Benefits of an API Strategy for Value-Based Healthcare

T he move toward value-based payment models brings with it massive changes in healthcare delivery, regulation and payment. Collaboration is crucial for these models and technologies to yield success for patients, payers and providers. The key to realizing collaborative success is having a solid API strategy.

APIs in healthcare are new, as are value-based payment models. There are a few companies selling applications for "population health" and "care management," but they are somewhat limited because of their access to healthcare data: They must use the existing HL7 messages, as software vendors are just now introducing APIs.

Traditionally, in the fee-for-service payment model, where providers and payers are paid per transaction, patients, payers and providers have been siloed, said Jess Perkins, Director of Healthcare Business Development at Red Hat, during a recent webinar exploring the benefits of having an API strategy to maximize value-based healthcare models. Under the fee-for-service transaction payment model, there is little incentive for collaborative efforts among stakeholders, resulting in communications that have been bogged down in complication and inflexibility.

But value-based payment models, according to Perkins, incentivize payers and providers to work together to improve patient outcomes, provide the highest quality care, lower costs and better engage patients. "The issue [under value-based care models] is how do I manage these people – whether it's a person, whether it's a member, whether it's a patient – how do I manage these people across the care continuum from end to end, to keep them as healthy as possible with the best outcomes ... at the lowest cost?" he said.

The need to collaborate to achieve such goals has put pressure on healthcare's communication technologies. Since communication among patients, payers and providers served the transactional nature of the fee-for-service payment model, messaging of data was often – and in some organizations still is – somewhat adequate, although complicated and inflexible, he said. But things are evolving. Over the years, standards and rules have been created to help manage and decipher the data being exchanged among patients, providers and payers, including in meaningful use regulations. And the technology itself has advanced to help better facilitate collaboration.

New application layer supports collaboration

"There's a new level of application needed, that goes across these siloes in healthcare," he said. This application layer requires more than today's healthcare messaging. "Application programming interfaces are a broad, longitudinal solution that provides real integration with an application – instead of waiting until the transaction is completed to share any data," he said. APIs act as a bridge between applications that may not be programmed to communicate with each other by nevertheless facilitating the flow of data between applications. Used in conjunction with modern development platforms, they can easily deploy and scale. The technology makes collaborative communication simpler and

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faster. As such, APIs can pull and push information and provide querying capabilities, he noted. Additionally, they can be used to securely connect critical information from and between patients, providers, payers, and various applications and systems in real time. "This is the reason for the excitement and the adoption of APIs in the market today," Perkins said.

Some of the opportunities APIs make possible include:
• Integrating data from workflows, from any internal or external source
• Avoiding having to rip and replace existing systems across enterprises
• Enhancing resource management and improving patient throughput
• Seamlessly merging population health and care management activities and processes
• Facilitating patient engagement through functions that support interactions as well as view, download and transmit activities
• Simplifying clinical disruption through broadened application function to support new and added workflows
• Standardizing attached devices to facilitate better use and decision-making whether the attached device is at the bedside or at home

With the advantages offered by APIs, it is good business to develop a strategy for their use, Perkins said. A solid API strategy depends on having a technology platform for multifaceted integration that provides security, flexibility, re-usability, scalability and the governance to manage all the APIs. Red Hat provides this technology.

A strategic foundation for API success

Red Hat offers strategic foundational capabilities in the form of JBoss Fuse, Red Hat® JBoss® BPM Suite, OpenShift and the 3scale API management platform, said Samar Choudhary, Architecture Principal at Red Hat. The company has a long history of innovation in the healthcare and other industries, he noted. More than 90 percent of Fortune 500 companies use Red Hat products and solutions. Of Fortune 500 healthcare companies (pharmaceutical, health systems and payers), 100 percent rely on Red Hat to help successfully position them in the changing environment.

JBoss Fuse is recognized by professionals in and outside of the healthcare industry for its integration capabilities. An open-source, lightweight integration platform, JBoss Fuse allows healthcare organizations to connect and share on every level – from business processes to patient data – and it supports Health Level 7 transaction sets. Its flexible architecture allows it to be quickly deployed where it's needed – on the premises or in the cloud – and its multiple connectors make it easy for all healthcare stakeholders, from care providers to payers to patients/members, to securely collaborate and make decisions in new ways.

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OpenShift is a container-based cloud application platform that lets IT professionals build, develop and deploy, manage and maintain quickly and easily in almost any infrastructure. Leveraging rich standards-based APIs, JBoss BPM Suite combines business process management, business rules management and complex event processing technologies into a single, integrated open-source platform. This package, which includes comprehensive support, enables users to capture business policies and procedures, automate business operations, and measure the results of business activities across heterogeneous environments including physical, virtual, mobile and cloud. Red Hat's 3scale API management platform is a full life cycle, highly scalable API management platform that allows organizations to manage, secure and meter APIs. 3scale is a vertical set of capabilities, Choudhary noted, so it spans all the organization's applications, allowing all those applications to expose APIs, which, he noted, at the end of the day, is what you want to do.

Under value-based care, the number of integrations will multiply and get more complex, making managing through a centralized platform painfully slow and "virtually impossible" to do, he said, necessitating a move toward distributed integration platforms. A distributed integration platform based on a container platform such as OpenShift spreads the load, he said, allowing the flexibility to deploy quickly and easily and make changes rapidly. Using Red Hat's technologies gives healthcare organizations a foundational strategy that solidifies their ability to cover all their API management needs and reach their business goals. Healthcare companies using Red Hat's JBoss Fuse, OpenShift and 3scale API management platform, for example, have improved their business and care delivery channels by reducing the length of the integration life cycle, automating processes, and increasing effectiveness and accuracy, while lowering costs. Additionally, they may be able to offer more services to customers and increase market reach.