

From Technofeudalism to Technosocialism: FORTH unexpected roles in Decentralised Systems

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[https://github.com/omnixtar/omnixtar.github.io/tree/
main/docs/FORTH-Decentralised](https://github.com/omnixtar/omnixtar.github.io/tree/main/docs/FORTH-Decentralised)

Part A: Introduction

We began this presentation with a brief description of a FORTH like engine in Bitcoin (Part B) and how the invisible internet project (Part B), being a crucial alternative to the domain name system, was used as the backbone of Bitcoin but remains relatively obscure.

We then extended the concept of Bitcoin address, as the hash of public key, to Omnihash user identifier and Omnihash JSON, being a generalised representation of digital assets with Decentralised ownerships. (Part C)

We further propose to employ a FORTH like engine in shell libraries for JavaScript and Java applications (Part D: Trojan Horse Super-Shell), in order to consolidate fragmented user base of open source projects and small commercial social media applications to compete with and create one to one replacements for mainstream dominant social media platforms (Goal of Decentralised Systems).

Bitcoin BTC #1

5M



\$91,035.34 ▲ 153.49% (1y)



Market cap ⓘ \$1.80T ▾ 0.33%

Volume (24h) ⓘ > \$47.49B ▾ 41.01%

FDV ⓘ \$1.91T

Vol/Mkt Cap (24h) ⓘ 2.64%

Total supply ⓘ 19.78M BTC

Max. supply ⓘ 21M BTC

Circulating supply ⓘ 19.78M BTC ⚡

Website

[Website](#) [Whitepaper](#)

Socials



Rating

4.6 ⚡ ⚡ ⚡ ⚡ ⚡ ⓘ

Explorers

[blockchain.info](#) ⓘ

Wallets

[Ledger](#) ⓘ

UCID ⓘ



BTC to USD converter

BTC

1

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Crypto Rand ⚡ @cryptorand · 23h

#MicroStrategy is up more than 100% on their #Bitcoin holdings.

They have spent (so far) \$11 billion to acquire 1.3% of the Bitcoin supply. ... Read all



51

678

38

20

18

6

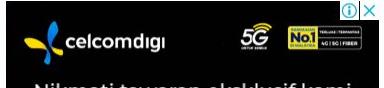
325.5K

36

5

811

...



\$BTC How do you feel today? Post

FORTH Roles in Decentralised Systems

Bitcoin & cryptocurrencies actually made FORTH (variants) *the most valuable and popular* (by number of devices, nodes, wallets) in the world – (need decentralised systems to gather statistics!!)

Football Analogy: I2P (Invisible Internet Project) and Bitcoin have proven the *technical viability of fundamental Decentralised algorithms*, produced many millionaires and billionaires – carrying football past half field. (25 years, *beneficiaries are like Bankers*)

Omni*Web plan to *make more people rich – like McDonald's* vs. Hongkong & Shanghai Bank – second half of football field – next 25 years.

From Technofeudalism to Technosocialism: FORTH unexpected roles in Decentralised Systems

Technofeudalism is a term coined by former Greek finance minister Yanis Varoufakis as the title of a book which compares top American technology companies to feudal lords, who literally enslaved individual users and free software programmers, exploiting their data and source code without fairly rewarding them.

Technosocialism has been used by many other authors but I use it to describe the very real but underreported progress made by free software programmers and free software, despite the lack of fair mechanisms for rewards so far. Free software programmers or technosocialists have made technofeudalism possible as a matter of fact, but they do not get to enjoy the rewards.

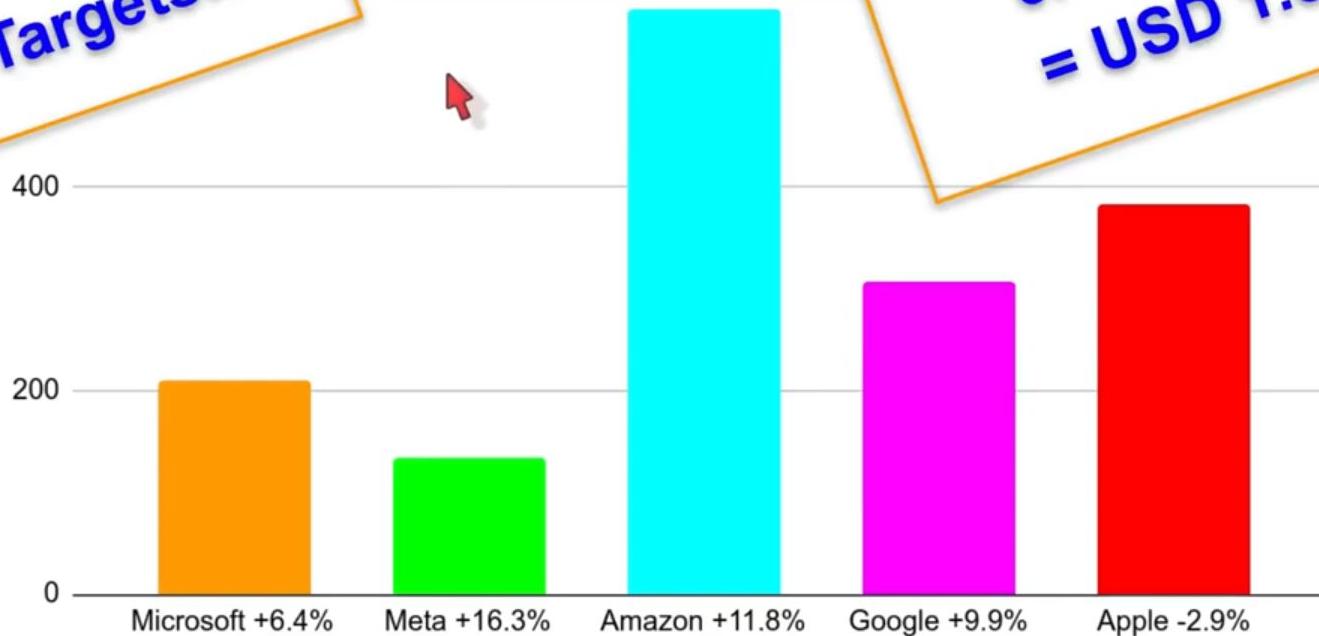
Bitcoin and related projects were supposed to address this problem, and are successful in their own way, so we are now half way towards technosocialism.

**Omni*Web
2030 Targets!!**

MMAGA Revenues 2023 (USD billions)

Total: USD 1.611 Trillion (+7.26%)

$0.1\% \times 1.6T$
 $= \text{USD } 1.6B$



A literal trillion dollar question: Do you know that the combined revenues of the top 5 technology companies in 2023 already exceeded USD 1.6 trillion and are growing strongly above 5% annually?

Part B:

FORTH-like Engine in Bitcoin
+ Invisible Internet Project



Script

Bitcoin uses a scripting system for [transactions](#). Forth-like, **Script** is simple, stack-based, and processed from left to right. It is intentionally not Turing-complete, with no loops.

A script is essentially a list of instructions recorded with each transaction that describe how the next person wanting to spend the Bitcoins being transferred can gain access to them. The script for a typical Bitcoin transfer to destination Bitcoin address D simply encumbers future spending of the bitcoins with two things: the spender must provide

1. a public key that, when hashed, yields destination address D embedded in the script, and
2. a signature to prove ownership of the private key corresponding to the public key just provided.

Scripting provides the flexibility to change the parameters of what's needed to spend transferred Bitcoins. For example, the scripting system could be used to require two private keys, or a combination of several keys, or even no keys at all.

A transaction is valid if nothing in the combined script triggers failure and the top stack item is True (non-zero) when the script exits. The party that originally sent the Bitcoins now being spent signs the transaction so that it can be checked against the previous transaction.

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OP_FROMALTSTACK	108	0x6c	(alt)x1	x1	Puts the input onto the top of the main stack. Removes it from the alt stack.
OP_IFDUP	115	0x73	x	x / x x	If the top stack value is not 0, duplicate it.
OP_DEPTH	116	0x74	Nothing	<Stack size>	Puts the number of stack items onto the stack.
OP_DROP	117	0x75	x	Nothing	Removes the top stack item.
OP_DUP	118	0x76	x	x x	Duplicates the top stack item.
OP_NIP	119	0x77	x1 x2	x2	Removes the second-to-top stack item.
OP_OVER	120	0x78	x1 x2	x1 x2 x1	Copies the second-to-top stack item to the top.
OP_PICK	121	0x79	xn ... x2 x1 x0 <n>	xn ... x2 x1 x0 xn	The item <i>n</i> back in the stack is copied to the top.
OP_ROLL	122	0x7a	xn ... x2 x1 x0 <n>	... x2 x1 x0 xn	The item <i>n</i> back in the stack is moved to the top.
OP_ROT	123	0x7b	x1 x2 x3	x2 x3 x1	The 3rd item down the stack is moved to the top.
					The top two items on the stack

Script examples

The following is a list of interesting scripts. When notating scripts, data to be pushed to the stack is generally enclosed in angle brackets and data push commands are omitted. Non-bracketed words are opcodes. These examples include the “OP_” prefix, but it is permissible to omit it. Thus “<pubkey1> <pubkey2> OP_2 OP_CHECKMULTISIG” may be abbreviated to “<pubkey1> <pubkey2> 2 CHECKMULTISIG”. Note that there is a small number of standard script forms that are relayed from node to node; non-standard scripts are accepted if they are in a block, but nodes will not relay them.

Standard Transaction to Bitcoin address (pay-to-pubkey-hash)

```
scriptPubKey: OP_DUP OP_HASH160 <pubKeyHash> OP_EQUALVERIFY OP_CHECKSIG  
scriptSig: <sig> <pubKey>
```

To demonstrate how scripts look on the wire, here is a raw scriptPubKey:

76	A9	14
OP_DUP	OP_HASH160	Bytes to push

89 AB CD EF AB BA AB BA AB BA AB BA AB BA AB BA 88	AC
Data to push	OP_EQUALVERIFY

Stack	Script	Description
Empty.	<sig> <pubKey> OP_DUP OP_HASH160 <pubKeyHash> OP_EQUALVERIFY OP_CHECKSIG	scriptSig and scriptPubKey are combined.
<sig> <pubKey>	OP_DUP OP_HASH160 <pubKeyHash> OP_EQUALVERIFY OP_CHECKSIG	Constants are added to the stack.
<sig> <pubKey> <pubKey>	OP_HASH160 <pubKeyHash> OP_EQUALVERIFY OP_CHECKSIG	Top stack item is duplicated.
<sig> <pubKey> <pubHashA>	<pubKeyHash> OP_EQUALVERIFY OP_CHECKSIG	Top stack item is hashed.
<sig> <pubKey> <pubHashA> <pubKeyHash>	OP_EQUALVERIFY OP_CHECKSIG	Constant added.
<sig> <pubKey>	OP_CHECKSIG	Equality is checked between the top two stack items.
true	Empty.	Signature is checked for top two stack items.

Obsolete scripts and their creation



master

bitcoin / src / script / interpreter.cpp

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Code

Blame

<https://github.com/bitcoin/bitcoin/blob/master/src/script/interpreter.cpp>

```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
407     {
408         static const CScriptNum bnZero(0);
409         static const CScriptNum bnOne(1);
410         // static const CScriptNum bnFalse(0);
411         // static const CScriptNum bnTrue(1);
412         static const valtype vchFalse(0);
413         // static const valtype vchZero(0);
414         static const valtype vchTrue(1, 1);
415
416         // sigversion cannot be TAPROOT here, as it admits no script execution.
417         assert(sigversion == SigVersion::BASE || sigversion == SigVersion::WITNESS_V0 || sigversion == SigV
418
419         CScript::const_iterator pc = script.begin();
420         CScript::const_iterator pend = script.end();
421         CScript::const_iterator pbEGINCODEHASH = script.begin();
422         opcodetype opcode;
423         valtype vchPushValue;
424         ConditionStack vfExec;
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
435
436     try
437     {
438         for ( ; pc < pend; ++opcode_pos) {
439             bool fExec = vfExec.all_true();
440
441             //
442             // Read instruction
443             //
444             if (!script.GetOp(pc, opcode, vchPushValue))
445                 return set_error(error, SCRIPT_ERR_BAD_OPCODE);
446             if (vchPushValue.size() > MAX_SCRIPT_ELEMENT_SIZE)
447                 return set_error(error, SCRIPT_ERR_PUSH_SIZE);
448
449             if (sigversion == SigVersion::BASE || sigversion == SigVersion::WITNESS_V0) {
450                 // Note how OP_RESERVED does not count towards the opcode limit.
451                 if (opcode > OP_16 && ++nOpCount > MAX_OPS_PER_SCRIPT) {
452                     return set_error(error, SCRIPT_ERR_OP_COUNT);
453             }
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
```

```
if (opcode == OP_CAT ||
    opcode == OP_SUBSTR ||
    opcode == OP_LEFT ||
    opcode == OP_RIGHT ||
    opcode == OP_INVERT ||
    opcode == OP_AND ||
    opcode == OP_OR ||
    opcode == OP_XOR ||
    opcode == OP_2MUL ||
    opcode == OP_2DIV ||
    opcode == OP_MUL ||
    opcode == OP_DIV ||
    opcode == OP_MOD ||
    opcode == OP_LSHIFT ||
    opcode == OP_RSHIFT)
    return set_error(error, SCRIPT_ERR_DISABLED_OPCODE); // Disabled opcodes (CVE-2010-5137).
```

```
// With SCRIPT_VERIFY_CONST_SCRIPTCODE, OP_CODESEPARATOR in non-segwit script is rejected even in an unexecu
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
483             switch (opcode)
484             {
485                 //
486                 // Push value
487                 //
488                 case OP_1NEGATE:
489                 case OP_1:
490                 case OP_2:
491                 case OP_3:
492                 case OP_4:
493                 case OP_5:
494                 case OP_6:
495                 case OP_7:
496                 case OP_8:
497                 case OP_9:
498                 case OP_10:
499                 case OP_11:
500                 case OP_12:
501                 case OP_13:
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
515             //
516             // Control
517             //
518             case OP_NOP:
519                 break;
520
521             case OP_CHECKLOCKTIMEVERIFY:
522             {
523                 if (!(flags & SCRIPT_VERIFY_CHECKLOCKTIMEVERIFY)) {
524                     // not enabled; treat as a NOP2
525                     break;
526                 }
527
528                 if (stack.size() < 1)
529                     return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
530
531                 // Note that elsewhere numeric opcodes are limited to
532                 // operands in the range -2**31+1 to 2**31-1, however it is
533             }
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
601
602         case OP_IF:
603         case OP_NOTIF:
604     {
605             // <expression> if [statements] [else [statements]] endif
606             bool fValue = false;
607             if (fExec)
608             {
609                 if (stack.size() < 1)
610                     return set_error(serror, SCRIPT_ERR_UNBALANCED_CONDITIONAL);
611                 valtype& vch = stacktop(-1);
612                 // Tapscript requires minimal IF/NOTIF inputs as a consensus rule.
613                 if (sigversion == SigVersion::TAPSCRIPT) {
614                     // The input argument to the OP_IF and OP_NOTIF opcodes must be either
615                     // exactly 0 (the empty vector) or exactly 1 (the one-byte vector with value
616                     if (vch.size() > 1 || (vch.size() == 1 && vch[0] != 1)) {
617                         return set_error(serror, SCRIPT_ERR_TAPSCRIPT_MINIMALIF);
618                     }
619                 }
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
635
636             case OP_ELSE:
637             {
638                 if (vfExec.empty())
639                     return set_error(error, SCRIPT_ERR_UNBALANCED_CONDITIONAL);
640                 vfExec.toggle_top();
641             }
642             break;
643
644             case OP_ENDIF:
645             {
646                 if (vfExec.empty())
647                     return set_error(error, SCRIPT_ERR_UNBALANCED_CONDITIONAL);
648                 vfExec.pop_back();
649             }
650             break;
651
652             case OP_VERIFY:
653             {
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
673             // 
674             // Stack ops
675             //
676             case OP_TOALTSTACK:
677             {
678                 if (stack.size() < 1)
679                     return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
680                 altstack.push_back(stacktop(-1));
681                 popstack(stack);
682             }
683             break;
684
685             case OP_FROMALTSTACK:
686             {
687                 if (altstack.size() < 1)
688                     return set_error(error, SCRIPT_ERR_INVALID_ALTSTACK_OPERATION);
689                 stack.push_back(altstacktop(-1));
690                 popstack(altstack);
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
693
694         case OP_2DROP:
695     {
696             // (x1 x2 -- )
697             if (stack.size() < 2)
698                 return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
699             popstack(stack);
700             popstack(stack);
701     }
702     break;
703
704     case OP_2DUP:
705     {
706         // (x1 x2 -- x1 x2 x1 x2)
707         if (stack.size() < 2)
708             return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
709         valtype vch1 = stacktop(-2);
710         valtype vch2 = stacktop(-1);
711         stack.push_back(vch1);
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
407
408
409     case OP_2DUP:
410     {
411         // (x1 x2 -- x1 x2 x1 x2)
412         if (stack.size() < 2)
413             return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
414
415         valtype vch1 = stacktop(-2);
416         valtype vch2 = stacktop(-1);
417         stack.push_back(vch1);
418         stack.push_back(vch2);
419
420     }
421
422     break;
423
424
425     case OP_3DUP:
426     {
427         // (x1 x2 x3 -- x1 x2 x3 x1 x2 x3)
428         if (stack.size() < 3)
429             return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
430
431         valtype vch1 = stacktop(-3);
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
730             case OP_2OVER:
731             {
732                 // (x1 x2 x3 x4 -- x1 x2 x3 x4 x1 x2)
733                 if (stack.size() < 4)
734                     return set_error(serror, SCRIPT_ERR_INVALID_STACK_OPERATION);
735                 valtype vch1 = stacktop(-4);
736                 valtype vch2 = stacktop(-3);
737                 stack.push_back(vch1);
738                 stack.push_back(vch2);
739             }
740             break;
741
742             case OP_2ROT:
743             {
744                 // (x1 x2 x3 x4 x5 x6 -- x3 x4 x5 x6 x1 x2)
745                 if (stack.size() < 6)
746                     return set_error(serror, SCRIPT_ERR_INVALID_STACK_OPERATION);
747                 valtype vch1 = stacktop(-6);
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
755             case OP_2SWAP:
756             {
757                 // (x1 x2 x3 x4 -- x3 x4 x1 x2)
758                 if (stack.size() < 4)
759                     return set_error(serror, SCRIPT_ERR_INVALID_STACK_OPERATION);
760                 swap(stacktop(-4), stacktop(-2));
761                 swap(stacktop(-3), stacktop(-1));
762             }
763             break;
764
765             case OP_IFDUP:
766             {
767                 // (x - 0 | x x)
768                 if (stack.size() < 1)
769                     return set_error(serror, SCRIPT_ERR_INVALID_STACK_OPERATION);
770                 valtype vch = stacktop(-1);
771                 if (CastToBool(vch))
772                     stack.push_back(vch);
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
765             case OP_IFDUP:
766             {
767                 // (x - 0 | x x)
768                 if (stack.size() < 1)
769                     return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
770                 valtype vch = stacktop(-1);
771                 if (CastToBool(vch))
772                     stack.push_back(vch);
773             }
774             break;
775
776             case OP_DEPTH:
777             {
778                 // -- stacksize
779                 CScriptNum bn(stack.size());
780                 stack.push_back(bn.getvch());
781             }
782             break;
783
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
783
784         case OP_DROP:
785     {
786             // (x -- )
787             if (stack.size() < 1)
788                 return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
789             popstack(stack);
790     }
791     break;
792
793     case OP_DUP:
794     {
795         // (x -- x x)
796         if (stack.size() < 1)
797             return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
798         valtype vch = stacktop(-1);
799         stack.push_back(vch);
800     }
801     break;
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
407
408     case OP_NIP:
409     {
410         // (x1 x2 -- x2)
411         if (stack.size() < 2)
412             return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
413         stack.erase(stack.end() - 2);
414     }
415     break;
416
417     case OP_OVER:
418     {
419         // (x1 x2 -- x1 x2 x1)
420         if (stack.size() < 2)
421             return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
422         valtype vch = stacktop(-2);
423         stack.push_back(vch);
424     }
425     break;
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
822             case OP_PICK:
823             case OP_ROLL:
824             {
825                 // (xn ... x2 x1 x0 n - xn ... x2 x1 x0 xn)
826                 // (xn ... x2 x1 x0 n - ... x2 x1 x0 xn)
827                 if (stack.size() < 2)
828                     return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
829                 int n = CScriptNum(stacktop(-1), fRequireMinimal).getint();
830                 popstack(stack);
831                 if (n < 0 || n >= (int)stack.size())
832                     return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
833                 valtype vch = stacktop(-n-1);
834                 if (opcode == OP_ROLL)
835                     stack.erase(stack.end()-n-1);
836                 stack.push_back(vch);
837             }
838             break;
839
840         case OP_ROT:
```



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Code

Blame

Raw



```
406     bool EvalScript(std::vector<std::vector<unsigned char> >& stack, const CScript& script, unsigned int fl
840             case OP_ROT:
841             {
842                 // (x1 x2 x3 -- x2 x3 x1)
843                 // x2 x1 x3 after first swap
844                 // x2 x3 x1 after second swap
845                 if (stack.size() < 3)
846                     return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
847                 swap(stacktop(-3), stacktop(-2));
848                 swap(stacktop(-2), stacktop(-1));
849             }
850             break;
851
852             case OP_SWAP:
853             {
854                 // (x1 x2 -- x2 x1)
855                 if (stack.size() < 2)
856                     return set_error(error, SCRIPT_ERR_INVALID_STACK_OPERATION);
857                 swap(stacktop(-2), stacktop(-1));
858             }
```

Part B: Invisible Internet Project

- Potential, size, replace DNS, sharing costs become revenue

The **invisible internet project (I2P)** is actually a replacement of the domain name system and the backbone of bitcoin. It has the potential to enable every home user to become a cloud service provider by sharing the processing power, network bandwidth and storage, **turning costs of renting cloud services into revenues!!**

Unfortunately, the core developer team did not pursue further beyond focusing on privacy aspects, leading to our suspicion that they might have made billions of dollars by being the earliest contributors of bitcoin.

Paranoid of “Darknet” – but I2P router in Java feels safer – has FORTH-shell in Java (Phoscript engine) – effectively a debugger inside I2P – or Bitcoin – think about its potential – “Trojan horse super-shell” in Part D.



I2P Router Console

Aug 6, 2024 I2P 2.6

I2P 2.6.1 is released in or
caused scrolling to be disa

As usual, we recommend that you update to this release. The best way to maintain security and help the network is to run the latest release.

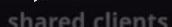
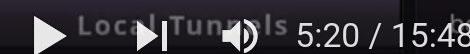
Jul 20, 2024 I2P 2.6.0 Released

@ jdk

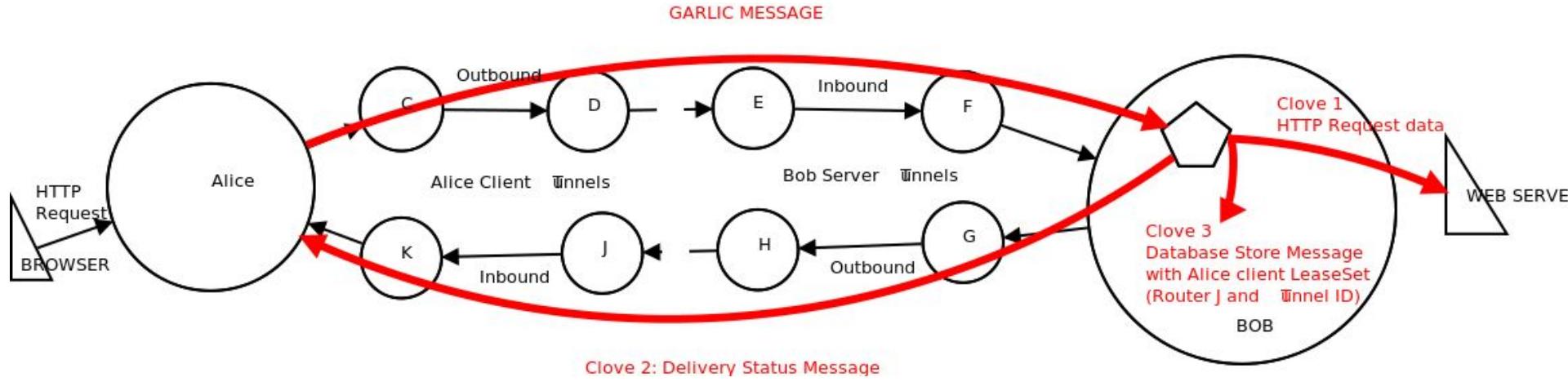
This release, I2P 2.6.0, continues our work by fixing bugs, adding features, and improving the network's reliability.

Newer routers will be favored when selecting floodfill routers. I2PSnark received features which improve the performance of PeX(Peer Exchange), in addition to bug fixes. Legacy transport protocols are being removed, simplifying the code in the UDP transports. Locally-hosted destination will be reachable by local clients without requesting their LeaseSet, improving performance and testability. Additional tweaks were made to peer selection strategies.

I2P no longer allows I2P-over-Tor connections from Tor exit IP addresses are now blocked. We discourage this because it degrades the performance of I2P and uses up the resources of Tor exits for no benefit. If you are a helpful person running both a Tor Exit and I2P we encourage you to continue to do so, using different IP



<https://geti2p.net/en/docs/how/garlic-routing>



End-to-End Message Bundling

At the layer above tunnels, I2P delivers end-to-end messages between Destinations. Just as within a single tunnel, we use ElGamal/AES+SessionTag for the encryption. Each client message as delivered to the router through the I2CP interface becomes a single Garlic Clove with its own Delivery Instructions, inside a Garlic Message. Delivery Instructions may specify a Destination, Router, or Tunnel.

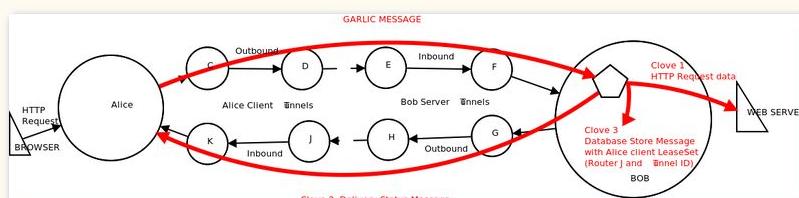
Generally, a Garlic Message will contain only one clove. However, the router will periodically bundle two additional cloves in the Garlic Message

A Delivery Status Message, with Delivery Instructions specifying that it be sent back to the originating router as an acknowledgment. This is similar to the "reply block" or "reply onion" described in the references. It is used for determining the success or failure of end to end message delivery. The originating router may, upon failure to receive the Delivery Status Message within the

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Router Info

Version: 2.6.1-0
Uptime: 4 hours

Bandwidth in/out

3 Sec: 2.18/2.64 KBps
5 Min: 1.37/1.62 KBps
Total: 1.24/1.57 KBps
Used: 18.91 MB/24 MB

Network: SymmetricNAT

I2P Services

Email

Torrents

Configuration

Hidden Services Manager



Hidden Services Manager

These are the local services provided by your router. By default, most of your client services (email, HTTP proxy, IRC) will share the same set of tunnels and be listed as "Shared Clients".

Status Messages

```
Starting tunnel A01 Omni*Web HTTPS...
Error listening for connections on /127.0.0.1 port 4444: java.net.BindException: Address already in use
Stopping client HTTP Proxy on 127.0.0.1:4444
Client error for 127.0.0.1:4444, check logs
Client ready, listening on 127.0.0.1:6668, delaying tunnel open until required
Client ready, listening on 127.0.0.1:7660
```

Refresh

Clear

Global Tunnel Control

Tunnel Wizard

Stop All

Start All

Restart All

I2P Hidden Services

- Email
- Torrents
- Configuration**
 - Address Book Help
 - Hidden Services Manager
 - Settings
 - Setup
- Diagnostics**
 - Graphs Logs NetDB Peers
 - Profiles Tunnels
- Help & FAQ**

- Changelog
- FAQ
- Licenses
- Network
- Sidebar
- Troubleshoot

- Peers**
- Active: 21/119
- Fast: 30
- High Capacity: 20
- Floodfill: 93
- Known: 172
- Buttons:** Restart, Shutdown

- Tunnels**
- Exploratory: 4
- Client: 21
- Participating: 0
- Share Ratio: 0.00

I2P Hidden Services						
Name	Type	Points at	Preview	Status	Control	
A01 Omni*Web HTTPS	Standard server	127.0.0.1:443	No Preview		Stop	
		Destination: yo6sgmfq7pfvvp2e4kcuhjtfg7wfllt63igwcukhbmuqm6lu3a3a.b32.i2p				
		Description: A01 Omni*Web HTTPS				
HTTP Phos tunnel	HTTP server	127.0.0.1:80	Preview		Stop	
		Destination: weor7pxsuxpkkbvh4sgta7hvoom5jrzemvy253y5norcamadujaq.b32.i2p				
		Description: HTTP Phos tunnel				
I2P HTTPS Tunnel	HTTP server	127.0.0.1:7668	Preview		Stop	
		Destination: 6fjdbkxk7z3ykh5fauag3gopui7sx4sdzererl7jvsrdiwsboqra.b32.i2p				
		Description: I2P HTTPS Tunnel				
I2P webserver	HTTP server	127.0.0.1:7658	No Preview		Start	
		Hostname: mysite.i2p				
		Description: My eepsite				

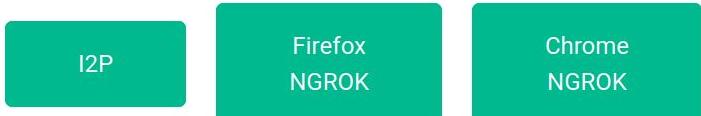


 **Omni*Web::OXW**

HOME ABOUT PLATFORM ▾ PAGES ▾ NGROK Add Item

A Truly Decentralised Web ...

Omni*Web::OXW is an initiative to build a Truly Decentralised Web, *owned and operated by individual users and free software programmers*.



OXW is built using reliable and transparent open source software projects that began in 2003 or earlier.



You may login to OXW test server via I2P (Invisible Internet Project) or NGROK tunnel connections. These are technologies designed to bypass Domain Name System, which devilishly prevented millions of programmers



hongwu@hongwu-Latitude-5480:~/i2p-2.6.1\$

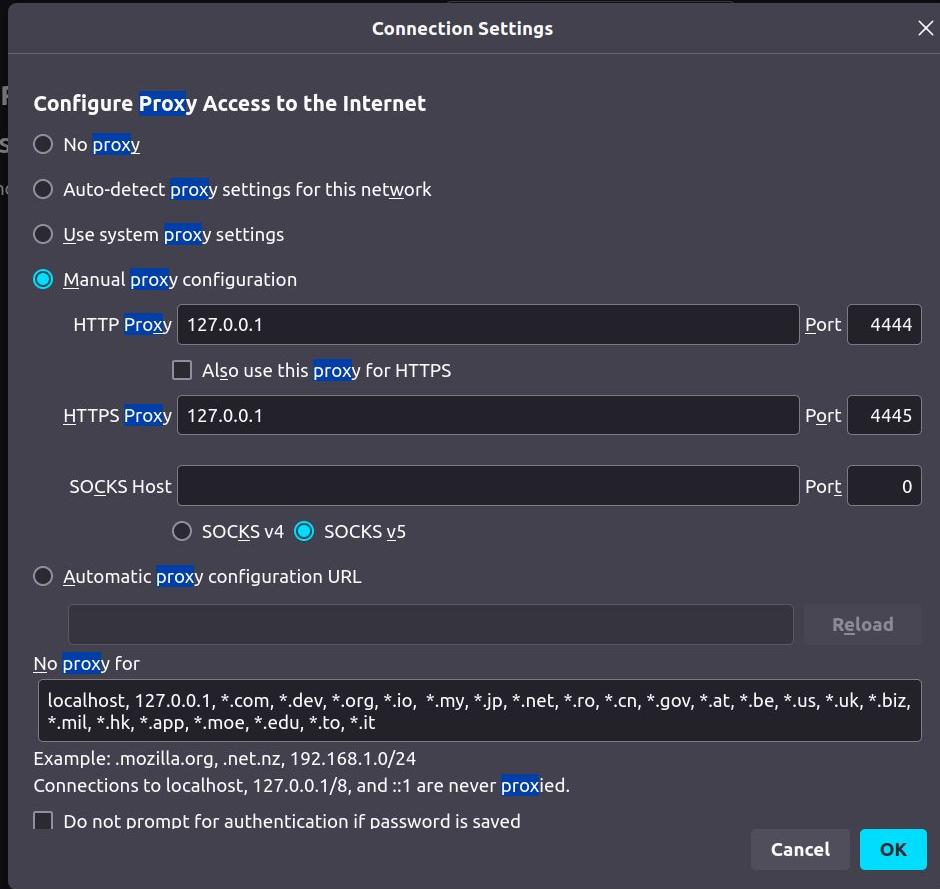
hongwu@hongwu-Latitude-5480:~/i2p-2.6.1\$./i2prouter

Usage: ./i2prouter [console | start | stop | graceful | restart | condrestart | status | install | remove | dump]

Commands:

console	Launch in the current console.
start	Start in the background as a daemon process.
stop	Stop if running as a daemon or in another console.
graceful	Stop gracefully, may take up to 11 minutes.
restart	Stop if running and then start.
condrestart	Restart only if already running.
status	Query the current status.
install	Install to start automatically when system boots.
remove	Uninstall.
dump	Request a Java thread dump if running.

hongwu@hongwu-Latitude-5480:~/i2p-2.6.1\$



bitcoin/src/i2p.cpp at master · GitHub



← → ⌂ gitcoin.com/bitcoin/bitcoin/blob/master/src/i2p.cpp

Finish update : L



bitcoin / bitcoin



Code

Issues 370

Pull requests 270

Actions

Projects 5

Security



master ▾

bitcoin / src / i2p.cpp



Go to file



achow101 Merge #29833: i2p: fix and improve logs



b27afb7 · 5 months ago



494 lines (414 loc) · 15.4 KB

Code

Blame

Raw



```
1 // Copyright (c) 2020-2022 The Bitcoin Core developers
2 // Distributed under the MIT software license, see the accompanying
3 // file COPYING or http://www.opensource.org/licenses/mit-license.php.
4
5 #include <chainparams.h>
```



master ▾

bitcoin / src / i2p.cpp

↑ Top

Code

Blame

Raw



```
87     * @throw std::runtime_error if conversion fails
88     */
89     static CNetAddr DestBinToAddr(const Binary& dest)
90     {
91         CSHA256 hasher;
92         hasher.Write(dest.data(), dest.size());
93         unsigned char hash[CSHA256::OUTPUT_SIZE];
94         hasher.Finalize(hash);
95
96         CNetAddr addr;
97         const std::string addr_str = EncodeBase32(hash, false) + ".b32.i2p";
98         if (!addr.SetSpecial(addr_str)) {
99             throw std::runtime_error(strprintf("Cannot parse I2P address: \"%s\"", addr_str));
100        }
101
102        return addr;
```



Omni*Chat -- Liang Ng -- 2024-04-27

The screenshot shows the AnyDesk application interface. On the left, there's a sidebar with sections for Activities, Dashboard, My Torrents, BiglyBT, Content Discovery, Devices, and Plugins & Extras. Under Plugins & Extras, 'Friends' is selected. In the main area, the BiglyBT application is running. It has tabs for Decentralized Chat and Friends. Under Decentralized Chat, several options are listed with checkboxes: 'Use independent windows for pop-out', 'Force pop-out windows to the side bar', 'Notifications' (unchecked), 'Play a sound when a message is received' (unchecked), 'Flash status bar icon when message wa...', 'Private Chat' (unchecked), 'Enable private chat' (unchecked), and 'Only accept chats from pinned participants'. Below these are Integration and Advanced sections. The Advanced section includes 'Share anonymous torrent and chat desti...' (unchecked) and 'Unfortunately using separate destinations'. There's also a Test section and a Public beta chat section with an 'Open' button. Below that is an Anonymous beta chat (I2P) section with an 'Open' button. At the bottom, there's a 'Create/join custom channel' field with 'key 224455' and a 'Test' button. On the right, a terminal window titled 'Anon - 224455' is open, showing a log of network traffic. The log consists of several ECHO and OMNI commands with various parameters like 'a', 'b', 'c', 'd', 'm', 'n', 'dbl', and timestamps. A red circle highlights the terminal window. At the bottom of the screen, there's a media player interface showing a video file 'SSR-2024-04-13_11.29.04.mkv' with a play button, volume control, and a progress bar indicating 4:03 / 24:32. The title 'Introduction' is visible at the bottom right.

Please visit here for details

Anon - 1

Liang PC

Liang PC

ests=0.2/0.2, refs=3: '224455'

```
d put: j k put: m n put: 7777 5555 + d2s: dbl put: je:  
{"m": "dbl": "13332.0"}  
{"m": "dbl": "13332.0"}
```

```
d put:j k put:m n put:7777 2222 + d2s:dbl put:je:  
:"m","dbl":"9999.0"}  
,"m","dbl":"9999.0"}]
```

```
d put: j k put: m n put: 7777 2266 + d2s: dbl put: je:  
{"m": "dbl": "10043.0"}  
" - " "dbl": "10043.0"
```

```
d put: j k put: m n put: 1199 2266 + d2s: dbl put: je:  
:"m","dbl":"3465.0"}]
```

```
d put:j k put:m n put:1199 220066 + d2s: dbl put:je  
:"m","dbl":"221265.0"}  
}
```

["m","dbl":"221265.0"]

09-341 EE6459

`CHO["a","b","c","d","e","f","m","dbl":"3399.0"]`

DMN | jo: gc: dup: hm: b a put: c d put: j k put: m n put: 1126 2200 + d2s: dbl put: je:

11

-0

i2p.i2p / core / java / src / net / i2p / data / Hash.java Top

Code Blame

```
21     public class Hash extends SimpleDataStructure {  
106         }  
107  
108         /**  
109             * For convenience.  
110             * @return "{52 chars}.b32.i2p" or null if data not set.  
111             * @since 0.9.25  
112             */  
113     public String toBase32() {  
114         if (_data == null)  
115             return null;  
116         return Base32.encode(_data) + ".b32.i2p";  
117     }  
118  
119         /**  
120             * @since 0.9.17
```