EQUIDEUM™

HEALTH

Overview

The Need

Elevated Compute™

Enabling healthcare and life sciences organizations to leverage data at the edge

Elevated Compute™ is the core technology platform that powers Equideum Health's Data Integrity and Learning Networks (DILNs) that is built on next-generation innovations from Consensys®, Intel®, Microsoft® and other technology leaders.

As a society, we have reached the limits of massive Web2 data centralization approaches as a mechanism to continue value creation in healthcare and life sciences. Today's technology barriers include:

- Operational friction and poor interoperability between organizations

- Silos of incomplete, duplicative, non-normalized, and anonymized data that obstructs research and innovation and makes data sourcing difficult

- Low trust in Machine Learning algorithms due to ineffective or biased AI training models

- Fractured digital identities and limited views of patient health, causing duplicate services, complicating longitudinal care and causing breakdowns in care transitions

- Clunky, repetitive and unsecure online digital journeys and poor personalization

- An explosion in health data honeypots, escalating risks to privacy and security
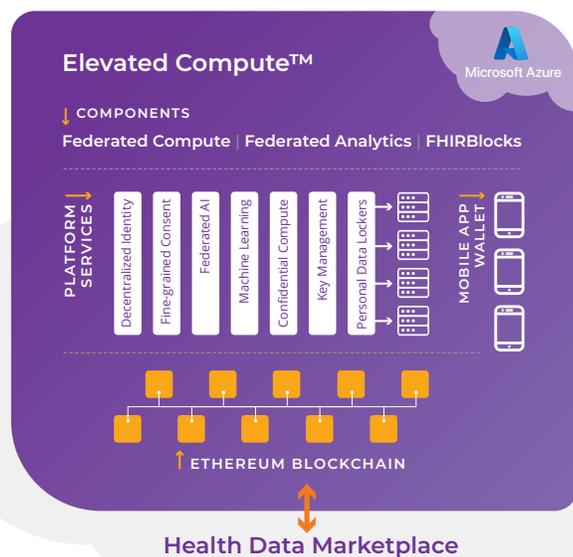
- "All-or-none" approaches to consent

These issues impede innovation while obstructing initiatives around person-centric care, precision medicine, digital therapeutic integration, Health Equity, Social Determinants of Health (SDOH) and Community Health.

Equideum Health's decentralized blockchain networks remove the long-standing technology and business model barriers to an equitable, person-centered, learning health system.

Elevated Compute™

Elevated Compute™ represents the first commercially available *combination* of converging technologies to target chronic, systemic healthcare and life sciences challenges. Using Web3 design standards, Elevated Compute is architected to keep data secure at the edge while empowering every person with personalized control over their digital health information.

Elevated Compute™

↓ **COMPONENTS**
Federated Compute | Federated Analytics | FHIRBlocks

PLATFORM SERVICES: Decentralized Identity | Fine-grained Consent | Federated AI | Machine Learning | Confidential Compute | Key Management | Personal Data Lockers

MOBILE APP WALLET

↑ ETHEREUM BLOCKCHAIN

Microsoft Azure

Health Data Marketplace

Core Elevated Compute™ Technology Elements

- **Hybridized Blockchain** | Allows smart contracts running on multiple interoperable blockchain protocols to provide secure automation across organizational boundaries. Quorum Blockchain Service (QBS), running in Azure, is a fully managed ledger service that gives enterprises the ability to grow and operate blockchain networks at scale. The service provides private sidechain networks bridged to Mainnet and leveraged for internal operations, DILN service offerings, and work automation.

- **Next-Gen Decentralized AI** | Federated Machine Learning and Federated Analytics that follows the transition of data gravity to the edge, avoiding data centralization and moving the AI model to the edge data.

- **Trusted Privacy-in-Depth** | Advanced Provable Privacy™ with trusted, verifiable and confidential computing. Based on Azure Confidential Computing, Intel Ice Lake, Azure Active Directory with Verifiable Credentials, and FHIRBlocks fine-grained consent and policy enforcement.

- **Mobile Application with Digital Wallet** | Users interact with their personal data locker and consent for use and compute. Exposed via APIs for integration with other applications.

- **Personal Data Locker** | A private, self-sovereign, cloud-based data storage vault for each individual. Data sourced from FHIR®/HL7 data feeds and other endpoints is owned, consolidated, consented and shared by the individual.

- **Health Data Marketplace** | Provides a secure and consented NFT data exchange facilitating discovery of data availability, monetization of data, and for use in training AI algorithms. Real-time discovery is via multi-party computation (MPC) privacy-preserving auction capabilities for data as a new, fully financialized asset class.

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Equideum Health creates next-gen person-centered healthcare and research networks to advance health equity and outcomes by optimizing data liquidity across enterprise and individual data silos, powered by Ethereum.

For more information or to request a follow-up, please visit us here ▶