Leveraging a Unified Enterprise Imaging Platform to Drive Efficiency and Scale

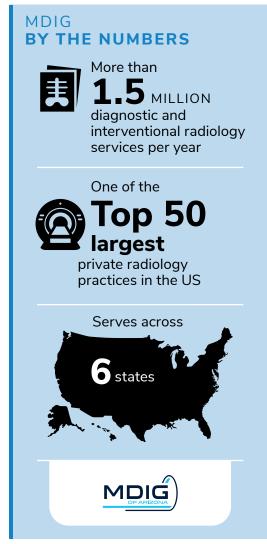
MDIG's Pathway to Building a Best-in-Class Medical Imaging Service Line

OVERCOMING THE CHALLENGES OF PRIVATE RADIOLOGY PRACTICES

or a private radiology practice that strives to offer best-inclass services to its hospital customers, it all boils down to nurturing the radiologist experience and giving radiologists the best tools to succeed. Therein lies the key to attracting and retaining the best talent and to anchoring deeper relationships with customers so as to become their sole, one-stop service provider—including for all their subspecialty needs.

Hospital networks in the United States are consolidating and growing into ever-larger health systems. This has major implications on the external providers that serve them. Radiology service providers must have internal strength and unity to be able to overcome internal politics and build trusting relationships with hospital networks.

"When quality increases, perception increases; trust is built over time," points out Barry Sadegi, MD, president of Medical Diagnostic Imaging Group (MDIG), a professional radiology services enterprise with more than 70 full-time radiologists. MDIG performs more than 1.5 million diagnostic and interventional radiology services annually, making it one of the 50 largest private radiology practices in the United States.



1 frost.com

FIVE YEARS BACK Internal Inefficiencies

Prior to MDIG deploying its new solution set of enterprise imaging informatics, the practice's radiologists were constantly juggling 4 different PACS systems. The toolsets varied depending on the customer and location, resulting in variable outcomes and a suboptimal work experience.

This fragmented IT environment hampered radiologists' ability to provide optimal study interpretations and actionable answers to the clinical question at hand, since they had very limited information at their disposal other than the actual images and basic notes from the imaging technologist.

The need to access physician notes, the patient record, and other relevant information about the patient and the study context led to a recurring "swivel chair" challenge of having to move back and forth between disparate information systems.

"This was highly inefficient; there were opportunities for improvement", Sadegi says, adding: "We wanted to have MDIG radiologists on one system, so their tools would become integrated into their muscle memory."

THE SOLUTION AND RESULTING BENEFITS

MDIG found the solution to the disjointed working environment in the use of a unified reading platform coupled with a distributed worklist. MDIG radiologists would utilize these MDIG-provided tools for all their work,

regardless of customer or location. This IT investment makes MDIG one of a few radiology groups that provide their professional service out of their own technology, and the strategy has delivered in a big way. Indeed, only two years after going live with these enterprise imaging solutions, MDIG has enhanced radiology services across the board.

Sub-specialization

Making the Difference with Customers

Sadegi believes strongly in the fact that "subspecialization makes the difference" for professional radiology service providers, and is the best way to avoid the perception commoditization of these services. As such, MDIG has made the increase in subspecialization one of its strategic imperatives. Neuroradiology, pediatric radiology, and musculoskeletal imaging are just a few of the subspecialties in which MDIG continues to deepen its expertise. Sadegi credits the new enterprise imaging solution set for significant contributions in this regard because it allows the intelligent routing of studies among general and subspecialized radiologists, ensuring that the most qualified radiologist is interpreting each imaging study. Internal analysis demonstrated

Subspecialization makes the difference

Barry Sadegi, MD, president of Medical Diagnostic Imaging Group (MDIG)

subspecialization increased the detail of the reports and decreased errors.

The results of MDIG's workload analysis speak for themselves. Prior to going live with its enterprise imaging solutions, 50% of the neurology imaging caseload was read by specialized neuroradiologists. Now, this proportion stands at close to 90%, and projections indicate that MDIG is on track to reach its goal of 100%.

Partner Engagement

Committing to Fast and Reliable Service

At the heart of any partnership is the commitment to key performance indicators in a service level agreement. Prior to the enterprise imaging going live, MDIG was already meeting its commitments for report turnaround times—an important measure of quality for professional radiology service providers. However, thanks to the operational efficiencies generated by the unified IT solution, turnaround times became even faster, which customers perceive as additional value.

Moreover, the improvement in turnaround times gave MDIG the confidence it needed to commit to an even superior service level. "Not a single late read" is a pledge of reliability to hospital customers that every study is always read on time, which has become part of

IN ESSENCE, THE ENTERPRISE IMAGING STRATEGY HAS ENABLED MDIG TO DO MORE WITH LESS

MDIG's service level agreement and a pillar of MDIG's partnership approach.

Productivity Gains

Maximizing the Efficiency of Full-Time Employees

Workflow efficiency has directly affected MDIG's group productivity. As Sadegi puts it: "Now radiologists can focus on images rather than navigating through multiple different systems." The group is able to collectively produce significantly more relative value units (RVUs) per day than what it was able to achieve without a unified IT platform. Sadegi estimates that the average number of RVUs has increased from between 40 and 50 per day to between 70 and 80 today. Along the same lines, Sadegi estimates that efficiency gains in the range of 20% to 25% have been realized.

In essence, the enterprise imaging strategy has enabled MDIG to do more with less. The freed-up resource capacity leaves MDIG with two options: either reduce its full-time employee count or leverage its full-time employee base to grow the business. The latter is what MDIG chose to do.

Group Expansion

Growing Toward a National Practice

Until recently, MDIG was a regionalized radiology practice focused on the markets of Arizona and New Mexico. By capitalizing on the scalability of its operating model, in which its enterprise IT investments play an integral role, MDIG is now present in six states and has an ambition of becoming a national practice. The organization is able to expand

nationally on a uniform system while providing the same high-performance level of service.

Most importantly, MDIG is achieving these growth objectives while adding only the minimal number of full time employees necessary to meet on-site staffing requirements, and yet still providing all subspecialty capabilities. Sadegi explains that the enterprise imaging solutions "bring the economies of scale to a whole new level." In fact, without such technology assets, it is difficult for private radiology practices to counterbalance the persistent pressure on the reimbursement for professional services.

CONCLUSION

MDIG has transformed its IT-powered operational strategy over the last few years. Bundling IT solutions with its professional radiology services gives MDIG a unique competitive advantage. The payoff has been remarkable: "We continue to experience tremendous growth at MDIG," Sadegi says. "For us, technology is no longer a barrier. We have the foundation that allows us to sustain our growth at maximal efficiencies and quality."

PAST CHALLENGES



THE IMPERATIVE



4 DIFFERENT PACS systems based on customer; reading off two different systems within the same room

ONLY ABOUT 50% of neurology case load read by neuroradiologists

DISJOINTED AND fragmented working environment

VARIABILITY IN toolsets available depending on customer and location



CONTINUE TO meet report turnaround times

ALL RADIOLOGISTS on one system— improving efficiency

as much background and context information as possible on the patient—in the same system

THE SOLUTION



ENGAGE PARTNERS through quality, efficiency and reliability

ENTERPRISE IMAGING approach

"SUB-SPECIALIZATION STRATEGY"—ensure right radiologist is doing the right read

reading platform with a distributed worklist— MDIG provided tools for all work

TODAY



ENHANCED RADIOLOGY service

INCREASED
SUB-SPECIALIZATION
in terms of expertise

NEARLY 90% of neurology caseload read by neuroradiologists

100% READING out of Siemens' Medicalis solution

per day gain; Reduction in turn-around times

HIGHER USE of patient information held in the EMR

FROS<mark>T & SULL</mark>IVAN

SILICON VALLEY

3211 Scott Blvd Santa Clara, CA 95054 Tel +1 650.475.4500 Fax +1 650.475.1571

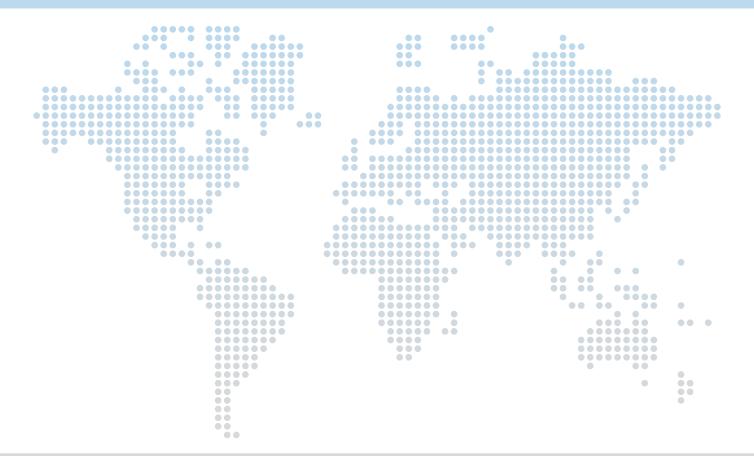
SAN ANTONIO

7550 West Interstate 10, Suite 400, San Antonio, Texas 78229-5616 Tel +1 210.348.1000 Fax +1 210.348.1003

LONDON

566 Chiswick High Road, London W4 5YF Tel +44 (0)20 8996 8500 Fax +44 (0)20 8994 1389

877.GoFrost • myfrost@frost.com http://www.frost.com



Frost & Sullivan, the Growth Partnership Company, works in collaboration with clients to leverage visionary innovation that addresses the global challenges and related growth opportunities that will make or break today's market participants. For more than 50 years, we have been developing growth strategies for the Global 1000, emerging businesses, the public sector and the investment community. Is your organization prepared for the next profound wave of industry convergence, disruptive technologies, increasing competitive intensity, Mega Trends, breakthrough best practices, changing customer dynamics and emerging economies?

For information regarding permission, write: Frost & Sullivan 3211 Scott Blvd Santa Clara CA, 95054