



# The application of smart contract

Is seen by an example of contract on purchase and sale of  
LLC shares

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# Actuality

In order to conclude a contract now requires a large amount of time. In this regard, there is an important problem of contract validation by parties from different economic zones



The automation of the process of concluding and executing a contract will allow reducing the monetary and time costs as well as transaction costs

The whole structure of smart contract is based on and verified by a great number of connected computers. It ensures that the smart contracts are:

✓ safe

✓ trustworthy

✓ open

✓ almost deprived  
of any possible  
mistakes

## Problem statement

- The imperfect state of the still new Blockchain infrastructure.
- Almost complete lack of legal framework
- Smart contract is often much less flexible than its traditional counterpart, based on legal norms
- Not all conditions can be included in the contract → impossibility to prevent all risks



**A limited scope of application**

## Benefits

- Guarantees in case of non-fulfillment or improper execution (fines, penalties, forfeit are written off from the web wallet)
- Defending the interests of the contracting party from the unfair conduct of the other party
- The most efficient way for the parties from different economic zones to negotiate the terms
- Acceleration of the payment process and the contract performance process
- Impossibility of falsification

Terms of the contract

```
graph TD; A[Terms of the contract] --> B[Operational terms  
=  
"if this is so, then"]; A --> C[Non-operational terms  
≠  
"if this is so, then"];
```

Operational terms

=

“if this is so, then”

Non-operational terms

≠

“if this is so, then”

# Smart contract self-fulfillment

Once the parties have signed the contract by computer-generated signature

```
graph LR; A[Once the parties have signed the contract by computer-generated signature] --> B[The system transfers the contract signed to Unified State Register of Immovable Property (USRIP)]; B --> C[According to this USRIP posts a registration entry and the title of ownership is considered to be passed from the Seller to the Buyer];
```

The system transfers the contract signed to Unified State Register of Immovable Property (USRIP)

According to this USRIP posts a registration entry and the title of ownership is considered to be passed from the Seller to the Buyer

The contract  
of purchase  
and sale of  
LLC shares

A diagram consisting of two dark blue circles. The top circle contains the text 'The contract of purchase and sale of LLC shares'. The bottom circle contains the text 'Smart - contract'. A grey arrow points from the bottom circle up to the top circle, and another grey arrow points from the top circle down to the bottom circle, forming a vertical loop.

Smart -  
contract

# Stages of smart contract formation

Contract on purchase  
and sale of LLC shares

1. The right of first refusal



2. Representations:



3. Costs of concluding the  
contract & remarks and  
additions under the terms

- The share is not sold, not pledged, is not under arrest, not burdened with the rights of third parties;
- LLC is not in the stage of bankruptcy and is not in the process of liquidation
- The costs of concluding a contract are paid by the parties equally
- The parties confirm that they have agreed all the terms and conditions
- Remarks and additions under the terms of the contract are absent



# Welcome page

[BuySharesOnline](#)

[Buy share](#)

[Current purchases](#)

[Current sales](#)

[Register](#)

[Sign in](#)

## Welcome !

System capabilities:

1. Buy and sell the company's shares
2. Transfer money
3. Save the contract in Word

# Registration page

BuySharesOnline

Buy share

Current purchases

Current sales

Register

Sign in

## Register

Create new account

Surname

Name

Patronymic

Email

Password

Confirm password

Your Ethereum Account

Ethereum account  
password

Taxpayer Identification  
Number (TIN)

Passport series

Passport number

Married

Submit

# Page for sending offers

[BuySharesOnline](#)

[Buy share](#)

[Current purchases](#)

[Current sales](#)

[Register](#)

[Sign in](#)

## Buy Share

**Seller's Ethereum  
Account:**

**Share size:**

[Send the offer](#)

# Page for offers received

BuySharesOnline

Buy share

Current purchases

Current sales

Register

Sign in

## You have received a new offer

If you agree to sell your share, enter the cost and click send

**Buyer's Ethereum Account:** 0xca35b7d915458ef540ade6068dfe2f44e8fa733c

**Share size:** 5%

**Cost:**

Refuse the offer

Send the offer

# Purchases information page

[BuySharesOnline](#)[Buy share](#)[Current purchases](#)[Current sales](#)[Register](#)[Sign in](#)

## Purchases information

Offer Date	Status	Share size	Cost	
24.01.2018	Waiting confirmation from the owner	10%	300000	<a href="#">Status</a>
22.01.2018	Waiting confirmation from other participants	5%	150000	<a href="#">Status</a>
20.01.2018	Completed	8%	240000	<a href="#">Status</a>
15.01.2018	Rejected	8%	200000	<a href="#">Status</a>

# Sales information page

[BuySharesOnline](#)[Buy share](#)[Current purchases](#)[Current sales](#)[Register](#)[Sign in](#)

## Sales information

Offer Date	Status	Share size	Cost	
24.01.2018	Waiting confirmation from other participants	8%	240000	<a href="#">Status</a>
23.01.2018	Rejected	8%	210000	<a href="#">Status</a>

# Contract status page

BuySharesOnline

Buy share

Current purchases

Current sales

Register

Sign in

Contract from 22.01.2018

Back

Create Word with contract

- ✔ The seller has confirmed the sale
- ✔ The other shares owners have confirmed
- 🕒 The seller has confirmed the terms of the contract
- 🕒 The buyer has confirmed the terms of the contract
- 🕒 The contract has been drafted
- 🕒 Money transfer

# Terms for seller's page

[BuySharesOnline](#)

[Buy share](#)

[Current purchases](#)

[Current sales](#)

[Register](#)

[Sign in](#)

## Confirm the contract terms below

I notify and guaranty that:

Before the conclusion of this contract, 5% Ltd share which I intend to sell is not sold, is not pledged, is not under arrest, is not encumbered by the third parties' rights

Before the conclusion of this contract, the Company is not going bankrupt, is not going into liquidation

I notify and guaranty:

That I act without any pressure or concussion

That I am not limited in legal capacity, not under guardianship or custody

That I am aware of the contract terms and conditions, of the contractual obligations and of the consequences to follow

That this contract is not a bondage deal and is being concluded on the terms which both parties considered to be favorable

That I am aware of the consequences of this contract breach.

I have no any addenda or alteration to the contract terms

[Withdraw from the contract](#)

[Confirm](#)



# Terms for buyer's page

BuySharesOnline

Buy share

Current purchases

Current sales

Register

Sign in

## Confirm the contract terms below

I notify and guaranty:

That I act without any pressure or concussion

That I am not limited in legal capacity, not under guardianship or custody

That I am aware of the contract terms and conditions, of the contractual obligations and of the consequences to follow

That this contract is not a bondage deal and is being concluded on the terms which both parties considered to be favorable

That I am aware of the consequences of this contract breach.

I have no any addenda or alteration to the contract terms

Withdraw from the contract

Confirm

# Technologies used



- Ethereum – for smart contract



- ASP.NET - for Web application



- JavaScript - for contract-application interactions

# Delimitations of the study

**Smart-contract concept** is considered to be an alternative to notarial certification of deals (contracts)

**BUT** how can we prove the next conditions in the case of concluding smart contract?



Parties'  
legal  
capacity

Parties' will  
to conclude  
the  
contract

Pressure  
on the  
Parties

Threat  
of  
violence

# Notarial certification of deals

## Article 163 of Russian Civil Code

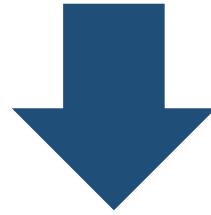
- Notarial certification of deals is an action by which a competent notary certify the legality of deals particularly by ascertaining the right and will of parties to conclude a contract.

# Delimitations of the study

The legal regulation of a Limited Liability Company Charter provisions is non-mandatory



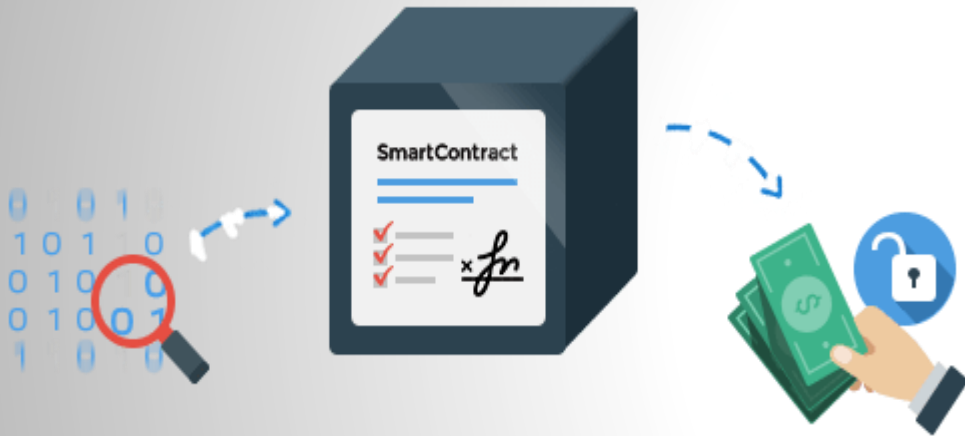
Therefore, different companies have quite different Charters



In some cases according to the Charter in order to sell the share:

- ✓ the LLC consent is in crucial need
- ✓ the LLC may have the right of first refusal

# Conclusion



Despite all the advantages of smart contracts, in relation to the contract of purchase and sale of LLC shares, this contractual structure does not work well (impossibility of foreseeing all conditions, companies charters are not unified)