DIONS upgrade

I/O DIGITAL

Where dreams become technology

Proof of Stake - CiPher • AES256 encrypted messaging & file storage • DNS / Alias System • 4MB Blocks

www.iocoin.io • **www.iodigital.io**

Official wallet support on Telegram: **t.me/iodigitalsupport**

Dear I/O Digital User,

Since 2014 the I/O Digital Blockchain has been running securely with the proven Proof of Stake protocol. DIONS provides an enterprise ready and unique I/O Blockchain upgrade to benefit from the de-central features a Blockchain has.

The team deployed a roadmap with aggressive goals and quickly proposed an upgrade to the main I/O Digital chain after being launched fairly in 2014, codenamed DIONS (decentralized input output name server). The upgrade focus was to serve as an entry point registrar to the team's proposed ecosystem. To make this all possible the core platform algorithm was upgraded to a new POS algorithm codenamed "CiPher".

This, along with staking and security enhancements to its core platform, advances on encrypted data, secure decentralized messaging and aliases to the blockchain. With all of these features being deployed alongside our decentralized GPG-like system, the I/O Digital DIONS blockchain upgrade will prove to be successful in combining these three major components into a true user friendly and advanced blockchain platform.

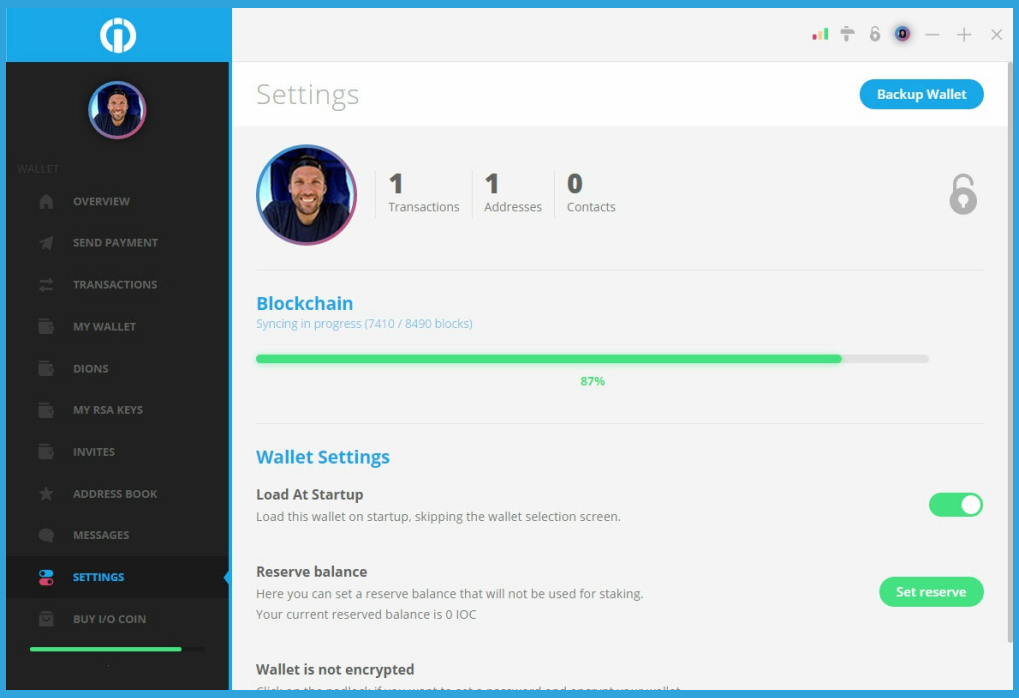
Business usage

The I/O Digital HTML5 wallet is a great Proof of Concept where the team shows the possibilities of the I/O Digital Blockchain. Businesses can connect their own application to the I/O Digital Blockchain and benefit in their own environment from encrypted messaging and file storage. For further information please contact the team through **iodigital.io/contact-us**

First things first - sync it!

When you start to use the wallet and have successfully installed it, always make sure you are fully synchronized with the blockchain. The initial synchronisation can take some time. When you start the wallet you can see at the bottom left a progress bar. Also in the settings tab you will see the actual synching progress.

Do not use any of the features (sending / receiving IOC, registering DIONS for example) before you are at 100%. When transmitting IOC always do a small test amount to ensure everything works as expected.




Disclaimer
Our disclaimer is applicable!
iodigital.io/disclaimer
If you don't agree on any part of the disclaimer, don't use any of the I/O Digital services!

Creating a DION:

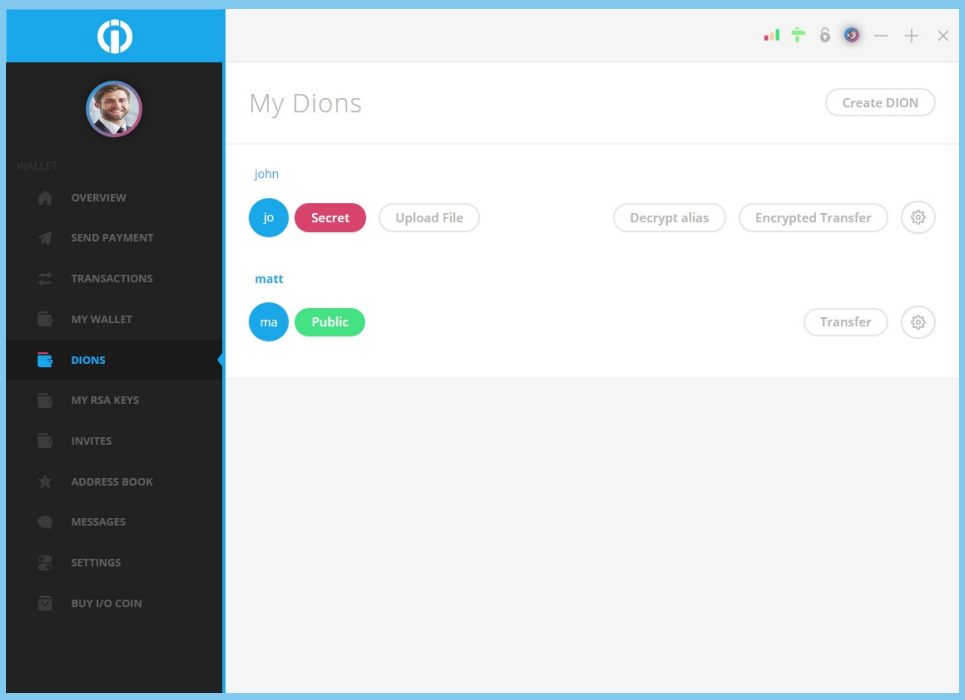
There are two types of DION; public (unencrypted) and private (encrypted).

Private DION is for private use and are not visible on the block explorer or usable by others. So if a DION is private, you cannot receive I/O Coin by using that name (alias). If you want to receive funds and make sure nobody else can register that same name, make it public.

File storage only for private DION!

Users can only use private DIONS for file storage & secure file transfer

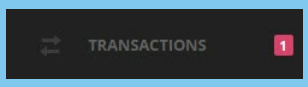
Do not send tokens to private DIONS, make sure it is public and always do a small test before sending large IOC.



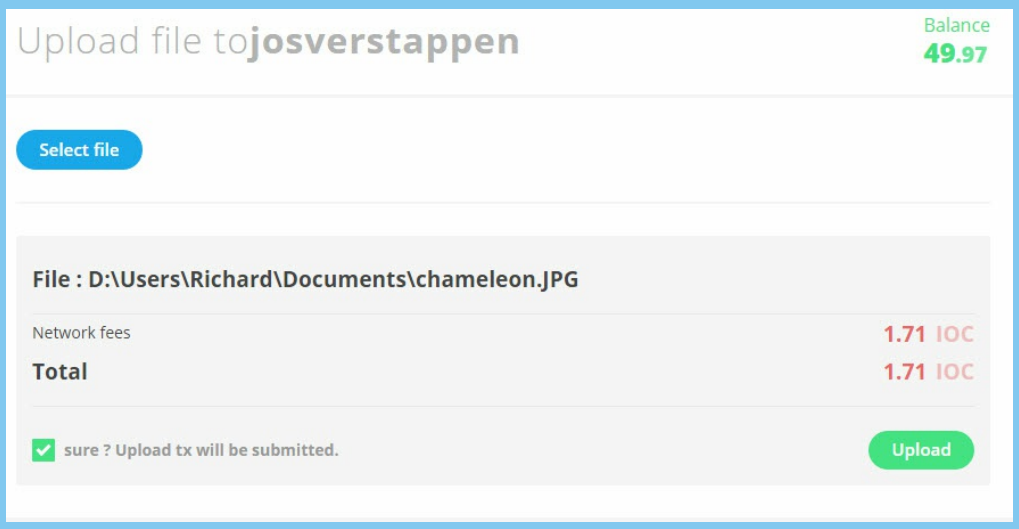
Public DIONS

These are used to create an alias to send and receive tokens from, to invite other users into encrypted messaging and secure file transfers (more info on this below).

1) To create DION go to the 'DIONS' tab in the wallet and click 'create DION' When clicking "create", a transaction is being made a few seconds later. Make sure it does so:



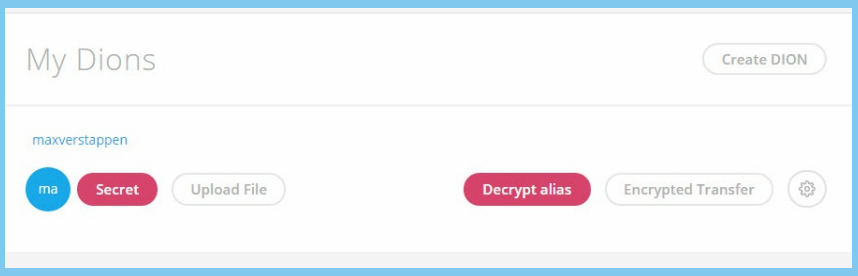
2) To store a file on the blockchain **do not decrypt** the DION and click 'upload file. A confirmation screen will show you how much this file will you cost to upload it in the blockchain (ex. transmission fees) - max 2 mb



A transaction will be made when the upload is being done.

Maximum file size is currently set at 2MB, cost of upload is 0.01 IOC per KB + default transaction fees. These upload fees are returned to the stakers as rewards for securing the network. If you upload a new file to the same DION, then the old one is NOT being deleted but kept stored in the Blockchain in that specific block. You can see this new upload as a new version of that file. You are not able to download the old version anymore through the wallet. Only the last uploaded file.

3) 'To make DION public click 'decrypt alias'



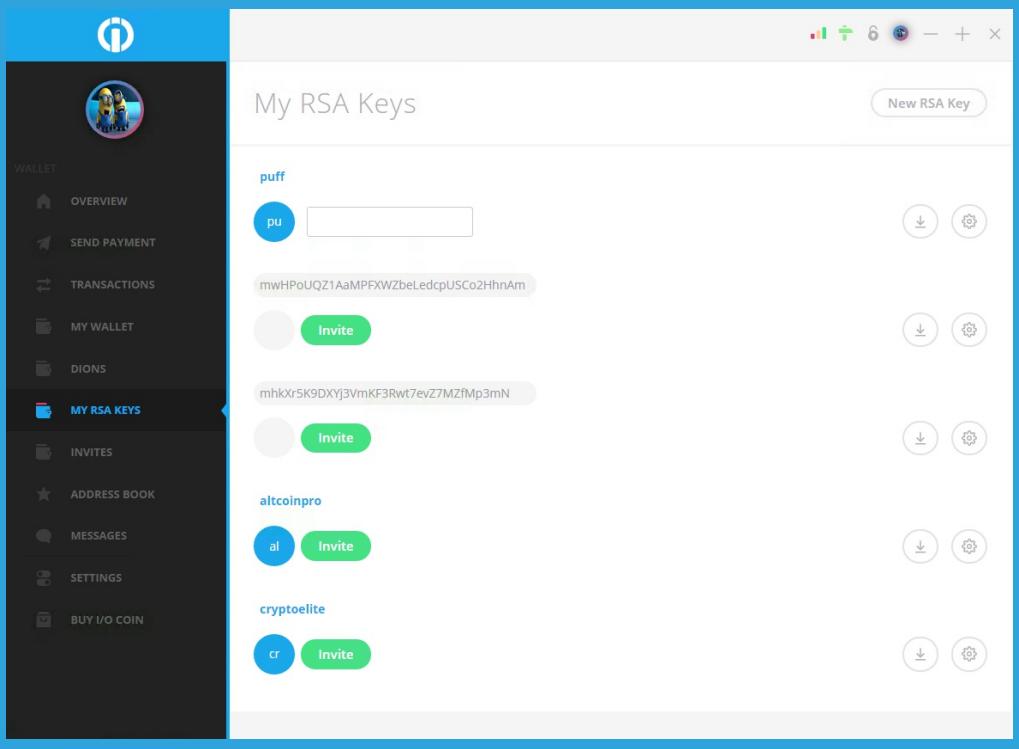
When clicked "decrypt alias" the button changes and a transaction is being made. Decrypting is not instant and has to be accepted by the Blockchain. It can take a few minutes so be patient.

Secure file upload & transfer:

Secure (AES256 encryption) file transfer is a fully decentralized encrypted peer to peer encrypted file transfer mechanism using the blockchain.

Once a file is uploaded to the blockchain via a private DION the DION containing the keys to decrypt the file can be transferred to another wallet however first there must be a tunnel created between each wallet.

In short: you must invite another user and create a virtual encrypted trusted tunnel between you and that user. Once a trusted tunnel has been setup you can transfer the file (DIONS) to that user.



1) Create a DION and upload a file to the blockchain (max 2mb per file). Make sure a transaction is generated and accepted in the Blockchain.

2) Go to 'My RSA keys' and use a public DION to invite another public DION created on the destination wallet

3) Once the invite is accepted there is now an encrypted trusted tunnel between each wallet

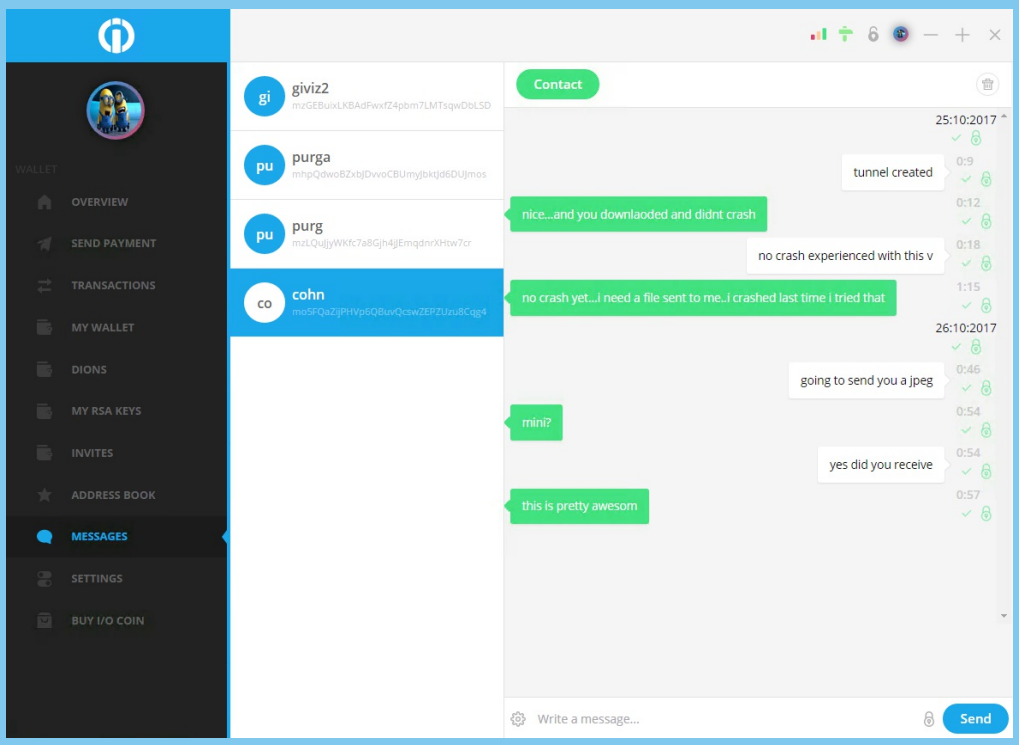
4) Now the DION containing the keys (and file) to decrypt the document can be securely sent to the other wallet by clicking 'encrypted transfer' and sending to the public DION the tunnel was created with

5) When file is received the sender must inform the recipient of the filetype (e.g. .doc / .pdf) so that it can be saved accordingly, this can be communicated via DIONS encrypted messaging (see below).

*****Note: Maximum file size is currently set at 2MB, cost of upload is 0.01 IOC per KB + default transaction fees. These upload fees are returned to the stakers as rewards for securing the network. If you upload a new file to the same DION, then the old one is NOT being deleted but kept stored in the Blockchain in that specific block. You can see this new upload as a new version of that file. You are not able to download that version anymore through the wallet. Only the last uploaded file.**

Encrypted messaging:

Peer to peer AES256 encrypted messaging system is also made possible with DIONS and the HTML5 wallet. Similarly with the secure document transfer a secure tunnel needs to be created first ensuring encrypted and trusted messaging.



1) Create a DION and make it public by clicking decrypt alias (or use an existing DION)

2) Go to 'My RSA Keys' and use a public DION to invite another public DION created on the wallet that you want to message

3) Once the invite is accepted there is now an encrypted tunnel between each wallet

4) Go to the 'Messages' tab and start chatting

Each message cost 0.01 IOC to send. These fees are returned to the stakers as rewards for securing the network.

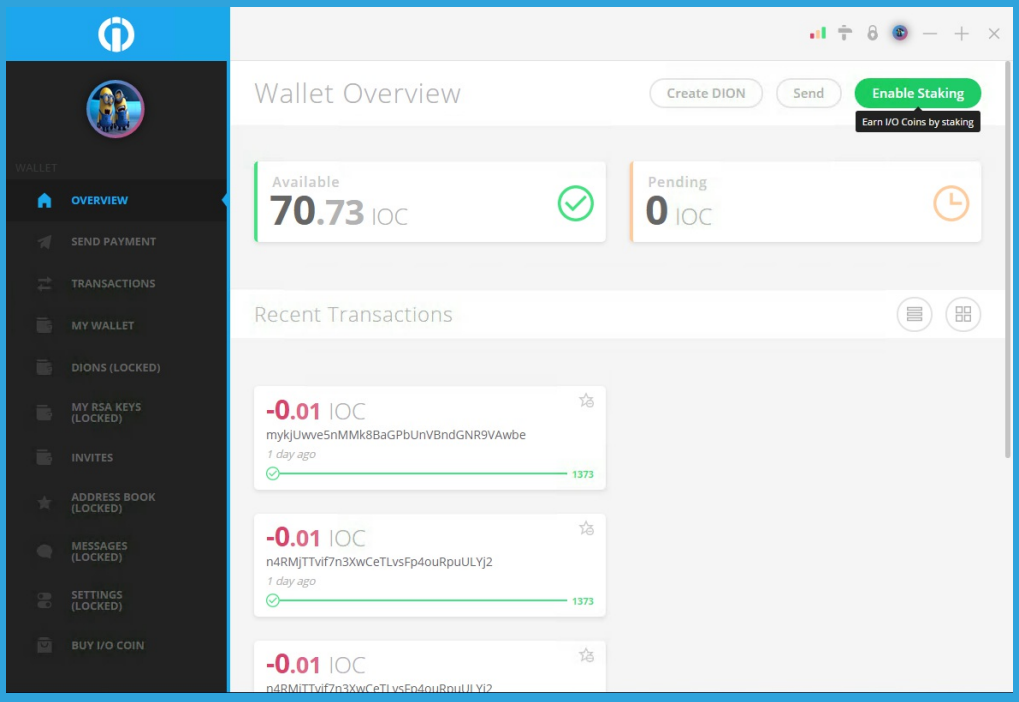
Staking:

Intro to staking and POS CiPher

Proof-of-stake (PoS) is a method by which a cryptocurrency blockchain network aims to achieve distributed consensus. While the proof-of-work (PoW) method asks users to repeatedly run hashing algorithms or other client puzzles to validate electronic transactions, proof-of-stake asks users to prove ownership of a certain amount of currency (their “stake” in the currency).

Proof of Work relies on energy use. Proof of Stake (PoS) currencies can be several thousand times more cost effective and is way more environmental friendly and accessible for the general public to participate in.

So, PoS is another way of securing the network. There is no need for mining coins. Just add your coins to a wallet and click “stake” in the wallet. You are helping the network and **are rewarded with free I/O Coins**.

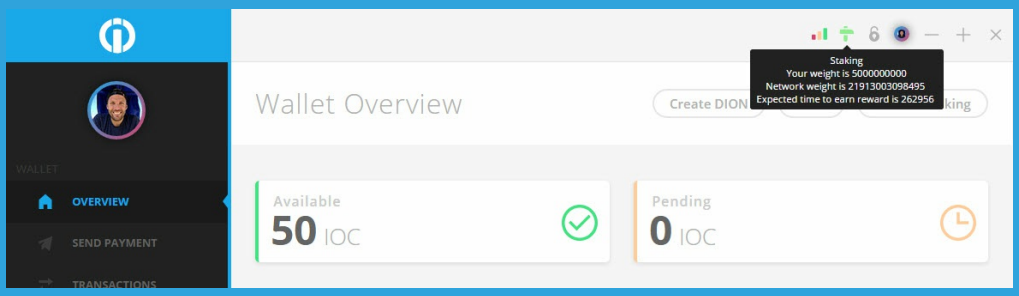


a) Once you have IOC in your wallet and keep your wallet open, it automatically - after some time - starts to stake. There is nothing specific you need to do for that. If your wallet is encrypted, you will have to unlock your wallet by clicking the padlock button and enter your password.

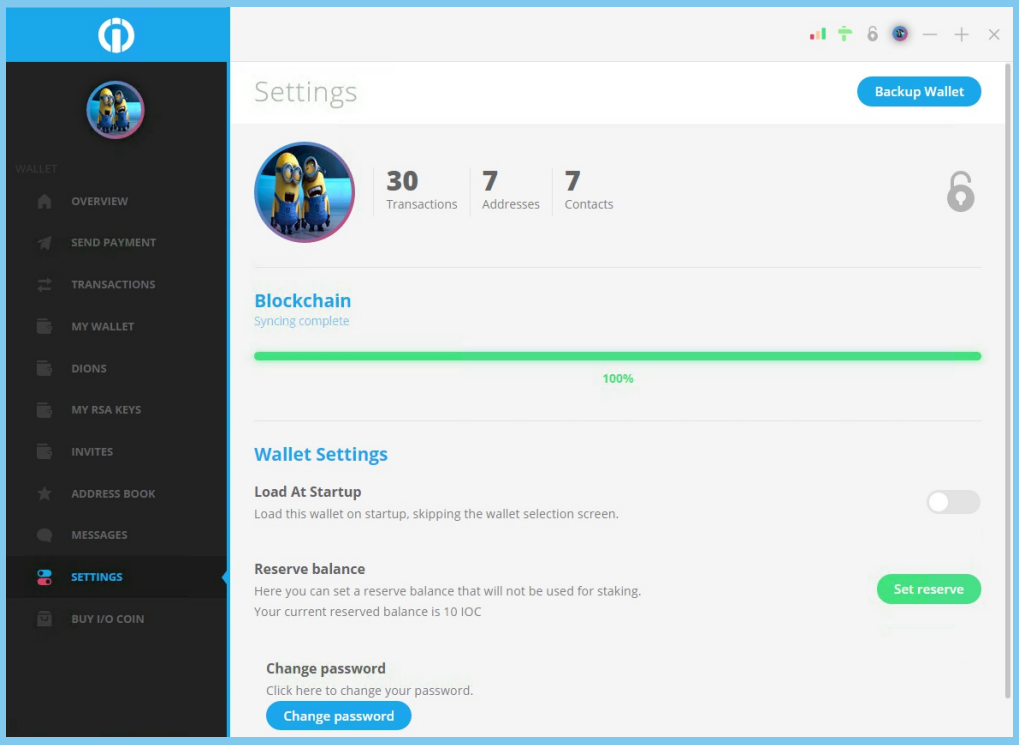
b) By clicking on 'Settings' tab you can also set a reserve balance that will not be used for staking.

You will receive staking rewards in the form of staking rewards for new blocks AND fees generated from wallets using the blockchain for data transfer.

It can take a few hours before your wallet starts to stake. If you are succesfully staking you will see this icon light up. Staking rewards will come in. Be patient! Happy staking

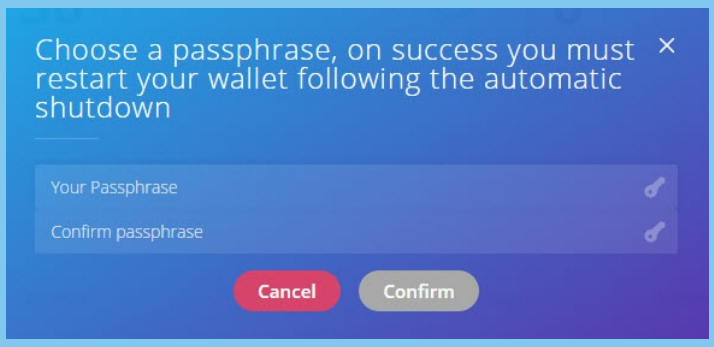


Secure and backup wallet:

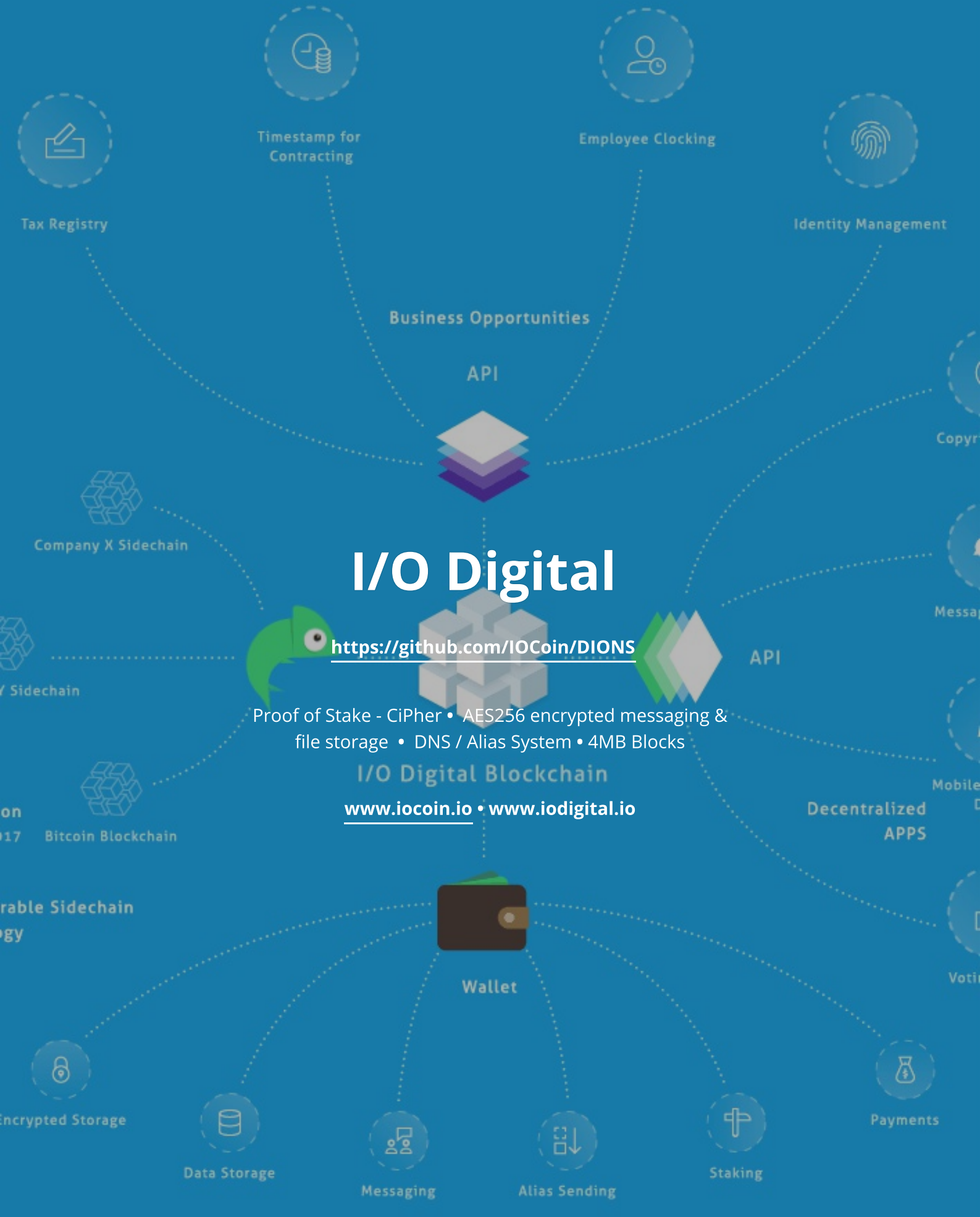


a) To secure wallet click on the padlock and create a strong password. Be sure to keep a record of the password in safe place

Note: Securing your wallet with a passphrase will mean that if you lose your passphrase you will not be able to access your tokens. Nobody can!



b) To backup wallet go to 'Settings' tab and click 'backup wallet'. This feature will create a backup of your wallet.dat file. This file is very important. Be sure to store the wallet.dat file in multiple places (e.g. 2x USB's) and back it up regularly if you create new DION or addresses. Generating a backup can take some time. Please be patient.



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https://github.com/IOCoin/DIONS

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Thank you for your time.

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