



LIFERHYTHM
MEDICAL SERVICES
LLC



Phase 4-of-4

Application & Interface Layer

WhitePaper v0.1



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~ Overview & Synopsis ~

The Purpose of this paper is to present Oxygen, the 4th pillar of the blockchain & crypto-based HealthCore ecosystem for the provision of a complete suit of proper applications and service functions for the medical records field.

Layer 4 of the HealthCore project has been given the named Oxygen to reflect the role it plays within the HealthCore Ecosystem. Oxygen is the core energy source for biologic life and as we breathe life into our lungs, the activity that is registered though Oxygen fuels all of the complex beautiful interactions within the HealthCore platform.

Unlike the backend layers [1 & 2] of the HealthCore ecosystem, Oxygen is capable of operating as a standalone technology layer. At a later time, LifeRhythm Medical Services LLC will be offering the Dashboard & User properties of the Oxygen layer for other companies & individuals to build leveraging it.

Inspiration for the User Interface of Oxygen has been carefully crafted to appeal to already established application formats that users are accustomed to (swiping approvals, list sorting, profile management, etc.).

This document has been composed to service the general public as well as industry professionals with a high level understanding of the topic. After acclimating themselves with this document the reader will become acquainted with the proposition presented by LifeRhythm Medical Services LLC in the provision of the Oxygen section of the greater HealthCore project. Here technical jargon is maximally abstracted away for reasons of comprehension.

All other phases of the HealthCore project [1, 2 & 3-of-4] are readily available through accompanying documentation. Let the reader be advised that all related concurrent documentation is formatted to be chrono-neutral (read in any order) but reflects the core ideas expressed in this paper.

The HealthCore ecosystem is a software deployed to the hyperledger fabric blockchain as a series of smart contracts focused on the provision & storage of medical data.

LifeRhythm Medical Services LLC. is the ambitious medical arm of LifeRhythmLabs INC.; an organization that provides a full suite of software technologies for the decentralized digital age of WEB 3.0.

~ Terminology ~

2FA: Two-Factor-Authentication; an added layer of protection for accounts typically utilized during sign-in sessions, withdrawals, posts, and accessing private information.

Blockchain: a structure of record keeping which is immutable, provable, transparent, traceable, and censorship resistant.

Dapp: Decentralized Application; an application that is not hosted on a single server, thereby becoming much more redundant to failures and censorship.

DID: Decentralized-Identity; a formal form of identity that is not susceptible to manipulation from any centralized party.

MetaData: “data about data”; metadata is information that provides abstract insight and information into other data

Oxygen: the outermost layer of the HealthCore platform that is responsible for the input of user information and the provision of user experience.

UI / User Interface: User-Interface is the appearance of an application; it is the frameworks that empower the way that people interact with a computer system.

UX / User Experience: User-Experience is the total satisfaction & ease with which a user interacts with an application; largely considered one of the (if not the) most important aspects in the development of an application.

~ Oxygen ~

The Medical industry has always been deeply rooted in the provision of care and hospitality to its patients, in hopes of providing as good of an experience as possible. Oxygen can be likened to the experience provision in traditional healthcare; it is the pillar of the HealthCore platform which is responsible for user-facing presentation/user interface. By facing the platform participants directly, Oxygen in turn acts as the primary medium to capture data.

Oxygen will collect and register deep meta-data (anonymously) during user screen times such as time spent on page, page visiting frequency, tap frequency, widget allowances, and the such. The collected meta-data will be digested by autonomous agents for the purposes of improving user experience over time. This option will not be forced upon the users, during account initialization, and once every 120-day cycle there will be a prompt to opt-out/in of the meta-data collection. However, it is important to note, those whom opt-out of the collections will be penalized in the form of reduced token rewards, delayed reputation appreciation, and a micro increase in operational fees (0.1%-1.1%).

Regarding the interface experience itself, LifeRhythm Medical Services has devised a strategic system which leverages existing psycho-social behavioral patterns of application users, below we list a small portion of them:

- Swipe matching
- Search Maps & Pinning
- Sorting by preference
- Up-voting & dislikes
- Review leaving
- Profile dashboard Rendering

The HealthCore Application will be available through Web portal, iOS, Android, Windows and most operating system Command lines (for the technically advanced). The Oxygen interface has a dual sided login; one for users of the platform & one for providers of the platform.

User Oxygen

Signing into the HealthCore platform is a familiar process, the input of some account identifier such as your wallet/email address or account name, a password, and the verification of the two against the device from which the user is signing in from. *{We are still exploring the introduction of a Decentralized 2FA as an extra added measure}*.

During the earlier stages of the project, centralized legacy Identity providers will be allowed for login purposes; this has been decided on for reasons of record aggregation. However, as the project evolved D.ID solutions, such as Civic, V-ID, Project Pai, & SelfKey will be integrated.

As a surface level defense mechanism, there will be a 3-count freeze cycle on every account's sign in session; meaning should an issue arise during sign in, the device be identified as stolen or somebody's account information be considered as compromised and a freeze will be issued on the account. For accounts unfreezing a request will be posted onto the platform's public bulletin and the community will have to decide how to allow the account back in, this is a process known as social confirmation.

An account is “remembered” for a period of no more than 30 days, after which the account must re-verify their identities and sign back in.

Once inside of the platform the user is greeted with their “Arrival Dashboard”, from where all further navigation takes place. Every time a user enters the platform (on a rolling 24-hour basis) their account is balanced with a micro-appropriate amount of HYD tokens. From the “Arrival Dashboard” There will be a total of 9 options for the user to navigate to:

+ Dashboard	+ Medical Provider Repo	+ Make Appointment
+ Check Health	+ Local Maps	+ File Claim
+ Therapy Room	+ Chat Room	+ EMERGENCY

+ **DashBoard**

The Dashboard is where the wallet & user profile exist. Alongside pre-set preferences such as payment options & wallet providers, here the user will be able to adjust anything they need to.

+ **Medical Provider Repo**

The Medical Provider Repo is where all the non-user side medical service professionals can be found. They are organized by their profession, reputation, field experience and finally alphabet.

+ **Make Appointment**

Here users are able to schedule appointments with doctors that they have already visited; (Doctors schedules are directly linked & updates here)

+ **Check health**

This is where the biometric capabilities of the platform will exist; from heart rate monitoring, to finger scanning, to entering blood pressure, most intimate data is introduced through here.

+ **Local Maps**

Geographically locate any required medical services within a 100 mile radius.

+ **File Claim**

In cases of fraud or medical malpractice, users can file claims and upload their proofs in the forms of video testimonies, written letters, and arbitrary files.

+ **Therapy Room**

In the Therapy room users observe group quiet time that is mediated by healing music, meditative readings, and breathing exercises.

+ **Chat Room**

Nothing distances people more than sickness, coming to the Chat Room users will appear anonymous and share their struggles. Community is key.

+ **EMERGENCY**

Simple button to summon EMS to the phone's location immediately (must be held for 5 seconds or surreptitiously pressed).

At the heart of every patient/user account is the profile framework. Everytime a new user joins the platform they must complete their profile requirements otherwise they cannot use any of the platform services.

Patient	
+ id	
+ Name	
+ Date of Birth	
+ Hair Color	
+ Eye Color	
+ Weight	
+ Height	
+ Address	
+ Phone Number	
+ Secondary Identification	
+ Insurance Number	
+ Primary Care/ Name	
+ Dental Provider	
+ Home of Record Hospital	
+ Emergency Contact	
+ Chronic Medical Conditions	
+ Photo	
+ Fingerprint	
+ Hydrogen Record Identifier	
+ Hydrogen Token Balance	
+ Oxygen App Account Link	
+ Nitrogen App Account Link	

- sendRecords()	
- requestRecords()	
- UploadRecords()	

The entire profile process has been made in as simple a format as possible through the ability to link a variety of different digital identity sources:

- Traditional Social Accounts (Gmail / Facebook / Twitter / etc.)
- Health Device Synchronizations (FitBit / SmartWatches /etc.)
- Insurance Providers (Oscar / Nomad / Modern / etc.)
- Health Accounts Porting (WebMD / ZocDoc / EventusLife / OpenCare / etc.)

Users that are already accustomed to entirely digital medical health lifestyles will be able to transition onto the HealthCore Platform with minimal to no friction.

However, users that have absolutely no digital medical footprint will encounter friction in the form of manual data input.

** LifeRhythm Medical Services is working on establishing Partnerships between as many independent industry actors as possible with the goal of having them immediately offer their audience a complementary HealthCore Account.*

Medical Provider Oxygen

Login for Medical providers through the Oxygen application will exist in tandem with the user sign-in dashboard. However, near the top of the sign-in screen there will be a switch that specifies who is attempting to login; for Medical Professionals the button will be a blue color and adjusted to the left.

Whenever registering for new accounts, medical providers will need to submit as many possible proofs of their accolades as possible. Everything from educational degrees to medical journal reports to license will be required for registering. The more documentation that is provided the higher quality will the provider be considered and in turn the better experience they will have on the platform (they will be prioritized by algorithms during searches).

Medical professionals will also have the opportunity to link existing social media accounts, professional medical platform accounts among other forms of verification.

All new Medical provider accounts must wait 3-7 days in order to be accepted onto the platform for full operation; in the meanwhile, providers that have submitted a satisfactory minimum amount of documents will be allowed to acquaint themselves with the platforms and set up their public accounts, prepare their listing campaigns and begin to connect with other medical providers to establish networks. A Medical Provider's account remains logged in indefinitely so long as it remains active for a period of over 21 days. Immediately after 22 days of inactivity are reached, the account is logged out.

Once accepted onto the platform the medical provider will be taken on a brief introductory tour in order to accommodate them with the platform; the entirety of the tour should last no more than 30 minutes and educate them on every important necessary function.

Signing onto the platform the providers are greeted with a welcome message followed by a redirecting to their personal dashboards where they get a list of updates as to what they might have missed while they were away.

Primary Care Provider
+ Id
+ Name
+ Address
+ Phone Number
+ License Number

Dental Provider
+ Id
+ Name
+ Address
+ Phone Number
+ License Number

Current Specialists
+ Id
+ Details
+ Licensure

(Oxygen Touch)

Some of the greatest issues in the medical records industry are the ones revolving around privacy and security. Both of these delicate points leeway into yet another touchy subject, Advertising, more specifically personalized and targeted advertising.

Privacy:

Privacy of medical records is at the forefront of necessary provisions. Any open activity that happens on the HealthCore platform, such as public therapy or community room engagement, is entirely anonymized. While the rooms are monitored for malicious actors and imposters, all privy personal data is kept obfuscated away.

Security:

At the core of every medical product lies a robust mechanism that helps guarantee security and peace of mind. Oxygen introduces a 3-factor-binding system into HealthCore. A system which binds the application to a device and a wallet. It is recommended that when users bind to a wallet that they select one that is not dependent on the same device to which the application binds, for purposes of loss.

As a precautionary measure for users, data that is pushed through the application will exist only within the local application space (device drive) for a 3 month period, after which it is pushed to the HCC blockchain permanently; once it exists there it cannot be taken down. As an extended measure of protection every piece of data is sharded into 31 components and randomly sent throughout the network. No one piece can register any data without the remaining pieces, moreover even if 31 pieces are to be united it cannot unlock the information hidden within them unless a handshake is established between the data & its according device & wallet.

Advertising:

Advertising will only be made available to verified platform participants (medical professionals and operators) on the platform. Moreover they will only be generalized & appear in non-invasive sections of the platform (listings / Maps).

****Disclaimer of Liability****

PLEASE REVIEW CAREFULLY THE PRESENT SECTION “DISCLAIMER OF LIABILITY”. IF YOU HAVE ANY DOUBTS AS TO WHAT ACTIONS YOU SHOULD TAKE, WE RECOMMEND THAT YOU CONSULT WITH YOUR LEGAL, FINANCIAL, TAX OR OTHER PROFESSIONAL ADVISOR(S)

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