TALLAHASSEE MEMORIAL HEALTHCARE
Real-Time Speech Recognition is a Success
with M*Modal Fluency Direct™
Background

Designed to meet the diverse health care needs of the Big Bend region, Tallahassee Memorial HealthCare (Tallahassee, Florida) is a private, not-for-profit health care system serving 17 counties in north Florida and south Georgia. Tallahassee Memorial HealthCare includes a 772-bed acute care hospital and is committed to providing patient-centered, world-class health care to the community.

Tallahassee Memorial holds a number of distinctions within the regional health sector. It is home to the Big Bend’s only accredited community hospital cancer program and the region’s only state-designated Trauma Center. Tallahassee Memorial HealthCare is also the area’s only hospital recognized by the Society of Chest Pain Centers as an Accredited Chest Pain Center with PCI. In all, Tallahassee Memorial HealthCare is the seventh-largest hospital in Florida with a medical staff of 570+ physicians representing 50+ different specialties.

Overall, Tallahassee Memorial has had a plan in place for more than a year, and is progressing well towards its readiness for ICD-10, according to Don Lindsey, VP & CIO. The hospital’s ambulatory organization has had a relationship with M*Modal for a couple of years; so moving towards M*Modal Fluency Direct was a natural progression.
The Challenge

Tallahassee Memorial’s administration wanted to have voice recognition technology in place for physicians as the conversion to electronic documentation occurs, with the goal of improving physician efficiency and productivity. The hospital set a deadline of 2013 to convert all daily progress notes from the EMR to an electronic format, and initiate a speech recognition project.

The Solution

M*Modal was “able to deliver what we needed”

Two vendors were evaluated for this project. M*Modal was selected “because you were able to deliver what we needed,” says Randa Perkins, M.D., Hospitalist & Executive Director of Medical Informatics, Tallahassee Memorial HealthCare. “We had certain criteria. We needed a system with as few failures as possible, since clinical care is not something you take lightly. We have high-level end-users who need a system they can depend on. We tested another company, but found that M*Modal was more reliable, gave us better results and delivered what we needed at the speed we needed it, and with the system interfaces we required. We deal with multiple EMRs vendors—Cerner (in the hospital), athenahealth and Allscripts (on the outpatient side).”

M*Modal Fluency Direct real-time speech recognition was implemented at Tallahassee Memorial Hospital for documents that were previously created using just a traditional dictation and transcription workflow. This technology facilitates the conversion to electronic documentation and means that physicians who are not as comfortable typing no longer have to type. They can dictate directly into the Electronic Medical Records (EMRs) and self edit if needed, which provides greater EHR adoption, faster turnaround times and the ability to have a “once and done” dictation. They can use this technology in Tallahassee Memorial’s facility and off-site in their practices.

Once the decision was made the project moved quickly. The deployment kickoff was in mid-January, the go-live occurred just three months later in mid-April and the project was closed a few weeks later in early May. The initial deployment involved mainly hospitalists and Emergency Room physicians. M*Modal Fluency Direct is now being utilized by various other medical specialties, including primary care, palliative care and cardiology. Around 200 people have enrolled to date and have accounts, with more being brought on each month.

Phasing out paper progress notes is just the beginning

Today, the hospital no longer has paper progress notes. The administration is also looking at converting admitting history and physi cal s (H&Ps) and discharge summaries—the bulkier documents that are costly to transcribe—to an electronic format. In fact, increasing numbers of physicians are electing to use M*Modal Fluency Direct for H&Ps and discharge summaries. “This avoids the cognitive jump that physicians must make when they review transcribed charts some time after they have seen the patient. Now, physicians can create and sign the document at the point of care, making it available to colleagues very quickly,” states Perkins.
“Huge process improvement”

“When physicians used transcription, the fastest we got the record back was 30 minutes. Now with M*Modal Fluency Direct self-editing, it’s on record within a minute or two,” notes Don Lindsey, VP & CIO, Tallahassee Memorial. “This was a huge process improvement for us, because it took out several steps. Also, our current transcription system needed to be upgraded, and the M*Modal technology eliminates the need for that upgrade.”

“Imagine converting an entire medical staff from paper that they’ve spent decades being very comfortable with, over to electronic documentation that they are wary of and feel is being forced on them,” explains Perkins. “This was a big jump, and we wanted something that could facilitate it. Not everyone is a born typist — keyboard skills are not something that is taught in medical school. The majority of doctors do not feel comfortable typing, and we wanted to be sure that they had something that allowed them to continue to tell the story of the patient in their documentation. We wanted what they convey about the patient to their colleagues to continue to exist in the electronic world as it has for many years on paper.”

The Project

Tallahassee Memorial has:

- Almost 200 physicians trained
- Cerner Millennium® EMR in the hospital
- Allscripts Touchworks® EHR™ and athenahealth’s athenaClinicals® EMR in the outpatient clinics
- M*Modal Fluency Direct with Remote Recognition Servers, Citrix XenApp®, and XenDesktop®

Challenges Faced

The hospital:

- Wanted to support physician productivity during conversion to electronic documentation.
- Set a deadline of 2013 to convert daily progress notes to electronic format.

Benefits Achieved

- An initial analysis indicated that M*Modal Fluency Direct and M*Modal Fluency for Transcription™ would yield potential cost savings of 30-40% when fully implemented.
- Improvements in productivity and accuracy.
- The quality of electronic documentation has improved as physicians use voice recognition to return to the narrative of their documentation.
- Great improvements are being seen in turnaround times promoting better patient care and care coordination.
- Physicians are giving “positive reviews across the board.”
Set-up time: Just a few minutes

The time it takes to set-up a physician to use M*Modal Fluency Direct varies from as little as five minutes for an experienced provider whose voice is readily recognized by the technology, to a maximum of around 30 minutes for training on how to build templates, create a profile and use the hand-held microphone.

Technology made simpler

The technology is used for input into Cerner Millennium® EMR in the hospital, and Allscripts Touchworks® EHR™ and athenahealth’s athenaClinicals® EMR in the outpatient clinics — all of which are accessed via Citrix XenApp® or XenDesktop®. The M*Modal Fluency Direct configuration will cover more than 200 users in this project, and the project will include up to two on-site recognition servers. (A Recognition Server allows the speech recognition process to be done centrally on servers instead of individual workstations or virtual desktops. This provides a consistent recognition performance regardless of the CPU and RAM available.) To make usage and implementation easier, Tallahassee Memorial purchased roughly 230 Philips SpeechMike devices for this project.

M*Modal provided available predefined EHR-specific voice navigation commands and configured site specific navigation shortcuts for each of the EHRs currently being used at Tallahassee.

“We appreciate the efforts you guys have made to meet our needs.

The relationship between M*Modal and Tallahassee Memorial has been good. It’s been a new experience for us, as this is the first time we’ve looked at a long-term, big commitment for voice recognition software. It’s a big jump, but something we were committed to do for our medical staff. M*Modal has done a great job of having our back on this.

The M*Modal trainer, Kelsey, was incredible. She’s been a great contact for helping with issues as they come up. She’s quick to respond, smart, on top of things, incredibly professional and has good ideas. I couldn’t speak more highly of her. Our sales executive, Cindi, has also been an incredible resource and very quick to get us what we needed... M*Modal has done a great job.”

Randa Perkins, M.D.
Hospitalist & Executive Director of Medical Informatics
Tallahassee Memorial HealthCare
The Impact

“M*Modal’s voice recognition technology has been a game-changer for us,” said Don Lindsey, VP & CIO, Tallahassee Memorial HealthCare.

Potential cost savings

An initial total cost of ownership (TCO) analysis suggested that M*Modal Fluency Direct and M*Modal Fluency for Transcription (when implemented) would yield potential cost savings of 30-40% when fully implemented. By setting up the client to do remote recognition, the M*Modal Fluency Cloud server offloads expensive CPU and RAM processing to dedicated hardware, allowing the M*Modal Fluency Direct Client a smaller RAM and CPU footprint on the Citrix XenDesktop server. This reduces the overall CPU, RAM and licensing footprint required on the Desktop Image. By using the M*Modal Fluency Cloud for recognition, Tallahassee Memorial can deploy the client to a virtual desktop environment, and use two-thirds less memory and one-half the CPU resources over the normal minimum workstation requirements of M*Modal Fluency Direct.

Improvements in productivity and accuracy are also anticipated, in addition to more intuitive calibration, editing, dictation and set-up functionality. There have been qualitative improvements due to reduced physician frustration, more complete documentation and better coding.

The hospital is finding that the quality of the electronic documentation has improved when physicians have been able to use voice recognition to return to the narrative of their documentation, instead of the error-prone “hunt and peck” approach of a digital progress note.

Great improvements in turnaround time

M*Modal Fluency Direct allows documentation to be turned around in as little as a few minutes — which is a great plus for patient safety and care coordination. This contrasts sharply with traditional transcription, where turnaround times were much longer. Previously, getting a high-quality document transcribed during regular business hours could take hours or longer. If submitted during the evening, the transcription might not be available until the following morning at the earliest. If submitted over a weekend, the delay could be much longer.

The physicians have been delighted with the technology and are extremely reluctant to hand the microphone back after the pilot—we almost had to pry it from their fingers after the pilot.”  Don Lindsey, VP & CIO
“Positive reviews across the board”

M*Modal technology is changing views — technology adoption doesn’t have to be hard. “Some physicians have been frustrated with the conversion to electronic progress notes, and this technology is actually helping with this process,” according to Randa Perkins, M.D., Hospitalist & Executive Director of Medical Informatics, Tallahassee Memorial. “We’ve had physicians saying, ‘Finally we have something that’s helping us see patients, rather than slowing us down even further.’ Our medical staff has been giving positive reviews across the board.”

An initial trial program with several hospitalists of the M*Modal Fluency Direct solution achieved broad general acceptance of the new speech recognition technology — even embracing it. “A couple of physicians said they could not live without it, and we’d have had to use a crowbar to pry the microphone away from them between the pilot and go-live,” Perkins reported. Cardiologists also appreciate the help provided by M*Modal Fluency Direct for the large volume of documentation involved in cardiology procedures, and the fact that they can use their voice profiles in both inpatient and outpatient settings, as the profiles are housed in the cloud and accessible from any workstation i.e. in the hospital, clinic or at home. “Physicians have said that M*Modal Fluency Direct is even better than earlier voice recognition technologies, and they are impressed with how quickly it learns and how quickly they have been able to adapt to it,” notes Perkins.

Adds Lindsey: “Physicians really like the time savings and the fact that they no longer have to type. This has been especially helpful in the fast-paced environment of the ER. They’ve been taking off and going like gangbusters.”

Active users of M*Modal Fluency Direct love the solutions and as a group are clocking up 25-30+ hours per week with the solution, a number that is happily expected to rise as more physicians adopt the technology. It is still too early for quantitative metrics on performance, but “the gratitude of the medical staff is more than enough for me to continue to endorse it and roll it out,” says Perkins. “There’s a lot being forced on doctors, and this qualitative improvement in their work endorses the hospital administration’s willingness to try this without hard data, simply based on qualitative improvements in patient care and physician experience.”

“I’m satisfied with it! I’m doing close to 98% of all my admissions using the electronic template. I almost forgot how to dictate on the phone! …and 100% of all my EMR admits are done with M*Modal. Now it’s second nature. It’s not perfect, but neither is my Spanish accent. It works well. I love it.” Dr. Gonzalez, Nocturnist
The Future

“We plan to roll out the M*Modal technology for use with referring physicians, and plan also to work on the transcription side with M*Modal’s Fluency for Transcription,” says VP & CIO Don Lindsey.

All M*Modal Fluency solutions share the same foundation of cloud-based speech recognition, so as a physician dictates for transcription, behind the scenes the individual voice profile is being trained. This same voice profile is used by other M*Modal applications as well, enabling fast start-up. “I look forward to having Fluency for Transcription in place too, and expect to see quicker turnaround times, faster documentation availability and better hand-offs, because night doctors will have admission documents and history available immediately,” adds Hospitalist & Executive Director of Medical Informatics Randa Perkins, M.D. “This means that physicians will be able to review what previous providers did, and benefit from that hard work to provide an improvement in patient care. It is our goal for the document to be done at the point of care—as soon as the physician sees the patient—giving better hand-offs, better patient care and better outcomes.”

“M*Modal’s voice recognition technology has been a game-changer for us.” Don Lindsey, VP & CIO
M*Modal Fluency Direct uses the power of Speech Understanding™—the smarter approach to fully leveraging the physician’s narrative. Going beyond simple speech recognition, M*Modal Fluency Direct is the ideal way to enable physicians and other clinicians to automatically populate EHRs and all of the systems that help document patient information, power the revenue cycle and comply with government initiatives. M*Modal Fluency Direct provides real-time speech understanding, and command and control capabilities. This provides physicians more freedom of choice with their workflow and a more natural mode for capturing the whole patient story through speech-based documentation and interaction with many EHR systems, including the athenahealth, Cerner and Allscripts Touchworks® systems used at Tallahassee Memorial HealthCare.

During time-constrained patient encounters, physicians can efficiently capture a more complete patient story, which leads to:

- **Improved quality of patient care** during and immediately after the initial visit. Less time keyboarding, more time analyzing and communicating with the patient instead of with systems. Physicians can plug in a microphone, log in and verbally annotate story details and care directives as time permits. This increases the physicians’ ability to stay on schedule and to capture thought processes that continue to unfold after the patient leaves the facility.

- **Use of free-form, “unstructured” narrative** to improve documentation quality, coding accuracy and patient care. This goldmine of information figuratively “falls to the exam room floor” because it is difficult to quickly capture in EHR systems. Capture that “gold” and you allow medical transcriptionists, coders and radiologists to swiftly resolve questions as they refine and add to the patient story.

- **Improved collaboration with consulting physicians.** With access to the complete patient story immediately, receiving physicians can deliver the same or better quality of care faster, and both physicians have more time in their schedules to devote to live patient encounters. Receiving physicians can be provided complete transcripts, rather than missing critical information or depending on intermediaries to fill in critical information gaps.

- **Uptake by EHR technology vendors,** including M*Modal partners, who are embracing our technology to speech-enable their products and increase their product adoption rates. M*Modal Fluency Direct facilitates improved clinical documentation and other organizational benefits for hospitals, physician practices, ACOs and other emerging forms of coordinated care.
About M*Modal

M*Modal is a leading healthcare technology provider of advanced clinical documentation solutions, enabling hospitals and physicians to enrich the content of patient electronic health records (EHR) for improved healthcare and comprehensive billing integrity. As one of the largest clinical transcription service providers in the U.S., with a global network of medical editors, M*Modal also provides advanced cloud-based Speech Understanding™ and Natural Language Understanding technologies and data analytics that enable physicians and clinicians to include the context of their patient narratives into electronic health records in a single step, further enhancing their productivity and the cost-saving efficiency and quality of patient care at the point of care. M*Modal has been recognized as one of the fastest growing technology companies in North America, placing in the top third of Deloitte’s Technology Fast 500 for 2012.

For more information, please visit mmodal.com, Twitter, Facebook and YouTube.