

FHIRBlocks Consent4HealthSM Solution Brief

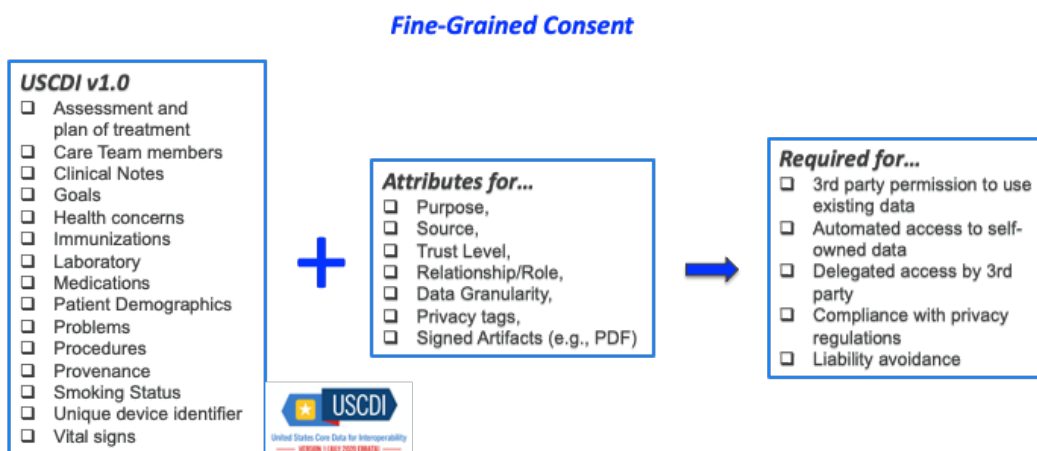
As digital health transforms health care delivery, *operator custodians* of consumer EHI (electronic health information) face a “perfect storm.” On the one hand, patients’ expectation of access and control coupled with federal mandates for increased sharing and interoperability are driving exposure of EHI via FHIR APIs. On the other, any missteps by data “custodians” may lead to customer churn, data breaches, penalties for non-compliance or information blocking, and even brand damage. Conventional identity and consent solutions, at best, bring complexity and cost to support minimally compliant use cases; and, at worst, they will be unable to support the explosion of consumer-empowering web services commonplace in other industries.

While FHIR delivers significant interoperability advances, the “custodians” of a patient’s EHI (providers, payers, pharma, life sciences and more) now face another daunting challenge: **how to empower patients with fingertip, fine-grained consent controls over EHI access and their sharing choices**; and, do it with a delightful user experience, all while respecting privacy. After all, EHI data-custodians only manage the data – but patients own it and should call the shots!

What is Fine-Grained Consent Management?

Fine-grained consent management (FGCM) has always been a precursor to any patient’s right to access and share their health data. Hospital information management experts have faithfully managed complex release-of-information (ROI) workflows and systems for years – to ensure overall security and a patient’s right to privacy while enabling their access and sharing choices over health information with family, attorneys, employers, providers, and others.

FHIR driven data-interoperability raises the bar. Data definitions such as USCDI (v 1.0, 2.0, ...) now set standards on what EHI is exposed; but, fine-grained consent management still lags, frustrating patients by forcing them to over-share data and threatening their privacy with little to no ability to recall or update their consent intentions. In fact, **true patient-centric digital health transformation is impossible without a solution for fine-grained consent management.**



From the EHI operator custodian’s perspective (Providers, Payers, etc.), the pressure is now on to meet ONC’s 21st Century Cures Act mandates for compliance, while the technical complexity of what to do ratchets up. Following close behind is a wave of consumer-oriented privacy regulations (GDPR, CCPA, etc.) that will further elevate the need for healthcare data custodians to capture, manage and prove compliance with patient directed intent.

Patient Centric - A Better Approach

Conventional solutions to patient consent to EHI access and sharing typically use established centralized Identity *authentication* and *authorization* standards such as OAuth2/OIDC, plus emerging methods such as UMA2. While these approaches are well understood, they’re complex in their design, costly to implement and inadequate to the “fine-grained” objectives alluded to above. More challenging, because data solutions, and specifically FHIR implementations, vary widely between organizations, conventional solutions cannot provide a simple and consistent *patient-centric user experience* that consumers expect. Further, as more and more EHI is exposed, the risk and likelihood of data breach increases.

Use Cases Provide Measurable Business Value

- ❑ Automated Fine-Grained Consent and Document Submission
 - Digital Automation of traditional Medical Forms
 - Release of Information (ROI)
 - Break the Glass
 - Dynamic form creation (SMS Text, Operations workflows, PoA, Directives)
- ❑ Automated Fine-Grained Consent and Access
 - Patient to 3rd Party Mobile App Consent and EHI Sharing
 - Patient to 3rd Party Organization Consent and EHI Sharing (Distributed Care Teams, Research, Clinical Trials)
- ❑ Expanded Consent Management
 - Patient to 3rd Party Organization Consent and Delegated EHI Access
 - Patient to Trusted 3rd Party Individual Consent and Delegated EHI Access
 - De-Identified Patient Data Donation/CRO Apps
 - Patient COVID-19 Test Certification
 - Employee COVID Attestation

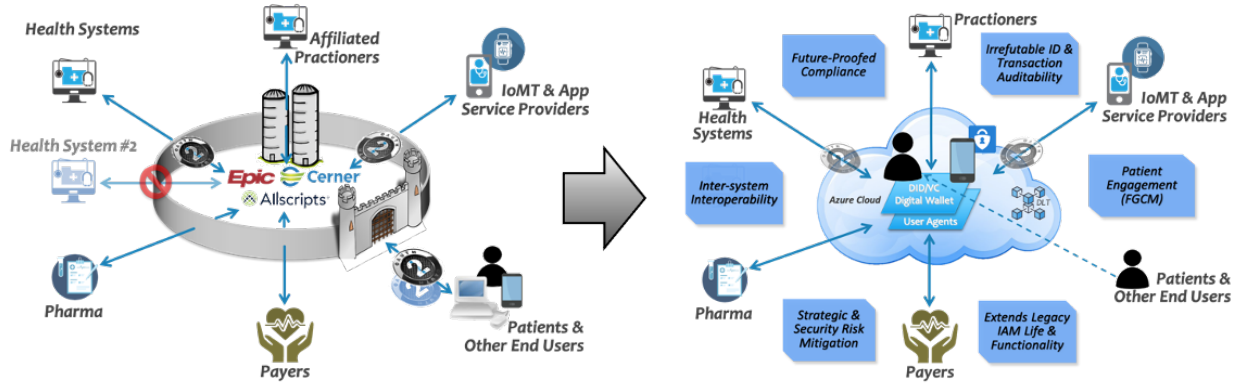
Emerging decentralized solutions represent a much better path forward. Standards based decentralized identity, distributed ledger/ blockchain, and cryptography are now viable options to give healthcare consumers what they want, software developers what they need, and reduce the risks and costs that burden providers, payers and life-

science organizations. Decentralized solutions provide a way to ensure that consumer driven EHI data is easily accessed, securely shared, and is “liquid” between parties – all while trust is portable and persistent among *all* actors.

A Better Approach to Inter-System Interoperability and Consent Management

In partnership with Microsoft, and built on the Azure Cloud for Healthcare, FHIRBlocks has launched an innovative solution called Consent4Health that is built for and upon FHIR, Decentralized Identity, Cryptography, and Fine-Grained Consent Management. Consent4Health dramatically reduces the process friction of both intra and inter-organization consent and data sharing, freeing data-custodians from the risks and burdens of managing EHI on behalf of patients, accelerating 3rd party data access, and pivoting to put the patient back in control.

Consent4Health extends current investments in identity and access management, reduces organizational dependence on high-friction centrally controlled solutions and places the patient (consumer) in control. This reversal of data custodian roles materially reduces much of regulatory friction that attends conventional centralized approaches.



Patient control removes traditional data friction

Benefits for Healthcare Consumers and Organizations that Serve Them

FHIRBlocks Consent4Health delivers advantages to all actors in digital health transformation – driving stronger patient access and engagement, smoother care delivery across digital channels, better compliance, privacy and security, and faster developer productivity and creativity.

Patients	EHI Operators <i>Providers, Payers, Pharma, Life-sciences</i>	Developers
<ul style="list-style-type: none"> <input type="checkbox"/> Control & visibility over EHI sharing <input type="checkbox"/> Prevent EHI oversharing <input type="checkbox"/> Delightful mobile UX <input type="checkbox"/> Patient directed interoperability <input type="checkbox"/> Increased security <input type="checkbox"/> Respect for privacy 	<ul style="list-style-type: none"> <input type="checkbox"/> Eases regulatory compliance burden <input type="checkbox"/> Empowers interoperability <input type="checkbox"/> More secure <input type="checkbox"/> Delight the customer <input type="checkbox"/> Immutable provenance and audit <input type="checkbox"/> Lower cost and complexity <input type="checkbox"/> Speed digital transformation 	<ul style="list-style-type: none"> <input type="checkbox"/> Available Consent APIs <input type="checkbox"/> Speed development <input type="checkbox"/> Better customer UX <input type="checkbox"/> Open up new markets <input type="checkbox"/> Lower EHI handling risk <input type="checkbox"/> Enable innovation

Call to Action

For more information about FHIRBlocks and Consent4Health, please contact sales@fhirblocks.com.