

# Blockademia



# Blockademia

Decentralized system for issuing and verifying documents

<b>1. Introduction</b> .....	<b>3</b>
1.1. Target market	
1.2 Target users	
1.3. Why blockchain?	
1.4. Why Cardano?	
<b>2. Blockademia system</b> .....	<b>5</b>
2.1. Blockademia dApp	
2.1.1. Issuing a document (blockchain entry)	
2.1.2. Verifying authenticity	
<b>3. Blockademia token (ACI)</b> .....	<b>8</b>
3.1. ACI token distribution	
3.2. ACI token liquidity	
3.3. ACI token distribution	
3.4. Initial offer dates (to be confirmed)	
3.5. ACI token prices and sales limit	
3.6. ACI token acquisition plan	
3.7. ACI token release plan	
3.8. Project development token release plan	
3.9. ACI token rewards	
<b>4. User network growth</b> .....	<b>13</b>
<b>5. Governance</b> .....	<b>13</b>
<b>6. Social responsibility</b> .....	<b>14</b>
<b>7. Roadmap</b> .....	<b>14</b>
<b>8. Conclusion</b> .....	<b>15</b>



**Blockademia**

Shape the world with truth!

# 1. Introduction

Fake certificates are a global issue growing in size. Fake certificates exist and new are being created in both developed and developing countries.

In Republic of Croatia alone in the last few years there were dozens of cases of public service employees with fake diplomas and certificates, and with further investigation, dozens other forgeries were found. Not only faculty diplomas are falsified, a lot of other certificates are falsified, such as certificates from different professional courses. Forging and creation of fake certificates is a basis of whole businesses and financial losses and consequences are hugely significant.

Detection of fake documents is often a complicated process. Forgeries look exactly like the originals and checking the authenticity with the issuer is a time consuming procedure.

## 1.1. Target market

Blockademia system aims primarily to verify the authenticity of documents issued by educational institutions such as faculties, community colleges, high schools, elementary schools, adult education institutions and any other document issuers that need protection from forgery. Other possible issuers include city, regional and state offices, insurance, pharmaceutical company etc.

## 1.2 Target users

Blockademia system aims primarily to verify the authenticity of documents issued by educational institutions, city, regional and state offices, insurance, pharmaceutical company any other document issuers that need protection from forgery.

On the other side, companies and regulators are the entities that need to check that any given document is authentic or is a forgery.

According to the latest data here are the numbers of academic institutions and potential users of Blockademia system, regionally:

- Adriatic region 450
- EU 2.725
- Globally 25.000

It is expected that, by 2023., almost 300 million people will own a higher education degree certificate.

As stated before, not only higher education institutions, but other institutions and companies issuing certificates are potential Blockademia users so total number of potential users is much higher.

### 1.3. Why blockchain?

Every blockchain uses complex cryptography to create and verify blocks in a chronological order. This creates a chain of blocks which is immutable and permanently stored. This chain of blocks can be described as a ledger. The ledger is distributed to thousands of computers around the world and new blocks are constantly being added synchronously to all the computers in the network.

Blockchain transactions are fast, secure and decentralized which enables a trustless ledger with no feasible way to attack the ledger.

### 1.4. Why Cardano?

Cardano is the first blockchain platform developed by scientific principles and a huge team of scientists and academic experts are actively working on its development. Cardano platform is being developed through scientific peer-reviewed process and code is thoroughly checked and formally verified before put in general use.

With such a methodology, Cardano is becoming a third generation blockchain that can easily overcome the issues of older generation blockchains such as Bitcoin and Ethereum while keeping the desirable features of a decentralized platform – security, speed and interoperability.

Cardano also enables the creation of tokens on its blockchain which keep many important features of ADA – Cardano's native token.

Enabling next-generation smart contracts, Cardano will position itself as a leading blockchain platform for years and decades to come, therefore we believe that choosing Cardano is a logical choice

## 2. Blockademia system

Blockademia is a decentralized information system for issuing and checking the authenticity of issued diplomas, certificates and other documents using entries to the Cardano blockchain.

Cardano blockchain entries are public, immutable and every entry records the exact time and date of said entry.

Using these blockchain features, Blockademia ensures permanence and immutability of the issued entry containing document metadata and subsequent authenticity checks.

Blockademia is a modular application with predefined functionality depending on the size and the needs of the issuer. Pro and Enterprise versions include the DMS (Document Management System) module while the Rest API connector is reserved for only the Enterprise version. These modules enable simple connections to other systems.

### **Blockademia system consists of several key parts:**

- Web interface and the mobile app for issuing/checking the documents
- Cardano blockchain entries which ensure immutability
- Blockademia utility token (ACI) as a „fuel“ for running the Blockademia system
- Decentralized system for credibility rating of issuing entities

### **Blockademia system will feature:**

- Single user, Multi user and No limit users
- Including or not including Document Management System (DMS)
- Web interface, Mobile app and Rest API access

### **Blockademia system will consist of 4 functionality models:**

#### **Blockademia Basic:**

- Single user
- No DMS
- Web interface only
- Maximum of 25 documents issued per year

#### **Blockademia Medium:**

- Multi user (max 3)
- No DMS
- Web interface only
- Maximum of 100 documents issued per year

#### **Blockademia Pro:**

- Multi user (max 9)
- With DMS
- Web interface and Mobile application
- No limit of documents issued per year

#### **Blockademia Enterprise:**

- No limit users
- With DMS
- Web interface, Mobile application and Rest API
- Administrator user interface
- No limit of documents issued per year

Blockademia Apps functionality:	Min. of ACI Tokens held
<b>Blockademia Basic</b>	1.000
<b>Blockademia Medium</b>	10.000
<b>Blockademia PRO</b>	30.000
<b>Blockademia Enterprise</b>	50.000

## 2.1. Blockademia dApp

Blockademia dApp is a core web application which is used for verifying the originality/ authenticity of issued documents.

System differentiates two entities:

- Document publisher
- Document checker/verifier

Blockademia has a dual-layer structure where the processes of document issuing and all user processes are being executed in an isolated part of the application and the blockchain interaction in another part. This way, cost optimization of the system is achieved.

### 2.1.1. Issuing a document (blockchain entry)

Issuer uses the web GUI to enter necessary data to create the document. System uses that data to generate a unique hash that is being written to the blockchain as transaction metadata.

System only considers data uploaded via the Blockademia interface. That way the system protects itself from duplicating entries to the blockchain.

Data entry can be per single document or multiple documents to be issued.

Issuer needs to own ACI tokens to enter new data into the system and issue the document to the blockchain.

Issuer has access to the administrator interface where they have an overview of their pre-paid Cardano address which contains the necessary amount of ACI tokens for issuing.

Entry interface enables single or multiple document data entry.

When the issuer enters the data and confirms it, the dApp charges the fee in ACI tokens and writes an entry to the blockchain.

After the blockchain entry is added, the issuer receives a QR code for each individual document which can be used later for simple verification of the issued document.

## 2.1.2. Verifying authenticity

Verifying the authenticity of a document is being done through the web interface or Android/iOS Blockademia application.

Verifier enters the data required for the verification through the interface or scans the generated QR code.

If the verifier is using the basic version of the application, they can verify documents one by one and the verification is free of charge.

For business and enterprise verifiers there is a corporate version of the application which enables advanced options of verification. Corporate version is charged in ACI tokens which are pre-paid to the verifiers Cardano address.

Verification process returns that the document has indeed been issued by the issuer (hash OK) or returns a message that the document has not been found on the blockchain.

If the document is not found it can mean that the issuer did not issue the document through the system or the document is not authentic.

If the document exists on the blockchain but the relevant data is not matching the system returns that the hash is different and the document is not valid.

### 3. Blockademia token (ACI)

Blockademia token (ACI) is a native token on the Cardano blockchain. It is both a utility token and a governance token of the Blockademia decentralized system.

The intended uses of Blockademia token are:

- Paying the user fees for using the Blockademia system
- Rewarding users for participating in the system (issuers, referrers that onboard new issuers)
- Treasury financing
- Governance of the decentralized Blockademia system

The system will include a form of rewarding users who hold the token to disincentivize token sales after exchange listings.

ACI token usage is designed to disconnect the cost of the service from crypto market volatility. The system itself drives the ACI token demand regardless of token price.

#### 3.1. ACI token distribution

Total ACI token supply cap is **250.000.000 ACI**.

1 ACI is divisible to 6 decimal places and it is represented as 1.000000 ACI.

The smallest divisible part of the ACI token is called a chip and is equal to 0.000001 ACI.

To ensure fair initial distribution and optimal initial decentralization, initial token distribution is following these guidelines:

- ACI tokens will be distributed to as many Blockademia users as possible
- No single ACI token owner will not be distributed a significant amount of ACI tokens in regards to total supply to limit possible market manipulation
- There will be no significant differences to token price within the initial offering
- Participant of initial distribution will be actors from different sectors – future system users, early adopters, investors

All participants of the initial offering will be registered users and will be subjected to KYC procedure.

Blockademia system participants are divided into several groups

- **MANAGER – initially Smart Contract Ltd., Community in the long term**
- **ISSUER – legal entity – entity which issues documents (faculty, high school,...)**
- **STUDENT – legal or private entity – owner of the issued document**
- **VERIFIER – legal or private entity – verifying the authenticity of issued documents**
- **REPRESENTATIVE – legal entity – franchise owner for a country or region**
- **TREASURY – Addresses which store the reserve of the ACI tokens**

In order for a participant to actively participate in the system, they need to hold a minimum amount of ACI tokens according to their role.



To enable and incentivize system growth, the required holding amounts will be progressively decreasing in correlation with the growth of active issuers.

This mechanic will incentivize early adopters to hold their tokens for longer and simultaneously reward the early issuers as their required holding amounts will decrease over time thus opening up their tokens for creating new documents.

The system charges the following:

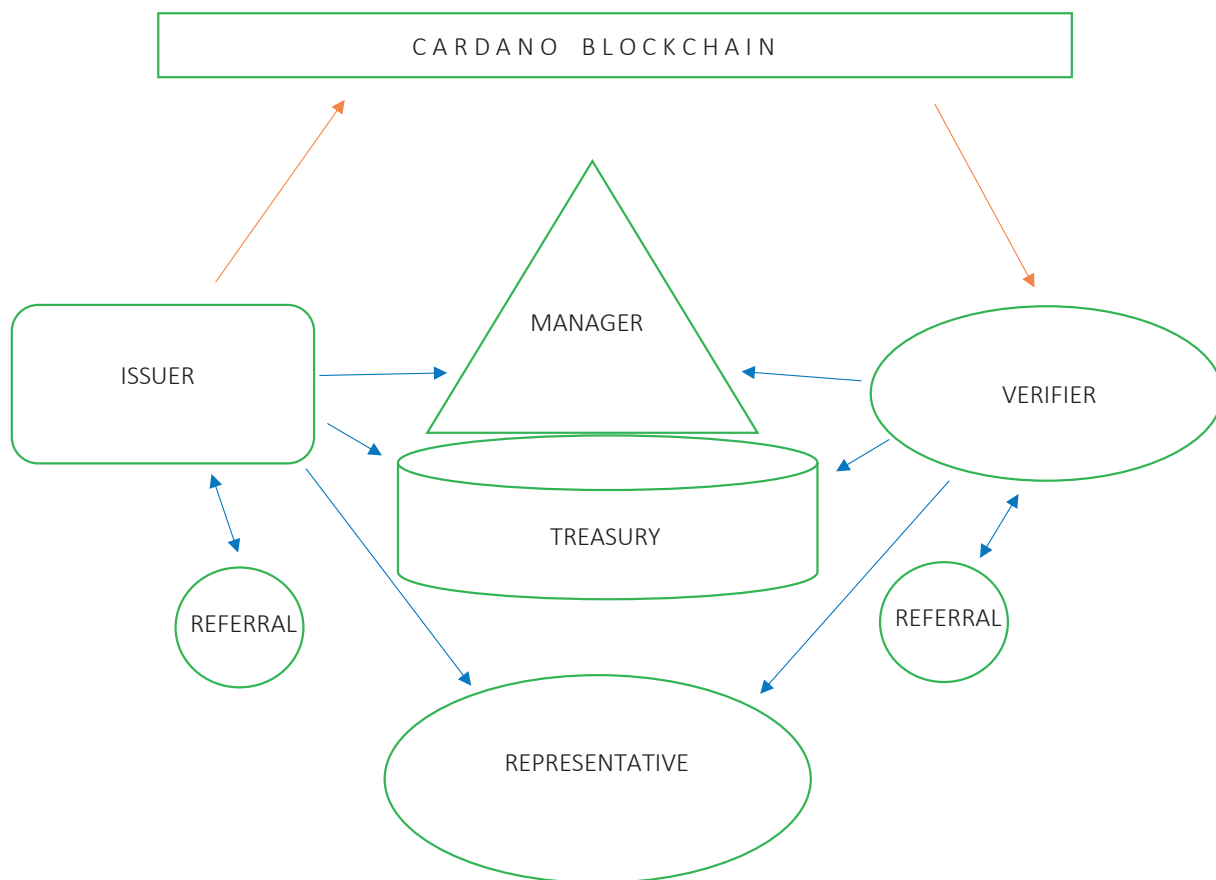
- Issuing documents to the blockchain
- Verifying more than 25 documents per year

Verification of up to 25 documents per year is free of charge. Verification is executed through the web interface or through Blockademia mobile application.

### Transaction cost

For each internal transaction (transferring ACI tokens between wallets) a standard system fee is calculated with no less than 0.05 ACI per transaction which is added to the Treasury.

For transaction in the Cardano network, a Cardano network fee is charged.



### 3.2. ACI token liquidity

Initial offering of the ACI token will be implemented through the Smart Contract web platform.

The token will be available for purchase in ADA.

Tokens which are earned through the referral system will be distributed free of charge when the initial distribution is completed.

Reward system for decentralizing the Blockademia network will continue after the initial distribution until the foreseen amount of tokens for this purpose is spent.

After the initial distribution, the Blockademia team will work on listing the ACI token to cryptocurrency exchanges to achieve highest possible liquidity and to enable users globally to purchase tokens. ACI token will be listed on Cardano decentralized exchanges as soon as that will be technically possible.

### 3.3. ACI token distribution

#### ACI initial offer: 34 % of total supply / 85.000.000 ACI tokens

Distribution	Percentage	Token supply
Project	49	122.500.000
Treasury	2	5.000.000
Private sale	6	15.000.000
Early sale T1	4	10.000.000
Early sale T2	8	20.000.000
Community sale	16	40.000.000
Team and Advisors	15	37.500.000
Total supply	100%	250,000,000

### 3.4. Initial offer dates (to be confirmed)

Distribution	Start	End
Private sale	01.10.2021. 0:00	14.11.2021. 23:59
Early sale T1	15.11.2021. 0:00	21.11.2021. 23:59
Early sale T2	22.11.2021. 8:00	28.11.2021. 23:59
Community sale	29.11.2021. 8:00	05.12.2021. 23:59

### 3.5. ACI token prices and sales limits

Distribution	Token price in €	Amounts to buy in €	ACI Token sale limit
Private sale	0,15	300k - 1M	15.000.000
Early sale T1	0,20	100k - 300k	12.500.000
Early sale T2	0,25	5k - 100k	20.000.000
Community sale	0,30	100 - 5k	37.500.000

Distribution	Token price in €	Amounts to buy in €	€
Private sale	0,15	300k - 1M	2.250.000
Early sale T1	0,20	100k - 300k	2.500.000
Early sale T2	0,25	5k - 100k	5.000.000
Community sale	0,30	100 - 5k	11.250.000

### 3.6. ACI token acquisition plan

Distribution	Acquisition period	Minting plan
Team & Advisor	18 months	3 months
Private sale	12 months	3 months
Early sale T1	12 months	3 months
Early sale T2	6 months	3 months
Community sale		3 months

### 3.7. ACI token release plan

Distribution	ACI Tokens	Release plan
Team & Advisor	37.500.000 + 10% APY	18+3 months
Private sale	15.000.000 + 10% APY	12+3 months
Early sale T1	12.500.000 + 10% APY	12+3 months
Early sale T2	20.000.000 + 10% APY	6+3 months
Community sale	37.500.000 + 10% APY	3 months

APY = Godišnji prinos ACI tokena

### 3.8. Project development token release plan

There are 122.500.000 ACI tokens intended to be used for the Blockademia project development. They will be released as follows:

Release percentage	Acquisition period	ACI token amount
20%	3 months	24.500.000
20%	6 months	24.500.000
30%	12 months	36.750.000
20%	18 months	24.500.000
10%	24 months	12.250.000

### 3.9. ACI token rewards

When the functionality of the Blockademia platform will be ready for public use and finalization of the initial token distribution, the owners of ACI tokens will be able to lock their tokens and earn additional yield of 10% per year in ACI tokens.

Locking the tokens will grant access to some advanced functionalities of the system besides providing yield.

## 4. User network growth

To ensure the growth of the Blockademia user base, the following incentives are implemented:

- Rewards for onboarding new users – users who onboard a new issuer or verifier will permanently receive a percentage of each transaction a new issuer or verifier issues/checks using the system. They will also receive a single payment in ACI tokens for onboarding new users.
- Rewards for issuers – each issuer receives a small percentage of transaction cost for verification of the documents they issued (Cash back). The intention is to motivate the users to spread the word and the use of the Blockademia system.

Each transaction fee within the Blockademia system will be distributed in a following manner:

- **Manager** 65%
- **Representative** 20%
- **Issuer** 5% (for verification of their documents)
- **Referrer** 5%
- **Treasury** 5%

## 5. Governance

Blockademia system will work in a semi-decentralized manner at the moment of its creation. This means that the development of the project will be managed by the company Smart Contract Ltd. from Zagreb, Croatia and the data management of the system will be a hybrid of the web interface and the Cardano blockchain.

Decentralization of the system through the means of a smart contract application will be carried out after finalization of the Goguen phase in the Cardano ecosystem and the enabling of „Babel fees“ – paying the on-chain transaction costs with a native ACI token.

As Cardano reaches the Voltaire phase of development, Blockademia system will transition to complete community governance, the code will be open sourced and Blockademia will become a Decentralized Autonomous Organization (DAO).

To ensure consistent funding and development of the Blockademia system a certain amount of ACI tokens will be distributed to the Treasury from the beginning. The Treasury will be available to the DAO to use as it sees fit.

## 6. Social responsibility

At the end of each business year, company Smart Contract Ltd. will direct a part of its financial flow towards socially sensitive groups and especially children – to help ensure higher quality of education and personal development for everyone. The same practice will be done in countries and territories where Representatives will operate.

## 7. Roadmap

### Q3 2021

- Front end web development
- Team creation and formation
- Cardano Project Catalyst Fund 6 participation
- Blockademia KickOff & announcement on Cardano Summit 2021
- Preparation of ACI initial offering

### Q4 2021

- Back end web development
- Market research and marketing
- Blockademia announcement on Cardano 360 and other important events
- ACI token initial offering
- ACI Tokena minting

### Q1 - Q2 2022

- Development of Blockademia application for issuers
- Development of Blockademia application for verifiers
- Application integration with Cardano blockchain
- Early users testnet
- Listing ACI tokens on Crypto exchanges
- Start of putting into circulation the first quantities of locked ACI tokens
- Mint and distribution of Blockademia Professor NFT

### Q3 2022

- iOS and Android mobile applications development for verifiers
- Application testing

### Q4 2022

- Mainnet release

### Long term goals

1. Growing in the international market through representative program
2. Full decentralization and DAO creation

## 8. Conclusion

Blockademia is a Croatian startup which, using Cardano technology, enables permanent, immutable and secure storage of proof of authenticity of any issued document and verification by any user at any given time.

Verification of authenticity is affordable, simple and fast through the usage of Blockademia mobile application.

Using the Blockademia application, the document issuers protect their product from forgery and abuse while also generally adding value to it.

Blockademia system users are private or legal entities, small or large, which have a regular need for verifying the authenticity of documents.

Blockademia system enables full transparency in work and solves a lot of problems with forgeries and manipulations. We fully expect this system to drastically reduce the problem of falsifying official documents wherever it is used.

We believe that decentralized systems relying on blockchain technology are the future. Users of such systems have the option to participate in building and governing these systems, as well as open and transparent ways to earn income by participating which is key to building a better society.

<https://theconversation.com/fake-qualifications-are-on-the-rise-how-universities-can-manage-the-risk-109962>

**Blockademia**

