

Daric

A Platform to create Private Digital Currencies

You have your currency without a central bank





What is Daric ?

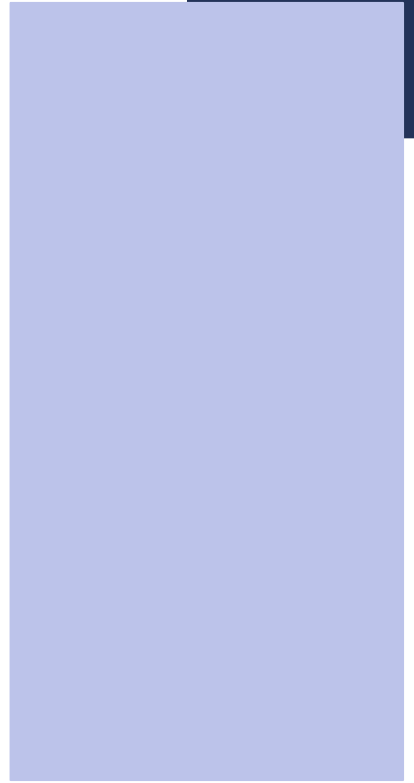
Daric is a software that offers a possibility for large companies, manufacturers, banks, holdings, consortiums, corporations, or organizations to launch own shared currencies or tokens to transfer financial assets or liabilities between customers, partners or employees of each other in a secure, easy, fast and flexible way .

Simple Definition for Daric

With Daric you can create a currency similar to Bitcoin that is valid only between you and your partners

What are Benefits ?

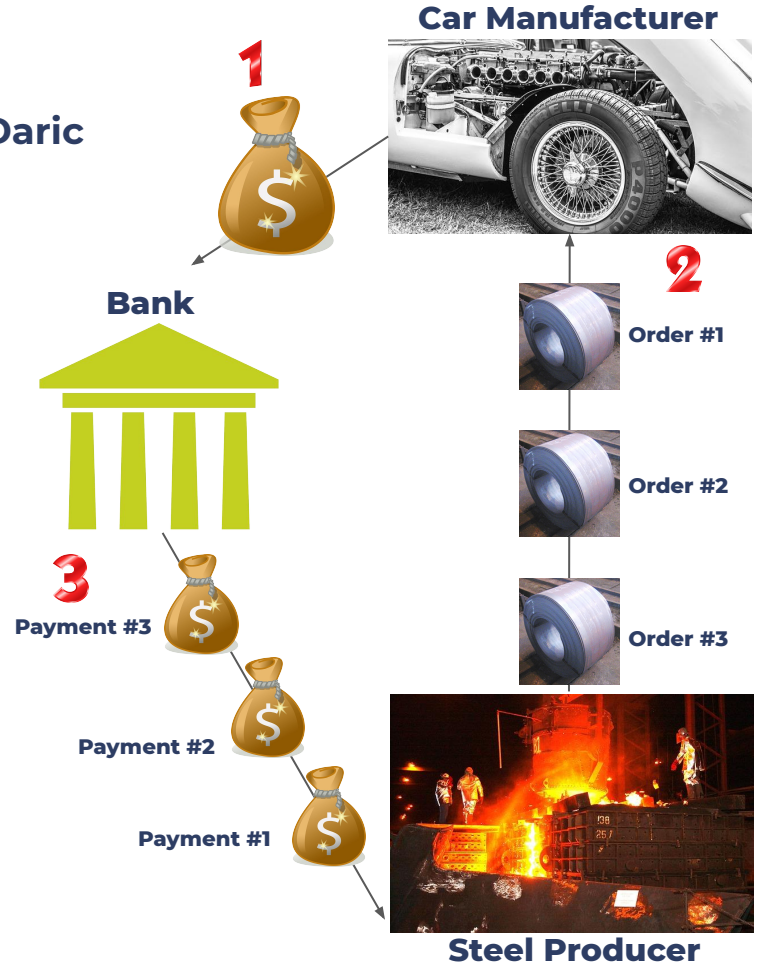
- Less dependency to banks
- More security against stealing



Business Model #1

An example of current usual trade model between a car manufacturer and a steel producer:
The car manufacturer orders to the steel producer and pays by a bank.

Without Daric



Create a currency

The car manufacturer and the steel producer create their own private currency with Daric platform

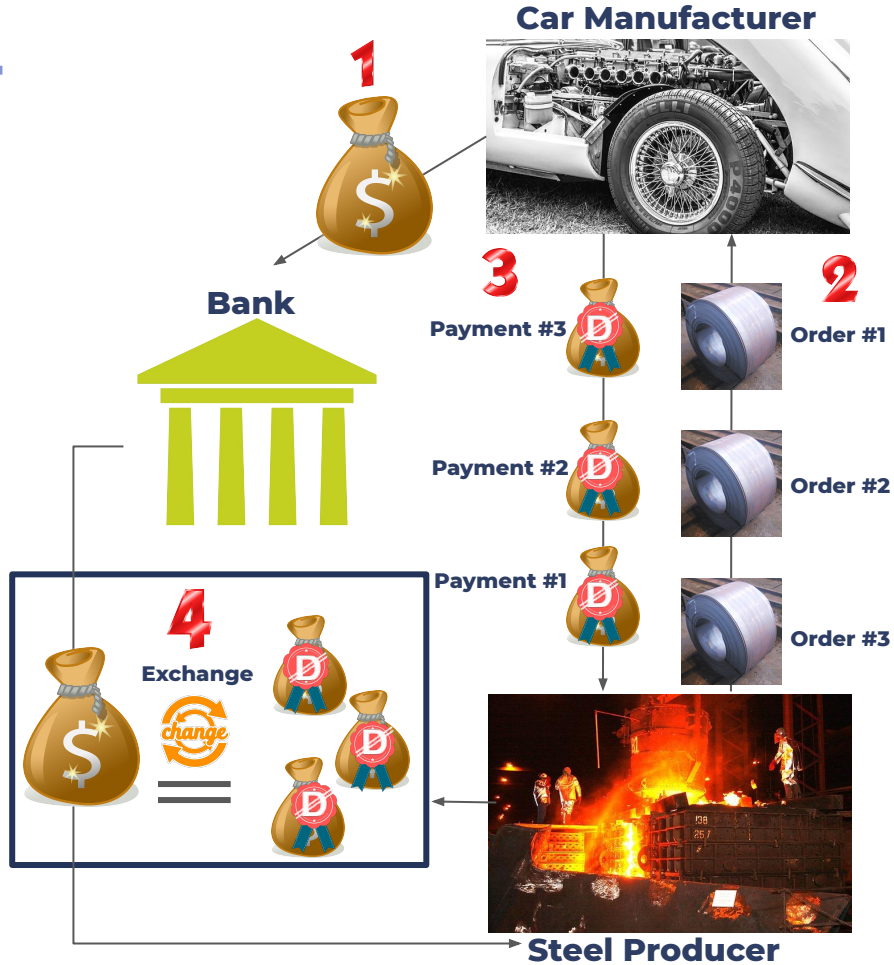


Daric



A new currency





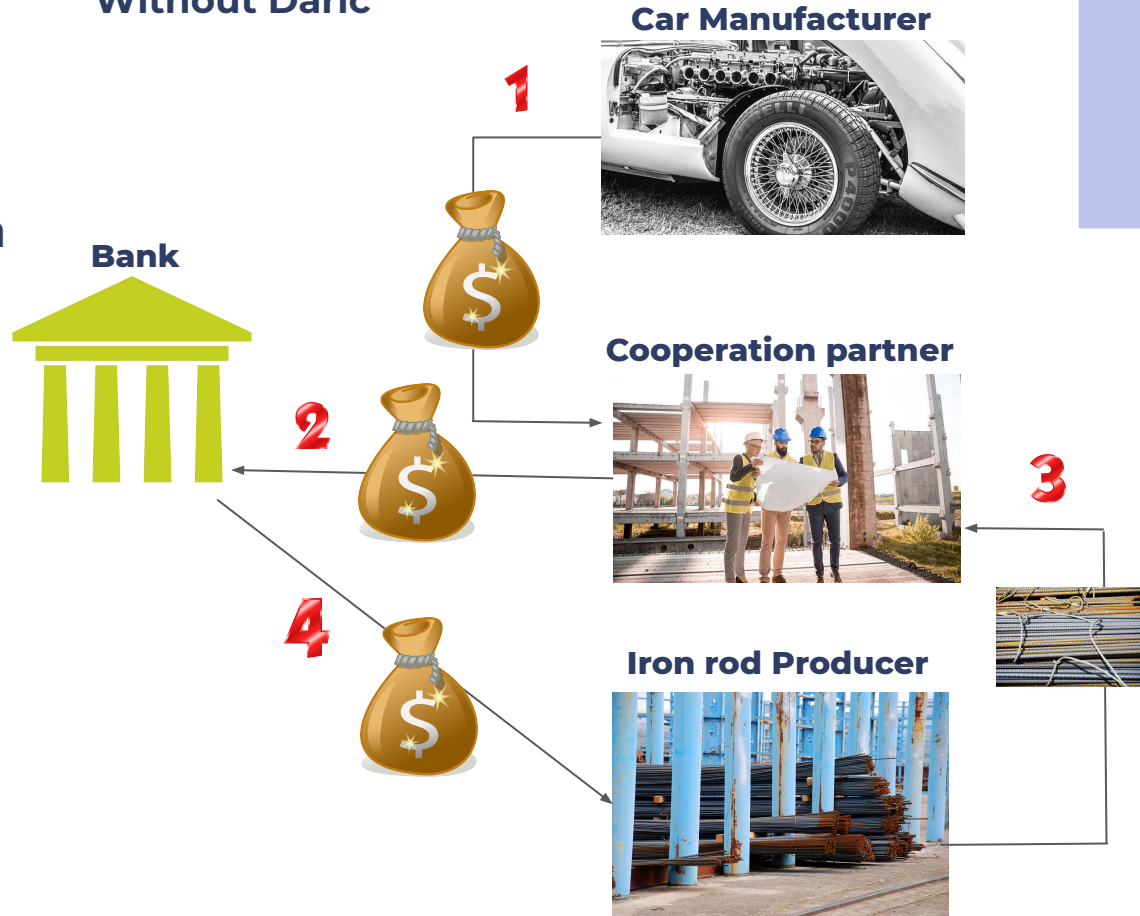
The Business Model #1 with the new currency

The car manufacturer pays with the new currency and steel producer can exchange the new currency to a real currency. An advantage is less dependency and communication with the bank.

Business Model #2

The car manufacturer has a construction cooperation partner to build a factory building. It gives a budget with the new currency that the partner buys iron rod from a producer.

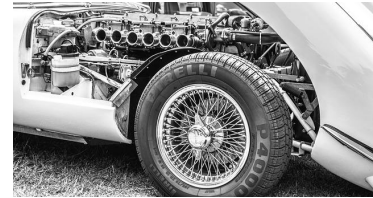
Without Daric



Business Model #2 with a Daric currency

The car manufacturer gives a budget with the new currency to buy iron rod by the partner from a producer. An advantage of method is more security. Because it uses a currency that is valid only between the Iron rod producer and the car manufacturer.

Car Manufacturer



1

A cooperation partner



2

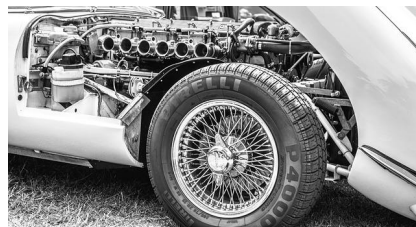
3

Iron rod Producer



Business Model #3

Car Manufacturer



Tier Producer



Employees



Customers

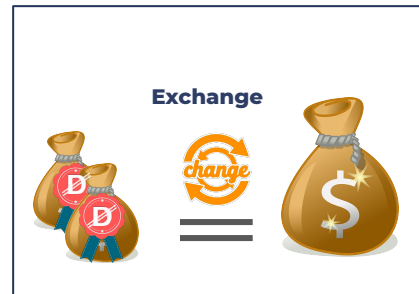
Oil Producer



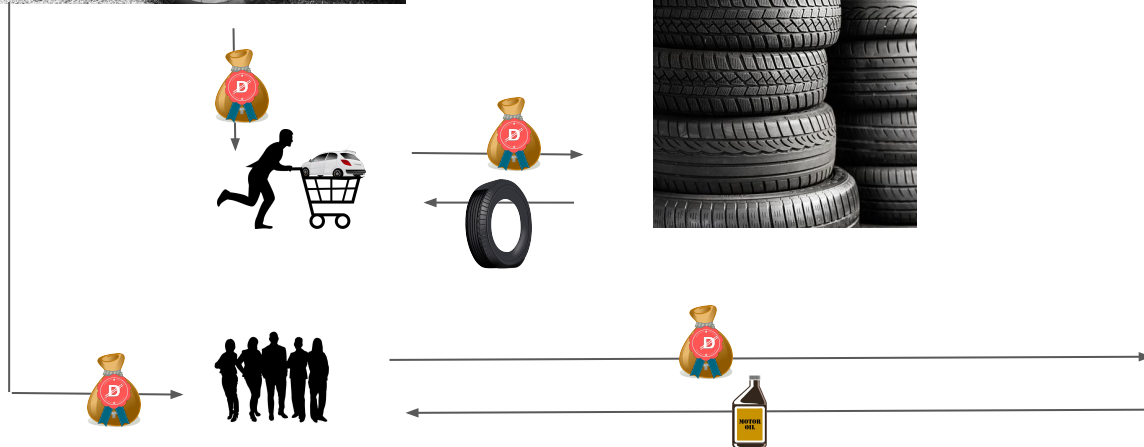
Car Manufacturer



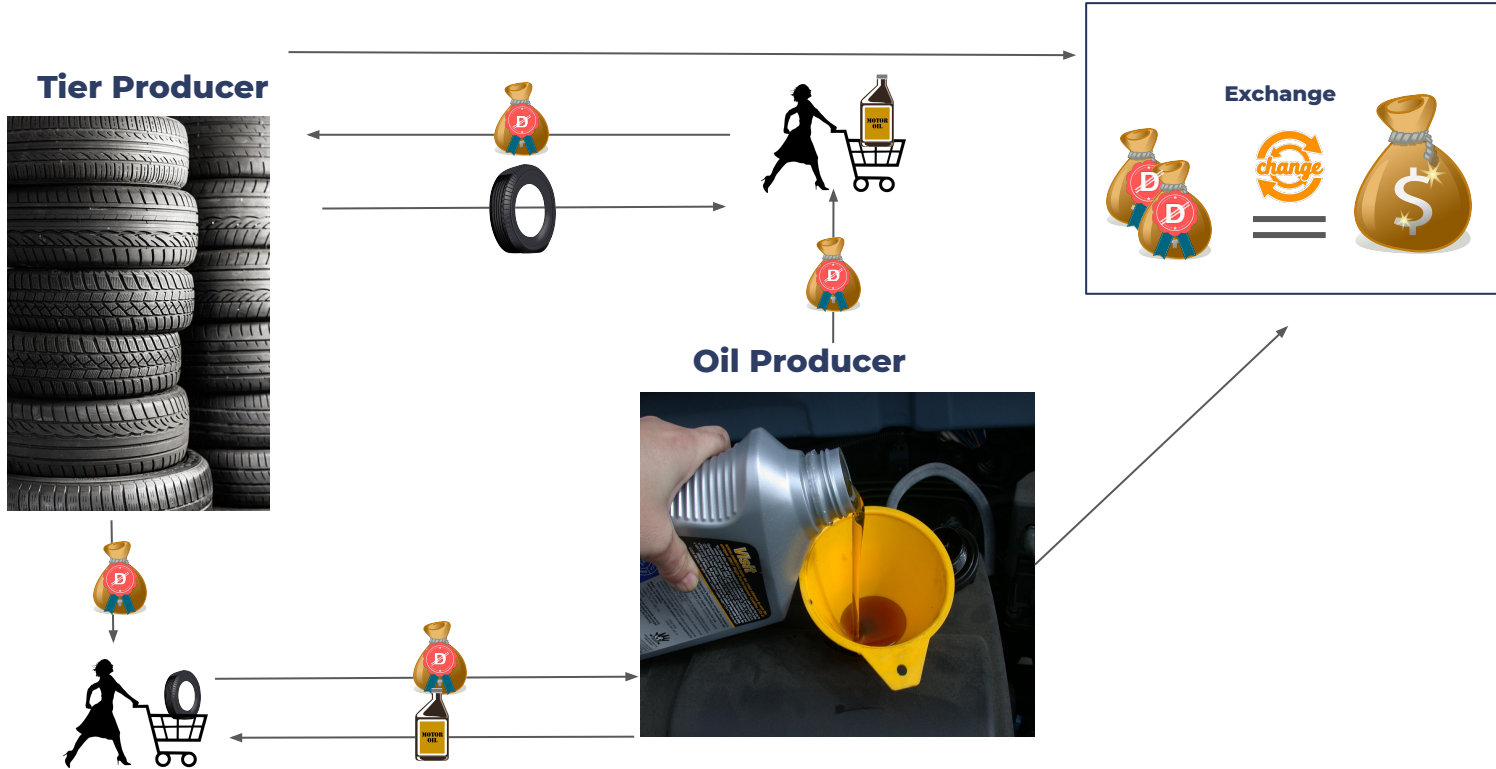
Tier Producer

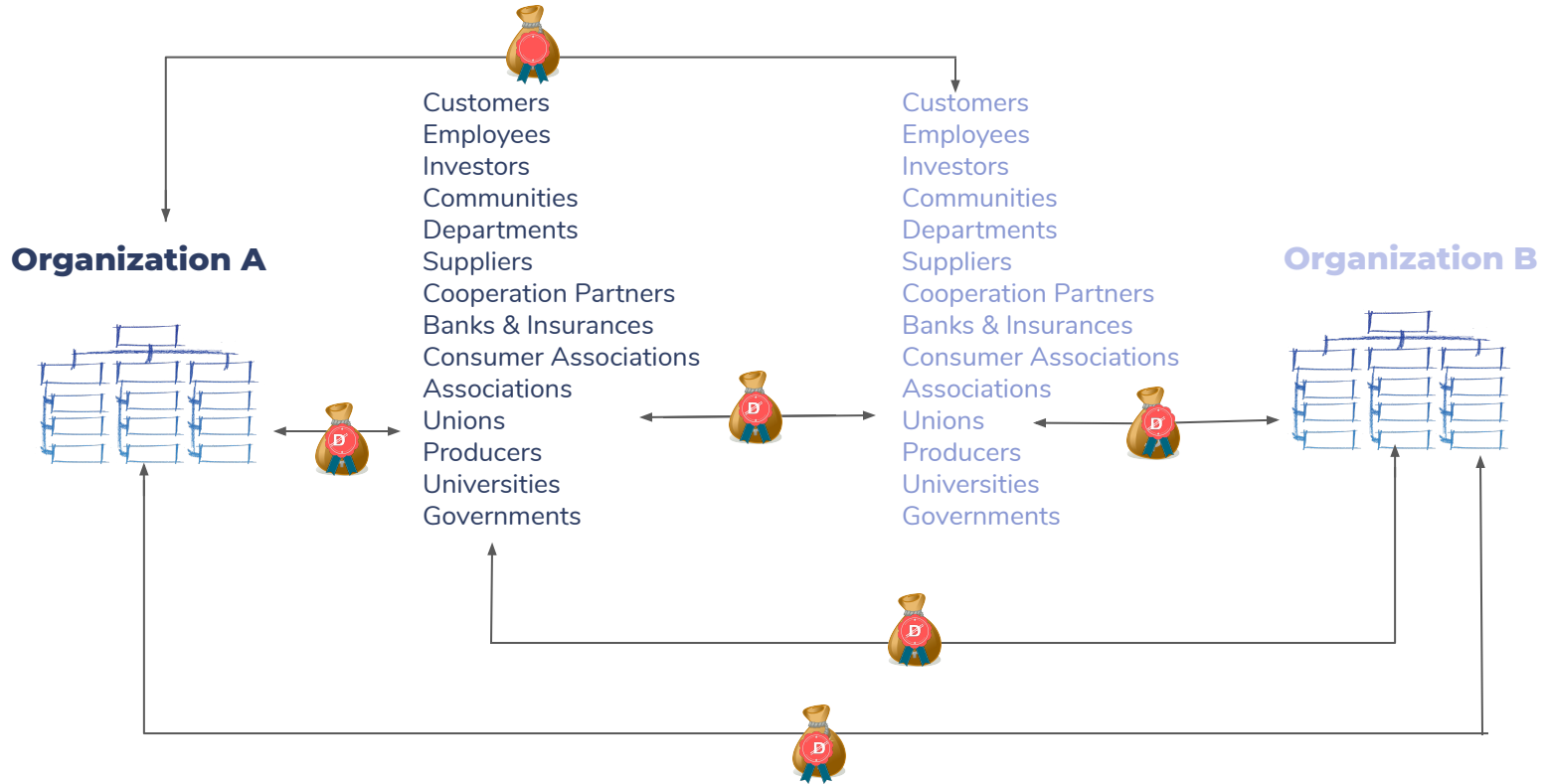


Oil Producer



Business Model #4





They can transfer easily assets to each other by a private currency with less bank communication and high security against lost, because the currency is valid only for two organizations and their stakeholders

How Org A and Org B trust to each other?

How a transparency is created between Org A and Org B for transferring tokens and a guarantee that the tokens can be exchanged to a real currency?

Daric is built on top of a platform that is called Hyperledger Fabric.

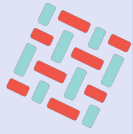
Metaphor for Daric and Hyperledger Fabric:



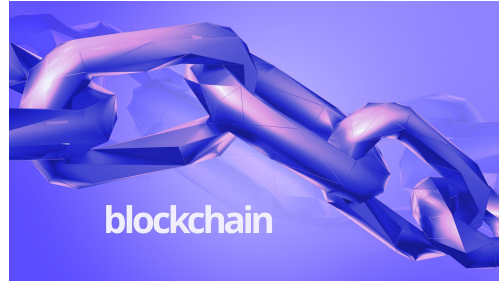
Daric

Hyperledger Fabric

Hyperledger Fabric is a type of Blockchain Platform.

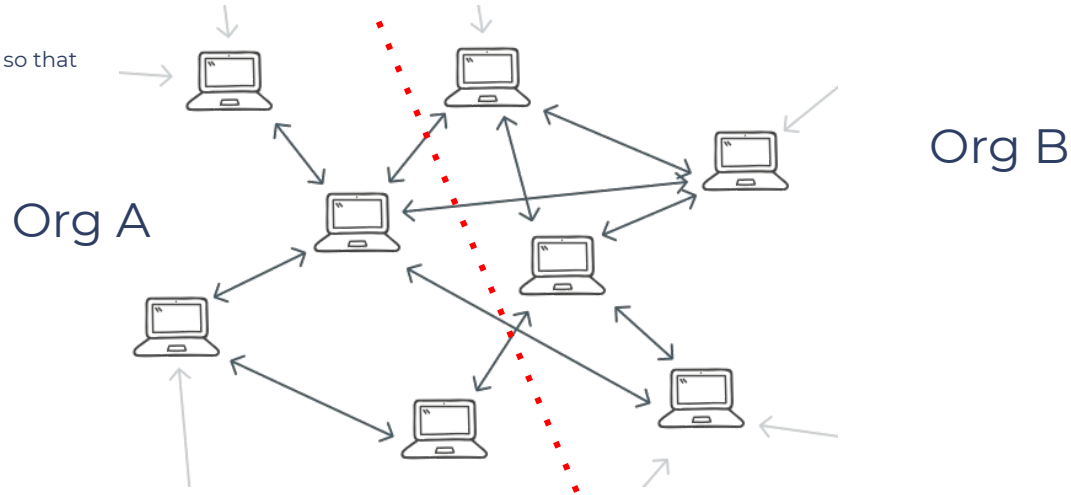


**HYPERLEDGER
FABRIC**



Blockchain is a technology that guarantees transparency.
For example: Bitcoin has been built on basis of Blockchain.

transactions are encrypted and
copied on servers of each orgs, so that
they can not be changed



Demo App to realize Business Model #1

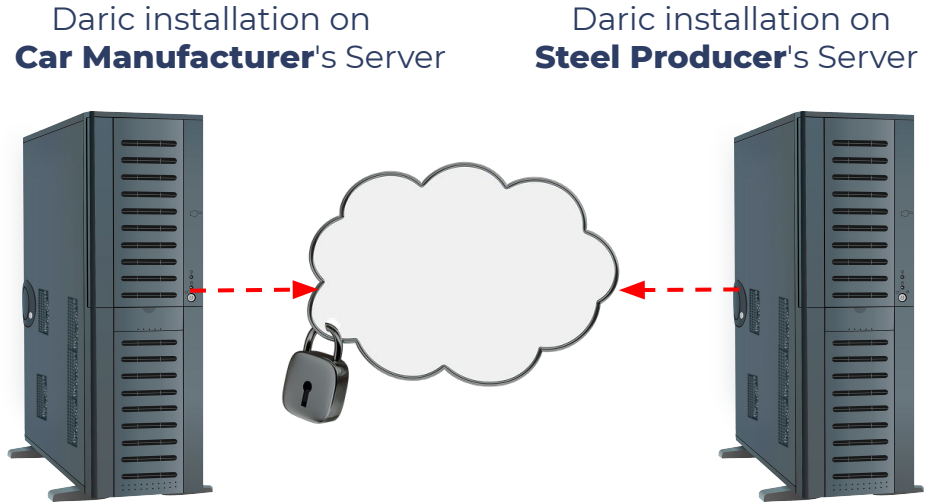
Daric is basically a core platform.

It means that it does not have graphical user interface. Because for every customer and client, a customized graphical user interface must be developed.

Demo App shows only basic features of Daric.

Demo Scenario

1. The car manufacturer and the steel producer are going to create a currency for themselves to trade steel.
2. They install Daric on their servers.
3. The servers connect to each other through a secure network.



Wallet

To transfer currency/token, it is needed to have a **Wallet**. It is a file that is issued by Daric platform.

To understand a wallet, you can consider Credit Card as a metaphor for the wallet.



To get money from an ATM, you must have a card and a PIN that it authenticates identity of card holder.

High security is gained from a two-factor authentication:

What you have = card
And
What you know = PIN



To authenticate an account holder in **Daric**, a wallet must be created by an account holder.

A **Wallet** is a file that contains account ID and a private Key that is encrypted by a password from account holder.

Security in Daric by:

What you have = Wallet

And

What you know = Password



Sample Wallet

A Daric wallet is generated by libraries that is used in **Ethereum** crypto-currency. It means, it is secure as well as wallets in Ethereum. Sample file name and content:

0x05D7Cf72f4D3B305dBb6d94d028573cAf33c8311.walet







```
{
  "address": "05d7cf72f4d3b305dbb6d94d028573caf33c8311",
  "crypto": {
    "cipher": "aes-128-ctr",
    "ciphertext": "b92eb8794cfca02140ed589aaaae486f712dd7f17f592f3c5ae608a1968e2d4ad",
    "cipherparams": {
      "iv": "fc67db8011047d5f37edef730159ade3"
    },
    "kdf": "scrypt",
    "kdfparams": {
      "dklen": 32,
      "n": 4096,
      "p": 6,
      "r": 8,
      "salt": "2f0eb9bd34a1230a98b62f1802b8c0ec2ef750a4adba56c0cb02ab4c3eebe479"
    },
    "mac": "b78f8a71f9d579c1e8afeb21bc8daae8524195b99cb46e59ba0f1c0a12182f40"
  },
  "id": "2c180817-cd37-4672-b7e9-132e55acf740",
  "version": 3
}
```

Account ID

encrypted private key

Create Wallet

☰ Daric [car-manufacturer]

-  Profile
-  Wallet
-  Currency
-  Balance
-  Transfer
-  Burn

Wallet Name

car-manufacturer-wallet-2

Password

.....



Password Again

.....









CREATE WALLET

Wallets	Name	Account
	car-manufacturer-wallet-1	0x27BFC82d588Db423051991c28f3aeba84AF0255D

Rows per page: 10 ▾ 1-1 of 1 < >

Create Wallet

☰ Daric [steel-producer]

-  Profile
-  Wallet
-  Currency
-  Balance
-  Transfer
-  Burn

Wallet Name

Password



Password Again

.....



CREATE WALLET

Wallets	Name	Account
	steel-producer-wallet-1	<u>0x2432f19e1d692d645d9f8510745500117121BdC2</u>


Rows per page: 10 ▾ 1-1 of 1 < >

Create Currency



☰ Doric [car-manufacturer]


 Profile

 Wallet

 Currency

 Balance

 Transfer

 Burn

Currency Symbol

MYC

Initial Amount

1000000000

car-manufacturer-wallet-1

CREATE CURENCY

Currencies	Symbol
------------	--------

No data available

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Daric [car-manufacturer]

Profile

+ Wallet

Currency

Balance

↔ Transfer

Burn

MYC

car-manufacturer-wallet-1

To Account

0x2432f19e1d692d645d9f8510745500117121BdC

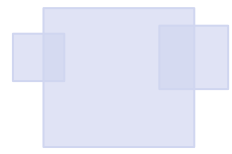
Amount

100

TRANSFER

Account ID of the steel producer





Doric [car-manufacturer]

- Profile
- Wallet
- Currency
- Balance
- Transfer
- Burn

MYC

car-manufacturer-wallet-1

BALANCE

Balance : 999999900

Account ID of the car manufacturer

Account ID of the steel producer

Transactions	ID	From	To	Amount
	b2b545ef-8a01-445a-a26d-27c0d63840c9	0x27BFC82d588Db423051991c28f3aeba84AF0255D	0x2432f19e1d692d645d9f8510745500117121BdC2	100

Rows per page: 10 1-1 of 1



Daric [steel-producer]

Profile

+ Wallet

Currency

Balance

Transfer

Burn

MYC

steel-producer-wallet-1

BALANCE

Balance : 100

Account ID of the car manufacturer

Account ID of the steel producer

Transactions	ID	From	To	Amount
	b2b545ef-8a01-445a-a26d-27c0d63840c9	0x27BFC82d588Db423051991c28f3aeba84AF0255D	0x2432f19e1d692d645d9f8510745500117121BdC2	100

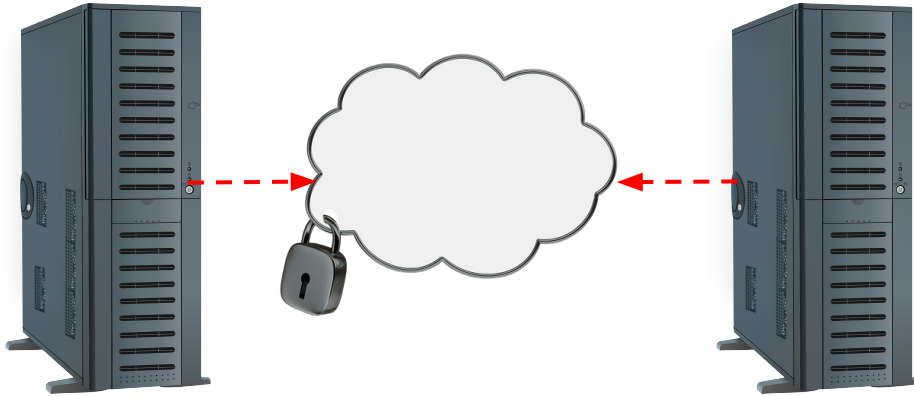
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Transaction

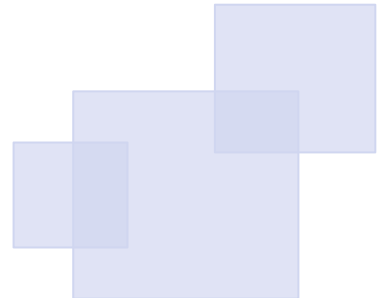
Transaction with Transaction ID : **b2b545ef-8a01-445a-a26d-27c0d63840c9** is encrypted and copied on Darc installations in Car Manufacturer's Server and Steel Producer's Server

Copy of the transaction on Darc installation in
Car Manufacturer's Server

Copy of the transaction on Darc installation in
Steel Producer's Server



The Transaction cannot be changed, because it is encrypted and distributed between the Servers. So it is secured against any fraud.



Burn Currency



What is the Burn?

The burn means to destroy value of some amount of a currency. After burning, amount of burnt can no be transferred



Doric [steel-producer]

- Profile
- Wallet
- Currency
- Balance
- Transfer
- Burn

✓ The Burn is done successfully

MYC

steel-producer-wallet-1

Amount
50

BURN

Account ID of the steel producer

Burns	ID	Account	Amount
	5b62a540-89df-4488-bfe8-d8afd92f3980	0x2432f19e1d692d645d9f8510745500117121BdC2	50

Rows per page: 10 1-1 of 1



Exchange to a FIAT currency

The car manufacturer and the steel producer agree that every wallet that burns amount of currency can get equivalent Dollar from a bank



Car Manufacturer



Steel Producer



Exchange



$$x \text{ USD} \equiv 50 \text{ MYC}$$

x USD



Security

All transactions are encrypted during transferring by libraries that are used in Ethereum. It is Secp256k1 cryptography method that is inspired from Bitcoin. So the security of Daric is as well as of Ethereum and Bitcoin.