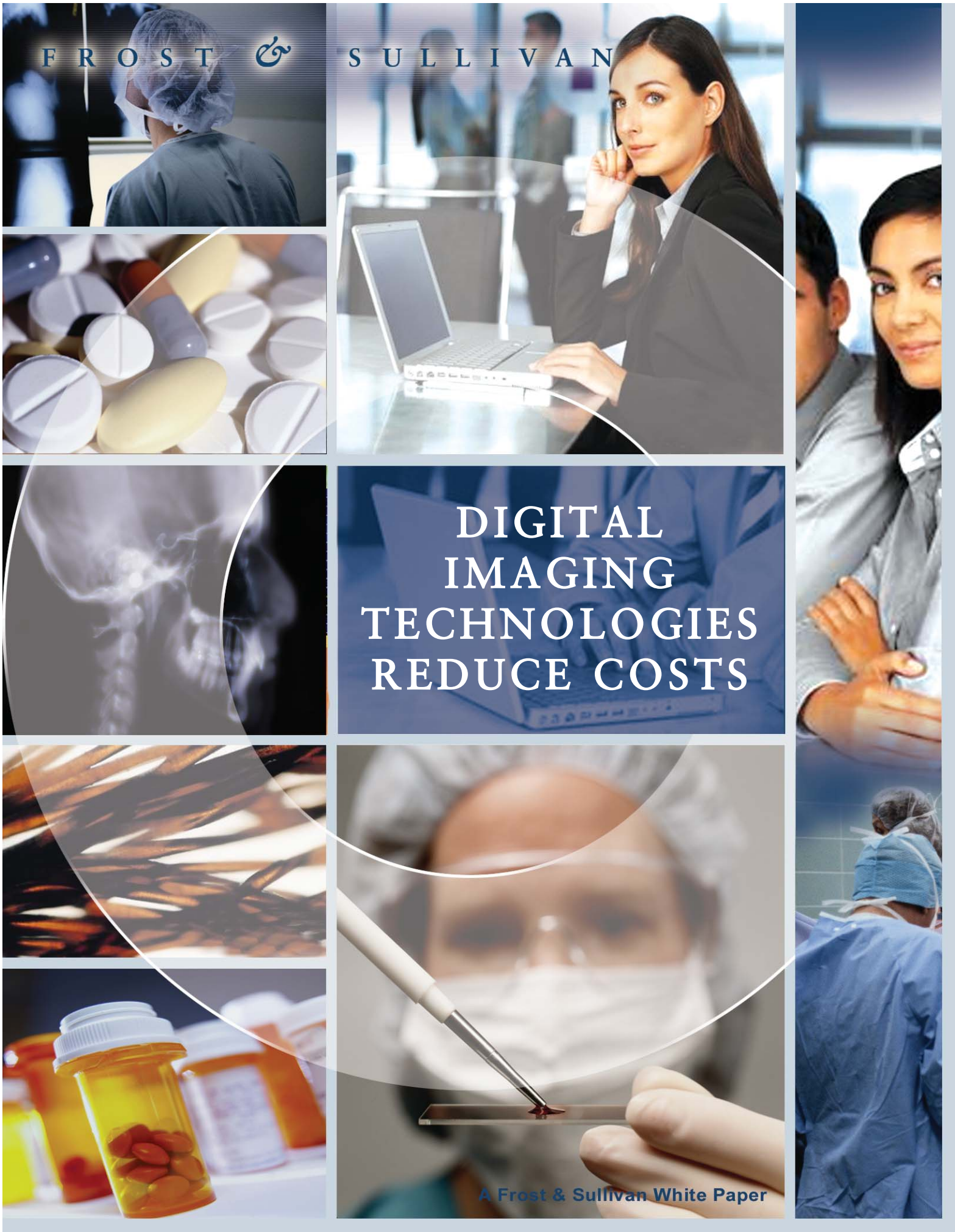
FROST & SULLIVAN
DIGITAL IMAGING TECHNOLOGIES REDUCE COSTS
A Frost & Sullivan White Paper

## INTRODUCTION

As the US economy declines in this tough year, healthcare industry players — including payers, providers and suppliers — are looking for strategies that will improve their service, increase their productivity, and keep themselves lucrative. Some will upgrade from analog to digital radiography (DR) to increase the volume, quality and profitability of their X-ray imaging services, while others will integrate their IT systems across the various departments to streamline enterprise operations. The advantages of DR and image management solutions are therefore both operational, and financial.

### Market Landscape

Across America, hospitals already operating under great financial pressures are showing strains from the economic recession. Diminished funding from the federal and state governments and from philanthropic donations, reduced health insurance coverage, dropping reimbursement for procedures, increasing unemployment, and the prevailing atmosphere of uncertainty have pinched hospital budgets and blocked their access to capital. Faced with dwindling cash reserves, hospital executives critically examine their purchases, requiring them to show cost savings or help the institution increase profits. They are cautious, deferring investments in new technology and equipment.

However, even while the institutions try to rein in their spending, their digital information continues to grow exponentially. From spreadsheets and documents to radiology images, bytes and pixels replace paper. By now, the information from nearly 70% of all imaging procedures is in digital format. In this increasingly digitized healthcare environment, facilities need to optimize their efficiency and streamline their workflow, and digital image management is the way to go.

In clinical settings, as the need to improve efficiency and control costs drives the shift to digital, the market faces important challenges. Reimbursement is becoming scarce, with declining insurance coverage. The Deficit Reduction Act of 2005 has tightened the belt on government spending and consequently on the Medicare and Medicaid programs. In the current economy, providers have to do more with less, monitoring tightly cost and time.

### The Push to Change

The time to do an X-ray with digital technology is now less than two minutes per exam, compared with the 15 minutes of older, analog systems. Because of the rapid throughput intrinsic to digital imaging, a facility can replace a number of analog x-ray systems with just one or two DR and CR rooms. The long-term benefits of investing initially in a DR system are immense, and its cost of investment can be recovered within a few years. Traditional film-based X-rays not only give the patient higher radiation doses than digital formats, they need greater processing times. Digital and computed radiography (DR/CR) systems achieve a better image quality at potentially lower radiation doses. Other significant advantages of digital imaging are computer-aided image interpretation and image enhancement, in addition to the obvious options of standardized image archiving and image retrieval. Unlike analog

X-ray systems, digital image processing achieved by digital X-ray systems is used not merely to capture an accurate image, but also to yield additional diagnostic information. The main drivers of the digital imaging market are therefore increased efficiency and quality of care, and the lesser times for image acquisition.

The switch to electronic medical records (EMR) is another driver for the conversion from analog to digital imaging. Although EMR are not yet mandated, storage management systems are essential to the Health Insurance Portability and Accountability Act (HIPAA) requirements, which do establish archiving times for medical images, patient records and hospital administration data. Images are stored for at least seven years; patient records for much longer periods. Digital radiography enables a patient's radiographic images to be tied to his electronic medical record, allowing them all to be stored together, to be read quickly and efficiently when recalled. Medical records are going digital with increasing speed, thanks to Executive Order 13335 of 2004, which established an executive government position charged specifically with developing a plan and incentives to promote the adoption of nationwide electronic medical records (EMR) by 2014. With the HITECH Act, the new U.S. administration has voted a new stimulus plan providing financial incentives for physicians and hospital providers to adopt EMR. Radiology facilities and hospitals throughout the US are rapidly migrating to digital imaging and archiving systems; it is hard to imagine getting along without them. As patient flow increases so does the need for short turn-around times.

Productivity is a related issue now, when hospitals across the country are coping with shortages of technologists and radiologists and staff reductions. Their service departments have to maintain the same throughput even as they reduce the number of their full-time employees and continue to drive business through referrals. Effective image management is a powerful benefit to the radiology enterprise. According to Robert Homan, RIS-PACS Clinical Coordinator, Joint Township District Memorial Hospital, *"We wouldn't be as productive as we are without RIS/PACS today. It is almost a requirement today and not a luxury item! It is driven by the referring physicians – they are demanding it"*.

In this needy market environment, Carestream Health's products fit perfectly. Its CR/DR capabilities are top-of-the-line. Its RIS and PACS solutions give hospitals wonderful flexibility and, best of all, Carestream Health products can mesh with nearly any system a hospital already is using.

## CARESTREAM HEALTH'S COMMITMENT TO WORKFLOW PRODUCTIVITY

### Computed Radiology and Digital Radiology (CR/DR)

***Benefits of Digital Imaging***

Digital radiography and computed radiography (DR/CR) systems so improve efficiency and cost control that they have become necessary to today's clinical settings. Carestream Health's integrated platforms and seamless transition between CR and DR systems are key

advantages. Seamless transition brings about standardization and reduces the required training time for staff, critical considerations to hospitals that are improving efficiency and productivity.

In these challenging economic times, providers have to do more with less, and procedural cost and time are consequential. The time it takes to process a digital radiology x-ray is less than two minutes, considerably less than the average 15 minutes for an analog system. That increase in throughput allows a number of analog x-ray systems to be replaced with far fewer DR and CR rooms. The initial cost of a DR system, seemingly unaffordable, is recovered within just a few years. Price and workflow requirements dictate the choice between DR and CR.

***CR***

Although digital radiography brings a significant improvement in workflow and productivity, the capital investment, seemingly prohibitive, and has constituted one of the main deterrents to purchasing it. Innovative new cassette size portable detectors on the horizon lower the cost of entry to DR, for these do not require a total room replacement. Additionally, fierce competition in CR and DR over the past several years has already brought prices to a level that clinics and hospitals can afford. As a result, CR is an excellent option to improve workflow and enable digital images for PACS and EMR for more modest volume environments. Where maximum productivity is needed from a single room, the ROI on DR makes buying DR sensible.

To contain capital outlay but still acquire digital capabilities, radiology departments buy CR units as cost-effective alternatives to the more expensive DR. CR introduces a cassette to a traditional X-ray system without replacing the x-ray room. To avoid a cash outlay, many end-users buy the traditional analog systems and later retrofit to digital systems, or they buy the CR systems. They expand their DR rooms and then buy additional CR units to meet the growing demand. That "retrofit" approach makes most sense in small hospitals and private clinics. The market for CR is already 80% saturated; potential buyers know the technology well.

***DR***

The move to DR is well underway, with institutions making the investment opportunistically. The modality has naturally tracked the X-ray room replacement market in installations as DR is typically installed when an existing x-ray room is nearing the end of it's useful life or when a new facility is being built. Once adopted, DR offers great productivity gains; some users show a DR room can double the throughput of an analog room.

Classic fixed-detector DR will enable fantastic improvements in productivity, but may present a positioning challenge for certain studies, as the DR detector is integrated into the wall stand or table. This limitation has created a need to use CR cassettes for difficult views. An excellent hybrid solution from Carestream Health, called Capture Link,

automatically inserts the CR and DR images from the same study to a folder together, and they go to PACS as a single study.

***DRX1***

The unique DR upgrade path offered by Carestream Health, DRX1, allows hospitals to upgrade an analog x-ray room with no major installation cost. It fully leverages previous investments.

Carestream Health's new wireless DR detector, the first in the industry, is the size of a standard 35x43cm cassette and can be used with an existing wall stand or table-based Bucky, standard off-the-shelf grid holders, and grids for tabletop use.

The CARESTREAM DRX-1 incorporates a console and a wireless 35x43cm (14x17 inch)cassette-size DR detector that provides a rapid, affordable conversion for users of radiographic film or computed radiography systems. Because it can be installed with no modification to existing analog equipment, it can enable DR productivity, without the cost of replacing the x-ray room. A healthcare facility can utilize one detector for nearly every type of exam that uses a traditional cassette. The DRX-1 system delivers high-quality preview images in about 6 seconds, leading to a significant increase in productivity, even for users of computed radiography (CR) systems.

*"This innovative wireless detector presents an extremely attractive option for facilities that want to improve productivity and image quality in existing film or CR rooms, but do not have the budget for equipment replacement,"* said Todd R. Minnigh, Worldwide Director of Marketing, Digital X-Ray, Carestream Health. *"No modifications to existing x-ray systems are needed and facilities can continue to use the Bucky with CR or film-based cassettes as a backup. In addition, the wireless functionality of the DRX-1 can improve efficiency by allowing a much more flexible workflow to meet the specialized needs of each individual facility."*

Because the DRX-1 detector is wireless, it provides flexible positioning that enhances both efficiency and patient comfort. The detector can be used wherever it is needed—in the wall stand Bucky, table Bucky, or for tabletop shots and other difficult views. Weighing just 8.5 pounds, the detector is up to 30 percent lighter and up to 50 percent smaller than other portable detectors.

Furthermore, the cassette is rugged: The tough detector, case, and internal components produce top quality DR images under real-life conditions, the challenging environment of a modern x-ray department. A touch screen console is included with the detector to provide the RIS/HIS work list, assist with image capture, review and process images. Images can be transmitted as DICOM files to any PACS, print or storage device.

The DRX-1 system is very easy to learn and its capture link is compatible with the prior Carestream Health and Kodak CR and DR systems; it is suitable for general radiology,

trauma, orthopedics and virtually all other general x-ray exams. DRX-1 incorporates the same innovative software and image processing capability as Carestream Health's KODAK DirectView CR and DR systems and, of course, delivers high image quality and workflow consistent with these systems.

## Imaging IT

### *RIS and PACS*

Radiology Information Systems (RIS) and Picture Archiving and Communication Systems (PACS) are the backbone of efficient image management for hospitals and clinics. At a minimum, a RIS allows the hospital to schedule patients, register them, manage the workflow, scan documents, deliver clinical reports, track patients, create technical files, and oversee the attendant modalities and materials.

A PACS — which handles images as diverse as ultrasound, magnetic resonance, PET, computed tomography, endoscopy, mammograms, and DR/CR — has two uses: It replaces the old hard copies of images with digital, or soft, copies; and it functions as the method to provide off-site review, diagnosis and reporting. Practitioners in different locations see exactly the same information, even simultaneously.

Faced with the steep initial cost of investment, on the one hand, and the long-term impact of digital radiology solutions on the other, hospitals undergo a rigorous process to select the right vendor for their digital imaging IT solutions. They want the best fit to their situation and to the dollars they have budgeted. Technological innovation and seamless integration with systems already in place are the important criteria in their selection. Service and support are the two other important considerations.

Carestream Health's digital imaging and archiving solutions are in the forefront of a wide range of product offerings: both new and upgraded offerings boost efficiencies and productivity throughout the hospital. Carestream Health's digital imaging solutions improve patient care through affordable workflow solutions that enhance diagnostic quality and productivity. Its healthcare IT solutions with enterprise-wide and fully featured RIS, PACS, and information management solutions integrate patient information and streamline workflow at every point of care.

The time and cost savings that accrue with a RIS/PACS are impressive. It streamlines scheduling, billing, space utilization, and staff productivity. RIS/PACS systems have lifted their users from the radiological dark ages to present-day sunlight. Pamela Mosely, at Rochester General Hospital, says, *"We had one scheduling book for five schedulers, a turnaround time of over 100 hours. Now we have a turnaround time of 12 to 14 hours, with reports getting out within four hours. Scheduling … goes very quickly.… Everything we used to do by hand is gone."*

Her hospital began using a stand-alone RIS, the KODAK CARESTREAM RIS, and within months integrated it with the KODAK CARESTREAM PACS. *"The integration process was*

*very easy. It took about a month and a half on the file, but the actual implementation took place overnight."*

She said the savings and efficiencies were immediately obvious. Suddenly, films were no longer misplaced, and the images were all where they should be, in the system. Dark-room time disappeared. The digital system, because it gives wider latitude in exposure than does an analog system with film, can deliver an equivalent image with a lower dose of radiation. *"There was an 80% decrease in throughput and increase of 30 to 40% in revenue"*, pointed out Mosely, mentioning also that the CR/DR and RIS/PACS implementations together afforded a daily increase in patient load of 30%.

Dictation time, measured from taking the image to receiving the transcription, dropped from days to hours, and then to less than 15 minutes. For the technical staff, productivity measured as cycle time per patient diminished from 30 to 15 minutes and, for physicians, from days to hours. The unit times for transporting patients from floor to radiology and back declined from hours to minutes.

The fact that hospitals do not lose images when they store them on a PACS system is in itself convincingly appealing. Furthermore, their ability to share images with different healthcare providers simultaneously saves time and streamlines workflow.

With the KODAK CARESTREAM RIS/PACS, the decrease in staff and space lead to considerable savings to the hospitals. *"We don't have to store the images [physically] any more."* Mosely said. The RIS/PACS system allowed Rochester General to reduce the wait time for ER patients. Just one person now handles jobs that were previously spread among four. *"For analog films, you have to process them, , QC them, set them up, and send them. With digital imaging, you don't have to handle them any more. [With the RIS/PACS] hit the button and then send it It provides patient demographics for every patient; you don't have to type the information in. [All that] increases productivity by almost 80%."* Mosely.

Carestream Health's PACS storage platform is so flexible that each type of storage can be governed by a different set of rules. Although it covers diverse departments, such as laboratory and radiology, each can specify its own restrictions. For example, laboratory results are stored forever, while x-rays are deleted after seven years.

Furthermore, the system stores material from any department on the same platform. Hospitals that invest in the CARESTREAM RIS/PACS have no need to acquire a separate RAID (redundant array of independent disks) system for each modality. Carestream Health offers an enterprise storage system, meaning that many departments and modalities can store images on the same system. *"As our system grows, we can take all future '-ologies' and we can store all in one archive space. That was very enticing. No other company offered the same thing in storage format,"* said Homan.

A state-of-the-art system with RIS and PACS not only equips radiology practices to handle

the tremendous amount of digital information they generate today but also prepares them for the digital future. Its immediate benefits encompass more efficient use of radiologists' and technologists' time, cost reductions, efficient and streamlined workflow, and consequentially improved customer service.

***Integrated RIS/PACS***

As the radiology imaging industry undergoes consolidation and convergence, it is improving its offerings. An integrated RIS/PACS, a key solution for the future, saves on complexity and cost by integrating the radiology clinical and imaging workflow. Users can collaborate and share the same screen with physicians of different specialties. An integrated RIS/PACS can further streamline the workflow by enabling radiologists to highlight the areas that will be of interest to other physicians, saving time and improving efficiency. Additionally, no patient image is actually transferred, a feature that eliminates privacy concerns.

The web server/viewer capability provides ubiquitous access to radiology images and reports across the enterprise. It consolidates several work functions into one system, which aids in managing worklists effectively. It also presents the work list to the transcriptionist electronically and provides the tools to manage the changes and revisions from the preliminary to the final report.

The Carestream Health integrated RIS/PACS tracks all the events and communicates status messages, recording them in the database. Time consuming tasks such as tracking and locating referring physicians to send patient data and communicating with them for regulatory compliance are covered by system. When different physician specialists in different locations — e.g., an orthopedic surgeon in his office, a radiologist next door, and a cardiologist on an upper floor — must see patient data at the same time, the integrated RIS/PACS makes them available.

Digital imaging and archiving are the tools that enable these features of efficiency. They enhance clinician productivity and contribute to timely diagnoses. Discrepancies in information and updates in RIS are automatically passed to PACS, eliminating the need for manual synchronization.

The integrated RIS/PACS absorbs complexities: It manages the multiple interfaces required to exchange information. Patient demographics, orders, results, and billing are shuttled to and from these systems. Hospitals needing these capabilities often involve four or five vendors in the design, installation, and support of these interfaces. The resulting complex systems are expensive to support, as they coordinate information sharing among the RIS, HIS, and other reporting systems. Systems meeting the DICOM and HL-7 standard such as RIS/PACS, on the other hand, were designed specifically to address image sharing among different vendors' systems, without necessarily sharing patient information. Hence, another application with another database is required to broker the communications between the PACS and the information systems. The integrated RIS/PACS bridges these gaps.

In summary, the value of the integrated RIS/PACS is to provide a single database that manages the image and information workflow of a radiology department. In addition to acquiring, storing, and displaying radiology text-based and image information, it creates worklists, tracks events and updates the status of the orders, maintains awareness of all of the analog and digital information, eliminates paper-based information, and manages all of the clinical and business processes. It provides value in terms of transforming imaging workflows and streamlining communication and collaboration to enhance clinician productivity, improve patient care and simplify compliance with emerging regulatory compliance requirements.

Eagerly awaited, the newest generation CARESTREAM RIS/PACS — due out by mid-2009 — will be web-based. Remote access will be a key feature of its RIS/PACS capabilities. Having remote access to our PACS is *"a thing of the future. A physician [can] be at [his] office, and we are offering a web link. That is our goal, that any physician, as long as he has privileges, can have access to the images anywhere."* Homan.

Using this integrated RIS/PACS function will make evident its ease of use. With the same application and graphic interface for every transaction, users need not be trained to navigate through various different solutions. They do not have to remember multiple user names and passwords. One name, one password, one system. The use of desktop space is efficient, as all applications run on a single device. A single workstation on this integrated platform provides RIS/reporting and image display capabilities.

According to Rick Perez, Administrative Director, Winthrop University Hospital of Mineola, N.Y. the 3D in Carestream Health's integrated RIS/PACS is as good as it is in stand-alone advanced visualization systems he is evaluating for his hospital: *"Carestream offers the flexibility to share information from different locations of CR, unlike GE. In terms of value proposition, it has provided good value to the institution both in terms of economic and clinical perspective."*

***SuperPACS***

The core concept behind Carestream Health's SuperPACS™ architecture, to be released in the second quarter of 2009, revolves around consolidation and interoperability. The SuperPACS uses a PACS architecture that synchronizes several PACS systems from multiple vendors, and provides a single PACS viewer from Carestream Health to access all imaging studies.

In multi-site and multi-vendor environments, the solution can help address interoperability issues by overlaying Carestream Health's SuperPACS on the existing PACS infrastructures, while maximizing the leverage on previous PACS investments. SuperPACS technology connects disparate PACS systems seamlessly. The infrastructure harmonizes the diverse systems, providing a single user interface throughout the network. It is invaluable technology for radiologist groups reading for multiple facilities that do not use the same PACS platform and also for hospital-based specialists reading cases for other hospitals. They

would benefit greatly from using a single, global worklist and work in a single reading environment. The SuperPACS can also support data center services for any institution seeking to outsource disaster recovery and business continuity functions.

*"Hospitals would like to have something integrated like a SuperPACS. That would be ideal. It may not work for all modalities, but the goal is to use one big storage archive in the background."* Perez.

Users are already alert to the SuperPACS coming down the pipeline. *"PACS in the 90's was in the radiology department. [Now] it is an integrated solution with EMR and patient care, … a much bigger PACS than it was before." More people have access to images, reports, and data. Now, if I am doing a cardiac CT, … I need cardiac work-up because of cardiologists and radiologists working together. [Before] I had multiple workstations, … jumping in and out of the systems. As we go forward, it has to be integrated. First, I can't afford the [multiple] hardware. Integration and leveraging existing equipment are extremely critical to me."* Perez.

*"We are hoping to get one [SuperPACS]. Because we are integrated, we are going to get the super RIS [and] PACS together. We decided … we would be better off having both [RIS and PACS]. We are considering Carestream, of course; leveraging our existing equipment plays an important part in our decision; the integration will also be seamless."* Mosely.

## IMPROVING THE RADIOLOGY BUSINESS WITH CARESTREAM HEALTH'S PRODUCTS

### Return on Investment (ROI) and profit increases

The increase in profit generated by a move from analog to DR is related to the increase in productivity realized, about two times, and the increase in net revenue, about three times. Frost & Sullivan estimates that shifting to digital radiology from computed radiology increases the ROI for the technology by 25%. Even in the first year of use, the increased productivity of DR allows departments to better utilize staff and department space. In some cases the addition of more than one DR room allows additional x-ray rooms to be repurposed for other modalities.

*["Before, on analog system] it took three minutes of processing time alone; With CR, the processing time was reduced to a minute. With DR, to under 15 seconds."* Betty Ward, Director of Imaging, Secour and St. Francis Hospital

*"When we went from analog to CR, we saved about 15-20% of the tech time. We went went from CR to DR … an additional 15%."* Perez.

Carestream Health's solutions have increased both productivity and patient throughput, as users of its technologies can demonstrate. *"We were able to cut out close to 60% of the process …; we are operating at 40% of previous work [for the same job]. A 70-step process went to a 28-step process." [We expect to recover our investment cost] within five years. We are a*

*small community hospital. We won't see a huge increase in revenue; it's a process savings. And it means end-user satisfaction."* Homan.

*"RIS/PACS provides patient demographics for every patient. You don't have to type the information in – you just push the button and it pops right in front. That saves a lot of time. Everything is in order. You can do everything while the patient is in the room. It increases productivity by almost 80%."* Mosely.

**Tools for business monitoring, management, and intelligence**

Hospitals depend on their imaging and storage systems, once these are installed. They cannot justify their investment if the systems are not consistently functional. Because physicians need to retrieve stored images immediately to make clinical decisions, and because they have come to expect that, it behooves the hospital to monitor continually the performance of each component of its RIS, PACS, and IMS systems.

Carestream Health has developed its Digital Dashboard to address the issue. The Digital Dashboard is a remarkable software-based product that monitors the various systems in a hospital or site — the RIS, the PACS, and the IMS — and both displays the status of each and alerts the viewer to a problem with any of the pieces in the network. The user can be pro-active, rather than re-active, fixing a problem as it shows up, rather than waiting until one of the network users reports he has lost a connection.

Available on the administrator's desk, its screen – or dashboard – shows how every device connected to it is performing. The administrator can identify incipient and potential problems, correcting them before they cause the whole system to fail. *"I, only, use it. It is customizable, not only to Carestream stuff, but I can keep track of all other important modality items connected via the network. Our CT and ultrasound units [are on it]. I can monitor my proprietary items, such as Carestream RIS, PACS, and EIM. It tells me how many users are on the system, how many studies are being stored on a yearly or daily basis, how to manage so my storage space isn't exceeded. I can be aware of network outages. If I see a lot of them are off, I am forewarned that I have a network outage. It [the Dashboard] gives me a pro-active, rather than a re-active capability."* Homan.

*"What is nice is that I can anticipate potential downtime. A couple of times I have seen things like the disk space getting full. [Then] we can call people to increase the disk space for the whole department. Before the Dashboard, if it went out, it went out. We didn't know beforehand. It especially helps because one of our systems is 55 miles away."* Mosely. Some hospitals use other, additional, tools to monitor rate and long-term archive.

## BENEFITS OF WORKING WITH CARESTREAM HEALTH AS A PARTNER

**Technology and innovation**

Carestream Health has traditionally been innovative; many of its products – and many of its features – have been first of their kind in the market. Rick Perez says, *"Carestream's*

*technology has always been forward thinking. They are always looking to make things better. They are usually ahead of the current trends in the industry."* As an example, he points to the high resolution of the Carestream monitor], not equaled by any other manufacturer, and says that the digital imaging products incorporate fast image acquisition, processing and transfer. Also, Carestream Health is the only vendor in the market who offers the type of long-length imager he seeks.

Selecting Carestream Health over others also *"had to do with the transition of what we had before – the cassettes, the user interface and the entire HL-7 DICOM flow. We like the way the machine was set out with no cords, the room layout. The room had to be flexible to do regular walking and sitting patients, patients on a stretcher or need to be laid out on a table.- this was the flexibility that Carestream offered. When you design a room, you want to do all patients of all types."* Perez.

*"Carestream offers the design and image quality that we desire; has shared user interface for models of all DR and CR platforms and enhances technologist's productivity, moves easily between different platforms and different technologies."* Ward.

**Flexibility: A key Carestream Health characteristic**

Carestream Health's digital imaging offerings are easy to use, with customizable features that can adapt to the radiology room with a smaller footprint, flexible design and top-line quality. Transitioning to Carestream Health is seamless, even when an entire HL-7 DICOM flow, cassettes, user interface and IDX attachment are incorporated.

*"When you walk up to a piece of [Carestream] CR equipment, the appearance of the control panel is the same as that of a DR equipment. Since our technologists work in various areas of the hospital and at different locations, standardization was a vital element for us because it maintains their productivity and reduces additional training."* Ward.

CARESTREAM RIS/PACS *"was configurable to our workflow"*, said Mosely, . *"It is designed with the end user in mind… The company is conforming to [us]."* Carestream Health offers training for the first-time users —another valuable service not provided by many.

Thanks to the flexibility of Carestream Health's storage system, in which each type of storage is governed by a its own rules, hospitals avoid handling separate disk systems. Users take advantage to discard systems that do not coordinate with already established modalities.

Flexibility also governs Carestream Health's relationships with its clients. In an industry accustomed to offering equipment as an up-front purchase or through a pay-per-use plan, Carestream Health has gained friends for its bend-over-backward attitude. *"They are always willing to help us in every way. They also help with getting funding or grants. They will help us with documentation or they will speak on our behalf."* Mosely. *"[Carestream] actually brought a server in one night when we had a 14-hour downtime. We couldn't see prior images, but we could*

*see current ones; that helps immensely. It prints film, loads them into RIS/PACS. When we came on line, they sent it to our PACS; it's normal."* Mosely.

Carestream Health's digital imaging solutions improve patient care through affordable workflow solutions that enhance diagnostic quality and productivity. Its healthcare IT solutions with enterprise wide RIS, PACS, and information management solutions integrate patient information and streamline workflow at every point of care. Its integrated platforms and seamless transition between CR and DR systems are key advantages. Seamless transition brings about standardization and reduces the required training time for staff, critical considerations to hospitals that are improving efficiency and productivity.

The case for digital radiology rests sturdily on the economics. Compared to the analog technologies, the digital forms yield savings in time and money. Carestream's options in digital radiology are elegant, sophisticated, flexible, and user-friendly. They allow complete compatibility with other systems, including already existing RIS and PACS. Carestream leads – in technology, in service, and in affordability.

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