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WHITE PAPER

Pioneering Radiology Revenues: *The NovaPro Business Growth Model*



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A New Radiology Workflow: Pioneering New Revenue Sources

Advances in PACS and RIS have revolutionized the workflow of radiologists. By freeing the radiologist from light boxes, separate read stations for different modalities, and paper forms. But, few radiologists have taken advantage of the full extent of this change.

In recent years, the American College of Radiology (ACR) has attempted to focus radiologists on increased efficiencies, more detailed, rapid, and complete annotations of more complex studies. Unfortunately, so far this has not translated into a new way of thinking about the business of radiology. In order to unleash the revenue potential available to radiologists today, images must not only be acquired faster from a boarder range of sources, but interpretative results must be distributed faster and more thoroughly than ever before.

Traditionally, radiologists have conducted reads *for* a central location *at* a central location, then sent for transcription. In recent years, we have seen a shift in more progressive departments, facilities, and organizations toward leveraging the inherent communications advantages of conducting digital reads to allow radiologists to read for multiple locations from a central place. This expanded access to a wider range of studies and locations offers the possibility for healthcare providers and radiologists to grow their business.

Like it or not, the business of providing healthcare has become more competitive. It struggles with increased government regulations. There is a growing challenge to administer proper billing and obtain reimbursement. Nevertheless, radiology stands on the edge of a major new potential for revenue growth and business development. This growth potential, however, has so far been limited by the traditional mentality most radiologists apply to conducting reads. It is time to rethink radiology *as a business*.

NovaRad South advocates a business model that accentuates the need to offer radiology read services to a broader spectrum of potential clients in order to significantly enhance profitability. This involves the marriage of proven business marketing techniques, proven business success methods, with new developments in radiology reading technology to maximize the possibilities for capturing revenue and driving income while maintaining ACR guidelines for quality and efficiency.

Today there are a plethora of healthcare facilities and practices that need a reliable radiologist but currently either cannot afford to staff one full-time or are dissatisfied with their current, likely less efficient, reading arrangements.

With web-deployed digital workstations it matters very little whether these potential sales are within a specific geographic location or not. The limitations of geography and time have long been overcome by digital workflow. This offers

the possibility for a paradigm shift in the way radiologists think about the way they conduct business. Not only have time and space become virtually non-intrusive in terms of accessing and interpreting studies, but so has the facility or department in which the radiologist resides.

For the radiologist, the next step in the evolution of digital reading is in effect to transcend PACS itself and better leverage the way radiology uses the digital read workstation as more than merely a component in PACS. Today the workstation can combine the efficiencies of being able to increase the quantity of reads, the thoroughness of the annotations, and the potential freedom of connectivity into a new business growth model for the healthcare facility and the radiologist. This is the NovaPro Business Growth Model, offering empirically defined quality unique to the radiology field.

Progressive radiologists have just begun to proactively seek new sources for studies. Using NovaPro's unique power of integration and connectivity, these pioneers of the new revenue generation model for radiology are seeking additional studies from clinics, smaller hospitals, imaging centers, and individual practitioners to ramp-up the volume of studies they receive. They are then leveraging a newly deployed quality and efficiency expertise afforded them by voice-recognition technology as well as reduced turnaround times and costs associated with the antiquated dependency on transcription. This accommodates new sources for more reads, in less time, with complete reporting, accountability and automated billing to accelerate their income with comparatively little increase in expense or risk.

With the NovaPro Business Growth Model the traditional focus on achieving greater efficiencies while mastering reductions in expenses and risks is augmented with the proactive marketing of radiology services beyond what the radiologist typically considers as sources for images. With NovaPro, images can come to the radiologist from any DICOM-compatible PACS, from any CR, from any point of digital origin. Any digital image is integrated into the radiologist's workflow so that ROI is achieved faster through the simultaneous management of expenses, efficiencies, and income.

Maintaining Quality and Communicating Value While Maximizing Volume

While founded upon the understanding that the digital read workstation no longer needs to be "limited" to receiving studies from a single, specific PACS, our model for success is not driven by technology. What we are discussing here is not a purely technological matter. We are discussing how to leverage technology in new ways to conduct the business of radiology. NovaPro enables the growth model, but only to the extent that the radiologist leverages this tool by thinking of their practice as a business.

Increasing the quantity of reads available to the radiologist is a basic marketing and sales concern. A radiologist communicates awareness of his or her services to a wider range of facilities and practitioners who produce images. The radiologist then offers advantages in price, convenience, and quality. This supplies all the ingredients necessary to diversify sources for revenue generation and drive profitability.

Price is within the radiologist's control, depending upon how aggressive the radiologist wishes to grow the business. But, maintaining quality to accommodate the expanded demand for a radiologist's services could be the Achilles Heel of the best crafted business model.

Simply put, quantity is only profitable to the extent that quality remains high and competitively distinctive. Quality ensures satisfied customers and enhances value. Quality and value are the foundation of the NovaPro Business Growth Model.

NovaPro is a fully-integrated digital read workstation, with or without PACS, offering the radiologist a way to expand revenue capture initiatives while maintaining quality in a variety of ways including speed, risk reduction, and shifting administrative burden back onto the workstation itself.

Speed comes in the form of accentuated efficiencies like a reduction or elimination for preliminary reads, which complies with the latest ACR initiatives. Traditionally, preliminary reads have always been a burden. Essentially, "preliminary" is another way of saying "duplicate" reading. The preliminary read was king back in the early days of teleradiology, when convenience for the radiologist was a chief driver of how the available technology was being used.

Secure reads over the internet were a fast way to handle such things as emergency situations while on call from a regular PC monitor. These would be followed up generally the next day by a "final" read for a definitive interpretation. Sometimes the final read would be conducted by a separate radiologist leading to potential contradiction in findings, which wasted time and possibly opened the radiologist to patient care and liability concerns.

The NovaPro digital read workstation is so functional and affordable, especially when considered in the context of exponential ROI, there is nothing to prevent almost every read from being a "final" read. The clarity of image and the access to full functionality are not limitations since these digital read workstations can be as readily integrated from the radiologist's home as well as business location.

A fully-integrated digital read workstation environment can offer faster turnaround times on reads. Custom, predefined hanging protocols, the efficiency of voice recognition software as a natural extension of the workstation, and the ability to apply a full-range of customized annotation tools using simple voice commands

or click-keystroke combinations are a few examples of how the radiologist may potentially move from one study to the next as quickly as possible without ever taking his or her eye off the monitor.

Unlocking Your Potential: Predefined Information Conduits

Naturally with the business growth model suggested in this paper there needs to be some assistance in dealing with potential exposure to greater risks relating to faster through-put. For example, it is vital that critical findings are supported with empirical proof that the referring physician or facility was properly notified of the results according to established protocols. Findings are made available through predefined distribution conduits stored in either the PACS or at the workstation level to ensure they are sent in a secure, integrated fashion customized to each target's specifications.

Another administrative task that challenges the smooth implementation of this growth model in a radiology group in particular is peer review. ACR has emphasized the importance of peer review since April 2007 with its RADPEER Program. It is important that the solution in which the digital read workstation resides accommodate the additional studies with clear accounting of which radiologists are conducting routine peer reviews, which radiologists were reviewed by their peers, as well as which studies.

In connection with this it is possible to conduct an analysis of customized key performance indicators (KPIs) with radiology staffs or groups in order to maintain quality and efficiency. Percentages of reads conducted, average read times, total number of reads along with other important KPIs can be established, accounted for and adequately reported for regular review by hospital administrators, radiology directors, and heads of radiology groups.

Part of reconsidering the business of radiology would be to not only use these KPIs to better manage radiologists, but to translate these statistics into meaningful marketing and sales efforts. High performance radiologists, staffs, and groups have an inside edge to communicate the value of their services to potential image generation sources thereby crafting a strong case and professional message on why facilities should outsource their images to a given radiology business.

Peer review data can also be leveraged as a marketing message. Asking potential clients to compare the statistical accountability with any other source for servicing reads will define a given radiology staff or group's distinctive commitment to quality and value. It is unlikely competitors will be able to offer such distinctive customer service. Quality is always a measure of value, which can be highly distinguishing in today's competitive market space.

Finally, it is vital to establish predefined distribution conduits for reporting and billing purposes via email, fax, network, or the web. This flexibility empowers the radiology department or business to not get bogged down with the tedious process handling reports as an administrative function. Instead, it is better to make them a routine part of simply closing a given study.

Predefined conduits also allow the radiologist to deliver customized reports complete with the logo and unique branding information of each hospital, imaging center, clinic, or physician practice. This communicates further value by demonstrating that each client is distinct and is not treated as part of some nebulous one-size-fits-all group by the image interpretation hub.

Unlocking Your Potential: Integrating Workflow with Voice Recognition

NovaRad South has found that integrating voice recognition technology into the digital read workstation environment is the best approach to allowing predefined distribution conduits to maximize your quality inside a thriving, growing radiology business. Voice recognition eliminates the costs and, perhaps more importantly, the delays and potential risks due to human error, inherent in transcription services. Meanwhile, it empowers the radiologist to continue on to the next read without headaches of validating transcriptions, routing report distribution, or verifying proper billing.

According to ACR and other sources, the overwhelming majority of all radiology reads are considered “normal.” The use of voice recognition and predefined interpretation templates in a web-deployed digital read workstation allows the radiologist to complete the vast number of studies almost instantly with complete consistency. Since voice recognition is proven to routinely accommodate over 95% of any user’s speech patterns, this means that voice recognition technology exponentially reduces a radiologist’s workload over the comparatively small percentage of “abnormal” findings. Suddenly, the radiologist workflow swiftly moves through the most studies, dealing with only exceptions. More images, faster, with greater accuracy, consistency, and throughput due to the elimination of dependency and burdens of transcription.

Time Management Increases Productivity and Office Profitability

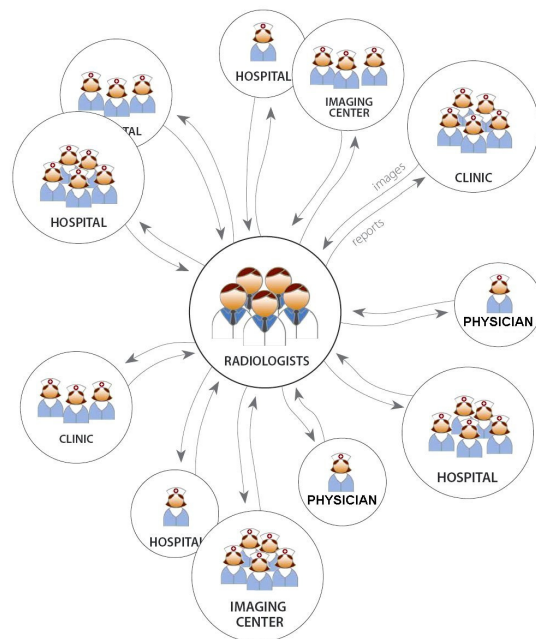
So, while most radiologists believe that “my time is too valuable to be bothered with the corrections, I let the transcription service handle that for me” the fact is radiologists using voice recognition have a decisive advantage over transcription services. Radiologists using the NovaPro Business Growth Model have more time to do more reads by using voice recognition as an integral part of the workflow. The burden lies not in having to correct the small number of abnormal reads that cannot be handled by voice recognition templates. It lies in the back and forth and extra spent interacting with the transcription service to begin with.

Beyond this, the prompt turnaround time in voice recognition reporting compared with transcription reporting give radiologists using voice recognition a decisive competitive advantage because their customers prefer to do business with anyone providing quality reads *faster*.

All of this is preset in the installation and integration of the NovaPro digital read workstation. This allows the radiologist to remain focused on conducting quality reads with minimal administrative overhead. In this way, the administrative sphere comparatively shrinks in relation to the number of studies and as the potential of revenue generation grows.

The Synergy of the NovaPro Business Growth Model

Each of the above components helps create a maximum synergy from the variety of complimentary influences. Not only is the department or group able to generate more income through the increased marketing of services, it does so without any additional administrative costs, with enhanced administrative accountability, improved quality of reads overall, founded upon adequate audit trails and substantiated KPIs to ensure that potential risks associated with more profitable through-put are monitored, managed, and minimized.



In the NovaPro Business Growth Model, this synergy is synonymous with quality and value. The PACS and/or digital read workstation training, service, and support environment is indispensable in creating, integrating, and maintaining this synergy. This is the optimum way to ensure the quality (and consequently the value) that the radiologist offers within the new business model.

Conclusion

The NovaPro Business Growth Model is founded upon the premise that by providing the radiologist with an affordable, feature-rich annotation workstation and successfully integrating this solution over the internet with various outlying PACS, CRs, digitizers, and networks - they can increase their practice success. In this way, the radiologist is empowered to offer services across a much wider range of image sources. The radiologist becomes the hub that serves all these

image sources through predefined distribution conduits and reports customized to each image source.

Ultimately, the radiologist or department or group is limited only by their ability to market themselves to as many sources for radiology images as possible. This is a decisive competitive advantage over similar radiologists, departments, or groups that still regard their profession in the antiquated three-dimensional paradigm of centralized reading for a centralized organization or sector.

The idea of radiology as a competitive enterprise is new but will be quickly adopted as more radiologists take advantage of this definable gap in the market space. The time to act is now because experience has shown that the potential for profits usually doesn't go unnoticed for long and progressive radiologists are already capturing more revenue using this model. By offering exponential ROI while ensuring quality as the quantity of images increases through marketing activities, the radiologist adds a business dimension to the interpretation of studies that most of their colleagues have yet to consider.

About NovaRad South

NovaRad South (NRS) is a leading strategic advisement firm serving over 100 clients throughout the southern United States. Since 1998, NRS has helped healthcare providers manage costs, increase productivity, and drive sustainable growth and profitability. We specialize in medical workflow analysis, business model revitalization, and maximizing revenue capture opportunities. NRS is uniquely qualified to provide strategic and tactical advice that will produce measureable value and prolonged results that are consistent with client expectations and goals. We are focused on assisting providers in successfully navigating their toughest issues and providing them with the tools they need to thrive.

Denny Phillips is the president of NovaRad South. Mr. Phillips has over 20 years experience in assisting clients in their achievement of maximum ROI on their investment in technology delivery systems. Since 1998, he has specialized in the challenges confronting healthcare and how technology can best be integrated within this industry to enhance profitability, efficiency, and provide better quality care.