

A look inside Epic, Cerner and Allscripts app store programs

Executives explain how the developer initiatives work and why they're fueling innovation and shaping future direction of their platforms.

BY BILL SIWICKI

Major electronic health record systems vendors are pretty innovative companies when it comes to keeping their products up to date with the changing requirements of delivering healthcare at health systems, hospitals and group practices.

But there is only so much big companies can do, and further, sometimes the perspective from an innovative upstart developer can shed light on new features and processes not previously considered.

This is why EHR vendors like Epic, Cerner and Allscripts in recent years have opened their products to third parties in the form of app stores, where smaller IT players can create and offer apps that integrate easily with the respective EHRs, performing tasks that the EHR alone does not offer.

We checked in with executives at each of the vendors to get a glimpse inside their programs and learn about favorite examples of third-party developers.

Epic's App Orchard

Epic President Carl Dvorak said his company has always supported its customer community and other software vendors they work with in achieving successful integration and innovation. But in recent years, the EHR giant has taken new steps to foster innovation.

"Four years ago, we published Open.Epic to communicate our platform's interoperability and innovation capabilities to the industry," Dvorak said. "Open.Epic has been an excellent resource for the industry and us,

helping developers and our community learn the many ways they can integrate their software with ours, and continue our work together investing time, money and resources to create and advance these standards."

With the growth of the FHIR standard, Open.Epic also has become a platform for consumer app developers to connect their software to Epic systems, he added.

Last year, Epic launched what it dubbed its App Orchard. With App Orchard, Epic is cultivating hundreds of new relationships with developers around the world, many of them smaller organizations and entrepreneurs.

"For this group in particular, the App Orchard marketplace offers a low-cost entrée into a very large community of innovators and healthcare leaders," Dvorak said. "Through this app developer program, we provide developers more than 540 APIs and data models, sandboxes, testing and demo tools, and technical, training, networking and marketing services to support and enable their companies and them to build products, services and businesses on our platform."

Epic built App Orchard to accelerate the delivery and adoption of innovation within its community and across the industry, he added.

Allscripts Developer Program

Tina Joros, general manager and vice president of the Allscripts open business unit, said the vendor has supported third-party development and innovation via APIs on its platform for more than 11 years.

Clients have historically had the ability to use these same APIs for their own internal development. She said it was a natural extension to open that further to third parties

so that integration could be consistent no matter which entity was building out new innovations.

Joros said that in 2011, Allscripts formalized the business side of what is now called the Allscripts Developer Program. That involved establishing a way for third-parties to apply and join, offering standards contracts and developer resources such as documentation, testing processes and a marketing website to promote the apps.

"The standardization of the process for gaining access to APIs along with the reusable nature of the functionality we support allows us to scale to allow thousands of developers to take advantage of our technology and the ability to bidirectionally exchange data with Allscripts solutions," she added.

Cerner Open Developer Experience

Cerner's motivation with Code, short for Cerner Open Developer Experience, is an open ecosystem where the industry works together to solve for health system and consumer needs alike, said John Gresham, senior vice president, DeviceWorks and interoperability, at Cerner.

"Cerner Open Developer Experience encourages innovators and developers in this space to develop apps that work across existing EHRs to advance digital healthcare, how it's delivered, and ultimately improve interoperability and ease data sharing," he explained. "App developers are revolutionizing the way we live and interact with the digital world, and healthcare is no different.

Early health app success stories

Each of the EHR vendor executives have stories to tell about apps in their app mar-

ketplaces that have fostered innovation in the health IT space. Epic's Dvorak points to an app called Krames On FHIR by The StayWell Company.

"StayWell has provided our mutual customers with patient education materials for years," Dvorak said. "Clinicians are able to access the materials within their Epic workflows, assign the educational materials to patients, and print them to send home with the patient when they leave the healthcare facility."

Through Epic's App Orchard, StayWell offers a SMART on FHIR app that enables clinicians and patients an interactive, online experience including educational videos, in addition to traditional paper handouts. Also, as StayWell updates its content on a regular basis, it is able to more quickly deliver updates to clinicians and patients.

Gresham of Cerner singled out an app developer called ePreop. Health systems and physicians can solve common problems seen in the operating room every day, reduce waste and improve patient outcomes with the help of apps like ePreop, a third-party app provider, he said.

"Their apps AnesthesiaValet and SurgicalValet help health systems solve for communication gaps that can occur between physicians and anesthesiologist and support physicians in their surgical workflows," he explained. "Through this app, errors and inefficiencies in orders can be identified by physicians, verifying the information entered into the EHR. From patient intake to readmission prevention, apps like these can simplify the surgical experience."

Collaboration between health IT companies, third-party app developers and health systems can reduce inefficiencies in the clinical process, seize opportunities for improvement in care delivery, and even save lives, Gresham said. Using open platforms, open code and APIs accelerates the process of discovering new and innovative technologies that benefit the health and care of each person.

When it comes to innovative apps in the

Allscripts app marketplace, Joros raises up Relaymed as exemplary.

"A great example of a solution that saves time and money is Relaymed, which sends test results instantly and automatically from devices to an EHR," she said. "Last year, this app processed 150,000 lab results saving 5,000 hours of time for Allscripts clients – and that's just time without counting the human error eliminated."

Nor does it include potential lost revenue from billing of test results, she added. On average, manual entry of this data results in estimated lost test billing revenues of up to 20 percent, since not all tests are entered into the EHR, she explained.

EHR app stores: What the future holds

Moving forward, the EHR companies plan to continue to use their app marketplaces, among other strategies, to further EHR innovation.

"We are constantly engaging with the start-up community and organizations that are supporting health technology innovators like MATTER in Chicago and the Center for Digital Innovation in Israel to find the best new breakthrough technology for our clients first," Joros said. "In 2017, we evolved our program to make it easier than ever to sign up for access so developers can click through an online agreement with zero upfront costs to have access to our API documentation and build out a prototype on our Developer Portal."

Being transparent about the costs of connecting with Allscripts when a developer is ready to go to market and the functionality that is available is the company's way of making it easier for developers to evaluate the time and effort it will take to build integration and support Allscripts clients using an integrated solution, she added.

"It's not just the technology, it's also what we are doing to encourage third parties to build apps that advance healthcare," Cerner's Gresham said. "It's about the ways in which we approach app develop-

ers' access to APIs via robust documentation, an open sandbox to build and test, and development support from our engineering community along the way."

As part of the Code experience, Cerner dedicates energy and effort to developers' success and continually looks for ways to improve their experience, he added.

"Today we provide a set of app validation services that drive quality apps into our marketplace, giving our health system clients peace of mind that the app has been validated prior to purchasing and implementing within their organization," he said. "Additionally, we will continue to invest in a cloud-based API model that enables developers to build once and scale repeatedly to help reduce cost and complexity for health systems, speeding the time to innovation and deployment."

The path ahead for Cerner is focused on continuing to advance its APIs and their capabilities, he said.

As for Epic, Dvorak said the App Orchard enhances the company's suite of software, content and services by connecting its community to vendors that fulfill needs outside of Epic's wheelhouse.

"As we work with other vendors, our teams identify opportunities for Epic to enhance integration," he said. "For example, several of our newest product teams are looking to third parties to provide evidence-based clinical content. App Orchard provides our teams a platform to engage with other vendors as much as it provides those vendors a platform to engage with us and our customers."

Epic looks forward to continually growing its integration and innovation technologies and services, he added.

"Through conversations, webinars and our annual conferences, our App Orchard members and customers contribute to our future direction," Dvorak concluded. "They share their short-term needs and their long-term vision with us, and we incorporate their feedback into our platform, APIs and services." ■