Radiology: This is Enterprise Imaging

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Momentum. You feel it when you've got it. And when it lags, you're pushing harder to regain your stride. In radiology, maintaining momentum is core to keeping radiologists, workflow, decision-making and patient care moving forward. An enterprise imaging solution is the orchestrator that's making it happen.

Enterprise imaging directs and ensures that the right images and tools get to the right radiologist at the right time to make the right decisions—enabling radiologists to quickly and easily share their findings to facilitate timely and good patient care. EI is bigger than radiology, but central to maintaining its momentum.

The Sectra Enterprise Imaging System is part workflow engine, part image viewer and part intelligence gatherer. It helps to make radiology reads quick, efficient and effective in challenging times, when many facilities are battling radiologist and staff shortages, burnout, increasing patient volumes as the population ages, and COVID backlogs—all at the same time.

An additional factor that slows radiologists down is exams that are larger and more complex. Physicians often get overwhelmed by "too much" data to dig through and struggles with IT systems that don't communicate well. As consolidation continues among healthcare systems and imaging providers, ever-present tight budgets and cost conversations are concerns, too.

For many radiology teams ready to pack up their PACS and embrace the next phase of the radiology revolution, the time is right to evolve enterprise imaging into more 'ologies than just radiology.

Here's more on exactly how the Sectra Enterprise Imaging solution is satisfying the need for speed from first image to final report—and helping follow patients over time by focusing on efficiency at all steps of the process.

Making work flow and driving usability speeds efficiency of reads and care.

Data is the new medicine, for all physicians, but especially radiologists. To maximize efficiency, each radiologist needs one seamlessly integrated desktop with an intelligent worklist and image viewer; optimized with images and data for his or her eyes and needs; linked to the EMR; and intuitive AI tools with built-in measurement to enhance decision-making and to create precise and actionable reports. Three words come to mind: accuracy, efficiency and speed. Enterprise imaging systems work from within—swiftly, invisibly extending the thought process of the radiologist.

"Speed defines the whole workflow, as does usability," says Petra Granlund, vice president of global customer success at Sectra. "You're never faster than your weakest link, and that's where true integration and workflow orchestration come in. Having one access point, one enterprise imaging system, is the one source of truth."

Speed is a lot more than swift image load times. It optimizes the EI system's entire process: requiring fewer clicks and fewer sign-ons, using AI to help streamline worklists and enable radiologists to make more informed decisions quickly. Technology that stays ahead of the radiologist, anticipating his or her next steps. Better organized information and tools allow the radiologist to stay focused on reads and correlate findings. It is that greater attention that brings greater accuracy to guide better patient care. So referring physicians get information more quickly but radiologists also have more time to improve profitability by expanding capacity.

"We focus on brilliant workflows," Granlund says. "How many clicks before the first image is loaded? How much analysis do you have to do to select the most appropriate cases? How fast can radiologists navigate between currents and priors, and are they confident they are seeing all of them? Do radiologists have lesion tracking and RECIST [Response Evaluation Criteria in Solid Tumors] workflow built in? Can they see the result of AI, and have advanced viz and volume rendering in one application? Can they access many 'ologies like cardiology, orthopedics and pathology—even eye care—in one system? How quickly can they create a comprehensive, data-rich report with key images and how much support does the system give you? That's what defines speed."

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Knowledge and passion

Optimizing the worklist with AI takes the hassle out of deciding what to read next.

For the radiologist, enterprise imaging automates the incredibly time-consuming process and never-ending question, *What should I read next?*

The answer of what to prioritize is a delicate balancing act that saps time and energy when a radiologist is doing it on his or her own, says Fredrik Häll, vice president of product applications at Sectra.

"As a rad, you're trying to juggle everything you're doing and trying to figure out, 'Is there anything I urgently need to read now?'" he says. "Are there any subspecialty cases that I should read based on my competence profile without missing acute cases?' That's why having a smart worklist is becoming even more significant, especially as we see subspecialization getting more important."

Sectra's AI-powered smart worklists are integrated within the viewer, automatically presenting radiologists with the highest-priority cases. The smart worklist, based on metadata of exams scheduled and what's come in, also ensures that radiologists who were hired for their subspecialist expertise are directing their talents, and working at the top of their license without having to exhaust their mental energy to choose their next case.

"You don't even have to look at the worklist," adds Lisa Lindfors, global product manager for radiology at Sectra. "If you just do the next case, you know you'll be presented automatically with the most relevant one. Urgent cases move straight to the top."

The key to getting it right lies in defining "urgent." AI prescreens images and flags any positive findings, tagging them as high priority and then moving them up in the workflow so that radiologist sees them first. It's the fully realized vision of man and machine working together.

"Essentially, we're saying to the radiologist, 'You should look at these first, because our AI found something here," says Lindfors. "We're using integrated AI to help in the imaging space and in terms of organizing the workflow."

Automatically presenting radiologists with the highest-priority cases in queue not only makes sure that the most important cases get read first, but also helps guard against cherrypicking.

"So many hospitals are so behind on radiology cases ever since COVID that cherry-picking can be devastating to their efforts to catch up," says Granlund. "It's incredibly helpful to have the built-in ability to distribute cases in the most efficient way."

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An all-in-one interface, integrated with the EMR, minimizes clicks and distractions.

Imaging decision-making is informed by a complete and accurate picture of the patient as a whole person with a unique history. Thus, an integrated enterprise imaging system recognizes the need to put a patient's medical history—including both EMR details and lesion tracking—in a single interface with a single sign-on.

"You have the right patient data available in the same systems at the same time with patient context—all automatically synchronized and done in a secure way without compromising security and integrity," says Häll. "Radiologists can access things like medications, allergies and next appointments through a lookup without having to leave the PACS cockpit."

One system for everything—there's the momentum again.

A single system platform for all medical multimedia also busts silos by allowing radiologists to view any and all relevant patient information, including details that would otherwise only be seen by a pathologist.

"Say for breast imaging, you have a biopsy," says Granlund. "That result goes to the pathologist, but the radiologist can see it in the system. You want the radiologist to be able to view those images side by side with what they're reading. The only thing you need to do is click on one thumbnail, and the image series will be synchronized to that lesion in all time points.

Immediate access to all priors, no matter if local or enterprise wide, including pathology images detailing lesions and measurements. This all adds depth and breadth, something greatly lacking in the pre-enterprise imaging days. Now, Sectra presents reading radiologists with a well-organized view of the patient's priors and prior measurements as well, enabled by powerful AI integration.

Through automated lesion tracking, the system enables radiologists to use RECIST to define when tumors in cancer patients improve, stay the same, or worsen during treatment.

"If you have an oncology case where you have a patient with a lot of tumors and you have 10 different prior cases, you don't want to spend 30 minutes going through all of the patient jackets," Lindfors says. "You need a smart solution that can highlight the relevant priors for you, and even highlight the previous measurements you or your colleagues did in previous years."

When measuring lesions from the latest round of images, the common tools that radiologists use every day—simple measurements, orthogonal measurements, ratio measurements, degree of stenosis measurements—are natively integrated in the system. Radiologists can grab them straight from the image window instead of running the risk of losing focus by switching contexts.

"There's an enormous efficiency gain because the tools and access to the toolsets you need are within the workflow, available either immediately on screen or at most just one click away," she says.

Built-in integrations allow the radiologist to push out a table of lesion measurements over time directly into the final report, ensuring that pathologists can easily view the same critical range of information as the radiologist.

Final reports include image links, making it easy for the referring physician to see exactly what radiologists are talking about and making sure that everyone is working from a single source of truth.

"Having image links probably saves about 9 out of 10 phone calls," Lindfors estimates. "Not only does that save time, but it prevents the inevitable interruptions that go along with a call."

And on the increasingly rare occasions that still do require a momentum-arresting phone call, Sectra Enterprise Imaging offers a solution too: a "resume" feature that allows radiologists who need to divert their attention to answer a question about a different case to then jump right back to the exact screen they were looking at before getting interrupted.

"If you're working on a case and deep diving into the images, and then someone knocks on your door and says, 'Hey, can you please look at this case?' or the phone rings because the referring physician has an acute case and wants to discuss it, and then you need to go back to the previous case, the resume feature lets you pick up exactly where you were in that previous workflow," Lindfors says. "Radiologists have to shift context all the time, and it makes them lose their flow or lose their focus. So things like the resume tool, which can help them get it back, can really make a difference."

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Integrated chat, together with direct links to images, simplifies communication and provides a single source of truth.

Sometimes small tools bring big gains. Case in point: integrated chat. Radiologists are vocal fans of in-system chat, and so are technologists.

"It seems like such a mundane thing," Häll notes, "but to have that so intimately integrated, it knows when you're logged in, when you're away for a coffee, if you're part of a certain group—and to be able to send links to cases back and forth, for them it's a lifesaver. It saves so much day-to-day frustration, being able to reach out to a colleague to give them feedback for their attendings, to reach out to their tech when they need to convey something about the image quality. Since COVID, we've noticed an increasing need to communicate remotely. The chat is a part of people's patterns now."

The other way integrated chat speeds up the communication process is by offering the ability to send image links for spot-on diagnostics sharing. That way, a radiologist and pathologist can talk about a case without wasting time fumbling around with screen sharing and spending precious seconds telling each other where to look and making sure they're on the same page.

"You can drop in a link to the very same presentation that the current user is looking at," Häll explains. "Physicians prefer it."

EI innovation delivers continuous upgrades and key flexibilities.

Enterprise imaging systems aren't solid-state software. Standardization with personalized and individual customizations allows each radiologist to define display protocols to act differently depending on the type of study they launch or preselect different tool sets to load along with each type of image.

Upgrades and tweaks are continuous too, thanks to ongoing dialogue with end users and Sectra engineers. Great feedback brings robust features and functions right where radiologists and radiology departments need them.

The Sectra One subscription model means that updates and upgrades are available immediately, with no additional cost.

"We build product twice a year and then most customers choose to be on a 12-month cadence to get upgrades to time that with their EMR upgrades and their other IT system upgrades," Häll notes. "But that's flexible per account."

And as Granlund adds: "When you use our Sectra One subscription model, you always have the newest functionality."

Clear benefits for all stakeholders, from day one, to keep the momentum rolling

True enterprise imaging—a single IT platform that tightly integrates and displays all types of images, videos, and reports with needed tools in an intuitive way—provides a cohesive user experience to increase read speed while helping to increase depth and accuracy. Driving workflow efficiency, improving communication and eliminating the need to jump between applications daily are all game-changing advantages for radiologists and the patients they serve.

With each and every case they read, radiologists walk along a complicated path full of distractions and opportunities to off-road as they head toward their final destination: an accurate finding that fast-tracks the patient to the best possible care options. Sectra's Enterprise Imaging solution maintains that momentum, helping them keep their stride and hasten that journey while lightening their load, every step of the way.

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