

Open System Imaging enables next-generation radiology reporting



CHALLENGE: Radiologists were spending hours manually reviewing and correcting dictated reports due to outdated speech recognition and reporting software.

SOLUTION:
Nuance PowerScribe® One

RESULTS: Major improvements in speed and efficiency, with significantly decreased turnaround time and greatly improved accuracy.

Diagnostic imaging is a vital piece of the healthcare puzzle, helping clinicians arrive at a diagnosis and get patients on the path to prompt, appropriate treatment. The ability to create and share reports and recommendations in a timely manner is essential to the successful operations of any imaging facility. The radiologists at Open System Imaging (OSI) tackle this challenge daily, reading studies from five facilities across California.

“On a given day, three or four of our team are actively reading. We mix and match and share cases based on our expertise,” says Dr. Patrick Browning, OSI’s medical director for northern California. “We needed a system that allowed us to have one cohesive approach to producing reports.”

“I think PowerScribe One is one of the best tools out there. It helps me get back to what I love about radiology—partnering with referring physicians to make a diagnosis and help patients get the best care possible.”

— Patrick Browning, MD, MA, MSL, Northern California Medical Director, Open System Imaging

On the hunt for a new speech solution

For years, OSI’s team was using a third-party speech recognition plugin to record directly into its PACS system. However, the plugin was outdated and inefficient, which meant the small team of radiologists spent hours reviewing and editing their reports.

“The legacy speech recognition tool often struggled with the specialist medical terminology the team uses, which created frequent errors,” says David Bachman, chief technology officer at Open System Imaging. “The team often has as many as 100-150 studies to work through in a day, which leads to major backlogs when they have to make a lot of corrections.”

And when the team started investigating how they could optimize their reporting workflows, they came to a surprising realization. “It turned out that the plugin was only meant to be used with a correctionist. We were always at a disadvantage there,” explains Dr. Browning.

Dr. Browning had previous experience with PowerScribe 360 Reporting from Nuance—so he knew where to look for a new solution. “I knew Nuance was always working to improve its speech recognition software and had moved it to the cloud for PowerScribe One,” says Dr. Browning. “It was the ideal solution for our team.”

“PowerScribe One’s AI-powered language understanding interprets what I’m dictating and prompts me when I use phrases such as ‘pulmonary nodules,’ so I can automatically add in clinical guidelines to give referring physicians a more complete report.”

— Patrick Browning, MD, MA, MSL,
Northern California Medical
Director, Open System Imaging

50%

efficiency improvement

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Hands-on preparation for deployment

PowerScribe One needed to slot into the rest of OSI’s infrastructure, including its PACS and RIS systems, to create a complete reading environment for the radiologists. OSI worked with Nuance to coordinate with the group’s other technology providers to implement PowerScribe One.

“I’ve been in this business for over 30 years, and I’ve rolled out many software platforms in that time,” says Bachman. “The team that Nuance assembled for me was the absolute best team I’ve ever worked with, bar none.”

In the months leading up to the deployment, each radiologist had one-to-one sessions to help them get up to speed, showing them how to create AutoTexts and templates. This upfront work meant Bachman and his technical team could minimize disruptions, ensuring the radiologists could continue delivering timely reports to their colleagues. “The day we went live,” notes Bachman, “we literally had no problems at all.”

Putting significance of this successful project into perspective, Dr. Browning notes, “It was the smoothest go-live I’ve ever seen for any software program anywhere in my experience—and I’ve done quite a few of them!”

Accurate, detailed reports—created in minutes

Almost immediately, OSI started seeing efficiency gains from PowerScribe One’s purpose-built speech recognition. One radiologist read 30 X-rays in just one hour, an increase of over 100%—something that would never have been possible with the legacy system.

“I’d estimate I’m now working up to 50% faster with PowerScribe One, and the recognition error rate has decreased significantly,” says Dr. Browning. “Being able to use cloud speech right from the start, with its level of accuracy for all sorts of different medical terms, is a huge time saver; there are fewer corrections and there’s less training time.” PowerScribe One’s automated decision support and real-time data integrations are also helping the team work faster and smarter—without sacrificing crucial detail.

The OSI team is confident that PowerScribe One is putting their reading environment on a continuous improvement trajectory. “Tools like PowerScribe One—which are forging new paths to harness AI and other new technologies—are going to be key to our success,” says Dr. Browning. “Radiologists are judged not just by their accuracy, but by how the reports read and how clinically useful they are to the clinician. In my opinion, PowerScribe One makes us better at what we do.”



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