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### Digital consults: options for getting from here to there

The U.S. digital pathology consultation marketplace is steadily gaining ground, largely owing to increased demand for international consultations. And those delving into digital consults are making a three-pronged decision: build your own system, install an off-the-shelf software solution, or sign up with a Web-based digital consultation network.

Anil Parwani, MD, PhD, professor and vice chair of anatomic pathology at Ohio State University College of Medicine, helped pioneer the build-your-own, or DIY, option when he and two former colleagues designed a Web portal for his then employer, the University of Pittsburgh Medical Center. The portal allowed Pitt to provide digital pathology second opinion consults to clients who send whole slide images via a secure connection. Dr. Parwani and Toby C. Cornish, MD, PhD, associate professor and medical director of pathology informatics at the University of Colorado Denver School of Medicine, gave a 2015 American Society for Clinical Pathology annual meeting presentation on in-sourcing pathology consults.

“In 2010,” Dr. Parwani told CAP TODAY, “when we [Pitt] set out to do this, there was no commercially available software. This approach requires a great deal of technical expertise, strong IT support, and additional resources outside the department of pathology, which we were lucky to have. And it takes time—it’s a process of trial and error.”

Advantages of the DIY approach include complete control over the appearance and functionality of the platform, the way the system is branded and marketed, and the client relationship. Although initial costs can be heavy, the department pays no software licensing or per-transaction fees to a vendor. On the other hand, “you have to update the system frequently because the technology of whole slide images and imaging formats are rapidly evolving,” says Dr. Parwani. Managing translation services and billing can also be burdensome, adds Dr. Cornish, particularly in a country like China, where most pathologists don’t speak English.

Those who don’t want to travel the build-it route can take the buy-it approach if they want straightforward, off-the-shelf solutions that allow secure access to digital images and data, says Dr. Cornish. When using such software, the client seeking a consult scans a slide and sends the file to the pathologist consultant’s site, where the software is installed.

Though this approach does not necessitate building a system from scratch, “your vendor’s product may not have a consultation-specific workflow, and you may have to build something on top of it to support your consultation business,” Dr. Cornish explains. And, although there are no per-transaction fees, “you’re still on the hook for vendor maintenance fees every year,” he says. Another drawback: whole slide imaging files can consume “up to a

couple of gigabytes per file, so you have to make sure you're able to deliver the content from your client at the remote site to your local site in a way that works for both parties. If you're bringing cases from China to the U.S., for example, you must optimize a way of moving these files around the world." On the upside, as with the DIY approach, the consulting pathologists control client relationships, branding, and marketing.

Pathologists who request a demonstration of off-the-shelf software for digital consults should question the vendor closely regarding the details of implementation, Dr. Cornish continues. "You can't be led by salespeople who want to show you just what they think is interesting. Consider user management, negotiation of firewalls, and ask about security outside the hospital's firewall. Will it integrate with your active directory? How many different file formats will the system work with? Is it compatible with mobile devices? If it's a Web-based viewer, does it rely on plug-ins? Many plug-ins are no longer supported on Chrome or Firefox."

In contrast to purchasing off-the-shelf software, signing up with a digital consultation network, the option Dr. Cornish chose in his previous position at Johns Hopkins University School of Medicine and that Dr. Parwani plans to use at Ohio State, is typically an easier and less expensive means of providing digital consults. With the network approach, a vendor provides an online marketplace and Web-based platform that pathologist consultants and their clients can access. The vendor charges consulting pathologists or their clients, or both, an annual fee or a per-case fee.

"Once you've signed up with the network, you create an institutional profile and profiles for individual pathologists," Dr. Cornish says. "You can have your administrative staff receive the cases, distribute them to individual pathologists, and manage the institutional profile as well as the workflow and cases between pathologists." Other key advantages: no hardware purchase up front, no software licensing fees or maintenance, no user support issues, and no worries about transporting large files. In addition, some vendors offer both English and foreign language versions of their user interface.

"The platform may also translate incoming patient information into English and outgoing reports into the client's language; that's a big deal," says Dr. Cornish. But if consultants rely solely on the network to send them clients, they may be disappointed. Dr. Cornish says the number of consults that came to Johns Hopkins via its consultation networks was lower than expected. "What we've discovered is that letting other people manage your relationships in China is not an effective way of getting business in China. Now people are starting to say, 'We want to work with China directly to generate the business, then get the platform.'" —*Jan Bowers*

## **New Cerner website focuses on SMART on FHIR tools**

Cerner recently launched the Cerner Open Developer Experience (which it refers to as code\_) to enhance collaboration with third-party and client developers for SMART on FHIR applications.

Mobile app developers and others can use the new website, [code.cerner.com](http://code.cerner.com), to start coding immediately with the SMART on FHIR tools in the Cerner open sandbox, as well as research educational development tools and browse apps that are available or in development. Code\_ is intended to support open communication and robust application programming interface documentation and provide clearly defined guidelines.

SMART on FHIR apps run on top of electronic health records, enabling physicians to access the apps within their workflow to more easily interact with health data.

"Fostering new ideas from the developer community enables us to reach a broader market of potential users," Bob Robke, vice president of interoperability at Cerner, said in a statement. "It's this open platform that has potential to unlock the next cutting-edge solution that could benefit not only our entire client base, but the industry as well."

Fifteen new SMART on FHIR apps are in development or in production, according to Cerner. The SMART on FHIR platform is an outgrowth of the Substitutable Medical Apps, Reusable Technologies, or SMART, platforms project of Boston Children's Hospital and Harvard Medical School and the Fast Healthcare Interoperability Resources, or FHIR,

project of Health Level Seven International.

[Cerner](#), 816-221-1024

## **Orchard forms partnership with Marshfield health system**

Orchard Software has announced that it will provide Marshfield Clinic Health System's network of more than 50 clinic locations in Wisconsin with its latest laboratory information system technology.

"To be successful in the new health care environment, both organizations recognize that value-based medicine and population health management require state-of-the-art diagnostics and analytical tools as designed in our new enterprise-class LIS, Orchard Sequoia," said Orchard COO Curt Johnson, in a statement.

Thomas Fritsche, MD, PhD, medical director of Marshfield Labs, concurs. "What makes this all possible," he explained in the statement, "is the new business process mapping schema in Sequoia that configures the LIS to match our enhanced workflow, rather than our labs having to adjust their workflow to fit the software. This concept simplifies installation and aligns beautifully with our emerging LEAN processes."

Sequoia uses a single database to provide integrated results and linked images for dashboards, reporting, and data mining. The new technology allows Marshfield Labs to easily add tables and graphs to reports.

[Orchard Software](#), 800-856-1948

## **KLAS Enterprises announces annual vendor honors**

For the sixth consecutive year, Epic has received a top honor in KLAS Enterprises' annual Best in KLAS awards, earning the ranking of number one overall software suite for its EpicCare inpatient electronic medical record system.

The "2015/2016 Best in KLAS: Software & Services" report names the top-performing health care information technology companies within various market segments based on feedback from vendors' customers.

Also honored by the health information technology market research firm were McKesson, which was named Best in KLAS in the laboratory category for its McKesson Lab laboratory information system; Cerner, which was named a category leader in anatomic pathology for its CoPathPlus system; and Orchard Software, which was named a category leader in laboratory (small/ambulatory) for its Orchard Harvest LIS.

Across all categories, Epic was recognized eight times, followed by Cerner with four mentions, and Meditech with two.

A list of the 2015/2016 Best in KLAS winners and category leaders is available at [www.klasresearch.com/best-in-klas-winners](http://www.klasresearch.com/best-in-klas-winners).

## **ONC touts role of HIPAA in advancing interoperability**

The Office of the National Coordinator for Health IT is offering a series of blog posts and fact sheets to clarify how HIPAA supports the exchange of personal health information and to dispel misconceptions that it impedes attempts to share health data electronically.

"What many people don't realize is that HIPAA not only protects personal health information from misuse, but also enables that personal health information be accessed, used, or disclosed interoperably, when and where it is needed for patient care," said ONC chief privacy officer Lucia Savage and privacy analyst Aja Brooks in a Health IT Buzz blog post.

The fact sheets give numerous examples of when electronic health information can be exchanged without first requiring authorization from the patient, as long as other protections or conditions are met. Available for download at CAP TODAY press time were the fact sheets “Permitted Uses and Disclosures: Exchange for Health Care Operation” and “Permitted Uses and Disclosures: Exchange for Treatment.”

“The new fact sheets remind stakeholders through practical, real-life scenarios that HIPAA supports interoperability because it gives providers permission to share PHI for patient care, quality improvement, population health, and other activities,” Savage and Brooks posted. “We will cover the scenarios in the fact sheets through a four-part blog series here on Health IT Buzz blog.”

The ONC developed the fact sheets in cooperation with the Department of Health and Human Services’ Office for Civil Rights, which oversees policy and enforcement for the HIPAA Privacy, Security, Enforcement, and Breach Notification Rules.

## **Oracle offers software that supports precision medicine**

Oracle Health Sciences has released Oracle Healthcare Precision Medicine, software that links genetic testing, report generation, and clinical care decision-making.

The software is designed to address issues involving data aggregation, knowledge exchange, normalization, and workflow, which hinder the ability to create molecular profiles of patients in a timely manner. It allows a wide range of experts to collaborate on best-treatment plans for patients.

Key benefits of the software, according to Oracle, are full-spectrum testing from gene panels through whole genome sequencing, accelerated test throughput via streamlined lab workflow, consistent report design and simplified clinical action planning, complete traceability for compliance requirements, and integration with electronic health record and other systems.

[Oracle](#), 800-633-0643

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