

# Starcoin

A Layered Smart Contract And  
Distributed Financial Network

# Agenda



01

Starcoin  
Introduction

02

Starcoin Ecology

03

Move Ecology

04

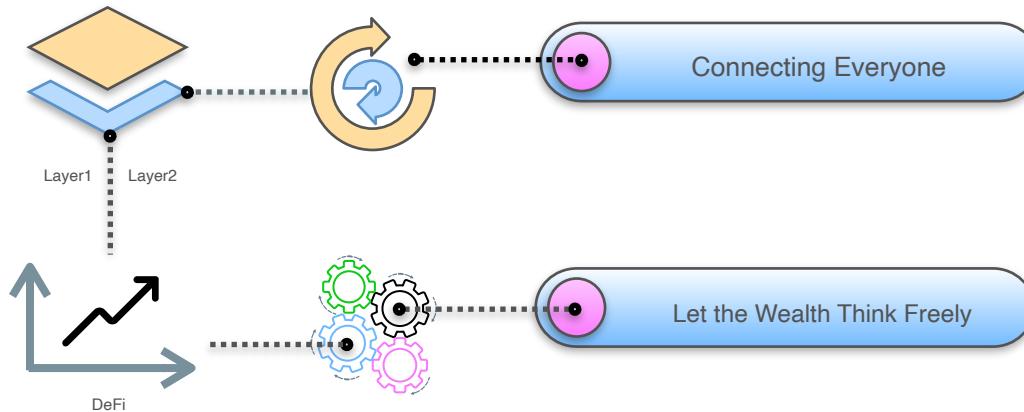
Win-Win  
Cooperation



Starcoin

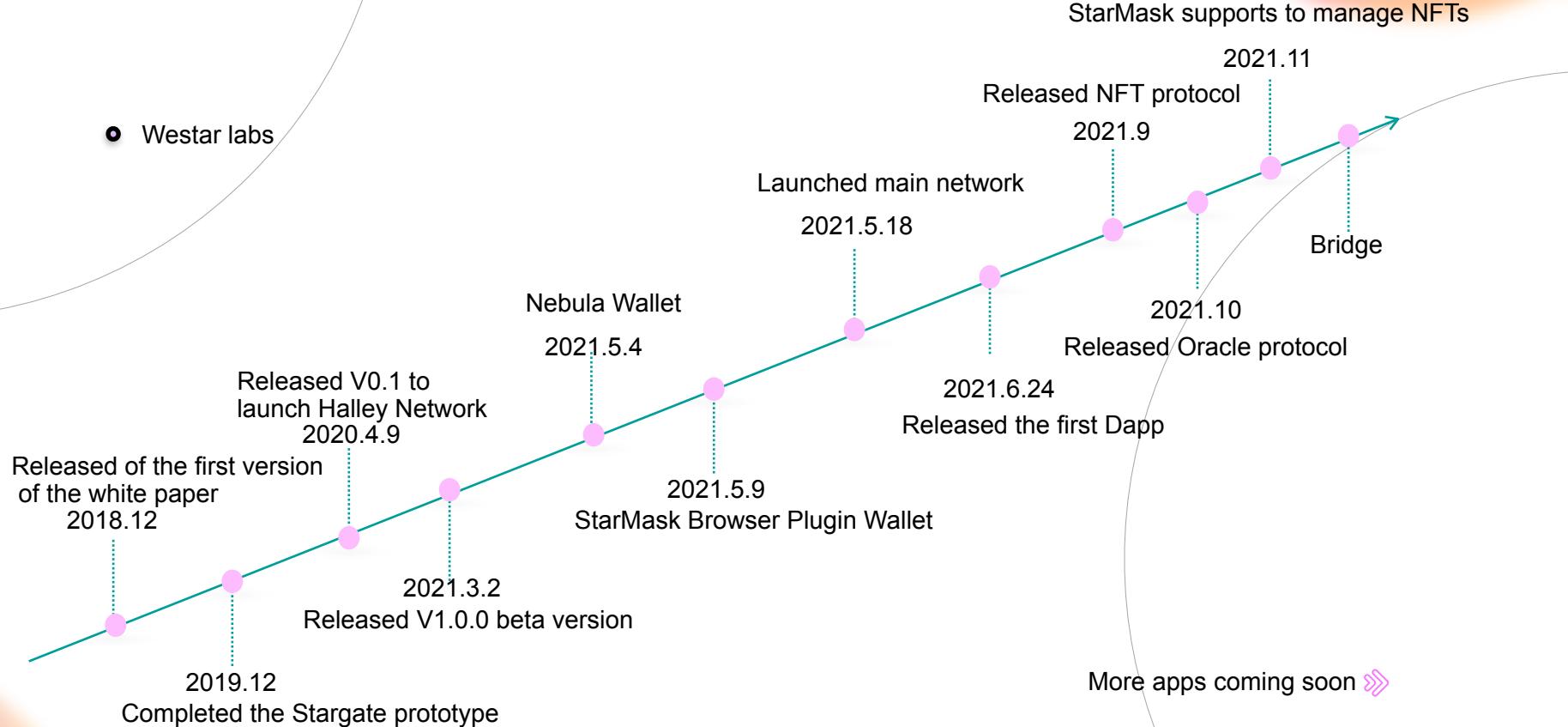
# 01

## Starcoin Introduction



- open Layer1
  - PoW consensus for anyone to participate
- Scalable Layer2
  - Simplify the interaction and connect to more life scenarios
- Secure DeFi
  - Let assets grow automatically

# Roadmap



Westar labs

Released of the first version  
of the white paper

2018.12

Released V0.1 to  
launch Halley Network

2020.4.9

2019.12

Completed the Stargate prototype

Released V1.0.0 beta version

2021.3.2

Nebula Wallet

2021.5.4

2021.5.9

StarMask Browser Plugin Wallet

2021.5.18

Released the first Dapp

2021.6.24

Released Oracle protocol

2021.10

Released NFT protocol

2021.9

Launched main network

2021.11

Bridge

More apps coming soon ➞

StarMask supports to manage NFTs

# Blockchain comparison



Future	Starcoin	ETH	BSC	Polygon
Consensus protocol	PoW	PoW	PoSA	POS
Gas	Low	High	Middle	Low
Tokens to pay for gas	Coming soon	not support	not support	not support
Smart contract security	Move-high	Solidity-low	Solidity-low	Solidity-low
Layered	Layer1+Layer2	Layer1	Layer1	Layer2
Constant amount	✓	✗	✓	✗
Bootstrapped economic model	✓	✗	✗	✗
Standard library Stdlib	✓	✗	✗	✗
Governable contract upgrade	✓	✗	✗	✗
DAO	✓	✗	✗	✗
Official IDO support	✓	✗	✗	✗
Official technical support	✓	✗	✗	✗



Starcoin

02

Starcoin Ecology

# Starcoin Project



- Enhanced PoW

- Secure Move

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- Convenient Layer2

- Scalable standard library Stdlib

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- Bootstrapped economic model

- The Open DeFi Ecology

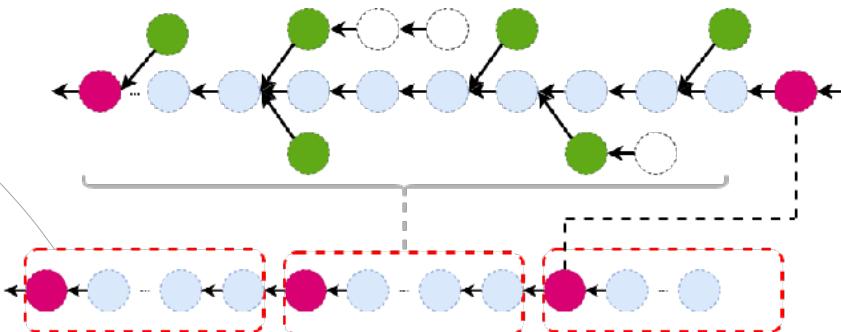
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- Stateful billing model

- Complete on-chain governance DAO

## Open PoW consensus mechanism

An improved consensus algorithm based on the Satoshi Nakamoto protocol

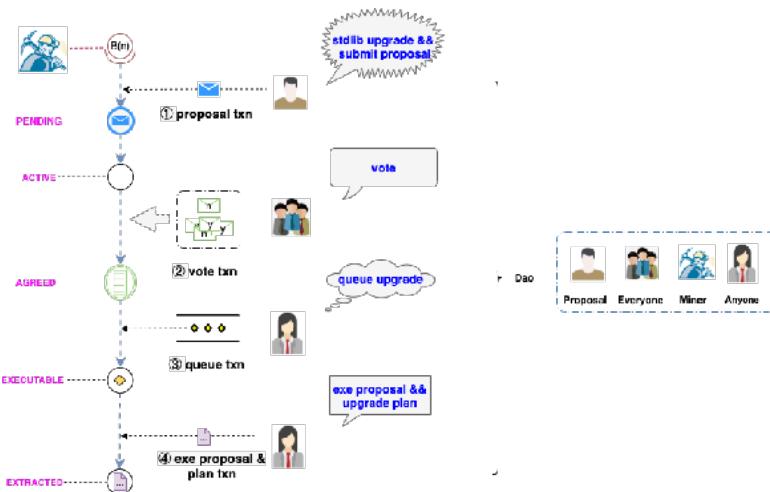


- Faster block-out time for DeFi needs
- Adjust the difficulty according to the Epoch block rate
- Constant total amount of rewards
  - 1% per year

# On-chain Governance



## A new approach of on-chain governance



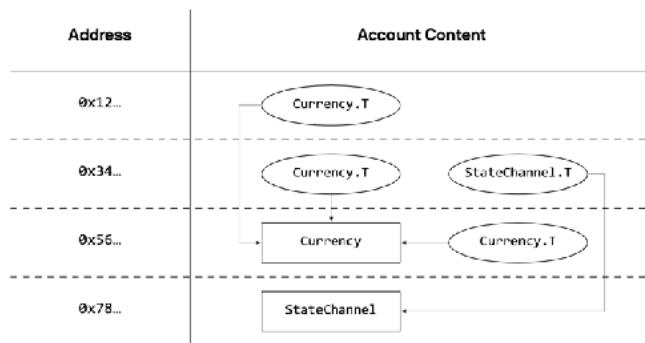
- The governance structure of the blockchain encompasses the process of decision making and communication.
- Starcoin solidifies most of the chain's governance rules in the form of contracts on the chain, achieving the goal of decentralized, open and efficient governance.
- Perhaps the first public chain that can be upgraded without a hard fork.
- Stlolib upgradeable.

# Account Model



Financial infrastructure for hundreds of millions of users

## More advanced account model design

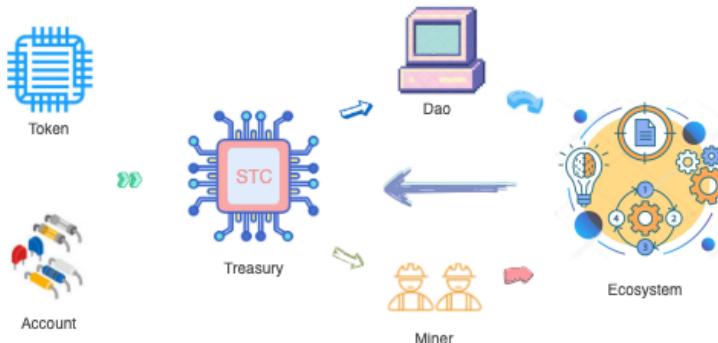


- Unified contract account and user account
- Contracts are stored in the account code area
- Data is stored in the data area of the user account
- Clear ownership of Resource improves security
- Provides the possibility for state billing, avoiding "state explosion"

# Economic Model

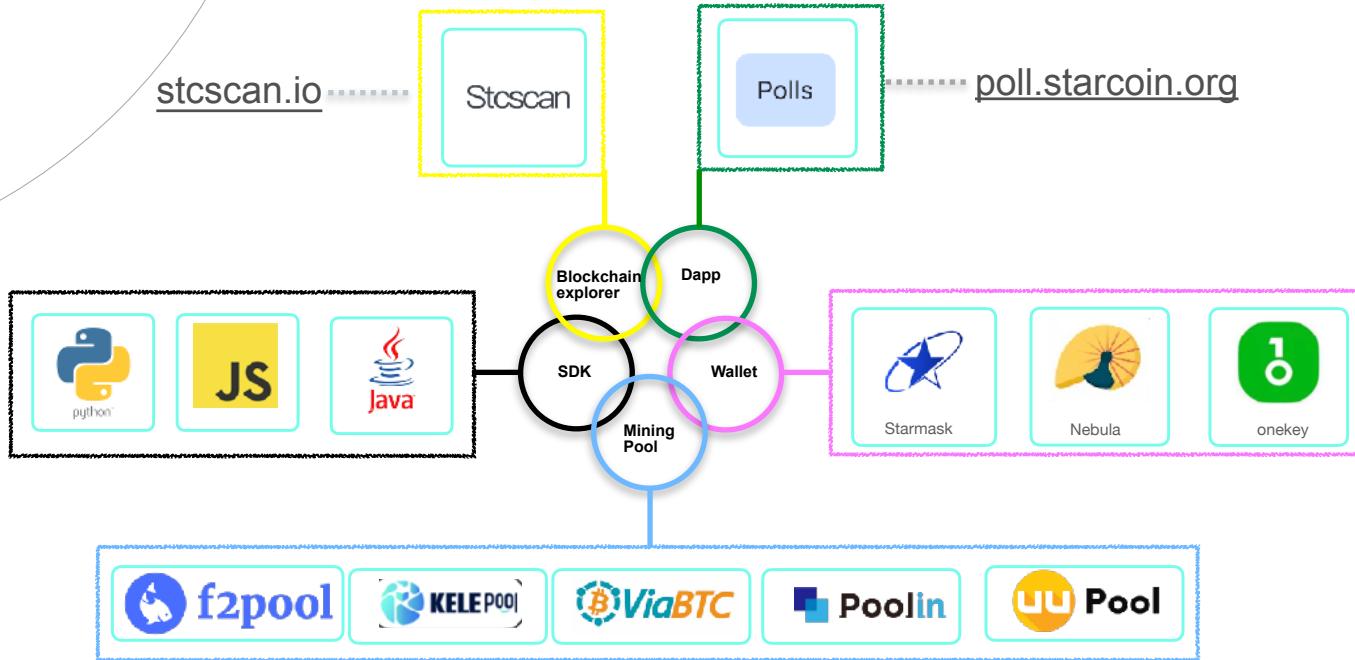


## Bootstrapped economic model



- Treasury Model
- Bootstrapped
- Ecological support funds that can be applied for
- Linear release of funds

# Building Ecology Together



# Faucet



- Halley: <http://halley.faucet.starcoin.org:8000/>
- Proxima: <http://proxima.faucet.starcoin.org:8000/>
- Barnard: <https://faucet.starcoin.org/barnard>

# Multilingual SDK



- Python: <https://github.com/starcoinorg/starcoin-sdk-python>
- JS: <https://github.com/starcoinorg/starcoin.js>
- Java: <https://github.com/starcoinorg/starcoin-java>
- Go: <https://github.com/starcoinorg/starcoin-go>
- Dart: <https://github.com/starcoinorg/starcoin.dart>

# Commonly tools



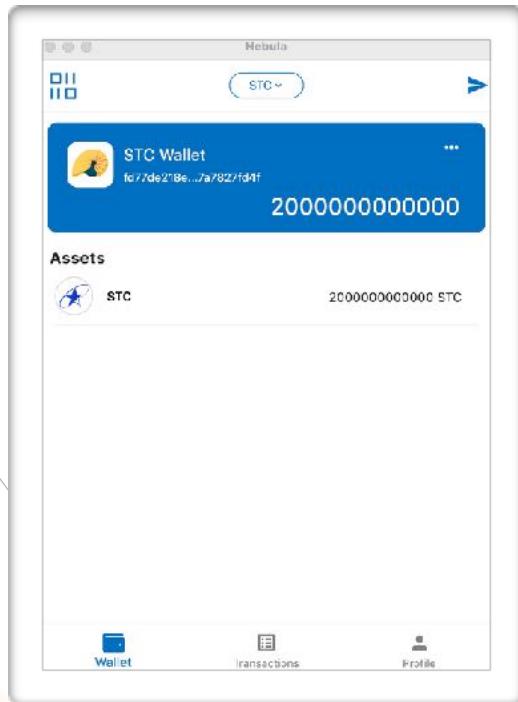
- + **StarMask User's Guide:** <https://github.com/starcoinorg/starmask-extension/blob/main/docs/how-to-use.md> ..... Browser plugin wallet
- + **Faucets:** [Halley](#)、[Proxima](#)、[Barnard](#) ..... Starcoin's different networks
- + **Multilingual SDK (JS+Python+Dart) :** <https://starcoin.org/zh/developer/sdk/> ..... How the program connects to the Starcoin node
- + **Move-cli User's Guide:** <https://github.com/starcoinorg/starcoin/blob/master/vm/move-cli/README.zh.md> ..... Move IDE
- + **More Guides:** <https://starcoin.org> ..... Developer's Guide

# Dapp Example

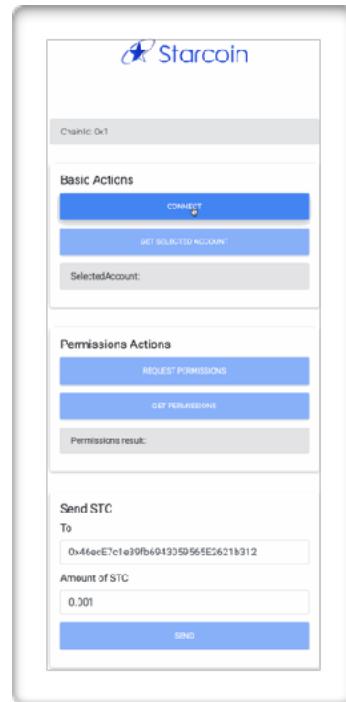


- Project: <https://starmask-test-dapp.starcoin.org/>
- Code repo: <https://github.com/starcoinorg/starmask-test-dapp>

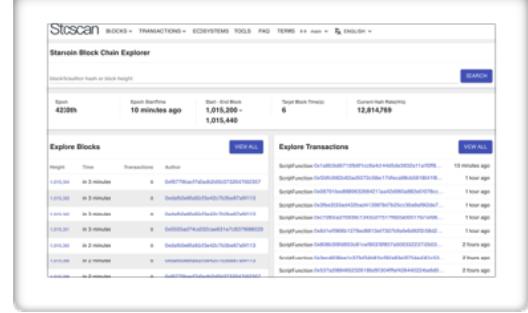
# Applications



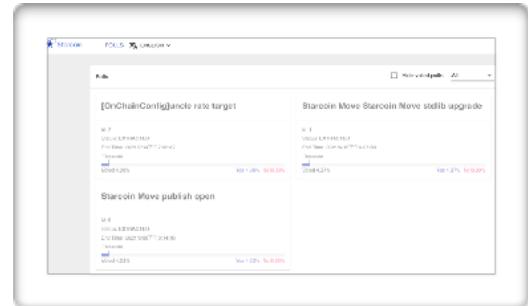
• Nebula Wallet



• StarMask



• Stoscan Explorer



• Vote Dapp



Starcoin

03

Move Ecology

# Move Language Features



Starcoin x Move

## Security

### Ability

Secure resource types: types customized for financial scenarios

Verifiability: formal verification

Fully static call

## Flexibility

### Module & Script

Generic Programming

Rich Visibility

Unit Test

# Largest Move Chinese community



- Move Chinese community  
[movelang.io](https://movelang.io)
- 《Move Book》 Chinese version  
[move-book](https://move-book.com)

The screenshot shows a forum interface titled "Move语言社区". The top navigation bar includes a search icon, a menu icon, and a profile icon. Below the title, there is a message about the transition from guide mode to rating mode. The main area displays a list of posts with the following details:

帖子	回复	浏览	活动
如果Libra来批准发布，Move的发展会受影响吗？	1	122	20年7月
直播活动预告：Move合约开发懒人指南（含回放地址）	0	108	20年8月
介绍一下Move智能合约的形式化验证工具	0	110	20年8月
Move编程语言-如何保证资产安全？	0	104	20年7月
前瞻：基于Libra发行‘数字美元’可能性非常大(或是Move大利好)	0	96	20年7月
「轻松进阶，掌握Move特性」 - Starcoin Move在线课程2	1	10	3天
【Move从入门到进阶】Starcoin Move在线课程-1	0	9	3天
【Move进阶】NFT协议V4	0	9	3天

# First Move Developer Conference



# Move Online Open Course



【公开课】 x Starcoin

## Move 为DeFi而生的智能合约语言

- 智能合约 & 安全
- Move：为 DeFi 而生
- Move & Starcoin 线上黑客松介绍
- 直播样例问答

2021  
6/23周三  
20:00 直播

扫码直接看直播  
入群海报微信：upchainedu  
备注：Move

社区支持：

Starcoin Move在线课程-1

## MOVE 从入门到进阶

轻松进阶，掌握Move精髓

● 主讲手：教你写第一个Move合约  
● 黑客松将你未解题  
● 日后提问（有机会获得Starcoin小礼品定制T恤等实物奖）

● 2021/6/30 星期三  
20:00

● @白起  
Move实践技术专家

● 直播海报：  
@Starcoin区段播

扫码进入直播间

Starcoin | 首届Starcoin Move线上黑客松大赛

Starcoin Move在线课程-2

## 轻松进阶，掌握Move精髓

● 主讲手：读懂Move精髓  
● 了解手：用Move设计进阶的NFT协议  
● Move黑客松欢迎挑战  
● 自由提问（有机会获得Starcoin小礼品定制T恤等实物奖）

● 2021/7/7 星期三  
20:00

● @周润天  
Starcoin核心开发

● 直播海报：  
@Starcoin区块链

扫码进入直播间

Starcoin | 首届Starcoin Move线上黑客松大赛

Starcoin Move在线课程-3

## Move & Dapp

● 完成任务 StarMask奖励  
● 问题回答  
● 语音提问  
● 问题解答  
● 语音回答方法  
● 技术交流  
● 自由提问（有机会获得Starcoin小礼品定制T恤等实物奖）

● 2021/7/14 星期三  
20:00

● @文科  
Starcoin DeFi团队负责人

● 直播海报：  
@Starcoin区块链

扫码进入直播间

Starcoin | 首届Starcoin Move线上黑客松大赛

### 3. Move & Dapp实战

主讲人：@文科

直播时间：2021年7月14日 20:00

### 4. Move开发实战

主讲人：@曹家锋

直播时间：2021年7月21日 20:00

### 5. Move & DeFi实战

主讲人：@王渊命

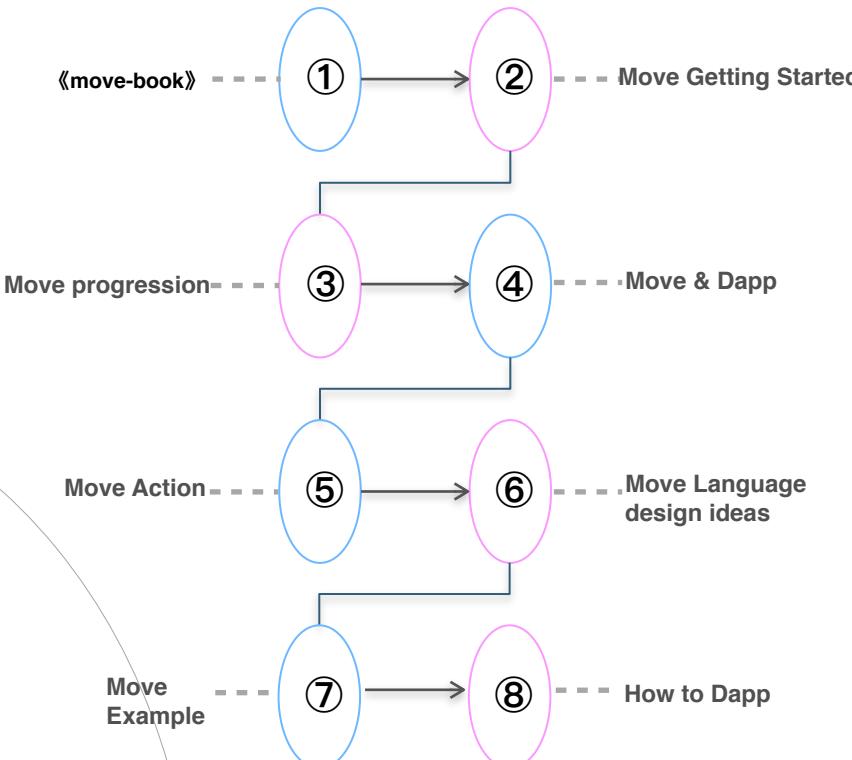
直播时间：2021年7月28日 20:00

### 6. Move语言的设计思路

主讲人：@周润天 facebook

直播时间：待定

# Move Programming Guide



- 『move-book』 : <https://move-book.com/>
- Move Getting Started: <https://weibo.com/l/wblive/p/show/1022:2321324653445776015474>
- Move progression: <https://weibo.com/l/wblive/p/show/1022:2321324655638159687840>
- Move & Dapp: <https://weibo.com/l/wblive/p/show/1022:2321324658455788257683>
- Move Action: <https://weibo.com/l/wblive/p/show/1022:2321324661355444568427>
- Move Language design ideas: <https://weibo.com/l/wblive/p/show/1022:2321324661515499208925>
- Move Example: <https://starcoin.org/zh/developer/move/example/>
- How to Dapp: [https://starcoin.org/zh/developer/how\\_to\\_dapp/how\\_to\\_dapp/](https://starcoin.org/zh/developer/how_to_dapp/how_to_dapp/)
- Move Chinese community: <https://www.movelang.io/>

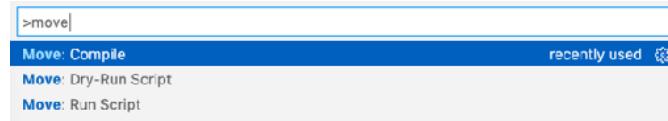
# Move IDE



- Visual Studio Code IDE

<https://marketplace.visualstudio.com/items?itemName=starcoinorg.starcoin-ide>

```
363     fun do_cast_vote(token: copy + drop + store, Action: copy + drop + store) { proposal: &mut Proposal; token: Action }
364     let stake_value = Token::value(&token);
365     Token::deposit(&mut vote.stake, stake);
366     if (vote.agree) {
367         proposal.for_votes = proposal.for_votes + stake_value;
368     } else {
369         proposal.against_votes = proposal.against_votes + stake.value;
370     }
371 }
372
373 spec do_cast_vote {
374     pre(a addition_overflow_unchecked == true);
375     asserts_if(vote.stake.value == old(vote).stake.value + stake.value);
376     ensures vote.stake.value == old(vote).stake.value + stake.value == proposal.for_votes;
377     ensures vote.agree == old(proposal).for_votes + stake.value == proposal.against_votes;
378     ensures !vote.agree == old(proposal).against_votes - stake.value == proposal.against_votes;
379     ensures !vote.agree == old(proposal).for_votes == proposal.for_votes;
380 }
```



- Move cli

<https://github.com/starcoinorg/starcoin/blob/master/vm/move-cli/README.zh.md>

- Move IDEA plugin



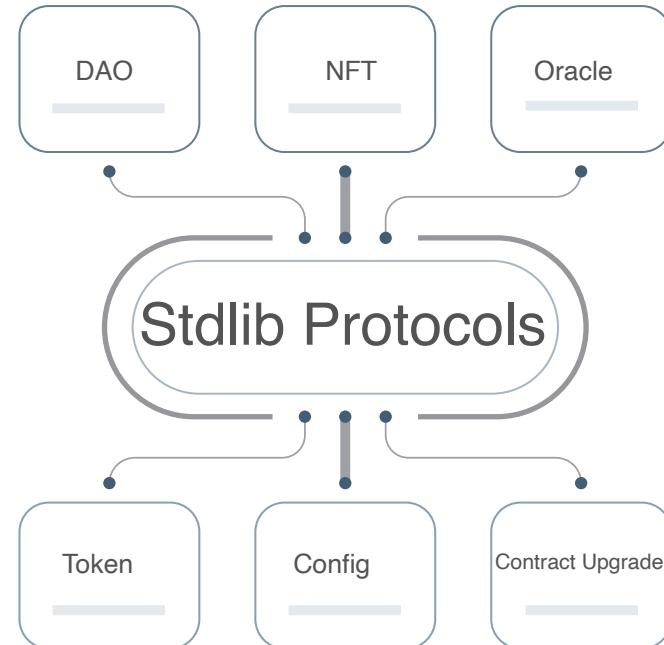
# Move test tools



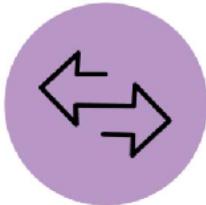
- Move cli: <https://github.com/starcoinorg/starcoin/blob/master/vm/move-cli/>
- Dry run
- Unit test: <https://github.com/diem/diem/blob/main/language/changes/4-unit-testing.md>

Move Action: <https://weibo.com/l/wblive/p/show/1022:232132466135544568427>

# Standard library Stdlib



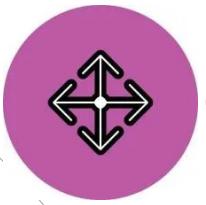
# DeFi Infrastructure



StarSwap  
Decentralized Exchanges  
<https://www.movelang.io/t/topic/57>  
Date: 2021.9



StarOracle  
Decentralized Prophecy Machine  
Date: 2021.10

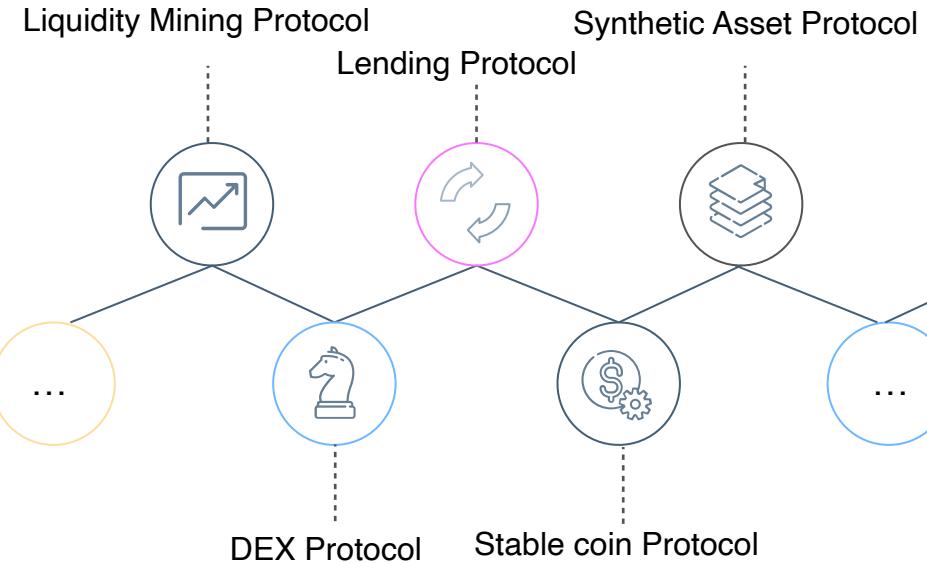


IDO  
Date: 2021.9



Bridge  
Digital Asset Cross-Chain Services  
Date: 2021.10

# DeFi Ecology



# 04

## Win-Win Cooperation

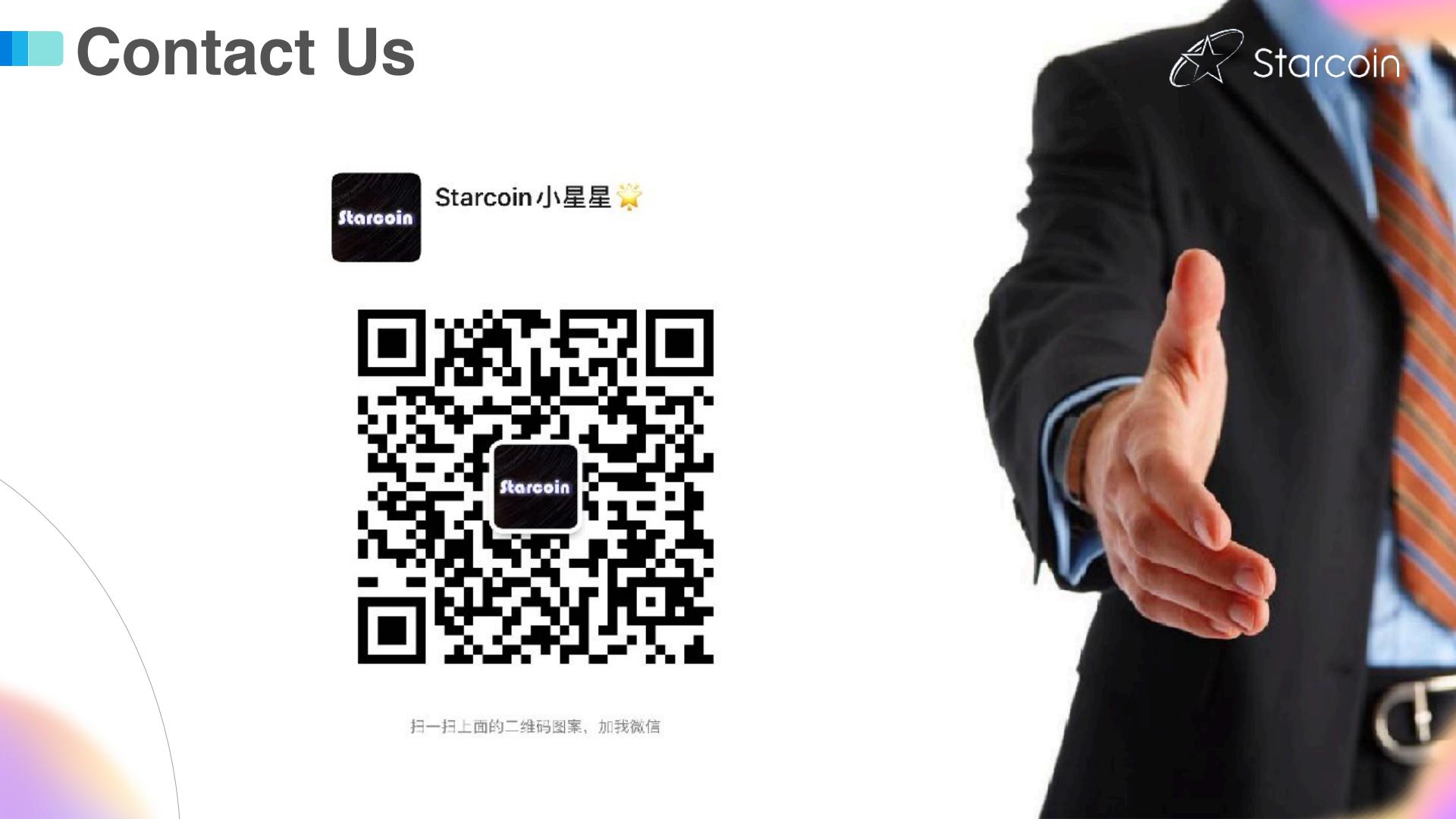
# Eco-Consultant



● Noah Jessop  
TPM, Libra Core, Libra Association



● Damir S  
Move Community KOL, Author 《move book》



Starcoin 小星星 🌟



扫一扫上面的二维码图案，加我微信