MedX Protocol

Launch unstoppable medical apps

October 2, 2018

Medical Exchange Protocols Ltd

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Executive Summary

Problem: Limited access to affordable healthcare

- Limited supply of physicians drives up costs
- US physicians cost 5-20x more than international colleagues
- Strict guidelines for storage/transfer of health records precludes a centrally controlled global health market

Solution: A decentralized global market for healthcare

- MedX Protocol is a “bulletin board” connecting patients with physicians worldwide for medical care
- Patients have direct control over encounters and storage of health information—eliminating costly compliance burdens and freeing innovation

Co-Founders

James Todaro, MD

CEO

Moshe Praver, MD

COO

- Graduates from Columbia University, College of Physicians & Surgeons
- Bitcoin investors since 2013

Team and Advisors

Advisors

Timothy Enneking
(featured in Forbes, Bloomberg, Coindesk and CNBC)
Asa Marokus, MD
Matthew Hunter

Clinical Advisors

Dr. Arjun Dupati, Dr. Dhwani Mehta, Dr. Bryan Baillis

Management

Joseph Todaro (full-time)
Ryan Cody
John Todaro (full-time)

Developers

Brendan Asselstine (full-time)
Charles Bergeron (full-time)
Shane van Coller
Evan Roth

Cybersecurity

Paul Horvath

US Healthcare in 2018

Increasing expenses

- Health costs $3.3 Trillion annually (~50% global health market)

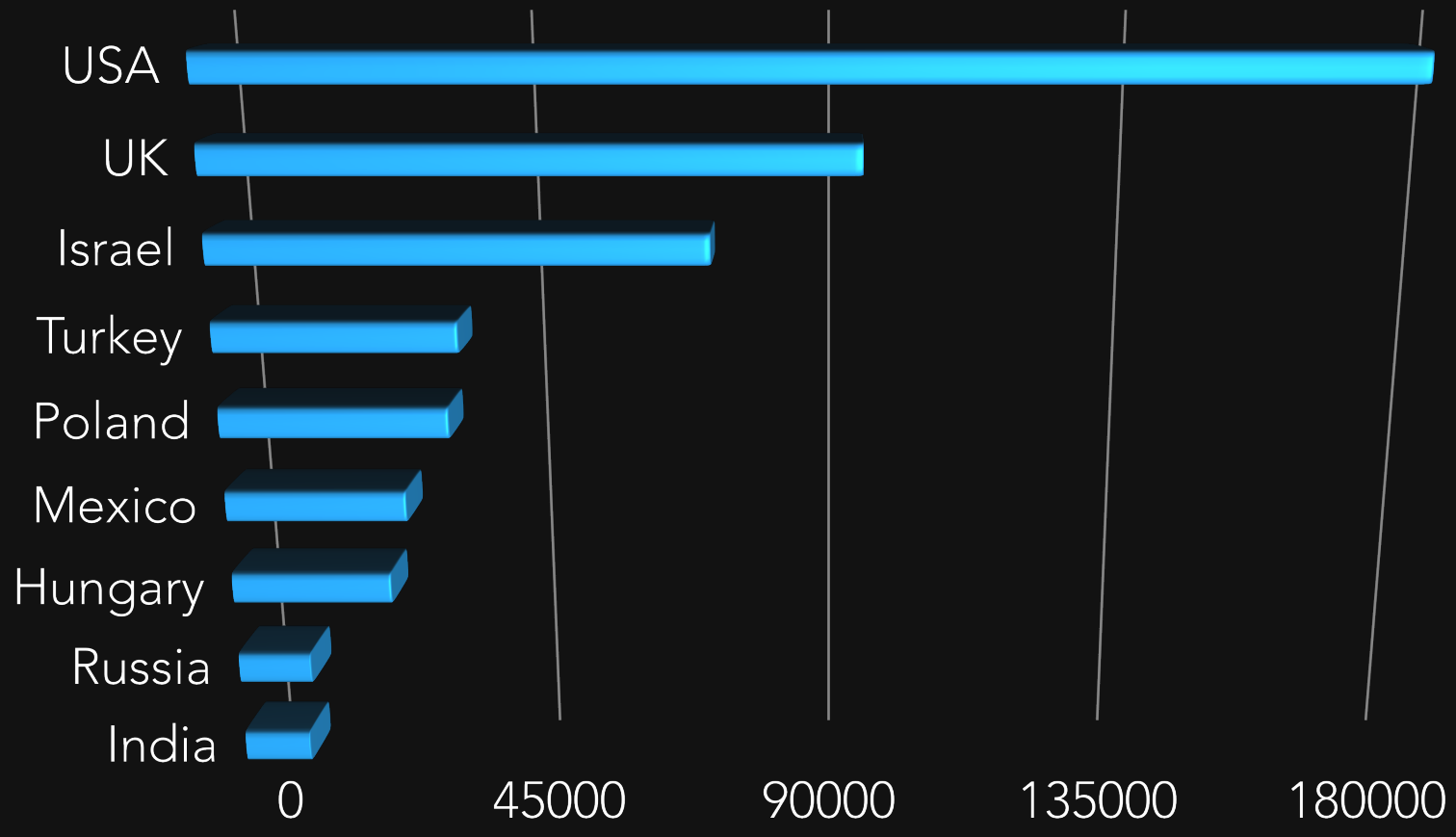
Intermediary fees exceed >$500B annually

- Health insurance companies
- Pharmacy Benefit Managers (PBMs)
- Public healthcare administration

Physician shortage in the USA

- Projected shortage of 149,000 physicians by 2020
- 28% of population without access to specialists
- Average wait to see a family practice physician is >30 days

Global Disparity in Physician Salaries (USD)



Current Solutions

Medical Tourism

- 1.7 million Americans travelled outside of the USA for medical care in 2017
- Savings can reach 90%
- Market size ~$75 billion today

Telemedicine

- Nearly 75% of in-office visits could be addressed via telemedicine
- Estimated to reach $200 billion market by 2025

What if there were a way to combine the benefits of medical tourism and telemedicine?

Hello MedX Protocol.

Healthcare Regulation in 2018

Patient health information (PHI) is regulated

- Strict guidelines for storage and transfer of health records (e.g. HIPAA, GPDR)
- Unclear guidelines on international transfer of health information
- Centralized companies that control PHI face costly and lengthy compliance burdens

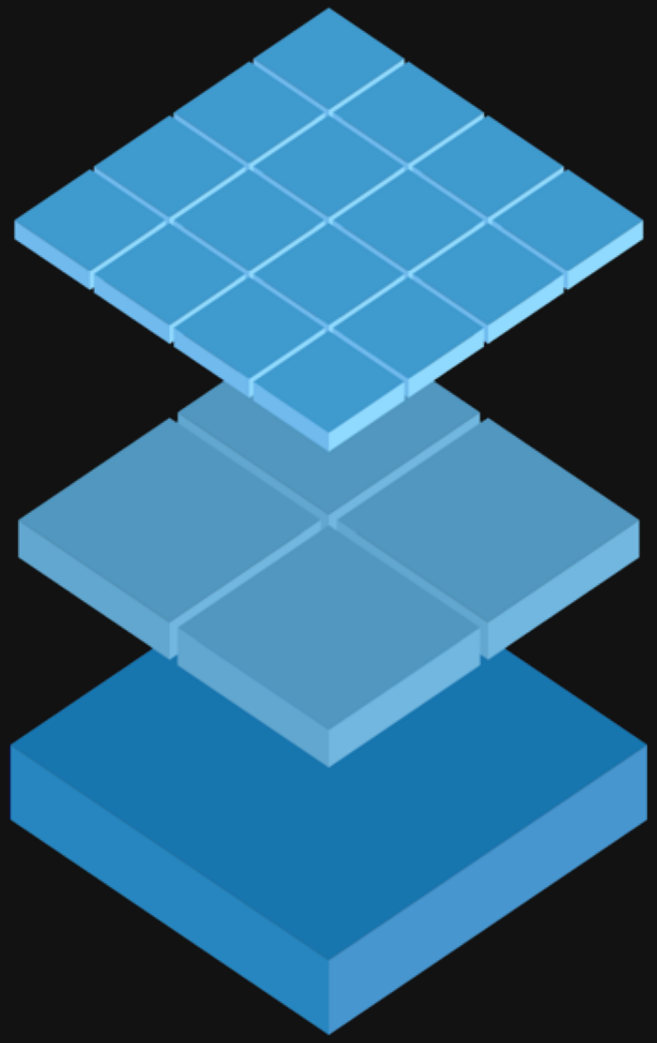
A “Bulletin Board” for Global Healthcare

MedX is a decentralized protocol for directly connecting patients with doctors worldwide for medical care

Patients legally free to share health records with anyone

- DApps on MedX Protocol do NOT control the storage or transfer of patient records
- MedX uses Ethereum and IPFS to give patients direct control over records and encounter
- Eliminates complex compliance burdens of storing records
- Reduces barrier-to-entry for innovative health applications

MedX Technology Stack



Application Layer

- Launch any healthcare app

Protocol Layer

- Global network of physicians

Blockchain Layer

- Ethereum

Protocol Layer: Token Curated Registry

James Todaro
CEO of MedCredits. Managing Partner of Blocktown Capital. Doctor.
Aug 20 · 5 min read

A Token Curated Registry for Occupational Licensing

What is a Token Curated Registry

- Token curated registries (TCRs) are decentrally maintained lists with economic incentives for token holders to judiciously curate the list's contents.

- All decentralized medical apps must access a decentralized physician registry

- MedX will be the first decentralized registry of physicians and is pioneering the way in the development of TCRs

Tokenomics of Physician Registry

Physicians

- Every physician stakes MEDX in a smart contract
- As the network grows with more dApps and patients, more physicians join the MedX Registry
- The increasing demand/decreasing supply of MEDX drives value

Verifying nodes

- All physician application fees and forfeited MEDX deposits are paid to verifiers
- Verifiers must stake MEDX in order to receive rewards
- The more MEDX staked, the greater the percentage of rewards

How does the MedX Registry Work?

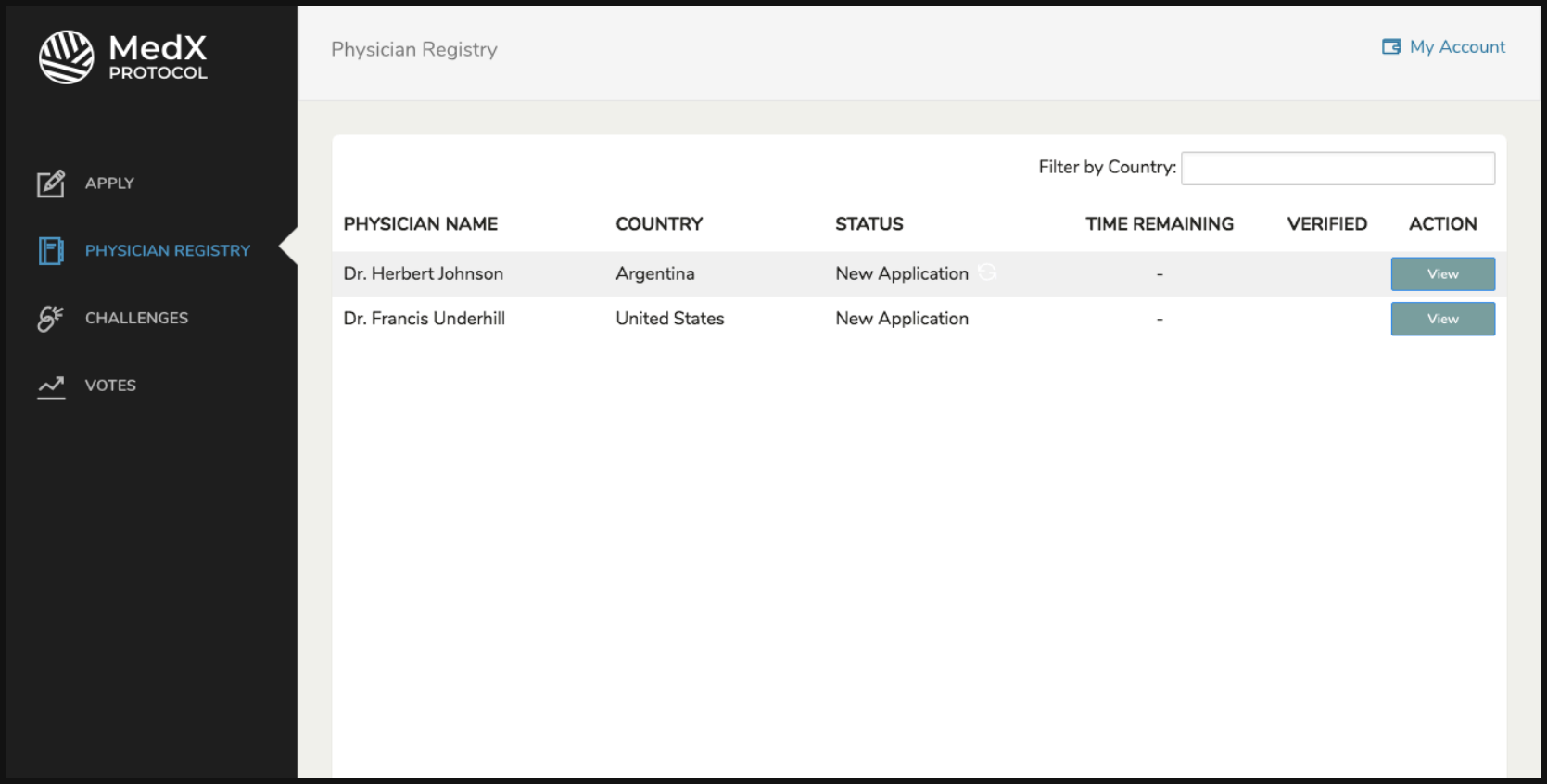
Physician application steps (all within app)

- Physician logs in with Civic
- Chooses a specialty & submits credentials (medical license #, provider identifier #, medical school & specialty)
- Submits application fee in ETH & deposit in MEDX

Verifying nodes

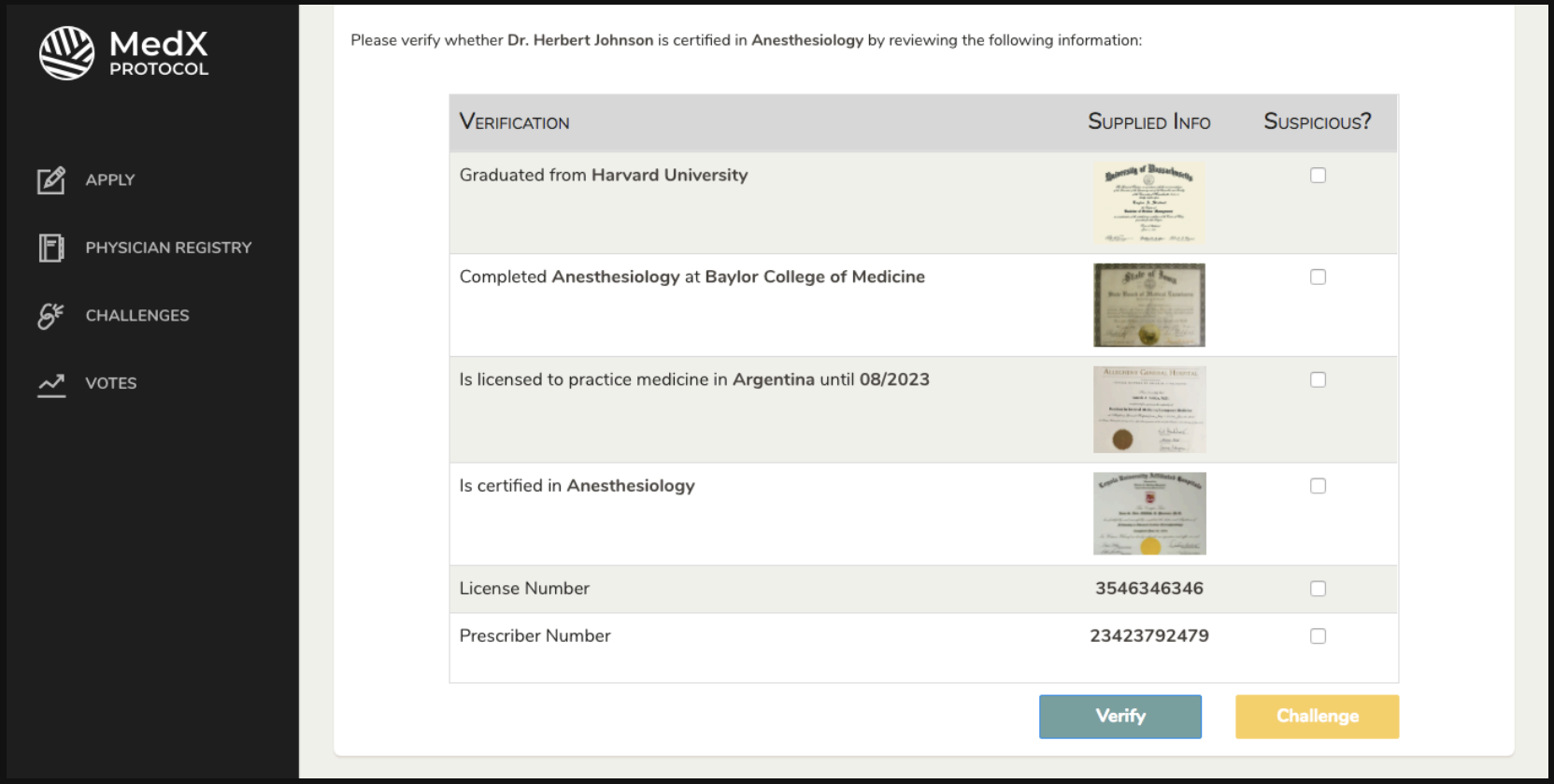
- Review and verify physician's credentials
- Must stake MEDX to earn rewards
- Rewards paid in ETH & MEDX proportionate to amount staked

MedX Registry User Interface



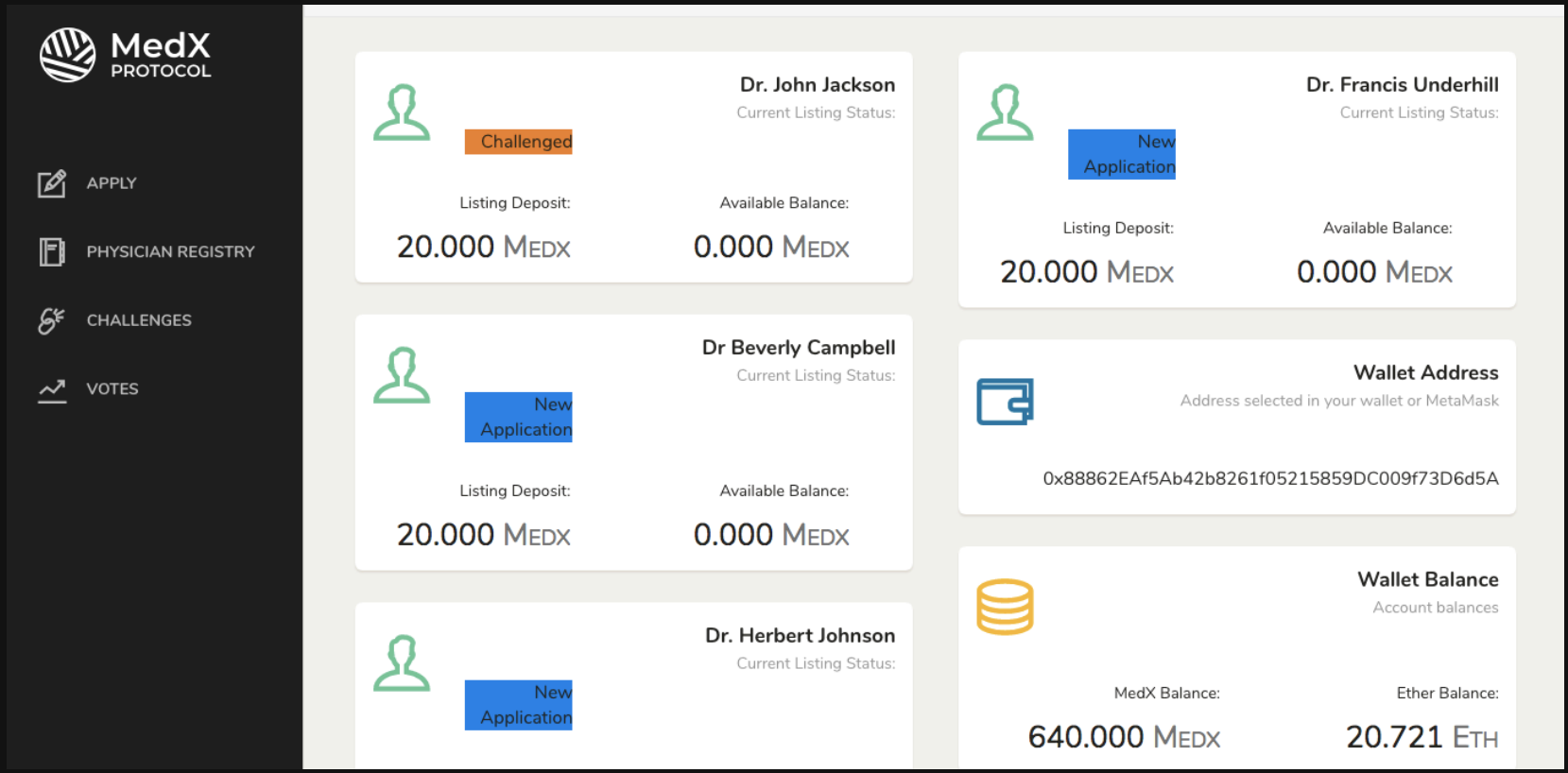
Verifiers review list of physicians

MedX Registry User Interface



Verifiers earn ETH & MEDX by reviewing physician credentials

MedX Registry User Interface



Clinic account and wallet

App Layer

OpenCare will be the first dApp launched
on the MedX Protocol

Connect patients to physicians and specialists worldwide

- Dermatology, ophthalmology, psychiatry, radiology, etc.

Reduces costs

- No compliance burdens
- No intermediaries (Ethereum smart contracts)
- No EHR system fees (files encrypted & stored in IPFS)
- Cross borders remotely to access a global pool of physicians

OpenCare

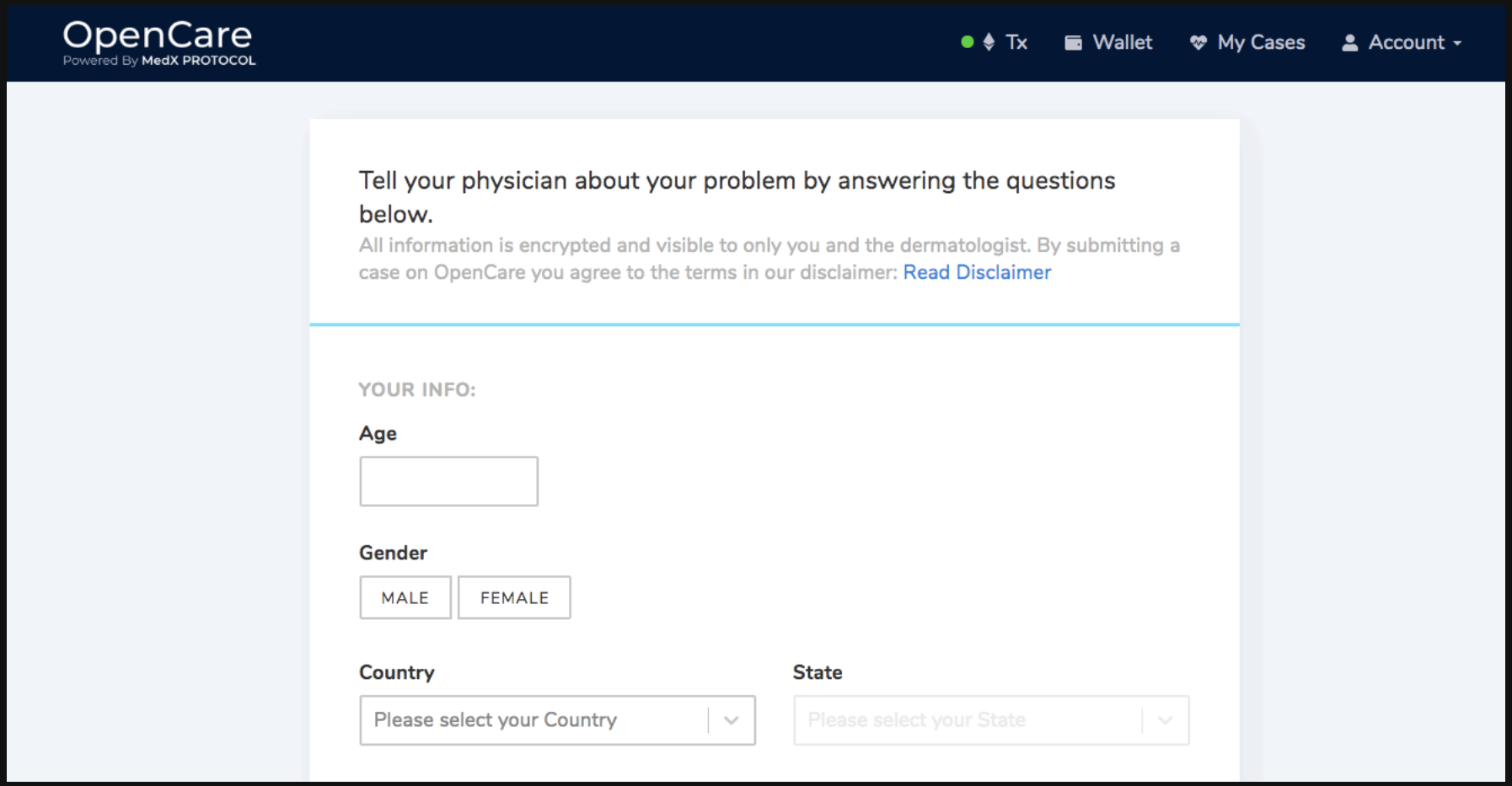
Front end

- Create an account (seed phrase & password)
- Snap a photo and enter details about your problem
- Submit your case and payment in ETH (pegged to USD price)
- Receive a medical diagnosis and recommendation in hours

Back end

- Client side data encryption
- Decentralized medical record storage on IPFS
- Ethereum blockchain query layer
- Patient-controlled private key exchange with physician
- Payment price fixed in USD using MakerDAO price feed

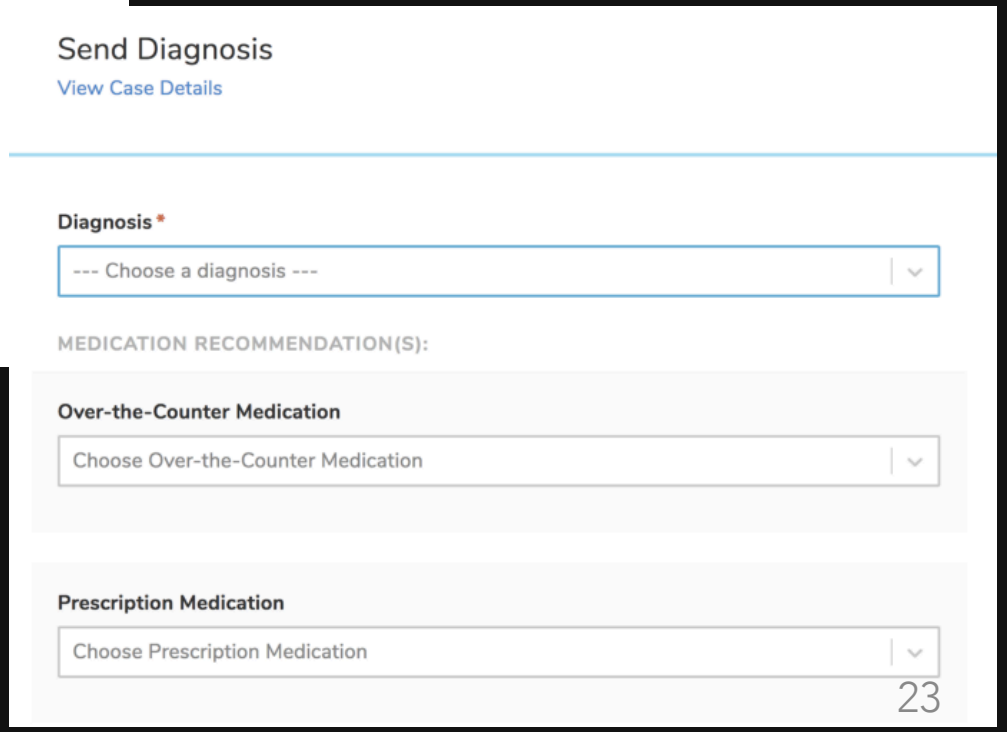
OpenCare Patient Interface



Snap photos and enter details about your skin ailment

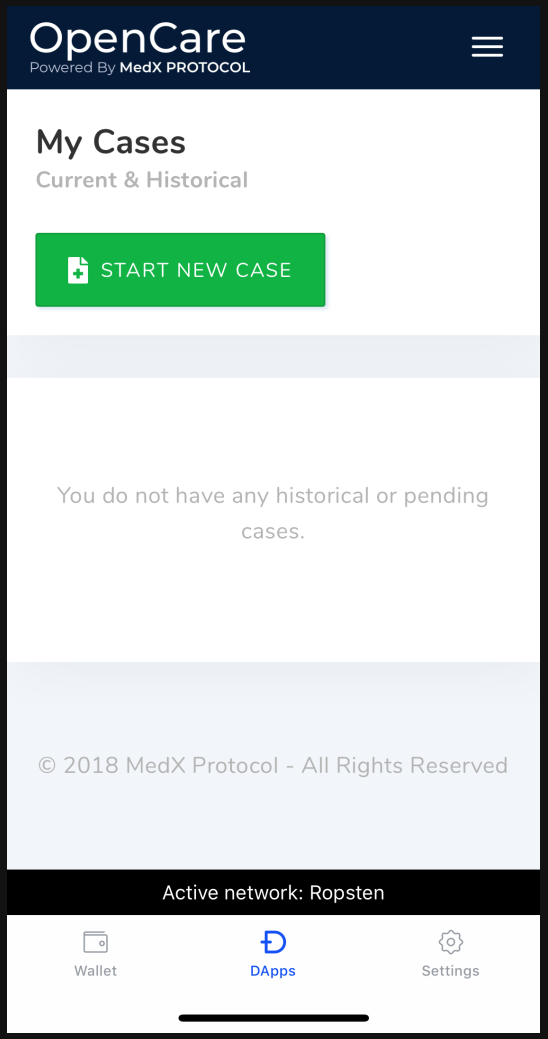
OpenCare Physician Interface

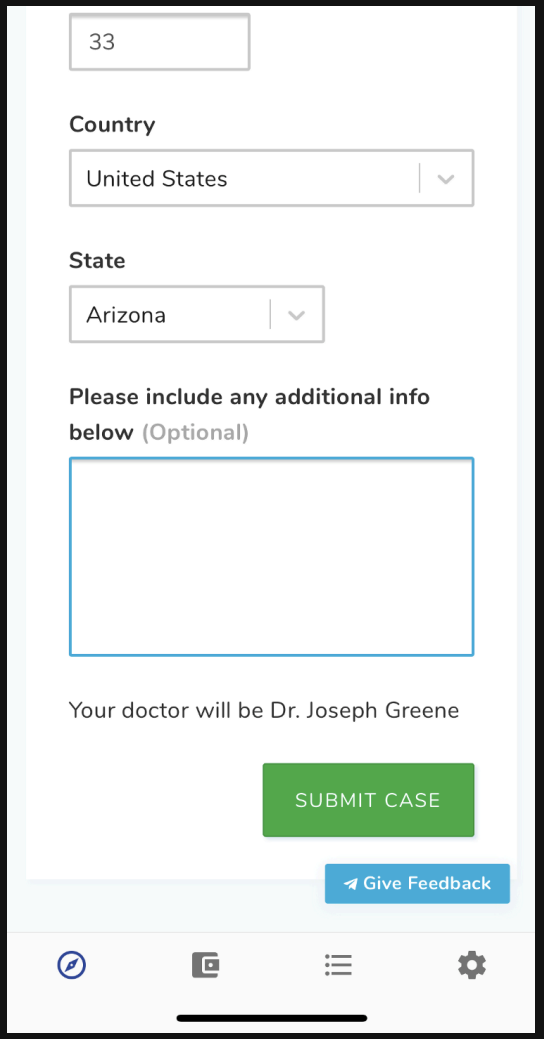
Login as a physician (credentialing addressed in physician registry layer)



Convenient drop down lists for submitting diagnoses and recommendations

OpenCare Patient Interface (Mobile)





How Does MedX Compare?

	Traditional	Centralized Telemedicine	**MedX**
Open Market	No	No	**Yes**
Global	No	No	**Yes**
Appointment wait time	30 days	0 - 24 hours	**Minutes**
Location	Doctor's office	Anywhere	**Anywhere**
Patient cost	$150	$50	**$10**

Fast and Affordable Care

MedX brings medical tourism to telemedicine

- Reduces global disparity in healthcare costs
- Gives patients instant access to care anywhere & anytime
- Physicians have instant exposure to a global pool of patients

The result is instant medical care for a fraction of the cost

- Patients receive a medical diagnosis & recommendation from a global network of physicians in minutes
- Physicians have greater autonomy and can augment salaries
- Expected cost of a diagnosis/recommendation is $10

Overall Market

Global healthcare market

Telemedicine market expected to reach $200B by the year 2025

Competitors

ZocDoc (leader)

- Centralized, online network of physicians (limited to USA only)
- 5 million monthly users
- Physicians charged >$3,000 annually to be listed on ZocDoc
- Estimated valuation is $2 billion

Other competitors

- DocASAP, DocPlanner, DocMeIn

No competitors allow a global market for healthcare

- Technology for a decentralized “bulletin board” for health services that gives patients autonomy over healthcare did not exist 2 years ago!

Go-to-Market

Partner with telemedicine companies to pilot dApp model

- Open source smart contracts and UI for easy trial

Physicians motivated to join the future of healthcare

- Join MedX Registry while the MEDX cost of admission is low

Earn ETH & MEDX by curating the physician registry

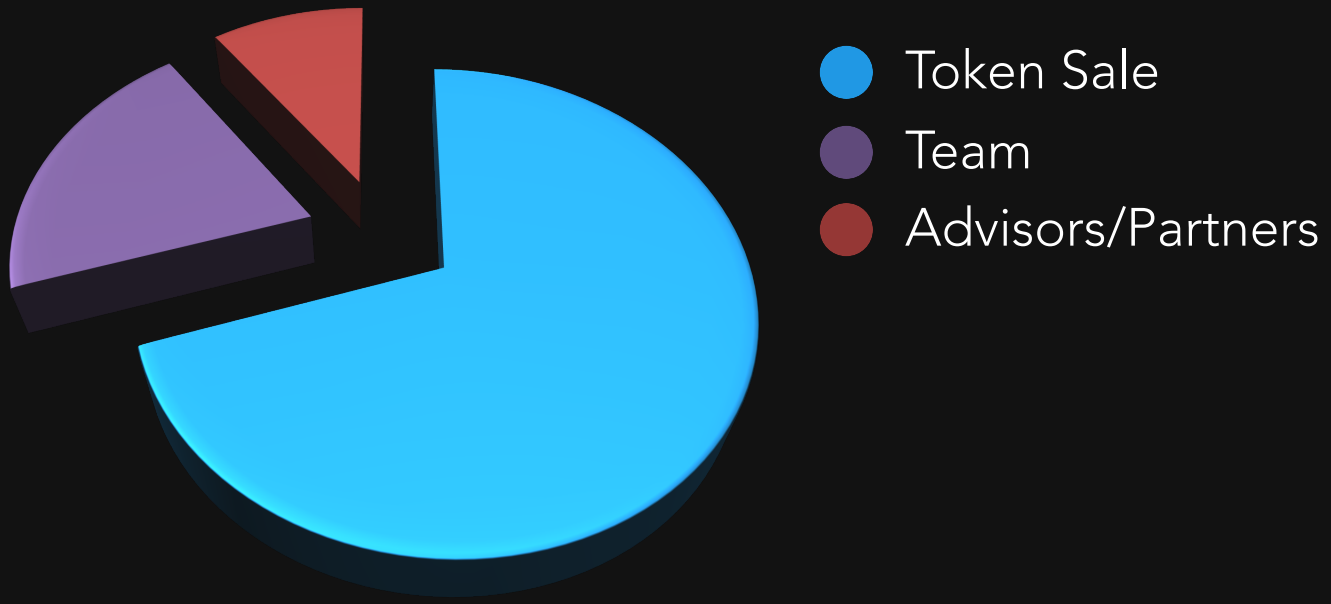
- Verifiers stake MEDX to earn profits by reviewing credentials

Free trial period on OpenCare

- MedX team pays physicians for services during trial period

MEDX Token

- ERC20 token
- Fixed cap of 100M MEDX
- 70M available to be sold
- 30M held by team and advisors/partners



MEDX Token Sale

Supply of MEDX

- Fixed cap of 100M MEDX tokens
- 70M allocated for multiple rounds of token sales
- Team's tokens and unsold tokens to be vested

Round 1: 20M MEDX tokens (20% of total)

- Soft cap 5 million USD
- Hard cap 10 million USD
- Average MEDX price = 0.50 USD

MEDX Token Sale

Proceeds from Round 1:

- Facilitate 3rd party development of dApps on MedX
- Steady release of MedX protocol upgrades
- Marketing to telemedicine companies, hospitals & clinics
- Physician recruitment

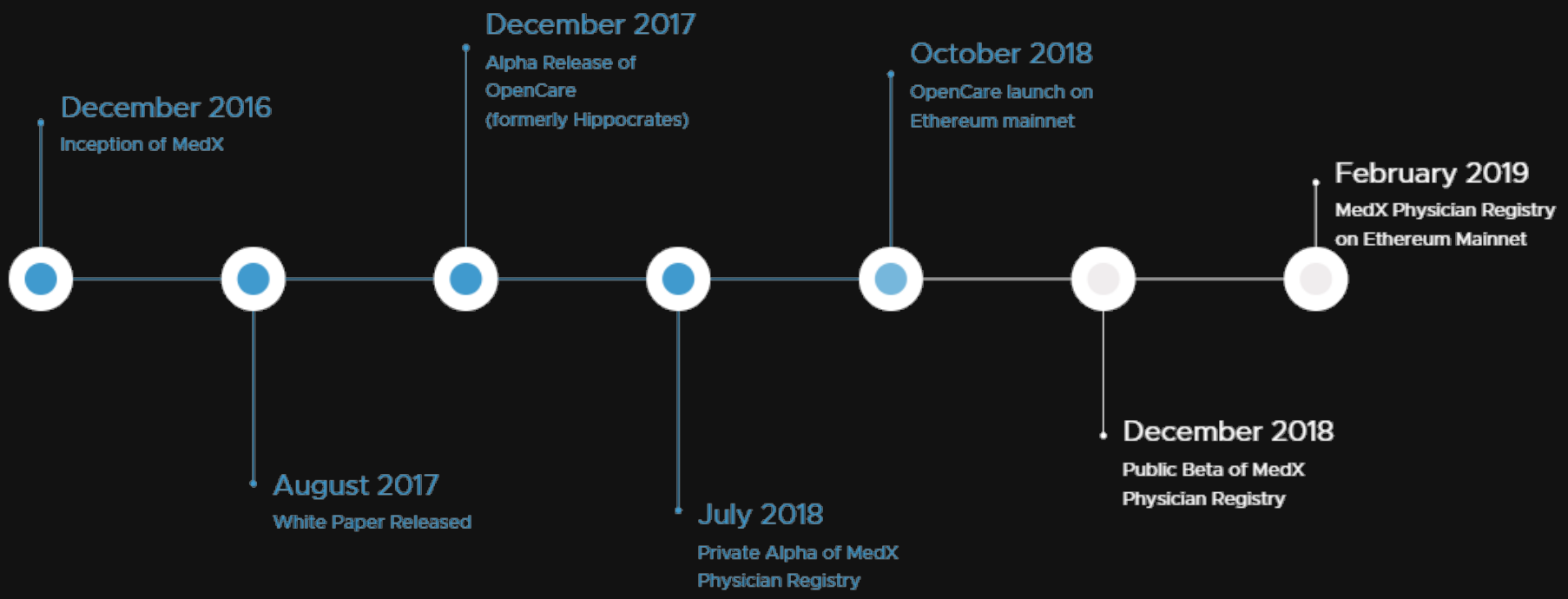
Future token sale rounds

- Occur after mainnet launch and continued adoption
- Remaining MEDX tokens vested

Please enquire regarding private MEDX sale

james@medxprotocol.com

Timeline


December 2016
Inception of MedX
August 2017
White Paper Released
December 2017
Alpha Release of
OpenCare
(formerly Hippocrates)
July 2018
Private Alpha of MedX
Physician Registry
October 2018
OpenCare launch on
Ethereum mainnet
December 2018
Public Beta of MedX
Physician Registry
February 2019
MedX Physician Registry
on Ethereum Mainnet

Partnerships

civic

CHETCUTI CAUCHI
ADVOCATES

PRODUCTIVE
EDGE

DCM

BLOCKCHAIN
COMPANIES

MAKER

Regulatory

- Holding company is Medical Exchange Protocols Ltd
- Headquarters in Malta
- Partnered with leading law firm in Malta
- Shareholders are the original five partners

Contact Us

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