OPTUMInsight™

EHRs and small to mid-size physician practices: Finding the right fit

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Introduction

Despite a decade of discussion about electronic health records (EHRs), by and large, only the largest physician practices have made the investment to date. Nearly 75 percent of physician practices in the U.S. have not yet done so, and for good reasons.

First, they find it difficult—especially in tough economic times—to justify investing hard-earned dollars in technology that has not yet shown a significant return. Second, smaller and mid-size physician practices have been understandably reluctant to take on the responsibility of maintaining and upgrading the systems—to say nothing of keeping them compliant and secure.

Now, however, strong incentives from federal health care reform—which asserts that EHRs can help practices better coordinate care, reduce errors, and improve efficiency—are forcing smaller groups to consider EHR technology with a renewed sense of urgency. To choose wisely, these practices must find a way to confidently assess all of the potential EHR solutions.

Today's EHR options

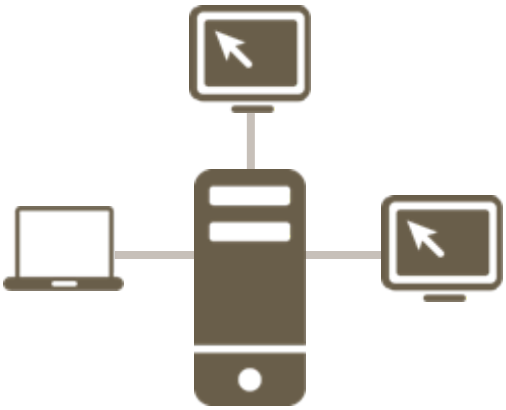
There is a lot of confusion about potential systems, some of it caused by vendors anxious to hitch older technologies to fashionable terminology. Cutting through the noise is essential for any physician looking to implement the right system for his or her practice.

EHR systems fall into three general categories: client-server, application service provider, and cloud computing.

Data: Prescription Profiling
The oldest of the available technologies, a client-server setup includes a main server that delivers the key software and information to client computers. The relevant characteristics are:

- All hardware and software is onsite and is fully bought and paid for by the practice
- Installation involves considerable up-front time and costs
- The practice assumes responsibility for all updates, re-training, and maintenance—with each new release, practice staff or paid IT subcontractors have to spend tens or hundreds of hours testing and configuring the release and making sure it is compatible with the practice's system

Client-server's biggest advantage—the ability to fully customize according to individual practice patterns—may ultimately become a non-factor as health care moves toward health information exchanges and regulations that demand standardization. Customized configurations can hinder the ability to do the reporting needed for payment, regulatory, and meaningful use requirements.



Application Service Provider (ASP)
In the ASP model, the individual practice server moves to a remote site where an external vendor maintains it. Because a web browser in the physician's office accesses the remote server, some refer to this model as "web-based" or even "software as a service (SaaS)," though that muddies the discussion because these terms are also associated with cloud computing.

Up-front, update, and upgrade costs for ASP solutions are still considerable because of the time needed to configure a server for each individual practice. Every time there are changes, such as those needed to meet ICD-10 requirements, ASP providers must update every server and every client desktop. This adds costs that are passed on to the users. Moreover, updates may occur less frequently and less comprehensively. Each significant update still requires staff retraining.

Like client-server, ASP EHRs are easily customized. And because the vendor maintains the server, some of the long-term maintenance costs can shift away from the practice, in comparison with the long-term costs associated with clientserver solutions.

The ASP's customized configurations face all of the same payment, regulatory, and meaningful use challenges as the customizations of client-server solutions.

Cloud computing

With cloud computing, a wealth of shared resources lives in a "cloud" created by the Internet, and a web browser enables users to pull the information and capabilities they need on demand.

Cloud-based solutions require little start-up investment for physician practices. As long as they have a web browser, they can readily access a standard EHR system that can be integrated with practice management, coding, and claims management solutions and is interoperable with hundreds, perhaps thousands of labs, pharmacies, hospitals, and insurers in the cloud.

When a change becomes necessary—for "meaningful use," health information exchanges, clinical guidelines, or to add new members to the cloud—the vendor implements the changes once, and they are instantly accessible to all users.

While not as customizable as ASP or client-server EHR solutions, physician practices can be assured that 2011 CCHIT®-certified EHRs meet current standards and regulations.

These advantages—quick start-up, simple use, ready adaptability, and manageable and transparent cost-ofownership—make cloud computing solutions the best choice for small and mid-size physician practices that do not have the resources to maintain their own systems or wait years for return on investment.

EHR scenario: The physician's office and the cloud

The paper charts used by most small practices make it difficult for physicians to consistently track and manage patients, including those with demanding chronic conditions. Contrast this with how cloud-based, fully integrated, CCHITcertified EHR solutions work.

First, unlike client-server or ASP solutions, getting started with a cloud-based solution requires only a web browser and scanned patient records.

Once those records are captured, a password-protected link to a patient's EHR arrives at a computer in the exam room as

soon as the patient checks in. The physician's assistant updates information in the electronic chart, including current medications and vital signs.

Consider a patient who has an elevated blood pressure reading and related complaints. Using a cloud-based EHR, his physician prescribes a blood pressure medication and refers the patient to a specialist. The pharmacy connection offers up-to-date, best practice advice on dosage and medication conflicts, while the EHR is automatically available to the specialist, also via password. A secure portal allows the patient to view his health record when he arrives at home.

Meanwhile, interoperability or integration with the practice management and coding solutions allows the office manager to enter the proper coding—dramatically decreasing the chance of a claims denial—and be fully aligned for any compliance reporting for meaningful use incentives.

Client-server and ASP solutions cannot match this level of functionality, because they do not have the connections in the cloud to all of health care's moving parts. Everything must emanate from a single server that cannot reliably and quickly incorporate changes to drug information, clinical protocols, reporting requirements, coding processes, and so on that occur almost daily.

In the cloud model, the vendor implements a change once and it is immediately available to everyone in the cloud. The terms commonly heard for this process are rapid provisioning (immediate, often automatic updates, implemented once) and cumulative value (everyone involved benefits from changes to the system that are extremely responsive to the fast pace of health care change).

The challenges to cloud computing

Despite the advantages, three questions commonly arise about cloud-based EHR solutions.

Are they secure? Any system is vulnerable to hackers or unforeseen disasters. Consequently, protecting patient privacy, preventing system crashes, and having disaster backup are significant concerns. That's why it's important to remember that for a fully certified and compliant EHR vendor, securing their clients' data is a full-time job for which they deploy considerable expertise and resources. The same cannot be said for individual physician practices whose purpose is—and should be—to deliver medical care.

Do they make economic sense? The key is to look at total cost of ownership. Some have raised concerns that cloudbased EHRs work on a subscription or on-demand basis, so the costs are ongoing. But a client-server or ASP system demands more than substantial up-front costs plus the cost and headache of ongoing maintenance and upgrades, which include new interfaces every time an individual practice needs to add a new lab, pharmacy, insurer, hospital, or physician practice to its system. This can and does get costly. In contrast, the "one connected, all connected" model of the cloud-based system is more economical and more transparent and easier to manage.

Are they flexible enough? While not as customizable as a client-server or ASP solutions, cloud-based EHRs do offer some flexibility. They also offer the security of knowing that what's customized won't fall outside meaningful use or various regulatory and reporting requirements.

Conclusion

Cloud-based systems enable small and mid-size physician practices to quickly and simply implement fully integrated EHRs that meet all of the meaningful use requirements of the new federal law. The cloud's three main advantages are:

- Minimum up-front investment that translates into rapid ROI and comparable total cost of ownership
- Cumulative value—including improved quality and efficiency—through simple interoperability with a wealth of systems and health industry partners, from hospitals and insurers through labs and pharmacies
- Adaptability for an unsure future: From the transition to ICD-10 coding to changes in meaningful use requirements, cloud solutions offer the easiest, fastest, and most economical way for physician practices to make the necessary adjustments.

In short, cloud-based systems save time, keep it simple, and deliver value, thus addressing the three most significant concerns for physician practices as they transition to EHRs.

About OptumInsight™

Ingenix is now OptumInsight™, part of Optum™—a leading information and technology-enabled health services business platform serving the broad health marketplace, including plan sponsors, care providers, life sciences companies, and consumers. Its business units—OptumHealth™, OptumInsight, and OptumRx™—employ 30,000 people worldwide who are committed to delivering integrated, intelligent solutions that work to modernize the health system, improve overall population health, and build and enable Sustainable Health Communities.

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