

# Change Management of Smart Contracts

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**01** Introduction of XuperChain

**02** Change Management Solutions of XuperChain

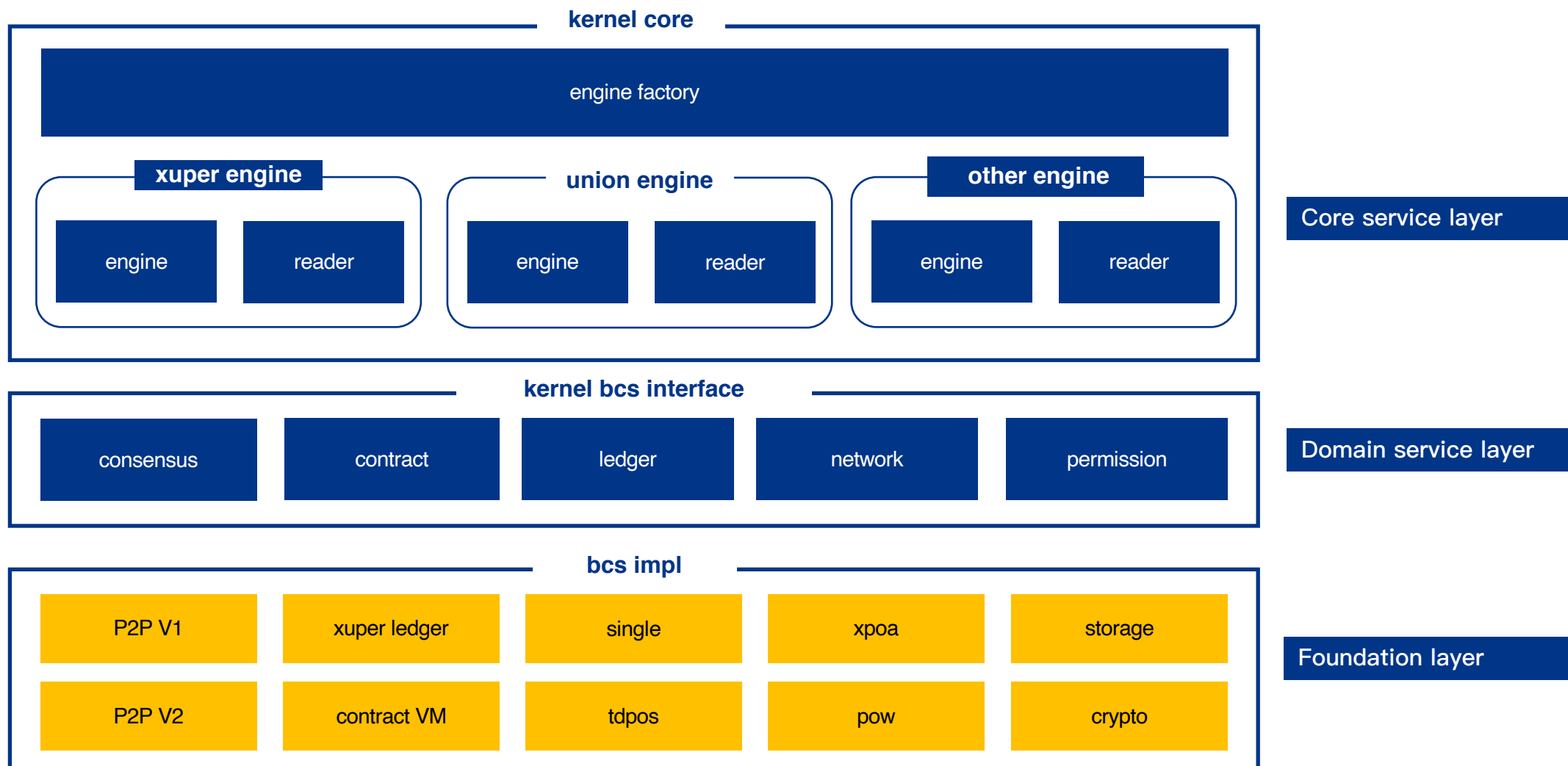
**03** Applications of XuperChain

# 01 Introduction of XuperChain

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# 01 Introduction of XuperChain——Kernel Architecture

## Highly Scalable - Implementation of dynamic kernel technology



# 01 Introduction of XuperChain——Technical highlights

## Highly Scalable

- Dynamic kernel;
- Multi engine architecture(Customized according to the scene);
- Supernode technology(highly scalable in storage and computing);

## Ultra High Performance

- Supernode technology;
- Intra-chain parallel technology;
- Scalable in storage and computing;
- Privilege management called ACL for contracts;

## High ease of use

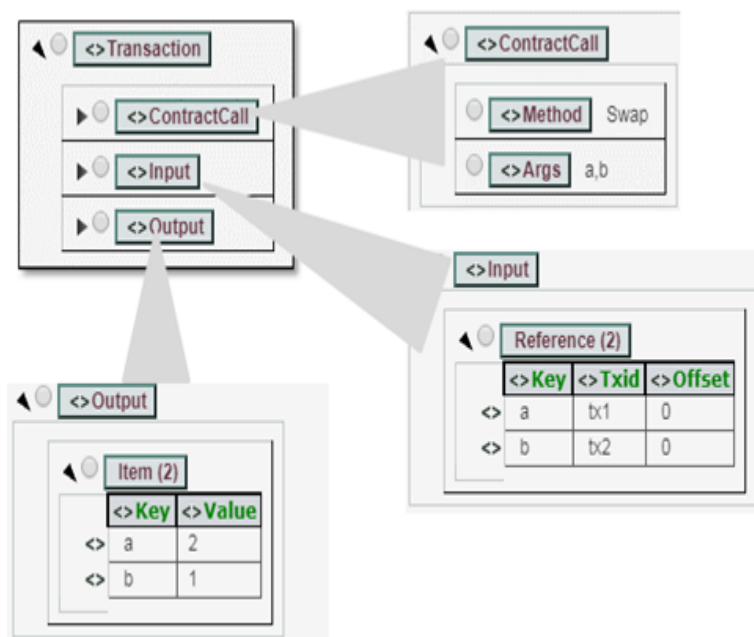
- Support multi smart contract languages;
- Technical documentation center;
- IDE, browser and other visual management tools;
- 7 \* 24h technical customer service;

## High availability

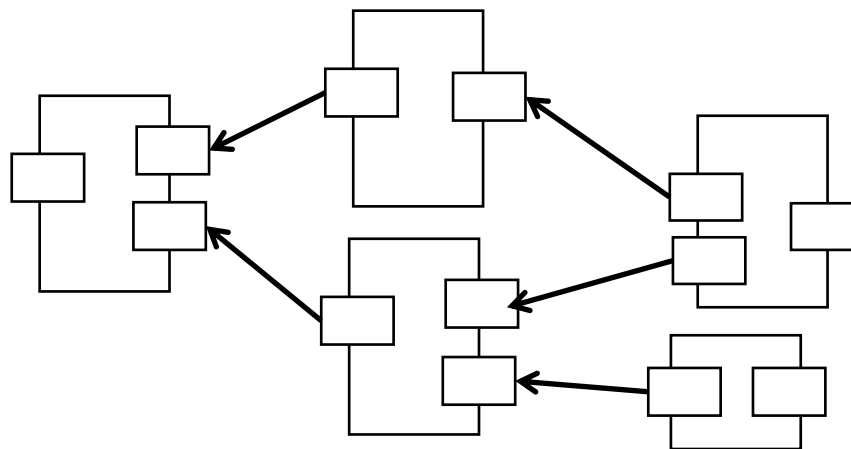
- Open source, the most perfect developer ecology in China;
- Stability of XuperChain network  $\geq 99.99\%$ ;
- 14w nodes for advertising screen;

# 01 Introduction of XuperChain——XuperModel

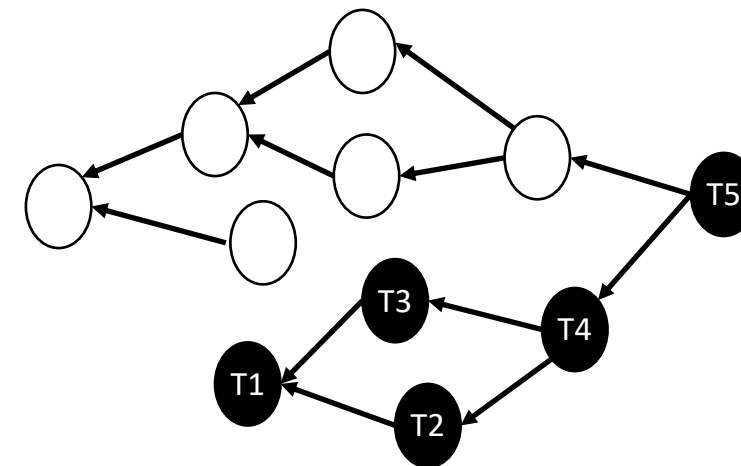
**XuperModel:** A storage model with version control is implemented. The read data of each transaction needs to explicitly refer to the last updated the data with transaction ID. And the transaction represents the version of the data.



Transaction



DAG

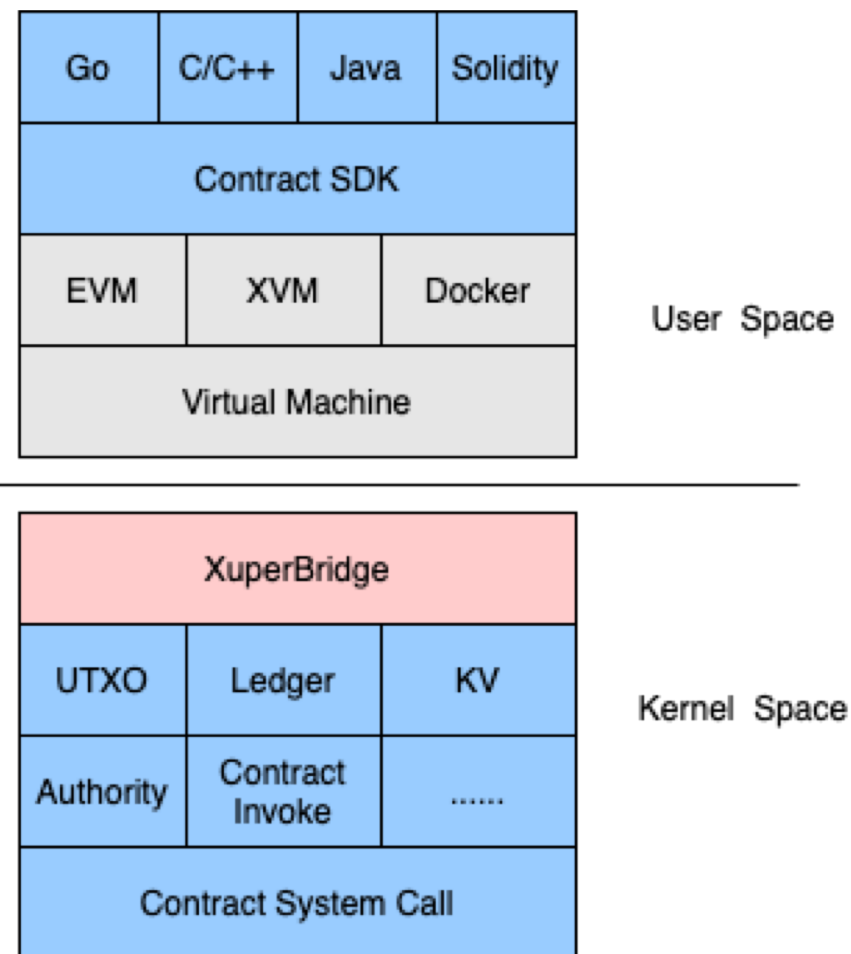


Transaction Rollback

# 01 Introduction of XuperChain——XuperBridge

## Smart contract architecture:

- Decoupling virtual machine and blockchain through XuperBridge
- Support multiple virtual machines, support multiple languages
- Smart contract running in virtual machine sandbox
- Data isolation between different smart contracts



## 02 Change Management Solutions of XuperChain

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### Smart Contract Lifecycle Management :

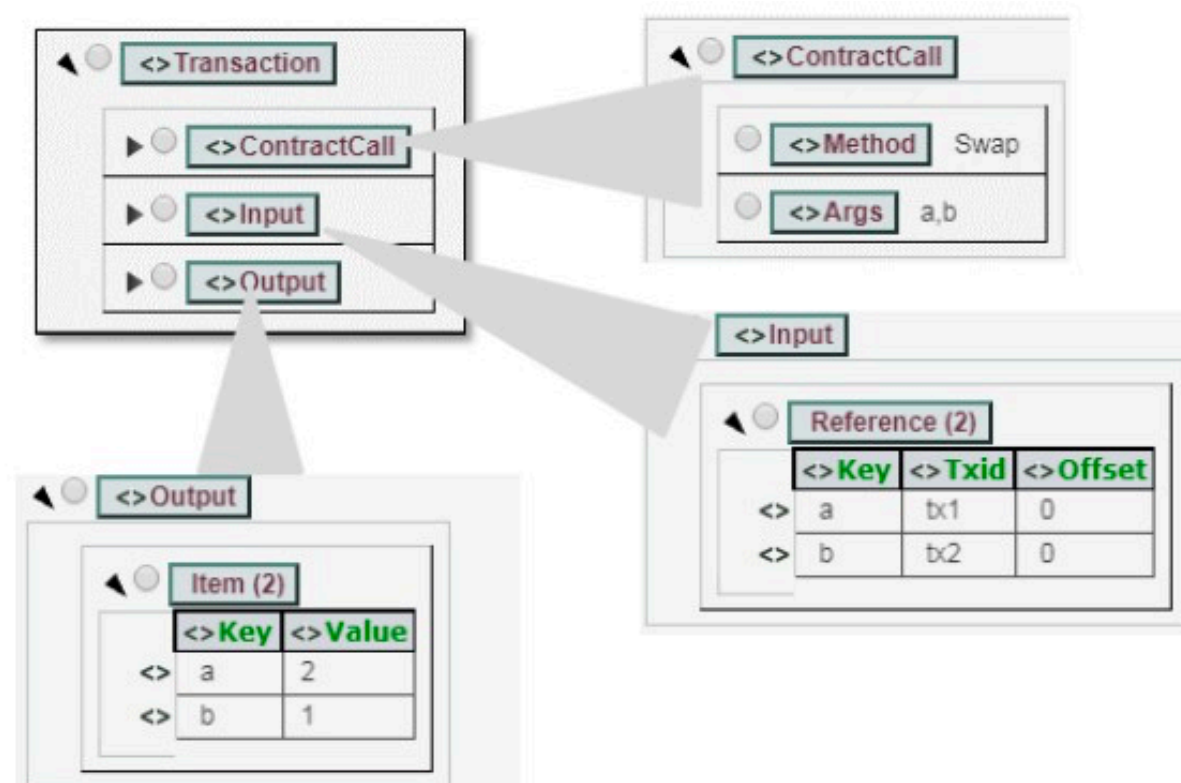
- Deploy
  1. create contract account with ACL
  2. compile contracts and create executable files
  3. deploy contracts with executable files
- Upgrade
  1. modify contracts and create executable files
  2. upgrde contracts with executable files
- Destruct

```
{
  "pm": {
    "rule": 1,
    "acceptValue": 0.6
  },
  "aksWeight": {
    "AK1": 0.3,
    "AK2": 0.3
  }
}

{
  "module_name": "xkernel",
  "method_name": "NewAccount",
  "args" : {
    "account_name": "1111111111111111",
    "acl": "{\\"pm\\": {\\"rule\\": 1,\\"acceptValue\\": 0.6},\\"aksWeight\\": {\\"AK1\\": 0.3,\\"AK2\\": 0.3}}"
  }
}
```

### The updated contract still reserves access to the original contract data:

- The contract name, which is globally unique, is the only access entry of the contract status
- Version management of contract executable file
- Version management of contract status



### Privilege management control of smart contract upgrade:

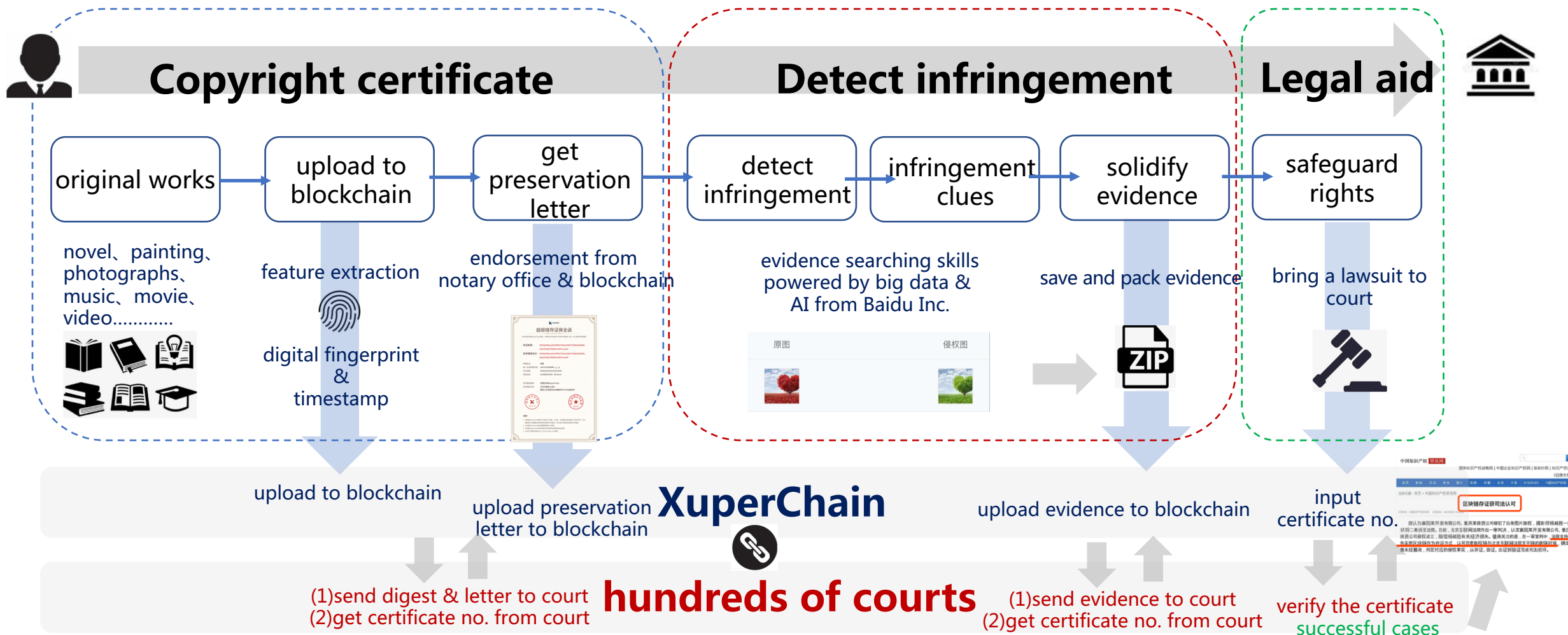
- Only contract deployers can upgrade contracts
- The authority of the contract account is controlled by the ACL module to realize multi signature
- The contract upgrade function is only available in the alliance chain / private chain scenario

## 03 Applications of XuperChain

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# 03 Applications of XuperChain—Copyright Protection

- Based on blockchain technology, it provides full link copyright protection solutions for original authors and institutions, including copyright works storage, infringement detection and legal aid.



# 03 Applications of XuperChain—Electronic Signing Platforms



- Electronic signing platforms based on XuperChain adopt the combination of blockchain, trusted timestamp and digital certificate. Based on reliable electronic signature, the signed contract is stored on XuperChain to provide users with effective, reliable, low-cost, easy maintenance and judicial credibility electronic signing service.

Blockchain enabled  
electronic signing has  
obvious advantages

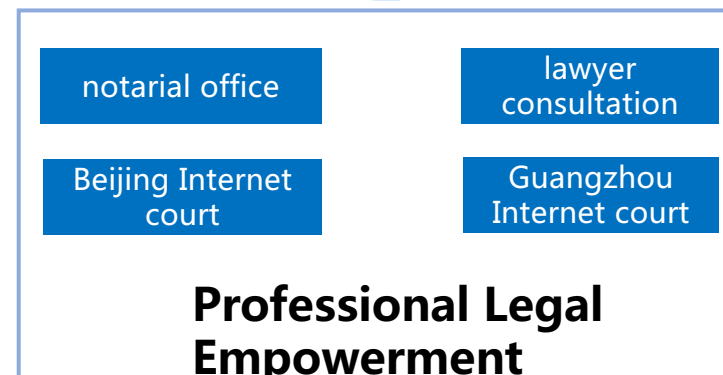
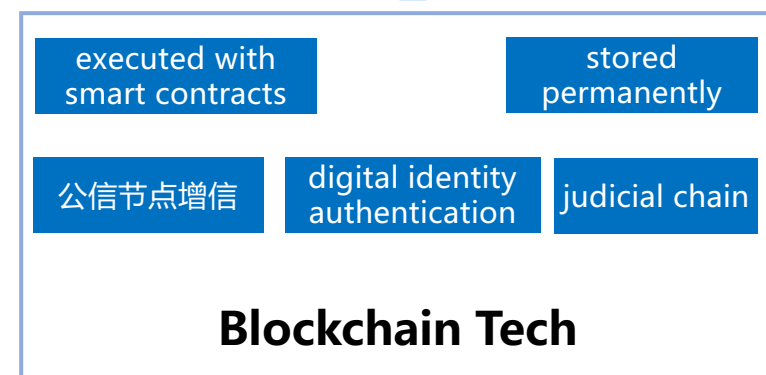
The whole process  
guarantee of  
professional judicial  
empowerment

save the whole  
process

solidify evidence

powered by AI

tamper-resistant



connection to  
justice

judicial knowledge

legal rights  
protection

# Thank You !



Website of XuperChain



WeChat Subscription of XuperChain