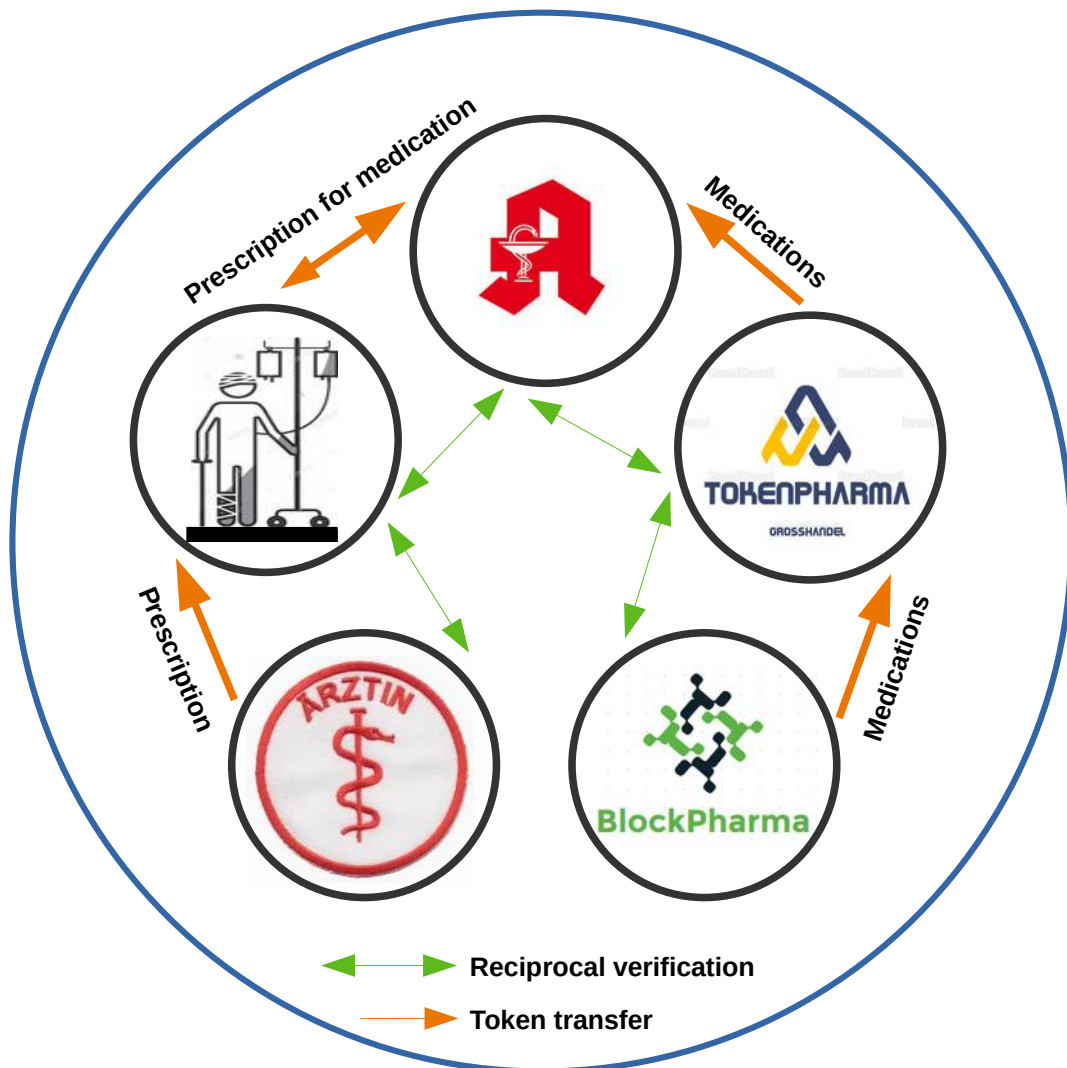




Implementation of a process chain in health care

Graphical representation of the supply and billing chain as it is realized in the BigTangle.





Implementation of a process chain in health care

A new blockchain generation will manage healthcare systems in the future

A number of studies from recent years clearly show that blockchain technology has an outstanding position in addressing and managing the problems of all healthcare systems around the world.

Experts from all factions in the process chain of health care systems are drawing up catalogues of demands to ensure the sustainability of these systems. However, there are hardly any solutions for how this should look in practice. This is where the Blockchain technology comes in, providing for the first time an application that actually exists and works in practice. Let us move on to examples of how individual links in the system can be organized in the future.

The blockchain technology focuses on absolute data security as its top priority. This aspect has been severely neglected up to the present day and runs through the entire system chain. Their consequences became public many times.

BigTangle is the new block chain generation.

In BigTangle the blockchain technology has been extended by the integration of genealogy in Markov Chain Monte Carlo (MCMC). By using the Big Data technology and its parallelizable architecture, BigTangle is the only one that represents the new blockchain generation today. The BigTangle is a decentralized cryptocurrency, payment, exchange, supply chain and e-commerce platform with the advantages: near-time transactions, infinite scalability, smart contracts, permissionless, trustless, decentralized exchange, ease of use, completely feeless and quantum security. This will be of great economic importance for the most important applications in the future.

In the BigTangle, the data sovereignty of the patient over his health data is realized in absolute form (crypto health record). Of course, this does not exclude the possibility that the individual activities on the patient are recorded separately by the actors involved, and this can certainly be done on the existing systems.

However, the overall picture remains with the patient in his blockchain wallet and is made available by him alone to the individual actors to the extent necessary and subject to his decision, insofar as this is necessary for the assessment of a clinical picture.

The BigTangle therefore already provides a patient record that fulfils exactly these conditions. This provides two important factors for broad acceptance among the population - absolute and general data security in the overall system and individual data sovereignty for the patient. Building on this, all players can now handle their processes digitized and automatically encrypted via the BigTangle Blockchain.

The entire process chain is clearly and unalterably documented in the BigTangle Blockchain, from the supplier of the active ingredient to the patient, in the interests of drug safety.

The system offers mutual controlling for all players.

By using the BigTangle Blockchain applications free of charge, considerable savings potential can be generated at all levels of the process chain. The following description gives a first impression of the operational implementation of the problems described above.



Short outline of further applications

Health Insurance

As an example, an insurance company can transfer a tariff token (defined via a Smart Contract) to the BigTangle Wallet of its policyholder. He runs his (crypto-) wallet in an already existing app on his smartphone. At the physician's office or hospital, the patient can identify himself as an insured person by transmitting a public key and the medical file can be opened immediately by the attending physician.

The Patient

The policyholder runs his (crypto-) wallet in an already existing app on his smartphone. At the physician's office or hospital, the patient can identify himself as an insured person by transmitting a public key and the medical file can be opened immediately by the attending physician. Should a prescription become necessary, this can be written as a token to the patient in his wallet. The patient can then transfer the prescription to the pharmacy and in return receives the medication.

The Doctor (Hospital)

At the physician's office or hospital, the patient can identify himself as an insured person by transmitting a public key and the medical file will be opened immediately for the attending physician and displays it on his screen. An AI-supported database helps the physician with diagnosis and medication.

Should a prescription become necessary, this can be written as a token to the patient in his wallet. The patient can then transfer the prescription to the pharmacy and in return receives the medication.

The Pharmacy

The patient can transfer the prescription to the pharmacy and in return receives the medication. An automatic settlement with the relevant health insurance company can also be integrated. Internet pharmacies can generate an additional advantage, because in the case of a prescription token, there is no need to physically send the prescription by post. A digital sending of the token into the wallet of the Internet pharmacy is sufficient. This could also simultaneously trigger an automated dispatch.

The Manufacturer

One more example: In an Industry 4.0, an approval token for a product can be allocated in tranches by a regulatory authority directly to a production machine. After the number of products has been produced according to the allocated tranche, the machine blocks. After allocation of a further tranche, the product can continue to be produced.

Just in time production on the basis of daily incoming stock changes in the pharmacies can also be implemented. This leads to high cost savings due to less resource consumption and overaging of batches. A reduction in logistics costs can also be achieved.



In this example, the process chain within the BigTangle is illustrated using the fictitious vaccine „Corona Immun 20mg“. The process chain consists of the following chain links:

- 1. Approval authority**
- 2. Manufacturer**
- 3. Wholsaler**
- 4. Pharmacy**
- 5. Doctor**
- 6. Health insurance**
- 7. Patient**

A token can only be created by the chain link that is considered to be the original.



Registration

- 1 If not already done, then register now on cc.bigtangle.net by clicking on the button "Join Now"

Home Login Join Now Help Cart

Chart Order Search Token Search Public Balance Block

Search

Product Class Select all Sort price low to high

- 2 Please enter your e-mail address in the field provided on the following page. Enter a password or use the secure password that is suggested to you. Click on Register to complete the entry.

Home Login Join Now Help Cart

Chart Order Search Token Search Public Balance Block

Email

Password

Register

Please enter your email.

Invite Email

Use a Securely Generated Password
Mjhb436keRHOLEx
Firefox will save this password for this website.
View Saved Logins

- 3 After clicking on Register the following screen appears. An e-mail with a confirmation link will be sent to your e-mail address.

Home Login

Chart Order Search

Registration success. Please check your email (SPAM) and activate it.

- 4 After you have confirmed the link you will be automatically returned to cc.bigtangle.net. The activation is displayed. Login again and start the setup as described in the following sheets.

Home Login Join Now Help Cart

Chart Order Search Token Search Public Balance Block

User is activ.

Login



Create your "Domain on BigTangle"

- 1 After the login the following window opens. By clicking on "**Shop**" the next window opens.

Home Logout - bg.lanor Help Cart

Payment Exchange Order Balance Keys Exchange Sign Order Charge Paypal QR code Pay QR Code Charge List Payoff Orders Payment Confirm Product Media Shop Bank

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Search Token Search Public Balance Block

Yuan in CNY

Key Address 1HarnJDB22jWQT1Th2RXM7aCv99FaAB8w2

Charge Please click charge to generate QR code

- 2 First set up a new website. Click on "**Create**". The shop is your new website and domain in the BigTangle.

Home Logout - bg.lanor Help Cart

Payment Exchange Order Balance Keys Exchange Sign Order Charge Paypal QR code Pay QR Code Charge List Payoff

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart

group name Search

Id group name Groups Type

Select all Delete

Create



Create your "Domain on BigTangle"

- 3** To create a shop, enter a name in "**group name**". This is also your domain name in BigTangle. Here we assign the group name "Drug Regulatory Agency". Confirm the entries with "**Save**".

Home Logout - bg.lanor Help Cart

Payment Exchange Order Balance Keys Exchange Sign Order Charge Paypal QR code Pay QR Code Charge Li

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certifi

group name Search

Id group name Groups Type

Select all Delete

Create

group name

Token

B *I* U abc x, x' T- rT- HI- T₂

Save

Email

dar0@gmx.eu Delete

Email Add

- 4** After clicking on Save the following window opens and with **Modify** you can go back to the shop page.

Home Logout - wdblu Help Cart

Payment Exchange Order Balance Keys Exchange Sign Order Charge Paypal QR code Pay QR Code Charge List Payoff

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart

group name Search

id	group name	Groups Type
<input type="checkbox"/>	202005120100000004 Drug Regulatory Agency	Shop 02fbb8aa192ab61596e33bef9295183ca1b7ca6ff35b4dfbac326d84cd20646ee1 Modify Publish

Select all Delete

Create



Create your "Domain on BigTangle"

5 The shopside can be individually designed by inserting **pictures, graphics** or **text**. To do so, you copy images, graphics or text from existing files and paste them into your shopside. You can also edit text directly. With **Save** the input is completed. Below the button "Save" the email of the currently logged in authorized person is displayed. If you want to give access to other authorized persons, please enter their email here and click on "**Add**" to complete the process or link an existing website to the BigTangle.

Home Logout - wdblu Help Cart

Payment Exchange Order Balance Keys Exchange Sign Order Charge Paypal QR code Pay QR Code Charge List

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate

group name Search

Id	group name	Groups Type
<input type="checkbox"/> 202005120100000004	Drug Regulatory Agency	Shop 02fbb8aa192ab61596e33bef9295183ca1b7ca6ff35b4dfbac326d84cd20646ee1 Mor
<input checked="" type="checkbox"/> 202005130100000003		Shop Mor

Select all Delete

Create

group name Drug Regulatory Agency

Token 02fbb8aa192ab61596e33bef9295183ca1b7ca6ff35b4

B *I* U abc x, x' T- rT- H- T-

The responsibilities
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi. Nam eget dui.

Description

Email wdblu@gmx.net

Email



Create your "Domain on BigTangle"

- 6 After „Save“ a new window opens and after clicking the button "Publish" the shop goes "Live". The website or shop is now implemented in the BigTangle. This can be recognized by the **token**. With this token you are identified clearly and not manipulable for all businesses and users on the BigTangle. You have to authenticate this by clicking on the **Publish** button on this page again.

Home Logout - wdblu Help Cart

Payment Exchange Order Balance Keys Exchange Sign Order Charge Paypal QR code Pay QR Code Charge I

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certif

Token Name Drug Regulatory Agenc

Token 02574b85539cac6a041fac97d9ee5c425445

Quantity 1

Domain Name com

Description Drug Regulatory Agency

Publish

- 7 For confirmation you will receive this message from the system:

Home

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal

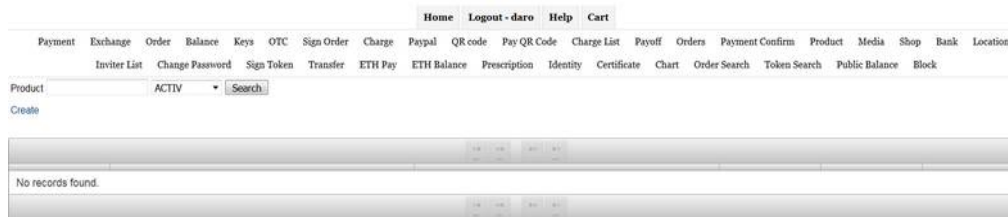
Inviter List Change Password Sign Token Transfer ETH Pay ETH Bala

Your action is executed on the server.



Create a product

- 1 After the shop is opened, products can be created. Click on the register **Product** and the following window will open:



This window lists all the products you have in your shop. Since only the first product is created now, no products are listed yet. Click again on Create and the adjacent window will open:



Create a product

2 The information must be entered in the appropriate boxes. It is important to enter an adequate shipping method for "**Shipping**" and a billing account in the field "**Receiving Account Pub Address**". By clicking on it a separate window opens. Pictures can also be inserted. The fields Product Class, Picture, Headline, Summary and Description are optional. Under Description, for example, a comprehensive documentation can be published. Copy or type in the relevant text. The input is completed with **Save**.



Create a product

3 In the following window the creation of the product is confirmed again:

Home Logout - daro Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge List

Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certifica

Your action is executed on the server.

4 The created product token must still be published as follows for complete system integration: The product token is required for this. The product token is found via the "**Token Search**" tab and then in the window by "**Search**" (it is not absolutely necessary to enter the token you are looking for).

Home Logout - daro Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge List Payoff Orders Payment Confirm Product Media Shop Bank Location

Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Search Token Search Public Balance Block

Product ACTIV

Create

No records found.					
-------------------	--	--	--	--	--

5 In the following window all products assigned to the shop are listed. The newly created product is integrated into the BigTangle system by clicking "**Publish**". If the product should be modified or deleted (also later), the corresponding buttons have to be clicked.

Home Logout - wdbsa Help Cart

Payment Exchange Order Balance Keys Keys Charge Paypal QR code Charge List Payoff Orders Sale Product Media Shop/Group Bank Location Inviter List

Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Search Token Search Public Balance Block

Product ACTIV

Create

License for the vaccine Corona Immun 20mg	License to manufacture and distribute the vaccine Corona Immun 20mg	1Nc7dNRNNc8Jv2CqPLWMPQvZ4xNgg8ec	Modify	Publish	Delete
---	---	----------------------------------	--------	---------	--------



Create a product image

- 1 Via the tab "**Media**" an image (optional) can be created. To use an image when creating a product, it must be saved in a file on your own PC and placed in the media box. To add a new image click on "**Create**". Assign a title for the image (optional), then "**Browse**" and select the desired image file from the corresponding file on your own computer and then "**Upload**".

Home Logout - daro Help Cart

Payment Exchange Order Balance Keys Exchange Sign Order Charge Paypal QR code Pay QR Code Charge List Payoff Orders Payment Confirm Product Media Shop Bank

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Search Token Search Public Balance Block

Title Search

Title Id

Select all Delete

Create

Title Corona Immun 20mg

Browse... No file selected. Upload

Save

- 2 The image is uploaded and displayed as follows:

Home Logout - d

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay

Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescrip


Title Search

Title Id

Corona Immun image/png 202005210100000002 Modify/Upload

Select all Delete

Create





Create a product image

- 3** Now the image can be integrated on the product page. To do this click **Product - Modify**. Click on **Selected** in the following window. The media box with the uploaded images opens. Select the desired image and add it to the product page with **Add**.

Home Logout - daro Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge List Payoff Orders Pay Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Sea

Product ACTIV

Create

Name

Receiving Account Pub Address

Price

Quantity

Currency

Product Class

ShopId

Shipping

ProductId

Language

Status

Us

Image

Media Box

summary

Corona Immun 20mg is a
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

B *I* U

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, tellus. Phasellus viverra nulla ut metus varius laoreet. Cuiusque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi. Nam eget dui. Etiam rhoncus. Maecenas tempus, tellus eget condimentum rhoncus, sem quam semper libero, sit amet adipiscing sem neque sed ipsum. Nam quam nunc, blandit vel, luctus pulvinar, hendrerit id, lorem. Maecenas nec odio et ante tincidunt tempus. Donec vitae sapien ut libero venenatis faucibus. Nullam quis ante. Etiam sit

In order to provide a complete overview of a pharmaceutical process chain on the BigTangle, the following shows how the shops and product token can look like (the installation is always done as described above). The following transaction chain shows how the value balance between these process participants in the BigTangle is achieved without the involvement of cost-intensive intermediaries and without loss of time. The process chain can be of any length. For example, each registration office can be part of the process chain for pharmacists, doctors or health insurance companies. But also suppliers of pharmaceutical substances, importers and exporters can be integrated into the process chain. The process is always the same.

The Manufacturer

The Shop

group name Search

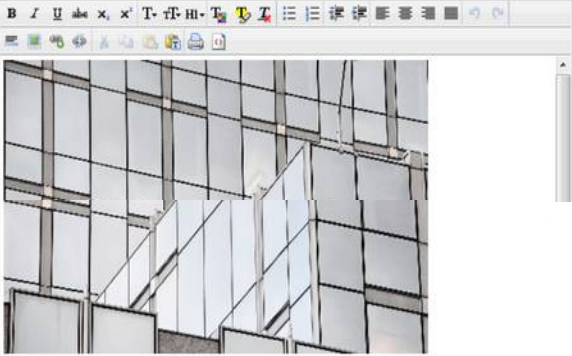
Id	group name	Groups Type
<input type="checkbox"/> 20200517010000001	Drug Manufacturer	Shop 03e272b749adce1d8b4917d70022853bda38f432894f

Select all Delete

Create

group name Drug Manufacturer

Token 03e272b749adce1d8b4917d70022853bda38f432894f



Description

Drug Manufacturer is a
 Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies ne eu, pretium justo, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulpu

The Product-Token

Product ACTIV Search

Create


Name Corona Immun 20mg

Receiving Account Pub Address

Price 25.0	Shipping Shipping Home
Quantity 1000000	Productid 20200522010000004
Currency Euro	Language English
Product Class Medicament	Status ACTIV
Shopid Drug Manufacturer	User 20200511010000003

20200521010000002 Corona Immun Delete

Image Selected



Token 03f9b04e93ae2a6191d747c4971a6f708b8623d1197a

summary

Description of Vaccine Corona Immun 20mg
 Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean mas natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies ne eu, pretium justo, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulpu

The Wholesaler

The Shop

Home Logout -bg_lanor Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge List

Invoker List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Set

group name Search

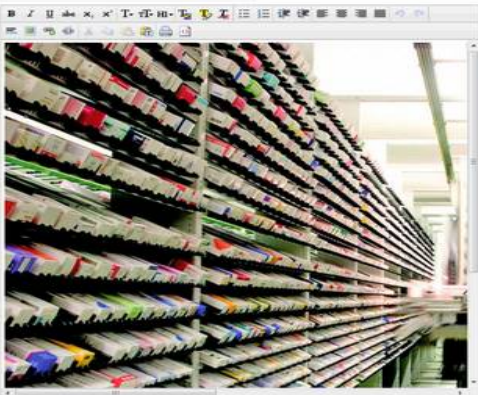
Id	group name	Groups Type
<input type="checkbox"/> 20200521010000004	Drug Wholesaler	Shop Modify Publish

Select all Delete

Create

group name Drug Wholesaler

Token



Description

Save

Email bg_lanor@gmx.eu Delete

Email Add

No product token because no original producer. But range of goods in the shop.

Home Logout -bg_lanor Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge List Paypal Orders Pre

Invoker List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Set

Product ACTIV Search

Create

Name Corona Immun 20mg - Drug Manufacturer

Receiving Account Pub Address

Price 75.50	Shipping Shipping Home
Quantity 2000	Productid
Currency Euro	Language English
Product Class Medicament	Status Waiting
Shopid Drug Wholesaler	User 20200511010000002

Image Selected

summary

unclassified

unclassified

unclassified

unclassified

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies ne eu, pretium justo, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulpu

The Pharmacy

The Shop

Home Logout - wob.oleum Help C

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge Li

Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Cert

group name Search


Id group name Groups Type

Select all Delete

Create

group name Green Cross Pharmacy

Token



Description

Save

No product token because no original producer. But range of goods in the shop.

Home Logout - wob.oleum Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge List

Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate Chart Order Search

Product: ACTIV Search

Create

Receiving Account Pub Address

Quantity 1000

Currency Euro

Product Class Medicament

Shopid 202005251010000002 on Delete

Shipping Store Pickup

ProductId 202005210100000013

Language English

Status ACTIV

User 202005210100000011

Image Selected



summary

Description

Save

The Doctor

The Shop

Home Logout - sokratec Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge Li

Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Cert

group name Search

Id group name Groups Type


202005210100000012 Doctor X Shop Modify Publish

Select all Delete

Create

group name Doctor X

Token 039f30a88aac6e9e64b6499d4ced4f38b0dd7b81a45



Description

Save

Email sokratec@conft.net Doctors

Email Add

The Product Token

Home Logout - sokratec Help Cart

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay QR Code Charge List

Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription Identity Certificate

Product: ACTIV Search

Create

Name

Receiving Account Pub Address

Quantity 1000

Currency Euro

Product Class Medicament

Shopid 202005251010000002 on Delete

Shipping Store Pickup


ProductId 202005210100000013

Language English

Status ACTIV

User 202005210100000011

Image Selected



Token: 02bd5792d839023b7e69c3ced8731b41ba79e6d51f

Recipe Corona vaccine

summary

Recipe Corona vaccine

The Health Insurance

The Shop

The screenshot shows a web application interface for 'The Shop'. At the top, there is a navigation menu with links: Home, Logout - estertec, Help. Below the menu, there are several tabs: Payment, Exchange, Order, Balance, Keys, OTC, Sign Order, Charge, Paypal, QR code, Pay QR Code. The main content area displays a product listing for 'Health Insurance'. The product name is 'Health Insurance' and the price is '245,75'. The product is categorized as 'Health Insurance' and 'Financial Product'. The product description is a placeholder text: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascitur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, lacinia. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi. Nam eget dui. Etiam rhoncus. Maecenas tempus, lacinia eget condimentum rhoncus, sem quam semper libero, sit amet adipiscing sem neque sed ipsum. Nam quam nunc, blandit vel, luctus pulvinar, hendrerit id, lorem. Maecenas nec odio et ante tincidunt tempus. Donec vitae sapien ut libero venenatis faucibus. Nullam quis ante. Etiam sit amet orci eget eros faucibus tincidunt. Duis leo. Sed fringilla mauris sit amet nibh. Donec sodales sagittis magna. Sed consequat, leo eget bibendum sodales, augue velit cursus nunc, quis gravida magna mi a libero. Fusce vulputate eleifend sapien. Vestibulum purus quam, scelerisque ut, mollis sed, nonummy id, metus. Nullam accumsan lorem in dui. Cras ultricies mi eu turpis hendrerit fringilla. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; In ac dui quis mi consectetur lacinia. Nam pretium turpis et arcu. Duis arcu tortor, suscipit eget, imperdiet nec, imperdiet lacinia, ipsum. Sed aliquam ultrices mauris. Integer ante arcu, accumsan a, consectetur eget, posuere ut, mauris. Praesent adipiscing. Phasellus ullamcorper ipsum rutrum nunc. Nunc nonummy metus. Vestibulum volutpat pretium libero. Cras id dui. Aenean ut

The Product Token

The screenshot shows a web application interface for 'The Product Token'. At the top, there is a navigation menu with links: Home, Logout - estertec, Help, Cart. Below the menu, there are several tabs: Payment, Exchange, Order, Balance, Keys, OTC, Sign Order, Charge, Paypal, QR code, Pay QR Code, Charge List, Payoff, Orders. The main content area displays a product token for 'Health Insurance'. The product name is 'Health tariff 1a' and the price is '245,75'. The product is categorized as 'Health Insurance' and 'Financial Product'. The product description is a placeholder text: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascitur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, lacinia. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi. Nam eget dui. Etiam rhoncus. Maecenas tempus, lacinia eget condimentum rhoncus, sem quam semper libero, sit amet adipiscing sem neque sed ipsum. Nam quam nunc, blandit vel, luctus pulvinar, hendrerit id, lorem. Maecenas nec odio et ante tincidunt tempus. Donec vitae sapien ut libero venenatis faucibus. Nullam quis ante. Etiam sit amet orci eget eros faucibus tincidunt. Duis leo. Sed fringilla mauris sit amet nibh. Donec sodales sagittis magna. Sed consequat, leo eget bibendum sodales, augue velit cursus nunc, quis gravida magna mi a libero. Fusce vulputate eleifend sapien. Vestibulum purus quam, scelerisque ut, mollis sed, nonummy id, metus. Nullam accumsan lorem in dui. Cras ultricies mi eu turpis hendrerit fringilla. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; In ac dui quis mi consectetur lacinia. Nam pretium turpis et arcu. Duis arcu tortor, suscipit eget, imperdiet nec, imperdiet lacinia, ipsum. Sed aliquam ultrices mauris. Integer ante arcu, accumsan a, consectetur eget, posuere ut, mauris. Praesent adipiscing. Phasellus ullamcorper ipsum rutrum nunc. Nunc nonummy metus. Vestibulum volutpat pretium libero. Cras id dui. Aenean ut

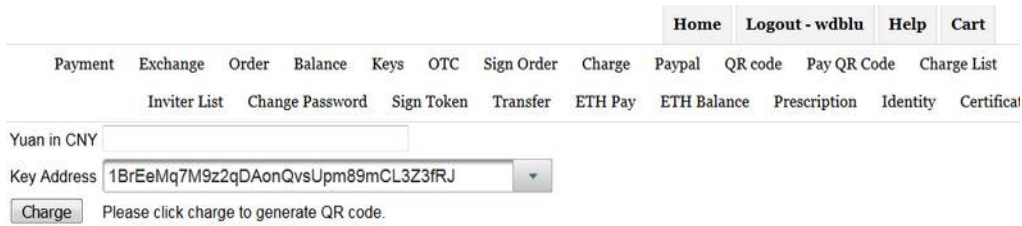
The Patient

The Shop

The screenshot shows a web application interface for 'The Shop'. At the top, there is a navigation menu with links: Home, Logout - info.gogreen, Help, Cart. Below the menu, there are several tabs: Payment, Exchange, Order, Balance, Keys, OTC, Sign Order, Charge, Paypal, QR code, Pay QR Code, Charge List, Payoff. The main content area displays a product listing for 'Patient'. The product name is 'Patient' and the price is '245,75'. The product is categorized as 'Patient' and 'Financial Product'. The product description is a placeholder text: 'Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascitur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec, vulputate eget, arcu. In enim justo, rhoncus ut, imperdiet a, venenatis vitae, justo. Nullam dictum felis eu pede mollis pretium. Integer tincidunt. Cras dapibus. Vivamus elementum semper nisi. Aenean vulputate eleifend tellus. Aenean leo ligula, porttitor eu, consequat vitae, eleifend ac, enim. Aliquam lorem ante, dapibus in, viverra quis, feugiat a, lacinia. Phasellus viverra nulla ut metus varius laoreet. Quisque rutrum. Aenean imperdiet. Etiam ultricies nisi vel augue. Curabitur ullamcorper ultricies nisi. Nam eget dui. Etiam rhoncus. Maecenas tempus, lacinia eget condimentum rhoncus, sem quam semper libero, sit amet adipiscing sem neque sed ipsum. Nam quam nunc, blandit vel, luctus pulvinar, hendrerit id, lorem. Maecenas nec odio et ante tincidunt tempus. Donec vitae sapien ut libero venenatis faucibus. Nullam quis ante. Etiam sit amet orci eget eros faucibus tincidunt. Duis leo. Sed fringilla mauris sit amet nibh. Donec sodales sagittis magna. Sed consequat, leo eget bibendum sodales, augue velit cursus nunc, quis gravida magna mi a libero. Fusce vulputate eleifend sapien. Vestibulum purus quam, scelerisque ut, mollis sed, nonummy id, metus. Nullam accumsan lorem in dui. Cras ultricies mi eu turpis hendrerit fringilla. Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; In ac dui quis mi consectetur lacinia. Nam pretium turpis et arcu. Duis arcu tortor, suscipit eget, imperdiet nec, imperdiet lacinia, ipsum. Sed aliquam ultrices mauris. Integer ante arcu, accumsan a, consectetur eget, posuere ut, mauris. Praesent adipiscing. Phasellus ullamcorper ipsum rutrum nunc. Nunc nonummy metus. Vestibulum volutpat pretium libero. Cras id dui. Aenean ut

Transactions

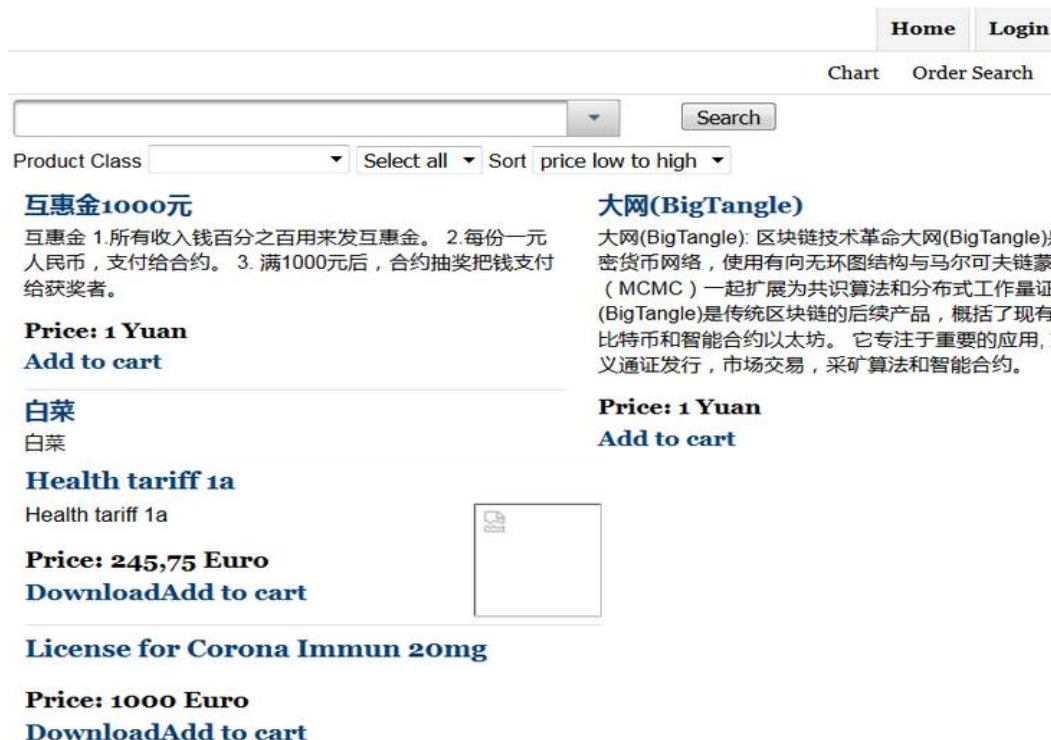
- 1 Open your account and first check your holdings via the "Balance" tab.



- 2 The Balance window contains all available Products and funds as well as your domain "Drug Regulatory Agency".



- 3 First, the Drug Regulatory Agency will issue the manufacturer with an "License Token" for the production and distribution of the drug Corona Immun 20mg. The Drug Regulatory Agency notifies the manufacturer of the license. The manufacturer logs into his shop and clicks on the "Home" button and searches for the licence token from the list and clicks on "Add to cart".



Transactions

4 In the following window check the order and then click on "Pay". If a correction is necessary click on "Back to buy".

The screenshot shows a navigation menu with 'Home' and 'Logout' buttons. Below the menu, the shop name 'Drug Regulatory Agency' is displayed. The product details are: 'License for Corona Immun 20mg' with a price of '1000 Euro'. There is a quantity of '1' and a 'Delete' button. The total amount is 'Euro 1000.0'. At the bottom, there are buttons for 'Back to buy' and 'Pay'.

5 The final order will then appear in the new window. This order is completed and paid by clicking on "Pay".

The screenshot shows the same navigation menu. The product details are identical: 'License for Corona Immun 20mg' for '1000 Euro' with a quantity of '1'. The total amount is 'Euro 1000.0'. A dropdown menu is open next to the 'Pay' button, showing 'Payment' as the selected option.

6 After clicking on Pay the order will be confirmed as follows:

The screenshot shows the navigation menu and a confirmation message: 'Thanks for your order.' Below this is a table with the following data:

Product	Price	Quantity
License for Corona Immun 20mg	1000	1
Total Amount		1000

Order Id:202006010100000001

Note:

Physical delivery is not necessary in this case, as the license token is delivered electronically. The shipping type was created accordingly when the product was created.

Accounting of Transactions

- 1 All transaction accounting takes place at the same time. To view them click on "Balance". The opened window displays the transaction as follows: The **license** has been booked and **1000 Euros** have been deducted from the original **3000 Euros**.

The screenshot shows a web application interface with a navigation menu at the top. The menu includes: Home, Payment, Exchange, Order, Balance, Keys, OTC, Sign Order, Charge, Paypal, Location, Inviter List, Change Password, Sign Token, Transfer, ETH Pay, and ETH. Below the menu, there are three checkboxes labeled History, Pay To, and Details. A Search button is located below these checkboxes. The main content area displays a transaction entry under the heading "Balance Token". The entry details are: 1 License for Corona Immun 20mg@Drug Regulatory Agency.com, 2000 EUR@bigtangle, 1 Drug Manufacturer.com, and 1000000 Corona Immun 20mg@Drug Manufacturer.com.

- 2 In the account of the counterparty of the Drug Regulatory Agency, the granted license was simultaneously booked out and the purchase price (fee) of 1000 euros was added.

The screenshot shows a web application interface with a navigation menu at the top. The menu includes: Home, Logout, Payment, Exchange, Order, Balance, Keys, OTC, Sign Order, Charge, Paypal, QR code, Inviter List, Change Password, Sign Token, Transfer, ETH Pay, ETH Balance, and Pres. Below the menu, there are three checkboxes labeled History, Pay To, and Details. A Search button is located below these checkboxes. The main content area displays a transaction entry under the heading "Balance Token". The entry details are: 0 License for Corona Immun 20mg@Drug Regulatory Agency.com, 1 Drug Regulatory Agency.com, and 1000 EUR.

Transactions II

In a further step, the wholesaler orders the drug "Corona Immun 20mg" from the manufacturer. The process is repeated as described before.

- 1 Use the **Balance** tab to check the stock. In this case, check whether sufficient funds are available for the order. Without this, the order will not be executed.

Home

Payment Exchange Order **Balance** Keys OTC Sign Order Charge Paypal

Location Inviter List Change Password Sign Token Transfer ETH Pay E'

History

Pay To

Details

Balance Token

1250 EUR@bigtangle

1 Drug Wholesale.com

- 2 Click on **Home** and select the desired article (here Corona Immun 20 mg) and then click **Add to Cart**.

Home Login Join Now Help Cart

Chart Order Search Token Search Public Balance

Product Class Select all Sort price low to high


互惠金1000元

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean commodo ligula eget dolor. Aenean massa. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Donec quam felis, ultricies nec, pellentesque eu, pretium quis, sem. Nulla consequat massa quis enim. Donec pede justo, fringilla vel, aliquet nec vulputate eget arcu. In enim justo, rhoncus ut

大网(BigTangle)

Corona Immun 20mg
Vaccine Corona Immun 20mg

Price: 25 Euro
Add to cart



Accounting of Transactions

3 In the next window you enter the desired number **next to Delete**, here 40 (the system default is 1). If you do not want the selected product after all, you can delete it by clicking **Delete**. With **Back to buy** you can also reorder the order. The total purchase price appears under **Total Amount**. It is important to enter the recipient address. Click on **shipping address** and a window will open where you can enter the address. Then start the payment process by clicking on **Pay**.

The screenshot shows a web application interface with the following elements:

- Navigation Menu:** Payment, Exchange, Order, Balance, Location, Inviter List, Change Password, Sign Token, Transfer, ETH Pay, Home.
- Product Details:**
 - Shop/Group: Drug Manufacturer
 - Image: Corona Immun 20mg (vaccine vial and syringe)
 - Price: 25 Euro
- Shipping Address Form:**
 - Name: Drug Wholesaler
 - Phone: +8621111111
 - Country: China
 - City: Shanghai
 - Street: 588 West Jindu Road, Songjiang District
 - Zip Code: 201612
 - Cart: next
- Total Amount:** Euro 1000.0
- Buttons:** Back to buy, Pay, shipping address, 40 Delete


Transactions II

4 The payment process is confirmed in the following window.

Home

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal
Location Inviter List Change Password Sign Token Transfer ETH Pay ET

Thanks for your order.

Product	Price	Quantity
Corona Immun 20mg		
		
Corona Immun 20mg	25	40
Total Amount		1000

Order Id:202006020100000001

5 Before transactions see no. 1. To track the transactions click on **Balance**. You see 1000 Euro were debited. But the goods have not yet been posted. Why do we see in no. 7 and 9.

Home

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal
Location Inviter List Change Password Sign Token Transfer ETH Pay ET

History

Pay To

Details

Balance Token

250 EUR@bigtangle

1 Drug Wholesale.com

40 Corona Immun 20mg@Drug Manufacturer.com

Transactions II

6 The balance of the wholesaler before transaction:

Home

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH

History

Pay To

Details

Search

Balance Token

1 License for Corona Immun 20mg@Drug Regulatory Agency.com

2000 EUR@bigtangle

1 Drug Manufacturer.com

1000000 Corona Immun 20mg@Drug Manufacturer.com

750 Euro

7 The wholesaler checks whether the goods have been paid by clicking on **Orders** in his account and in the opened window on **Paid**. Since the order is displayed here, this is proof that it has been paid. Now he can send the goods by clicking on **Shipping** (bottom right of the window)

Home Logout - daro Help Ca

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal

Payment Confirm Product Media Shop/Group Bank Location Inviter List Change Pa

Prescription Identity Certificate Chart Order Search Token :

OrdersStatus:

Checkout Paid Shipping completed

Search

Name	Description	Price	Quantity	Total Amount
Corona Immun 20mg	Vaccine Corona Immun 20mg	25	40	1000.0

202006020100000001 013aae5643b58504135827af7deb66e68e7f25e415d5f92faf642e8797bb6eda

Drug Wholesaler, +862111111, China, Shanghai, 588 West Jindu Road, Songjiang District Paid Shipping

Transactions II

- 8 Before transactions see no.6. At the moment when the wholesaler dispatches the goods, he can click on **Balance** to see the change in stock and receipt of payment. Money plus 1000 Euro and inventory minus 40 pieces.

Home

Payment Exchange Order **Balance** Keys OTC Sign Order Charge Paypal

Location Inviter List Change Password Sign Token Transfer ETH Pay ETH

History

Pay To

Details

Balance Token

- 1 License for Corona Immun 20mg@Drug Regulatory Agency.com
- 1750 EUR@bigtangle
- 1 Drug Manufacturer.com
- 999960 Corona Immun 20mg@Drug Manufacturer.com

- 9 Before transactions see no. 5. After the manufacturer has shipped the goods, the wholesaler sees the inventory change in his account under Balance again. Money minus 1000 Euro, inventory plus 40 pieces.

Home

Payment Exchange Order **Balance** Keys OTC Sign Order Charge Paypal

Location Inviter List Change Password Sign Token Transfer ETH Pay E'

History

Pay To

Details

Balance Token

- 250 EUR@bigtangle
- 1 Drug Wholesale.com
- 40 Corona Immun 20mg@Drug Manufacturer.com

Further links in the process chain

After 2 examples were used to show how to open shops, create products and carry out transactions, the rest of the process chain in the healthcare sector will be shown in the following.

- 1 The pharmacy **Green Cross Pharmacy** orders 5 pieces of Corona Immun 20mg at a price of Euro 377,50 from the wholesaler. Below the transactions are recorded under **Balance**:



Thanks for your order.

Product	Price	Quantity
Corona Immun 20mg - Drug Manufaktur	75,5	5
Total Amount		377,5

Order Id:202006030100000001

Ho

Payment	Exchange	Order	Balance	Keys	OTC	Sign Order	Charge	F
Location	Inviter List	Change Password	Sign Token	Transfer	ETH Pay			
History <input type="checkbox"/>			History <input type="checkbox"/>					
Pay To <input type="checkbox"/>			Pay To <input type="checkbox"/>					
Details <input type="checkbox"/>			Details <input type="checkbox"/>					
<input type="button" value="Search"/>	before transaction		<input type="button" value="Search"/>	after transaction				
Balance Token			Balance Token					
1 Green Cross Pharmacy.com			1 Green Cross Pharmacy.com					
550 EUR@bigtangle			172.5 EUR@bigtangle					
			5 Corona Immun 20mg					

Further links in the process chain

- 3 The patient acquires a health insurance tariff from his health insurance company. The transactions as follows:



Thanks for your order.

Product	Price	Quantity
Health tariff 1a	Health tariff 1a	
245,75		1
Total Amount	245,75	
Order Id:202006030100000002		

[Home](#)

[Payment](#) [Exchange](#) [Order](#) [Balance](#) [Keys](#) [OTC](#) [Sign Order](#) [Charge](#) [Payp](#)
[Location](#) [Inviter List](#) [Change Password](#) [Sign Token](#) [Transfer](#) [ETH Pay](#) |

History

Pay To

Details

before transaction

after transaction

Balance Token

400 EUR@bigtangle

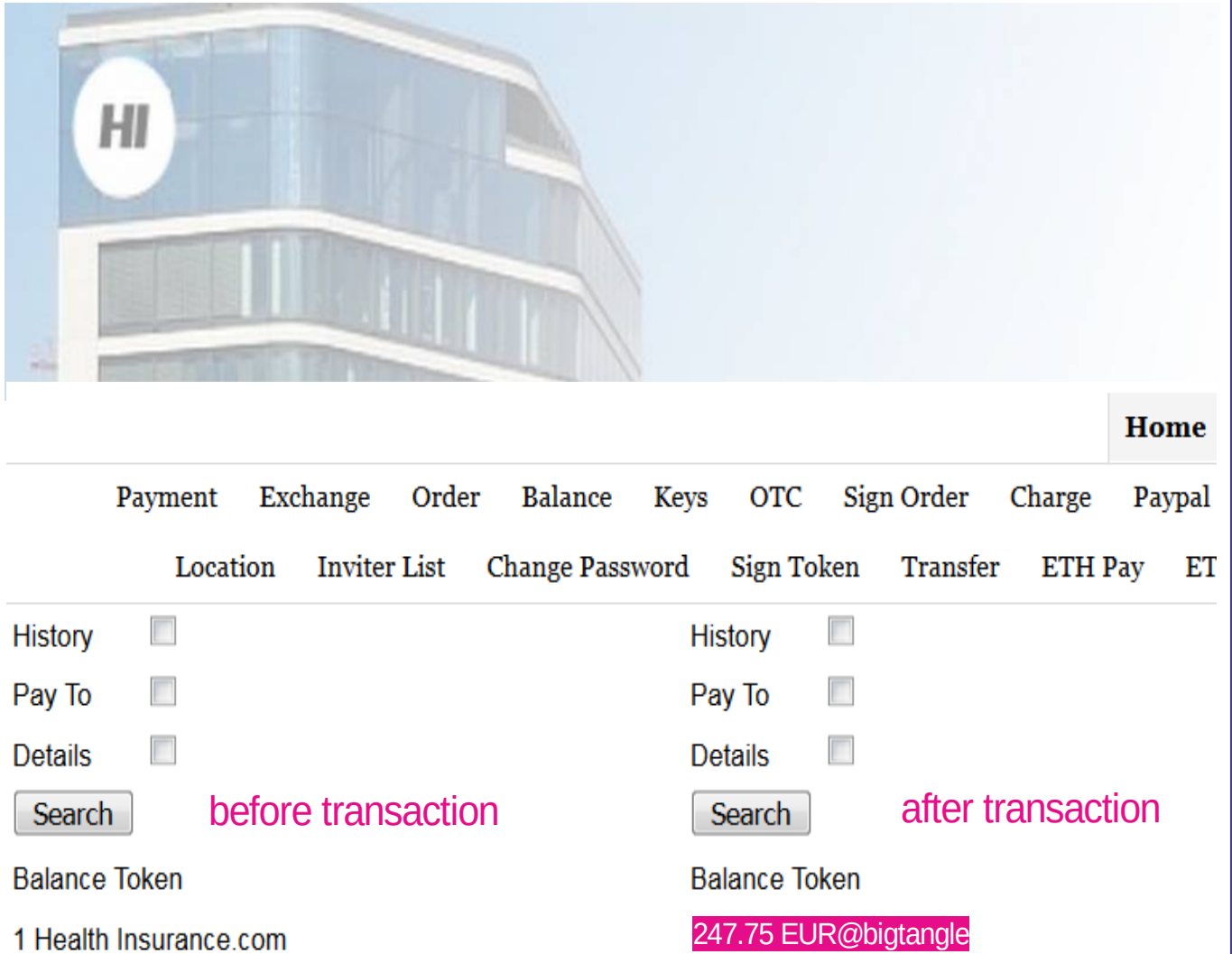
154.25 EUR@bigtangle

1 Patient.com

1 Health tariff 1a

Further links in the process chain

4 The health insurance company transfers the health tariff to the patient.



The screenshot shows a web interface for a health insurance company. At the top left is a logo with the letters 'HI' inside a white circle. Below the logo is a navigation menu with the following items: Home, Payment, Exchange, Order, Balance, Keys, OTC, Sign Order, Charge, Paypal, Location, Inviter List, Change Password, Sign Token, Transfer, ETH Pay, and ET. The main content area is split into two columns. The left column is labeled 'before transaction' and shows a 'Search' button, a 'Balance Token' section, and the text '1 Health Insurance.com'. The right column is labeled 'after transaction' and shows a 'Search' button, a 'Balance Token' section, and the text '247.75 EUR@bigtangle'.

Navigation	Navigation
Home	Home
Payment	Payment
Exchange	Exchange
Order	Order
Balance	Balance
Keys	Keys
OTC	OTC
Sign Order	Sign Order
Charge	Charge
Paypal	Paypal
Location	Location
Inviter List	Inviter List
Change Password	Change Password
Sign Token	Sign Token
Transfer	Transfer
ETH Pay	ETH Pay
ET	ET

Before Transaction	After Transaction
History <input type="checkbox"/>	History <input type="checkbox"/>
Pay To <input type="checkbox"/>	Pay To <input type="checkbox"/>
Details <input type="checkbox"/>	Details <input type="checkbox"/>
<input type="button" value="Search"/>	<input type="button" value="Search"/>
Balance Token	Balance Token
1 Health Insurance.com	247.75 EUR@bigtangle

Further links in the process chain

- 5 When the patient visits the doctor and received subsequently a prescription, the doctor transfers a "prescription token" to the patient. After login click on **Prescription** and follow the description.



Home

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal
Inviter List Change Password Sign Token Transfer ETH Pay ETH Bal

Public Key

0bbc1de483962d729c5f07f5c2f0ab97b4daeea299ba3f3713ef423fb26

History



Search

Prescription

After you clicked on Prescription, a public key must be entered in the window. Then click on **Prescription** again.

Further links in the process chain

- 6 After clicking on Prescription, a window opens in which the patient's public key is copied again. The medication is then entered in the large Prescription field. A diagnosis and treatment recommendation can also be entered here. This is also the basis for a patient file. With Add the process is completed and the prescription token is transferred to the patient wallet (No. 7)

[Home](#)

[Payment](#) [Exchange](#) [Order](#) [Balance](#) [Keys](#) [OTC](#) [Sign Order](#) [Charge](#) [Paypa](#)

[Inviter List](#) [Change Password](#) [Sign Token](#) [Transfer](#) [ETH Pay](#) [ETH Bal](#)

Receiver Public Key

Type

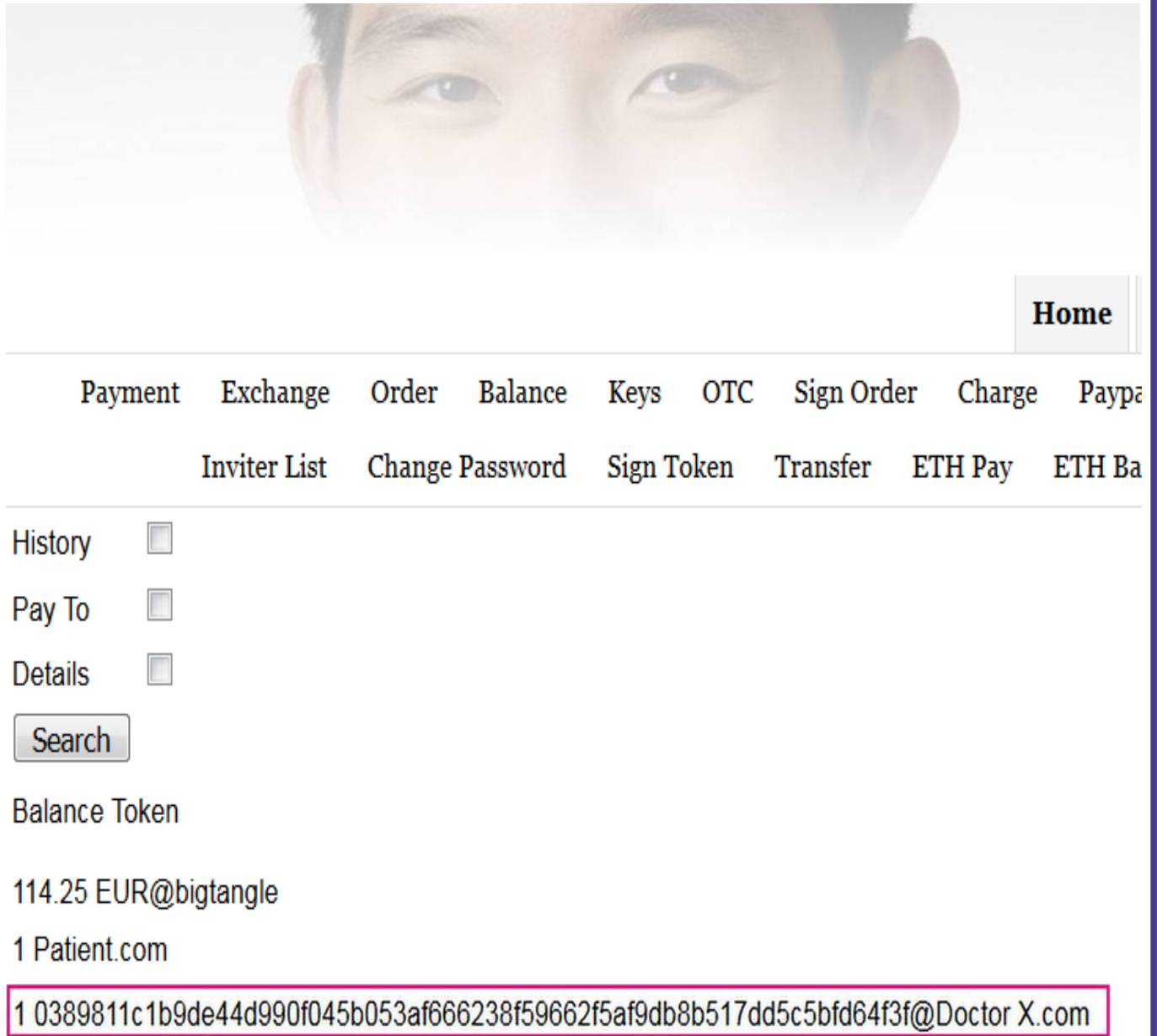
Prescription

File Name No file selected.

Medical Institutions

Further links in the process chain

- 7 After the doctor has sent the prescription token, it is displayed simultaneously in the patient's wallet as follows:



Further links in the process chain

- 8 After the patient has the prescription token in the wallet, he can transfer it to the pharmacy of his choice. Log in, Prescription and then click on Search. Here he finds his prescription and transfers it to the pharmacy as follows:

The screenshot shows a web application interface with a navigation menu at the top. The menu includes links for Home, Logout - info.gog, Payment, Exchange, Order, Balance, Keys, OTC, Sign Order, Charge, Paypal, QR code, Pay, Inviter List, Change Password, Sign Token, Transfer, ETH Pay, ETH Balance, and Prescription. Below the menu, there is a section for 'Public Key' with an empty input field. A 'History' section contains a search button. The 'Prescription' section displays a list with one entry: 'Corora Cmmmm'. Below this list, there is a '(File)' section containing a long alphanumeric string: '19GvFGYootg9Kxyxf1rxLPrTak3dRQB67d'. A 'Transfer' button is located at the bottom of the page.

Public Key

History

Prescription

Corora Cmmmm

(File)

19GvFGYootg9Kxyxf1rxLPrTak3dRQB67d

Transfer

The patient receives a public key from the pharmacist. Then he clicks on Transfer. The prescription is now in the wallet of the pharmacy. See No. 9.

Further links in the process chain

- 9 The pharmacy finds the prescription token under **Balance – Details - Search**. If the prescription has to be paid for, this is done like a normal e-commerce business as described before.



Home Logout - wob.ole

Payment Exchange Order Balance Keys OTC Sign Order Charge Paypal QR code Pay C
Inviter List Change Password Sign Token Transfer ETH Pay ETH Balance Prescription

History

Pay To

Details

Search

1 Green Cross Pharmacy.com

memo: publishDomainName

2020-05-21 16:47:30

1 0389811c1b9de44d990f045b053af666238f59662f5af9db8b517dd5c5bfd64f3f@Doctor X.com

SignedData: 048ba461a9973193b35707dfafe788098c8542e... Corona Immun 20mg vaccine

19GvFGYootg9Kxyxf1rxLPrTak3dRQB67d

2020-06-05 16:01:06

172.5 EUR@bigtangle

memo: Order Info:202006030100000001

1PjLJgkr7CmPUF2dGM6ocYErDYCQCZTGw

2020-06-03 18:04:48

10 EUR@bigtangle

memo:

19GvFGYootg9Kxyxf1rxLPrTak3dRQB67d

2020-06-04 17:16:53

Basics in the BigTangle

- For each process cycle in the BigTangle there is a process chain of any length.
- The actions can be tracked seamlessly.
- The actions are documented in a non-erasable way.
- The actions cannot be manipulated.
- The entire process chain can be 100% secured.
- Each of the process participants can immediately check the authorization for the required action.
- In certain special cases, actions of a process participant for which he does not have authorization can be automatically disabled.
- The BigTangle is available to everyone free of charge.
- The BigTangle can be used worldwide.
- All existing applications of a user can be integrated into the BigTangle.
- Any kind of attack on the BigTangle is hopeless - it is quantum safe.