Making Healthcare Affordable and Accessible with Mantle

Mantle is a product of BitDAO, a decentralized autonomous organization (DAO) launched by centralized exchange, ByBit, to support and empower builders in the crypto space

Enabling Features of Mantle to provide a secure and transparent healthcare delivery:

- **Data Transparency** : Availability of patient's medical records across different stakeholder through the secure Mantle blockchain network. The platform utilizes Ethereum and Mantle blockchain i.e. patients and organizations who place their data on the exchange will be able to control which consortium entities have permission to access information.
- **Data Uniformity** : Data is processed to make it uniform and stored in PACS (Picture Archiving Communication System) so that it can be utilized by different stakeholders on verified request. Also records are encrypted to avoid any tampering of the data over course of time.
- **Data Analytics** : With the help of computer aided detection and machine learning algorithms, data can be further used for analysis and early prediction, drug discovery and development.

Mante allows **hyper scalability** of the Ethereum network, leveraging roll-up technology and a decentralized data availability layer to increase efficiency and performance, all while reducing fees and latency. Building with an Ethereum roll-up technology also means that Mantle offers unparalleled security, all packaged in a familiar EVM environment for users and developers.

Impact of Using Mantle in Healthcare industry:

A greater and more seamless flow of information within a digital health care infrastructure, created by electronic health records (EHRs), encompasses and leverages digital progress and can transform the way care is delivered and compensated.
- EHRs help in improved **care coordination** using Mantle.
- EHRs help in making the health care ecosystem **proactive, accessible and authentic** using Mantle.
- EHRs with the help of computer aided detection will help in **early prediction and diagnosis of diseases**. Scaling using Mantle enables on-chain collaboration at a lower transaction costs.

Medical and Healthcare Data Availability: Mantle's Modular Data Availability is able to increase medical transaction throughput beyond incumbent L2 solutions, reducing processing requirements and increasing decentralization without compromising on security features.
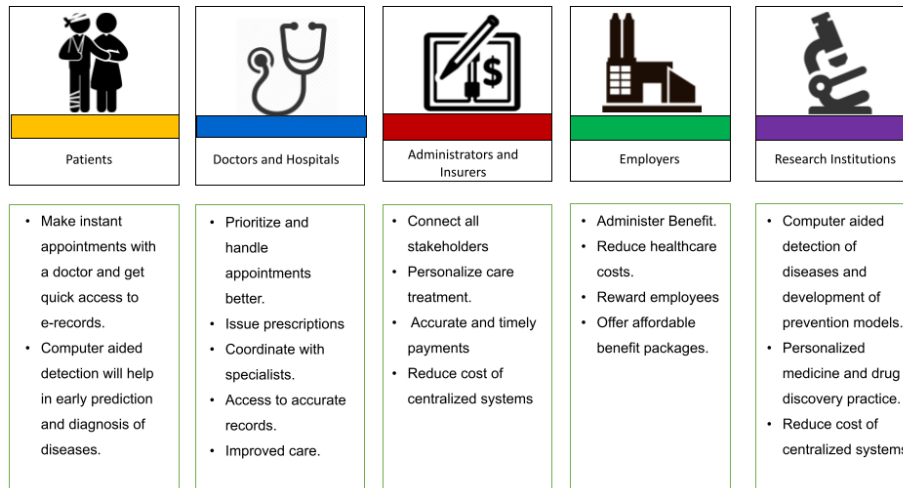
Multi-Party Computation (MPC): Mantle greatly reduces the trust risk of L2 execution results with MPC. With Threshold Signature Scheme (TSS) technology, the correctness of off-chain transaction execution results is vastly improved, lowering the challenge period for withdrawals.

Decentralized Sequencer: Mantle utilizes a Decentralized Sequencer to facilitate secure and

trustless block production, negating the issue of a single point of failure and censorship on the network.

Business Benefits on using Mantle for Healthcare Ecosystem

Business Benefits

Patients	Doctors and Hospitals	Administrators and Insurers	Employers	Research Institutions
• Make instant appointments with a doctor and get quick access to e-records. • Computer aided detection will help in early prediction and diagnosis of diseases.	• Prioritize and handle appointments better. • Issue prescriptions • Coordinate with specialists. • Access to accurate records. • Improved care.	• Connect all stakeholders • Personalize care treatment. • Accurate and timely payments • Reduce cost of centralized systems	• Administer Benefit. • Reduce healthcare costs. • Reward employees • Offer affordable benefit packages.	• Computer aided detection of diseases and development of prevention models. • Personalized medicine and drug discovery practice. • Reduce cost of centralized systems.

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Strategy for Cost Effective Development and Delivery of Mantle enabled Solution

A five-step approach to accomplish four objectives:

1. Provide wide reach at low cost (scalability).
2. Integrate mainstream system for sustainability

3. Address root causes of problems.
4. Enable effective transfer of knowledge and financial resources

Analyze Needs	Design "Software"	Build "Hardware"	Integrate & monitor	Expand hub
1. Respond to customer needs **Engage the community**	**2. Identify & implement appropriate solution for EHR as a Service**	**3. Identify trusted partners, collaborate with hospitals**	**4. Define appropriate management & governance structure**	**5. Leverage resources for greater & sustainable impact**
▪ Analysis of local situation ▪ Trust building and commitment * Peer Review * Mentorship * Pilot based Learning	▪ Scalable model to multiply impact in surrounding areas ▪ Address root causes of problem ▪ Integration to mainstream system for sustainability	▪ Identify partner with proven record for effectiveness and efficiency ▪ Alignment of objectives * Affordable healthcare * Digital Solution * Sustainability * Localization	▪ Web3 Operations ▪ Partnership and teams *Culture of Innovation and Entrepreneurship *Peer to Peer Review, Feedback	▪ Attract quality collaborators ▪ Analyze and replicate success *Hub for mentorship and collaboration with interested partners *Outreach and development

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