



Librium Whitepaper

Hybrid between SaaS marketplace and freelance platform

v.1.0.7

SparkCo, Inc.

1 Executive Summary

1.1 Overview

- 470 billion hours of human capital wasted from lack of work annually¹
- \$3 trillion of potential earnings lost from unemployment annually²
- \$10 trillion of lost economic opportunity annually by 2030 from labor mismatch within countries³
- 915 million people lacking work while maintaining access to the internet⁴

The founders of Librium launched SparkSales.io in 2016 to fill a labor shortage in an ecommerce business. Through the success of SparkSales.io, Librium was born. Librium is a hybrid between a SaaS marketplace and a freelance platform. Librium enables; (1) seamless cross border transactions through cryptocurrency (2) identification and verification of talent through a reputation system, and (3) identification and verification of job opportunities through Service Providers - the Apps of the ecosystem. The Librium Network is designed to connect a global talent pool, including people from politically unstable regions or internet users who are unbanked, with the global economy. Librium brings the world's labor markets to equilibrium.

The Librium Ecosystem allows app developers to build tools that identify job opportunities. Workers are then empowered to engage those job opportunities in a manner that helps them to work more efficiently than they would have otherwise. These tools and platforms, which constitute the Apps of the ecosystem, are called Service Providers. The entire ecosystem shares a uniform identification and reputation system. Traditional freelance platforms merely put workers in contact with employers.

For example, let's talk about Jose, from Venezuela. Jose is a college educated individual, who is under employed and desires better earning opportunities and more flexibility in his work schedule compared to the jobs available locally. SparkSales.io, the first Service Provider of the Librium Ecosystem, enables Jose to work by putting his English language knowledge to work with a structured chat technology. In this example, the Service Provider, SparkSales.io leverages Jose's talents to sell exciting products on-line, for multiple e-commerce businesses across the world. Jose earns more than he would have otherwise, and the e-commerce business who engaged Jose through the SparkSales.io platform is earning more than they did before. Freelancing should not be restricted to coding, writing, and graphics and Service Providers help to identify those opportunities unlocking jobs all around.

1.2 Token Sale

In order to fund the development of the Librium Ecosystem, Librium will launch its token crowdsale event on December 8, 2017. The total Librium EQL token supply will be restricted to 1 billion (1,000,000,000) EQL, of which 400 million will be offered for sale, representing up to \$18 million USD dollars in exchange for ETH. Those 400 million EQL will be sold at a discount to early buyers, at a rate sliding from 20 Librium per 1.00 USD equivalent in ETH, down to 17 per 1.00 USD equivalent in ETH. Early buyers will effectively get up to 20% more Librium per ETH. Of the remaining 600 million EQL tokens, half shall be distributed through the Librium Award system to incentivise the ecosystem growth, while the other half shall be maintained in reserve.

- 1 Billion (1,000,000,000) total Librium Tokens to be generated
- 40% offered for sale, 60% to be held by SparkCo and Librium Foundation
- Funding target of \$18 million USD equivalent in ETH
- Librium Tokens will be offered on a private Pre-sale.
- Librium Token Generation Event to take place right after the crowdsale.
- The Librium Token Crowdsale Event bonus structure is as follows:
 - \$0 - \$1m = 20% bonus; 20 EQL per \$1 USD equivalent in ETH
 - \$1m - \$3m = 15% bonus; 19 EQL per \$1 USD equivalent in ETH
 - \$3m - \$7m = 10% bonus; 18 EQL per \$1 USD equivalent in ETH
 - \$7m+ = 0% bonus; 17 EQL per \$1 USD equivalent in ETH

¹Organization for Economic Development Statistics database (<http://stats.oecd.org/>); International Labor Organization statistics database (<http://www.ilo.org/ilostat>); Librium Foundation analysis

²International Labor Organization statistics database (<http://www.ilo.org/ilostat>); Eurostat database (<http://ec.europa.eu/eurostat/data/database>); International Labor Organization World Employment and Social Outlook - Trends 2017 report (<http://www.ilo.org/global/research/global-reports/weso/2017/lang-en/index.htm>); <https://tradingeconomics.com/>; <https://data.oecd.org/earnwage/average-wages.htm>; Librium Foundation analysis

³Boston Consulting Group (2014). The Global Workforce Crisis: \$10 Trillion at Risk. Available at: https://www.bcgperspectives.com/content/articles/management_two_speed_economy_public_sector_global_workforce_crisis

⁴McKinsey Global Institute (2015). A Labor Market that Works: Connecting Talent with Opportunity in the Digital Age. Available at: <https://www.mckinsey.com/global-themes/employment-and-growth/connecting-talent-with-opportunity-in-the-digital-age>; International Labor Organization statistics database (<http://www.ilo.org/ilostat>); <http://www.internetworldstats.com/stats.htm>; Librium Foundation analysis

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2 Abstract

The global labor market is broken. Unemployment exists at the same time worker shortages do. Librium is a hybrid between a SaaS marketplace and a freelance platform, that aims at eliminating that wasted Human Capital. Workers of the ecosystem are freelance experts, providing value to Librium’s digital partners. Their skills are leveraged by the Apps of the ecosystem, also known as Service Providers (SPs). The team will first focus on e-commerce businesses, leveraging its past experience in the field.

The Librium Foundation, as defined in section 5, will build the necessary infrastructure and set of tools - the Librium Network - for the Librium Ecosystem to take place. This will allow developers to build new platforms (SPs) and plug them easily in the network. The foundation maintains a single defined goal: grow the ecosystem. To this end, it will notably manage a token reserve to reward good actors of the ecosystem, through the Librium Award system.

Initial ecosystem traction will be obtained by integrating Librium inside SparkSales.io, a rooted player in the “sales-as-a-service” space. SparkSales.io launched in 2016 through partnerships with a select collection of global e-commerce businesses and will transition its existing economy to Librium. Its workforce will be able to earn Librium EQL tokens by producing sales for digital partners.

The Librium Network implements an identity and reputation system, allowing workers and digital partners to showcase a consistent profile across the whole ecosystem. Workers get a LibriumCred, while digital partners get a LibriumScore. Both are also used by the Librium Award System. Indeed, good actors of the Librium Ecosystem, as vetted by their results and previous interactions, will be rewarded tokens.

Last but not least, the Librium Loan System allows workers to invest working time for digital partners. As such, they are highly incentivized to work hard, as they get returns on their investments when the business grows. In parallel, digital partners get freelance work in order to de-risk and bootstrap their operations.

3 Vision

The global labor market is broken. Unemployment exists at the same time worker shortages do. Where labor supply is plentiful, workers are underpaid, and where labor supply is in shortage, businesses experience restricted growth. Annually, unemployment results in ~3 trillion dollars of lost potential earnings, while labor shortages result in ~10 trillion dollars of lost economic opportunity. Labor markets are restricted by borders, access to opportunities, complicated segmentation, and opaque regulatory challenges. Businesses suffer the same. Just as uneaten food is wasted, human capital that is not used, is lost, and business opportunities not acted on expire.

Librium's vision is to eliminate the travesty of wasted Human Capital to drive forward our shared global economy. Operating without the former limitations of cross-border transactions, the Librium Network aims to engage a decentralized workforce in real-time earning and time-investing opportunities, realized through the enhancement of workers' skills by Service Providers (SPs) - the apps of the ecosystem. Librium acts as a hybrid between a SaaS marketplace and a freelance platform.

SPs are independently operated entities who act on under-realized business opportunities by providing workers of the Librium Ecosystem with new tools to provide value to Digital Businesses. Like traditional app stores, Librium provides a complete infrastructure in which new Service Providers can plug easily. By doing so, they make use of the existing reputation system and payment system, and have direct access to the global laborpool and digital partners. The first SP already constructed to take advantage of the Librium Network is SparkSales.io which is a standing and viable business. The Librium Network's blockchain-based identity and reputation system enables connecting the right businesses, service providers, and workers.

Creating a new digital workforce ecosystem that is not only decentralized but also completely open to new actors, Librium shall incentivise new services and systems to enable the efficient growth of existing digital businesses. The following sections will describe SparkCo's plan for propelling an entirely new economy: the *Librium Ecosystem*.

3.1 New Cryptocurrency

The Librium Network will introduce Librium EQL, a token for a decentralized global labor market. It is denominated through task completion, while removing social and economic costs associated with cross-border transactions, sourcing of labor or microtasks. Librium EQL is envisioned as a general purpose cryptocurrency for use in B2B digital services such as sales, marketing, and customer support.

Librium associate it with a payment system that rewards and protects both the worker and the business alike, all while empowering actors to unearth opportunities that otherwise would have gone unnoticed and fund them. We see Librium and associated technologies as a future part of web standards, solving the important problem of saving unused human capital while driving forward our shared global economy.

The Librium EQL token will be implemented on the public Ethereum blockchain as an ERC20 token. This interface makes Librium compatible with the existing Ethereum ecosystem, including wallets and exchanges. Ethereum’s smart contracts allow for advanced trustless systems, which constitute the core of the Librium Ecosystem: reputation management, reward structure, and token issuance.

3.2 Librium Loan System

In addition to individuals acting as workers in the system, individuals can also play the role of investors through the Librium Loan System (LLS). The LLS allows a worker to invest work time on Digital Businesses to allow them to bootstrap operations. That way, workers are incentivized to work harder as their returns will be proportional to the business success. Within the Librium Ecosystem, all performance is monitored through automated systems in real-time allowing: workers to invest time into campaigns around that business, businesses to engage or disengage high or low performing workers, and Service Providers to invest in or discontinue various tools. Direct access to decentralized markets for financing, labor and digital business’ generated data through the *Librium Network* will unlock \$10T of economic activity.¹

3.3 Pillars of the Ecosystem: “A Virtuous circle”

This multi-sided environment forms a virtuous circle. Multiple players interact with each other to add value to the overall ecosystem. Each of the fundamental three players are detailed in the following subsections. Please note, further details, including diagrams, are explored in depth in respective dedicated sections deeper in this white paper.

3.3.1 Workers / Investors

Workers and time-investors represent the same entity. Workers are members of the decentralized workforce. They choose to work for various digital businesses by providing services through Service Providers (described below).

¹Boston Consulting Group (2014). The Global Workforce Crisis: \$10 Trillion at Risk. Available at: https://www.bcgperspectives.com/content/articles/management_two_speed_economy_public_sector_global_workforce_crisis

Workers are identified by a blockchain-enabled resume system, *LibriumCred*. LibriumCred encompasses a worker's history of past performance, tasks completed, as well as qualifications given by previous employers, ensuring that an accurate history of each worker is maintained.

When assuming the role of investor, workers are empowered to invest their time to a business partner of their choosing, allowing that partner in turn to empower more labor ultimately resulting in growth that otherwise may not have been realized. Workers can then get returns on their investment of time in the form of Librium EQL. When deciding in which partner to invest resources, time-investors are helped by the *LibriumScore* of the digital businesses.

The dual role of workers / time-investors allows them to exchange their time, skills and performance for participation in a business's success, instead of money. This incentivizes workers, even more, to help the business grow.

3.3.2 Businesses Partners

Companies wanting to improve and or grow their digital business are captured here. Through Librium, they gain access to a decentralized workforce, the workers of the Librium Ecosystem, who are enabled with both performance-enhancing tools and opportunity identification provided by the Service Providers.

Digital business' performance indicators are recorded through the LibriumCred system and summarized into the LibriumScore. This score is based on business performance and vetting by previous workers, and it provides other workers and SPs objective data used to decide whether they should work with this business or not.

3.3.3 Service Providers - SPs

Service Providers empower both workers and businesses through the services they offer. They represent the apps of the Librium Ecosystem. Often SPs operate by enabling workers to enhance revenue outcomes for a businesses through a two-sided platform. As an example, the SP *SparkSales*, deploys its proprietary chat-based sales system and its sales algorithms on e-commerce websites to leverage workers' human touch to help increase online sales. Other examples of potential SPs are described later on.

SPs are incentivised to join the Librium Ecosystem for three reasons: direct access to a validated laborpool and to Business Partners, plug and play reputation system and payment system, and ecosystem rewards from the Librium Award System.

SPs often represent the first interaction a digital business partner has with the Librium Ecosystem. As such, they will have a major role in the growth of the

ecosystem. Helping new SPs join the ecosystem will be a critical mission for Librium.

3.4 Propelling the Librium Ecosystem

The Librium Network reduces friction between Business Partners, SPs, and workers. An enabling feature of the Librium Network is its identity and reputation system powered by blockchain technology. LibriumCred and LibriumScore will provide all Librium Ecosystem actors an immutable and decentralized tool through which to showcase or review past performance. Librium will be at the core of this digital economy, driving demand and intrinsic value. The value of the overall Librium Ecosystem will grow as more actors join, which in turn encourages even more participants.

The first SP actor of the Librium Ecosystem will be SparkSales.io, which will integrate the Librium EQL natively on its platform. A rooted player in the “sales-as-a-service” space, SparkSales.io launched in 2016 through partnerships with a select collection of global e-commerce businesses. SparkSales.io Sales Associates will be enabled to earn Librium through providing value to digital businesses. The existing user base of SparkSales and the integration of Librium inside its platform will build intrinsic value for the Librium Ecosystem.

In order to propel the Librium Ecosystem with sufficient inertia, participants are incentivized through the Librium Award System. Based on their contributions, positive actors of the ecosystem are rewarded Librium on a regular basis. The value that these actors add to the ecosystem will be assessed by a well-defined process, ensuring the tokens are distributed fairly to incentivize desired outcomes. The Librium Award System uses an objective, performance-based algorithm that will be transparent and auditable.

The Librium Ecosystem will initially be administered by the Librium Foundation, as defined in section 5. However, over time, it will be decentralized based on smart contract technology.

3.5 The Librium Foundation

The mission of the Librium Foundation is to grow the Librium Ecosystem and increase the value of the Librium EQL cryptocurrency. The foundation will manage the Librium reserve not yet released to the public and provide support and tools to those different actors who operate most efficiently within the ecosystem. Section 5 defines the current and future structure of the Librium Foundation.‡

In order to successfully achieve its mission, the Librium Foundation will also aim at on-boarding new actors into the ecosystem. This is done by providing tools to ease the integration process into the ecosystem, and by administering

the Librium Award System. As the founding member of the Librium Foundation, SparkCo will be the ecosystem's first representative and will introduce SparkSales.io's active users to the Librium Ecosystem.

The Librium Foundation will also lead the development of important fundamental components used by all the players of the ecosystem, such as the above referenced identity and reputation system, specialized cryptocurrency wallets, and integration solutions. These components constitute the *Librium Network*.

4 Business Opportunity

4.1 The Problem

The global labor market is broken. Unemployment exists at the same time worker shortages do. Where labor supply is plentiful, workers are underpaid, and where labor supply is in shortage, businesses experience restricted growth. Annually, unemployment results in ~3 trillion dollars of lost potential earnings annually², while labor shortages result in ~10 trillion dollars of lost economic opportunity³. Labor markets are restricted by borders, access to opportunities, complicated segmentation, and opaque regulatory challenges. Businesses suffer the same.

Just as raw uneaten food spoils, human capital that is not used, is lost, and business opportunities that are not acted on expire. Recovering this wasted human capital and these missed opportunities will propel the human race forward. 470 Billion hours of human capital are wasted on an annual basis due to lack of opportunities to work⁴. To put this massive number into perspective, it only took a fraction of that time, ~13 Billion man hours over a decade to send a man to the moon and then to support the entire apollo program. Wasted human capital is a human tragedy. How do we avoid waste in our global economy and enable human capital to meet short-lived business opportunities? To reduce waste, we need to bring the global labor markets to equilibrium.

²International Labor Organization statistics database (<http://www.ilo.org/ilostat>); Eurostat database (<http://ec.europa.eu/eurostat/data/database>); International Labor Organization World Employment and Social Outlook - Trends 2017 report (<http://www.ilo.org/global/research/global-reports/weso/2017/lang-en/index.htm>); <https://tradingeconomics.com/>; <https://data.oecd.org/earnwage/average-wages.htm>; Librium Foundation analysis

³Boston Consulting Group (2014). The Global Workforce Crisis: \$10 Trillion at Risk. Available at: https://www.bcgperspectives.com/content/articles/management_two_speed_economy_public_sector_global_workforce_crisis

⁴Organization for Economic Development Statistics database (<http://stats.oecd.org/>); International Labor Organization statistics database (<http://www.ilo.org/ilostat>); Librium Foundation analysis

4.2 The Solution

Bring the global labor markets to equilibrium. The Librium Ecosystem is designed to take advantage of the following opportunities:

1. **Leverage Skills:** The workers of this new economy will need specific tools and systems empowering them to bring as much value as possible. The task is not trivial, and nobody can fulfill it alone. The solution to human labor waste will come from a range of entities working together.
2. **Efficiently bring together the right worker for the right job:** The worker that will lead to the best results for a specific job might be on the other side of the planet, but the system ought to find him without complexity.
3. **Enable micro jobs and micro transactions:** The concept of a full-time job at a single company is now a thing of the past. Workers must be compensated for every single piece of work, no matter how small.
4. **Efficient payment system:** Being paid in real time, without fuss and with close to no fee is an important component of this economy.

Librium is on a mission to implement these features inside the Librium Ecosystem. This ecosystem is a decentralized, transparent digital economy labor market built on the Blockchain that connects markets of over supply to markets of undersupply. It is basically a hybrid between a SaaS marketplace and a freelance platform.

The main system needed for realizing this hybrid solution is the *Librium Network*: a reliable, open source and decentralized economy that enables third party Service Providers to identify opportunity for revenue generation of digital businesses and then connect and empower qualified workers, to accomplish the task. The Librium Network is a set of tools and systems built for the Librium Ecosystem: identity and reputation systems, Librium Award System, crypto wallets, protocols and APIs, etc. More details are provided throughout this whitepaper.

Service Providers of the Librium Ecosystem are key to the success of this solution. They leverage the skills of the workers with tools and platforms, thus empowering them to cater to a specific need efficiently. Moreover, these SPs are helped by LibriumCred and LibriumScore to efficiently bring together the right worker for the right job. The advent of new SPs will fuel the growth of the Librium Ecosystem and offer new possibilities for workers to bring value to digital businesses. Examples of Service Providers are suggested in following sections.

The Librium Network will use Librium EQL as its core interaction mechanism, a token for a decentralized global labor market. This will enable efficient micro transactions for the different actors of the Librium Ecosystem in real time. The decentralized nature of these Librium tokens makes them extremely robust and very cost-efficient, removing social and economic costs associated with cross-border transactions and sourcing of labor or microtasks. Librium can be

directly accessed through the Blockchain by any actor of the ecosystem, thus freeing them from third-party players holding the result of their work. Librium provides for a payment system that rewards and protects both the worker and the business alike all while empowering actors to unearth opportunities that otherwise would have gone unnoticed and funding them.

4.3 Librium First Target: e-commerce

SparkCo, Inc. - the founding body of Librium - found its roots in the e-commerce industry, and acquired hands-on experience in the field. SparkCo gained expertise at different levels of the value creation chain. Indeed, the team successfully ran an e-commerce business (TarDisk.com), a platform enabling high-value services for e-commerce businesses (SparkSales.io) and now seeks to capitalize on these successes to bring value at a higher level. By launching the Librium Ecosystem through an industry it knows well, SparkCo will be able to leverage its strengths, partnerships and current customers for the benefit of the Librium Ecosystem.

E-commerce is about finding the right good, having your questions answered about that good and paying for that good all via the web. If for any reason there is friction between any of these elements, resources are not allocated correctly or trust is not maintained, the e-commerce process breaks down, and the sale is lost.

4.3.1 Specific Problem

It is difficult to sell things online. Attracting customers to a website and then convincing those now attracted customers to make a purchase, results in success rates measured in fractions of a percent. Even after a potential customer is attracted to a website, the majority of time, that customer will visit and leave, without purchasing anything.

All aspects of a business' online presence must work in harmony to run efficiently. However, many companies, who are very good at creating products, are not very good at selling online. This has led many businesses to work with middle-men (distributors) who purchase the e-commerce business' product for a low price and mark it up to the benefit of no one. These middlemen perform the services of advertising, etc. These unnecessary intermediaries have the overall effect of making for a slower process to roll out new products and make those products less profitable for the manufacturer and more expensive for the consumer.

4.3.2 Librium Solution

For the e-commerce website, Librium offers a distributed platform allowing

for rapid deployment of qualified talent on data-driven opportunities identified by the Librium Ecosystem, resulting in almost instant increases in additional business revenue. The Librium workers are reviewed through a proprietary blockchain-based resume system (LibriumCred) tailored specifically for the e-commerce environment. Workforce training is then reinforced through the platform itself which is gamified to increase engagement and to incentivize top performers.

For the worker, Librium enables a freelance labor platform that connects e-commerce owners with freelance professionals providing access to a scalable global talent pool. Workers in turn enjoy no set schedules or time commitments. Workers operate from the comfort of their own homes and earn badges, discounts and multipliers in an engaging, gamified, data-driven environment. Larger baskets and more sales are the outcomes. The Librium companies they work for are also monitored through the Librium blockchain-based reputation systems; each company is given a LibriumScore, based on performance and a vetting by their workers. The best companies win with the best talent, and Librium enables the best of everything.

4.3.3 Market Size

High value retail is undergoing a massive shift from brick-and-mortar to online commerce. Although this shift has speedup over the past 5 years, e-commerce is still in its infancy. This is a growing market. The US Census Bureau estimates that only 8 - 9% of retail sales are done on the internet, and multiple market research studies point to double digit annual industry growth.⁵ This is to be expected as 71% of shoppers believe they will get a better deal online than in brick-and-mortar stores.⁶

Globally, the shift is causing an immense growth of e-commerce which is expected to increase from the current \$1.9T (representing 8.7% of commerce) to \$4T by 2020.⁷ The majority of this market segment growth will be realized by e-commerce merchants with between \$600k and \$10M in annual revenue. This market segment is represented by 110,000 online merchants, who easily account for a trillion-dollar market, which Librium is built to serve.

⁵https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf

⁶<http://mashable.com/2012/11/06/e-commerce-statistics/#dGXEasMv58qB>

⁷<https://www.emarketer.com/Article/Worldwide-Retail-Ecommerce-Sales-Will-Reach-1915-Trillion-This-Year/1014369>

5 The Librium Foundation

The Librium Ecosystem is envisioned as a community of independently operating partners who have adopted the Librium cryptocurrency. This includes workers, digital businesses and Service Providers (SPs). The Librium Foundation is intended to represent a trusted authority and governance body for the actors of the Librium Ecosystem.

Initially hosted as a project inside SparkCo Inc., the Librium Foundation's ultimate goal is to decentralize and make transparent the Librium Network operations and governance as much as possible. Multiple leads are investigated:

- Delaware company under the new shareholders law for the transparency it provides, allowing the creation and maintenance of corporate records on the blockchain.
- Swiss Foundation, enforcing the mission of the Librium Foundation at all costs, thanks to its strict state audit system.

5.1 Objectives

The Librium Foundation has one clearly articulated goal: administering and growing the Librium Ecosystem. This translates into a range of activities that the foundation will perform in order to achieve its mission.

In order to grow the ecosystem, the Librium Foundation has to attract new members. The more members there are, the more value can circulate in the ecosystem. This is true for every kind of actor. The Librium Ecosystem will aim to onboard as many workers, digital businesses and SPs as possible. As such, sales and marketing will represent one of the missions of the Librium Foundation.

That being said, new members of the ecosystem will join because of the value it provides to them. This will only be possible thanks to the *Librium Network*, i.e. the multitude of tools, systems and mechanisms the Librium Foundation will implement, as described in the next section. In the long term, the foundation will aim to progressively decentralize these elements as well.

The stakes of securing the whole Librium Ecosystem against vulnerabilities and attacks are very high. Consequently, the Librium Foundation will dedicate resources to the research and development of security systems for all the tools and mechanisms of the ecosystem. Critical pieces of the Librium Network will also be audited by external actors to ensure the safety of funds.

Lastly, the Librium Foundation will set aside a part of its Librium pool to ease digital businesses onboarding and give them easy access to the utility token. They will be able to seamlessly purchase tokens at a premium, avoiding the hassle of going through traditional exchanges. This Librium will be located

inside their restricted wallet, and only be used to pay for workers inside the Librium Ecosystem.

5.2 Technology Implementations

The Librium Foundation will implement the *Librium Network*: a suite of tools and systems for use within the Librium Ecosystem. These play different roles: incentivize the members of the ecosystem, make all ecosystem interactions as seamless as possible, welcome developers to create new infrastructures, and get to a working version as soon as possible.

Below is a list of the technological missions of the Librium Foundation. Further in depth detail will be provided later.

- **Identity and reputation system:** LibriumCred and LibriumScore will provide all Librium Ecosystem actors an immutable and decentralized tool through which to showcase or review past performance. This is paramount for actors adaptability inside the ecosystem.
- **Librium Award System:** In order to propel the Librium Ecosystem with a sufficient inertia, participants will be incentivized by the Librium Award System. Based on their results, actors of the ecosystem will be rewarded additional Librium on a regular basis.
- **Librium Loan System:** Allowing Digital Partners to crowd-fund their growth and workers to reap the benefits of their hard work is a key component of Librium. The Librium Loan System will allow workers to invest their time into digital businesses operations and get returns.
- **Librium Wallets:** Being able to use Librium without fuss is key for the growth of the ecosystem. The foundation will implement both restricted and unrestricted wallets, in order to provide a seamless user experience, even for participants without knowledge of the blockchain technology.
- **Initial centralized ledger:** Because of the current limitations of the blockchain technology, the Librium Foundation will initially establish a secure and auditable internal ledger, while working toward a fully decentralized system.
- **Protocols and APIs:** In order to grow the Librium Ecosystem infrastructure, the foundation will welcome the onboarding of developers. This is done by implementing protocols and APIs to give them an open and sustainable platform to develop and deliver new services.

5.3 Infrastructure Development

To empower the Librium economy, investments will be made in platform infrastructure. Infrastructure represents both the core Librium functionality and its supporting services. As one of the three strategic pillars of the Librium Ecosystem, Services Providers (SPs) represent independently operated infrastructure.

Through SPs, the foundation will be given access to a scalable and efficient avenue for infrastructure investment.

The development of the Librium Ecosystem will become more useful as a function of the number of independent players operating within the ecosystem. As such, the foundation will help independent actors develop new SPs, by providing them with direct access to the systems of the ecosystem through APIs and protocols as well as direct investment through Librium.

It is the goal of the Librium Foundation to cultivate an ecosystem whereby independent third parties are incentivised to build infrastructure. SPs also represent portals through which Librium Workers engage the digital business, who benefit from their services, to earn Librium. The role of SPs in the Librium Ecosystem is explored in depth throughout this white paper.

5.4 Librium Ecosystem

The Librium Ecosystem finds its roots in the evolution of SparkCo. This section relates the important moments that lead to the ideation and development of the ecosystem architecture as it is presented in this white paper.

5.4.1 SparkCo Dates and Accomplishments

2016

Q1 & Q2 <i>Ideation</i>	Opportunity of chat based sales uncovered by founding team while working on e-commerce websites. Opportunity tested on partner website resulting in conversion rate increased by 40%
Q3 <i>Initial Tests</i>	Increased conversion rates maintained on partner website. Advertising strategy for partner website adjusted based on new anticipated conversion rates. Prospect of new product.
Q4 <i>Incorporation</i>	SparkCo, Inc. officially incorporated. First India based Independent Sales Chat Agent hired. Alpha version: Spark-Sales.io launched. Ten external e-commerce websites contacted to participate. Unsolicited inbound interest from new potential clients

2017

Q1 <i>Beta Launch</i> <i>SparkSales.io</i>	Beta users experiencing 2x conversion rate, attributing half of its sales to our team. Additional inbound interest. Keeping Beta closed to experiment with variations on the process. Survey of Beta testers' needs: idea of additional complementary services surfacing. AI tools helping sales team used in production with good results
Q2 <i>Public Launch</i> <i>SparkSales.io</i>	Official public launch. Tenth chat-based sales agent hired. Comparison of business models incorporating new complementary services. Customers experiencing same improvement in conversion rate as Beta testers. 100,000 products sold thanks to SparkSales. First contacts with blockchain related partners. Idea of decentralized ecosystem crystallizing.
July	Experimenting with Ethereum Smart Contracts and blockchain implementations
August	Conception of ecosystem architecture. First alpha versions of whitepaper
September	Partnerships and advisors in place. Whitepaper published.

5.5 Development Phases

After almost two years of incubation, it's finally time to implement and establish the Librium Ecosystem. This will be done in three phases:

1. In the first phase, we will build off of the SparkSales.io system already in place to enable Agents to earn free Librium via a commission structure across a range of SparkSales existing partner ecommerce websites. Users can earn Librium via the SparkSales.io sales platform / or an anticipated mobile App⁸. This first phase requires the implementation of user-friendly transparent Librium Wallets for existing SparkSales users. Moreover, this transition will only be able to take place once the centralized ledger of the Librium Ecosystem is developed, before being transitioned to a completely decentralized system.
2. The second phase will witness the opening of the Librium Ecosystem to new actors. This will be an exciting moment for the Librium Foundation. This opening is done through building three main components of the Librium Network. First, the identity and reputation system will be one of the core tools used in this open ecosystem. The Librium Award System will also be implemented, in order to incentivize new players to

⁸The SparkSales.io platform is currently built, however a mobile specific application has not been developed yet.

join the ecosystem. At last, APIs and protocols will be put in place by the foundation to welcome third-party developers, and allow them to develop completely new SPs.

3. The last phase will finally implement the Librium Loan System (LLS). Investors will be able to invest in digital businesses. This will allow the businesses to grow even faster, and the workers to be highly incentivized to work hard for the businesses they are invested in.

6 Pillars of the Ecosystem

There are three fundamental pillars of the Librium Ecosystem; The Worker/Investor, The Business Partner, and The Services Providers. Together, these independent players form a virtuous circle producing more value than any player can independently. The Workers represent the workforce, the Business Partners represent digital businesses in quest of a service, and the Services Providers represent tools that help both the workers and the digital businesses associate to become more efficient.

6.1 Workers / Investors

We firmly believe the only path to steady income is through investing and that a Worker should have the ability to invest his time in the companies he works with to achieve returns greater than if he was being paid upfront. As such, the term (time) investor and the term worker can be used interchangeably as they do in fact represent the same entity. Every worker is also an investor, and every investor can potentially be a worker. Both nomenclatures are used depending on the context. Keep in mind that they represent the same person.

The best companies win with the best talent, but good labor can be hard to engage and even harder to find.

6.1.1 Working

Workers are members of the decentralized workforce. They can decide to work for various digital businesses, by providing services through service providers. For example, workers can help e-commerce websites increase their conversion rates by using the chat infrastructure provided by SparkSales. In this case, SparkSales plays the role of the SP.

Joining the Librium Ecosystem allows workers to leverage their skills thanks to the infrastructure of one or multiple Service Providers. They act as freelancers and have access to a huge pool of potential customers, as well as different means

for their skills to become extremely useful. This allows workers to significantly improve their earnings compared to traditional freelance platforms.

Workers are linked to a LibriumCred, which is their resume on the blockchain. It encompasses their past performance, as well as the vetting of their work by previous employers. This LibriumCred is key for workers, as it is their showcase inside the Librium Ecosystem.

6.1.2 Investing Time

When playing the role of a Time-Investor, they can invest time in a digital business, allowing it to benefit from loaned services and hopefully to increase sales. Investors then have the opportunity for returns on their investment, in the form of Librium, that can be greater than an upfront payment for their work. The Librium Investment Platform enables investors to help promising digital businesses achieve their goals.

By investing time in the success of companies they are working for, investors/workers benefit from the duality of their role. Indeed, they now have a direct impact on their investment's achievements. The more they help the business grow, the more Librium they get. It constitutes a great incentive for workers to perform, and provides loaned labor to promising digital businesses looking to bootstrap growth.

When deciding in which company to invest time, investors are helped by the LibriumScore of the digital businesses. This score reflects the performance of the company, and what previous workers have to say about it. As such, it is a powerful indicator of future success.

Workers can invest their time in the Librium Ecosystem, but they can not invest Librium EQL tokens itself. This is done in the best interest of digital businesses, that will receive highly incentivized workers, instead of speculative external investors.

6.2 Business Partners

These are companies wanting to improve and grow their digital business. By plugging into the Librium Ecosystem, they have access to a decentralized workforce, in the form of the workers. These workers can perform a range of possible services for the digital businesses, enabled by the Service Providers.

It is in the best interest of all the players of the ecosystem that Business Partners do well. As such, these businesses benefit from multiple mechanisms implemented by Librium. First, they can receive worker-labor to support their operations, thanks to the Librium Loan system (LLS). (This also translates to mean that those companies will get extra high quality services from invested workers.)

Second, the Librium Award System rewards these businesses Librium EQL for their performance and the added value they bring to the ecosystem. Combine, these two benefits are designed to decrease risks for new Service Providers while increasing the potential upside.

When receiving rewards from the Librium Award System, Business Partners can only use these rewards inside the Librium Ecosystem. The mechanics of this are as follows; The tokens paid by the Librium Award System can only be transferred to so-called restricted wallets, which then can only be used to pay Librium Ecosystem workers, through SPs. This mechanism contributes to the growth of Librium, by ensuring that as much value as possible remains inside the Librium Ecosystem.

Digital businesses also present a performance indicator: the LibriumScore. This score is based on their performance and a vetting by their previous workers. It gives other workers and service providers objective data to decide whether they should work with this business or not. The score is also used by the Librium Award System.

6.3 Service Providers (SPs)

Service Providers are a key component of the Librium Ecosystem, they represent the apps of Librium's hybrid solution. The Librium Ecosystem encourages new Service Providers - SPs - to join the Librium economy. This is done by (1) rewarding SPs through the Librium Award System (2) providing access to historic performance data for each of the partner digital businesses and (3) providing existing SPs with access to customers who would benefit from their services and a workforce who will benefit as well (4) providing new developers with two plug and play core features of any platform: an efficient payment system, and a reliable identity and reputation system.

The following sections outline the SPs to be released and to inspire additional thought for future SPs. We discuss the first two SPs to be released as well as example opportunities, to complement the Librium Ecosystem offering. Each SP, whether it is developed by SparkCo or any external player encouraged to do so, will have access to the entire Librium Network, including the worker reputation system, award system and historic data collections system.

6.3.1 Launch-Day SPs

eXcrowAcct and SparkSales will constitute the initial SPs of the Librium Ecosystem. After they are built and launched, the infrastructure of the Librium Ecosystem will be represented by the different services that are used by Digital Partners that accept Librium and the future pool of SPs, either funded by SparkCo or self funded.

SparkSales

SparkSales provides an on demand gig-economy, e-commerce sales force. When running, it is able to substantially increase both the earning potential of a digital worker and of an e-commerce website while reducing fees in the marketplace and the complexity of sourcing digital talent all while offering automatic third-party arbitration in the event of dissatisfaction of work product.

Sales associates have been an integral part of commerce long before the internet. The equivalent of an online sales associate is a chat box. Chat boxes have evolved recently to be less a sales tool and more a customer support tool. There is a large opportunity to take the customer engagement experienced during a chat, and use this as a sales opportunity instead of a customer support opportunity. SparkCo launched SparkSales.io in 2016 to address this specific opportunity.

An increasing amount of goods purchased in developed nations is done online. Conversion rates on websites, which is a name given to represent the percentage of online traffic a website receives that then directly results in a sale, continue to remain around a two percent or less. While the costs of digital advertising continue to rise as the space become more competitive and expensive, competitive advertising efficiency can be realized through increased conversion rates.

SparkCo will release the proprietary SparkSales system and platform to increase its overall value. Currently the challenge is the lack of sufficient data. As the amount of data increases, the optimization of SparkSales purchasing algorithms will increase as well.

SparkSales currently is the world's largest online sales team. We help companies hire, manage and pay remote sales talent through a sales specific freelancing platform that connects commerce clients with top freelance sales professionals from Boston to São Paulo. To date, we have enabled nearly \$1M in sales. Together, we sell.

The business model is simple. We offer a chat based sales system that allows e-commerce businesses to rapidly deploy live, trained sales agents, resulting in an almost instant increase in revenue. Sales agents are trained through a proprietary sales methodology tailored specifically for the chat based environment. Agent training is then reinforced through the platform itself which is gamified to increase engagement and to incentivize top performers.

In practice, this sales system has resulted in a doubling of the conversion rates of the websites tested (described in detail below). The system is free to deploy and installs on a merchant's website in under fifteen minutes. The merchant pays no fees until an item is sold by a sales agent.

When compared side by side, brick-and-mortar and online commerce mirror one another. The modern equivalent of "foot-traffic" is website hits. "Location, Location, Location", is now google pagerank. Retail store planners, are now called webmasters. Almost every element from the brick-and-mortar retail era

has translated over with a one-to-one equivalent in e-commerce except for one element; where are the sales people?

If sales staff are not valuable now, why were they valuable before? A human sales agent, mitigates friction and lubricates the sales funnel.

Changes in perception about internet chat, specifically an increasing willingness to engage and trust chat, from a society that is more comfortable texting than calling, present an opportunity to fill the void of an online salesman. Now that Internet users are familiar with chat and they understand that they are speaking with a human on the other side of the chat box, then why is this tool is being used for customer support and not to close more deals or upsell?

Librium integration in SparkSales:

SparkSales is a true two-sided marketplace for matching freelance sales agents with commerce companies looking to grow or maintain revenue. The merchant pays the platform a flat rate commission for every product sold by a sales agent. The platform pays the sales agent a dynamic rate commission adjusted (or even subsidized) by the platform, based on the perceived difficulty of the sale. Merchants sell more, and sales agents get paid.

SparkSales will be the first actor of the Librium Ecosystem. As such, it will be the first SP to use Librium inside its economy, and the first to integrate the Librium Network inside its platform. Existing SparkSales workers and e-commerce partners will receive a Librium wallet inside their dashboard, without having to do anything. They will progressively be able to use the whole infrastructure of the Librium Ecosystem. These workers and e-commerce partners will also be the first to take advantage of the Librium Award System.

eXcrowAcct

A fundamental tool of the Librium Ecosystem, eXcrowAcct, will provide Escrow account services for any project. This will allow digital businesses get services from workers without going through other SPs. In certain cases, you don't need the infrastructure enabled by services providers. One example would be that you need some specific work done, that is not yet enabled by any current SP.

6.3.2 Newly Enabled SPs

Whether implemented by SparkCo or third party entities, the following sections describe examples of SPs empowered by the Librium Ecosystem.

Affiliatus

Affiliatus allows digital businesses to promote their website with the help of influencers through affiliate marketing. Affiliatus provides an infrastructure for

tracking the effectiveness of influencers' campaigns in converting to sales for Digital Partners.

These influencers are workers of the Librium Ecosystem, and as such can leverage their reputation and past performance. They are also able to invest their time directly in any digital business they want, for example the one they are promoting. This is a huge incentive to make it grow like bamboo - or any other plant you would like to grow. And last but not least, they are rewarded by the ecosystem for their performance.

PhoneQall

Sometimes, picking up the phone and calling prospects is the only way forward. Unfortunately, digital businesses face multiple problems: managing a complete sales team is expensive, and the required team size can greatly vary with time. PhoneQall provides digital business with a global and adaptive sales force for outbound marketing.

Running this decentralized sales team is straightforward for digital businesses. Indeed, PhoneQall integrates a complete CRM solution, as well as an extensive VOIP offering. This allows for a perfect collaboration between the Librium workers and the business, showcasing an uniform entity to the outside world.

HaQme

Cyber security is more and more important, and is critical for digital businesses to get right. However, this is not trivial, as a system can never be completely deemed protected. The best strategy is to pentest on multiple fronts, throwing multiple minds into discovering vulnerabilities.

HaQme coordinates a global hacker force, by managing bounty programs in order to reward Librium workers for the weaknesses they unearth. Moreover, HaQme then provides digital businesses with automated pentesting reports in order to solve the vulnerabilities. They can of course find the best developers for this task using other Service Providers.

SenDesQ

SenDesq provides a platform which enables workers of the Librium Ecosystem to give customer support to digital businesses in an efficient, and scalable way. It makes it easy for these businesses to harness the decentralized workforce of the ecosystem and avoid the hassle of administering customer support on their own. Of course, all the other advantages of the Librium Ecosystem are equally at play here.

ArtworQ

Getting graphics just right is difficult. Digital businesses often face the same problem of finding a high-quality designer for their artwork: web design, logo, illustrations. ArtworQ provides the crowdsourcing of graphics talent inside the Librium Ecosystem.

The Digital Partner enters a specific project, for which every designer of the platform can submit a proposition. The business then chooses the one he prefers, which can then be further improved by the chosen artist.

7 Technical Considerations

7.1 Librium Foundation Internal Ledger

The Ethereum network is currently based on a Proof of Work blockchain, which limits its potential bandwidth. For example, the current average confirmation time is roughly 24 seconds. Moreover, every Ethereum transactions require gas⁹ to be paid. The current standard gas price for a transaction is 4¹⁰ Gwei¹¹. This means that by paying 4 Gwei, a user can expect his transaction to be performed in approximately 2.2 minutes¹².

These two characteristics of Ethereum transactions create difficulties for consumer applications. First, the relatively long transaction confirmation time will lead to a mediocre user-experience, in a world where we grew accustomed to responsive applications. Second, the required gas fee paid in Ether will hinder the successful adoption by the mainstream user.

In order to prevent these issues, as well as to prevent excessive micro-transactions from overloading the mainnet Ethereum blockchain, the Librium Foundation, as defined in section 5, will initially maintain an internal ledger of how many Librium each user has earned and their transaction history. At first, the internal ledger will be a traditional relational database.

Eventually, the Librium Foundation will transition this internal ledger into a fully decentralized system, while maintaining an excellent user experience.

This could take the form of an internal blockchain that is fully auditable. This could be implemented using Hyperledger from the Linux Foundation, as SparkCo is a funded member of the IBM Global Entrepreneur Program with access to development credits, and Hyperledger is IBM's platform of choice.

⁹Ethereum jargon for transaction fees.

¹⁰<http://ethgasstation.info>

¹¹1 Ether = 1 billion Gweis.

¹²ETHGasStation predicted wait

Technologies such as TrueBit or Raiden Network are also being investigated as ways to offset smart contracts and transactions from the blockchain, leading to better scalability and less cost, all while maintaining a trustless secure system.

Progress is also being made by projects such as the Ethereum Foundation¹³ to enable a highly scalable, low latency, and cost-effective blockchain, thus eliminating the need for an off-chain solution.

In any case, these technologies will need to mature and be battle-tested for production use cases before being used for the Librium Ecosystem.

7.1.1 Librium from Ethereum Wallet to the Librium Internal Ledger

Anyone with Librium in an Ethereum account will be able to send it to a user's account in the Librium Foundation Internal Ledger. As this internal ledger technology is subject to change depending upon the evolution and success of internal blockchain technology, the exact mechanism of this process could change as well.

7.2 Librium Exchange Rate

Partners will purchase digital goods and services, and physical goods using Librium. The value of these tokens, and thus how many tokens are used to purchase a product, will change dynamically based on the floating exchange value of Librium in the Ethereum network.

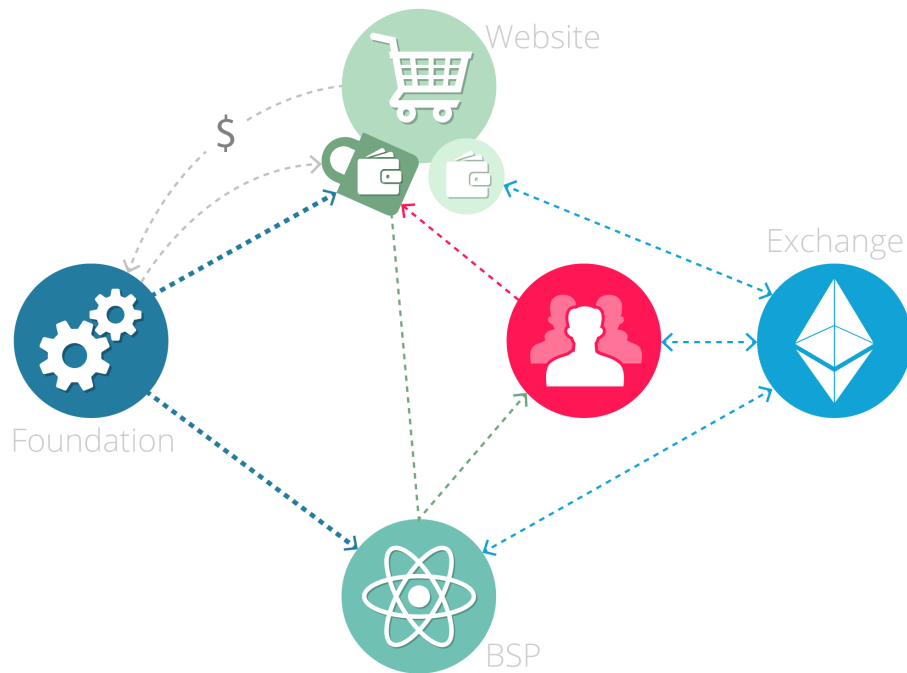
In order to prevent rapid changes in the Librium floating market value from the timing of purchases to that of price swings, an average exchange rate value will be calculated on a multi-day rolling basis and used to price goods and services for Librium Ecosystem Actors (users).

The Librium Foundation, as described in section 5, will maintain an internal reserve of Librium, beginning with the tokens unsold from the Initial Coin Offering, and continuing with regular purchases from the market.

In summary, the Librium Foundation will allow the Librium free-floating market value to determine its exchange rate and product pricing. The Librium Foundation will not artificially prop up the value of Librium. The foundation will stabilize internal product pricing to prevent rapid Librium market price changes from affecting users, but not in any significant way that alters their fair market value.

¹³Through their Casper research, and implementation of Proof of Stake for their blockchain. Sharding is also a further possibility for scaling the Ethereum network.

7.3 Librium Market Flow



Librium circulates through the distributed network in the following way:

Digital businesses of the Librium Ecosystem have the opportunity to buy Librium from the Librium Foundation, therefore avoiding the fuss of going through external exchanges. Fiat is collected by the Librium Foundation from digital businesses who exchange it for Librium. A portion of the Fiat is then used to periodically purchase Librium from the open market at market rates. When tokens are purchased through the Librium Foundation, it is placed into a restricted wallet held by the digital business who then can use it to pay for services of the Librium Ecosystem.

Workers login to one of the SP applications implemented in the Librium Ecosystem. As an example, workers can login to the SparkSales platform to begin earning Librium. Librium is earned when a worker completes a task on behalf of a digital partner and is paid for that work. The tokens first flow through the Service Providers, which generally takes a commission, then to the worker. Librium held by users are stored in the Librium Foundation Internal Ledger unless requested by the worker.

Workers/Investors also have the possibility to invest in digital businesses. They can loan their time on the Librium Ecosystem to these businesses. The tokens put in guarantee for this loaned time are placed into the restricted wallet held by the digital business who then can use it to pay for services of the Librium

Ecosystem.

All the actors of the Librium Ecosystem have the opportunity to exchange their Librium with other cryptocurrencies. In the case of digital businesses, this can only be done with the tokens residing in their unrestricted wallet. This operation can also take place the other way around: Librium can be obtained from traditional exchanges, in exchange for other cryptocurrencies. Librium located in the unrestricted wallet of Digital Partners can always be transferred to their restricted wallet, to pay for workers. This is done transparently for the user.

At last, both digital businesses and SPs receive Librium from the Librium Award System, managed by the Librium foundation. The amount of tokens they get depends on their performance and the value they bring to the ecosystem.

7.4 Identity and Reputation Service

Trust is the challenge of commerce. In a decentralized ecosystem such as the Librium Ecosystem, presenting a decentralized workforce, user identity and reputation is an important matter. Every player of the ecosystem should be able to transact seamlessly with other actors. This requires that all these players establish and broadcast a consistent identity and reputation across services. A consistent and user-friendly identity and reputation service will be developed by the Librium Foundation. It will also let the different actors integrate this service with an API, and related code.

7.4.1 LibriumCred: Blockchain-based Resume

Workers ought be able to transact seamlessly with multiple businesses, without having to reestablish their reputation with each new company. Moreover, their labor should be adequately rewarded, based on their performance and reputation. LibriumCred is the resume workers of the Librium Ecosystem, and they will be able to leverage LibriumCred to transparently interact with new businesses and service providers.

The workers' performance and reputation will be accurately and transparently established thanks to decentralized records of previous work.

7.4.2 LibriumScore: Performance Indicator of Your Business

Similarly to LibriumCred, the LibriumScore will allow e-commerce businesses to put forward their track record of past performance, as well as being vetted by their workers. The LibriumScore will be useful in multiple instances:

1. Workers will be able to more accurately decide for whom they want to work.
2. Investors will have access to specific data in order to take insightful investing positions.
3. Digital businesses will be rewarded for good performance and reputation based on their LibriumScore.

The LibriumScore takes into account the sales results of the business, through the integration of the Librium Tracking Snippet on the digital website.

7.5 Restricted & Unrestricted Wallets

There exist two kinds of wallet inside the Librium Ecosystem: the unrestricted wallet and the restricted wallet. The origin of the tokens will determine which wallet will store them. In the same way, the possible destinations for the tokens can be limited depending on the wallet. For both wallets, the implementation will be seamless for the end-user and easy to use, even for neophytes.

Unrestricted wallets live up to their name: there is no restriction on the origin of the funds, nor what they can be used for. These wallets can have interactions with actors outside of the Librium Ecosystem. For example, Librium residing in unrestricted wallets can be externally exchanged for other kinds of cryptocurrencies. In the same way, unrestricted wallets can be filled with Librium coming from external sources, including traditional exchanges.

On the other hand, *restricted wallets* ensure that funds are kept inside the Librium Ecosystem. As such, the tokens they contain can only be used to pay Workers or Service Providers for their services. Moreover, the restricted wallet is the mandatory destination for two kinds of transactions. First, tokens put in guarantee for time lent by investors to digital businesses are stored in their restricted wallet. Second, when buying Librium from the Librium Foundation directly without the hassle of going through traditional exchanges, the tokens are stored in a restricted wallet as well.

Tokens can always be moved from an unrestricted wallet to a restricted one. They can not move the other way around.

8 Librium Award System

In order to get the ecosystem to a sustainable mass, the Librium Foundation, as described in section 5 of this whitepaper, will implement multiple strategies. SparkSales will be the first actor of the Librium Ecosystem, and as such will bring fundamental value to the cryptocurrency. Moreover, to encourage new partners to join the ecosystem, the Librium Foundation will be responsible for the implementation of a reward mechanism: the Librium Award System.

New actors will be incentivized to participate in the ecosystem and will receive Librium for their participation.

Both digital businesses and service providers will benefit from the awards.

8.1 Digital Businesses

By running the Librium Tracking Snippet and plugging into the Librium Ecosystem, digital businesses will receive tokens, based on their LibriumScore. Businesses with excellent performance and reputation will be awarded more tokens than bad performers in the ecosystem.

8.2 Service Providers

The Librium Foundation also wants to onboard new service providers in the ecosystem, in order to expand the range of services offered to digital businesses. A chat-based sales system is not the only desirable service for these businesses. New actors will bring additional value to the overall Librium Ecosystem, which will benefit all the other players as well.

Service providers will be rewarded for the value they bring into the ecosystem through the on-boarding of new Business Partners, as well as the quality and volume of the transactions they generate.

8.3 Token Reserve

All this Librium will be distributed from the Librium Foundation Token Reserve. Each year, 20% of the remaining Librium in the reserve will be split amongst these different actors. At the inception of the Librium Ecosystem, the incentive will be significant for newcomers. As the value and size of the ecosystem grow, new actors will find more and more immediate value in joining it, and the need for incentives will decrease.

Half of the distributed tokens will be given to digital businesses, and the other half to service providers. Inside of each category, the ratio of the score of the actor on the total score of the category will condition the number of Librium received.

For example, if 100 Librium remain in the reserve at the end of a certain year, 20 tokens will be given to the whole community. Of these, 10 tokens will be allocated to digital businesses. The same goes for service providers. Let's simplify the whole ecosystem to only two digital businesses, business A and business B, with a LibriumScore of 16 and 4 respectively. Business A will end up with 8 out of the 10 Librium, while business B will receive 2 Librium.

9 Librium Loan System

When loaning time into digital businesses, investors help the economy employ more workers and bring more value to the Librium Ecosystem. In return, they get Librium back when the businesses they invested in are doing well.

Thanks to the blockchain ledger of the businesses' data, the state of the performance of the company at a specific point in time is easily recoverable. As such, it is possible to compare the current state of a digital business with the state at which an investor stepped in. Indeed, this information is ledged in the blockchain as well. This characteristic allows the Librium Loan System to distribute gains in an unbiased and transparent fashion.

9.1 Investments Made by Workers

The Librium Loan System is built on the premise that people who work for themselves work harder than those working for others. We also firmly believe that investment is the best source of wealth creation, and we want to enable workers to loan their time in the businesses they are actively supporting with their services. The investments by workers help fund the campaigns of digital businesses within the Librium Ecosystem, continuing to build the ecosystem's intrinsic value.

10 Company

Incorporated in 2016, SparkCo was founded by a Harvard Business School graduate and bootstrapped on the company's merit. SparkCo's existing business-to-business platform, SparkSales.io, has enabled more than two hundred thousand unique sales interactions enabling e-commerce partners around the world to increase revenue while reducing in-house sales costs. SparkSales.io will be the first Services Provider of the Librium Ecosystem. SparkCo is currently incubated at Harvard's Innovation Lab in Boston.

10.1 Core Team



Pierce Schiller
CEO

Grounded in practicality with broad exposure to different businesses, functions and perspectives through startup, licensing and venture capital roles, Pierce is driven by bringing to market next generation technology. Having helped build companies ranging from early-stage biotech to consumer electronics, Pierce brings a multifaceted perspective to the projects and industries he focuses on with experience both as a hands-on entrepreneur and a classically trained Venture Capital investor. Prior to graduating from Harvard Business School, Pierce was a keystone member of four startups - the first, a VC-backed microbial fuel cell startup, and the most recent, a consumer facing semiconductor manufacturer. He is currently CEO of TarDisk, LLC where he has built a privately held, global team with products recognized by news sources such as Techcrunch. Pierce attributes his commercial success to a focus on solving traditional problems with cutting edge technologies



Thiago Amaro
Lead Developer

As the Lead Developer at SparkCo, Thiago is responsible for leading and delivering the core applications in the SparkCo platform. He leads our highly technical team and has a strong background which facilitates coaching and supporting the team in order to deliver amazing applications. He balances the delivery of solutions between architecture, time, cost and quality.



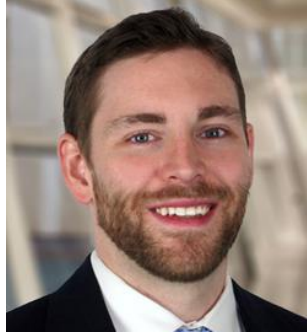
Marceau Lecomte
Chief Blockchain Engineer

Hands on experience is what Marceau brings to the team. He built his ways into blockchain by developing applications for interacting with Hyperledger, Ethereum and Bitcoin blockchains, including a Bitcoin payment gateway based on hierarchical deterministic key generation. He is also involved in research with internal business units, startups, and security consulting groups.



Joseph Wang
Full-Stack Developer

A Full-Stack Developer must be the master of all areas and technologies.” Let me introduce Wizard Joe! He can - magically - design a project, code it and launch it in a blink of an eye. He is comfortable with applications in front-end (HTML, CSS, Javascript, jQuery, Front End Frameworks), back-end (PHP, Python and C/C++), databases (MySQL, MongoDB, Cassandra), Linux Scripting, AI Frameworks and Cloud API's.



Daniel Stewart
Business Development

Daniel formerly worked in the Corporate Strategy and Development groups at a Fortune 200 company developing innovative approaches that identified actionable growth opportunities across multiple industrial markets. He played key roles facilitating several mergers, acquisitions, and divestitures. At Harvard Business School, Daniel co-founded an organic agriculture sourcing, importing, and marketing venture that was a finalist in the Harvard University President's Challenge. Continuing his pursuit of diverse skills and challenges, Daniel joined Boston Consulting Group for a summer to integrate the commercial operations of a large HVAC acquisition. Leaving the MBA program after his first year, Daniel took advantage of an opportunity to work with large pharmaceutical companies, creating solutions for all aspects of commercial strategy and operations.

11 Librium Token Issuance

In order to finance the Librium Ecosystem master plan, a token crowdsale event will be organized. In total, 400 million Librium EQL will be offered for sale, out of a total supply of 1 billion tokens. The profit of the crowdsale will be used to fund operations of SparkCo and the Librium Foundation, as defined in section 5 of this document, with the goal of growing the Librium Ecosystem. This includes the development of features needed for Librium integration into SPs including SparkSales and other. Librium tokens will be sold at a discount to early buyers, as described later in the Bonus Schedule.

The Librium Token Crowdsale Event will launch on December 8th, 2017. Librium EQL will only be created during a token generation event, that will take place at the end of the crowdsale. SparkCo aims to create up to \$18 million of Librium EQL for sale in exchange for ETH. A private pre-sale event will release the first \$5 million in pre-orders, from October 23rd, 2017.

When the sale closes, the pool of distributed Librium will constitute the entirety of the available liquid supply of tokens. Any unsold tokens from the 400 million put up for sale will be burned, reducing the total amount of Librium ever to exist.

SparkCo will maintain 300 million Librium Tokens out of the remaining 600

million not offered during the sale. These tokens will be used to administer the Librium supply, for marketing, and for operational costs. Indeed, digital business will have the opportunity to purchase Librium from SparkCo through a user-friendly interface adopted by a yet-to-be created Service Provider.

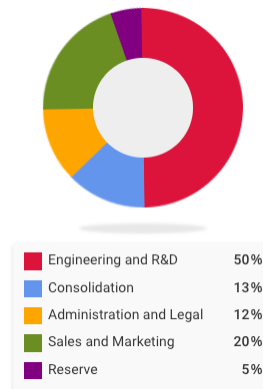
The remaining 300 million Librium will be allocated to the Librium Foundation Token Reserve, and used for the Librium Award System. These tokens will progressively enter into the available liquid supply of tokens.

11.1 Terms and Conditions:

The Terms and Conditions (T&C) for the Librium Token Sale can always be found on the official SparkCo website; librium.io. These Terms and Conditions, which are subject to change, can also be downloaded here.

11.2 Raised Funds Budget Allocation

Engineering and R&D*	50%
Consolidation*	13%
Administration & Legal*	12%
Sales & Marketing*	20%
Reserve*	5%



*These percentages are subject to change based on SparkCo’s needs, and should be considered a proposal for the token allocation.

11.3 Tokens bonus tranches

Librium EQL will be sold at a discount to early buyers, at a rate sliding from 20 Librium per 1.00 USD equivalent in ETH, down to 17 per 1.00 USD equivalent in ETH, finishing at the 400 million minted Librium mark. Early buyers will effectively get up to 20% more Librium per ETH.

The “Bonus Tranches” will discount Librium, which increases the number of bonus Librium received for 1.00 USD equivalent in ETH, from 0% up to 20%, according to the following formula:

- **Tranche 1 (\$0 to \$1 million):** 20% more EQL per ETH than std tranche, or approximately 20 Librium per 1.00 USD equivalent in ETH.

- **Tranche 2 (\$1 to \$3 million):** 15% more EQL per ETH than std tranche, or approximately 19 Librium per 1.00 USD equivalent in ETH
- **Tranche 3 (\$3 to \$7 million):** 10% more EQL per ETH than std tranche, or approximately 18 Librium per 1.00 USD equivalent in ETH
- **Std tranche (\$7+ million):** 17 EQL per 1.00 USD equivalent in ETH

At the time of the Pre-sale event, \$5 million worth of Librium Tokens will be sold. In case this limit is reached, Pre-sale event will be closed.

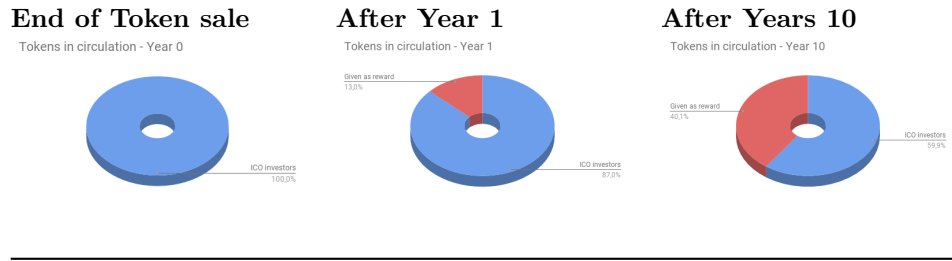
If at any time, 1,000,000,000 Librium EQL are minted or \$18 million worth of Librium are sold, the token creation event will close. The number of available Librium EQL to purchase during the ICO is variable, depending on the number of Librium Pre-sold before the Token Creation Event, and will never exceed 1,000,000,000.

11.4 Tokens supply schedule

The 300 million Librium allocated to the Librium Foundation Token Reserve will be distributed through the Librium Award System. 20% of the remaining tokens of the Token Reserve will be awarded to players of the Librium Ecosystem every year.

11.5 Librium liquid supply

Here are representations of the available liquid supply of Librium at different times. The supply is divided amongst the different owners of the tokens. This segmentation does not take into account the tokens sold by the Librium Foundation to ease the onboarding of new digital businesses.



12 Frequently Asked Questions

12.1 What is Librium?

Librium (symbol: EQL) is a ERC20-compliant token based on the Ethereum blockchain technology. It is the core asset in the new Librium Ecosystem described in this document. Users possessing Librium EQL can exchange it for digital services and physical goods or loan it in exchange for repayment with interest.

12.2 What does Librium represent?

Librium is an Ethereum-based token in the Librium rewards and business-loan platform as described in this document. They are not refundable, nor are they securities or for speculation. There is no promise of future performance. There is no suggestion or promise that Librium has or will hold a particular value. Librium gives no rights in the company and do not represent participation in the company. Librium is sold as a functional good. Any value received by the company may be spent without conditions. Librium Initial Coin Offering purchases are meant only for experts in cryptographic tokens and blockchain-based software systems. There is no guarantee that Librium or the Librium commission rewards and micro-payment platform will be successful and have any long-term value whatsoever.

12.3 What amount is being raised? What's the cap of tokens? Will there be a follow-on offering?

We are targeting a raise of as much as \$18 million USD and a cap of 1 Billion (1,000,000,000) Librium tokens. We do not plan to have a follow-on offering.

12.4 What crypto-currencies are accepted in the crowd-sale?

ETH will be accepted in the crowdsale. You will be required to have an Ethereum wallet pointed at the token/crowdsale address to participate in the crowdsale. Librium EQL is an Ethereum derived token. If you hold BTC or another crypto-currency it can be exchanged for ETH via third-parties and used to participate in the crowdsale.

12.5 When will the crowdsale happen?

The crowdsale will happen on December 8th 2017. The exact day will be dependent on finalizing the contract and completing the full audit, and may be changed by SparkCo. The contract will be made available on the SparkCo Official public Github repository once it is finalized.

12.6 What is the price of Librium?

Librium will be sold at a fixed ratio to ETH. The goal is to raise up to \$18 million USD equivalent in ETH for selling 1 billion Librium Tokens, which will determine the exchange rate, and will be set immediately before deploying the contract.

12.7 How will SparkCo use ETH raised during token launch?

The ETH received in the crowdsale will be used by SparkCo to improve our agent reward ecosystem, build out a micro-payment system, and onboard additional digital partners as explained in this document.

12.8 Is Librium transferable?

Crowdsale purchased Librium is transferable once the token sale event finishes. Librium EQL can be transferred into the Librium Foundation Internal Ledger as described in this document. Librium can be redeemed through the Librium Service Providers for digital services and physical goods or traded with others. Librium themselves have no inherent value and can only be redeemed at rates determined by SparkCo, which will use token exchange pricing to set rates.

12.9 Which white paper is considered the final version?

The latest English version of this white paper when the ICO begins, posted publicly at <https://librium.com/>, is considered the final version. All prior versions and translations into other languages are for informational purposes only. ICO purchasers should be familiar with the English final version of the Librium white paper before purchasing Librium EQL.

12.10 Will SparkCo follow this document exactly following the token sale event?

At the date this document is published, SparkCo intends to follow through as described herein. However, it is impossible to predict the future, and changes in business strategy, the regulatory environment, technologies and other unforeseen circumstances may necessitate deviations from the described plan. SparkCo intends to faithfully follow through on execution of the business plan and Librium system but retains the right to deviate from this document as needed to succeed. This document should be considered a proposal.

13 Citations

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