



Healthcare interoperability and the new age of integration

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Healthcare interoperability and associated integration is entering a new era. Integration of clinical, financial and administrative systems, application programming interfaces (APIs), the Internet of Things, population health, provider management, and many other areas of healthcare are experiencing stress. Much of the current technology market is stymied, but a unique approach by Red Hat, provider of open-source software solutions, helps meet healthcare's pressing interoperability needs in the new age of integration.

Healthcare's evolution toward integration

Before the Affordable Care Act, most healthcare organizations were provider-centric. Collaboration among stakeholders was scarce and technology remained largely stagnant. "Over the last three years," said Craig Klein, Red Hat's managing director, healthcare, "there's been probably more change in healthcare than in the proceeding 20." In such a short period, the healthcare industry has seen meaningful use, the beginnings of value-based care and population health management, and the explosion of data all stressing the fragile interoperability environment.

In essence, the industry has moved from being provider-centric to patient-centric, but the technology to accommodate that change and allow healthcare organizations to thrive is not there. "What's really going to drive the need for different technologies is patient-centric healthcare," he said. "Value-based care is going to dominate, and we're going to start to have a transition to a digital healthcare environment with things like wearables and mobile."

Driving this transformation is the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), which moves healthcare beyond meaningful use to a whole different subset of rules – into things like the merit-based incentives payment system (MIPS) and alternative payment models (APMs) – with quality measures that aren't currently tracked or stored within systems but will be needed to meet reporting requirements.

"MACRA brings entirely new requirements into the environment," Klein said. "Things that used to be not all that important all of a sudden become absolutely critical because there's money tied to all these things. It's not just a nice-to-have – it's a must-have now."

The upshot of MACRA is that the healthcare industry is getting an influx of new data and measurements. Data will be coming from a wide variety of sources – from the bedside, from patients, from wearables – and all that information must flow back into systems to make decisions. The only way to process all these new elements and keep up with everything is with technology and this is where interoperability becomes critical, according to Klein.



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Managing Director,
Healthcare
Red Hat

Technology in the patient-centric era must be agile enough to simplify integration and quickly be able to apply rules to the data coming in so that stakeholders can harness the data to make better decisions. “It’s important to note that the current state of technology can’t adequately handle the future direction required by the changes resulting from MACRA,” he said. In order to survive in the new environment being created by MACRA, healthcare’s technology needs to be revolutionized. “You’re talking about a complete transformation of what is needed in the market today,” Klein added.

Technology in the era of integration

Without question, the future needs of healthcare demand interoperable technologies. Providers and payers, who use different apps and processes, need their differing technologies to integrate so that critical information can be accessed in order to meet the shared goal of better patient outcomes and lower costs.

With current healthcare technologies unable to meet interoperability needs in healthcare, integration technologies are crucial. To be effective, these technologies must be built on a foundation that is seamless and flexible and provide intelligent interoperability, Sameer Parulkar, Red Hat’s product marketing manager, pointed out. Ideally, the key capabilities that make up the foundation of such technologies are distributed integration and APIs.

Distributed integration is built on a lightweight technical foundation that is patterns-based, event-oriented, has reusable connectors and is community sourced. This technology results in the ability to deploy integration services or connections where they’re needed to connect different systems and data sources, and the flexibility to meet the new realities of healthcare in the patient-centric era and to do so with speed, Parulkar said. With increased adoption of web and mobile applications in healthcare and the wider world, it is critical for healthcare stakeholders to have a secure mode of collaboration – and that is where APIs are beneficial.

In healthcare’s patient-centric model, APIs allow healthcare entities to make information easily and simply available to patients in a variety of ways – such as web or mobile applications for patient support services. Further, integration technology with APIs as part of its foundational capabilities can connect patients, doctors and decision makers so they can securely share information, and through collaboration make better healthcare decisions.

This modern integration technology isn’t a pipe dream. It’s real and available now. Its Red Hat JBoss Fuse and Red Hat 3scale API Management Platform.

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Healthcare's integration specialist

Red Hat's JBoss Fuse is an open-source, lightweight integration platform that allows healthcare organizations to connect and share on every level – from business processes to patient data, according to Parulkar. 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 – to securely collaborate and make decisions in new ways.

Physician specialists are highly trained experts in their respective fields. They are trusted partners to patients and leaders in their communities. Like those physician specialists, Red Hat is a trusted leader. More than 90 percent of Fortune 500 companies use Red Hat products and solutions – 100 percent of healthcare (pharmaceutical, health systems and payers) Fortune 500 companies rely on Red Hat to help empower them so they can succeed and grow.

“We partner with our customers to position them for the changing environment,” Klein explained. “We talk to our customers. We listen to what they're doing and we make the correct decisions to put our products in the correct environment.”

Healthcare companies that are already using Red Hat's JBoss Fuse have increased system availability, flexibility, scalability and efficiency, lowered costs, improved data tracking and compliance accuracy and gained the potential to offer more services and increase market reach, Parulkar noted.

The healthcare environment is rapidly changing. The stakes are high. The healthcare industry needs an integration specialist to help it not only survive in this changing environment, but thrive. The specialist that can deliver is Red Hat.

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| Craig Klein



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