Test documents

Equipment: Deploying three nodes to build a private chain.

A. Regular node of ethereum: ssh root@**.***.***.**

geth --datadir /root/testprivate console
miner.start()

B. Regular node of Usechain: ssh root@**.***.***.***

geth --datadir testpriv/ --bootnodes
enode://83a142fe4dc4eafbcb0c70679c1a04bc5a3c69e6131d7a72b2853d4aea570999ca399cb086f
56b673cb5b007d77bf8a7b1ab2cb3b67ddabf440c94bb03d399fc@[**.***.***.**]:30303
--rpc --rpcaddr 0.0.0.0 --rpcport 8545 --rpcapi 'web3,eth,personal' --rpccorsdomain * 0
geth --datadir ~/testpriv/ --rpc --rpcaddr 0.0.0.0 --rpcport 8545 --rpcapi web3,eth,personal --rpccorsdomain * console

C. Regular node of Usechain: ssh root@**.***.***.**
geth --datadir testpriv/ --bootnodes
enode://83a142fe4dc4eafbcb0c70679c1a04bc5a3c69e6131d7a72b2853d4aea570999ca399cb086f
56b673cb5b007d77bf8a7b1ab2cb3b67ddabf440c94bb03d399fc@[**.***.***.**]:30303

Ensure that the three nodes are connected to the same network, and the blocks are synchronized.

Step 1:
Machine A: account[0]: 0xe984996f42d9348999b4dcb8b897597fc3725b10
Create CA contract (USG contract, publicAccount contract not yet deployed):
eth.sendTransaction({from: eth.accounts[0], value: 0, gas:'0x332423', data:
'0x6060604052600060045534156200001557600080fd5b60405162001b5738038062001b5783398
1016040528080518201919050503360008061010 0a81548173ffffffffffffffffffffffffffffffffffffffff0
21916908373ffffffffffffffffffffffffffffffffffffffff160217905550806007600073cc73428bd9b2a5bbc
d49289c1e1966d24b50433d73ffffffffffffffffffffffffffffffffffffffff1673ffffffffffffffffffffffffffffffff
fffff16815260200190815260200160002060010190805190602001906200000df9291906200038d56
5b5060036007600073cc73428bd9b2a5bbcd49289c1e1966d24b50433d73ffffffffffffffffffffffffffffffff
fffffffffff1673ffffffffffffffffffffffffffffffffffffffff16815260200190815260200160002060000181905
55073cc73428bd9b2a5bbcd49289c1e1966d24b50433d60068260405180828051906020019080 83
835b602083101515620001 8b57805182526020820191506020810190506020830392506200016 45
65b60018360200361010 0a038019825116818451168082178552505050505050905001915050 90
81526020016040518091039020600301600061010 0a81548173ffffffffffffffffffffffffffffffffffffffff
021916908373ffffffffffffffffffffffffffffffffffffffff160217905550600160068260405180828051906 0
2001908083835b602083101515620002 3b57805182526020820191506020810190506020830392 5
062000214565b60018360200361010 0a038019825116818451168082178552505050505050905 0
019150509081526020016040518091039020600001600061010 0a81548160ff021916908315150

217905550600160068260405180828051906020019080838 35b60208310151562000 2c457805182
526020820191506020810190506020830392506200029d565b60018360200361010 00a038019825
116818451168082178552505050505050905001915050908152602001604051809 1039020600201
819055506004546006826040518082805190602001908083835b60208310151562 00033b5780518
252602082019150602081019050602083039250620003145 65b60018360200361010 00a03801982
511681845116808217855250505050505050905001915050908152602001604051809 1039020600 10
181905550600160046000828254019250508190555050620004 3c565b828054600181 6001161561
010002031660029004906000526020600020906 01f0160209004810192826 01f10620003d057805
160ff191683800117855562000401565b828001600101855582156200040157 9182015b82811115
620004005782518255916020019190600101906200 03e3565b5b5090506200041 0919062000414 5
65b5090565b6200043991905b8082111562000435576000816000905550600 1016200041b565b50
90565b90565b61170b806200044c6000396000f3006060604052600436106100c4576000357c010
000000000000000000000000000000000000000000000000000900463ffffffff16806299cc991
46100c957806333161ca8146101575780633cebb8231461019057806359bf900146101c95780635
cc2c2dc1461027b578063737dc985146102a457806374f54c371461035d578063c4cdc974146103e
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80910390f35b34156101625760008 0fd5b61018e600480803573ffffffffffffffffffffffffffffffffffffffff1
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ffffffffffffffffffffffff16906020019091905050610 82b565b005b34156101d457600080fd5b610
200600480803573ffffffffffffffffffffffffffffffffffffffff169060200190919050506108c9565b6040518
080602001828103825283818151815260200191508051906020019080838360005b838110156102
405780820151818401526020810190506102 25565b505050509050908101906 01f16801561026d5
780820380516001836020036101000a031916815260200191505b509250505060405180910390f3
5b34156102865760008 0fd5b61028e6109b3565b604051808281526020019150506040518091039
0f35b34156102af57600080fd5b6102db600480803573ffffffffffffffffffffffffffffffffffffffff16906020
019091905050610 9b9565b604051808381526020018060200182810382528381815181526020019
150805190602001908083836000 5b838110156103215780820151818401526020810190506103 06
565b505050509050908101906 01f16801561034e5780820380516001836020036101000a0319168
15260200191505b509350505050604051809 10390f35b34156103685760008 0fd5b6103ca600480
803590602001909190803590602001909190803590602001908201803590602001908080601f016
020809104026020016040519081016040528093929190818152602001838380828437820191505 0
505050509190505061135c565b005b34156104285760008 0fd5b6104546004808035735ffffffffffffffffffffffffffffffffffffffff
ffffffffff1690602001909190505061 13fd565b604051808281526020019150506040518091 0390f3
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020809104026020016040519081016040528093929190818152602001838380828437820191505 0
505050509190505061144 9565b604051808273ffffffffffffffffffffffffffffffffffffffff1673ffffffffffffffff
ffffffffffffffffffffffff16815260200191505060405180910390f35b34156105125760008 0fd5b61051
a6114e1565b604051808273ffffffffffffffffffffffffffffffffffffffff1673ffffffffffffffffffffffffffffffffffffffff

ff16815260200191505060405180910390f35b34156105675760008 0fd5b6105936004808035 73fff
fffffffffffffffffffffffffffffffffffff16906020019091905050611506565b005b34156105a057600080fd
5b6105a86115a5565b604051808060200182810382528381815181526020019150805190602001 9
080838360005b838110156105e857808201518184015260208101905061 05cd565b505050509050
90810190601f16801561061557808203805160018360200361 01000a031916815260200191505b5
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ffffff16815260200190815260200160002060010160405180828054600181600116156101000203
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ffffffffffffffffffffff163373ffffffffffffffffffffffffffffffffffffffff161415156108865760008 0fd5b806
000806101000a81548173ffffffffffffffffffffffffffffffffffffffff02191690837 3ffffffffffffffffffffffffff
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ff1673ffffffffffffffffffffffffffffffffffffffff16815260200190815260200160002060010180546001816
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161561010002031660029004806 01f0160208091040260200160405190810160405280929190818
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fffff0000000000000000000000000000000000000000000000000000000000000000167bffffffffffffffffffffff
ffffffffffffffffffffffffffffff1916827bffffffffffffffffffffffffffffffffffffffffffffffffffffffffffffff19161415156
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ffffffffffffffff1673ffffffffffffffffffffffffffffffffffffffff16815260200190815260200160002060010

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78552505050505050905001915050908152602001604051809103902060030160006101000a8154
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550846006856040518082805190602001908083835b602083101515610de1578051825260208201
915060208101905060208303925061 0dbc565b60018360200361010 00a038019825116818451168
082178552505050505050905001915050908152602001604051809103902060020181905550600 4
546006856040518082805190602001908083835b602083101515610e5657805182526020820191 5
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178552505050505050905001915050908152602001604051809103902060010181905550600160 0
685604051808280519060200190808383 5b602083101515610eca57805182526020820191506020
810190506020830392506 10ea5565b60018360200361010 00a038019825116818451168082178 55
250505050505090500191505090815260200160405180910390206000160006101000a81548160
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005600090549061010 00a900473fffffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffff
ffffffff1663e1e13941336040518263ffffffff167c0100000000000000000000000000000000000000000
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473fffffffffffffffffffffffffffffffffffff166019604051846 3ffffffff167c0100000000000000000000000
000000000000000000000000000000000028152600401808473fffffffffffffffffffffffffffffffffffff
1673fffffffffffffffffffffffffffffffffff168152602001837 3fffffffffffffffffffffffffffffffffffff1673ff
fffffffffffffffffffffffffffffffffff168152602001826 0ff16815260200193505050506000604051808 3
0381600087803b151561111b57600080fd5b5af11515611 2857600080fd5b5050506005600090549
061010 00a900473fffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffffff1663a5
330bdf336002600090549061010 00a900473fffffffffffffffffffffffffffffffffffff16603260405184 63f
fffffff167c0100000000000000000000000000000000000000000000000000000000000028152600401
808473fffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffffff168152602001837
3fffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffffff168152602001826 0ff168
152602001935050505060006040518083038160008780 3b151561124957600080fd5b5af1151561
125657600080fd5b5050505b61134e565b600760003373fffffffffffffffffffffffffffffffffffff1673ffff
fffffffffffffffffffffffffffffffffff168152602001908152602001600020600001548611151561 12af576
11353565b83600760003373fffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffff
ff168152602001908152602001600020600101908051906020019061130592919061163a565b508
5600760003373fffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffff16815260
200190815260200160002060000181905550 5b600192505b5050939250505056 5b600073ffffffffff
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73fffffffffffffffffffffffffffffffffffff02191690837 3fffffffffffffffffffffffffffffffffffff16021790555
050565b6000600760008373fffffffffffffffffffffffffffffffffffff1673fffffffffffffffffffffffffffffffffff
ff168152602001908152602001600020600001549050919050565b60006006826040518082805 19

0602001908083835b602083101515611483578051825260208201915060208101905060208303925061145e565b6001836020036101000a038019825116818451168082178552505050505050905001915050908152602001604051809103902060030160009054906101000a900473ffffffffffffffffffffffffffffffffffffffff169050919050565b6000809054906101000a900473ffffffffffffffffffffffffffffffffffffffff1681565b6000809054906101000a900473ffffffffffffffffffffffffffffffffffffffff1673ffffffffffffffffffffffffffffffffffffffff163373ffffffffffffffffffffffffffffffffffffffff16141515611156157600080fd5b80600560006101000a81548173ffffffffffffffffffffffffffffffffffffffff021916908373ffffffffffffffffffffffffffffffffffffffff16021790555050565b6040805190810160405280601881526020017f434120436572746966696361746520436f6e74726163742e000000000000000081525081565b50805460018160011615610100020316600290046000825580601f106116045750611623565b601f01602090049060005260206000209081019061162291906116ba565b5b50565b602060405190810160405280600081525090565b828054600181600116156101000203166002900490600052602060002090601f016020900481019282601f1061167b57805160ff19168380011785556116a9565b828001600101855582156116a9579182015b828111156116a857825182559160200191906001019061168d565b5b5090506116b691906116ba565b5090565b6116dc91905b808211156116d85760008160009055506001016116c0565b5090565b905600a165627a7a72305820c1d21a3cb4b34adf1840eeb27753e05815f0140873e8a46b6bdc77515c75907e0029000000000000000000000000000000000000000000000000000000000000000200000000000000000000000000000000000000000000000000000000000000474657374000000000000000000000000000000000000000000000000000000'})

Get the CA contract address: 0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0

The contract constructor has already bound the certificate "test" at the 0xcc73428bD9B2a5bbCd49289C1e1966D24b50433D address.

The success of the transaction is calculated.
var key = "000000000000000000000000cc73428bD9B2a5bbCd49289C1e1966D24b50433D" +
"0000000000000000000000000000000000000000000000000000000000000007”
web3.sha3(key, {"encoding": "hex"})
eth.getStorageAt("0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0",
"0xa77b045d740033c65d496c892d80ea68f8fdb23e01927a6ecb57d58a64bb96df")

Get the result:
The "0x0000000000000000000000000000000000000000000000000000000000000003" result indicates effective contract deployment.
At the same time, when the contract was created, the address 0xcc73428bD9B2a5bbCd49289C1e1966D24b50433D was placed as a legitimate address.

Step 3. (machine B):
Sending legal identity contract transactions
For the account[0] of the B machine, two authentication grades of Tcert are 1, 2, addressTag 2 (sub address, main address function temporarily).

Tcert 1 send:

eth.sendAuthentication({from: eth.accounts[0], to:
'0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0', value: 0, gasPrice:0, gas: 0xe57e0,data:
'0000000000000000000000000000000000000000000000000000000000000100000000000000
0000000000000000000000000000000000000000000000000022d2d2d2d2d424547494e204345525
4494649434154452d2d2d2d2d0a4d494943526a434341616967417749424167495514c6477336953
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515944565151474577 4a44546a45524d413847413155454368 4d4956584e6c51326868615734774
868634e4d5467774d7a49314d5463304e6a51775768634e0a4d6a67774e4441304d4467784e7a413
4576a41674d5173774351594456515147457 74a44546a45524d413847413155454368 4d4956584e
6c51326868615734770a675a7377454159484b6f5a497a6a3043415159464b34454541434d446759
594142414176485a536b744737366b4e48346837372f4f45727768457a373471435a0a4758645542
4571662f4f7433755251425746744344e4671414a77754d672f4539544f593578563543484a397448
733746376477706d543831346748684c2b43310a336a5339324c6c78504b37644462444c4f524745
42333875734f3734342f4962484659663048676231 4c376b32736f326c474d764f4f4563506e624e6
b4361540a466e484d45783067476f32367535457134614f426744422b4d41344741315564447745
422f7751454177494370444164426 74e5648535545466a4155426767720a4267454642516344415
159494b7759424251554841774977447759445652305441514 82f42415577417745422f7a413842
674e56485245454e54417a675445770a654449304d6a5a6c4d5464694d5759344e574d334f475135
4e6a67794d7a49314d7a67794d544932593245795a574e6a4d3255344e6a46414d54497559323974
0a4d416f4743437147534d343942414d454134474c4144434268774a4341554167675376932178 4
3387656384b6d6b4454764e635349386a713562443879672b530a784b43517a48515a372f4679365
0442f586d5349556e6a365a356c47326b305379766835384b49795a5779746a62396963375178416
b466f64772f6d61364c4f0a2f4e394433516436492f6548726c30347a446d73446130543641367662
484a68416c746d6a5366514e5238436b3348696b46556d4275566c544739636658476f0a57556162
55716c753263655676673d3d0a2d2d2d2d2d454e442043455254494649434154452d2d2d2d2d0a'}
)

View the results:
var key = "0000000000000000000000002426e17b1f85c78d9682325382126ca2ecc3e861" +
"0000000000000000000000000000000000000000000000000000000000000007”
web3.sha3(key, {"encoding": "hex"})
eth.getStorageAt("0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0",
"0x7a54d03e985e5978027c7f0027128f3e5d4e16dfc04b1cb3d8cbb8c306594cb3")
results: 0x0000000000000000000000000000000000000000000000000000000000000001.
Authenticate through

Tcert 2 Send (Temporarily unmeasured, the contract renewing level has a problem)
eth.sendAuthentication({from: eth.accounts[0], to:
'0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0', value: 0, gasPrice:0, gas: 0xe57e0,data:
'0000000000000000000000000000000000000000000000000000000000000200000000000000
0000000000000000000000000000000000000000000000000022d2d2d2d2d424547494e204345525
4494649434154452d2d2d2d2d0a4d494943527a434341616d6741774942416749524 52414c3979575a
6d666434487551694d4845566f62746f4d77436759494b6f5a497a6a3045417751774944454c0a4d
416b474131554542684d435130347845544150426 74e5642416f544346567a5a554e6f59576c754d

423458445445344d444d794e5445334e4459304d466f580a445449344d4451774e4441344d6a4531
4d466f774944454c4d416b474131554542684d435130347845544154 15042674e5642416f544346567a
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47414151414c783255704c52752b7044522b49652b2f7a684b3849524d2b2b4b670a6d526c335641
524b6e2f7a7264376b5541566862516a52616743634c6a49507850557a6d4f635665516879666252
374f786533634b5a6b2f4e65494234532f670a7464343076646935635479753351327779 7a6b5268
41642f4c7244752b4f5079477878574839423447395 32b354e724b4e70526a4c7a6a68484435327a
5a416d0a6b785a787a424d644942714e757275524b75476a67594177666a414f42674e5648513842
4166384542414d434171517748515944565 2306c42425977464159490a4b7759424251554841774
54743437347415155464277 4d434d413847413155644577454 22f7751464d414d42416638775041
594456523052424455774d3445780a4d4867794e4449325a544533596a466d4f44566a4e7a686b4f
5459344d6a4d794e544d344d6a45794e6d4e684d6d566a597a4e6c4f445978514449794c6d4e760a
6254414b42676771686b6a4f5051514442414f4269774177675963435155366b626252784370596
e726b70446a7a5533306c69566a6f317a45677743342b2b530a484a2b3653474a364e387a3857534
9347976384130734a32355369764c42494b592f396243413775615973645347356f497477734 16b
49412f317735465947780a4f2b2b3436574e3641592b70667357687a454655734f61475450526730
635459554f33726e6f4a35664c414541544b69306e6e5138726b484d71393753466f350a71654465
76697552443058514c50453d0a2d2d2d2d2d454e44204345525449464949434154452d2d2d2d2d0a'}
)

Step 4 (machine B):
Sending unlawful identity authentication transactions
account[1]: 0x14068263495630fa3e92ed4a1f203cd0f5803cc5

eth.sendAuthentication({from: eth.accounts[1], to:
'0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0', value: 0, gasPrice:0, gas: 0xe57e0,data:
'0000000000000000000000000000000000000000000000000000000000000100000000000000
0000000000000000000000000000000000000000000000000022d2d2d2d2d424547494e204345525
4494649434154452d2d2d2d2d0a4d494943526a434341616967417749424167495 14c6477336953
3338326752316f6a33446f45614a786a414b42676771686b6a4f5051514442444 1674d5173770a43
515944565151474577 4a44546a45524d413847413155454368 4d4956584e6c51326868615734774
868634e4d5467774d7a49314d5463304e6a51775768634e0a4d6a67774e4441304d4467784e7a413
4576a41674d5173774351594456515147457 74a44546a45524d413847413155454368 4d4956584e
6c51326868615734770a675a7377454159484b6f5a497a6a3043415159464b34454541434d446759
594142414176485a536b744737366b4e48346837372f4f45727768457a373471435a0a4758645542
4571662f4f7433755251425 74674434e4671414a77754d672f4539544f593578563543484a397448
733746376477706d543831346748684c2b43310a336a5339324c6c78504b37644462444c4f524745
42333875734f3734342f4962484659663048676231 4c376b32736f326c474d764f4f4563506e624e6
b4361540a466e484d45783067476f32367535457134614f426744422b4d4134474131556444774 5
422f7751454177494370444164426 74e5648535545466a4155426767720a4267454642516344415
159494b7759424251554841774977447759445652305441514 82f4241557741774 5422f7a413842
674e56485245454e54417a675445770a654449304d6a5a6c4d5464694d5759344e574d334f475135
4e6a67794d7a49314d7a67794d544932593245795a574e6a4d3255344e6a46414d54497559323974
0a4d416f4743437147534d343942414d454134474c4144434268774a4341554176753769323178 4

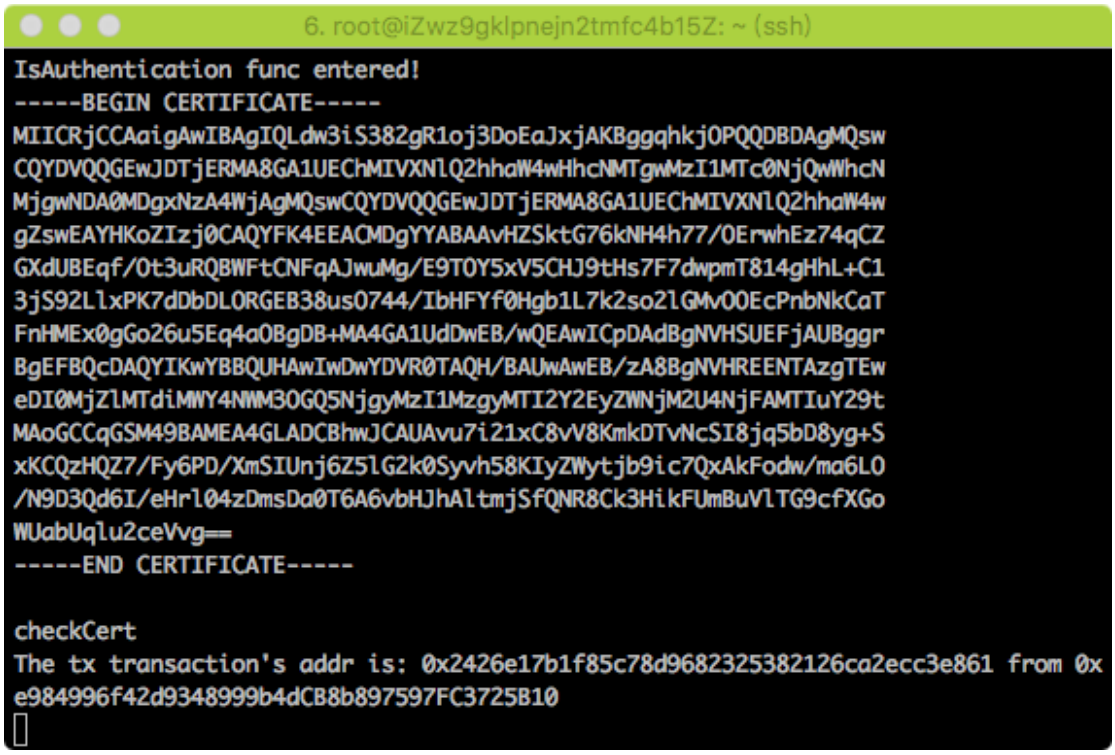
3387656384b6d6b4454764e635349386a713562443879672b530a784b43517a48515a372f4679365
0442f586d5349556e6a365a356c47326b305379766835384b49795a5779746a62396963375178416
b466f64772f6d61364c4f0a2f4e394433516436492f6548726c30347a446d73446130543641367662
484a68416c746d6a5366514e5238436b3348696b46556d4275566c544739636658476f0a57556162
55716c753263655676673d3d0a2d2d2d2d2d454e442043455254494649434154452d2d2d2d2d0a'}
)

step 5(Machine B):
Send ordinary transaction, address validity detection:
eth.sendTransaction({from: eth.accounts[0], to:
'0xcc73428bD9B2a5bbCd49289C1e1966D24b50433D', value: 1, gasPrice:0, gas: 0xe57e0})
eth.sendTransaction({from: eth.accounts[0], value: 0, gas:'0x332423', data:
'0x6060604052604080519081016040528060118152602001 7f7465737420666f72207472616e736
665720000000000000000000000000000000815250600090805190602001 9061004f929190610060
565b50341561005b57600080fd5b610105565b828054600181600116156101000203166002900 49
060005260206000209060 1f016020900481019282601f106100a157805160ff19168380011785556
100cf565b828001600101855582156100cf579182015b828111156100ce57825182559160200191 9
0600101906100b3565b5b5090506100dc91906100e0565b5090565b61010291905b808211156100
fe576000816000905550600101 6100e6565b5090565b90565b60d480610113600039600 0f300606
060405260043610603f576000357c0100000000000000000000000000000000000000000000000000
00000000900463ffffffff168063611cd906146041575b005b60476049565b005b60007329fbd4c229
ee3d63e16a41cb10e51106cf889a1690508073ffffffffffffffffffffffffffffffffffffffff166108fc6305f5e1
0090811502906040516000604051808303818588 8f1935050505015 1560a557600080fd5b50560
0a165627a7a72305820b5667d32280cee0f9f33e0b58f7f52734322cf1fc2df08fa8d2e57aff14e1e920
029'})
An unlawful transaction:
Include unlawful addresses
eth.sendTransaction({from: eth.accounts[0], to:
'0x2c73428bD9B2a5bbCd49289C1e1966D24b50433D', value: 1, gasPrice:0, gas: 0xe57e0})

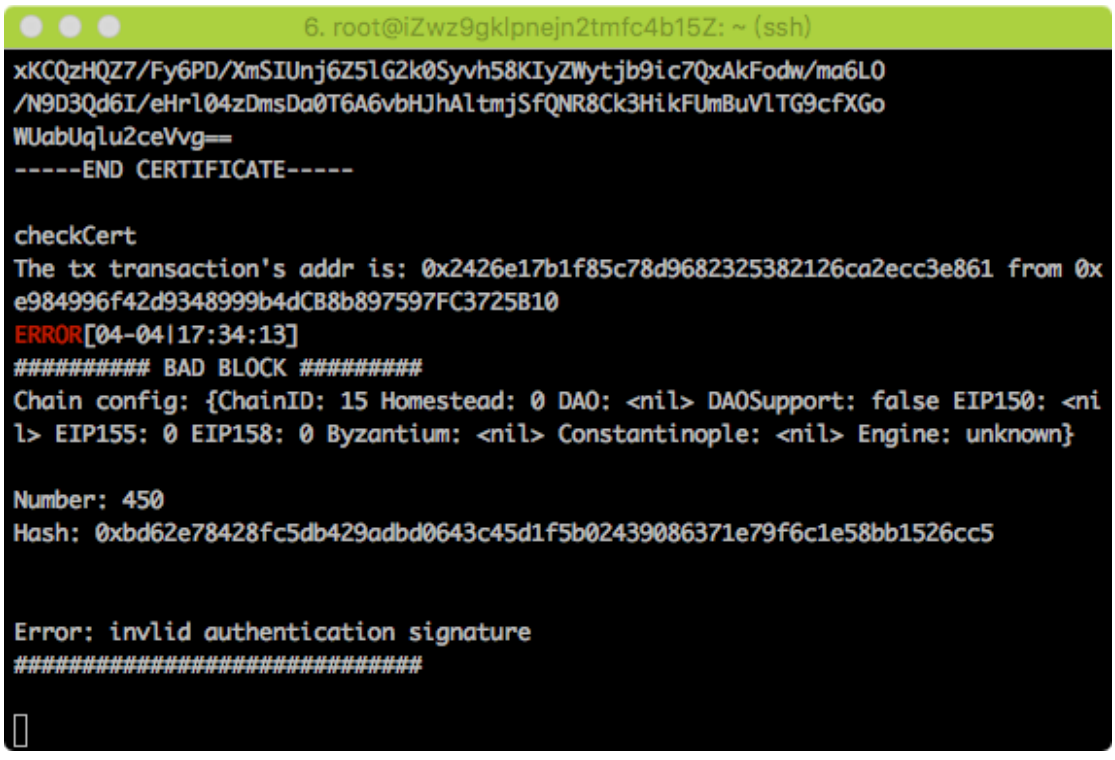
step 6:
The machine A is an unmodified Ethernet geth that can package illegal authentication transactions and ordinary transactions; it is necessary to test that the illegal blocks sent by them will not be packaged by normal Usechain nodes.
eth.sendAuthentication({from: eth.accounts[0], to:
'0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0', value: 0, gasPrice:0, gas: 0xe57e0,data:
'0000000000000000000000000000000000000000000000000000000000000100000000000000
0000000000000000000000000000000000000000000000000022d2d2d2d2d424547494e204345525
4494649434154452d2d2d2d2d0a4d494943526a434341616967417749424167495 14c6477336953
3338326752316f6a33446f45614a786a414b42676771686b6a4f5051514442444 1674d5173770a43
515944565151474577 4a44546a45524d413847413155454368 4d4956584e6c51326868615734774
868634e4d5467774d7a49314d5463304e6a51775768634e0a4d6a67774e4441304d4467784e7a413
4576a41674d5173774351594456515147457 74a44546a45524d413847413155454368 4d4956584e
6c51326868615734770a675a7377454159484b6f5a497a6a3043415159464b34454541434d446759

594142414176485a536b744737366b4e48346837372f4f45727768457a373471435a0a4758645542
4571662f4f7433755251425746744434e4671414a77754d672f4539544f593578563543484a397448
733746376477706d543831346748684c2b43310a336a5339324c6c78504b37644462444c4f524745
42333875734f3734342f496248465966304867623145c376b32736f326c474d764f4f4563506e624e6
b4361540a466e484d45783067476f3236753545713461 4f426744422b4d41344741315564447745
422f77514541774943704441644 2674e5648535545466a4155426767720a426745464251634441 5
159494b775942425155484177497744775944565230544151482f4241557741774542 2f7a413842
674e56485245454e54417a675445770a654449304d6a5a6c4d5464694d5759344e574d334f475135
4e6a67794d7a49314d7a67794d544932593245795a574e6a4d3255344e6a46414d54497559323974
0a4d416f4743437147534d343942414d454134474c41444342687 74a43415541767537693231784
3387656384b6d6b4454764e635349386a713562443879672b530a784b43517a48515a372f4679365
0442f586d5349556e6a365a356c47326b305379766835384b49795a5779746a62396963375178416
b466f64772f6d61364c4f0a2f4e394433516436492f6548726c30347a446d734461305436413676662
484a68416c746d6a5366514e5238436b3348696b46556d4275566c544739636658476f0a57556162
55716c753263655676673d3d0a2d2d2d2d2d454e44204345525449464943415445 2d2d2d2d2d0a'})
Since sendAuthentication is a subsequent command, sendTransaction is used to authenticate transactions.
eth.sendTransaction({from: eth.accounts[0], to: '0xf4690Fd64955aAb0d12bB9c7CC17b9Fc3F5a8dE0', value: 0, gasPrice:0, gas: 0xe57e0,data:
'0x74f54c370000000000000000000000000000000000000000000000000000100000
0000000000000000000000000000000000000000000000000022d2d2d2d424547494e
20434552544946494341544452d2d2d2d2d0a4d494943526a43434161696741774942416749514c6
477336953333832675231 6f6a33446f45614a786a414b42676771686b6a4f50515144424441674d5
173770a43515944565151474574a44546a45524d41384741315545543684d4956584e6c51326868
615734774868634e4d5467774d7a49314d5463304e6a51775768634e0a4d6a67774e4441304d4467
784e7a4134576a41674d51737743515944565151474574a44546a45524d413847413155454543684
d4956584e6c513268686157347 70a675a7377454159484b6f5a497a6a3043415159464b344545414
34d446759594142414176485a536b744737366b4e48346837372f4f45727768457a373471435a0a4
758645542 4571662f4f7433755251425746744434e4671414a77754d672f4539544f5935785635434
84a397448733746376477706d543831346748684c2b43310a336a5339324c6c78504b3764446244
4c4f52474542333875734f3734342f4962484659663048676231 4c376b32736f326c474d764f4f456
3506e624e6b4361540a466e484d45783067476f3236753545713461 4f426744422b4d41344741315
564447745422f775145417749437044416444 2674e5648535545466a4155426767720a4267454642
51634441 5159494b775942425155484177497744775944565230544151482f4241557741774 5422
f7a413842674e56485245454e54417a675445770a654449304d6a5a6c4d5464694d5759344e574d3
34f4751354e6a67794d7a49314d7a67794d544932593245795a574e6a4d3255344e6a46414d54497
5593239740a4d416f4743437147534d343942414d454134474c41444342687 74a43415541767537
6932317843387656384b6d6b4454764e635349386a713562443879672b530a784b43517a48515a3
72f46793650442f586d5349556e6a365a356c47326b305379766835384b49795a5779746a6239696
3375178416b466f64772f6d61364c4f0a2f4e394433516436492f6548726c30347a446d7344613054
3641367662484a68416c746d6a5366514e5238436b3348696b46556d4275566c544739636658476f
0a5755616255716c753263655676673d3d0a2d2d2d2d2d454e442043455254494649434154452d2
d2d2d2d0a'})
When the transaction is broadcast to B, the C node will be identified with errors (the following is

the Tcert address and the sending address do not match).



The block broadcast B, C node, will be identified



After that, A continues to block, and B, C nodes no longer synchronize A broadcast blocks (because there are illegal blocks on the chain of A).

Step 7. (machine A)

Clear the blocks on the A chain, restart the geth, the A machine synchronize the blocks from the BC machine, and synchronize to the same block height.

Step 8 (machine A):

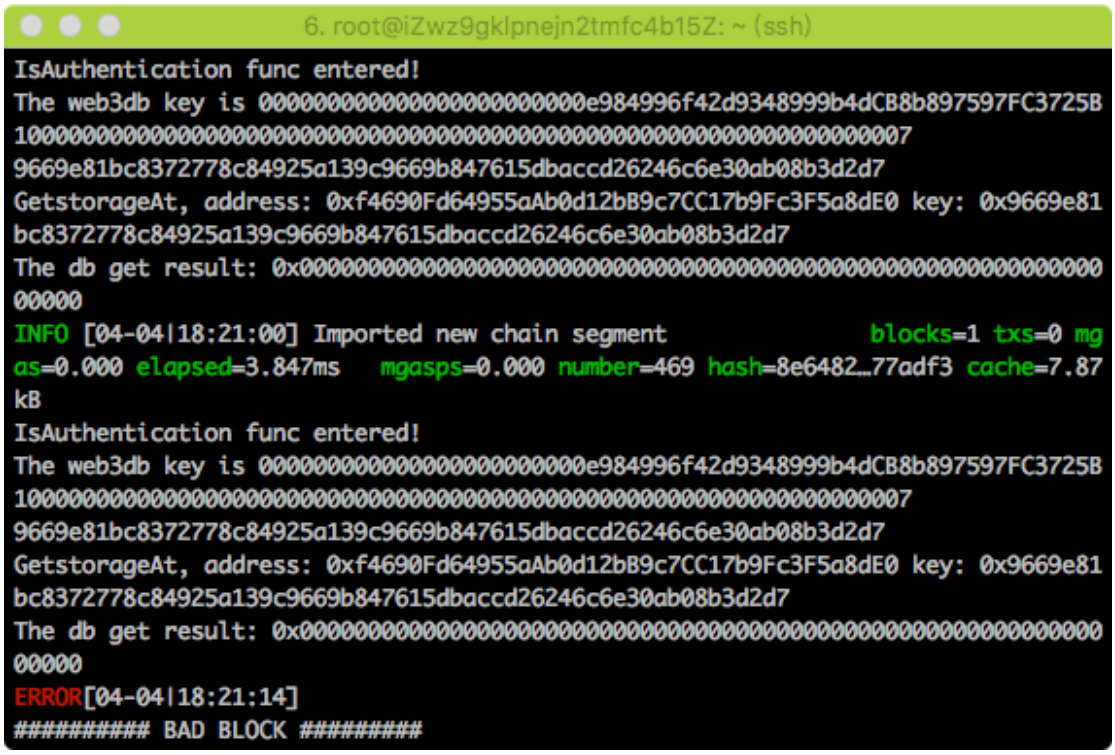
The machine A is an unmodified Ethernet geth that can package an unlawful ordinary transaction; it needs to be tested that the illegal block sent by it will not be packaged by a normal Usechain node.

Machine A opens the mine, B and C do not open the mine to simplify the testing process, and ensure the same number of blocks at the beginning.

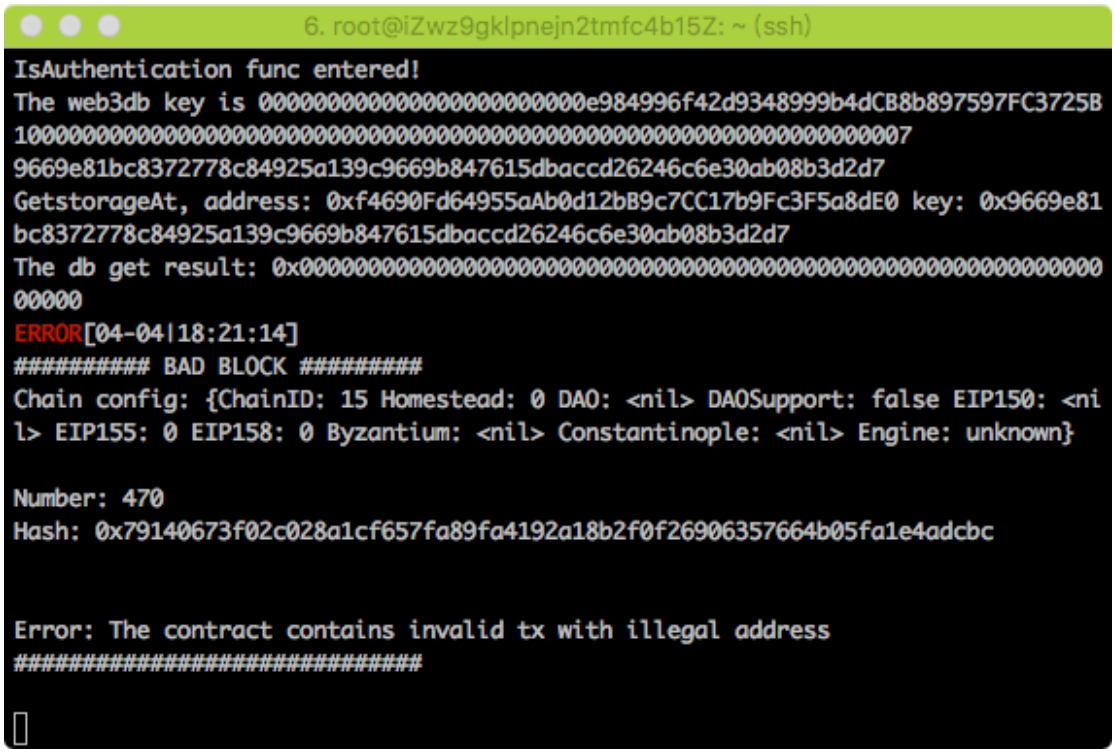
An ordinary transaction that sends an unlawful address

eth.sendTransaction({from: eth.accounts[0], to: '0x2c73428bD9B2a5bbCd49289C1e1966D24b50433D', value: 1, gasPrice:0, gas: 0xe57e0})

Trade broadcasts to B, C nodes, will be identified



The block broadcast B, C node, will be identified。



After that, A continues to block, and B, C nodes no longer synchronize A broadcast blocks (because there are illegal blocks on the chain of A).

Step 9 (machine A):

Clear the blocks on the A chain, restart the geth, the machine A synchronize the blocks from the B, C machine, and synchronize to the same block height.