**Blocklock, Inc**

Delaware B-Corporation

**Vision**

Blocklock is the universal, trusted application provider for individuals and institutions to exchange credentials and personal data and create and execute contracts using distributed ledger technology (blockchain). As a Benefit (B) Corporation, we pledge to guard data quality while providing users with privacy, convenience, security and self-sovereignty throughout her or his civic duties lifecycle.

**Mission**

Create value throughout the citizen’s work and civic duty cycles by creating trusted blockchain applications which insure personal information asset privacy, accessibility, accuracy, authentication and self-sovereignty.

**Objectives**

We seek to further the ideals of democracy and individual data rights in order to restore trust in our public and private institutions. Our solutions will always permit individuals ownership of their data, but allow individuals to easily share diplomas, work experience or social security numbers for employment, government or other identification purposes. Data sharing is done on a conditional basis; all access timeouts are agreed in the approval request.

**Values**

Integrity

Teamwork

Accountability

Self-sovereignty

**The Problem & Solution**

Our existing internet vulnerabilities are well known. Entering data into the digital world poses a risk that the information may be used in ways that the individual or company did not intend such as identity theft and fraud, or political manipulation. Employers spend considerable time and resources manually verifying a prospective employee’s education, experience and qualifications in order to make an employment decision. The government employs a large bureaucracy to handle information gathering and requests.

The **Blocklock** application solution allows individuals to maintain ownership of his or her data and invite viewers securely while allowing institutions a rapid verification of credentials and experience through decentralized authentication on a distributed ledger. The problem we seek to solve is managing data permissions and retraction, creating a dashboard of documents history, and synchronizing across electronic devices.

**Blocklock** is based on open-source technologies: the groundwork of open standards enable common platforms to communicate with one another, a key element in blockchain value. Autonomy from a single vendor’s interests is key to the longevity and independence of the system. We are bound by our mission to protect your individual data rights above profits.

**Target clientele**: Employers, Individuals, Higher Education, Professional Certification Institutes, Governments, Unions

**Example of Beta Program** – MIT Diploma verification (Blockcerts Wallet- partnered with Learning Machine)

Blockcerts Wallet solves the diploma verification problem. After the student downloads the app, it generates the public-private key pair and sends the public key to MIT, where it is written into the digital record. Next, a one-way hash (a string of numbers that can be used for verification later) is added to the blockchain. The diploma information itself doesn’t go onto the blockchain, just the timestamped transaction indicating that MIT created the digital record. Finally, MIT emails the digital diploma (a JavaScript Object Notation file, or JSON) with the student’s public key inscribed into it. Because the mobile app on the student’s phone has their unique private key, the student can prove ownership of the diploma.

For students, the benefits go beyond mere novelty. They can share their diplomas almost immediately with whomever they please, free of charge, without involving an intermediary. This is particularly important for students who need to prove to an employer or another university that they have an MIT diploma. And thanks to the blockchain, the third party can easily verify that the diploma is legitimate without having to contact the Registrar’s Office. Using a [portal](https://credentials.mit.edu/), employers or schools can paste a link or upload a student’s digital diploma file and receive a verification immediately. The portal essentially uses the blockchain as a notary, locating the transaction ID (which identifies when the digital record was added to the blockchain), verifying the keys, and confirming that nothing has been altered since the record was added.

**How can we use blockchain technology?**

What do institutions use to organize the expanding blockchain data sources in a comprehensive and systematic way? MIT has an app for their process, but is an HR rep or university admissions officer going to 100’s of apps from different universities on their phone to collect the data from all applicants? And what if they quit, how is the organization learning?

Trusted blockchain applications facing the public and private institutional management are needed. Blocklock aims to solve this problem by creating next generation applications designed for individuals, businesses and governments to utilize distributed ledger data. Starting with **Blocklock-Secure Check** products that bridge the data needs of our employment marketplace, and extending into management of a citizen’s social and civic identity.

**User Adoption Path**

**Partner with the UW-Madison or other premier, large university to develop first iteration.**

**Blocklock-Check** is our first open-source modular application which allows a company access to the blockchain universe. Imagine a simple portal where confidential and personal information from applicants can be exchanged instantaneously and securely. Access parameters to a team can be imported from systems or built ground up to ensure the highest level of confidentiality of data for the organization.

**Blocklock-Check** will be the key to verifying a candidate’s identity and background in the talent acquisition process. Background checks such as criminal and civil suits against the person are included as are credit checks and monitoring. A professional work reference through blockchain would only need to be given once.

Court and police records are public information and we will build AI algorithms to link an identity to available records. We believe sending notifications to individuals to claim and therefore lock their court records data in the blockchain universe will attract wide adoption as a verification system. Courts may wish to issue blockchain based records in the future.

**Blocklock-Hunt**, our second module will focus on harnassing your blockchain credentials to get you the job or employee you’ve been hunting for. Owners and managers can know their time won’t be wasted by another padded resume. Job seekers have a better time establishing a relationship with the manager making the decision.

**Blocklock-Id** – Advanced authentication application to secure your blockchain token ID to your facial and voice recognition, fingerprint and retina scans, and digital identifiers such as hardware and software usage. Exchange peer-to-peer data safely and securely in your social networks. AI creates a dashboard to see who is holding your internet legacy data and offers you tools to regain ownership.

**Blocklock-Pay** introduces crypocurrencies, financials smart contracts and payment systems including a secure online shopping place to buy and sell with the highest level of safety and reputation knowledge.

**Blocklock-Smartroll** creates smart employment contracts which achieve fully automated payroll systems including local tax withholdings. Paychecks can be transferred to employee blockchain certified distributed ledger bank or to a normal checking account.

**Blocklock-Bankroll**, the first distributed ledger bank (DLB) with a full range of checking, credit, investment, savings, mortgage and lending services. Paychecks may be issued in a company’s own cryptocurrency.

**Blocklock-Union** – Election management for union representation and voting

**Blocklock-Civic** – Election management for local, municipal and state governments with secure verification of citizen’s identity and registration.

**Blocklock-Forum** – Electorate public debate, polling and referendum management. Comments are scored by other citizens democratically, the best arguments take up the prime real estate, fringe elements are voted down to obscurity. Collect social recognition points as you vote, pay taxes and enter into public debate.

**Smart Contracts**

Smart contracts can create automated security events when certain conditions have been met. Data liability is an issue for all companies employees and customers data, and key elements such as social security numbers will increasingly become encrypted; in essence, loaned for the duration of employment. After completing employment, the data is certified returned to it’s owner, the individual, reducing\* the institutions future data breach liabilities. The individual owner has a data asset liability dashboard which summarizes current data sharing agreements and offers complete control.

\*Of course not all data should or can be removed by the company. It is a reasonable request for employers to certify work experience references for past employee by name and there is a legal requirement to maintain records. This data sharing agreement post-employment also serves as a secure job reference function needed in the professional world. Institutions would need to stipulate the details of the data sharing and retention in a contract to the individual before data is released. Blocklock makes this easy and dependable.

Smart Contract Examples:

1.Employment contracts could cease data sharing of social security number upon fulfillment of federal and state record keeping requirements. The IRS requires employers to keep all records of employment taxes including name, SSN, addresses, dates and pay for at least four years after filing the 4th quarter for the year. Very few companies purge their old data after fulfilling the requirement. Automated data controls would reduce employee and employer exposure to liabilities.

2.Users could choose to share advertising revenue with companies (Facebook, Google, etc) profiting from their data, therefore reclaiming and monetizing social capital instead of giving it away for free.

**Lifecycle Development**

Stage One: Build integration with Diplomas and Professional Certifications blockchains (Universities,SPHR, SCIM, Legal, Medical, ect). Create smart contract engine and user interface with focus on user experience and feedback.

Stage Two: References, Work Experience, Criminal and Civil Court Records, Credit Reports

Stage Three: Resumes, Skills Testing, Behavioral/Personality Testing

Stage Four: Smart Employment Contracting and On-boarding (Medical, Social Security, and Personal information)

Stage Five: Performance Reviews, Sales Quota Attainment Verification

Stage Six: Payroll and Incentive Compensation Smart Contracts and Crypo-currencies

Stage Six: Integration with leading ERP and HRMS systems

Stage Seven: AI to match individuals in network who are actively seeking a job with suitable positions at companies

Stage Eight: Union voting

Stage Nine: Government electoral systems and identity management

Stage Ten: Democratic forums

Blockchain open-source platform development options – **Blockcert, Blockstack, Hyperledger (Linux)**

User applications must be IOS, Android, Windows, Mac and Linux compatible.