

Decisions, Decisions: How to Choose the Right FHIR Vendor for Your Organization

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Ensuring your organization is in compliance with the upcoming interoperability and patient access regulations is no small task. Not only must you decipher the legislation and mandates, but you must also understand and prepare for how they will affect your health system.

And you must do it all quickly, with little to no scope for error.

The most strategic way to meet the forthcoming regulations is to work with a vendor who is well-versed in Fast Healthcare Interoperability Resources (FHIR) and who deeply understands the mandates.

Choosing the right interoperability partner (FHIR vendor) will give your organization a lasting, strategic advantage, even as the federal regulations for interoperability continue to evolve. But the wrong choice could set you back several months in achieving compliance—costing your organization millions in fines and lost revenue. Insist on a certified FHIR vendor with the following qualities:

1. Future focused
2. Flexible and customizable
3. Feature rich integrations
4. Deep expertise in FHIR, Open Source, and Government Policy
5. Capable of facilitating future growth.

This guide will cover a brief overview of FHIR and why it's needed, as well as clear guidelines to follow and questions to ask as you consider possible solutions.

What Makes FHIR Necessary?

Simple data exchange and portability: it's something we take for granted when we withdraw money from an ATM, or when we cash in on rewards earned at a restaurant chain. But when it comes to healthcare, exchanging data is complex, siloed and riddled with obstacles. This lack of interoperability is more than an inconvenience—when patients and providers can't easily access the data they need when they need it, it can be a deadly health risk.

Many say this lack of interoperability is simply further evidence that the US healthcare system is “broken” or that it needs to be “disrupted.” It has been this way for a long time. But identifying the problem is just the beginning—now we must find a cure.

To improve access to patient data, which can in turn improve patient care, we must all work toward a strategic solution that connects our disparate systems and prioritizes patient health. It all starts with the systems and standards we use to collect, store and exchange data.

A Future on FHIR Can Bring Us Together

A clear winner in the standard for exchanging healthcare data has emerged: FHIR, which stands for Fast Healthcare Interoperability Resources. The goal of FHIR is to enable the flow of healthcare data, ultimately creating a more complete record of patient information.

A FHIR resource is an information packet that includes text and metadata. It can also be bundled to create a clinical document. It's more flexible than its static predecessor, Consolidated Clinical Document Architecture (C-CDA).

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The Centers for Medicare & Medicaid Services (CMS) and the Office of the National Coordinator for Health Information Technology (ONC) strongly encourage Payers and organizations to use FHIR to meet the most recent Interoperability and Patient Access Milestones, including Patient Access, Provider Directory API and Payer to Payer Data Exchange.

The goal of the Interoperability and Patient Access Milestones is to make it easier for patients to access their payment and clinical data. The July 2021 deadline for patient access was the most technically demanding of the requirements mandated by CMS. It forced Payers to take a hard look at their EHR integration capabilities and FHIR readiness. Some thrived while others took months to catch up to the mandated standards.

The Purpose of a FHIR Vendor

A FHIR vendor supplies a ready-made FHIR server and data platform with the right tools that organizations and plans need to enable the exchange of data. The right vendor leverages their expertise and insights to help organizations comply with mandated standards and to strategically maximize their ROI. The wrong vendor may include some features that offer interoperability and compliance, but in the end will cost organizations time and valuable resources because their solutions are neither customizable nor ready to be deployed at scale.

Qualities of an Experienced FHIR Vendor (and *red flags* to watch out for)

1. Future-focused

The role of a FHIR vendor is to ensure you're prepared for the next integration, the next mandate, the next level of security, the next technology. An experienced FHIR vendor is detail-oriented and capable of taking care of today's challenges without losing sight of the bigger picture.

A future-focused vendor will make it easy for you to enable new devices and connections, will regularly add FHIR modules and will be committed to educating you about upcoming changes to technologies and laws. The purpose-built solutions they create not only work today but they leave room for your organization to scale long into the future.

Take the upcoming Payer-to-Payer Rules, for example, which are designed to help patients move their data from one plan to another. CMS strongly encourages the data to be exchanged using FHIR. Some may be tempted to take what looks like a shorter, easier route and create a FHIR "data façade." However, this kind of tactical approach would need to be replaced when more complex data must be exchanged using a FHIR-based API to meet the January 2023 rule. A strategic, future-focused FHIR vendor will not only help payers meet the January 2022 requirements, but will do so in a way that prepares payers to meet the January 2023 requirements as well.

Want to learn more about the differences between these two rules and how to prepare for them? Read the post

"Making Sense of the Final and Proposed Payer-to-Payer Rules for Data Exchange" on Smile Digital Health's blog.

Future-focused questions to ask a potential FHIR vendor:

- ✓ What steps can I take today to prepare for upcoming mandates about Prior Authorization?
- ✓ How will the *No Surprises Act* affect me?
- ✓ Are you prepared for the Time Series Persistence architectural model?
- ✓ How many concurrent users can you handle?
- ✓ How many transactions per second can you manage?

Beware a vendor that:

- ✗ Supplies you with the minimum requirements to get by
- ✗ Leaves you with a system you have to "rip and replace" to meet the next year's rules
- ✗ Only adds FHIR modules when needed, or as requested
- ✗ Constantly plays catch-up or copies the competition

2. Flexible and customizable

Every Payer and healthcare organization is unique in the way it has created its software and manages workflows. Each one ingests different kinds of data, from different devices and locations, and uses it in different ways. An experienced FHIR vendor will anticipate this and make it possible for IT teams to custom-script modules. Whether your solution is in the cloud, on-premises, managed or using AWS or Azure, the best FHIR vendor will be flexible with the way you receive and store data.

Make sure the FHIR vendor you choose can work with different architectural models to exchange and store data, such as a FHIR façade (none of your data is stored in FHIR) or a FHIR repository (your data is stored in FHIR), and understands when each model is appropriate.

Why do architectural models matter?

Using a façade model, your data is stored in an SQL database or claims system while a translation of your data is mapped to FHIR. A FHIR façade is perfect for when you need a single source of truth with all your data in one place. It makes accessing your data faster and easier.

A FHIR repository allows you to store your data in FHIR and isolate or shield your existing systems from a third party that needs access to your data. A repository can protect your systems from malicious access and also poorly written queries that would slow down your system.

The best vendor will be able to supply both a façade and a repository model as a way of adopting scalability.

Questions to ask a potential FHIR vendor?:

- ✓ How does your solution treat asymmetrical legacy data within the organization?
- ✓ How does the architecture model enable appropriate authentication and authorization of access?

Avoid a FHIR vendor that:

- ✗ Requires you to change your processes to fit the way they work
- ✗ Cannot work the way your IT needs it to
- ✗ Only allows or enables a single model (Façade or Repository)

3. Feature-rich integrations

With interoperability on the line, integrations like these are non-negotiable:

- 1. Master Data Management (MDM):** It's imperative that personal health information is not displayed to the wrong plan member. For example, if the wrong data is matched to an individual, then plan members with identical names could accidentally receive data intended for someone else. This kind of mistake violates HIPAA rules. Even an inadvertent HIPAA violation could result in a hefty fine. An experienced FHIR vendor will help you match your incoming data to the right patient record. Additionally, they'll make it possible for you to custom-script the MDM according to your use cases.
- 2. Security: Experienced FHIR:** Vendors can integrate with your security platform and interface with OpenID Connect (OIDC) and OAuth products.
- 3. Data & Analytics:** Your vendor should be able to translate your incoming and outgoing data, convert Clinical Document Architecture (CDA) and consolidated CDA (C-CDA) and automatically ingest data from devices in near-real time. Translating data between SQL and FHIR is a must.
- 4. Clinical Decision Support (CDS) hooks:** CDS hooks are like automated shortcuts that help clinicians make real-time decisions. They must integrate between an EHR and external apps. They allow multiple stakeholders on different platforms to operate in near-real time.

Considering a FHIR vendor? Check their custom integrations with:

- ✓ Your Master Data Management (MDM)
- ✓ Your Enterprise Master Patient Index (EMPI)
- ✓ Your analytic platforms
- ✓ Your security
- ✓ OpenID Connect (OIDC), OAuth 2.0
- ✓ CDS hooks

Stay away from a vendor that:

- ✗ Supports some but not all FHIR resources
- ✗ Makes integration a hassle or prohibitively expensive
- ✗ Doesn't add new integrations as the market demands

4. Deep expertise in FHIR, Open Source and Government Policy







The most strategic vendors already anticipated the need for, and potential of, FHIR. In fact, they prepared the way for FHIR to standardize data and promote interoperability by creating and maintaining the FHIR standards that hundreds of thousands of people rely on today.

Executive leaders of the most experienced FHIR vendors participate in initiatives like Da Vinci, a collective of market leaders that “addresses the needs of the Value Based Care Community by leveraging the HL7 FHIR platform.” Da Vinci’s aim is to “help medical groups and health plans improve care quality, reduce hospital costs, and boost health outcomes” by “minimizing the development and implementation of one-off solutions between partners.”

Another sign of an experienced FHIR vendor is their promotion of the open source community and their commitment to add value to it. One way that FHIR vendors can add value to the FHIR community is by creating and maintaining implementation guides (IGs). A quick search for documentation on the FHIR vendor’s website should produce a long list that is continuously updated.

Finally, the most experienced vendors will be asked to advise government policy leaders, specifically at the Office of the National Coordinator for Health Information Technology (ONC). ONC’s goal is to implement and use the most advanced health information technology and the electronic exchange of health information. A seat on the ONC task force is like a vote for expertise, strategic thinking and commitment to improving healthcare interoperability.

Avoid vendors with these qualities:

-  Weak or non-existent contributions to FHIR IGs
-  Not committed to open source software or the FHIR community
-  FHIR is not a core competency, just an add-on
-  FHIR Has limited or out-of-date documentation
-  Reactive to government mandates instead of strategic
-  Not involved in government task forces or FHIR implementation boards

Why open source matters:





Openness is the foundation of innovation. And if anything needs speedy innovation, it’s healthcare. Lives can be saved when colleagues and competitors collaborate and honestly share ideas. As they say, “team work makes the dream work”—and our dream is to enable providers to deliver the very best care possible, anytime, anywhere.

5. Capable of facilitating future growth

The complicated world of healthcare data integration is improving incrementally year by year. Even so, it takes expert guidance to navigate the ever-changing rules, technology advancements and mandates. The FHIR vendor you choose should be a helpful guide from initial initiation to go-live. Not only should your selected vendor be ready to help you integrate at any stage, but they should be more than capable of facilitating your growth.

An excellent FHIR vendor will be one that you trust to help you make strategic decisions because they've been with FHIR from the beginning.

Avoid a FHIR vendor with a culture that is:



-  Closed mindset, not interested in growth
-  Given mediocre, uninspiring or bad reviews from clients
-  Lacking future-focused educational content produced by their experts
-  Unwilling to adapt

Evaluate the Cost

After looking at all available options, some organizations may still consider building their own FHIR server, using open-source libraries such as [HAPI FHIR](#). Doing so is a time consuming undertaking with little to no outside support. While certainly possible, a Do It Yourself approach to developing a FHIR server means your organization will spend valuable time recreating systems, integrations and processes that already exist.

Additionally, most organizations will not have the depth of expertise in government policy required to make the most strategic decisions. In the end, a DIY approach will cost organizations more in time, resources and implementation.












Considering a FHIR vendor? Check their custom integrations with:

-  Openly available documentation
-  Customer support
-  Training materials
-  Customer communication in anticipation of new solutions
-  High ratings from unbiased sources

Choose a Strategic, Purpose Built Solution

The complicated world of healthcare data integration is improving incrementally year by year. Even so, it's essential to choose a FHIR vendor that can meet evolving rules and position you for successful data exchange through FHIR. Many EHRs claim FHIR-readiness and new FHIR vendors promise compliance. Consider their overall vision for interoperability, inspect the depth of their integrations, and test the verity of their claims.

Be wary of a FHIR vendor who checks ANY of these boxes:

-  Only meets the minimum requirements year-to-year
-  Doesn't proactively add FHIR modules
-  Requires your IT and workflows to fit the way they work
-  Only allows or enables Facade or Repository, not both
-  Supports some but not all FHIR resources
-  Charges high fees for every new integration
-  Not committed to the open-source or FHIR community
-  FHIR is not their core competency
-  Documentation is limited
-  Not involved in government task forces
-  Mediocre, uninspiring, or bad reviews

Insist that your FHIR vendor is:

- **Future focused.** Not only are they aware and planning for the next regulation or technology, they are staying well ahead of the curve and actually moving the FHIR community forward.
- **Flexible and customizable.** They are built from the ground up to integrate with the keys of your enterprise architecture, and can customize and adapt to whatever IT system you have.
- **Offers feature rich integrations.** They do not limit you, but offer integration solutions you can implement however you want, on whatever type of server you use such as AWS, Azure, cloud or on-prem, etc.
- **Holds deep expertise in FHIR, Open Source and Government Policy.** Not only do they know and understand what is coming next, they are advising those who create the rules.
- **Capable of facilitating future growth.** Your organization will not be held back by integration limitations, but can realize new opportunities made possible by better integrations, such as HEDIS scores or STAR ratings.

Choosing the right FHIR vendor makes it possible to:

- ✓ Meet and prepare for compliance
- ✓ Improve HEDIS scores
- ✓ Unify and integrate systems
- ✓ Increase clinician efficiency
- ✓ Reduce system complexity
- ✓ Accelerate revenue cycles
- ✓ Improve patient outcomes
- ✓ Integrate insights to power future innovation

Save this checklist for when you investigate your future FHIR vendor. It can help guide and explain your research process so you can gain faster buy-in from the right people. And remember, it's not always the biggest, flashiest company who will give you the best product. Often, it's the little guys who will surprise you!

Speak with a Smile Digital Health representative to explore the benefits of our data and integration platform and if it's the right FHIR solution for your organization. [Contact us](#) today.

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