Solving Healthcare Pain Points with Blockchain

We highlight our current thinking on Blockchain applications in Healthcare and describe our development prototypes.
Research Snapshot – Applying Blockchain within Healthcare

Blockchain is uniquely suited to address specific pain points within today’s Healthcare industry. In this research snapshot, we highlight our current thinking as to where Blockchain (and uniquely only Blockchain) poses promise and we describe where we are currently developing working prototypes to share our Blockchain development experience with clients.

**Patient-centric control of medical records**

Have you ever wanted to look at your medical records? Can you easily access your medical history? Blockchain enables patients to securely access and transport their medical records among providers and across time. Blockchain-based medical records will give the patient ultimate ownership of their medical history and control of access.
We are currently working to build out basic components of Blockchain enabled electronic medical records. Our prototype can be used among insurers, hospitals, and doctors to empower individuals to control their personal medical records. In our blockchain-centric model, patients will be the primary control point for their medical data and they will grant access as needed to medical professionals – the entire “chain of control” will be managed by patients and their public key and thereby providing access to specific records, to specific providers, for specific periods of time.

**Reduce medical claims fraud**

The annual cost of healthcare claims fraud is in the billions⁴ and quite often the starting point for claims fraud is, unfortunately, identity theft of the patient⁵. Blockchain implementations can help combat this fraud through new approaches to identity management and by creating verifiable and immutable records that confirm a patient’s unique identity. Given Red Chalk Group’s extensive Blockchain work within financial services, we are applying lessons learned in identify management from banking (e.g., KYC/AML) to the realm of healthcare.

Our medical claims prototype is being designed to confirm identity and reduce fraudulent practices. This prototype combines a public blockchain with off-blockchain information storage⁶. The prototype allows patients to own their information, know the information being entered, and control who can read or add

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2. [https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/Downloads/fwa-factsheet.pdf](https://www.cms.gov/Medicare-Medicaid-Coordination/Fraud-Prevention/Medicaid-Integrity-Education/Downloads/fwa-factsheet.pdf)
3. Guy Zyskind, Alex Pentland MIT Media Lab, Nathan, Tel Aviv University, “Decentralizing Privacy: Using Blockchain to Protect Personal Data”
to their information. This combination of public blockchain verification and off-blockchain storage has the potential to significantly reduce fraud.

**Improve clinical trial efficiency and effectiveness**

Today, costs of clinical trials are at an all-time high\(^4\). The primary reasons for the elevated costs are the greater complexity of clinical procedures, finding and training staff, and site monitoring, or ensuring proper procedures and data management\(^5\). Our Blockchain prototype reverses the cost trend while maintaining thorough oversight of data.

For example, consider one aspect of cost increases – site monitoring. Through this Blockchain prototype, site monitoring can become more robust at lower costs. By granting site monitors read-only access to the cryptographically secure Blockchain, monitors can control data quality and ensure patient safety without necessarily having a full-time monitor on site. As some trials may have over 500 sites, this prototype approach can have a significant impact on costs.

**Moving forward with Blockchain implementations**

The healthcare industry is looking very closely at Blockchain and evaluating its potential to positively impact the industry. Regardless of your stage of Blockchain discovery, from Blockchain 101 to implementation, Red Chalk Group provides the advisory and technology development work you need to meet your goals. Stay tuned for more announcements in early 2017!


To arrange a discussion with our team and learn more about our client lab where you can access our Blockchain prototypes, please visit us at www.redchalk.com.

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Contact

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About Red Chalk Group’s Management Consulting Practice

Red Chalk Group is a premier, boutique strategic advisor to senior executives at leading, global organizations. We are routinely engaged to advise on strategic growth platforms, technology disruption, investment decisions, and business-related intellectual property matters.

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