HC-SIG - Patient Subgroup

Mission

The mission of this group is to focus on problems related to healthcare patients and to facilitate understanding and adoption of distributed ledger technologies within healthcare payer industry by identifying specific opportunities where the application of blockchain technologies can be meaningful.

- Identify specific opportunities where the application of blockchain technologies can advance the state of the healthcare industry
- Provide a foundation for real world use case identification, blockchain technology alignment, and operational validation of technology fit for purpose
- Provide recommendations for the ethical use and implications of blockchain technologies
- Promote the community education of, and participation in blockchain technologies, policies, and protocols
- Serve as an open channel of communications between the membership of this Special Interest Group and the leadership of Hyperledger to inform leadership on prospective improvements of Hyperledger frameworks and toolsets, within the context of the healthcare industry
- Motivate and support use of standards in patient data flow with the guidelines and frameworks

For more information, please refer to the group charter.

Resources

New to Hyperledger? You'll need a Linux Foundation ID (LFID) to edit our wiki pages and chat on Hyperledger channels. Here's how to get your LFID

Stay Informed. Get on our email list, and receive regular updates to HC-SIG meetings and events

Additional Resources:

- **HC-SIG Email List**
- **HC-SIG Chat Channel**
- **HC-SIG Wiki**
- **Hyperledger Events Calendar**
- **Github Projects**
- **Linux Foundation Antitrust Policy**

Scope

In Scope

The scope of the HC-SIG shall include:

- The identification, development, and promotion of use cases, pilots, proofs of concept (POCs), proofs of value (POVs), and in certain cases, minimum viable products (MVPs) to educate and demonstrate the value of applicable blockchain technologies solutions in healthcare. Some examples of in-scope capability areas include, but are not limited to:
    - Distributed patient trust tools using self-sovereign identity (SSI)
    - Incentivization using tokenization and/or cryptocurrency technologies to encourage member participation within a blockchain technologies-enabled solution
    - Interoperability solutions using distributed ledger technologies (DLT) to interconnect with datasets longitudinally across disparate healthcare systems
- The identification, documentation, and promotion of blockchain technologies solutions best practices, as applied in a healthcare industry context
- The sharing of stories within and across membership boundaries: successes, failures, lessons learned, opportunities and challenges
- The identification of existing or needed common critical software components as they relate to blockchain solutions that would address the particular needs of the healthcare industry
- The identification and promotion of conferences or related social networking opportunities (e.g., speaking engagements) to gain experiences outside of this Special Interest Group
- The identification and promotion of healthcare industry and related challenges and competitions designed to convene team(s) internal to this Special Interest Group for the purposes of driving focus and common purpose to a goal(s) recognized as beneficial to the whole of the Special Interest Group
- The education of both membership and the community on blockchain technologies, policies, and protocols as they relate to the healthcare industry

The HC-SIG may form subgroups or task forces to support, emphasize, or promote any of those items listed above.

Out Of Scope

The scope of the HC-SIG shall exclude:

- The development and/or implementation of any production-ready system or service, as the resource needs for robust production-level integration and testing are out of scope of this Special Interest Group

- The development and/or promotion of a Special Interest Group solution that utilizes, or otherwise relies upon, intellectual property (IP) that cannot be shared under the licensing provisions as defined under the default Hyperledger open source license, the Apache License, Version 2.0 (https://www.apache.org/licenses/LICENSE-2.0)
- The development and/or promotion of a Special Interest Group solution that generally falls outside of the domain of the healthcare industry. Note that a solution may be appropriately developed in-scope such that it can be utilized in the healthcare industry, as well as in other non-healthcare domains

Meetings

All Hyperledger meetings are run covered by the following Antitrust Policy.

Next meeting: Oct. 12th, 2020 - Meets every other week.

Time: Every other Monday from 0700 to 0800 Pacific Time

Online meeting URL	**https://zoom.us/j/5184947650?pwd=UE90WHhEaHRqOGEyMkV3cldKa2d2dz09**	**(Meeting ID : 518 494 7650)**
Passcode:	475869	
iPhone (one-tap)	+16465588656,,4034983298#	+16699006833,, 4034983298#
Phone numbers (USA)	+1(646)558-8656	+1(669)900-6833
Toll-free numbers (USA)	+1(855)880-1246	+1(877)369-0926

Meeting Agendas

We meet every other Monday at 3:00 pm GMT / 7:00 am PST, you can find the meetings in the Calendar of Public Meetings under the label Hyperledger Healthcare WG: Patient/Member Subgroup #patient-member-subgroup.

Meeting Notes

Please refer to the meeting pages and the Meeting Index Page.

Ongoing Work

Hyperledger Platforms for Patient Data Sharing Consent and Monitoring in Clinical Trials

Clinical trials are costly, complicated, and take a long time to complete which in turn increases the costs of new medicines and medical devices. Patient recruitment and monitoring is a delicate matter as the number of patients that must be studied to disprove the null hypothesis may increase dramatically when considering different classes of patients (based on genetics, physiology). Type II errors may lead to a useful drug, device, or procedure, which could have benefited some classes of patients, to be lost to further development. Access to past medical history is especially critical for the implementation of clinical trials to determine the inclusion/exclusion status of a patient. Monitoring and ensuring the integrity of data within the clinical trial process is currently not adequately addressed in current research systems. We propose a blockchain-based platform to make data collected in the clinical trial process immutable, traceable, and potentially make the process more trustworthy. We integrate different steps into the platform, starting incrementally with small tasks, such as electronic informed consent, secure flows of sensitive data on the cloud with rules and governance using the Hyperledger frameworks. Two Hyperledger frameworks, Sawtooth and Fabric, are used to develop two equivalent platforms, allowing the comparison of each for the use case of patient data sharing and monitoring in clinical trials.

Benefits to the Ecosystem

Two Hyperledger frameworks, Sawtooth and Fabric, are being used to develop two equivalent platforms, allowing the comparison of each for the use case of patient data sharing and monitoring in clinical trials.

Links to Ongoing Work

Links to Completed Work

Links to External Resources

Active Members

Name	Company
Deniz Coskun (Lead)	Project Manager and Solution Architect in Digitalization Implementations - Patient Data, EHR, GDPR, Implementation of Use Cases
Anil Srikantiah	Hyperledger Fabric Domain Expert
Alexander Zhovnuaty	Hyperledger Sawtooth Domain Expert
Ihor Zhuchenko	Clinical Trials Domain Expert