wildfluke

Transforming how the world prevent, diagnose, monitor, and treat diseases.

Wildfluke fully decentralized organisation
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Wildfluke: A Fully Decentralised Healthcare System for a Different Generation.

We're ensuring 6 Billion People around the World have access to quality healthcare.
Let's go on this journey together.

Prepared by:
Team Wildfluke

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FIRSTLY

THANK YOU

FOR JOINING US!

The world's healthcare system is broken and there is the need to drive cost down and quality up, some have suggested different health care models like value based healthcare system, that provide incentives for positive outcomes and yet fall short in providing incentive for population health and preventive system, especially if long standing agreements are not in place.

Wildfluke is an opportunity to reimagined healthcare delivery from the ground up. An opportunity to bring the dream of a decentralized, uncontrolled, anonymous and public healthcare platform, that promises to attain equality, freedom, privacy and transparency in healthcare outcomes like access to medical professionals, facilities, insurance, drugs, quality care and cost.

Team Wildfluke

A Fully Distributed Autonomous Organisation

ABSTRACT

Wildfluke: A fully decentralised healthcare system for a different generation.

The biggest challenge in the world healthcare delivery system is that of managing the ever-increasing cost and the declining access to quality healthcare services. While global healthcare spending is projected to increase to $18.28 trillion [3] and 84% of the total healthcare expenditure is currently spent in OECD countries. Hence leaving the bottom six (6) billion people with little or no access to quality health services, as their countries struggles to find the funding for her health sector.

The world's healthcare system is broken and there is the need to drive cost down and quality up, some have suggested different health care models like value based healthcare system, that provide incentives for positive outcomes and yet fall short in providing incentive for population health and preventive system, especially if long standing agreements are not in place.

Wildfluke is an opportunity to reimagined healthcare delivery from the ground up. An opportunity to bring the dream of a decentralized, uncontrolled, anonymous and public healthcare platform, that promises to attain equality (decentralized Peer to Peer), freedom, privacy and transparency in healthcare outcomes like access to medical professionals, facilities, insurance, drugs, quality and cost.

Protocols and applications are designed to be truly scalable to meet the demands of the everyone participating in it, by focusing on new ways to reduce the cost of health care while removing barriers to accessing care. Wildfluke explores alternative means of compensating healthcare providers and health infrastructure owners, without leaving extensive burden on the patient, this would be achieved by building a token or crypto currency ecosystem (Called WildCoin) around Wildfluke.

Wildfluke will reinvent the healthcare delivery sectors, by rethinking the business models from the ground up using the blockchain technology. Its will expand access to healthcare for all while significantly reducing the cost of care i.e. by reducing or eliminating bureaucracies. A blockchain base technology which can be scales globally in a truly distributed way that currently health care infrastructure (Hospitals, Medical professionals, Pharmacies) cannot.

Its expands health to include sustainable non- conventional practices like prevention, exercise, nutrition, population health and so on to reduce the overall cost of healthcare, as many research shows that getting a population's exercise and nutrition right is the best chance at reducing healthcare cost long term. A new health insurance protocol based on self-executing smart contracts will reduce the overhead cost of managing global healthcare insurance.

Wildfluke will support upgrades to the protocols, given it room to evolve into a healthcare platform that could accommodate global and local requirement. A seed protocol will be developed when the community reach a critical support level, a procedure for stakeholders to approve Improvement Proposal (IPs), including amendments to the voting procedure itself, will be put in place. The Banzhaf index for political power balance will be used to evaluate stakeholders voting rights to prevent community takeover by hostile coalition.

Familiarity with the blockchain and basic cryptography are assumed in the rest of this paper.

CONTENT

WHY WILDFLUKE

PATIENT EXPERIENCE

Over six (6) billion people around the World have little or no access to quality healthcare, the remaining population that have access to good healthcare system today, are faced with increasing cost and declining quality. Our healthcare system is broken, it requires new paradigm thinking to return to world back on the part of affordable high-quality healthcare going forward.

INTRODUCTION

General Overview

Background

Wildfluke is an open source initiative to rethink healthcare, it plans a distributed global infrastructure using available industry tools to manage development, deployment, quality control and continuous development. Wildfluke aims at helping the world leapfrog healthcare challenges by reimaging Healthcare using technology while rebuilding health infrastructure from the smallest protocol up to largest applications. We hope to achieve this by using technology to tackle the major challenges in the healthcare delivery system and thereby increasing the quality of healthcare for the bottom 6 billion people (and by extension everyone using the system).

The biggest challenge in healthcare delivery system for the bottom 6 billion is that of access to healthcare services, with 2.3 physicians per 1000 people in Africa (by far the lowest in the world) and 11 physicians per 1000 people in Eastern Mediterranean. The problem is further compounded by the fact the almost all the physicians are in urban areas leaving rural settlers almost completely with no access to health care services.

Health Indicators

Indicator	World	Africa	Eastern Mediterranean	Europe
Life Expectancy at birth 2009	68	54	66	75
Physicians per 1000 people, 2010	14.0	2.3	11.0	33.3
Under - 5 mortality per 1000 live births, 2011	51	107	58	13
Maternal mortality per 1000 live births, 2011	260	620	240	21
Source: WHO, UNICEF, "Eastern Mediterranean" includes North Africa except Algeria				

Table 1.1: Health indicators are different region of the world.

Secondly, access to healthcare was transactional and mainly between patient, hospital and physician. There was perceived lack of ownership by the patient as the system was setup to respond only to patient's queries and not patient outcome.

Wildfluke broadens the healthcare delivery space and use technology (Cloud, Blockchain, Cryptography, IOT and more) to optimally use the existing healthcare delivery resources and create a platform to pull resource from areas with surplus using tele-presences system (especially to areas of need like the rural areas). Today, there are lots of trained medical professionals not practicing because they reside outside their countries of thier training, which is a block of talent that could be unlocked and deployed to rural areas with telepresence systems.

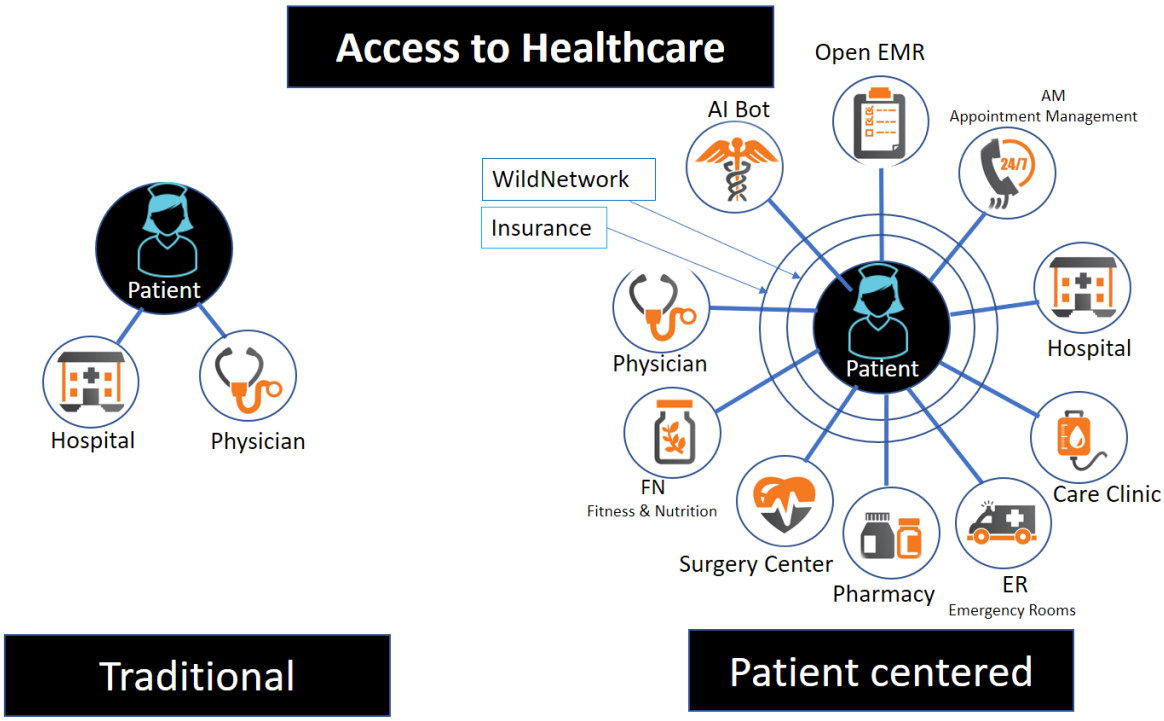


Figure 1: Showing the Wildfluke patient centric Healthcare access models versus traditional model

Mission

Wildfluke is committed to a decentralized, uncontrolled, anonymous and public healthcare platform that promises to attain Equality (decentralized Peer to Peer), Freedom, Privacy and Transparency in healthcare outcomes like access to medical professionals, facility, drugs, quality, cost and more.

To drive the adoption of decentralized healthcare by providing educational tools needed to encourage this medical paradigm shift.

To deliver smart medical insurance available globally without intermediaries, gate keepers or middle men that often increases the cost of care with little impact on overall quality.

PATIENT CENTERED
... MEDICAL SYSTEM

Wildfluke broadens the healthcare delivery space, using technology (Cloud, Blockchain, Cryptography, IOT and more) to optimally use the existing healthcare delivery resources and create a platform to pull resource from areas with surplus to areas of need, using tele-presences system (especially to areas of need like the rural areas).

AI Doctor

Artificial Intelligence will assist doctors to extends their services to more people while reducing cost significantly.

For example; a $1 medical diagnose will only be possible by an AI Doctor

Appointment Management

Truly global privacy free medical appointments that should allow seamless patient transfers globally.

Appointment Management will help optimize the medical resource available to all

Open EMR

Providing secure medical records which can be used for diagnosis by doctors or AI.

Enables access to medical records wherever you are in the world with opportunity for geographically separated doctors to collaboration

Fitness & Nutrition

Wellness and prevention represent the cheapest and best route to global health.

People will be able to earn Cryptocurrencies for engaging in fitness workout or good nutrition program

MAKING IT STAND OUT

WHAT ARE WE HERE FOR

To enusre that the patient community is be responsible for driving development and progress in a fully decentralised healthcare systems of the future.

WHAT WE FOCUS ON

REWARD HEALTHY LIFESTYLE

Wildfluke will enable people to earn Cryptocurrencies (WildCoin) for engaging in fitness workout or good nutrition program

REWARD PATIENT OUTCOMES

Stakeholders will be rewarded for patient outcomes rather than just the number of patient encounters or visits served.

POPULATION HEALTH

The primary focus of the decentralised healthcare system is to achieve population health and find new ways to rewards medical professional than just traditional fees.

Core Objectives

The future is about decentralisation that empowers the paying customer and clients, but for too long the healthcare industry has been centralist, government and provider driven, today there is a gradual shift toward a system that is patient centric. The patient community will be responsible for driving development and progress in the healthcare systems of the future.

Government, professional bodies, central authority, powerful institution and individuals will have to respond to the needs of the patients in the healthcare industry as it has been in virtually all other industries. Wildfluke provides the protocol and tools to support this shift in healthcare service delivery ecosystem.

Case for Change

Access to healthcare for the bottom six (6) billion is proven to be challenging and the quality of available care (where available) is usually low. One thing is clear, that is building conventional health care infrastructure will be by far too costly and impracticable, hence the need for change, new thinking and reimagining healthcare from the foundation up (protocol to applications)

Healthcare should not be a commodity available to only those that can afford it, it is not a question of income, it’s a human right. The current path for global healthcare is becoming increasing expensive and unfordable to the bottom 4 billion people. The cost of scaling quality healthcare services for these population (including building and equipping millions of hospitals, developing/training tens of millions of healthcare professional, drugs development and distribution, medical insurance cover) is simply not practicable. Hence the need for change and a new thinking in global health.

WHY CHANGE?

CASE FOR CHANGE

HEALTH 3.0 – HEALTHCARE REIMAGINED

THE CHALLENGE

Access to healthcare for the bottom six (6) billion is proven to be challenging and the quality of available care (where available) is usually low.

One thing is clear, that is building conventional health care infrastructure will be by far too costly and impracticable, hence the need for change, new thinking and reimagining healthcare from the foundation up (from the smallest protocol to the largest applications)

WHAT WE FOCUS ON

Research, Strategy and Planning. Developing a community of users and developers

Focused on Prevention and good user experience (UX) on the Web and in medical facilities

Reward desired behaviours like healthy living, physical activities and patient outcomes.

Fully distributed anonymous platform that is not owned by anyone

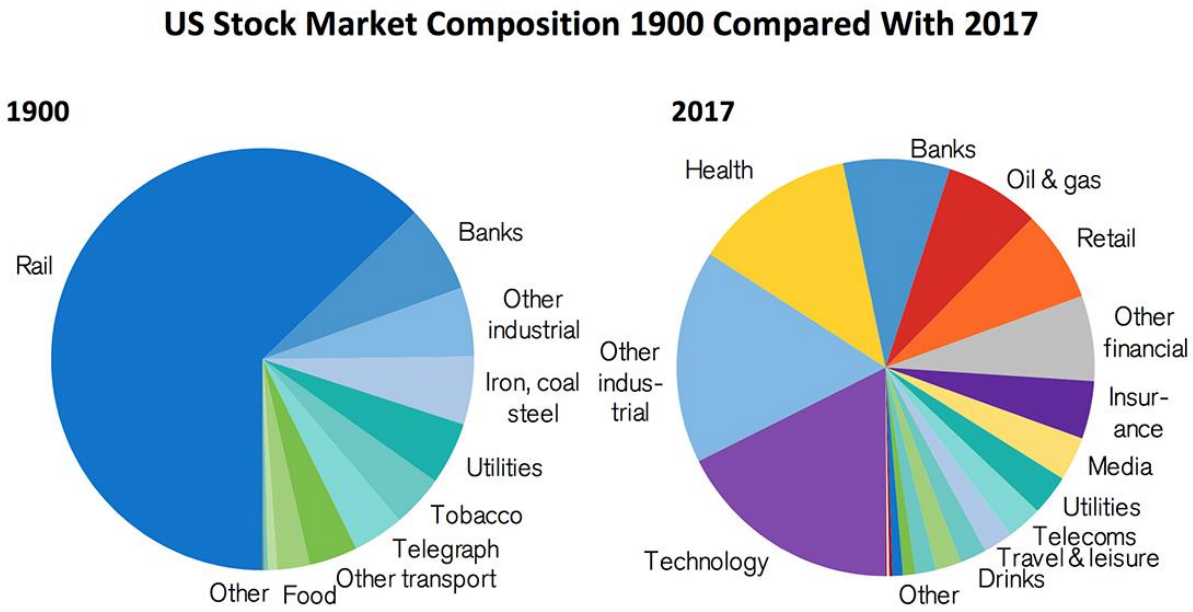


Figure 1.2: Shows Healthcare industry almost non-existing in 1900 but significant in 2017 in the US stocks market.

There has got to be an alternative to the current cost intensive model for example ecommerce show us that traditional brick and mortal shop are not the only way to do shopping. The world needs a disruption in healthcare, one that reduces the need for building mega hospital structures to a few distributed computer servers, while keeping a few specialist centres that manages accessibility with distributed booking system.

Health care cost continue to raise across the global while the system remains largely fragile (susceptible to collapse due to raise in the number of patient with disease conditions like diabetes making the potential cost of care for one disease more than the available funding.). Hence, the need to examine a different healthcare model and expand healthcare to include preventing disease conditions in population which currently receive only about 2% of health care funding.

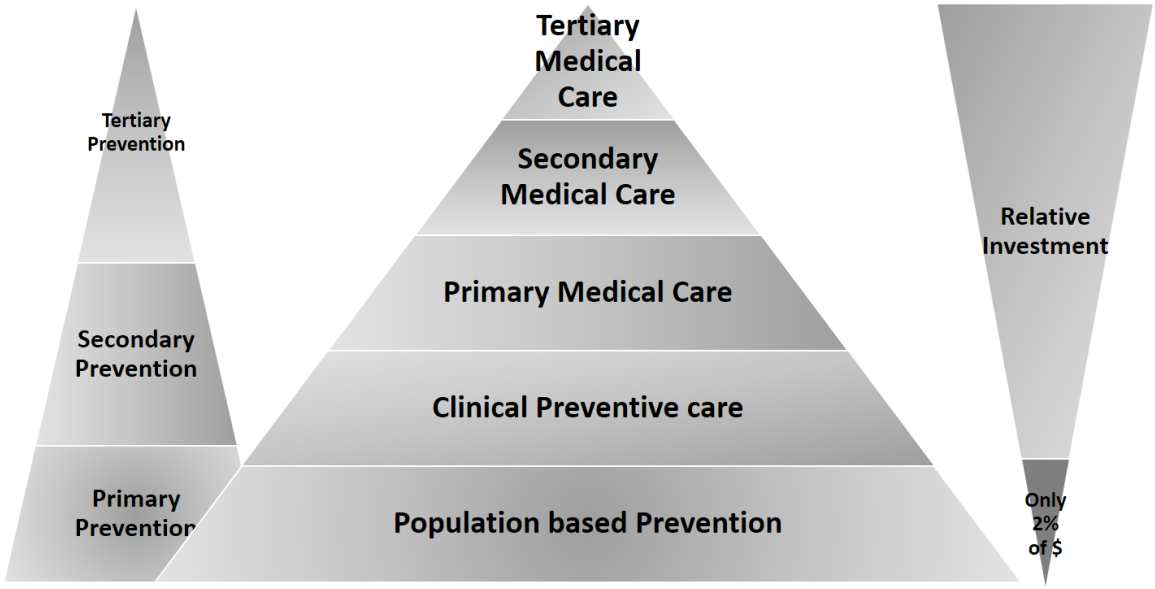


Figure 1.3: Prevention Triangles

Prevention represent the best medical expenditure as it is usually far cheaper to prevent disease conditions than manage them at the secondary and tertiary medical care facilities, but the world only spends about 2% in prevention. This holds the best chance of reducing healthcare cost and Wildfluke model will encourage population based prevention system to unlock the benefits.

DESIGNING HEALTH PROTOCOL FOR THE AI AGE

WILDFLUKE FOUNDATION

Wildfluke foundation is a non-profit foundation aimed at developing an open distributed protocol that enables a reimagined healthcare system on a global scale

Services are mid layer machine level methods that can be used to interact with the blockchain database either as a high-level application, AI bots or a medical equipment. For example, an IOT connected blood pressure monitor should be able to log reading directly into the blockchain, why a fitness machine is able to use that information to set your workout program just by interacting with these services, thereby creating a feedback system from diagnosis to lifestyle in real-time.

Backward integration of existing medical and fitness machines and equipment is a key goal, while exposing our API to the users' community and allowing community driven APIs are another of a Wildfluke Distributed Anonymous Organisation (DAO)

PROTOCOL

Overview

In contemporary world economy, achieving economic success in a world without or with little growth, has placed significant pressure on fait currency via instrument like quantitative easing, competitive devaluation, high debt to GDP ratio etc. as a direct result, financial systems are undergoing an unprecedented transition from centralized authority to decentralized networks, as we have witness with cryptocurrency development and adoption. Also, healthcare will witness similar changes and adjustment to remove, gate keepers and middle men from healthcare delivery making health care affordable, personalized and patient centric, as it becomes apparent that the world cannot scale conventional health infrastructure for all her people.

Wildfluke has three distinct sets of software/hardware infrastructure; Application, Services and Core. The core represents the fundamental base layer of the Wildfluke network, it could also be referred to as the Wildfluke protocol, which is essentially and distributed computing protocol like Hyper Text Transfer Protocol (HTTP), Transmission and Control Protocol / Internet Protocol (TCP/IP) and Universal Datagram Protocol (UDP) that requires a unique port to exchange data between computers using pre-defined data format (Head | Command | Data | Checksum). Every node would be able to evaluate the data for errors, correctness and so on.

Services are mid-layers machine level methods that can be used to interact with the blockchain database either as a high-level application, AI bots or a medical equipment. For example, an IOT connected blood pressure monitor should be able to log reading directly into the blockchain, why a fitness machine is able to use that information to set your workout program just by interacting with these services, thereby creating a feedback system from diagnosis to lifestyle in realtime.

Application layer is the human user interaction interface with the Wildfluke network. These applications are designed for use either by medical professional, policy makers, insurance agencies or the patient herself. Applications like distributed electronic medical records, appointment management systems are all examples of application that anyone including a third party could build for the community of users.

PROTOCOLS & SERVICES

ENCOUNTER & VISITS

The goal is to reduce the amount of time physician spent on documentation, leaving room for patient-physician interaction.

DRUGS & PRESCRIPTION

Supply and distribution of prescription drugs will be seamless from physician diagnosis to been in the hands of the patient.

BIODATA

Uses anonymization techniques in a peer-to-peer network to limit the back tracing of large group of people without prior authorization by same population

PREVENTION & POPULATION HEALTH

Wildfluke aims to develop AI system and connected devices that would increasingly perform real-time population analysis and diagnosis

DIAGNOSIS & TREATMENT

Wildfluke will support the tracking of all Diagnosis & treatments recommendation from all forms of encounter.

CONDITION MONITORING

Enables thousands of doctors monitor real time the medical conditions of new disease conditions, learning and collative making better decision in such scenarios.

PAYMENT

WildCoin (WDC) will be the medium of payment for service rendered on the WildNetwork like smart Insurance products or telemedicine

INSURANCE

Development of self-executing distributed global Health insurance (Smart Insurance), which could enable ultra-low premiums with greater benefits on a global scale.

INCENTIVE

Wildfluke provides the incentives for all stakeholders to provide their resources on the network. i.e. doctors provide skills, miners providing computing power or smart insurance from HMOs

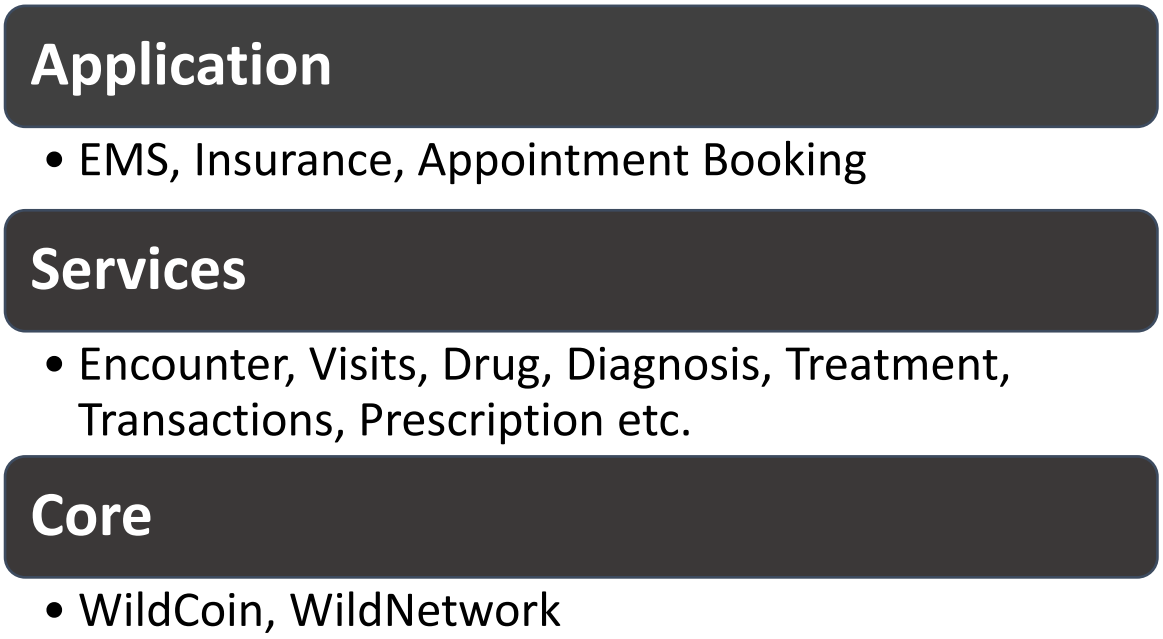


Figure 2.1: The Wildfluke Architecture layers

Wildfluke Foundation

Wildfluke foundation is a non-profit foundation aimed at developing an open distributed protocol that enables a reimagined healthcare system on a global scale. Membership would be open to interested participant to contribute to the design, development, testing, quality control, research and lot more.

The foundation purpose is to ensure the Wildfluke network is managed via Decentralized Autonomous Organizations (DAOs), which are comprised of virtual entities which many individual actors that respond per well-defined set of rules. This Wildfluke DAOs will be organised by a set of rules that establishes 'governance' and its like the corporate governance structure for ICOs built on smart contracts.

Foundation will also ensure that the Wildfluke digital institution functions as Douglass North (1991) describe an institution as a set of rules to lower uncertainties so we can connect and exchange all kinds of values, therefore our digital institution will be distributed software that enforces some sets of rules or algorithms.

Encounter & Visits

Medical Encounter and Visits are the basis entry points to access services from a provider whom could be a physician, nurse, AI bots or IOT wearable devices that is trackable on the Wildfluke network. These would be expended to include prevention and condition monitoring activities.

The goal will be to reduce the amount of time physician spent on documentation, leaving room from work patient-physician interaction. Wildfluke aims to develop AI system and connected devices that would increasingly perform the data entry task.

Drugs and Prescription management

Prescription or drug recommendations will be Privacy free and tied to a diagnosis or condition to be monitored or depreciated depending on the duration or continued existence of that condition. Supply and distribution of drugs and prescription will be seamless from diagnosis to been in the hands of the patient.

Biodata collection

Biodata collection will be free of privacy data via a blockchain, other forms of de-anonymization techniques could also potentially be use the peer-to-peer network to limit the back tracing of large group of people without prior authorization by same population.

However, personal information could still be given to medical facilities or professionals by the patient, but it would not form part of the blockchain database and it would have to be stored and managed separately outside the Wildfluke network, subject to territorial data protection laws.

Prevention & population health management

The greatest healthcare benefit could arguably be derived by investing in population health and preventions, which is often not the case in modern health care system. Only about 2% healthcare funding is spent of population while the spending is in favour of tertiary treatment.

We plan to unlock prevention and population health by removing the barrier to effective population and prevention healthcare. This represent an area were an ultra-low cost or free AI application could interact with the population with to enable them to live better lives and relate to fillings and conditions experienced by people.

One-way Wildfluke plans to entrench prevention and population health is the use of rewards points which could be redeemable for treatment, money or transfer to a third party like a sick relative in lieu of medical treatment.

Another focus area is in information provision i.e. via wearable or IOT devices that help monitor for known risk factors.

Diagnosis

A diagnosis shall result from an observation of the both the biodata and or physical or cyber observation, a diagnosis therefore made on an observation form a visit or encounter. A recommendation is made

The protocol will define a data structure to make patients observation and diagnosis information to be package, sent, stored and retrieved when the need arises.

Treatment

Wildfluke will support the tracking of all treatments recommendation from all forms of encounter which will include physician, AI bot or IOT devices. Treatment records will be instantly part of an immutable medical record for the patients.

The aim is not to collect any privacy data to enable us to make the data as open and anonymous as possible.

Condition Monitoring

Medical condition monitoring will also be enable via a broadcast on the Wildfluke Protocol, to many distributed nodes for medical records keeping. Third party medical devices could be developed to use the protocol for data warehousing.

This could instantly enable hundreds or thousands of doctors monitor real time the medical conditions of new disease conditions, learning and collative making better decision in such scenarios.

Standardization

The use of existing standards to ensure common global understanding and acceptability is desirable and would be deployed where necessary, Wildfluke would deploy global standard likes

- International standard on disease classification like ICD 9 & ICD 10 to ensure all medical cases are describe in a manner that could be understood across various regions
- GS1 General Specifications for barcode & QR code for healthcare application to ensure universal drugs and medical inventory management in a seamless manner.

In some other areas where standards and restrictions imposed by central authorities to restrict freedom and innovation while protecting the interest of a few stakeholders. New technology would be deployed to sidestep such barriers when possible. In such instances, Wildfluke offers an alternative open standard or protocol, developed and managed by the community.

Drug Development

Privacy free, open source, distributed electronic record management will reduce the cost of drug development and ultimately reduce the cost of drugs for patients. This availability of vital and relevant information for a population whom are susceptible to an aliment or disease will be available to all drug makers. This should have represented a part of their cost that may no longer be required.

Payment

A token called WildCoin (WDC) would be the medium of payment for service rendered on the WildNetwork, smart Insurance products, telemedicine and all products built on this network would use this as the payment mechanism.

Token shall be initially issues to early adopters in an ICO and pre-ICO events using established digital currencies like Bitcoin, Ether or Litecoin.

Insurance

The Wildfluke network should support the development of a truly distributed global Health insurance that is scalable for Billions of people. The scale of health insurance on Wildfluke would mean a new paradigm for the industry, which could enable ultra-low premiums and greater benefits.

The insurance model should aim to remove intermediaries and gatekeepers by using technologies like smart contracts or time based on event driven contract execution. The absences of middle men should also be an advantage, in terms of cost and reduced time and interface to access care.

Network

WildNetwork will be democratic, distributed and open competitive nodes based network, where there would be a reliance on collective positive node to guide against the negative node or attack. Consultation will on possibility of a voting between democratic nodes and board of governance could also be considered.

Incentive

The infrastructure to support the Wildfluke earn a fee which should encourage the provision of computing power for the network use. Via could be earned via a cryptocurrency generation of a fixed or known number or a low commission per visit.

Cryptocurrency generation and mining would mean a very low or no fee for visit, while medical professional and miners earn a generate block of coins per computing power or number or complexity of the medical case attended to in the case of a medical professional or an AI bot (which should encourage the generation of Health care focused AI on the Wildfluke network).

People will earn rewards points or wildcoin as incentive for living right, exercising or managing medical parameters like BMI, Waist to head ratios and so on. This inventive will provided the needed boost for people to monitor their health status and live healthy thereby reducing the overall cost of healthcare for the population.

Privacy

The existing healthcare delivery model relies extensively on collecting lots of personal data which comes with lots of privacy concerns that limits the benefits that could be unlocked with using data analytics, AI or a distributed EMRs for population healthcare benefits.

Proposed new model will strive to completely remove all personal data and leaving of medical information. A cryptographic key pair would be used track the owner of medical information, while privacy data would remain private to the owner, he or she may decide to reveal it to a provider on a separate arrangement.

WHY APPLICATION DESIGN MATTERS

... IS ALL OPEN SOURCE

COMPLETELY OPEN SOURCE

Designing and coding application is completely open source and community driven.

Third party application developers, user experiences (UX) designers, equipment manufacturers and drug developers could all use and shape the Wildfluke Network.

APPLICATIONS

Introduction

The design of wildfuke applications will take into consideration the following assumptions

- Access to data is fundamental
- Universal coverage does not mean universal access, but extending universal health coverage (UHC) can be a crucial part of improving access.
- A well-trained and integrated workforce is the backbone of a sustainable healthcare system.
- Good primary care is a vital building block for good access.
- Our biggest win in terms of cost and quality is prevention, hence prevention represent the best medical spend.

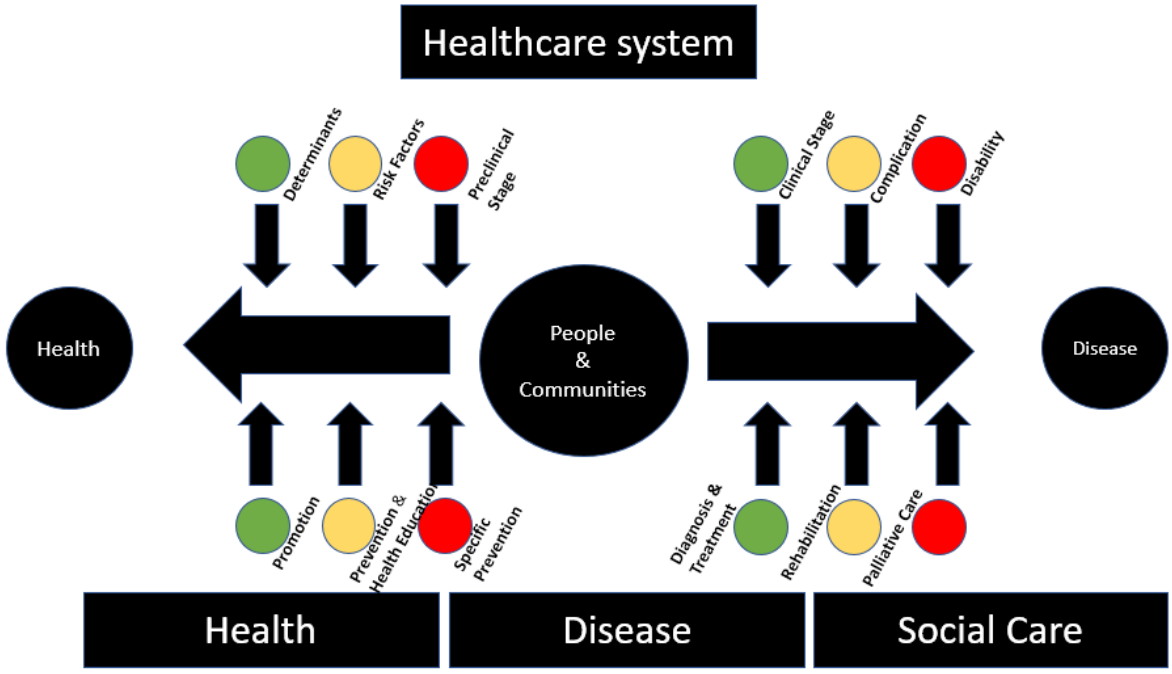


Figure 3.1: Healthcare continue showing the focus areas of traditional healthcare application on the right and the Wildfluke model to include both right and left.

APPLICATIONS

Let’s do more together!

DISTRIBUTED EMR & WORKFLOW

It’s would allow the use of medical professional to work in anywhere in the world via telemedicine.

MEDICAL INSURANCE

Bringing medical insurance to the bottom 6 billion people. Smart contract, administered by a DAQ will lead to a reduction in bureaucracies and cost.

TELEMEDICINE AND VIRTUAL CARE

Expand the range of options available to patients are another opportunity of a decentralised blockchain based healthcare system like Wildfluke.

BLENDED CARE SYSTEM

AI bots and physical facilities will support fitness, sporting, healthy living, nutrition and wellbeing would be incorporated into the medical ecosystem.

PREVENTION & MONITORING

Monitor humans for risk factors like stress, Obesity, High blood pressure and physical inactivity. Including hypertension and Diabetes

OPEN DRUG DEVELOPMENT

Open health will ultimately lead to reduction in the cost of drug development and associated cost benefit would be felt by patient.

THIRD PARTY APPLICATION

Designed for extensibility, with an API for extending the protocol and building smart applications with easily deployable user experience (UX).

Distributed Electronic Medical Record (EMR) and workflow

Wildfluke is an initiative to build an open, borderless, neutral, transparent and censorship free healthcare system that uses all the resource available to the world in the most optimal way. One potential application is a distributed EMR that would allow the use of medical professionals trained in one region of the world to work in another region via telemedicine with little or no additional training requirement.

There seem to be a systemic culture of high cost associated with modern health care delivery system, with the Red cross classifying Britain's National Health Service a humanitarian crisis, then one cannot even imagine of health care system in developing economies. The future of health care worldwide remains largely uncertainty. Perhaps it's very clear that we cannot find the money to fund healthcare at this rate of cost growth into the future, the option are that health care service will continue to deteriorate for the poor, while the those that can afford high out of pocket payment will enjoy a considerably better healthcare service. [12]

Figure 3.2: showing existing medical record management and proposed electronic based system

Medical Insurance

Distributed medical insurance is another application that the Wildfluke protocol could enable, this application will bring medical insurance to the bottom 6 billion people. Smart contract, administered by a DAQ will lead to a reduction in burecracies and automated in bulk pricing mechanism all ensuring frictionless insurance platform at point of need.

DAQ managed insurance will be a step changing in the insurance industry and revolutionary in the medical insurance space as we could unlock medical insurance that transcend national or geographic boundaries. The tools and technology already exist but international geopolitics has prevented global scale medical insurance. This is one on the promise of a Wildfluke network

Telemedicine and Virtual care

Telemedicine and virtual care assistants are other possibilities that expand the range of options available to patients are another opportunity of a decentralised blockchain based healthcare system like Wildfluke. it will help to unlock lots of medical professionals that are unable to contribute to the medical talent pool because they reside in a different geographical location than were they were educated or Medical professionals without residency spaces in public or private hospitals. Whom can contribute to even the basis care requirement of people without sufficient support of qualified medical professional.

The world needs to unlock the huge resources that are currently been under used, efficient management of all medical resource including talent is the surest path to improved health care systems. We need systems that bridges the gaps and not setup walls and barriers to participation in providing services

Blended care system

AI bots and physical facilities that support fitness, sporting, healthy living, nutrition and wellbeing would be incorporated into the medical and wellness ecosystem. Blended care will focus on prevention aspect to health care, according to Hewitt (2017), inactivity and diet are major risk factor almost all cross the world and prevention, education and increased physical activities are the best medication from these risk factors.

Wildfluke network, will enable preventive health system by attaching the risk factors are geographic region on a magnified scale

Top Global Risk Factors

World (% Response)	
High Blood Pressure	58
High Cholesterol	50
Physical Inactivity	42
Obesity	39
Poor Stress Management	39
Source: WHO, UNICEF, "Eastern Mediterranean" includes North Africa except Algeria	

Table 3.1: Health indicators are different region of the world.

Health Risk Factors per Region

Asia Pacific (% Response)		Europe (% Response)		Latin America (% Response)		Middle East/Africa (% Response)	
Physical Inactivity	59	High Blood Pressure	52	High Blood Pressure	75	High Blood Pressure	64
High Cholesterol	53	Physical Inactivity	45	Obesity	65	High Cholesterol	64
High Blood Pressure	47	Smoking	45	High Cholesterol	60	Others	50
Poor Stress Management	41	Poor Stress Management	38	Poor Stress Management	50	Physical Inactivity	41
Obesity	35	Obesity	34	Bad Nutrition	40	High Blood Glucose	27
Source: WHO, UNICEF, "Eastern Mediterranean" includes North Africa except Algeria							

Table 3.2: Health indicators are different region of the world.

Expansion of the medical space to include, Prevention, Monitoring in addition to diagnosis and treatment

The rise in personal wearable devices, has provided an opportunity for a healthcare system which include application to monitor real time specific condition like Hypertension, Diabetes and even monitor humans for risk factors like stress, Obesity, High blood pressure and physical inactivity. IOT wearables or hardware kits could directly integrate the Wildfluke protocol, monitor and report real time in a distributed way to assigned medical professional even if the patient and providers are geographically distant apart. This could also enable new forms of effective collaboration among medical professionals.

Open drug development to reduce cost of drugs and medication

Open health will ultimately lead to reduction in the cost of drug development and associated cost benefit would be felt by patient buying over the counter drugs. Realtime monitoring of drug effect on patients by doctors and drug manufactures could lead to improved R&D. Personalised drugs could also be a benefit for having an open decentralised privacy free Health records.

Drug usage and inventory forecasting could be made easier reducing the global cost of drug warehousing, inventory and obsolescence management. This represent a global $80 billion-dollar potential saving

Third Party Application Development

The Wildfluke protocol is designed for extensibility, an Application Programming Interface(API) for extending the protocol and building many smart applications with easily deployable user experience (UX) would be made available to developers, with a details description of how to use them.

Secondly, all codes are open source and third-party application developers can see how these APIs are programmed and could take advantage of their native functionality. Additionally, they can propose Protocol Improvements to the baseline protocol, if they see any area for improvement. This would become part of the protocol once the community accepts it.

EXECUTION STRATEGY

PROJECT MANAGEMENT

PROJECT

DEVELOPMENT PHASES

Phase I: Develop Blockchain-Based Core Platform (Review & Protocol)

Phase IB: Setting up the Foundation Distributed Consensus Systems

Phase II: User Experience Applications and an Educational Website

Phase III: Wildfluke Application layers and introduce Wildfluke Insurance Concept & Open Healthcare Database

There will be a phase development of the decentralised Blockchain-based core platform, which is named the “Wildfluke network” and the setting up of the Decentralized Autonomous Organizations (DAOs), to manage the Wildfluke foundation.

The low-level programming interface protocol will be developed to interact with extremely valuable medical data and qualified patient feedback and reviews,

User experience applications, smart insurance, telemedicine and third-party Application Programming Interface (API) will form the last phase of project development.

PROJECT DEVELOPMENT PHASES

Phase I: Develop Blockchain-Based Core Platform (Review & Protocol)

The first phase will be the development of the decentralised Blockchain-based core platform, which is called the Wildfluke network and the setting up of the Decentralized Autonomous Organizations (DAOs), to manage the Wildfluke foundation.

The stage will witness the low-level programming interface protocol developed are written to interact the extremely valuable medical data and qualified patient feedback and reviews, which is a powerful service improvement tool. A self-executing Smart Contract, will coordinate the review platform for optimal autonomy and quality assurance.

A collocated and virtual developer team, will work on the frontend, the address database and the smart contract. This is to basically setup the initial user experience (UX) and subsequently the UX and code design will be driven by the community and managed by the DAQ based Wildfluke foundation.

There would be a Pre-ICO event in December 2017 and an ICO in January 2018, to present the opportunity of early stage investors and sponsors before the platform is presented in the market. After the ICO begins the market offensive strategies and the advertising campaign for the global expansion will be implemented. This will create a rapid growing community of patients, medical professional, insurance providers and more.

Benefits:

- ✓ Transparent reviews
- ✓ Once on the blockchain, reviews cannot be changed or cheated
- ✓ Forever- hosted storage
- ✓ Market research value
- ✓ Patients will be able to know which dentist to go to and how he is rated
- ✓ Patients will have the option to speak out and present their voice
- ✓ Creation of a closed ecosystem- real money in closed circle

.

Phase IB: Setting up the Foundation Distributed Consensus Systems

A distributed consensus system are systems that control complex distribution network using autonomous control units that compete among themselves to reconfigure the distribution network in response demand fluctuation or failures. The system is capable of self-repairs and validation by enlisting autonomous control units to detect and isolate or reconfigure the network to correct for the damage, hostile attack.

Good examples of distributed consensus system are Decentralized Autonomous Organizations (DAOs), which are comprised of virtual entities which many individual actors that respond per

well-defined set of rules. DAOs are organised by a set of rules or broad social structure that constitutes ‘governance’ and has quietly become a new corporate governance structure for corporation structured around using the ICOs.

These types of system will be based on the fundamental truth that all blockchain protocols are subjective, in that they rely on the consensus of by the majority. Hence the size of the participating population is critical to ensuring DAOs prevent a 51% bias of the system, the poisson process proves this fact.

According to Peercoin Blog (2017), the Distributed Consensus system would implement a self-consistent governance structure that targets the individual contribution to global goals and self-executing compliance checks, specifically the ‘minters’, as the governors. These minters collectively stake infrastructure to keep system running while keeping chain honest, but also causes them to seek to better the protocol. In so doing, the collective brain behind the blockchain is aligned with the interest of its own survival and worth. This helps avoid self-destructive tendencies that may otherwise be imposed by a government whose intentions are misaligned with the intrinsic value of the chain.

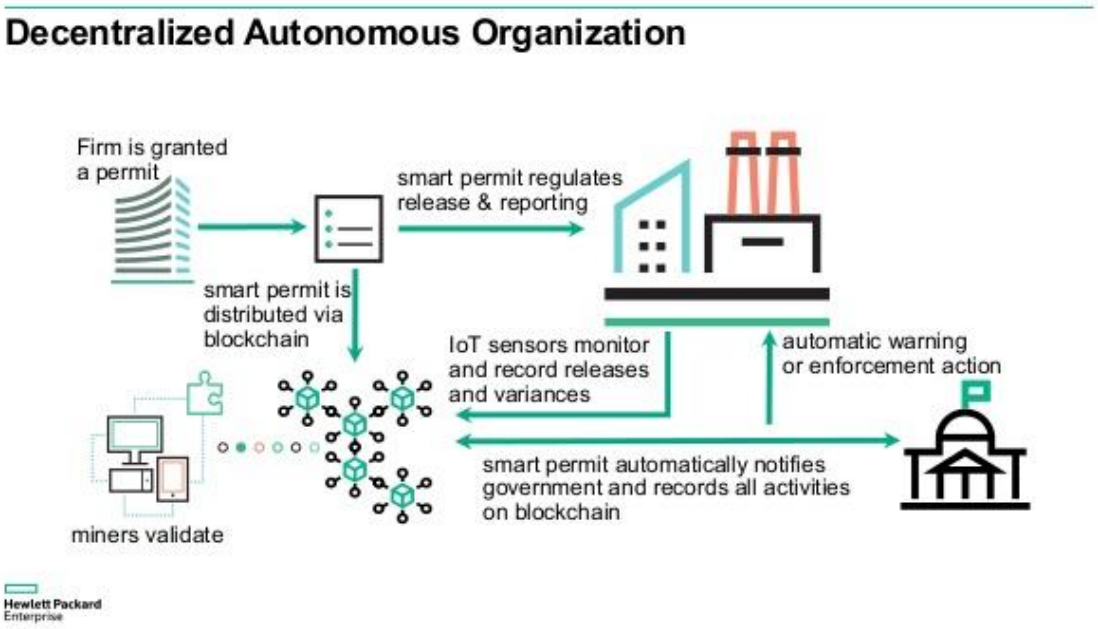
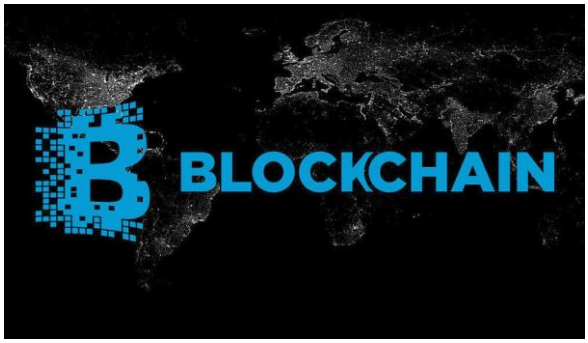


Figure 4.1: Showing an example of a Decentralized Autonomous Organisation (DAO)

PROJECTS DEVELOPMENT PHASES

Execution Strategy



PHASE I: DEVELOP BLOCKCHAIN-BASED CORE PLATFORM (REVIEW & PROTOCOL)

PROTOCOL & SERVICES

A collocated and virtual developer team, will work on the frontend, the address database and the smart contract. This is to basically setup the initial user experience (UX) and subsequently the UX and code design will be driven by the community and managed by the DAQ based Wildfluke foundation

PHASE II: USER EXPERIENCE APPLICATIONS AND AN EDUCATIONAL WEBSITE

USER EXPERINCE APPS

The Wildfluke Mobile App product, which aims to ease of use and user interface will be designed for the convenience of uses. Medical professionals, insurance providers and other important stakeholders will have application designed to enable their easy participation

PHASE III: WILDFLUKE APPLICATION LAYERS AND INTRODUCE WILDFLUKE INSURANCE CONCEPT

EXTERNED APPLICATIONS

Wildfluke application described in the application sections would be designed at this stage. Prototype would initially be developed, tested and iterated to an optimal solution is determined.

A blockchain based open database for all stakeholders in the health delivery system will be a major deliverable of this phase

PHASE IV: SCALE NETWORK

SCALE FOR MORE USERS

After successfully proving the concepts and deploying the apps for the first set of engineers and users. Scaling for a global uses case will be the last challenge

Phase II: User Experience Applications and an Educational Website

Wildfluke network represent a significant paradigm shift in healthcare at such education will be the cornerstone for adoption, usage and according to Metcalfe's law ultimately is brand value. An education website, user experience application and Mobile App will be designed to educate and entertain the younger audience to drive adoption and usage. information in the form of articles, video tutorials and pictures can improve their knowledge, while learning in the form of games is a proven method of lasting knowledge.

The Wildfluke Mobile App product, which aims to ease of use and user interface will be designed for the convenience of uses. Medical professionals, insurance providers and other important stakeholders will have application designed to enable their easy participation.

Phase III: Wildfluke Application layers and introduce Wildfluke Insurance Concept & Open Healthcare Database

Wildfluke application described in the application sections would be designed at this stage. Prototype would initially be developed, tested and iterated to an optimal solution is determined.

A blockchain based open database for all stakeholders in the health delivery system will be a major deliverable of this phase

WILDCOIN

TOGETHER LET'S INNOVATE HEALTHCARE!

Wildcoin (WDC) represent an opportunity to create money for a good cause! Which will be used for the exchange of Healthcare services! A decentralised means of exchange of value in the healthcare delivery system.

People will earn rewards points or Wildcoin as incentive for living right, exercising or managing medical parameters like BMI, Waist to head ratios and so on. This inventive will provided the needed boost for people to monitor their health status and live healthily thereby reducing the overall cost of healthcare for the population.

TEAM WILDFLUKE

A Fully Distributed Autonomous Organisation

TOKENIZATION

Token Creation

There will a token supply cap of 12,000,000,000 (Twelve billion) Wildcoins (WDC) to closely mirror the world population forecast at the year 2100 i.e. One Wildcoin per person. The amount of token supplied will be a factor of coins issues to early project contributors and number of tokens issued during the crowdsale.

The rate of change in token supply and difficulty of mining and how wildcoin can be earned aside mining will be detailed in a separate document. A single coin be referred to as a "WDC"

Token Sales

The following token earning opportunity are planned:

- ✓ 2018, March 1 – Early donations
- ✓ 2018, March 15 – Public Presale event
- ✓ 2018, April 1 – ICO

Early donations volume Capped: 600 000 000 WDC (5% of the total supply)

Presale volume Capped: 600 000 000 WDC (5% of the total supply)

Initial Coin Offering (ICO) volume Capped: 1 200 000 000 WDC (10% of the total supply)

Price: 0.00052 USD cents/WDC or 1923 WDC/USD cent

Smart Contract

Wildfluke smart contracts would relies on established protocols like ethereum blockchain based smart contract to deliver an immutable contract that verify, negotiate and close contracts between individuals, medical professionals, insurance representative and platform investor independently without the need for a trusted third party. They are self-executing and self-enforcing contracts that move humans from the centre of contracts to the edges, hence these contracts would be executed seamlessly.

The trustworthiness and immutability of the system sterns form the fact that alter a record one must alter the all records before and after the record of interest in millions of distributed computers across the world at the same time. This is practically impossible to achieve as the cryptographic hash of every records are linked.

Wildfluke smart contracts will be available on GitHub for participation by all interested parties during the development phases.

Allocation and supply

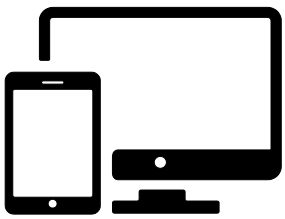
There are a few ways to be involved in the wildfluke crypto-currency and they include;

- Exchange of work, goods and services for WildCoin, for example a human doctor or an AI agent be paid for medical services rendered to a patient.
- The tokens can be bought or transferred from one person to another.
- People could also earn this by living rights for example by exercising, following through on good nutrition and having a good health rating during routine check-up. This will encourage the right behaviours, while reducing the overall cost of healthcare and at such should be rewarded.
- Provider computing hardware for the network use and this could be extended to medical facilities. This will be a shift in the current healthcare financing models.

HOW IT WILL BE FUNDED

Embracing non-traditional healthcare players

> Wildfluke ecosystems embraces non-traditional players and sources of knowledge outside the formal system. It's also building pilots systems to learn and embrace change, understand technology, and evaluate new revenue source



Wildfluke will expand access to healthcare for all while significantly reducing the cost of care i.e. by reducing or eliminating bureaucracies. A blockchain base technology which can be scales globally in a truly distributed way that current health care infrastructure (Hospitals, Medical professionals, Pharmacies) cannot.

FUNDING & FUTURE DEVELOPMENT

Funding

Funds raised during through donations, presale and ICO will be used solely for the development of the Wildfluke network. The following distribution of funds is preliminary and can be a subject to change via the foundations distributed autonomous organisation (if consensus is achieved).

- ✓ Core Development – 40%

Core development will involve the development of the technology as described in this document. This includes: integration of VPN protocols, smart contract systems, supporting and security protocols and services, end user applications, etc.

- ✓ Operations – 20%

This covers the necessary costs incurred for a functional system. This includes: hosting and infrastructure costs, staffing, outsourcing, management and other related expenses.

- ✓ Marketing and Sales – 20%

Marketing costs will be used for partnerships development and direct consumer marketing. Sales costs will largely be incurred by direct B2B sales to businesses.

- ✓ Legal and Compliance – 10%

There are legal costs associated with privacy protection and registrations with regulators. The legal costs might vary from region to region.

- ✓ Team Reward – 10%

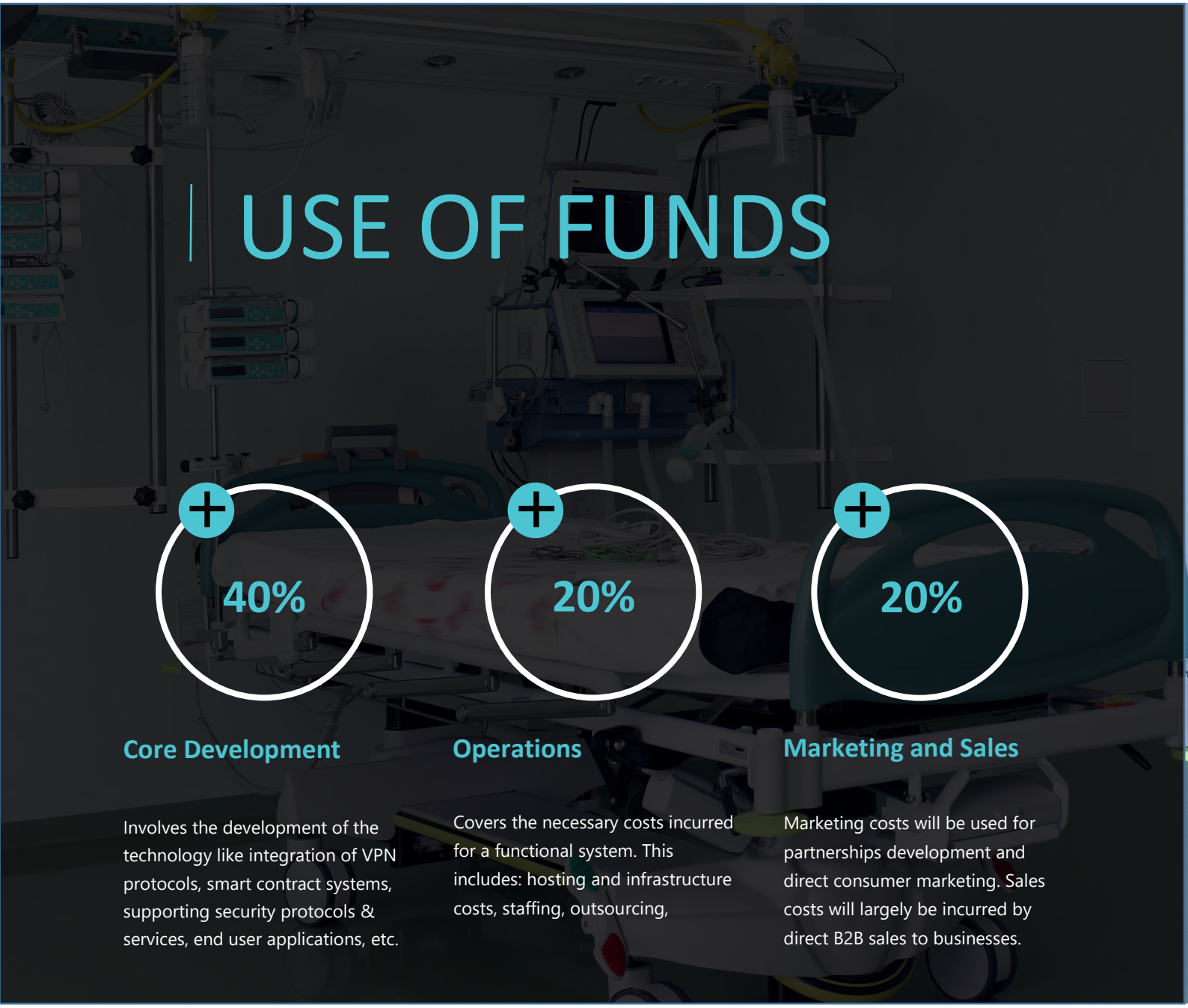
There are cost associated with hiring and securing talented employees that will work for Wildfluke to ensure the objectives are met.

Future Funding

Part of WDC supply will be reserved for future as an additional fundraising mechanism for the Wildfluke project to continue development of Phase II, but may never be issued, depending on circumstances in the future.

The amount reserved for future funding will be as following:

1. If $5 m is collected, 50% of all tokens will be reserved for future funding.
2. The percentage will decrease gradually to 15% with further funding until $30m is reached.
3. After $30m, the tokens reserved for future funding will be fixed at 15%.
4. Tokens reserved for future funding will be locked for 12 months, after which will be sent to desired wallet
5. Foundation, rewards program and Advisors will receive 9% of all tokens. Tokens will be received by desired wallet, and will be used to reward contribution in a form of: rewarding early program participants, advisors, new employees, etc.
6. Founders will receive 10% of all tokens. Founder tokens will be locked for 24-month period.



USE OF FUNDS

40%

Core Development

Involves the development of the technology like integration of VPN protocols, smart contract systems, supporting security protocols & services, end user applications, etc.

20%

Operations

Covers the necessary costs incurred for a functional system. This includes: hosting and infrastructure costs, staffing, outsourcing,

20%

Marketing and Sales

Marketing costs will be used for partnerships development and direct consumer marketing. Sales costs will largely be incurred by direct B2B sales to businesses.

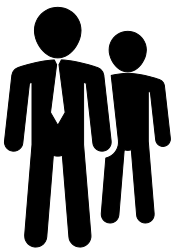
50% RESERVED FOR FUTURE FUNDING

A part of WildCoin (WDC) supply will be reserved for future as an additional funding mechanism for the Wildfluke project to continuous development and upgrades.

There will be an allocation of WildCoin (WDC) supply to fund the bounty program for early investors and users of the system.

IN SUMMARY

IT IS HEALTHCARE 3.0



WE CAN MAKE HEALTHCARE BETTER

Wildfluke represent the next logical evolution in the healthcare, that can get the world to collaborate around solving healthcare challenges for the common good, which also ensure the burden and benefits are fairly distributed, while DAOs based healthcare governance could turn into effective agents of transnational governance in a distributed future.

CONCLUSIONS

The story of mankind interactions with her kind, nature, healthcare and the environment has continually evolved, technologies, tools and process that drives this evolution are often documented as history, the evolution process has not stopped, and we are at a unique time where the blockchain technology would transform many aspect of our daily lives towards a more transparent, open and prosperous society without the attendant inequalities that exist today.

Today technology exists that enable millions of people collaborate on an idea, its structure and governance, which before now man has had to do by proxy representation, for example having government health department or physician body determine the direction of health care system, the use of proxies has not often turned out good as its susceptibility to abuse, benefits capture by the same proxies and has manifested as high cost and low quality of care for many people. The immutable blockchain technology makes proxy representation obsolete

Using the blockchain healthcare makes treatment, encounters and billing become the same activity, just as in the financial world, payment and settlement are same activity on the blockchain but different using conventional payment system. Hence making blockchain based system more trustworthy and immutable.

The trustworthiness and immutability of the system sterns form the fact that to alter a record one must alter the all records before and after the record of interest in millions of distributed computers across the world at the same time. This is practically impossible to achieve as the cryptographic hash of every records are linked.

Wildfluke represent the next logical evolution in the healthcare, that can get the world to collaborate around solving healthcare challenges for the common good, which also ensure the burden and benefits are fairly distributed, while DAOs based healthcare governance could turn into effective agents of transnational governance in a distributed future.

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AND ...

IT'S DONE

CONTACT

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contact us via email: email@wildfluke.org

wildfluke

Transforming how the world prevent, diagnose, monitor, and treat diseases.

SUPPORT US

Support wildfluke foundation and lets unlock healthcare 3.0

Bitcoin:	3LdpXRJGSQwVwxL3CpsRR4HRojst8693ty
Bitcoin cash:	1GeLFdBwS3VVEn7JgV6NTpKDfsC3zZ64yx
Litecoin:	MQiD7PcBsTZ5w1Qzi2eX9bP2aHqMLc5Pcd
Dash:	XefJWKZ4eMi4CeAsSDQwkrVLf9Hi4MyW5g
Ethereum:	0x4b4e4A173f82125D3cC84C10d6c2cF7D2431eF6a

THANK YOU

LET'S GO ON THIS JOURNEY TOGETHER.