AN INSIDE LOOK AT THE

INTEGRATION ENGINE LANDSCAPE FOR HOSPITALS & HEALTH SYSTEMS

2018 Findings Report

RED HOUSE HEALTHCARE RESEARCH

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BRAND AWARENESS: METHODOLOGY AND MAKEUP

who responded and what we learned

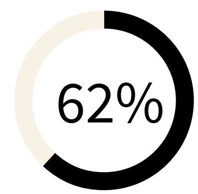
METHODOLOGY

respondent details

This survey consisted of nearly 75 online responses from hospital and health system IT leaders. In addition, several live phone interviews were conducted to add "color" to the overall response data and verify interpretations.

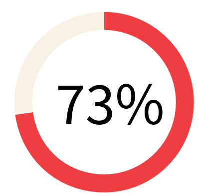
The survey took place over the course of three weeks and represents a snapshot in time. The following results are what we believe to be insights into attitudes and understanding of the data integration engine market by IT buyers.

Unlike many newer technology professionals, hospital and health system IT decision-makers are seasoned professionals. Seen in the "Time on Job" graphic to the right, more than half of the respondents have been with their respective organizations for more than five years.



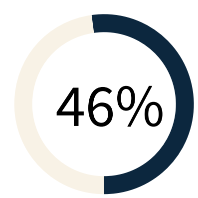
Time on Job

The majority of respondents have been with their companies for more than five years.



Decision Influence

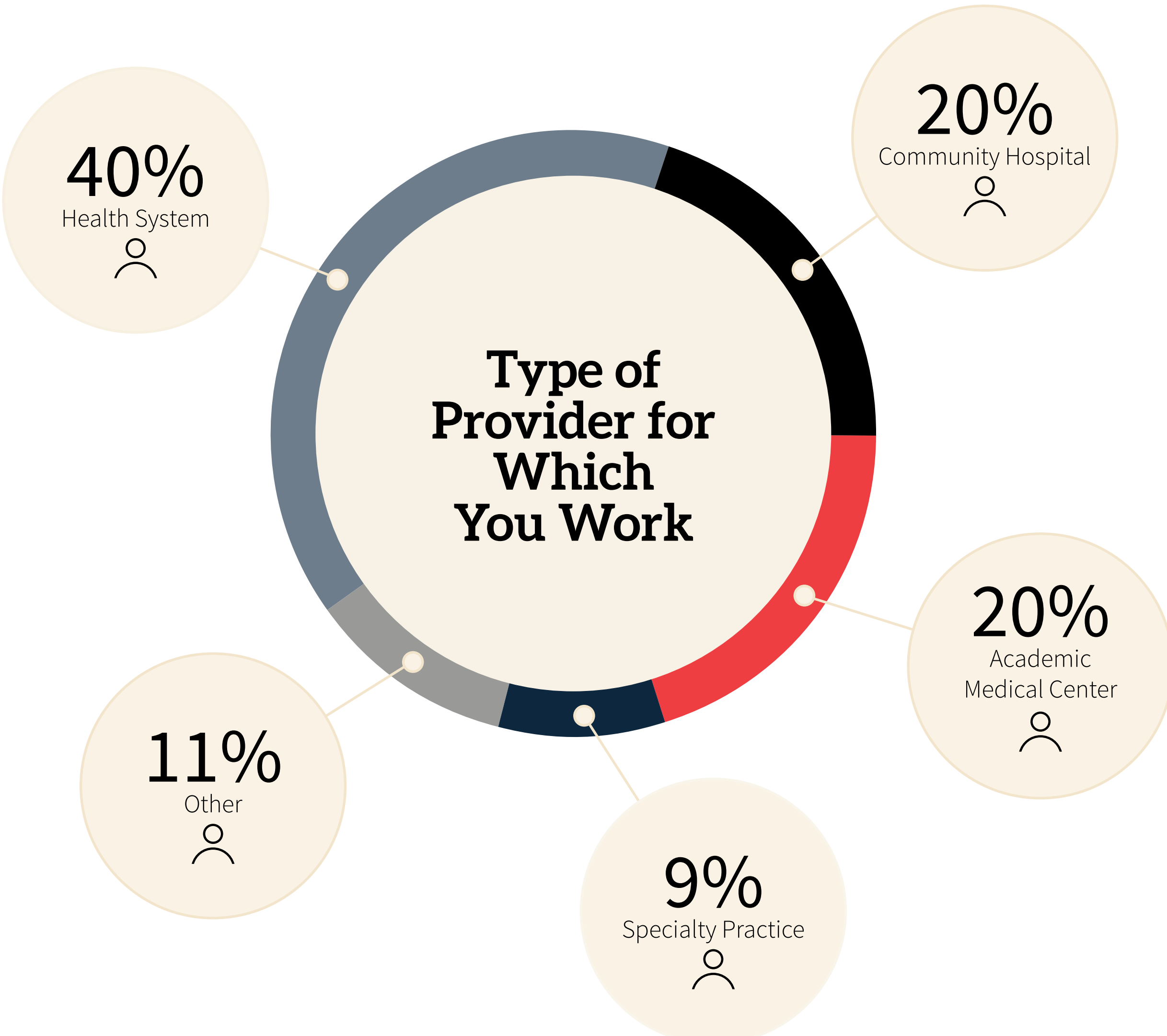
Almost three-quarters influence or make final decisions around technology adoption.

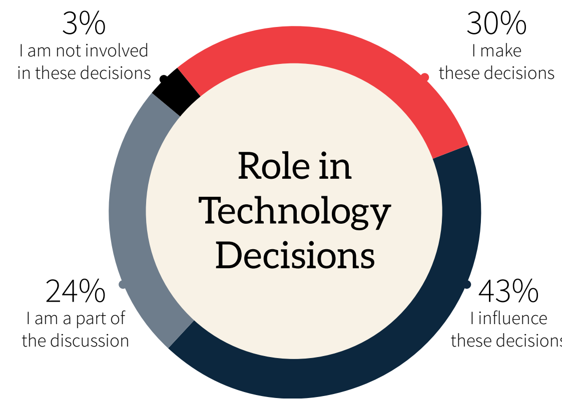


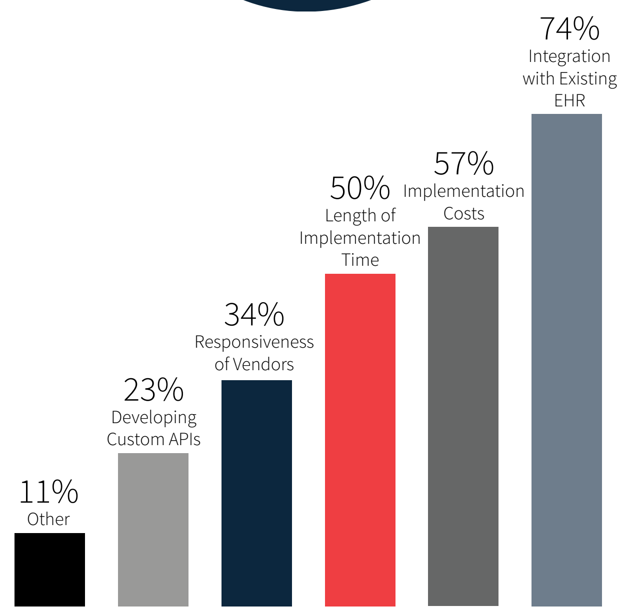
Job Function

IT, Technology or Innovation

Others:
- Director
- Project Manager
- Program Coordinator
- Telehealth







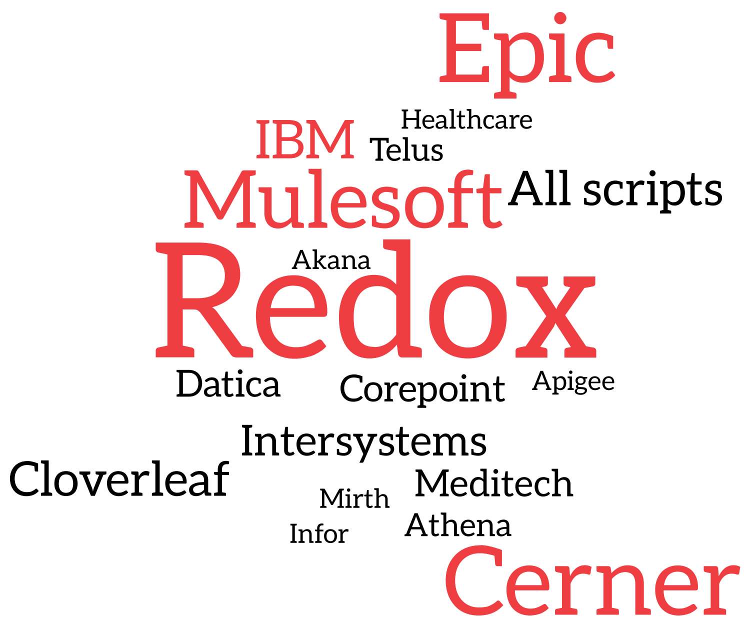
Technology Challenges

Purchase decisions are most often made as part of a group rather than individually. Integrating with their current EHR is the most challenging part of onboarding new technologies.

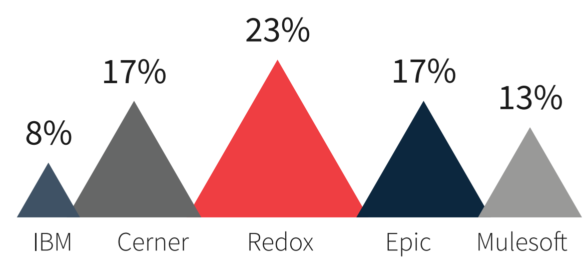
BRAND AWARENESS: AIDED & UNAIDED

leaders and followers
in the space

Top-of-Mind Integration Platforms



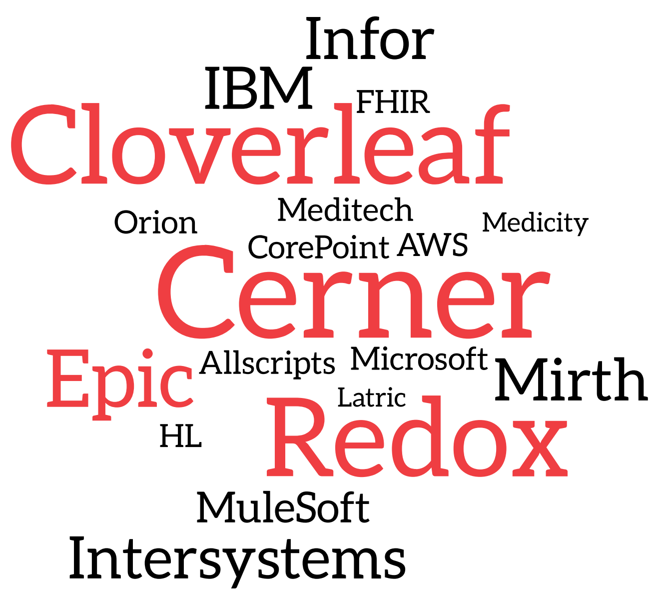
Redox holds a slight edge in awareness over the top two EMRs.



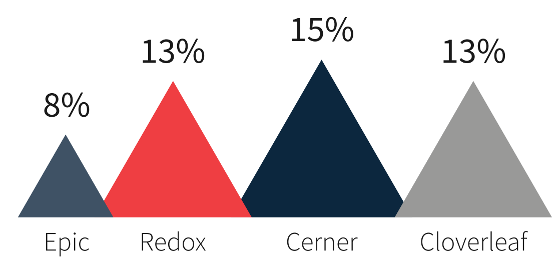
We measure unaided awareness because it's a good indicator of which brands are invited most often to RFP opportunities each year. Typically, the top three known brands (with some variation) are asked to participate.

Redox awareness indicates a potential leadership position among provider organizations, but it is in close proximity to the leading EMRs that typically supply integration tools within their own technology.

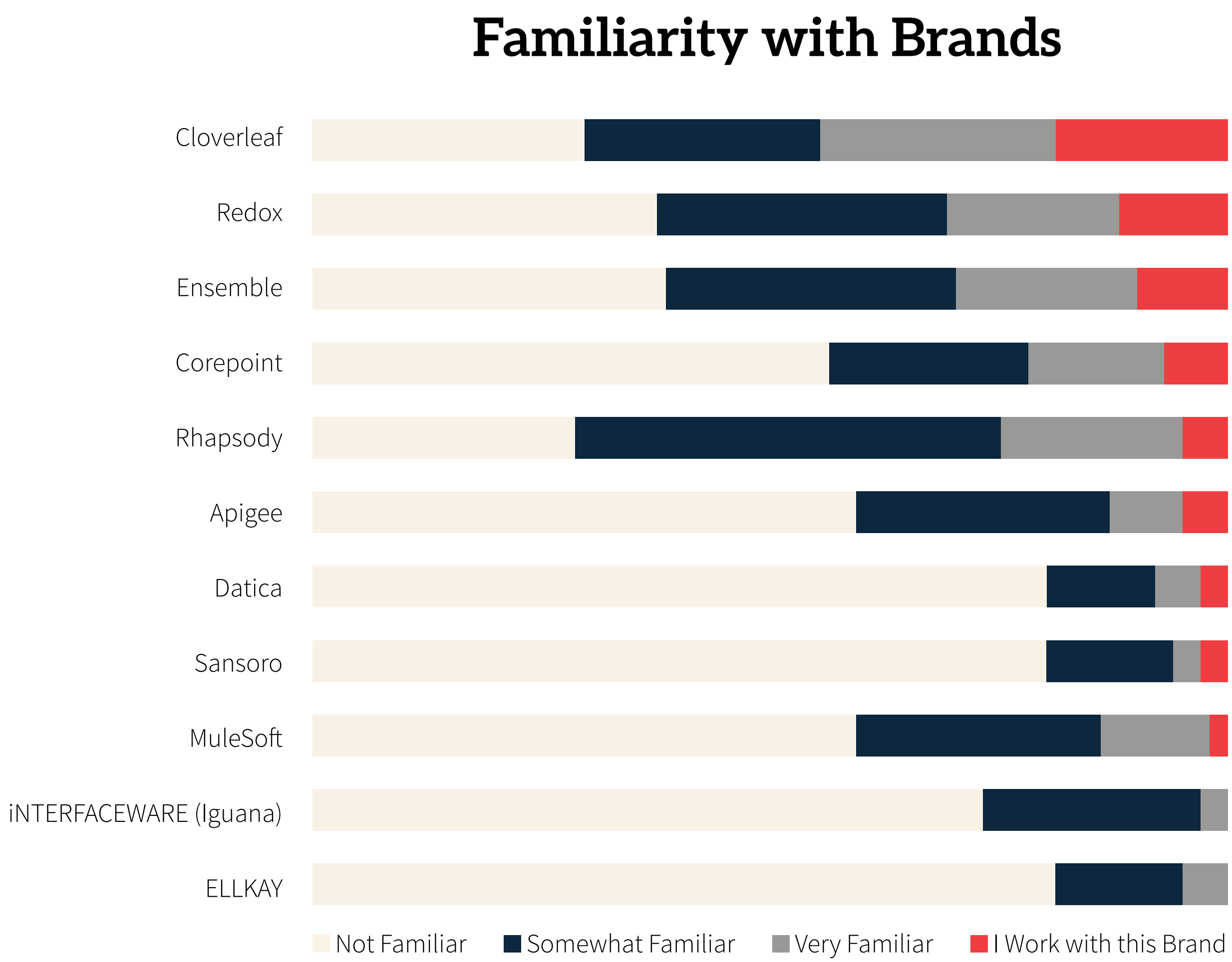
Top-of-Mind Data Exchange Vendors



Overall, awareness of digital data exchange vendors is low, but led by Cerner and Redox as well.



The narrow gap between vendors indicates that no one brand owns the space. However, as EMRs battle development on multiple fronts, the more problem-specific vendors have an opportunity to open a lead over the EHRs if they can continue to add new levels of value and differentiating benefits that customers want.



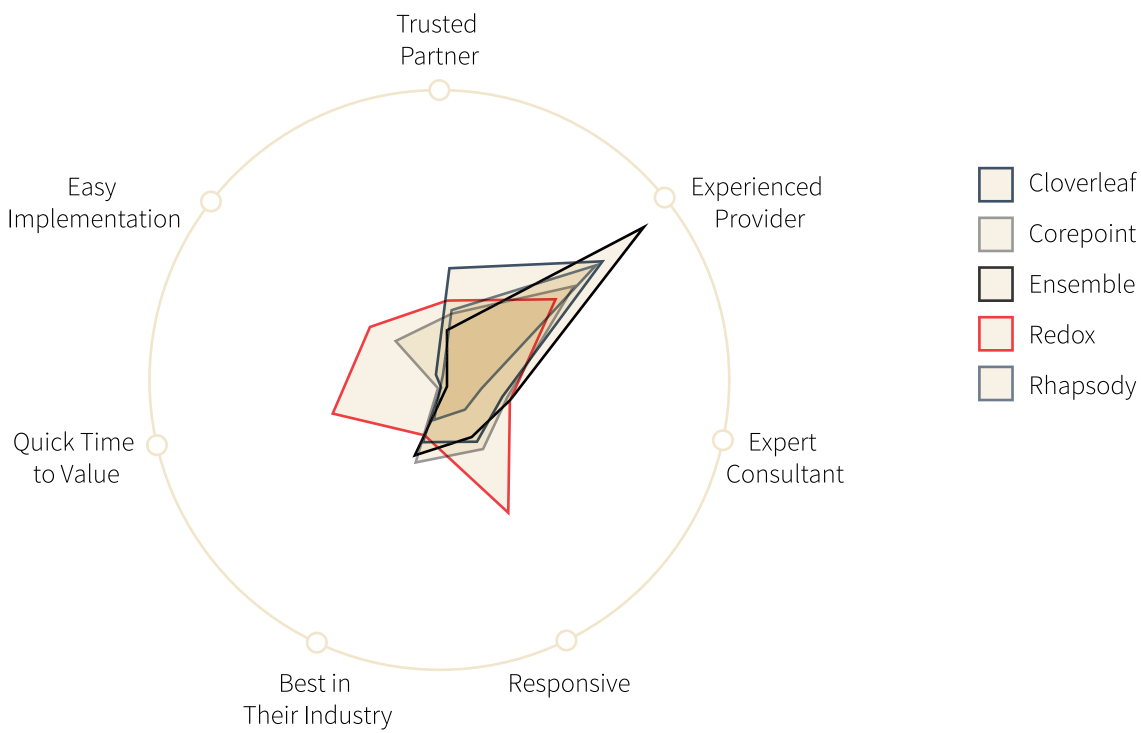
Cloverleaf has the highest usage in the market, with Redox coming in second.

We offered a list of competitive brands to the respondents, and asked about familiarity with each. As you can see, while the top unaided brands lost some mind share, Cloverleaf loses the least. Rhapsody has the highest level of combined aided awareness, and is most likely one of the early players in the space. Interestingly, Redox (a relative newcomer), Ensemble and Rhapsody all have equal percentages in the Very Familiar category, meaning they're all vying for the number-two position in the space.

BRAND AWARENESS: PERCEPTIONS

competitive differentiators
between brands

Perceptions of the Market



Although Ensemble is seen as an experienced provider, Redox laps the field in responsiveness, time to value and easy implementation.

Ensemble appears to be the most experienced provider in the space, while Redox laps the field in Responsiveness and Time to Value. No one seems to be considered strong in the consulting area. And Cloverleaf leads in the area of Trust.

What this shows us is that while most brands group similarly, Ensemble and Cloverleaf have figured out how to use their experience as a differentiator. In the meantime, Redox has been busy owning the service and timing areas, thus positioning them well against the key needs in the market.

The Importance of Speed as a Financial Advantage
Mean Time to Integration (MTTI)

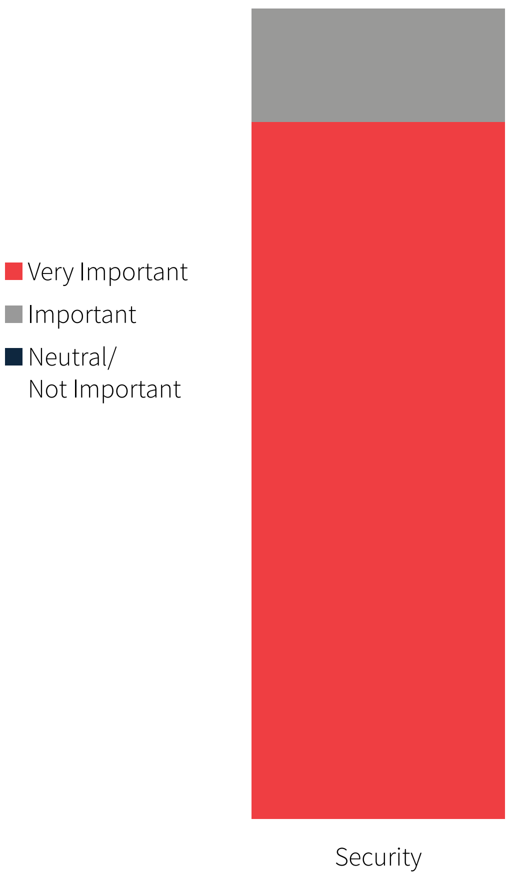
...If we shave two months off the integration, you just saved yourself 400k. So, it's my way of saying if I'm bringing something in, it must be financially relevant or why would I do it? I'm not a complete idiot. So, sooner would be better.

– Pete, Redox customer

Option 1: Internal Execution	**Option 2:** Middleware	**Option 3:** Redox
120 Days	**100 Days**	**30 Days**
"So, I've come to the conclusion that is a loser of an idea."	*"A 10 percent, at best, decrease, maybe 20 percent, best case. So, you go from about 120 to 100 days."*	*"If Redox is better after doing three, imagine what it would be after doing 23. Big competitor advantage."*

Security

As a baseline, interviewees explain that vendors must be willing to sign security contracts and abide by all regulations.



"I think number-one right now is security. ADA and network security and regulatory compliance – specifically HIPAA – that is a very crucial part of what we do in this environment, and it can be resource intensive. It requires a lot of dedication and perseverance to stay on top of all those requirements."

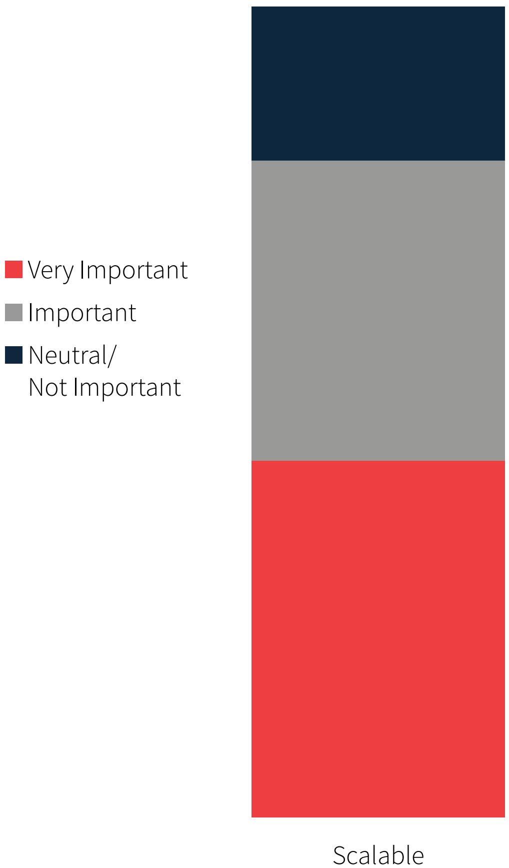
– Bart, Director of Information Technology and Information Management, state hospital

"Well they would have to sign our BAA agreement. They would have to comply with HIPPA requirements. There is not really a certification that you have necessarily but they will have to have other customers that sort of vouch for that and they have to agree to our security arrangements."

– Beth, CIO, pediatric hospital

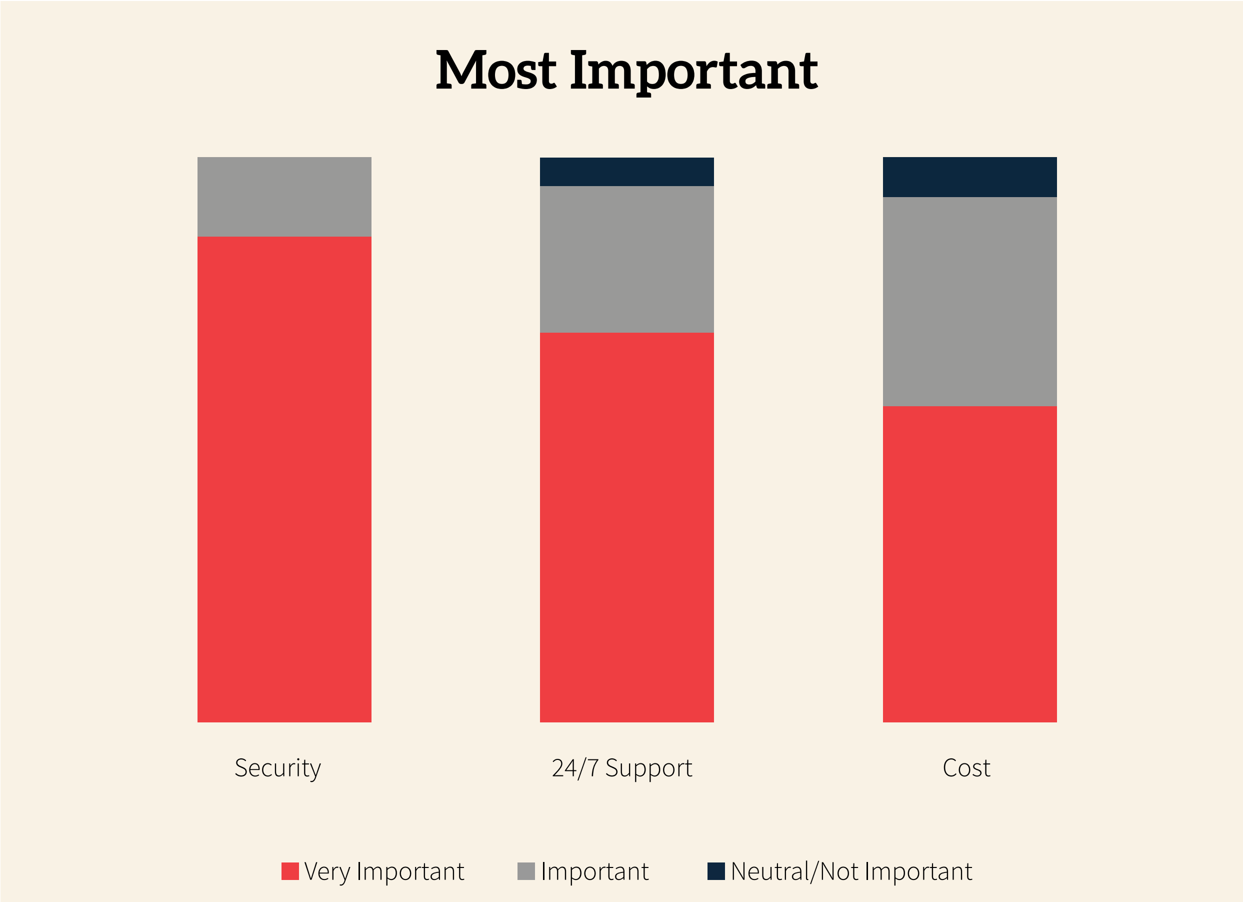
Scalable

Respondents are looking for a solution that can adapt to a constantly changing environment.



"We are always changing something, so as we change will it be able to be stable? Will it adapt and keep up with whatever the latest greatest whatever is? Does the vendor keep up to date? Do they look for new versions of software and new versions of the interface that may then be able to integrate with something new and developed? So that is what I am referring to when I say compatibility, but it definitely has to be scalable because we are always adding something or changing something whenever new technology comes out."

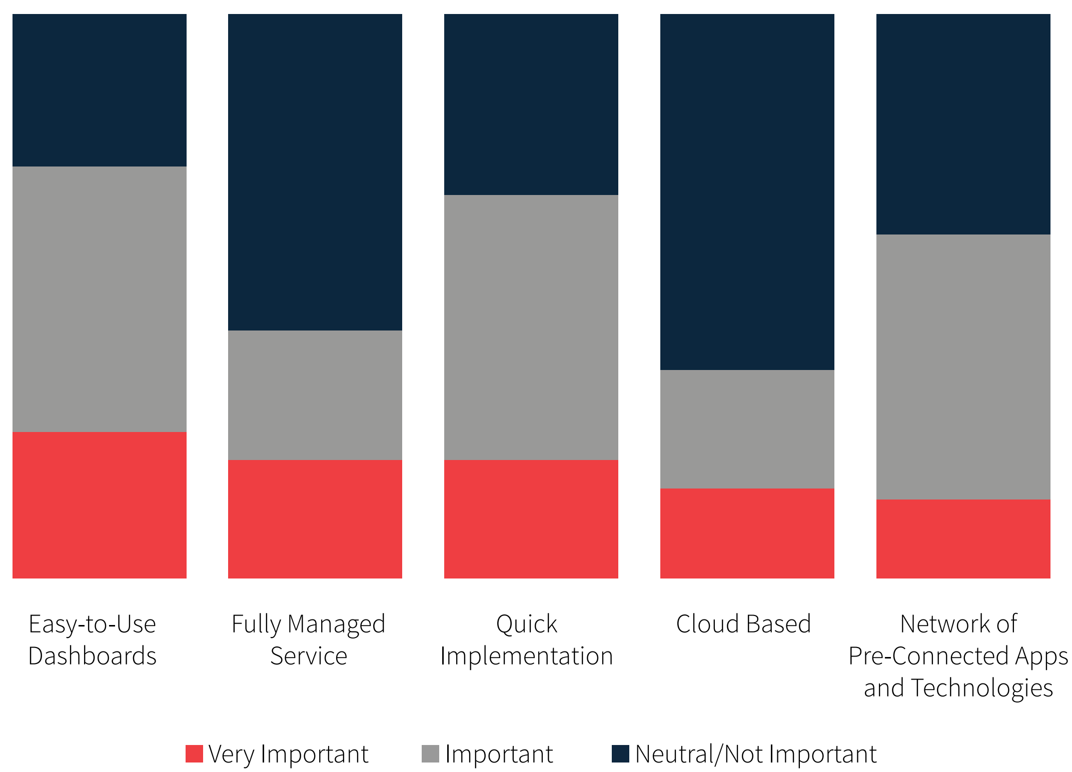
– Angie, CIO, mid-size hospital



While security is the most important feature, support and cost are also important.

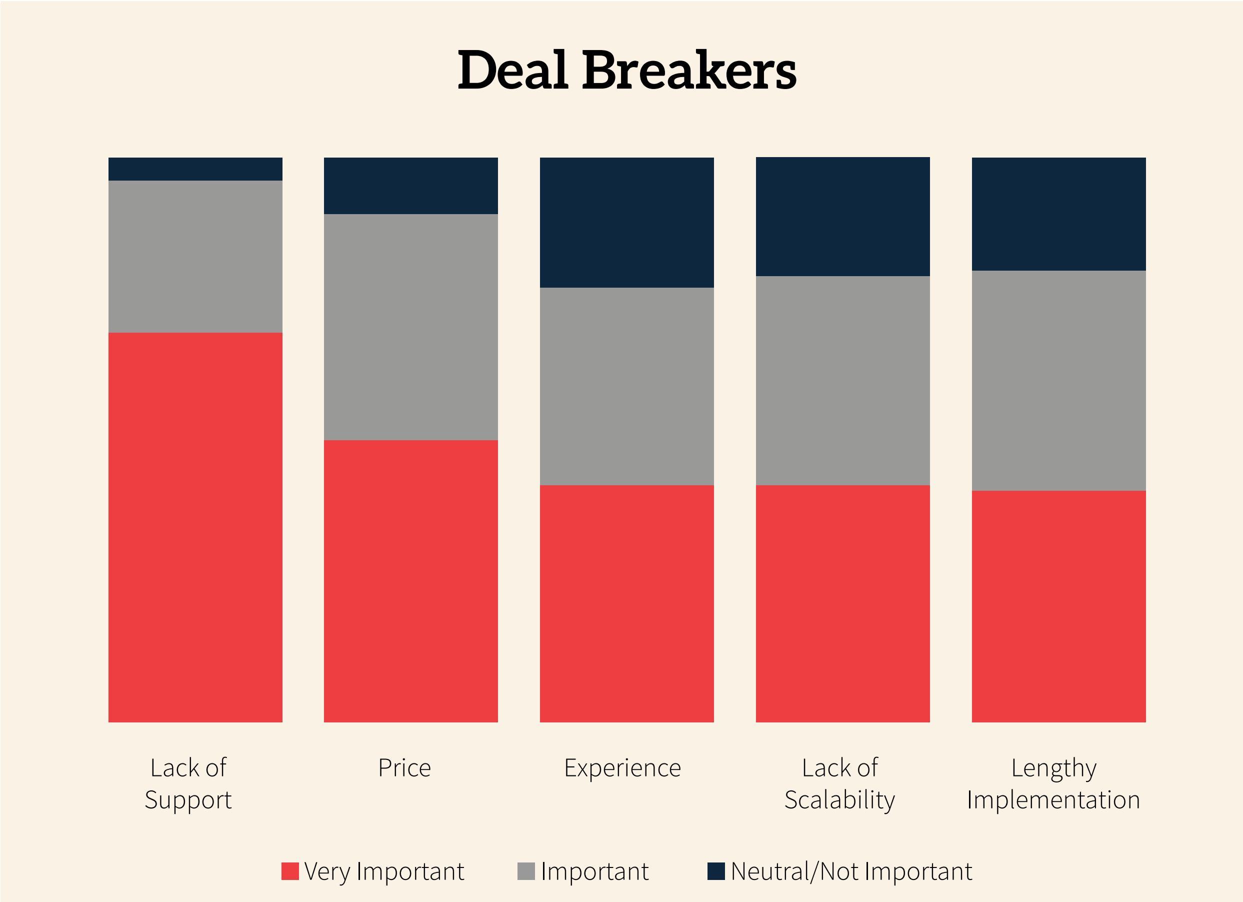
When asked about the most important features when selecting a vendor, we weren't surprised to find security at the top. In today's environment, security of patient data is paramount when it's being shared. We also see 24/7 Support as an important feature because tight budgets mean hospitals don't have enough full-time employees to manage everything that needs to get done, so more and more we see them leaning on the vendor to pick up the slack.

Nice-to-Haves



Dashboards are somewhat important, as is quick implementation, but other features are less so.

When considering other important features, Easy-to-Use Dashboards, Quick Implementation and Network of Pre-connected Apps are the top three additional benefits that would be considered nice to have by buyers.

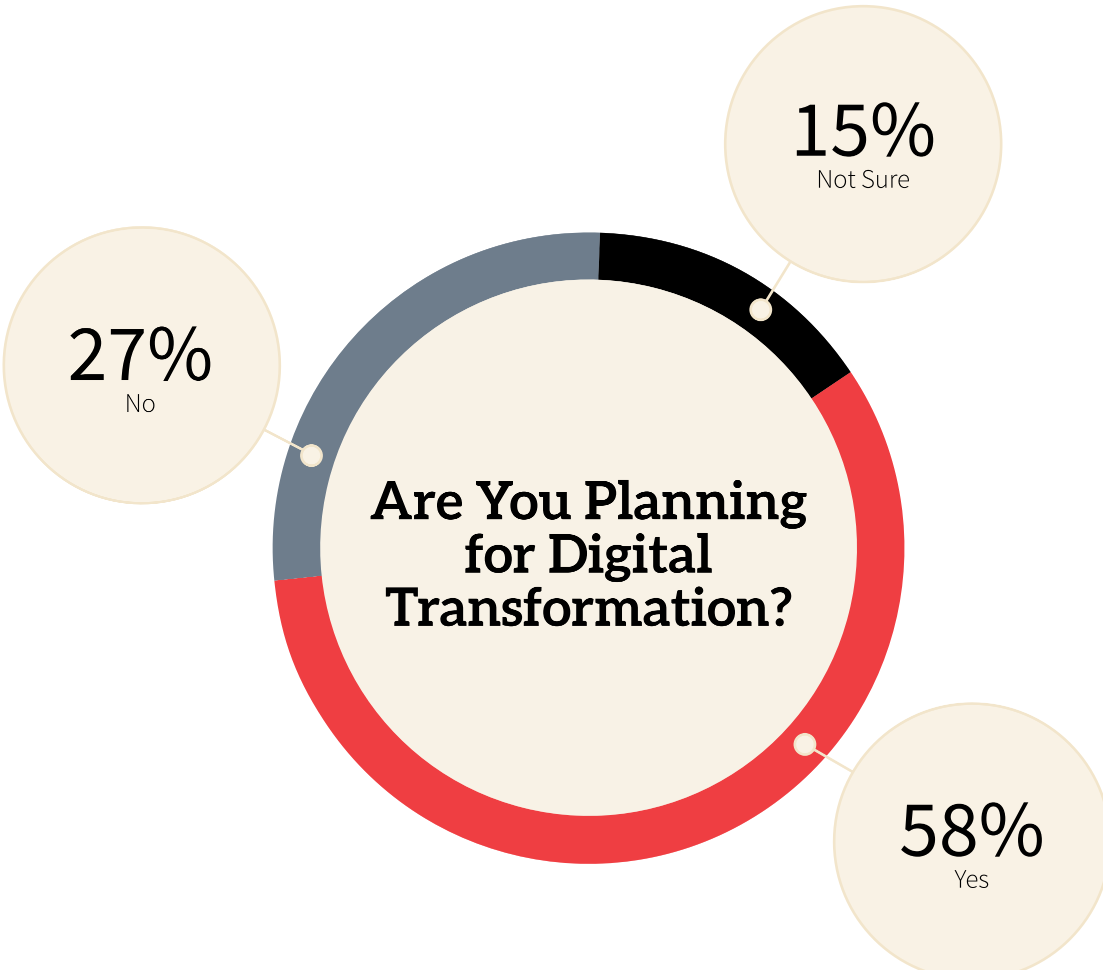


Healthcare experience and scalability are both 'must haves' for selecting a partner as well as deal breakers for those that are not selected.

When asked what would cost a vendor "the deal," we were surprised at the almost unilateral need for support. Length of implementation (number three in overall importance) underscores the earlier findings related to the need for quicker implementations.

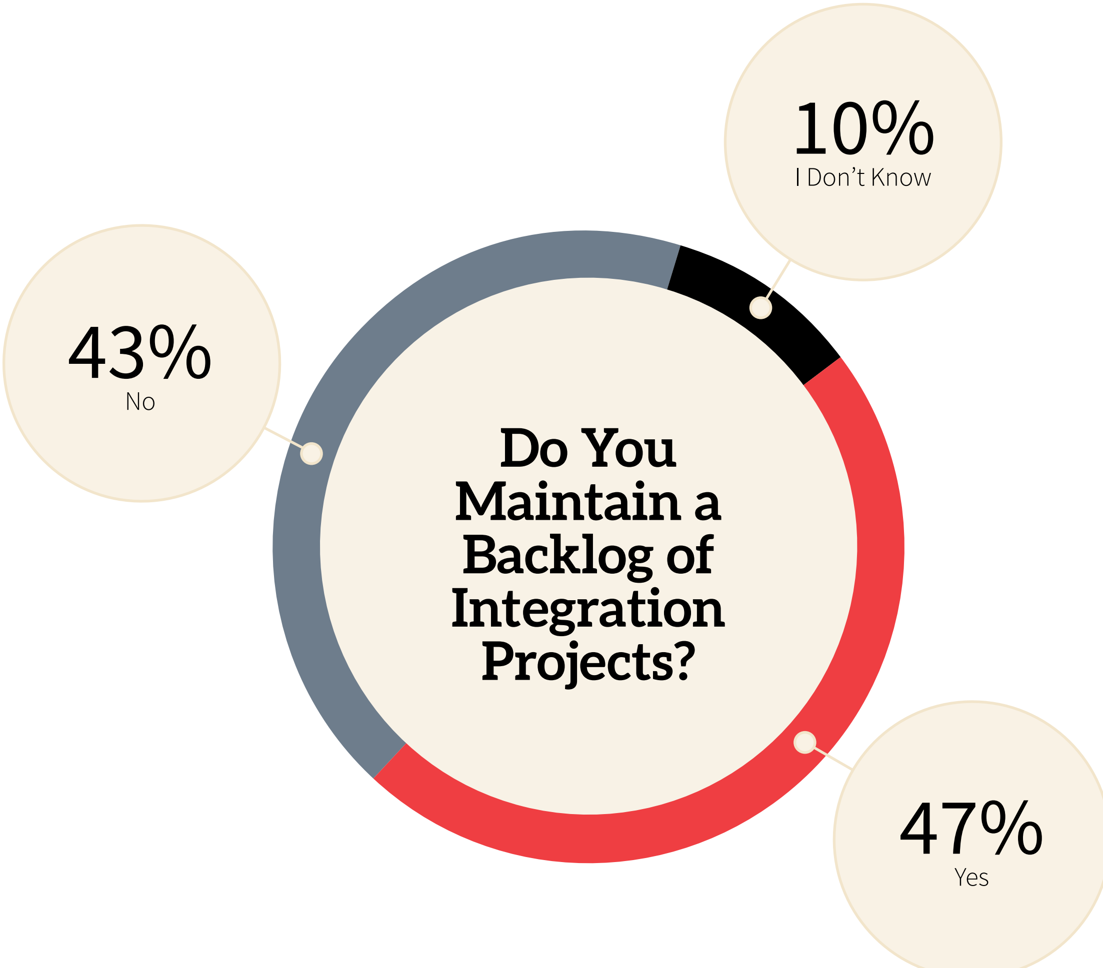
DIGITAL TRANSFORMATION: OPPORTUNITIES & CHALLENGES

where hospitals struggle most



The majority of respondents have digital transformation on their radar as a goal for the upcoming year.

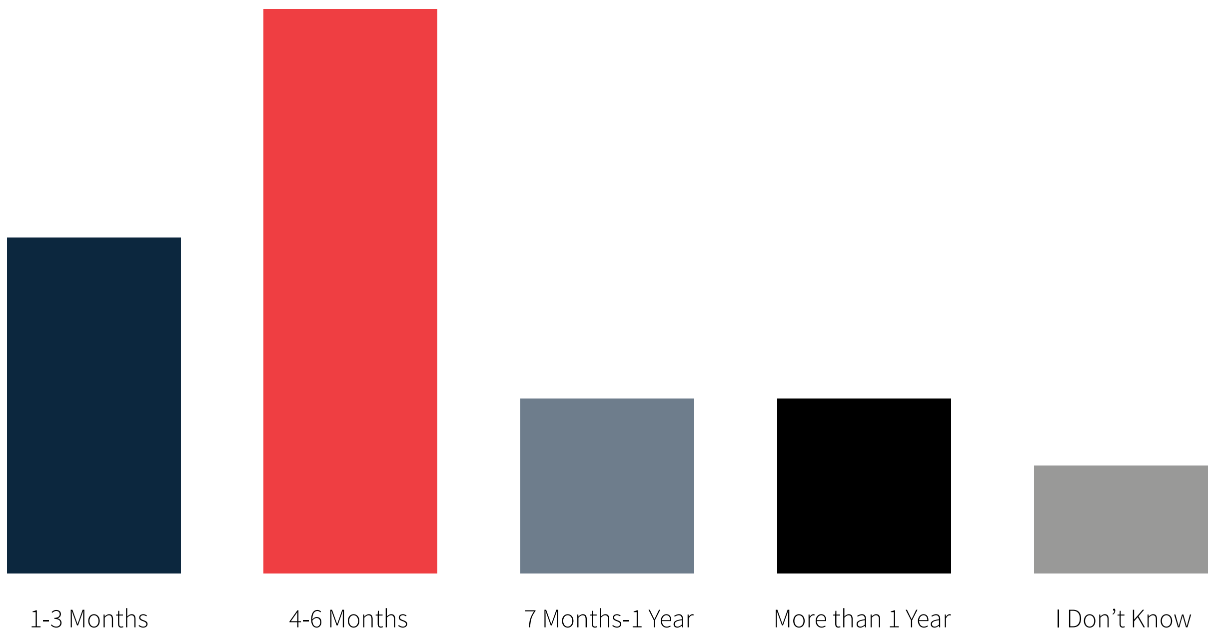
> *"We must have hundreds of things bolted into the EMR because we're trying to take advantage of the cloud. We're trying to hustle these days and make a horrid user experience much better."*
>
> *– Pete, Innovation Officer*



Having a backlog of integration projects is fairly common among providers, and all interviewees spoke at length about their challenges in prioritizing and tackling their backlogs.

When we look back to the mean time to integration findings, speed becomes more a greater point of differentiation. With almost half of providers carrying a backlog of integration initiatives, the door is wide open for those that can cut time without cutting corners.

Time Behind on Projects

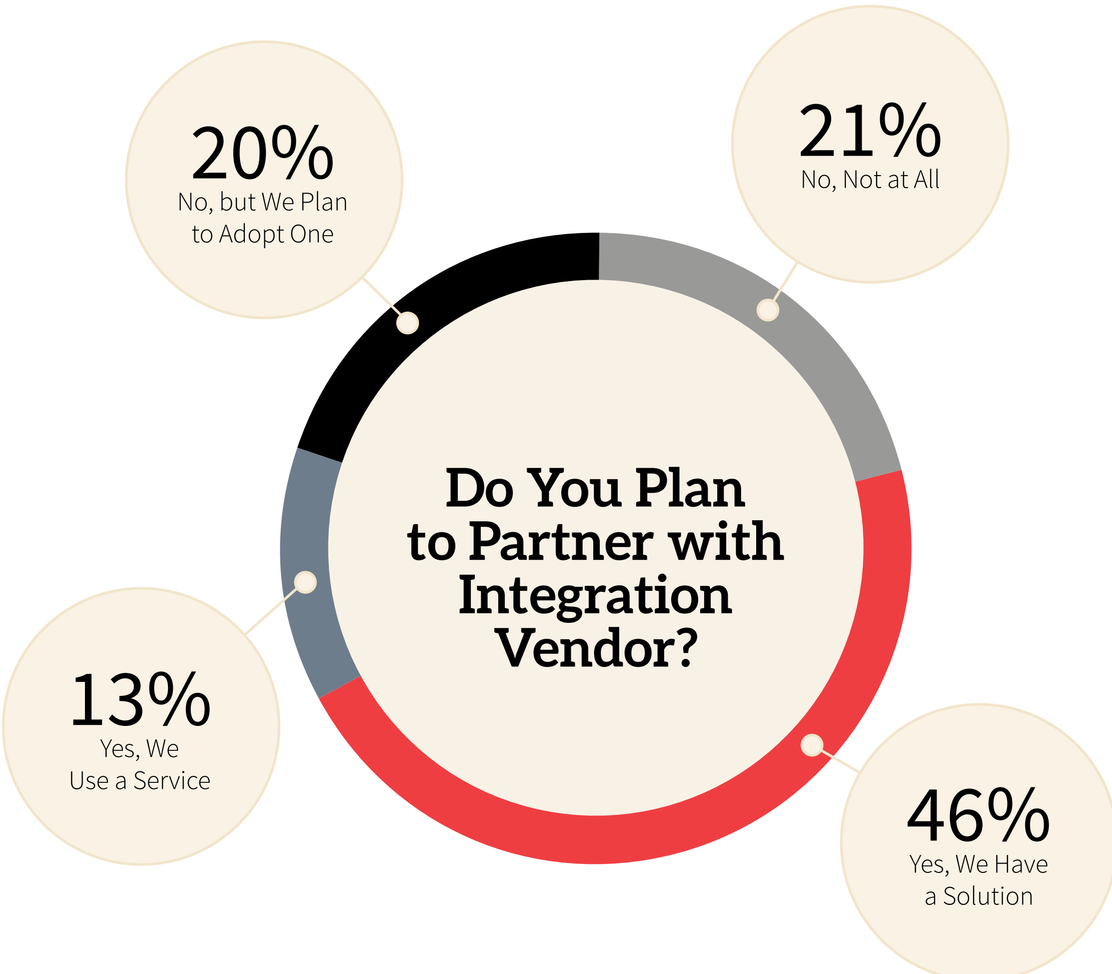


Backlogs tend to be in the 1-6 month range and can be caused both by internal requests or a vendors lacking the expertise to integrate efficiently.

> *"It seems like we always have a backlog of projects. More and more, everyone wants to connect to the EMR without having to send their data. I have four full-time developers who stay busy all of the time but there are always new medical devices or hundreds of systems that want to send their data, or get data, from our EMR so there is always a backlog."*
>
> *– Beth, CIO, pediatric hospital*

INTEGRATION ENGINE OUTSOURCING

priorities & potential



More than half of respondents say they have an integration solution, but most others do not use an outside service.

Why hospitals & health systems outsource:

- Improve workflows, meet compliance needs, favorable ROI
- The need for interoperability is too great not to outsource
- Creating digital workflows for clinicians, linking disparate systems together
- Too many third-party applications not sharing data with the EHR

Why Third-Party Solution

Speed

"***Sometimes the vendor's time table or the amount of resources that they can devote to the project don't meet our expectations.*** *I think, in some cases, I've felt like a third-party integrator serving as a pivot point – or as a middle person – in that process would help a lot. And I'm open to that kind of arrangement on future projects.*

It's been kind of a learning curve in that respect for me. I've been in healthcare for about six years and previously I was in academia so it was a real paradigm shift for me."

– Bart, Director of IT and Information Management, state hospital

Expertise

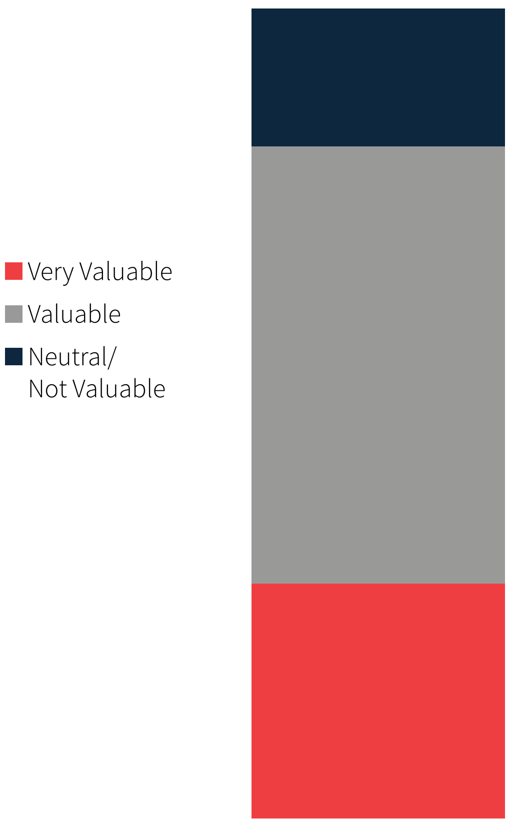
"*We don't always have the resources or staff with the right skill set to do something like that. They are hard to fill and recruit for those types of positions, and they require a lot of programmer knowledge. And since right now we are using our own, that makes it even more difficult because it is not a standard system that is used at other hospitals across the nation. That is one of our largest challenges. And then even if we could recruit and find somebody, often retention is difficult.* ***So having a vendor provide that for us is a huge cost-savings.***"

– Angie, CIO, mid-size hospital

Speed was one of the biggest reasons for outsourcing. Lack of EHR experience was a common reason against outsourcing.

Value of Integration Platform

Respondents believe that an integration platform connecting them with applications would be valuable.



Value of
Integration Platform

> *"Ideally, it would be something that is completely turnkey and fully managed by the vendor that meets all the security requirements."*
>
> *– Angie, CIO, mid-size hospital*

The general belief among IT decision-makers is that all technology suppliers say they can integrate with their specific EHR. But follow up interviews indicate the challenge that IT feels when having to connect hundreds of technologies, coupled with the reality of EHR updates that can break past integrations.

A solution with "pre-connected" applications and reconnected provider sites would be a welcome solution to the embattled hospital that faces months of back-logged integration projects that have profound impacts a hospital's competitiveness—and in some cases, their ability to stay relevant and keep up with digital transformation.

BRAND AWARENESS: SURVEY FINDINGS REPORT

vendor survey conclusions

BRAND AWARENESS
conclusions

The data integration engine market has a wide range of players with no clear leader. While Epic and Cerner both offer integration toolkits, it's clear that they have a long way to go before becoming legitimate answers for the immense need to integrate apps (and other technology data) into their platforms, and share it more seamlessly across the continuum. It is our expectation as competitors work to define themselves, that Redox has an opportunity to continue to evolve and reshape buyer expectations in a way that makes it difficult for competitors to overtake them.

You may also be interested in seeing the application developers perspective on the integration engine space. You can learn more about it by reading: *"An Inside Look at the Healthcare Integration Engine Landscape for Application Providers."* >>

ABOUT RED HOUSE HEALTHCARE RESEARCH

Red House Healthcare Research, part of Red House Healthcare Marketing, is an industry-leading research group with decades of experience in healthcare.

From awareness studies to messaging validation, we help clients gain the insight necessary to create more predictable marketing success.

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