation model requires the development of assumptions that are input into the model. These assumptions are the expected stock volatility, the risk-free interest rate, the option s expected life and the dividend yield on the underlying stock. Expected volatility is calculated based on the historical volatility of our common stock over the expected option life and other appropriate factors. Risk-free interest rates are calculated based on continuously compounded U.S. Treasury risk-free rates for the appropriate term. Prior to March 9, 2006, the expected life of stock options was calculated by performing a detailed analysis of all historical stock option information available. On March 9, 2006, we began to grant options with a five-year legal life instead of the eight-year legal life that had historically been used. As a result, we elected to use the simplified method, as described in SAB No. 107, to estimate the expected life of options granted on and after March 9, 2006. We will utilize the simplified method until sufficient historical information becomes available on the five-year legal life options. The dividend yield is assumed to be zero, as we have never paid or declared any cash dividends on our common stock and do not intend to pay dividends on our common stock in the foreseeable future. The expected forfeiture rate is estimated based on historical experience.

Determining the appropriate fair value model and calculating the fair value of equity-based payment awards require the input of the subjective assumptions described above. The assumptions used in calculating the fair value of equity-based payment awards represent management s best estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our equity-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and recognize expense only for those shares expected to vest. If our actual forfeiture rate is materially different from our estimate, the equity-based compensation expense could be significantly different from what we have recorded in the current period. See Note 2 to the Consolidated Financial Statements for a further discussion of equity-based compensation.

Table of Contents

Results of Operations

The following table sets forth information from our Statements of Operations, expressed as a percentage of total revenue.

	For the Year Ended December 31,		
	2008	2007	2006
Revenue:			
License fees	50.3%	56.5%	65.7%
Maintenance and services	47.6	42.0	32.1
Hardware	2.1	1.5	2.2
Total revenue	100.0	100.0	100.0
Cost of revenue:			
License fees	7.2	6.7	7.1
Maintenance and services	14.8	14.2	11.4
Hardware	1.3	1.0	1.7
Impairment of patent		0.3	
Total cost of revenue	23.3	22.2	20.2
Gross profit	76.7	77.8	79.8
Operating expenses:			
Sales and marketing	44.4	45.6	36.0
Research and development	25.1	21.7	18.6
General and administrative	20.6	20.7	15.4
Restructuring charge	1.0		
Total operating expenses	91.1	88.0	70.0
Operating (loss) income	(14.4)	(10.2)	9.8
Interest income	6.8	12.6	4.7
(Loss) income before income taxes	(7.6)	2.4	14.5
(Benefit) provision for income taxes	(3.5)	0.5	5.2
Net (loss) income	(4.1)%	1.9%	9.3%

Revenue (dollars in thousands)

	For the Year Ended December 31,			Increase (Decrease)		Percent Increase (Decrease)	
	2008	2007	2006	2007 to 2008	2006 to 2007	2007 to 2008	2006 to 2007
Revenues:							
License fees	$ 34,290	$ 39,673	$ 46,332	$ (5,383)	$ (6,659)	(14)%	(14)%
Maintenance and services	32,436	29,487	22,615	2,949	6,872	10%	30%
Hardware	1,415	1,016	1,565	399	(549)	39%	(35)%
Total revenue	$ 68,141	$ 70,176	$ 70,512	$ (2,035)	$ (336)	(3)%	(0)%

For 2009, we expect revenue of $61.0 million to $66.0 million, or a 3% to 10% decrease from 2008 revenue.

Table of Contents

License fee revenue (dollars in thousands)

	For the Year Ended December 31,			Increase (Decrease)		Percent Increase (Decrease)	
	2008	2007	2006	2007 to 2008	2006 to 2007	2007 to 2008	2006 to 2007
License fee revenue:							
Vitrea licenses	$ 9,242	$ 12,853	$ 18,585	$ (3,611)	$ (5,732)	(28)%	(31)%
Vitrea options and third party software	20,559	24,967	26,486	(4,408)	(1,519)	(18)%	(6)%
ViTAL Enterprise	3,303			3,303		100%	%
Other	1,186	1,853	1,261	(667)	592	(36)%	47%
Total license fee revenue	$ 34,290	$ 39,673	$ 46,332	$ (5,383)	$ (6,659)	(14)%	(14)%

ViTAL Enterprise, introduced in May 2008, enables unlimited enterprise access to the complete ViTAL solution offering, including *Vitrea*, *Vitrea Web*, *ViTALConnect* and our specialized clinical features. We expect that revenue from *Vitrea* licenses, *Vitrea* options and third party software will continue to decrease in significance as compared to overall license fee revenue as sales of *ViTAL Enterprise* increase. The decrease in license fee revenue during 2008, as compared to 2007, was driven primarily by a decrease in the number of *Vitrea* licenses sold by our direct sales force, offset in part by new sales of *ViTAL Enterprise*, and by a greater percentage of license fee revenue from Toshiba, which has lower revenue per license. Sales of *ViTAL Enterprise* also impact overall revenue mix, as a larger percentage of each *ViTAL Enterprise* sale is allocated to maintenance and services revenue than has historically been allocated for sales of *Vitrea.* The decrease in 2007 license fee revenue resulted from a 16% decrease in the number of Vitrea licenses sold in 2007 compared to 2006.

The following table sets forth information on license fee revenue by source:

	For the Year Ended December 31,		
	2008	2007	2006
License fee revenue:			
Direct	$ 9,750	$ 14,202	$ 20,273
Toshiba	23,276	22,141	20,414
McKesson	1,264	3,330	5,645
Total license fees	$ 34,290	$ 39,673	$ 46,332
Percent of license fee revenue:			
Direct	28%	36%	44%
Toshiba	68	56	44
McKesson	4	8	12
Total license fee revenue	100%	100%	100%

Maintenance and services revenue (dollars in thousands)

	For the Year Ended December 31,			Increase (Decrease)		Percent Increase (Decrease)	
	2008	2007	2006	2007 to 2008	2006 to 2007	2007 to 2008	2006 to 2007
Maintenance and services revenue:							
Maintenance and support	$ 26,656	$ 22,811	$ 16,379	$ 3,845	$ 6,432	17%	39%
Customer education	4,478	5,590	5,178	(1,112)	412	(20)%	8%
Professional services	1,302	1,086	1,058	216	28	20%	3%
Total maintenance and services	$ 32,436	$ 29,487	$ 22,615	$ 2,949	$ 6,872	10%	30%

In 2008, maintenance and services revenue was positively impacted by sales of *ViTAL Enterprise*, as a larger percentage of each *ViTAL Enterprise* sale is allocated to maintenance and services revenue than has historically been allocated for sales of *Vitrea*. As in 2008, we expect that in future periods, although sales of *ViTAL Enterprise* will result in proportionately lower license revenue upon sale, we will benefit from a recurring revenue stream from maintenance and services contracts.

Table of Contents

The increase in maintenance and support revenue in 2008 was primarily driven by an increase in the number of customers on maintenance contracts, resulting from both new license sales and improvement in the percentage of our existing customers who went on maintenance contracts. The increase in maintenance and support revenue in 2007 was primarily driven by an increase in the number of customers on maintenance contracts, as well as by increased pricing on maintenance and support.

Decreased license sales in 2008, compared to 2007, and a general deferral of education sessions contributed to lower customer education revenue in 2008. Professional services revenue, which includes installation and other implementation-related services, increased due to an increase in services related to sales of *ViTAL Enterprise*. The increase in customer education revenue and professional services revenue in 2007 was due in part to customer education revenue recognized in 2007 related to strong *Vitrea* license sales near the end of 2006.

Hardware revenue

Hardware revenue increased 39% to $1.4 million, compared to $1.0 million in 2007, which was a 35% decrease from $1.6 million in 2006. We sell hardware as a convenience to our customers, and fluctuations are driven by individual customer purchasing preferences. Sales of hardware systems are not core to our strategy and will fluctuate from period to period depending upon the needs of our customers.

Cost of revenue and gross profit

Gross profit decreased 4% to $52.3 million in 2008, compared to $54.6 million in 2007, which was a 3% decrease from $56.3 million in 2006. Gross margin percentage decreased slightly to 77% in 2008 from 78% in 2007. Gross margin was 80% in 2006.

A comparison of gross profit and gross margin by revenue category is as follows (dollars in thousands):

	For the Year Ended December 31,		
	2008	**2007**	**2006**
Gross profit:			
License fees	$ 29,368	$ 34,948	$ 41,341
Maintenance and services	22,347	19,559	14,592
Hardware	553	322	369
Impairment of patent		(242)	
Total gross profit	$ 52,268	$ 54,587	$ 56,302
Gross margin:			
License fees	86%	88%	89%
Maintenance and services	69%	66%	65%
Hardware	39%	32%	24%
Total gross margin	77%	78%	80%

Fluctuations in license fee gross margin are generally a result of average sales prices, changes in the product mix, and the mix between direct sales and sales to distribution partners, which tend to carry lower margins.

Maintenance and services gross margin increased during 2008, compared to 2007, as a larger percentage of each *ViTAL Enterprise* sale being allocated to maintenance and services revenue than has historically been allocated for sales of *Vitrea*, without a corresponding increase in costs. In addition, in the fourth quarter of 2008, we recognized a $391,000 benefit to maintenance and support revenue arising from Toshiba billing adjustments relating to historic periods. We will continue to invest in our customer education, installation, professional services and customer support areas in the future to adequately support our growing installed base of customers. Gross margin for 2007 was relatively consistent with 2006.

Gross margin for hardware increased in 2008, compared to 2007 and increased in 2007, compared to 2006. Variances in gross margin for hardware are expected, as hardware sales are not a substantial part of the sales strategy. Low volume can affect margins substantially.

During the third quarter 2007, we recognized a $242,000 patent impairment charge related to a patent application acquired in the HInnovation, Inc. acquisition in February 2004. This patent application was rejected by the USPTO

Table of Contents

on August 23, 2007, and we decided not to pursue this application further. The impairment was recorded as a separate item in cost of revenue, and it is included in the total gross margin percentage above.

For 2009, we expect total gross margin to be approximately 76% to 77%.

Operating expenses

The following is a comparison of operating expenses as a percent of revenue as well as the percent increase or decrease in the total expense:

	Percent of Revenue for the Year Ended December 31,			Percent Increase (Decrease)	
	2008	2007	2006	2007 to 2008	2006 to 2007
Operating expenses:					
Sales and marketing	44.4%	45.6%	36.0%	(5)%	26%
Research and development	25.1	21.7	18.6	13%	16%
General and administrative	20.6	20.7	15.4	(4)%	34%
Restructuring charge	1.0			100%	%
Total operating expenses	91.1%	88.0%	70.0%	(1)%	25%

Sales and marketing

Sales and marketing expenses decreased $1.7 million, or 5%, to $30.3 million in 2008, compared to $32.0 million in 2007, which was a $6.6 million, or 26%, increase from $25.4 million in 2006. The change in sales and marketing expense is as follows (dollars in thousands):

	For the Year Ended December 31,			Increase (Decrease)		Percent Increase (Decrease)	
	2008	2007	2006	2007 to 2008	2006 to 2007	2007 to 2008	2006 to 2007
Salaries, benefits and bonus	$ 12,173	$ 11,652	$ 8,588	$ 521	$ 3,064	4%	36%
Overhead and other expenses	4,532	4,634	3,349	(102)	1,285	(2)%	38%
Commissions	3,592	4,634	5,266	(1,042)	(632)	(22)%	(12)%
Travel, meals and entertainment	3,467	3,676	2,521	(209)	1,155	(6)%	46%
Trade shows and advertising	3,454	3,623	2,849	(169)	774	(5)%	27%
Depreciation	1,668	1,380	806	288	574	21%	71%
Equity-based compensation	1,408	2,392	1,995	(984)	397	(41)%	20%
Total	$ 30,294	$ 31,991	$ 25,374	$ (1,697)	$ 6,617	(5)%	26%

The decrease in expenses in 2008 was due primarily to a decrease in commission expense related to the decrease in revenue and a decrease in equity-based compensation resulting from issuing equity awards at a lower exercise price, as well as significant cancellations of equity awards resulting from organizational changes. The increase in expenses during 2007 was due to an increase in compensation costs as a result of

additional personnel, higher travel and entertainment costs, and higher costs for attending U.S. and European industry tradeshows. Commission expense for both 2008 and 2007 decreased due to lower direct revenue compared to the respective prior year expense. We had 78, 103 and 75 sales and marketing personnel as of December 31, 2008, 2007 and 2006, respectively. The decrease in headcount as of December 31, 2008 was due primarily to the reduction in force described in Restructuring charge.

We expect sales and marketing expenses to be between 43% and 44% of total revenue for the year ending December 31, 2009.

Table of Contents

Research and development

Research and development expenses increased $1.9 million, or 13%, to $17.1 million in 2008, compared to $15.2 million in 2007, which was an increase of $2.1 million, or 16%, from $13.1 million in 2006. The change in research and development expense is as follows (dollars in thousands):

	For the Year Ended December 31,			Increase (Decrease)		Percent Increase (Decrease)	
	2008	2007	2006	2007 to 2008	2006 to 2007	2007 to 2008	2006 to 2007
Salaries, benefits and bonus	$ 10,924	$ 10,310	$ 8,294	$ 614	$ 2,016	6%	24%
Overhead and other expenses	2,860	2,680	2,423	180	257	7%	11%
Consulting	1,394	481	804	913	(323)	190%	(40)%
Equity-based compensation	1,017	729	840	288	(111)	40%	(13)%
Depreciation	936	1,004	731	(68)	273	(7)%	37%
Total	$ 17,131	$ 15,204	$ 13,092	$ 1,927	$ 2,112	13%	16%

The major driver of higher research and development expenses in 2008 was new product initiatives, resulting in increased consulting expense and increased compensation expense due to higher average headcount in 2008 compared to 2007. The increase in expenses for 2007 was due primarily to increases in compensation costs as a result of additional personnel focused on product innovation and development. We had 102, 118 and 100 research and development personnel as of December 31, 2008, 2007 and 2006, respectively. The decrease in headcount as of December 31, 2008 was due primarily to the reduction in force described in Restructuring charge.

During 2006, we required a significant amount of temporary consulting services to complete certain research and development activities, specifically in the area of software testing and validation. We reduced these external expenses during 2007 by hiring additional research and development personnel.

In January 2009, we entered into a co-development and collaboration agreement with Toshiba, in which we will enter into a mutual license of intellectual property and will jointly invest to develop and deliver innovative technology advancements for Toshiba s modalities and Vital Images advanced visualization software solutions. We do not expect the agreement will have a material impact on our 2009 research and development expense.

We expect research and development expenses to be between 23% and 25% of total revenue for the year ending December 31, 2009.

General and administrative

General and administrative expenses decreased $552,000, or 4%, to $14.0 million in 2008, compared to $14.6 million in 2007, which was a 34% increase from $10.9 million in 2006. The change in general and administrative expense is as follows (dollars in thousands):

	For the Year Ended December 31,			Increase (Decrease)		Percent Increase (Decrease)	
	2008	2007	2006	2007 to 2008	2006 to 2007	2007 to 2008	2006 to 2007
Salaries, benefits and bonus	$ 5,101	$ 5,716	$ 4,869	$ (615)	$ 847	(11)%	17%
Overhead and other expenses	3,516	3,170	2,429	346	741	11%	31%
Professional and consulting services	3,142	3,197	1,751	(55)	1,446	(2)%	83%
Equity-based compensation	2,249	2,477	1,856	(228)	621	(9)%	33%
Total	$ 14,008	$ 14,560	$ 10,905	$ (552)	$ 3,655	(4)%	34%

Salaries, benefits and bonus and equity-based compensation decreased for 2008, compared to 2007, as 2007 included an $885,000 pre-tax charge related to the separation of our former Chief Executive Officer. Of this charge, $580,000 is included in salaries, benefits and bonus and $305,000 is included in equity-based compensation for 2007. Professional and consulting services for 2007 increased due to international expansion and higher accounting, audit and legal expenses. Overhead expenses increased both years due to the increase in infrastructure. We had 47, 52 and 50 general and administrative personnel as of December 31, 2008, 2007 and 2006, respectively. The decrease in headcount as of December 31, 2008 was due primarily to the reduction in force described in Restructuring charge.

Table of Contents

We expect general and administrative expenses to be approximately 18% to 19% of total revenue for the year ending December 31, 2009.

Restructuring charge

During 2008, we continued to experience the effects of the industry-wide slowdown in the high-end CT market and the Deficit Reduction Act that significantly impacted our 2007 results. Additionally, in 2008, we were impacted by the general decline in the U.S. economy, which resulted in contracted capital spending by U.S. hospitals and lower interest rates on our cash and investments. We reduced our workforce by approximately 11% under a plan announced in November 2008 in order to align our operations with the current market conditions and improve profitability in 2009 and beyond. We expect that the effect of the restructuring activities will reduce employee costs by approximately $4.0 million to $5.0 million in 2009, compared to 2008.

In connection with the reduction in workforce, we incurred certain charges in 2008 totaling $660,000, which were primarily comprised of employee severance and other termination costs. The following table summarizes 2008 restructuring transactions and related liability balances (in thousands):

	Severance and Other Termination Costs
Balance at January 1, 2008	$
Restructuring charges	660
Payments	(519)
Balance at December 31, 2008	$ 141

Actions with respect to the above activities were completed in the fourth quarter of 2008, and we do not anticipate any additional charges related to the restructuring plan announced in November 2008.

Interest income

We generated $4.6 million of interest income in 2008, compared to $8.9 million in 2007 and $3.3 million in 2006. A decline in interest rates resulted in a 2.9% return on investments in 2008 compared to a 5.1% and 4.5% return on investments in 2007 and 2006, respectively. During the fourth quarter of 2006, we completed a public offering of 3.4 million shares of common stock, resulting in net proceeds of $97.7 million, which contributed to increased interest income beginning in the first quarter of 2007.

Interest income is significantly impacted by changes in interest rates. We anticipate significantly lower interest rates in 2009 compared to 2008 due to general market conditions; interest rate changes would have a significant impact on results.

Income taxes

Our effective income tax rates were 46%, 20% and 36% in 2008, 2007 and 2006, respectively. The fluctuations in our effective tax rates for 2008, 2007 and 2006 were due primarily to the relative impact of research and development credits on lower pretax income in 2007.

Our effective income tax rate may fluctuate significantly from quarter to quarter due to the relative proximity to breakeven of our results before taxes. For 2009, we expect an effective tax rate of approximately 40% to 60%. Due to the utilization of deferred tax assets relating to net operating losses and tax deductions from the exercise of stock options, we do not anticipate paying any significant cash for federal income taxes for the next three to four years. Actual results could accelerate or defer the utilization of our deferred tax assets. Additional information regarding income taxes and deferred tax assets is included in Deferred taxes of Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations Critical accounting policies and estimates.

Table of Contents

Liquidity and capital resources

The following table sets forth certain relevant measures of our liquidity and capital resources (in thousands):

	As of December 31,	
	2008	2007
Cash and cash equivalents	$ 109,706	$ 146,685
Marketable securities	37,287	31,709
Cash, cash equivalents and marketable securities	$ 146,993	$ 178,394
Working capital	$ 135,417	$ 173,905
Debt	$	$

The decrease in our net cash position as of December 31, 2008, compared to December 31, 2007, is primarily due to $38.2 million of share repurchases in 2008 under our $40.0 million share repurchase program implemented in 2008 and completed in February 2009. On March 3, 2009, we announced an additional share repurchase program, authorizing up to an additional 1.0 million shares to be repurchased on the open market.

We believe our existing cash and investments will satisfy our foreseeable working capital requirements for at least the next 12 months. Additionally, we believe our liquidity and strong balance sheet enable us to execute our repurchases of common stock while still investing in our enterprise solution and marketing strategy and remaining well positioned to pursue strategic acquisitions if and when they emerge.

We have investments in marketable securities that are classified and accounted for as available-for-sale. Market conditions during 2008 and 2009 indicate significant uncertainty on the part of investors on the economic outlook for the U.S. and for financial institutions that have potential exposure to the sub-prime housing market. Our corporate debt included $257,000 and $3.0 million of asset-backed securities as of December 31, 2008 and 2007, respectively. The net unrealized gains (losses) on asset-backed securities were $(7,000) and $(19,000) as of December 31, 2008 and 2007, respectively. Our asset-backed securities are rated AAA and are current on scheduled pay downs, with expected full maturity within the next 12 months. For further information about the risks associated with our investments, see the Market Risk section and the section entitled Risk Factors.

Summary of Cash Flows

A summary of cash flows is as follows (in thousands):

	For the Year Ended December 31,		
	2008	2007	2006
Cash provided by (used in)			

Operating activities	$ 8,581	$ 13,902	$ 14,771
Investing activities	(10,246)	(15,870)	1,382
Financing activities	(35,314)	4,271	107,384
Net change in cash and cash equivalents	$ (36,979)	$ 2,303	$ 123,537

Operating activities

Net cash provided by operating activities decreased $5.3 million in 2008, compared to 2007, due to a $4.2 million decrease in net income and a $1.9 million decrease in non-cash operating items, offset by a $791,000 increase due to the timing of other receipts and payments in the ordinary course of business.

Net cash provided by operating activities decreased $869,000 in 2007, compared to 2006, primarily due to a $5.2 million decrease in net income, offset by a $1.4 million increase in non-cash operating items and a $2.9 million increase due to the timing of other receipts and payments in the ordinary course of business.

Investing activities

We used $10.2 million for cash and investing activities in 2008. Net cash used by investing activities was $15.9 million in 2007. Net cash provided by investing activities was $1.4 million in 2006.

Table of Contents

We used $5.4 million, $6.6 million and $6.4 million for purchases of property and equipment in 2008, 2007 and 2006, respectively. The purchases for all periods were principally to expand our facilities and upgrade computer equipment and to purchase computer equipment for new personnel. Additionally, in 2007, we began the implementation of an enterprise resource planning (ERP) system. We continued implementation of the ERP during 2008 and expect to continue to incur costs in future periods as we complete subsequent phases of the implementation. We anticipate that we will continue to purchase property and equipment in the normal course of business. The amount and timing of these purchases and the related cash outflows in future periods are difficult to predict and depend on a number of factors, including the hiring of employees and the rate of change of computer hardware.

We used $76.3 million, $60.0 million and $29.5 million to purchase investments in marketable securities during 2008, 2007 and 2006, respectively. We realized $71.6 million, $50.7 million and $37.4 million of proceeds from maturities and sales of marketable securities during 2008, 2007 and 2006, respectively. The marketable securities consist of U.S. government obligations, U.S. government agency obligations, corporate commercial obligations and certificates of deposits.

Financing activities

Cash used by financing activities totaled $35.3 million for 2008, compared to cash provided by financing activities of $4.3 million and $107.4 million for 2007 and 2006, respectively. The primary use of cash in 2008 was for the repurchase of $38.2 million of our common stock under our $40.0 million share repurchase program initiated in 2008. The cash provided by financing activities in 2007 resulted primarily from the exercise of stock options granted under our stock plans and upon the exercise of warrants. The cash provided by financing activities in 2006 related primarily to the $97.7 million in net proceeds from our public offering of 3.4 million shares of common stock.

We have never paid or declared any dividends and do not intend to pay dividends in the near future.

The following summarizes our contractual obligations at December 31, 2008 and the effect such obligations are expected to have on our liquidity and cash flow in future periods (in thousands).

	Total	1 Year or Less	1 to 3 Years	3 to 5 Years	More than 5 Years
Operating leases	$ 3,067	$ 1,154	$ 1,837	$ 76	$

Off-balance-sheet arrangements

We did not have any off-balance sheet arrangements as of December 31, 2008 or 2007.

Purchase commitments

We had no significant outstanding purchase orders as of December 31, 2008. We have entered into a number of technology licensing agreements that provide for the payment of royalties when we sell *Vitrea, ViTALConnect* and *ViTAL Enterprise*; we are not obligated for any minimum payments under such agreements.

Foreign currency transactions

Our export sales are primarily negotiated, invoiced and paid in U.S. dollars, with a portion of sales transactions denominated in foreign currencies. As we expand our direct business internationally, we expect to enter into a higher percentage of sales transactions in foreign currencies and could be subject to greater gains or losses based on exchange rate fluctuations.

Inflation

We believe inflation has not had a material effect on our operations or financial condition.

Recent accounting pronouncement

Information regarding new accounting pronouncements is included in Note 2 to the Consolidated Financial Statements.

Table of Contents

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Market risk refers to the risk that a change in the level of one or more market prices, interest rates, indices, volatilities, correlations or other market factors such as liquidity will result in losses for a certain financial instrument or group of financial instruments. We do not hold or issue financial instruments for trading purposes, and we do not enter into forward financial instruments to manage and reduce the impact of changes in foreign currency rates because, as disclosed above, our export sales are primarily negotiated, invoiced and paid in U.S. dollars, with a small percentage of sales transactions denominated in foreign currencies. Based on the controls in place and the relative size of the financial instruments entered into, we believe the risks associated with not using these instruments would not have a material adverse effect on our consolidated financial position or results of operations.

In addition, we do not engage in speculative transactions and do not use derivative instruments or engage in hedging activities. See the Notes to the Consolidated Financial Statements for a description of our accounting policies and other information related to these financial instruments.

In the normal course of business, we are exposed to market risks, including changes in interest rates and price changes, which could affect our operating results.

Interest rate risk

We place our cash, cash equivalents and marketable securities, which generally have a term of less than one year, with a high-quality financial institution and have investment guidelines relative to diversification and maturities designed to maintain safety and liquidity. As of December 31, 2008, we had cash, cash equivalents and marketable securities totaling $147.0 million. If, during 2008, average short-term interest rates decreased by 1.0% from 2008 average rates, based on our quarterly average balance of cash, cash equivalents and marketable securities, our projected interest income from short-term investments would have decreased by approximately $1.6 million.

Foreign currency risk

Our export sales are primarily negotiated, invoiced and paid in U.S. dollars, with a portion of sales transactions denominated in foreign currencies. Therefore, fluctuations in the value of the dollar as compared to other foreign currencies have not had a significant effect on our results of operations or financial condition. As we expand our direct business internationally, we expect to enter into a higher percentage of sales transactions in foreign currencies and could be subject to greater gains or losses based on exchange rate fluctuations.

Item 8. Financial Statements and Supplementary Data

Our financial statements and Report of Independent Registered Public Accounting Firm thereon, all of which are included in this Annual Report on Form 10-K, are listed in Item 15(a)(1) of this Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

Evaluation of disclosure controls and procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934, as amended (Exchange Act), is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the Securities and Exchange Commission, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required financial disclosure.

Our management, under the supervision of and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, as of the end of the period covered by this report. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective.

Table of Contents

Management s report on internal control over financial reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with established policies or procedures may deteriorate.

Our management, under the supervision of and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our internal control over financial reporting as of the end of the period covered by this report based on the criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the results of this evaluation, we concluded that our internal control over financial reporting was effective as of the end of the period covered by this report.

The effectiveness of our internal control over financial reporting as of December 31, 2008 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included in Item 15(a)(1) of this Annual Report on Form 10-K.

Changes in internal control over financial reporting

There were no changes in internal control over financial reporting during the quarter ended December 31, 2008 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Table of Contents

Part III

Certain information required by Part III is omitted from this Annual Report on Form 10-K because we will file a definitive Proxy Statement relating to our 2009 Annual Meeting of Stockholders pursuant to Schedule 14A (the Proxy Statement) not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, and certain information included therein is incorporated herein by reference as indicated below.

Item 10. Directors and Executive Officers of Registrant

The information required by this Item 10 will be included under the captions Election of Directors and Information Concerning Directors, Nominees and Executive Officers in our Proxy Statement for our 2009 annual meeting of shareholders. Information concerning the compliance of our officers, directors and 10% shareholders with Section 16(a) of the Securities Exchange Act of 1934 is incorporated by reference to the information to be contained in the 2009 proxy statement under the caption Information Concerning Directors Nominees and Executive Officers Section 16(a) Beneficial Ownership Reporting Compliance. The information regarding Audit Committee members and Audit Committee Financial Experts is incorporated by reference to the information to be contained in the 2009 proxy statement under the caption Information Concerning Directors Nominees and Executive Officers Board Committees. The information regarding our Code of Business Ethics is incorporated by reference to the information to be contained in the 2009 proxy statement under the heading Information Concerning Directors Nominees and Executive Officers Code of Business Conduct and Ethics.

Item 11. Executive Compensation

The information under the captions Information Concerning Directors Nominees and Executive Officers Executive Compensation and Information Concerning Directors Nominees and Executive Officers Director Compensation to be contained in the 2009 proxy statement is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information under the captions Beneficial Ownership of Common Stock and Information Concerning Directors, Nominees and Executive Officers Securities Authorized for Issuers Under Equity Compensation Plans to be contained in the 2009 proxy statement is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information under the caption Information Concerning Directors, Nominees and Executive Officers to be contained in the 2009 proxy statement is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information under the caption Ratification of Appointment of PricewaterhouseCoopers LLP as Independent Registered Public Accounting Firm to be contained in the 2009 proxy statement is incorporated herein by reference.

Table of Contents

Part IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following Consolidated Financial Statements of Vital Images, Inc. and Report of Independent Registered Public Accounting Firm thereon are included herein:

(1) Financial Statements

(2) All other schedules to the Consolidated Financial Statements required by Article 12 of Regulation S-X are not required under the related instructions or are inapplicable and therefore have been omitted.

(3) Listing of Exhibits

The Exhibits required to be a part of this Report are listed in the Index to Exhibits.

(b) Exhibits

Included in Item 15(a)(3) above.

Table of Contents

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, in Minneapolis, Minnesota, on the 16th day of March, 2009.

Vital Images, Inc.

By: /s/Peter J. Goepfrich
Peter J. Goepfrich
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

Pursuant to the requirement of the Securities Exchange Act of 1934, this Report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Michael H. Carrel Michael H. Carrel	President, Chief Executive Officer and Director (Principal Executive Officer)	March 16, 2009
/s/Peter J. Goepfrich Peter J. Goepfrich	Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	March 16, 2009
/s/James B. Hickey, Jr. James B. Hickey, Jr.	Chairman of the Board and Director	March 16, 2009
/s/Douglas M. Pihl Douglas M. Pihl	Director	March 16, 2009
/s/Richard W. Perkins Richard W. Perkins	Director	March 16, 2009
/s/Michael W. Vannier Michael W. Vannier	Director	March 16, 2009
/s/Sven A. Wehrwein Sven A. Wehrwein	Director	March 16, 2009
Gregory J. Peet	Director	

Table of Contents

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of Vital Images, Inc.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of stockholders equity and comprehensive income (loss) and of cash flows present fairly, in all material respects, the financial position of Vital Images, Inc. and its subsidiaries at December 31, 2008 and December 31, 2007, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2008, in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2008, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company s management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management s Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company s internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

Minneapolis, Minnesota

March 16, 2009

41

Table of Contents

Vital Images, Inc.
Consolidated Balance Sheets

(In thousands, except per share amounts)

	December 31, 2008	December 31, 2007
Assets		
Current assets:		
Cash and cash equivalents	$ 109,706	$ 146,685
Marketable securities	37,287	31,709
Accounts receivable, net	13,047	15,962
Deferred income taxes	654	3,472
Prepaid expenses and other current assets	2,179	2,441
Total current assets	162,873	200,269
Property and equipment, net	11,519	11,165
Deferred income taxes	13,904	8,621
Other intangible assets, net	808	1,852
Goodwill	9,089	9,089
Total assets	$ 198,193	$ 230,996
Liabilities and Stockholders Equity		
Current liabilities:		
Accounts payable	$ 3,792	$ 3,330
Accrued compensation	2,936	3,092
Accrued royalties	1,057	1,113
Other current liabilities	1,947	2,282
Deferred revenue	17,724	16,547
Total current liabilities	27,456	26,364
Deferred revenue	1,164	1,140
Deferred rent	882	1,276
Total liabilities	29,502	28,780
Commitments and contingencies (Note 4)		
Stockholders equity:		
Preferred stock: $0.01 par value; 5,000 shares authorized; none issued or outstanding		
Common stock: $0.01 par value; 40,000 shares authorized; 14,673 issued and outstanding as of December 31, 2008; and 17,153 shares issued and outstanding as of December 31, 2007	147	172
Additional paid-in capital	168,738	199,625
(Accumulated deficit) retained earnings	(380)	2,420
Accumulated other comprehensive income (loss)	186	(1)
Total stockholders equity	168,691	202,216
Total liabilities and stockholders equity	$ 198,193	$ 230,996

The accompanying notes are an integral part of the Consolidated Financial Statements.

Table of Contents

Vital Images, Inc.

Consolidated Statements of Operations

(In thousands, except for per share amounts)

	For the Year Ended December 31,		
	2008	**2007**	**2006**
Revenue:			
License fees	$ 34,290	$ 39,673	$ 46,332
Maintenance and services	32,436	29,487	22,615
Hardware	1,415	1,016	1,565
Total revenue	68,141	70,176	70,512
Cost of revenue:			
License fees	4,922	4,725	4,991
Maintenance and services	10,089	9,928	8,023
Hardware	862	694	1,196
Impairment of patent		242	
Total cost of revenue	15,873	15,589	14,210
Gross profit	52,268	54,587	56,302