

Overread.com Remote Image Interpretation and Archiving Services

A new online, interactive medical resource is using the power of the Internet to seamlessly connect point-of-care and point-of-diagnosis physicians in all specialties. Overread.com, located in Pleasanton, California, has introduced Remote Image Interpretation and Archiving Services for use by physician offices, community clinics, diagnostic imaging centers, chiropractors, and other specialists who take x-rays or perform ultrasound exams in their offices. The Overread system eliminates delays, lowers costs, and improves patient care by connecting front-line physicians with

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a network of imaging experts for the purpose of reading and interpreting images taken at the point of care, and facilitating the timely diagnosis of illness and injury.

The Overread system allows physicians with Internet access to digitize and upload patient medical images (x-ray, CT, ultrasound, and MRI) to a secure server for immediate review by imaging experts within the Overread network. A key requirement of the system, which is gaining the attention of physician offices across the country, is a high quality digitized image. To meet its needs for high image quality and affordability, Overread selected clinically proven film digitizers manufactured by VIDAR Systems Corporation.

With the Overread system, which was introduced at the 2000 American Academy of Family Physicians meeting, primary care physicians can have images reviewed by any of a number of consulting radiologists in various subspecialty fields in as little as 15 minutes.

According to Overread President Mark Hayward, the company's remote imaging system provides many benefits to patients, physicians, and healthcare facilities. "Typically, the process of having a radiologist consult on a patient case takes several hours or even days," Hayward said. "Patients must go to the hospital or imaging center to have a radiologist review their x-rays. If a radiologist is not on duty, patients often must return home and wait for a phone call or schedule another appointment with their primary care physician in order to receive the results. By using the Overread system to quickly tap into a network of imaging experts, point-of-care physicians can provide the same services as a hospital or imaging center at no additional cost to the patient or healthcare facility. Furthermore, point-of-care physicians can offer better service and greater expertise to their patients, resulting in improved patient satisfaction."

VIDAR Systems Corporation, the leading manufacturer of x-ray film digitizers, is committed to providing high quality, reliable, and affordable digitizers to meet the needs of healthcare providers worldwide. The company also is committed to promoting an exchange of information that helps healthcare providers improve their delivery of care. In keeping with this philosophy, VIDAR has developed the VIDAR Case History Series to relate the experiences of healthcare organizations that have adopted its line of advanced film digitizers. For new and prospective users, these experiences illustrate how VIDAR's technology brings quality and value to their institutions and helps support the delivery of patient care.

VIDAR Digitizers Offer Quality, Affordability & Convenience

After evaluating several digitizers, Overread chose two systems from VIDAR—the DiagnosticPRO™ *plus* and SIERRA™ *plus*—for inclusion in its image interpretation service. “We weren’t as confident in the other digitizers we considered, and selected VIDAR digitizers because of their high-quality images, low cost, performance durability, and the company’s management expertise and corporate stature,” Hayward said.

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VIDAR’s digitizers offer superior image resolution, resulting in laser-quality images that exceed the American College of Radiology’s teleradiology practice guidelines. The image quality of VIDAR digitizers has been proven in clinical studies, such as a recent Johns Hopkins trial. This landmark study found no difference in image quality and the radiologist’s ability to make a correct diagnosis between radiographs digitized on VIDAR digitizers and more expensive laser systems.

The quality of VIDAR digitizers was confirmed by Brad Piatt, M.D., a member of a radiology group serving the East Bay area of San Francisco, who was involved in testing the Overread system. Piatt tested image transmission and the quality of digitized x-ray images sent between his offices. “A high-quality digitizer is essential for transmission of diagnostic images,” Piatt said. “The digitizers available through VIDAR certainly are both high quality and affordable.”

The DiagnosticPRO features a 25-sheet film feeder to improve staff productivity and minimize the time it takes to digitize and transmit images. The compact SIERRA, which is about the size of a one-panel light box and weighs just 15 pounds (versus 50–200 pounds for other digitizers), is the first digitizer that can be easily wall-mounted. It offers the image quality of larger, more expensive laser digitizers without cluttering the workspace. The SIERRA also offers an optional six-sheet film feeder for added convenience and productivity.

“Point-of-care physicians tend to have very busy and crowded office environments,” Hayward said. “Not only must a digitizer deliver consistently high-quality images, it also must be convenient and easy to use. VIDAR’s unique automatic calibration ensures that high-quality images are delivered day after day, and the digitizers don’t require costly biannual calibration like laser systems.”

Another important consideration in the selection of the VIDAR digitizers was reliability. Continued successful use of the Overread system would not be possible without the consistent performance of the digitizers. VIDAR’s digitizers have completed 40 hours of shock and vibration testing—the equivalent of 40,000 miles—in accordance with the USA Mil Spec Standard. In addition, they have a mean time between failure of 35,000 hours—the equivalent of four years. This exceptional reliability far exceeds any other film digitizer on the market.

When selecting a digitizer, Overread also considered the budget concerns of primary care physicians. Many point-of-care physicians cannot afford the initial expense and significant maintenance costs of laser digitizers. VIDAR addressed this problem by developing the first cost-effective digitizers capable of delivering high-quality images. As part of the company’s commitment to exceptional quality, it recently introduced a number of product enhancements, resulting in a line of next-generation digitizers that combine unsurpassed image



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quality with an affordable price. The DiagnosticPRO *plus* and SIERRA *plus* include the latest version of VIDAR’s proprietary High-Definition CCD (HD-CCD™) technology, as well as a new Automatic Digitizer Calibration (ADC™) feature that recalibrates the digitizers every five seconds—resulting in superior consistency with every image scanned. These upgrades also can be incorporated into existing VIDAR digitizers, providing obsolescence protection and further enhancing value for customers.

Unlike laser digitizers, VIDAR digitizers require no routine maintenance, saving nearly \$2,000 annually in service costs. Their straight-line film path reduces the need for costly service calls and down time due to film jams. As a result, VIDAR digitizers offer a significantly lower total cost of ownership, further eliminating the cost barrier for point-of-care physicians. An analysis of a three-year total cost of ownership using factory specifications and field information shows that the cost of owning a laser digitizer is more than three times as much as a SIERRA—\$71,000 versus \$22,700.

The Overread.com System

Overread.com provides physicians with a comprehensive system to facilitate the management of images and the timely diagnosis of illness and injury. Enrolled physicians receive a computer terminal (monitor, hard drive, keyboard, cart, and laser printer) and a VIDAR DiagnosticPRO or SIERRA film digitizer, depending on their needs. The system contains Overread’s proprietary image and reporting software. In addition, physicians are allowed access to the company’s network of imaging experts and sonographers, and image archiving services.

The Overread system is easy to use and is designed to integrate seamlessly into a physician’s practice. The primary care physician accesses the Overread system via

a standard Web browser using an access code and password. After digitizing the patient images, the physician selects a radiologist from the Overread network based on up-to-date profile information. Profiles include area of expertise, state(s) of license, hours available, and fees for interpretation (optional). Next, the point-of-care physician electronically transmits the high-quality digitized images to the selected radiologist for immediate review. After the image has been reviewed, annotated, and measured by the consulting radiologist, the dictated report is placed on the Overread server so that it can be conveniently accessed by the originating physician. The point-of-care physician can then view and download the report by logging onto the Overread.com server via the Internet. The report also can be printed and placed in the patient’s chart.

Overread System Benefits

According to Overread President Hayward, point-of-care physicians primarily benefit from the Overread system through the immediate access to imaging specialists, enabling them to more quickly diagnose and treat patients. In addition to providing the high-quality digitized images needed to make an accurate diagnosis, the Overread system offers convenient archival services and rapid image retrieval. “The system allows physicians to store patient images on Overread’s secure server and access them at any time via the Internet,” Hayward said. “In addition to eliminating the need for couriers, the system also may reduce the added expense for the physician and inconvenience to the patient involved in retaking lost or misplaced films.”

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According to Piatt, the Overread system offers numerous benefits for patients as well. Benefits include considerably more rapid treatment for patients due to a reduction in follow-up appointments, quicker turn-around time for results, more accurate image interpretation due to the ability to receive rapid second opinions, and easier transmission of digitized images to consulting physicians. “With the Overread system, patients no longer need to

wait several hours or even days for the consulting radiologist, improving patient care and satisfaction and reducing healthcare costs," Piatt said.

Conclusion

Overread has pioneered a new and powerful concept in patient care by linking point-of-care physicians and a network of radiology experts to more quickly and efficiently diagnosis patient injury and illness. VIDAR film digitizers are an integral part of this system because they provide the high-quality digital images required by radiologists to make accurate diagnoses, along with the reliability, affordability, and convenience needed by point-of-care physicians. The Overread system and the VIDAR digitizers provide a way to quickly transmit and access important medical images, resulting in enhanced convenience and improved patient care, while reducing costs. ●

Overread.com

Overread.com is a leader in Internet-enabled medical imaging services for point-of-care physicians. It has created the first Internet-based system that allows point-of-care physicians to send their images to radiology specialists to facilitate the diagnostic process. The company markets and services Remote Image Interpretation and Archiving Services throughout North America. Overread, a privately held company, was founded in 1998 and is based in Pleasanton, California. For more information, visit the Overread.com Web site at www.overread.com.

The VIDAR Family of Film Digitizers

VIDAR Systems Corporation offers a family of award winning, high-quality film digitizers designed for a variety of clinical applications. The image quality of VIDAR's digitizers has been proven in clinical studies at leading centers around the world. VIDAR's family of film digitizers serves the PACS, teleradiology, mammography, and oncology treatment planning markets and has been selected by the leading systems solution providers for inclusion in their product offerings. In addition, its ASSURE™ Quality Control Software is the first system capable of automatically assessing the performance of film digitizers and was designed to improve patient care, quality control, and regulatory compliance efforts of radiology groups and hospitals. For more information about VIDAR's medical imaging products and services, call 1-800-471-SCAN or visit www.filmdigitizer.com.



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