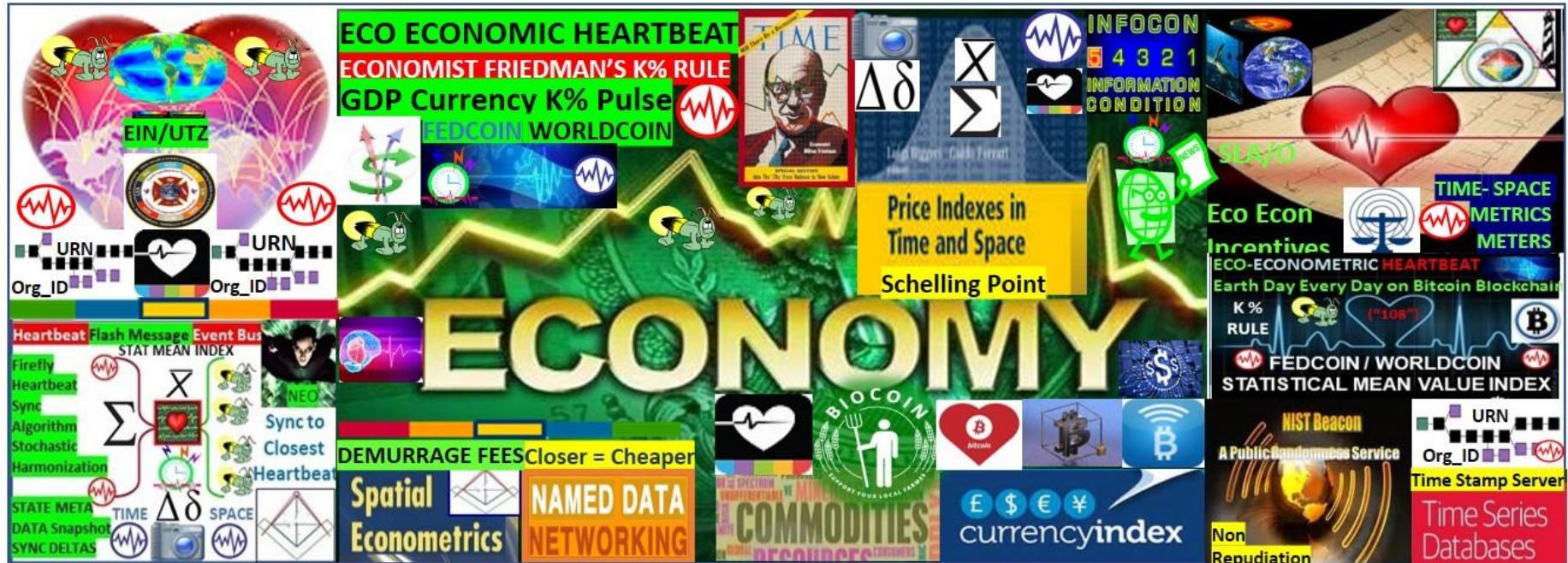


TIME – SPACE METER



The Heart Beacon Cycle Time — Space Meter USPTO 13/573,002 : Adaptive Procedural Template (checklist)



Use Case: Eco Economic Epoch Heartbeats for programmable money for the programmable economy – it's TIME.





Buckminster Fuller 1968 *Operating Manual for Spaceship Earth*

"we can make all of humanity successful through science's

world-engulfing industrial evolution. We have the tools”



BLOCKTIME ARBITRAGE



DP INDEX ECONOMY

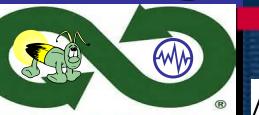
X% RULE



INFOCON

5 4 3 2 1

INFORMATION CONDITION



INCENTIVIZE SUSTAINABLE co-Econometrics



Earth relates Earth to a spaceship flying through space. Finite amount of resources and cannot be resupplied.



The HEART BEACON CYCLE SIGNALING, TELEMETRY ANNEX K OPORD
BUCKMINSTER FULLER'S OPERATING MANUAL for SPACESHIP EARTH



Price Indexes in Time and Space



Algorithmic Regulation

Stat Mean Value Index



Cryptocurrency Micro Payments Demurrage Fees



The image is a collage of various elements. At the top left is a globe with a blue and green color gradient. Next to it is a large title 'Spatial Econometrics' in white serif font, with 'UNUSED RESOURCES' in a green box below it. To the right is a small icon of a diamond-shaped structure. In the center, there's a grid of colored squares (blue, green, yellow, orange, red) with a central red square containing a heart and ECG lines. Below this grid is a yellow box with the text 'UNMET NEEDS'. To the left of the central grid are mathematical symbols: Delta, X, Sigma, and another Delta. Each symbol is connected by a green curved line to a small illustration of a robot-like character with a stethoscope. To the right of the central grid is a black box with a white heart and ECG lines, followed by a green circle with a clock and ECG lines. At the bottom left is a purple box with the text 'Firefly Heartbeat Algorithm' and a logo featuring a yellow insect and a red heart. At the bottom right is a circular logo for 'BIOCOIN' with a figure holding a pitchfork, surrounded by wheat stalks, with 'START' at the top and 'SUPPORT FARMER' at the bottom.



**NEURAL NET A.I.
WORLD COMPUTER**





Humanitarian Assistance Networked Donor System

H.A.N.D.S: "Based on the need to speed up the processes of influencing an adversary, new concepts result in the adaptation of military doctrine, organization, training, material, infrastructure, interagency interaction, leadership, personnel and facilities" ... German Bundeswehr : concepts of "Network Centric Warfare" in the United States of America, "Network Enabled Operations" in Great Britain or "Vernetzte Operationsführung" in Germany



<https://neo.org>



"Shared situational awareness enables collaboration synchronization, and enhances sustainability, speed of command"



Federation Gateway



WORLD BEYOND WAR.org
a global movement to end all wars

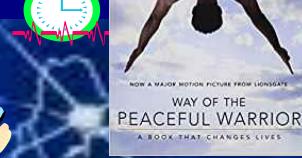


Reuse best practice procedural template guides from Battlefield Digitization describing when, where, how, how often systemically among a systems of systems improving synergy and synchronicity

DOD SITUATION AWARENESS PROGRAM
SWORDS TO PLOWSHARES OOTW IDEA
BY GERMAN MILITARY CIRCA 2003

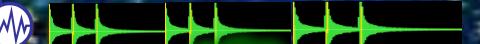


OPERATIONS OTHER THAN WAR

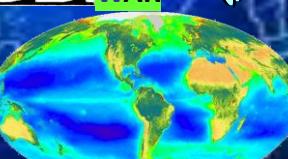


Beacon Communities

Vernetzte Operationsführung



Closer < \$\$\$ < FUEL



Proximity Beacons
JAEGERS

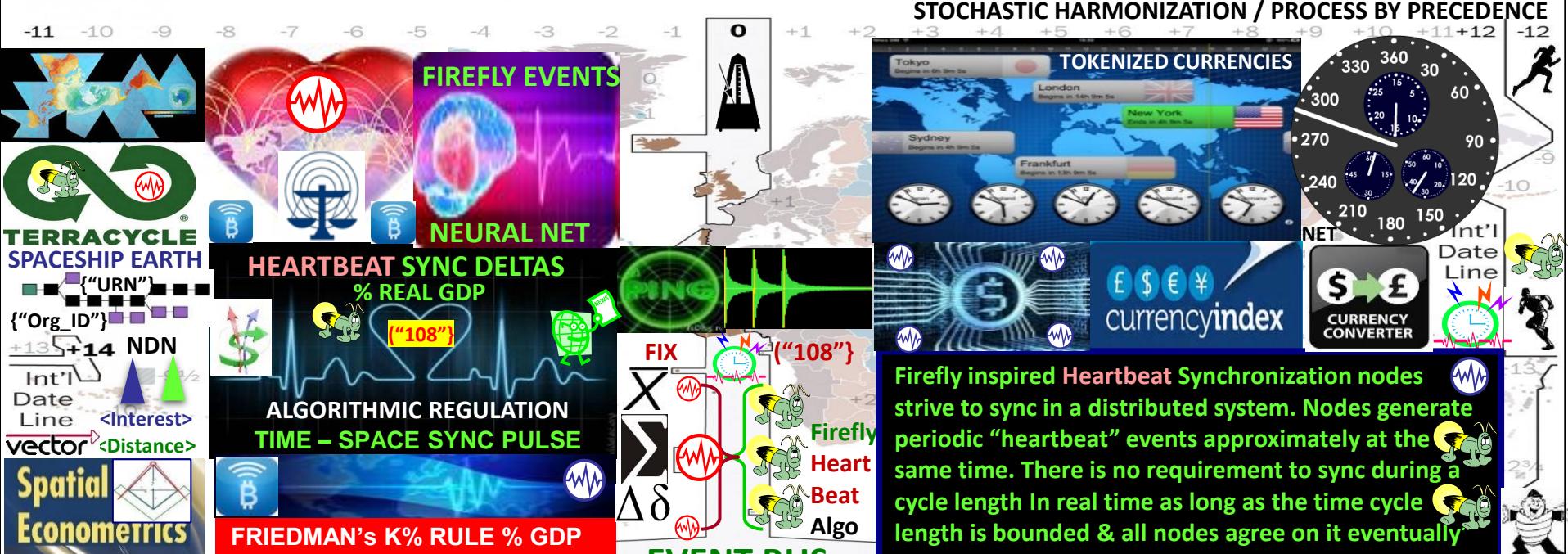


FREELY
HEARTBEAT
EVENT / ALERT Flash Heartbeat Message Bus
ALGORITHM

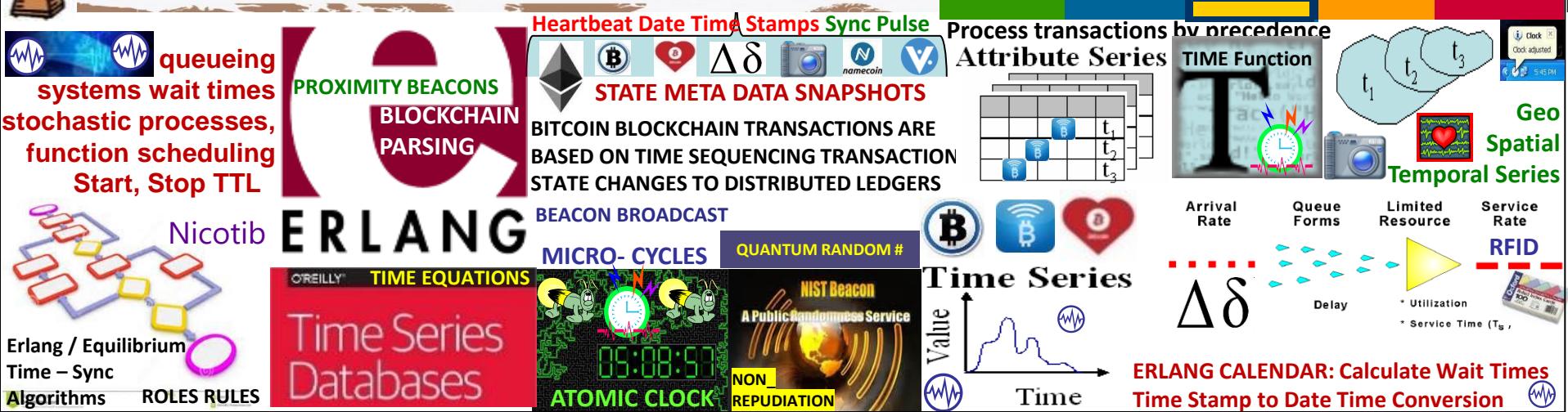


KAIJU

The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC.



The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.



NIST RANDOMNESS BEACON: broadcast full-entropy bit-strings in blocks of 512 bits every 60 seconds. Each value is time-stamped, signed, & includes hash of previous value to chain sequence of values together. This prevents all, even the source, from retroactively changing an output packet without being detected. The beacon keeps all output packets and makes them available online. 1st, Beacon-generated numbers cannot be predicted before they are published. 2nd, public, Beacon's time-bound, authenticated nature of the Beacon proves true random numbers not known before a certain point in time. 3rd, this proof can be presented offline at any point in the future



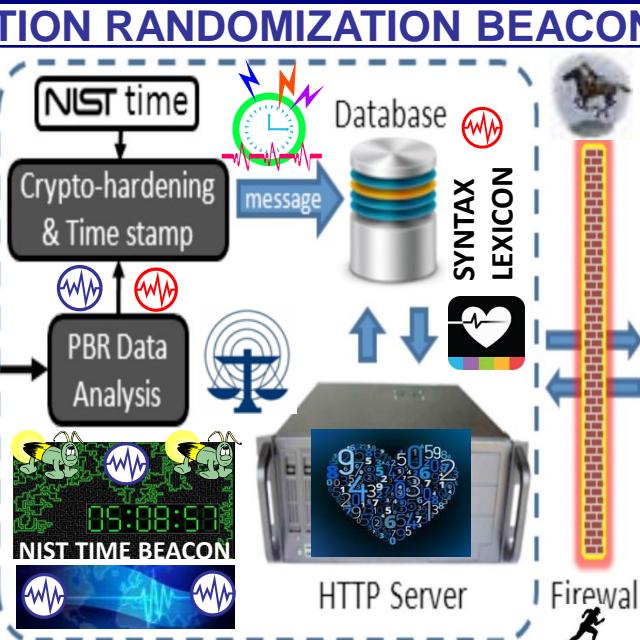
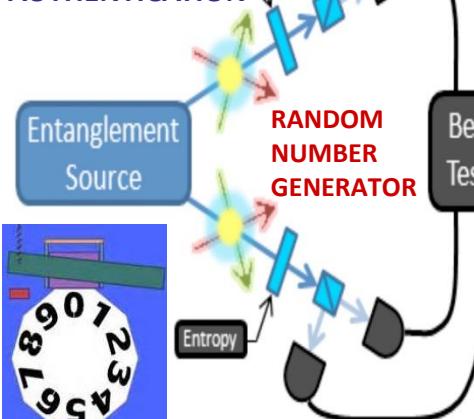
NIST QUANTUM ENCRYPTION RANDOMIZATION BEACON

UNPREDICTABLE SAMPLING

SECURE AUTHENTICATION

SECURE MULTI

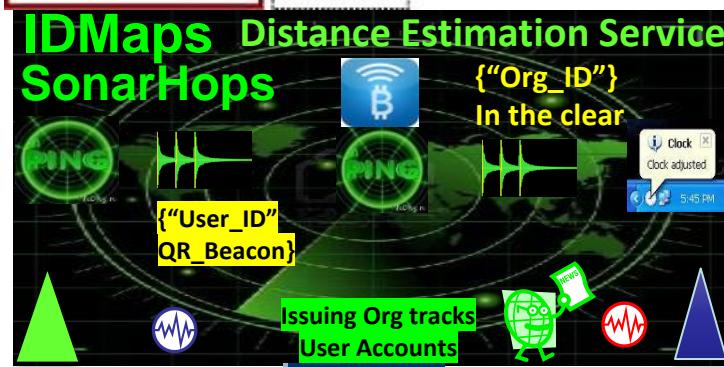
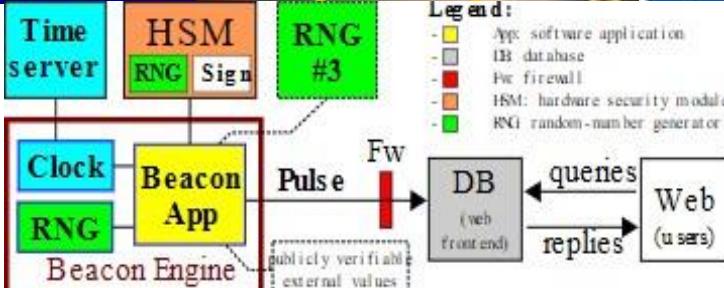
PARTY /
AUTHENTICATION



NIST

**NON
REPUDIATION**

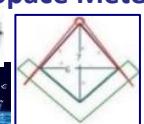
Legend:
■ App: software application
■ DB: database
■ Fw: firewall
■ HSM: hardware security module
■ RNG: random-number generator



USPTO 13,573,002 Heart Beacon Cycle Geo-spatial, temporal Intensity

Metrics and Time - Space Meter uses PHYSICAL Memes / Metaphors

**NAMED DATA
NETWORKING**



NDN
 </Interest>
 </Distance>
SURVEY METHODS + TRIANGULATION
Euclidian Geometry

Geodesic System Routing Info Base RIB

ACCOUNT BELONGS TO </Org_ID>

RESOURCE TYPE: <URN><URN><URN>

DEVICE / SENSORS <UUID><UUID>

Higher-level services collect distance data to build virtual distance map of Internet & estimates distance between any IP address pair

Time / Distance Metrics



PROXIMITY

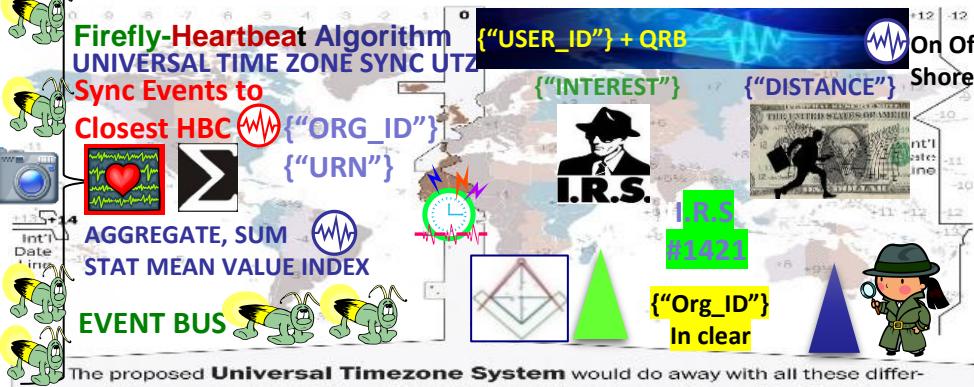
OFFSHORE BEACONS ONSHORE

NDN

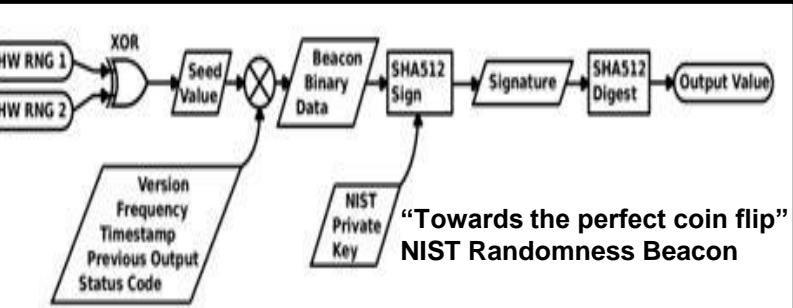
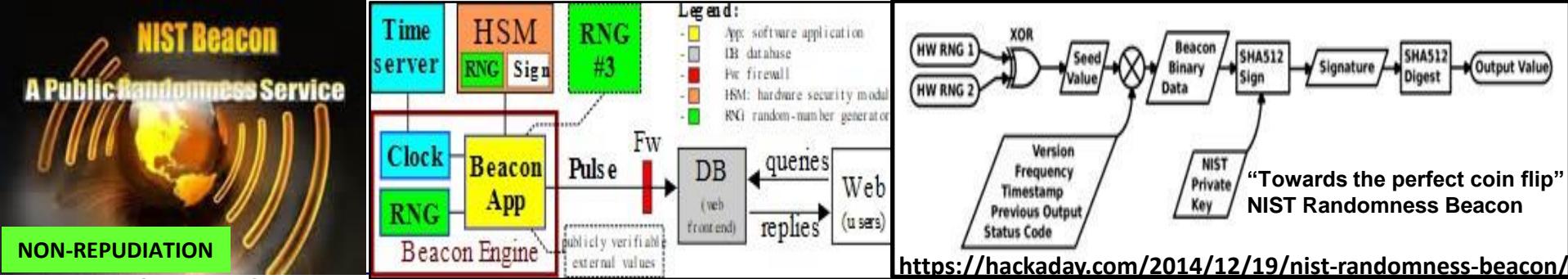
</interest></distance>

NDN
 </interest></distance>

The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind Coordinated Universal Time (UTC). However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC. **Stochastic Harmonization**



The proposed Universal Timezone System would do away with all these different



<https://hackaday.com/2014/12/19/nist-randomness-beacon/>

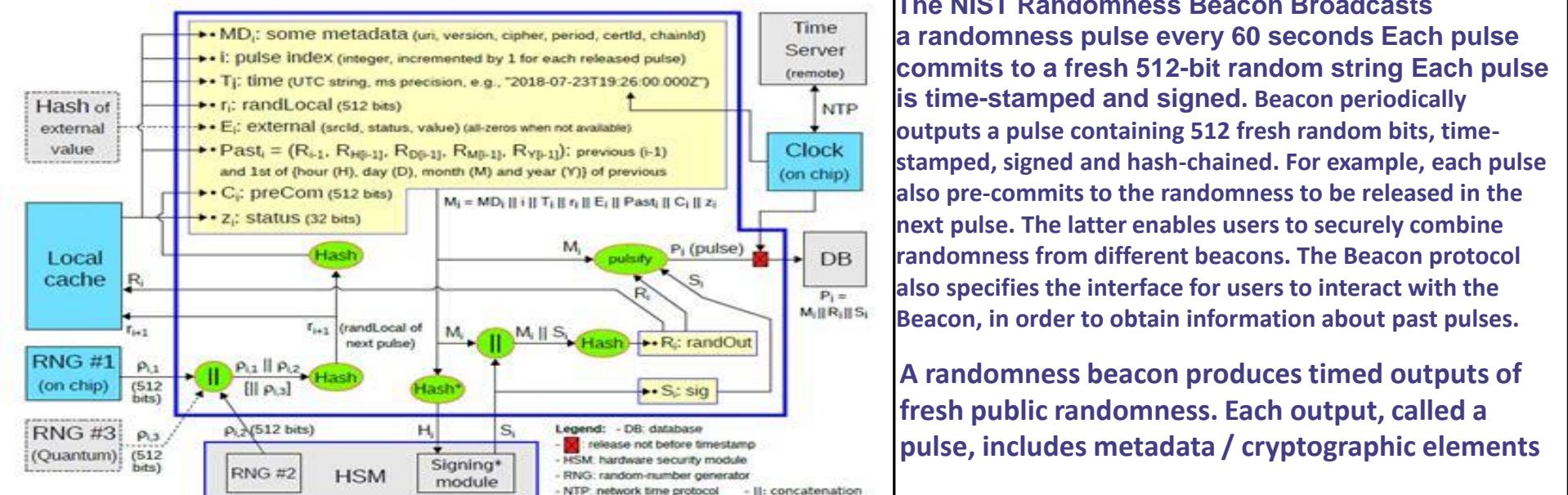
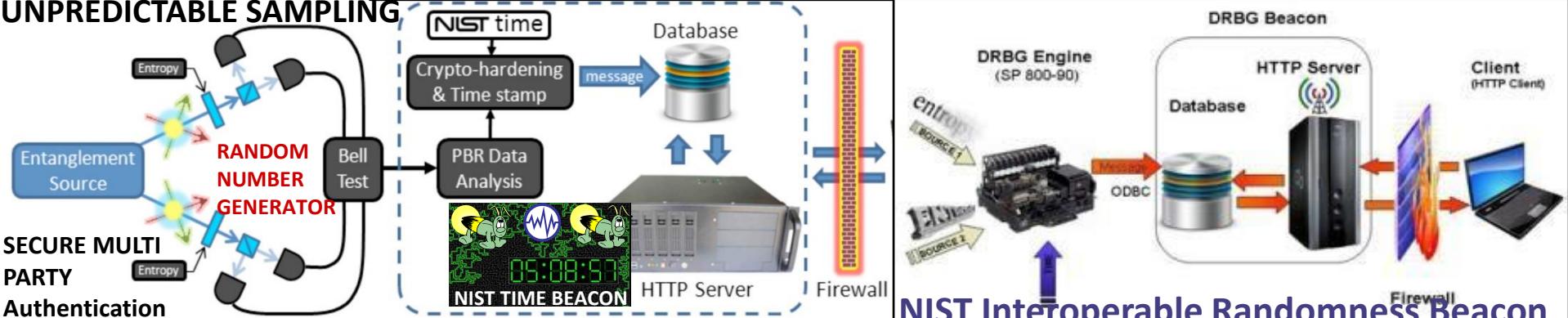
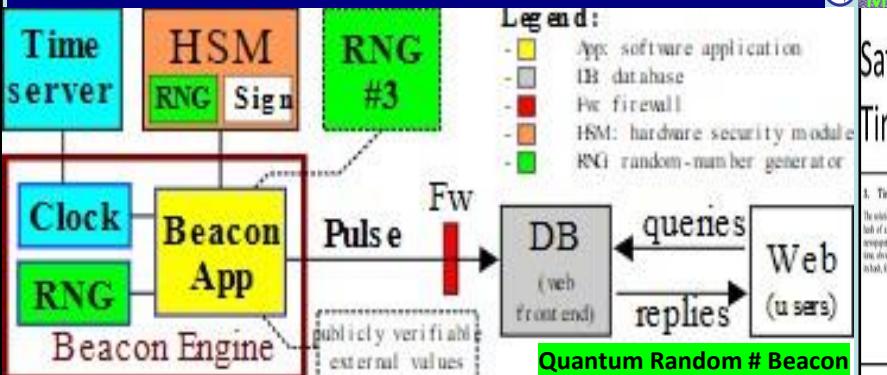


Figure 2. Illustration of the generation of the i^{th} pulse by a Beacon App (2.0)

The main goal of the NIST Random # Beacon is to serve as a baseline for deployment of many interoperable beacons

ALL THINGS NET FORMED WITH: Building Blocks:
 1) EPOCH TIME CYCLES
 2) SYNTAX / Opcode Brevity codes Programmable Economy / \$\$\$

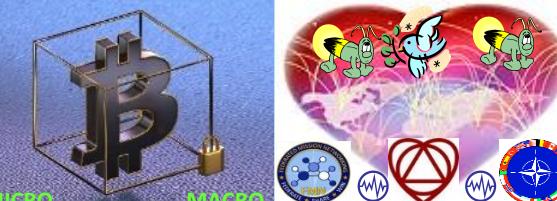
NIST Quantum Random Number Beacon



"The external environment could update resources at random..."



One solution is a **heartbeat**: defining a default lease duration delaying updates until the next **cycle**"



Satoshi Bitcoin Blockchain Time Stamp Server

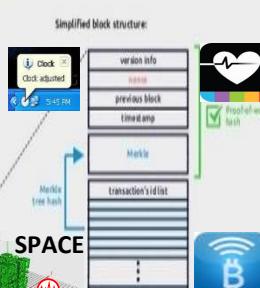
1. Timestamp Server

The solution we propose begins with a timestamp server. A timestamp server works by taking a batch of a block of items to be timestamped and widely publishing the hash, such as in a newspaper or Unseen Post [3]. The timestamp proves that the data must have existed in the system, obviously, in order to get into the block. Each timestamp includes the previous timestamp in its hash, forming a chain, with each additional timestamp confirming the previous ones.



Block chain

What does a block look like?



PROOF of SPACE-TIME

Firefly - Heartbeat Sync Algorithm
 Heartbeat Event Message Bus
 UTZ stochastic harmonization

Epoch Time Cycles

E0 E1 E2 E3...

Genesis



Structured Data Exchange

ROSETTA

{"Org_ID"} {"URN"}

STONE
 BREVITY
 CODES

Attribute Series



Time Series

Value

Time

300 +
 Message
 Sets



Spatial

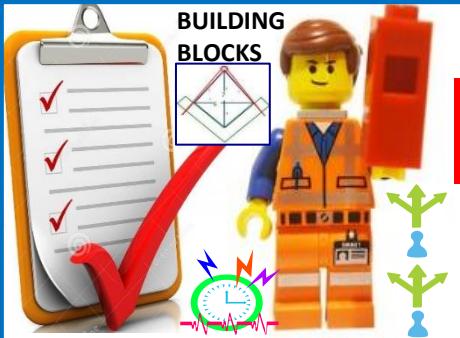
Work flow
 Filters

SYNTAX LEXICON

QubitCoin Interval: Every 30 Seconds

The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind Coordinated Universal Time (UTC). However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC. INCENTIVIZE ECO - FRIENDLY TRANSACTIONS





Series of systemic actions to achieve goals ex: form, maintain ECO sustainable

Trade Federations i.e., closer = < fuel, \$\$

A continuous action, operation, or series of changes, sync deltas i.e., price indexes

Universal Event Bus Algorithm **Flash Heartbeat**  **Neural Net messages**    
Process Events by Precedence **Sync geo-spatial temporal**  **Eco econometrics across time-space**

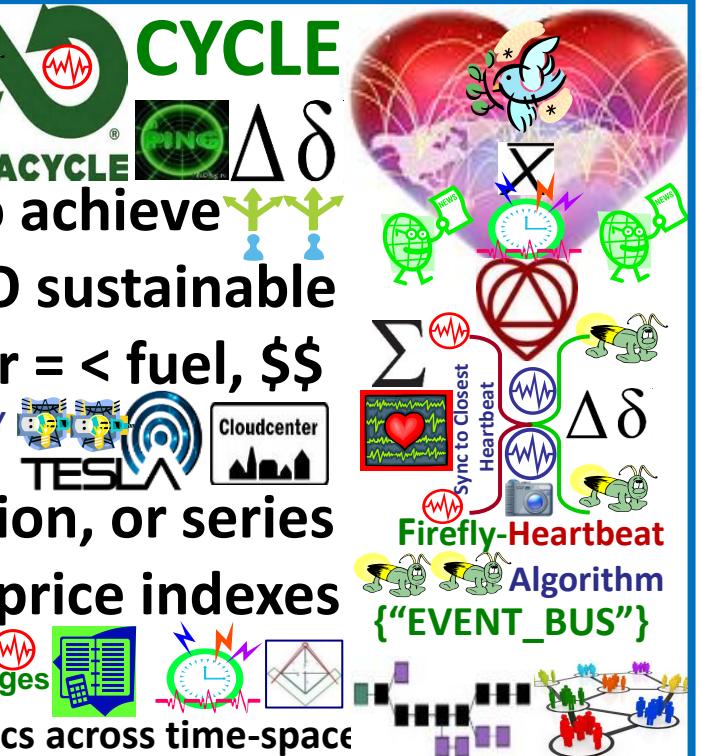
A composite image featuring a woman's face with blue eyeshadow and red lips, a red heart on a graph with a pulse trace, and two cameras. The text "Alice Corp. v. CLS Bank Intl. abstract ideas" is overlaid in green and yellow. The USPTO logo and the numbers 13.573.002 and Transco V Performance Sct. 573 134 2347 are also present.

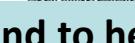
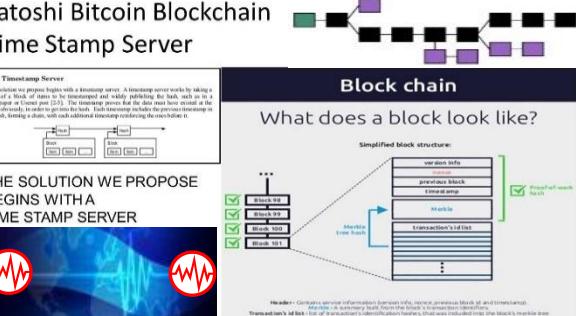
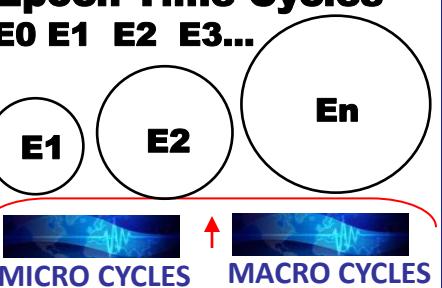
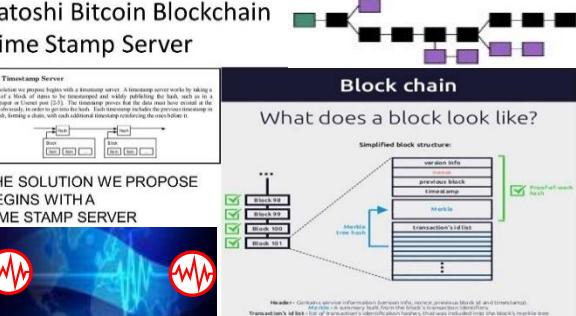
MINIMUM LIST OF COMPONENTS / BUILDING BLOCKS, PROCESSES, PROCEDURES... AGREED ON BY TRADE FEDERATIONS TO ACHIEVE DAO DISTRIBUTED AUTONOMOUS ORGANIZATIONS CONSENSUS

DAO's in FEDERATIONS AGREE TO USE COMMON COMPONENTS, SHARED PROCESSES, METHODS, SIGNALING - TELEMETRY SCHEDULE & METRICS IN SMART CONTRACTS. SERVICE LEVEL AGREEMENTS

CHECKLIST: TRADE FEDERATION ECONOMIC FRAMEWORK EX:

- 1) Organize by assigning Organization Identifiers {"Org_ID"}
 - 2) Track Resources by Uniform Resource Name </URN>
 - 3) Take State Meta Data heartbeat snapshots @ 15 / N min
 - 4) Honor Satoshi's intent for Bitcoin to be paired w markets
 - 5) Use NIST Quantum Random Non-Repudiation Beacon
 - 6) Earth Day Everyday / Spaceship Earth's Signals & Telemetry Annex



Interface Name	HEARTBEAT Administration Interface [SCOP]								
Documentation URL	http://scop.sourceforge.net/ http://linuxvirtualserver.org/software/index.html								
API Information	#Big_Data	 	Functionality Areas   <p>Cloud Interface Management configuration, start, stop cloud services, edit configuration (heartbeat messages)</p>						
Programmable Money World Computer / Blockchain	#leT	 	API Operation Count   <table border="1"> <tr> <th>LOCATE <CONTENT></th> <th>IDMAPS / SonarHOPS</th> </tr> <tr> <td>4 / 3 / 2 / 1 / NULL</td> <td>1 / 2 / 3 / 4</td> </tr> <tr> <td>0001 .05 .01 .1</td> <td>0 5 15 30 90</td> </tr> </table>	LOCATE <CONTENT>	IDMAPS / SonarHOPS	4 / 3 / 2 / 1 / NULL	1 / 2 / 3 / 4	0001 .05 .01 .1	0 5 15 30 90
LOCATE <CONTENT>	IDMAPS / SonarHOPS								
4 / 3 / 2 / 1 / NULL	1 / 2 / 3 / 4								
0001 .05 .01 .1	0 5 15 30 90								
Programmable Money World Computer / Blockchain	NIST TIME BEACON		Web service access type Network Effects / A.I. <p>Web application, front end to [network, device, system, blockchain] heartbeat]</p>						
Interface Characteristics	  	LANGUAGE / PLATFORM BINDINGS  	 						
"The external environment could update resources at random... One solution is a heartbeat: defining a default lease duration delaying updates until the next cycle"	 		Epoch Time Cycles E0 E1 E2 E3... 						
QubitCoin Interval: Every 30 Seconds									

DAO: Distributed Autonomous Organization

RAND term circa 2000 / The TAO OF THE DAO

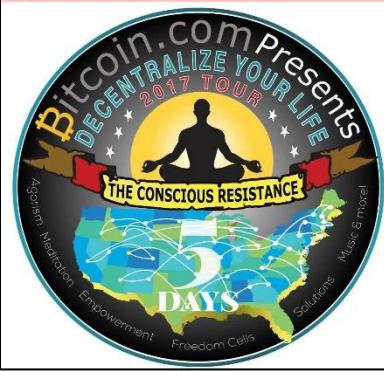
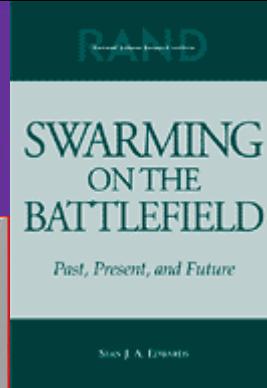
SWARMING AND THE FUTURE OF CONFLICT



RAND

RAND
Monograph Report

THE
ADVENT
Of NETWAR



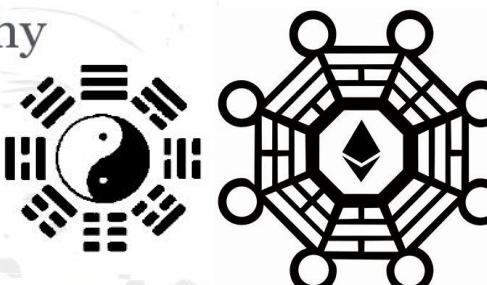
<http://cointelegraph.com/news/112077/the-new-frontier-after-cryptocurrency-cryptoequity>

Taoism Philosophy

Taoism represents:

- Contraction of the past to the future.
- The transcendence of time and place.
- The balance of the old and the new.
- The balance between opposing forces and desires.

Overall the Taoism Philosophy represents "The Way" in which to live.



(An ancient philosophy tradition. This article involves the yin-yang or principle of harmony and change.)

Eris, The Dawn of Distributed Autonomous Organizations and The Future of Governance

@TheBitcoinArmy



Net of \$\$\$ formed with: EPOCH TIME CYCLES {"Syntax"} Instructions

"In the beginning"

"The Word"

"All things internet, Internet of money are formed using time epoch cycles to process, parse, syntax as instructions"

"A blockchain is a consensus-based system. It only works if all nodes reach an identical state"

"A smart contract is a piece of code stored on a blockchain, triggered by blockchain transaction reads / writes data in the blockchain's Dbase"



"Blockchain consortiums are working less on distributed ledgers and more on Contract Description Languages CDL, DAML Digital Asset Modeling Language" Coindesk Article

FROM	QCCIA	TAKI	ABAR	AMERICA	AFATOL	WEN
PROF	F001	E001	PROF	F001	E001	PROF
PROF	F002	E002	PROF	F002	E002	PROF
PROF	F003	E003	PROF	F003	E003	PROF
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PROF	F100	E100	PROF	F100	E100	PROF



SYNTAX LEXICON Library



SYMBOLS ARE THE UNIVERSAL LANGUAGE

Coder Guide Rosetta Stone



LOGIC / FILTERS



SYNTAX SYMBOL LEXICON LIBRARY

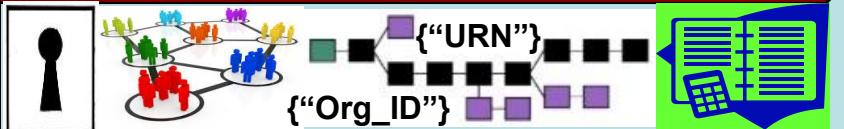


MICRO CYCLES



Heart Beacon Cycle

FEDERATE / TRADE FEDERATIONS



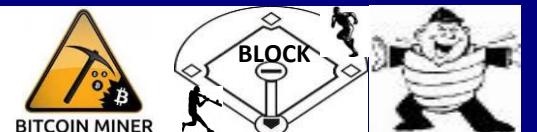
1. **FEDERATION:** Latin: **foedus**, **foederis**, **covenant**, **union** of partially self-governing states or regions under a central (federal) government
 2. A league or confederacy. Individuals / groups retain **AUTONOMY**
 3. A federated body formed by nations, states, and... **unions**
each retaining control of internal affairs

Net joins, drops, splits, merges, moves   
Agile, adhoc NETOPS Vs acquisition preserves the **CHANNEL**



**Bitcoin Group Signatures Dynamic Membership Multi-party Signature DMMS:
independent interest within group signatures – FEDERATED ID {"Org_ID"}**

Bitcoin Mining Pools



DISTRIBUTED AUTONOMOUS ORGANIZATION = DAO RAND Corp

term coined circa 1991 now in use by Blockchain tech corporations

Uniform Resource Name



IoT DEVICE / PLATFORM

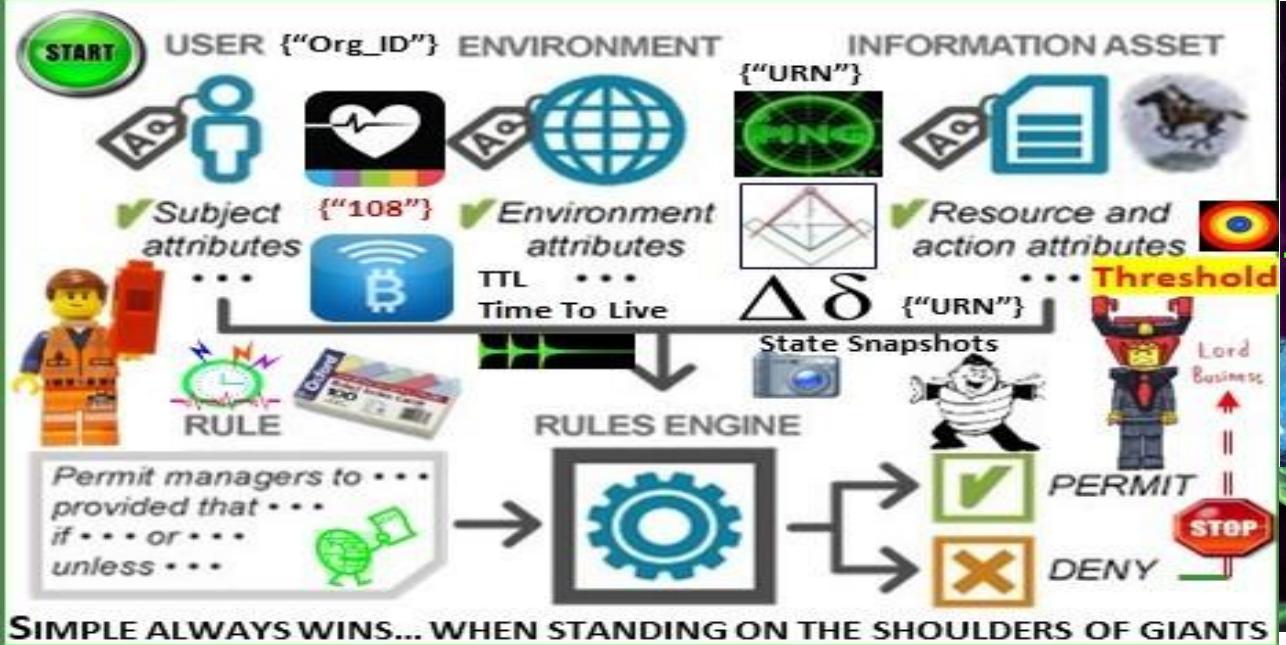


QR CODE
MICRO-CYCLES

UUID 123e4567-e89b-12d3-a456-426655440000
123e4567-e89b-12d3-a456-426655440001
123e4567-e89b-12d3-a456-426655440002

STOCK EXCHANGE MIC MARKET IDENTIFIER CODES / BREVITY CODES







Firefly - Heartbeat Algo

University of Bologna Italy / Hungary



ECO ECONOMIC HEARTBEAT

("108")



K%



ECONOMIC MACRO CYCLES

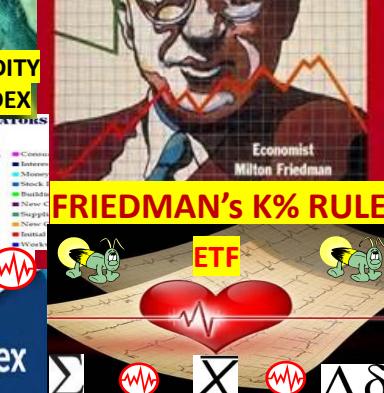
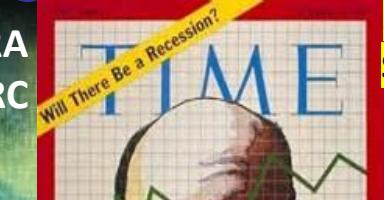
TIME-SPACE SYNC

K% GDP ECONOMIC PULSE FEDCOIN WORLDCOIN

LENGTH OF REAL TIME CYCLE IS ARBITRARY AS LONG AS NODES EVENTUALLY AGREE

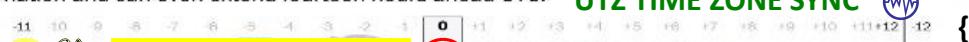


Luxor Temple Egypt:
"The shortest path towards knowledge of truth is nature"



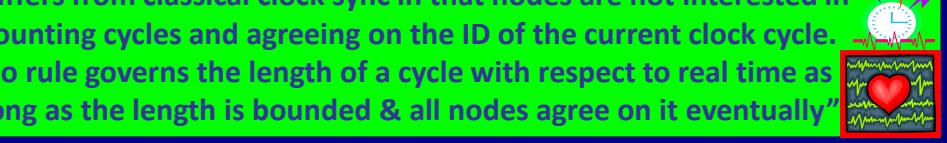
The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC.

UTZ TIME ZONE SYNC



"Heartbeat Synchronization nodes in a distributed system generate periodic local heartbeat events approximately at the same time. It differs from classical clock sync in that nodes are not interested in counting cycles and agreeing on the ID of the current clock cycle. No rule governs the length of a cycle with respect to real time as long as the length is bounded & all nodes agree on it eventually"

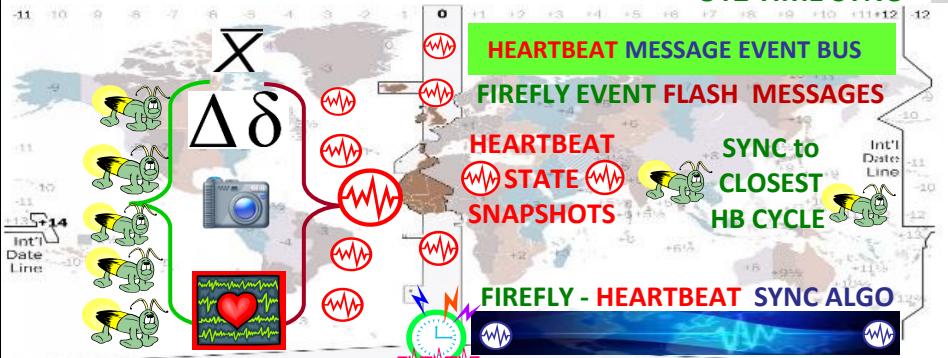
The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.



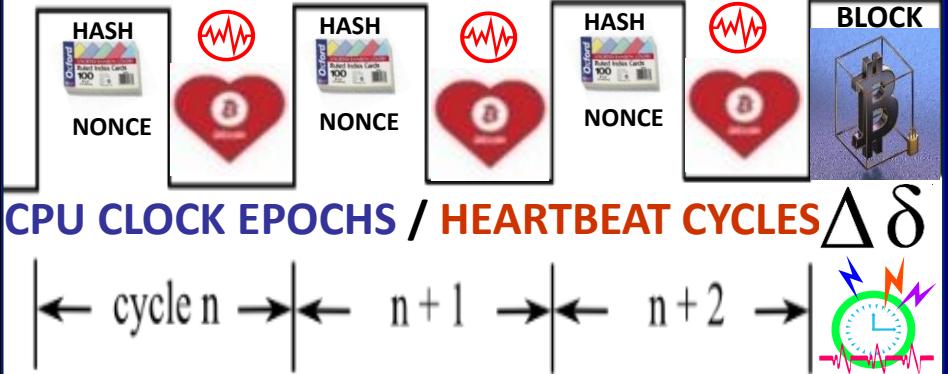


ALGORITHMIC REGULATION

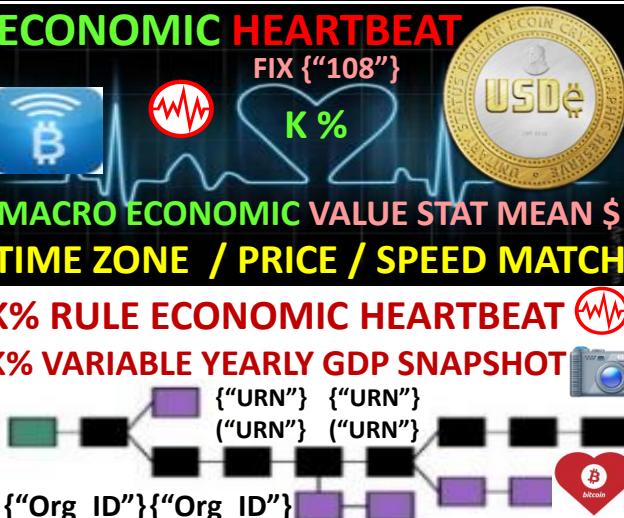
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The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.



CPU CLOCK EPOCHS / HEARTBEAT CYCLES $\Delta\delta$



MACRO ECONOMIC VALUE STAT MEAN \$ TIME ZONE / PRICE / SPEED MATCH
K% RULE ECONOMIC HEARTBEAT
K% VARIABLE YEARLY GDP SNAPSHOT



ECONOMIC HEARTBEAT
currencyindex
DASH
litecoin
TERRA TRC
ripple

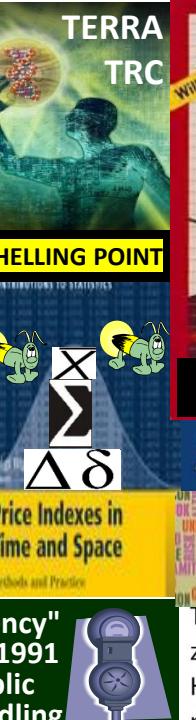


'K-Percent Rule Macro economic money-supply heartbeat automatically adjusts \$ supply by a set amount "K" variable regardless of cyclical state of the economy e.g., set growth rate variable to real yearly % GDP'
UTZ TIME SYNC
LEADING ECONOMIC INDICATORS
COMMODITIES

"Heartbeat Synchronization strives to have nodes in a distributed system generate periodic local "heartbeat" events approximately at the same time. It differs from classical clock sync in that Nodes are not interested in counting cycles and agreeing on the ID of the current clock cycle. There is no requirement regarding the length of a cycle with respect to real time as long as the length is bounded and all nodes agree on it eventually"

THE TERRA (TRC)

Trade Reference Currency

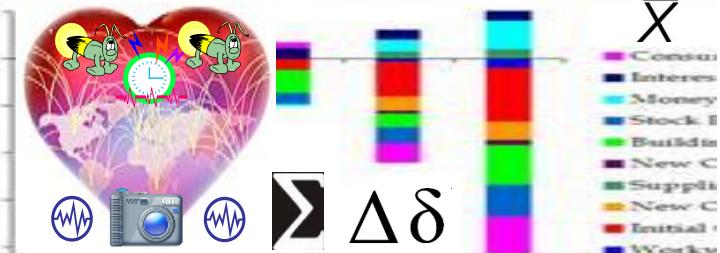


ECONOMIC HEARTBEAT

TEDCOIN / WORLDCOIN



LEADING ECONOMIC INDICATORS



TERRACY
\$0.49 USD

B.0.001076 BTC



DEMURRAGE FEES

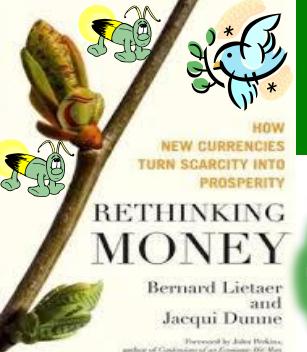


MICRO PAYMENTS

Terra Trade Reference Currency TRC "world currency"

**Bernard A. Lietaer Belgian economist proposed 1991
Basket of 9-12 most important commodities. Public**

Basket of 9-12 most important commodities. Public issued demurrage fees for storage, shipping, handling

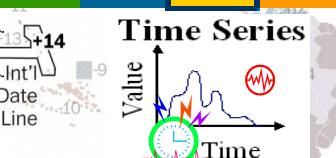


Example: 100 Terra = 1 barrel oil
+ 10 bushels of wheat 
+ 20 kg of copper + 1/10 Oz gold



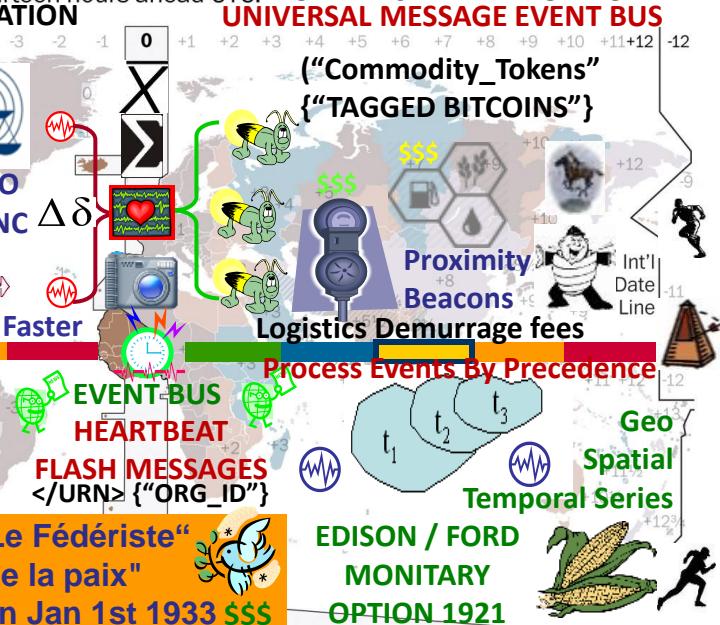
Firefly inspired Heartbeat Synchronization nodes strive to sync in a distributed system. Nodes generate periodic “heartbeat” events approximately at the same time.

It differs from classical clock sync in that nodes are not interested in counting cycles to agree on the ID of the current clock cycle. There is no requirement to sync during a cycle length in real time as long as the length is bounded and all nodes agree on it eventually”



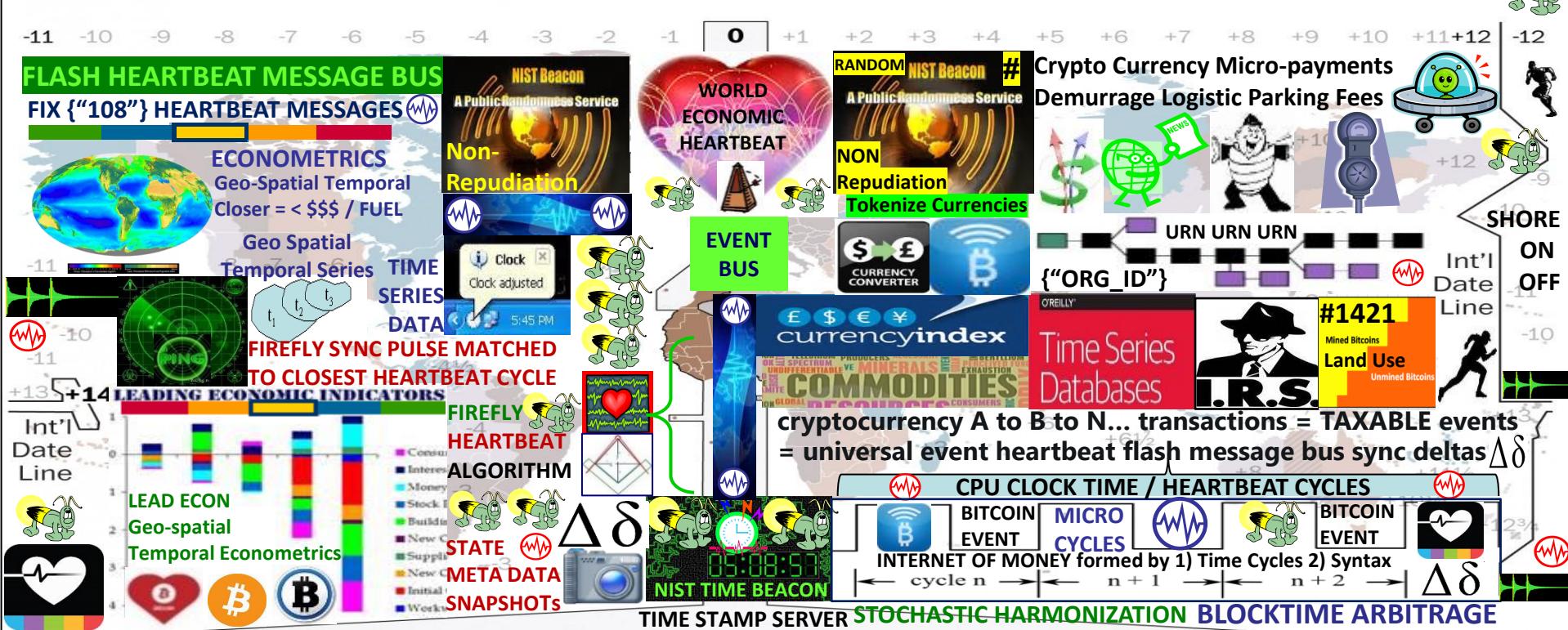
French newspaper "Le Fédériste" "L'Europa monnaie de la paix" Money of peace" Born Jan 1st 1933 \$\$\$

The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.





The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC. **UTZ TIME ZONE SYNC STOCHASTIC HARMONIZATION**



The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.

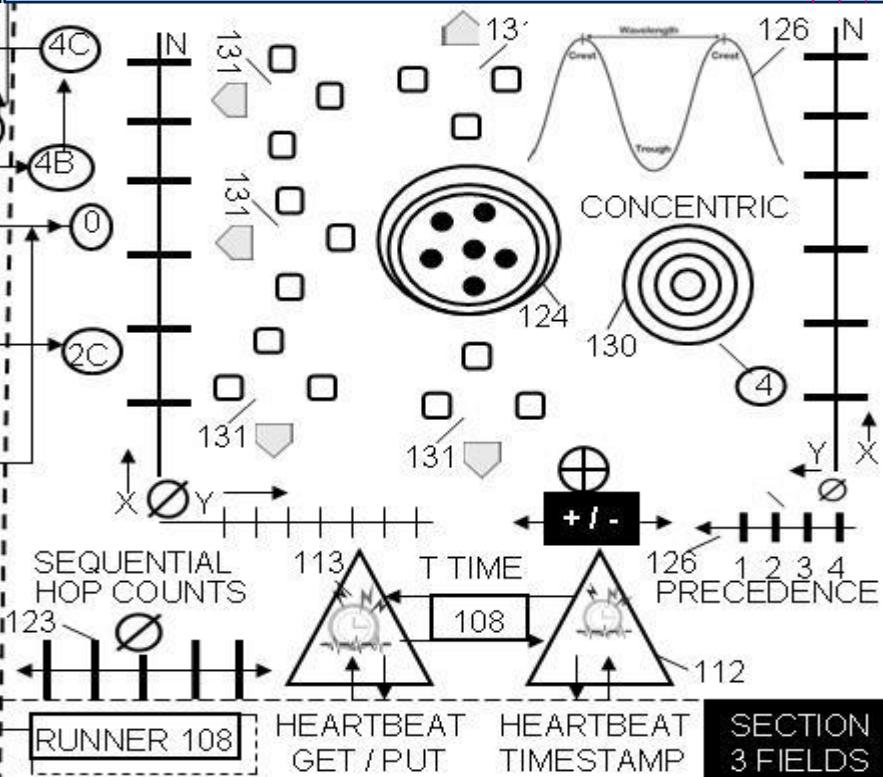
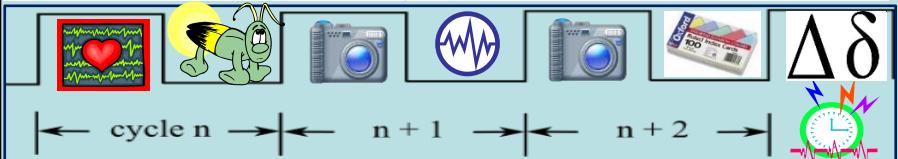
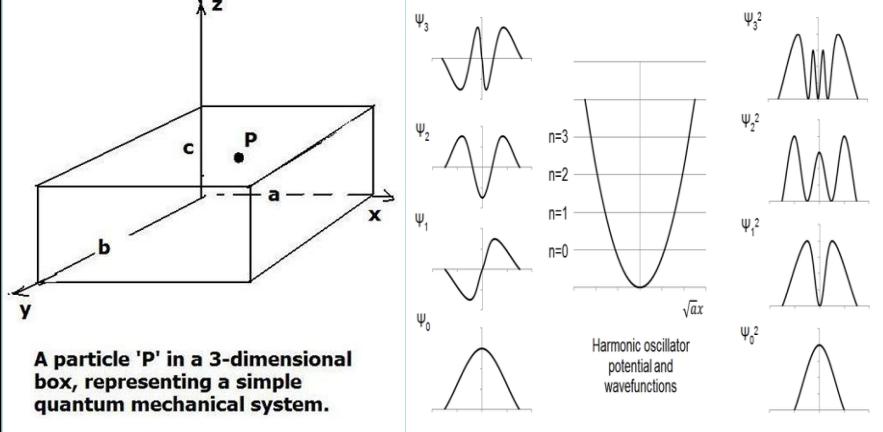


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The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.

QUANTUM COMPUTING / HBC TIME – SPACE METER / METRICS



#QuantumComputing USct Alice Corp Vs CLS Bank compliant memes:
In quantum computing, a qubit (or quantum bit (sometimes qbit) is a unit of quantum information—the quantum analogue of the classical binary bit. A qubit is a two-state quantum-mechanical system, such as the polarization of a single photon: the two states are vertical polarization and horizontal polarization. In a classical system, a bit has to be in one state or the other. Quantum mechanics allows a qubit to be in a superposition of both states at the same time, a fundamental quantum computing property

US Sct Alice Corp Vs CLS Bank Physical memes

Linear sequential “Paul Revere” meme = horizontal polarization

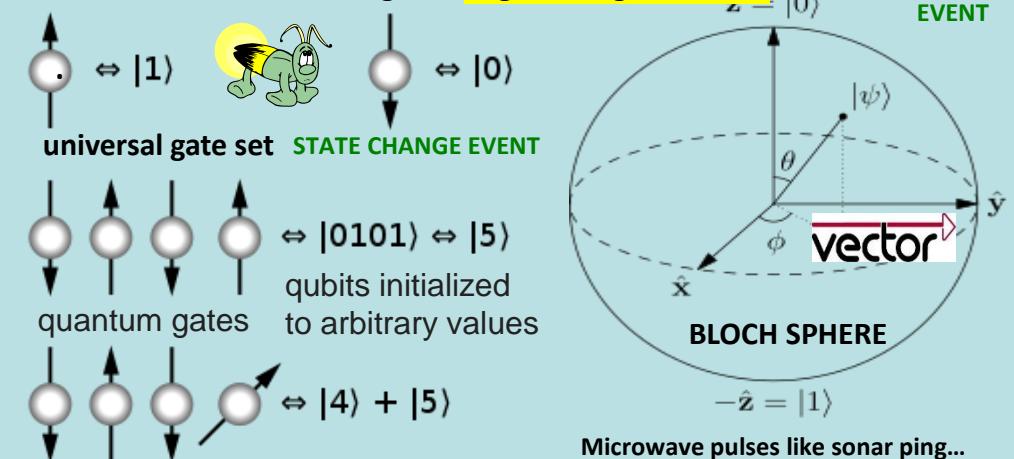
Vertical polarization vectors from a known point 0 null Sonar Hop meme



particle representation / samples



Instead of each bit having two potential states — on or off — a quantum bit or qubit has three. It can be on, off, or both, and you only know which one it is once you look at it. How can you tell if a bit of data is correct if looking at it might change its state?



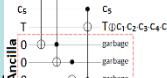
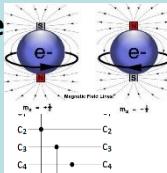
qubits can be in a superposition of all the classically allowed states

silicon device movement is controlled through use of microwave pulses. As an electron spins up, a binary value of 1 is generated, when the electron spins down, a binary value of 0 is generated.



Fock state number state quantum state that is an element of a Fock space with a well-defined number of particles (or quanta)

$$|00\rangle = \begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix} \quad |01\rangle = \begin{bmatrix} 0 \\ 1 \\ 0 \end{bmatrix} \quad |11\rangle = \begin{bmatrix} 0 \\ 0 \\ 1 \end{bmatrix}$$



THE BITCOIN BLOCKCHAIN FOR DUMMIES



What is needed is an electronic payment system based on cryptographic proof instead of trust, allowing any two willing parties to transact directly with each other without the need for a trusted third party e.g., a bank.

Satoshi Nakamoto Bitcoin Paper



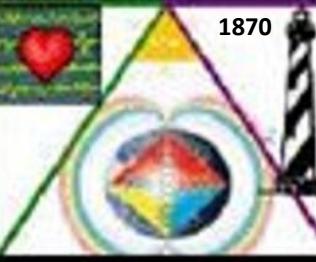
Satoshi Nakamoto



Craig WRIGHT
a.k.a.
Satoshi Nakamoto



"Bitcoin is a LANGUAGE"



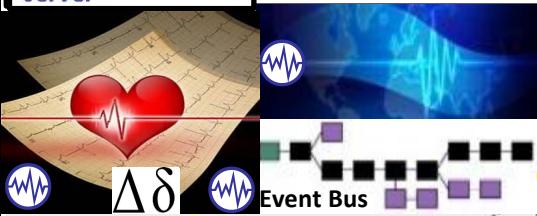
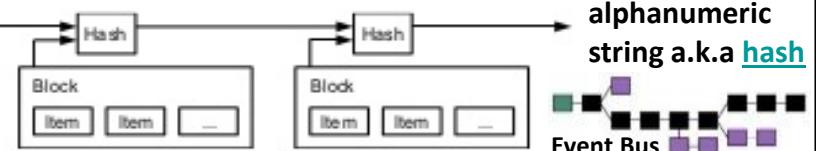
Wright Brother's 1st Flight
Cape Hatteras Outer Banks

"THE SOLUTION WE PROPOSE BEGINS WITH A TIME STAMP SERVER"

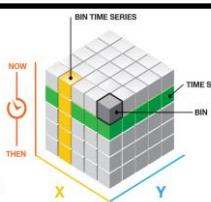
3. Timestamp Server

The solution we propose begins with a timestamp server. A timestamp server works by taking a hash of a block of items to be timestamped and widely publishing the hash, such as in a newspaper or Usenet post [2-5]. The timestamp proves that the data must have existed at the time, obviously, in order to get into the hash. Each timestamp includes the previous timestamp in its hash, forming a chain, with each additional timestamp reinforcing the ones before it.

**Bitcoin Protocol
for Dummies**
Part 4 Timestamp
Server



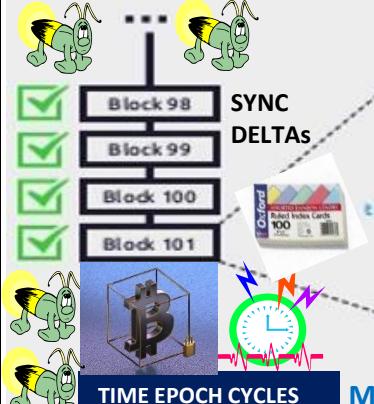
JapanNet Crypto Time Authentication Service (Timestamp Service)



"All things net, net of money are formed with 1) epoch time cycles
2) Syntax parsed as instructions



"THE VALUE OF BITCOIN IS TIME ITSELF"

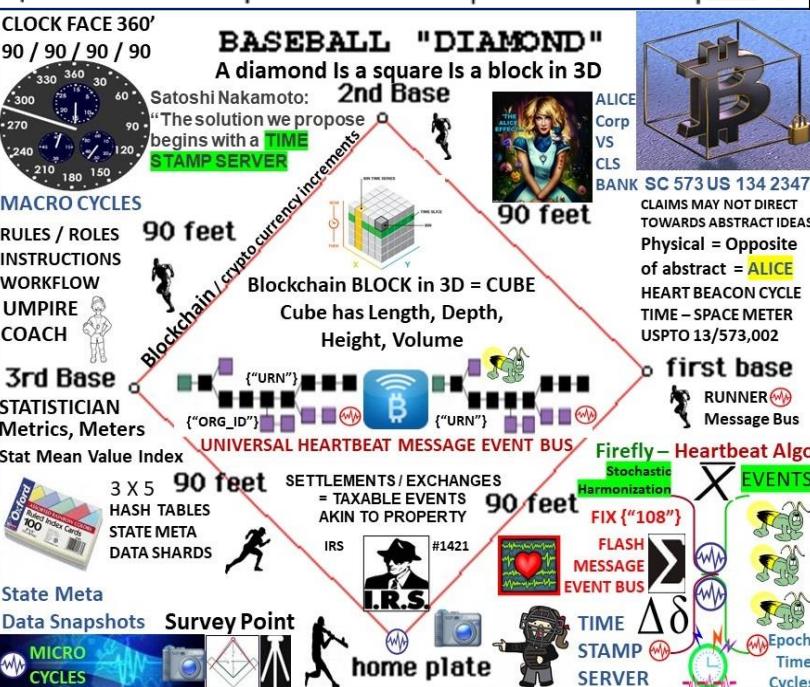


MERKLE: Summary built from block's transaction ID's

Header - Contains service information (version info, nonce, previous block id and timestamp). {"Org_ID"}

Transaction's id list - list of transaction's identification hashes that was included into the block's merkle tree.

Merkle - A summary built from the block's transaction identifiers.



All things internet of money are formed w CPU time cycles used to process, syntax, instruction / code



A blue rectangular background featuring two circular icons with white waveforms. Below the icons, the text "USPTO 13/573,002" is displayed in white, followed by "HEART BEACON CYCLE" and "TIME – SPACE METER".



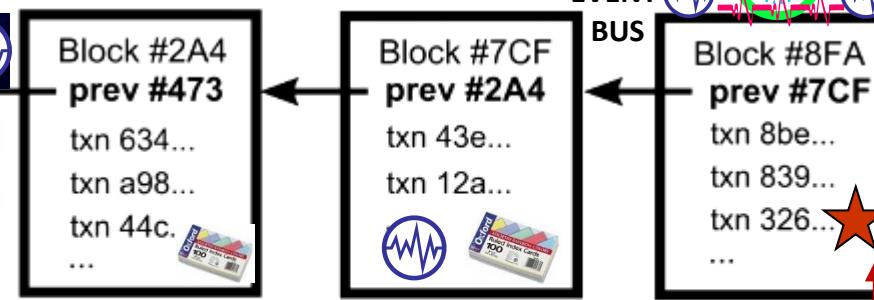
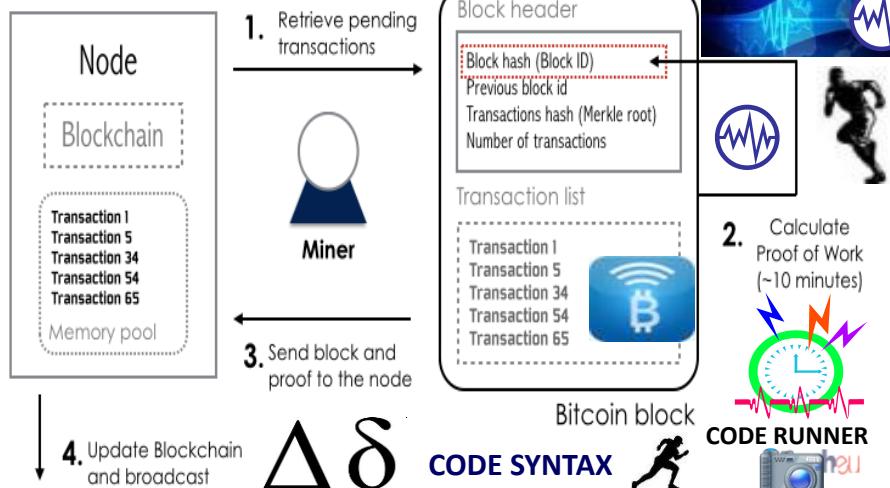
“Bitcoin is a Language”



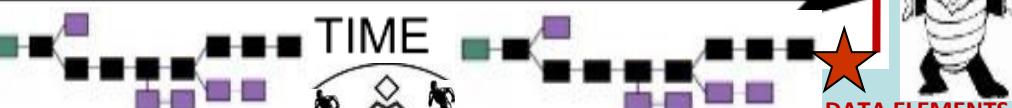
"BITCOIN MAKES MONEY PROGRAMMABLE MONEY IS SIMPLY DATA"



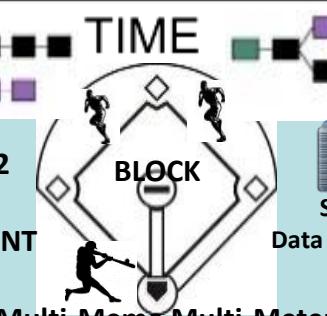
Alice Corp. v. CLS Bank International, 573 U.S. 134 SCt 2347 (2014) is a 2014 decision of the United States Supreme Court about patentable subject matter (patent eligibility).[2] The issue in the case was whether certain claims about a computer-implemented, electronic escrow service for facilitating financial transactions covered abstract ideas ineligible for patent protection. The patents were held to be invalid because the claims were drawn to an abstract idea, and implementing those claims on a computer was not enough to transform that idea into patentable subject matter.



BLOCKCHAIN = TIME / SYNTAX



**USPTO 13/573,002
PHYSICAL MEME
MAIN EMBODIMENT**





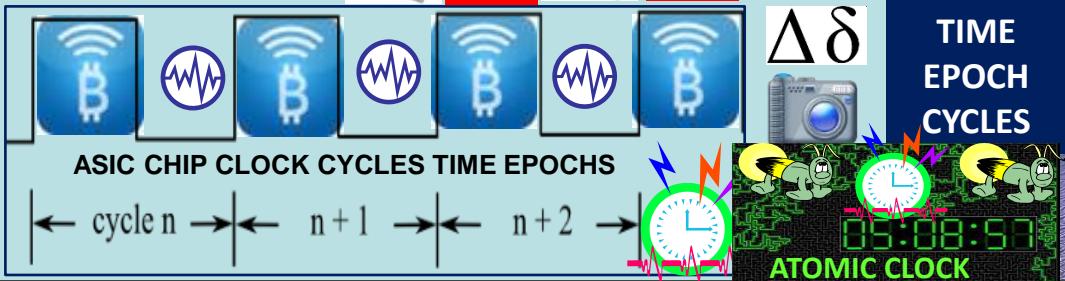
DATA ELEMENTS

ID'd by Alpha-Numerics

A horizontal collage of five images. Each image features a red heart icon with a white outline, overlaid on a blue background with a white ECG line. The heart is positioned in the center of each frame. In the background, there is a white rectangular box with the word "Oxford" at the top and "Business Cards" below it, along with the number "100". The entire collage is set against a dark grey background.

ULES
Metrics

Multi-Meme Multi-Meter



ASIC CHIP CLOCK CYCLES TIME EPOCHS

TIME
EPOCH
CYCLES

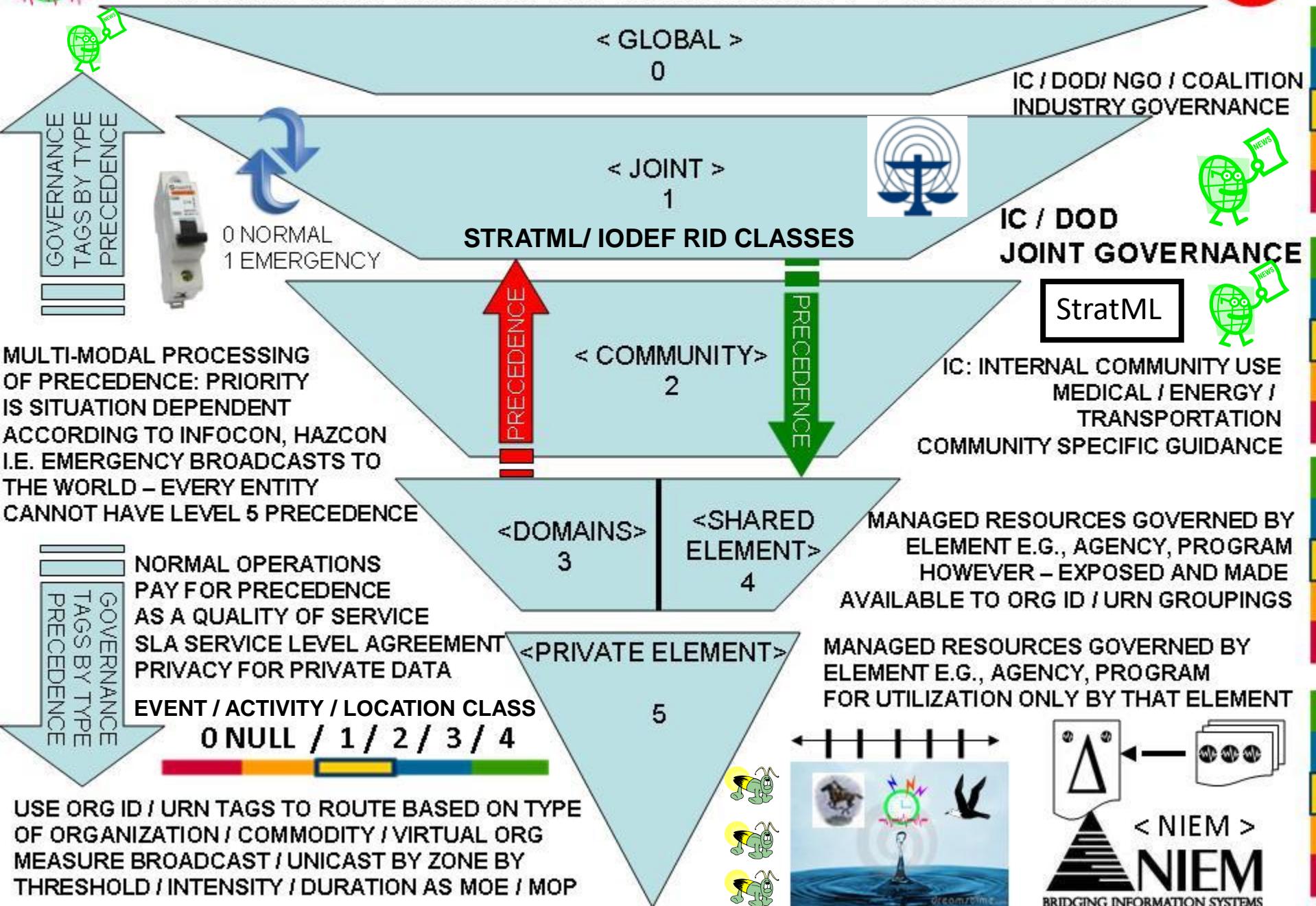


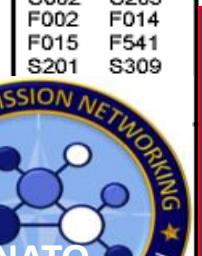
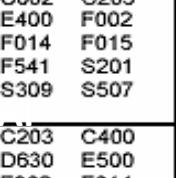
The collage consists of several overlapping windows and icons:

- State Meta Snapshots:** A screenshot showing a grid of data with columns labeled "NAME", "TYPE", "ID", and "VERSION".
- ROLES Meters:** A screenshot showing a grid of data with columns labeled "NAME", "TYPE", "ID", and "VERSION".
- XBRL / CDL / DAML STOCK MIC CODES:** A large central window showing a grid of data with columns labeled "NAME", "TYPE", "ID", and "VERSION".
- STRUCTURED MILITARY MESSAGE TEMPLATE FORMS LOGIC / FILTERS:** A large central window showing a grid of data with columns labeled "NAME", "TYPE", "ID", and "VERSION".
- SYNTAX LEXICON LIBRARY:** A large central window showing a grid of data with columns labeled "NAME", "TYPE", "ID", and "VERSION".
- Icons:** Various icons are overlaid on the windows, including a blue camera icon at the top left, a green person icon with a blue head in the center, a blue person icon with a green head on the right, a green lightning bolt icon with a blue clock in the bottom left, and a blue hat icon with orange lightning bolts in the bottom right.



ENABLE MAPPING OF GOVERNANCE / MANAGEMENT RESOURCES BY PRECEDENCE SHOWN IN GEO-SPATIO INTENSITY DASHBOARD VIEWS



FROM	GCCTS-A	ALPHA-Numeric Brevity Codes						CODE GUIDE
		C002	C203	C002	C203	C002	ATDS	MCS
ASAS	C002 F002 F015 S201	C203 F014 F541 S309	C002	C203	C002	C203 F014 F541 S305 S309	C002 E400 F014 F541 S201 S309	C203 C203 E400 F002 F015 F541 S201 S507
		USMTF / XML MTF FORMATTED MESSAGE CATALOG = 300 + messages info exchange sets using common, CONSENSUS Message Text Formats MTFs. MTFs specify </CONTENT> / info agreed by group consensus presenting information in a logical, well specified unambiguous layout resulting in a highly efficient info payload to overhead ratio						 INFOCON 5 4 3 2 1 
	 A423 C505 F014 F541	 C203 F002 F015 S201	 Blockchain Standardization	 Rosetta Stone	 M2M	 Coder's Guide	A423 C505 F014 F541	C400 F002 F015 S201
								

ALPHA-NUMERIC BREVITY CODES

USMTF / XML MTF FORMATTED MESSAGE CATALOG = 300 + messages info exchange sets using common, CONSENSUS Message Text Formats MTFs. MTFs specify </CONTENT> / info agreed by group consensus presenting information in a logical, well specified unambiguous layout resulting in a highly efficient info payload to overhead ratio



G Data Elements: entity, attribute, relationship equivalents



**HEARTBEAT
MESSAGE = K00.99**



- Metadata Attributes
{"Org_ID"} {"URN"}



FILTERS

FFUDN: Field Format Unit Designator

FFIRN Field Format Index Reference

Structured military messaging ID's messages, message sets, data element, symbol fields

BY Form Field Position & NUMBER



PROCESS MESSAGE BY PRECEDENCE UNIVERSAL EVENT / ALERT MESSAGE BUS

MESSAGE CATALOG

300 + Use Cases

Object Categories		Information Categories and Examples						
Examples	Location	Movement	Identify	Status	Activity	Intent		
OOB	SYNTAX LEXICON	STRUCTURED DATA lat/long	EXCHANGE spd/hdg	Message country / alliance, type/class	Sets readiness	targeting, reconitering	COA	{"Java JS"}
Infrastructure	Comm, power, transportation, water/sewer	network, grid	throughput, flow rates,	name, part-of relationships	BDA, op levels	repair, broadcasts	YAML expansion inline	
Sociological	Culture, religion, economic, ethnic, government, history, languages	temples, historic structures	ER Model Entity	Class Diagram Class	Relational Database Table	Object DBMS Class	XML DTD / Schema Element	TADILs Message
Geophysical	Terrain, weather, climatology, oceanography, astrometry	feature lat/long, alt/dpth	Attribute	Attribute	Field / Column	Attribute	Child Element or Element Attribute	FFIRN / FFN / FUDN DFI
		Domain Value	PURCHASE CODES	Instance, Value	FEDERATE		DUI	FUD

OPERATIONAL NODES / ACTIVITIES

DATA SYSTEM FUNCTIONS		PERFORMANCE	
11.4 - Classification		11.8 - Kinematics	
11.4.1 - Category		11.8.1 - Pos / Vel / Acc (PVA)	
11.4.1.1 - Confidence Level		11.8.1.1 - Acceleration	
11.4.1.2 - Estimate Type		11.8.1.1.1 - Angular	
11.4.1.2.1 - Alternative		1.1.2 - Linear	
11.4.1.2.2 - Evaluated D		2 - Estimate Type	
11.4.1.3 - Value		1.2.1 - Estimated	
		PURCHASE CODES	1.2.2 - Observed
			1.2.3 - Predicted
			1.2.4 - Smoothed PVA
SYMBOL	Friend	Neutral	Hostile
2525C	Partner		
11.4.1.3.1 - Substance			Competitor
11.4.1.3.5 - Surface			
11.4.2 - Platform / Point / Feature Type			1 - Velocity
11.4.3 - Specific Type			1.4.1 - Horizontal
11.4.4 - Type Modifier			1.4.2 - Vertical
11.4.5 - Unit			VPA Confidence
			1 - Bearing Angle
			2 - Bearing Angle Rate
			3 - Covariance Matrix

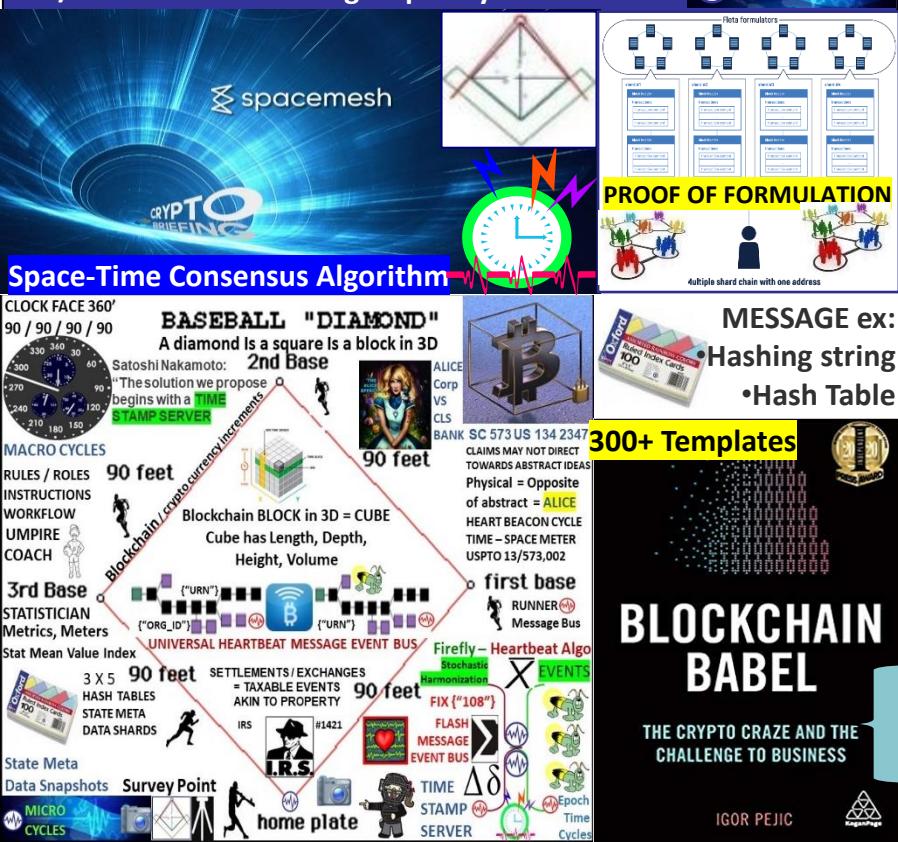
Q: Which meme describes the myriad blockchain consensus algorithms the most comprehensively that uses an algorithm (based on nature = “shortest path to the knowledge of truth Luxor Temple) enabling distributed system of systems geo-spatial, UTZ Universal Time Zone temporal, semantic - syntactic sync, OPSCODE brevity code, data element & symbol (for A.I. man – machine interface) consensus?

Blockchain Consensus Algorithms & Mechanisms



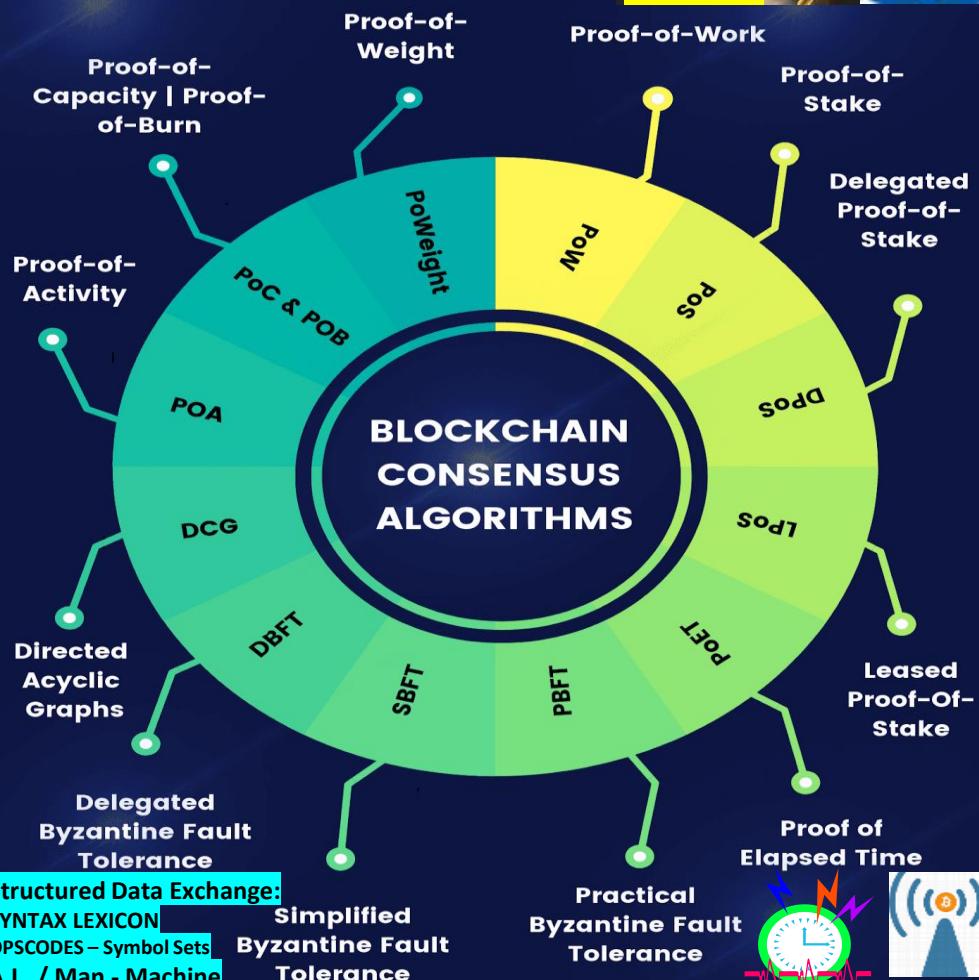
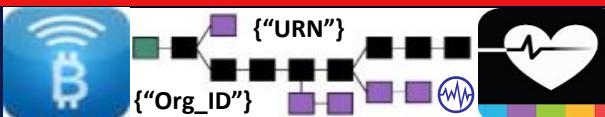
In the world of blockchain consensus algorithms, consensus is the **HEART OF THE BLOCKCHAIN NETWORK**. Its main purpose is to achieve agreement on transactions among a distributed system (s)

Proof of Formulation: PoF: generation / propagation of blocks using a previously agreed sequence between participants of the generation of blocks, formed by two groups: a generator group and/or Formulator and a group of synchronization.



BLOCKCHAIN CONSENSUS ALGORITHMS

ULTIMATE GUIDE FOR BEGINNERS



www.developcoins.co

PROOF-OF-WORK



THE PROBABILITY OF MINING A BLOCK IS DEPENDENT ON HOW MUCH WORK IS DONE BY THE MINER



TIMESTAMP marks the point that work started. Additionally, it contributes to the uniqueness of the work by an individual miner

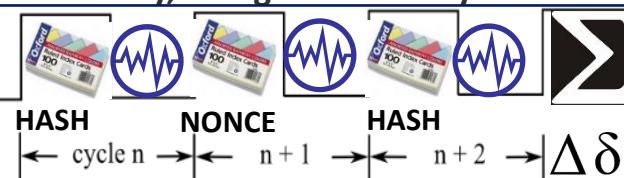


THROTTLE equivalent to difficulty. State
•target = maximum value of 8 bytes Snap
Shots

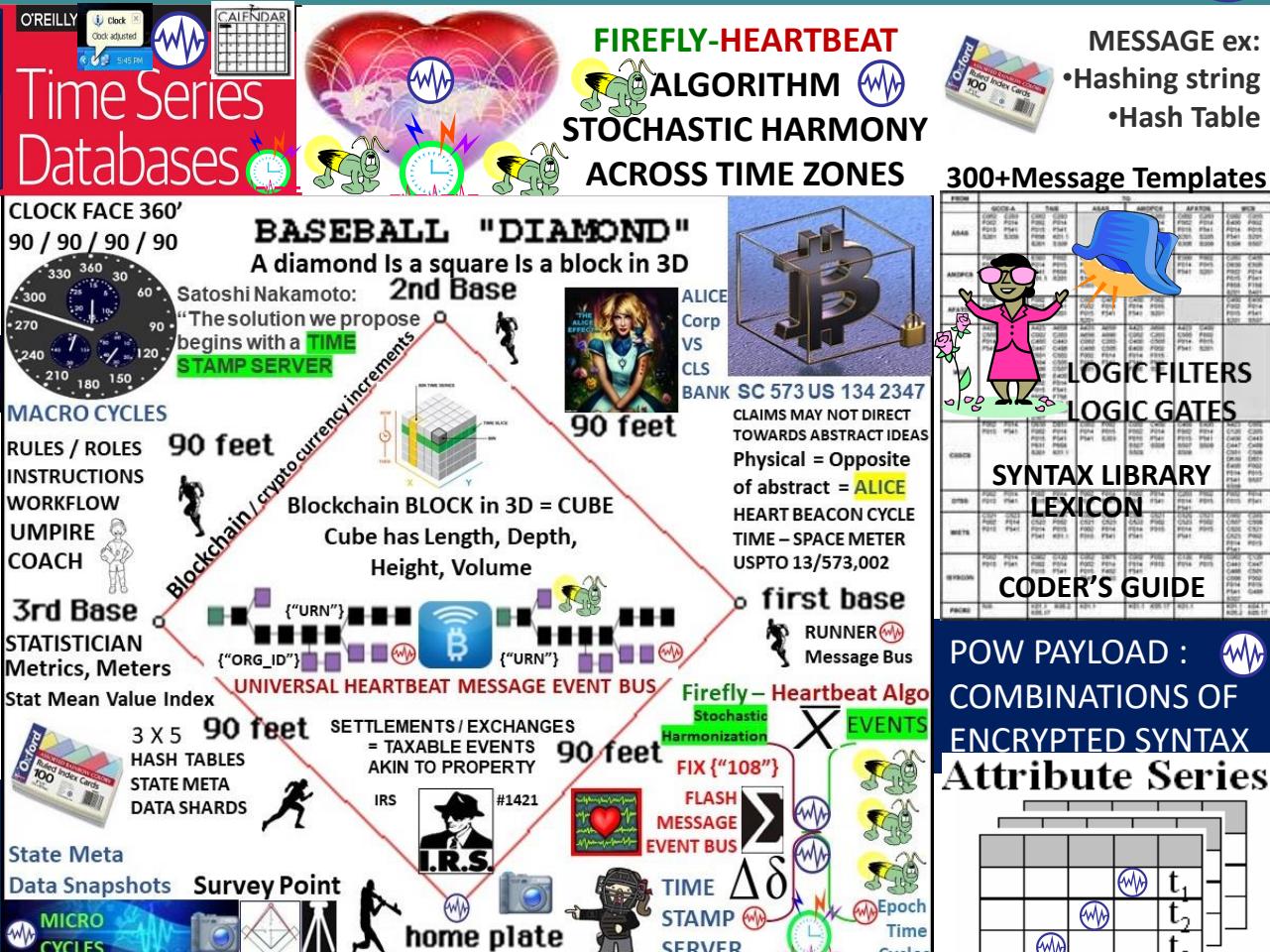
NONCE increments from 0..N until the target is met.



GUESS stores the guess
Effectively, it begins at infinity.



Proof-of-Work: users perform some form of work to participate. Work must be difficult for the client but easy for the server/network to verify. POW determines the approximate time between blocks = rate that new bitcoins are created. Work is submitted as a message/timestamp payload with a nonce value. Payloads are made unique through use of public key encryption or address.Nonce allows checking the work without retracing all the procedural steps.





In a proof-of-stake network, it is the number of coins held in a wallet that determines the "weight" of the user the likelihood for the user to receive the block reward. In a Proof-of-Weight consensus mechanism, any value, not just the amount of coins held, is used to determine the "weight" of a user.

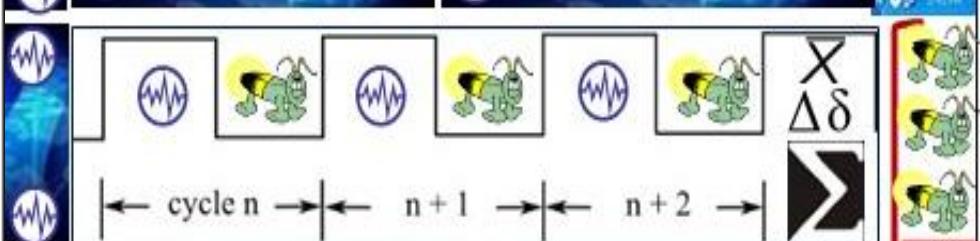
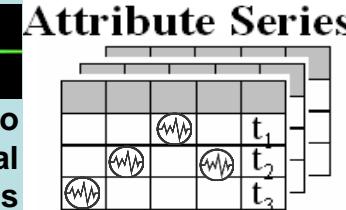
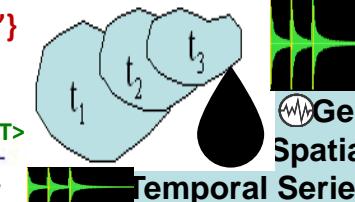
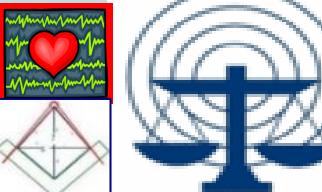


TIME – SPACE MEASUREMENTS OF TOKENIZED COMMODITIES, SECURITIES... STOCHASTICALLY HARMONIZED ACROSS UTZ Universal Time Zone



The Volumetric Weight is often referred to as dimensional weight

Volumetric Weight = [Width x Length x Height]



On the Filecoin blockchain, for example, the amount of IPFS data that a user is storing is used as the weighted value.

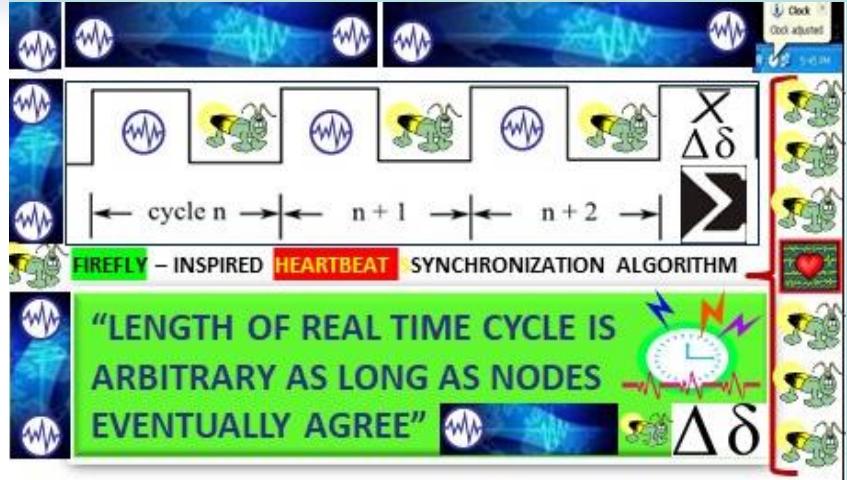
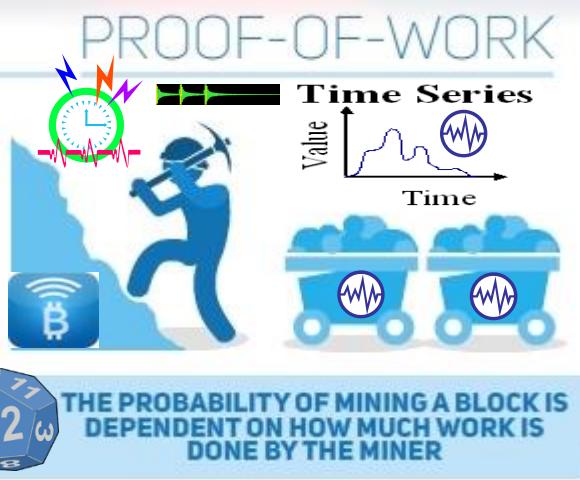
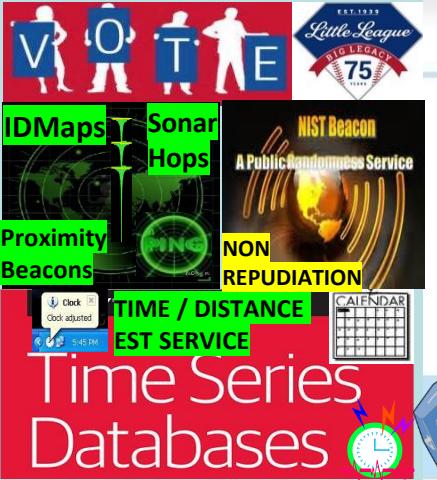


Adaptive
Procedural
Checklist

Proof-of-activity PoA is a combination of Proof of Work / Stake blockchain consensus algorithms:

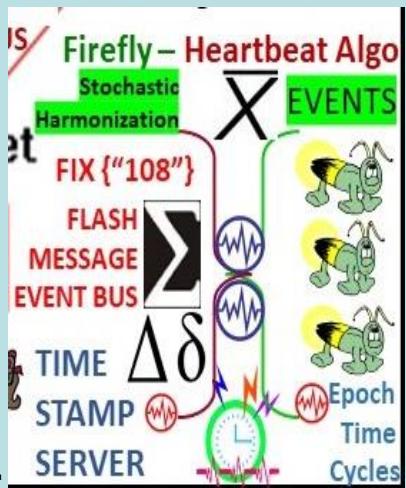
Example of Proof-of-Activity (PoA)

Decred (DCR) is the most well-known cryptocurrency that uses the PoA consensus mechanism. With Decred, blocks are created about every five minutes.² The mining process for Decred begins with nodes (computers that participate in the network) looking for a solution to a cryptographic puzzle with a known difficulty level in order to create a new block. Once the solution has been found, it is broadcast to the network. The network then verifies the solution. At this point, the system becomes a PoS. The more DCR that a node has mined, the more likely they are to be chosen to vote on the block. (In DCR's blockchain, stakeholders earn tickets that grant them voting power in exchange for mining DCR.) Five tickets are chosen pseudo-randomly from the ticket pool; if at least 3 of the 5 vote "yes" to validate the block, it is permanently added to the blockchain. Both miners, voters are rewarded with DCR.



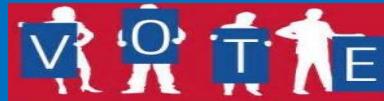
PROOF-OF-WORK

HEART BEACON CYCLE 13/573,002

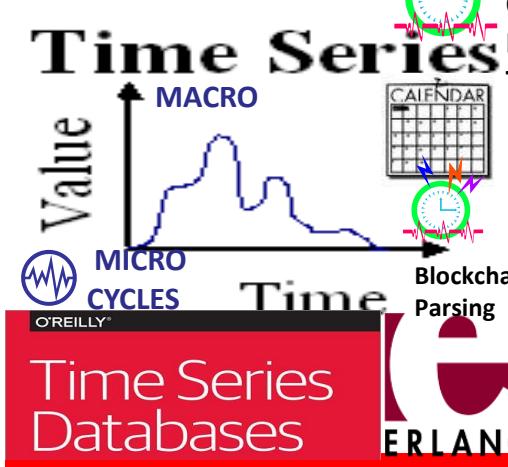


SAWTOOTH LAKE POETIC CONSENSUS PROOF OF ELAPSED TIME: POET

"PoET for 'Proof of Elapsed Time', is a **lottery protocol** that builds on trusted execution environments (TEEs) provided by Intel's [Secure Guard Extensions] to address the needs of large populations of participants. The second, **Quorum Voting**, is an adaptation of the Ripple and Stellar consensus protocols and serves to address the needs of applications that require immediate transaction finality."



PROOF OF ELAPSED TIME



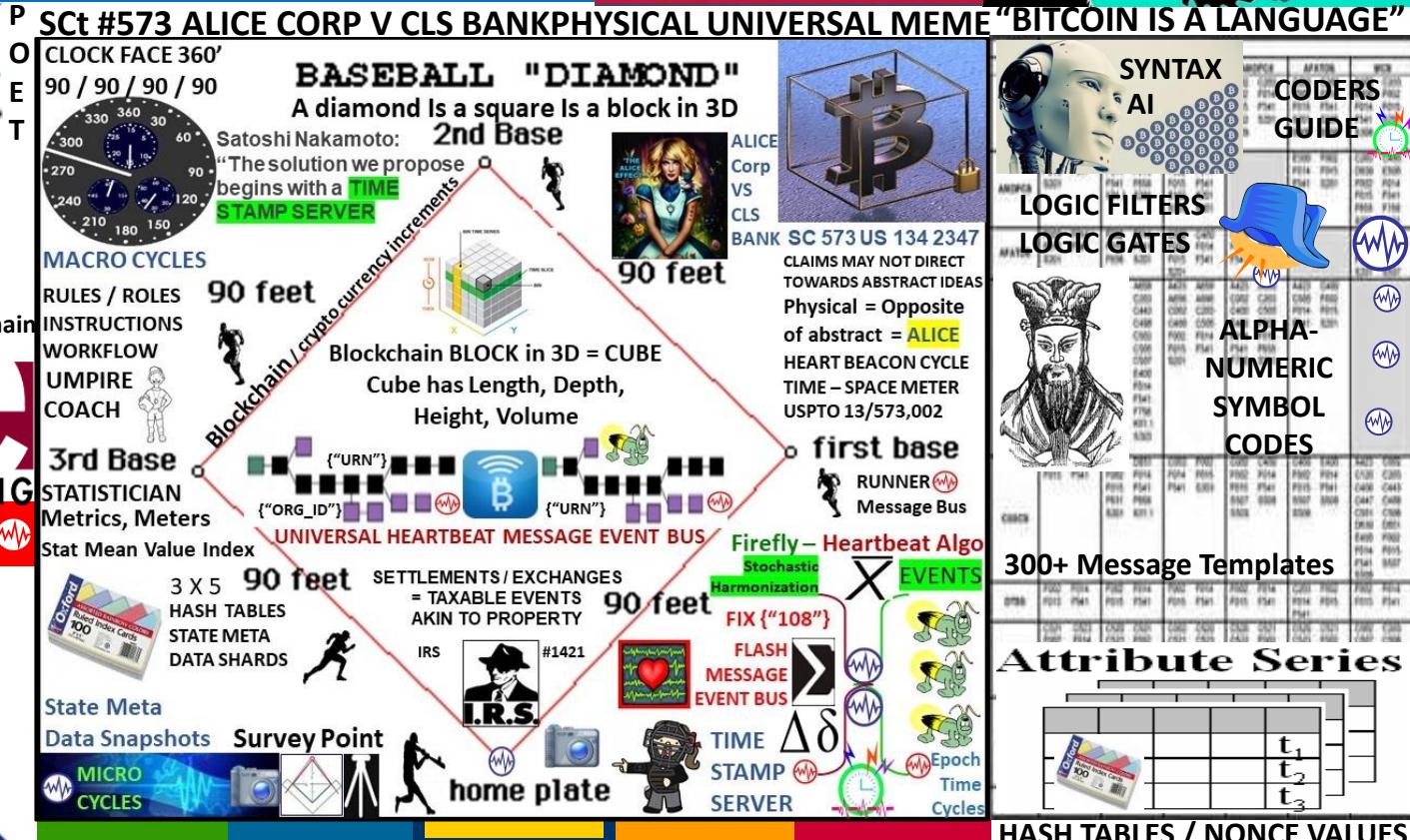
Voting Based Selection: stake size & block generators selected by votes

Voting based selection Instead of only using the stake size, the block generators can be selected by votes
ex: League MVP

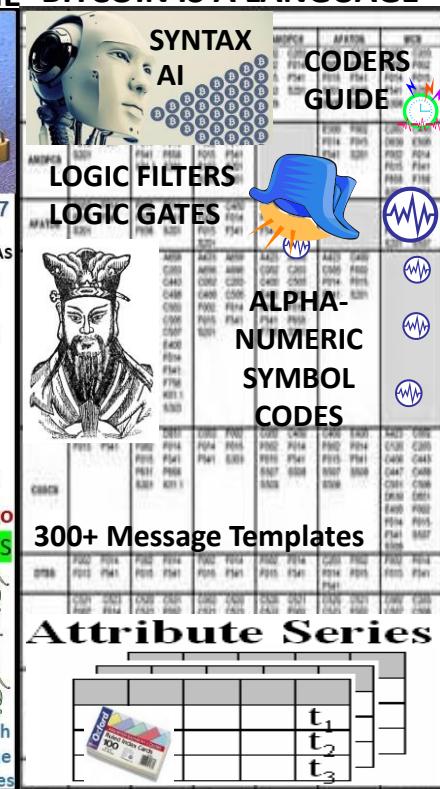


Robert's Rules quorum = minimum # of voting members who must be present at meetings to conduct business of the group

TOURNAMENT LEAGUE BOARD

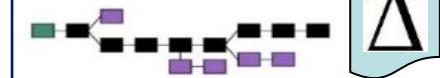


FIREFLY-HEARTBEAT FLASH MESSAGES UNIVERSAL EVENT BUS

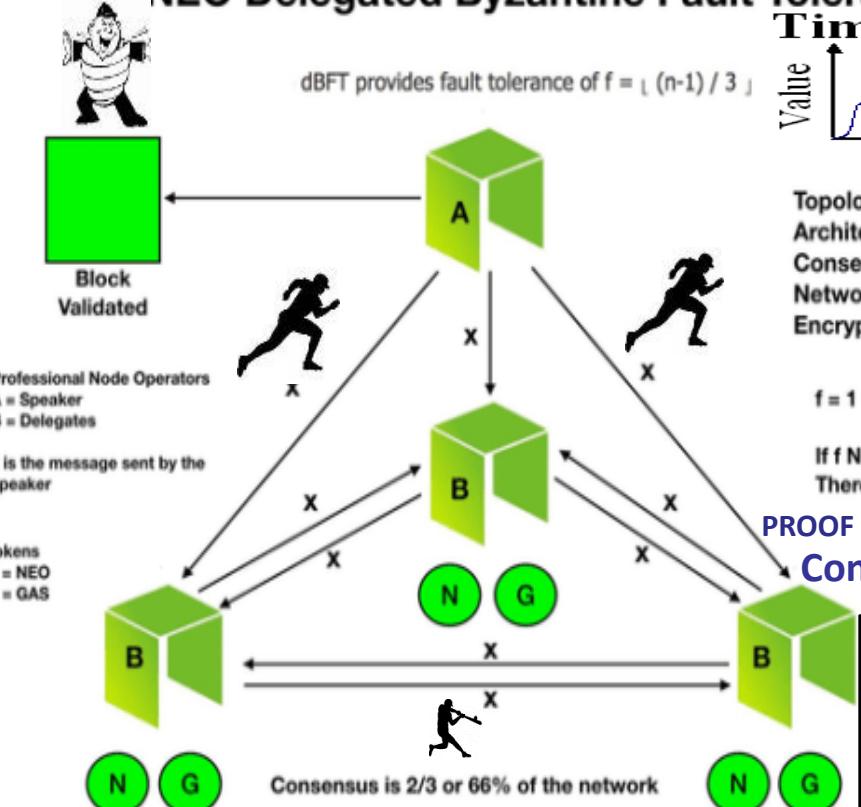


HASH TABLES / NONCE VALUES

Capture ledger's state $\Delta \delta$
Transaction language
changes ledger state
Consensus, transaction acceptance protocol



NEO Delegated Byzantine Fault Tolerance (dBFT)



Time Series



Topology: Hierarchical Star
Architecture: Distributed
Consensus: dBFT
Network: TCP/IP
Encryption: ECDH

$$f = 1 \text{ OR } 0.66$$

If f NOT 1 OR < 0.66
There is no consensus

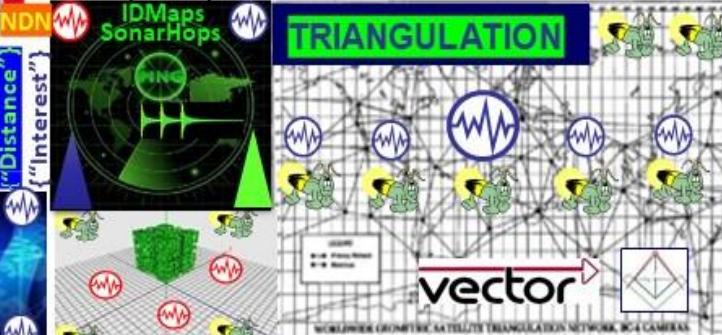
PROOF OF ELAPSED TIME Consensus Order



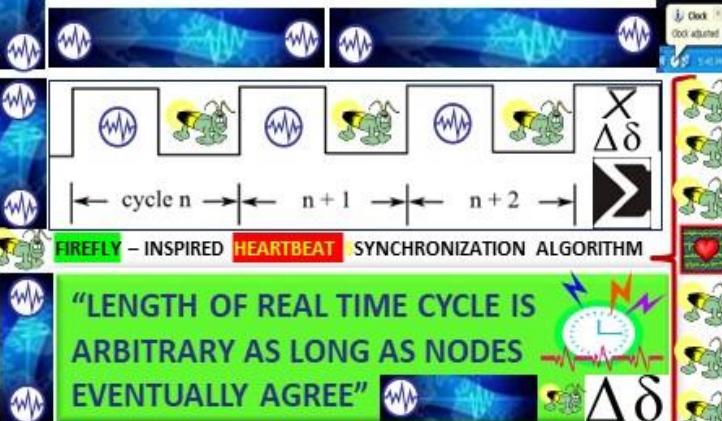
USPTO 13/573,002
sawconcepts.com/index

Heart Beacon Cycle Time – Space Meter
Geo-Spatial Temporal Intensity Metrics

TRIANGULATION



IDMaps assists Network Time Protocol (NTP) servers establish long term peering relationships



"LENGTH OF REAL TIME CYCLE IS ARBITRARY AS LONG AS NODES EVENTUALLY AGREE"



No collusion between individuals or entities is possible. Participants in the network validate transactions adding to the ledger have no affiliation or relationship (political, adversarial, etc.) with the transaction or its participants. Only a permissionless platform can meet this set of criteria.

Specifically, a random selection algorithm called RS is developed to cooperate with the voting mechanism, which can effectively reduce the number of nodes participating in the consensus process. Our proposed scheme is characterized by the unpredictability, randomness and Impartiality, which accelerate the system to reach consensus on the premise of ensuring system activity. ✓





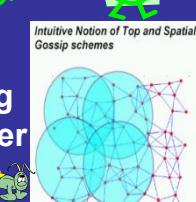
HASHGRAPH
Directed Acyclic
Graph DAG

Hashgraph consensus algorithm
for replicated state machines

- Consensus Event Time Stamps
- State Meta data consensus order
- **Virtual voting:** each member has a Hashgraph copy
- Famous witnesses

data structure that records who gossiped to whom in what order $\Delta\delta$

Gossip In Bitcoin: transactions and mined blocks are gossiped.
Consensus is enhanced via "gossip about gossip"



DAG "Directed Acyclic Graph" large number of blocks arrive at the same time. DAG system reaches consensus leveraging "Gossip"... information spread by a computer calling up other computers at random, sharing everything it knows

Community members reach consensus agreement on events / transactions order inside events, and agree on a timestamp for each event /transaction

DAG finite directed graph
= no directed cycles

Consensus Order
 $\sum \Delta\delta \times$



Round created
Witness

Famous witness
Election

Vote
See

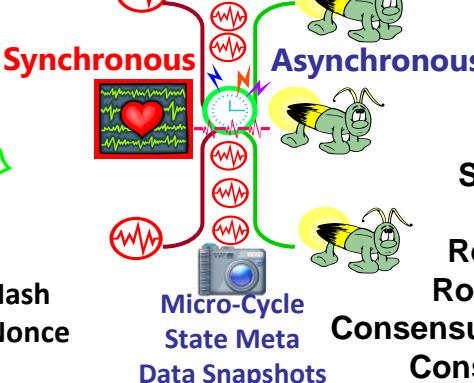
Strongly see
Supermajority

Decide
0 / 1

Round created
Round received

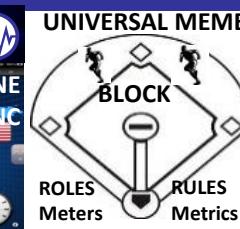
Consensus timestamp
Consensus order $\Delta\delta$

Hashgraph Member Event Transaction Consensus Order Timestamp Gossip protocol Self-parent Other-parent Graph Hash Hashgraph
100 Adhesive Index Cards
100 Adhesive Index Cards
Hash Nonce

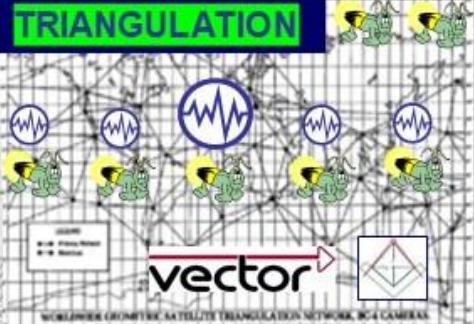


Micro-Cycle
State Meta
Data Snapshots

The Heart Beacon Cycle Time – Space Meter
Adaptive Procedural Template Checklist
Heartbeat Sync Delta state meta data
structured data exchange snapshots
300 + Use Case message template sets
Rosetta Stone Syntax lexicon Coder's guide



Heart Beacon Cycle Time – Space Meter
Geo-Spatial Temporal Intensity Metrics



vector
WORLDWIDE LOW-EARTH ORBIT SATELLITE TRIANGULATION NETWORK, 364 CAMERAS

IDMaps assists Network Time Protocol (NTP) servers establish long term peering relationships

FIREFLY HEARTBEAT Synchronization Algorithm



FIREFLY – INSPIRED HEARTBEAT SYNCHRONIZATION ALGORITHM
“LENGTH OF REAL TIME CYCLE IS ARBITRARY AS LONG AS NODES EVENTUALLY AGREE” $\Delta\delta$

Proof of Burn



Proof of burn (POB) operates on the principle of allowing miners to “burn” virtual currency tokens. They are then granted the right to write blocks in proportion to the coins burnt.

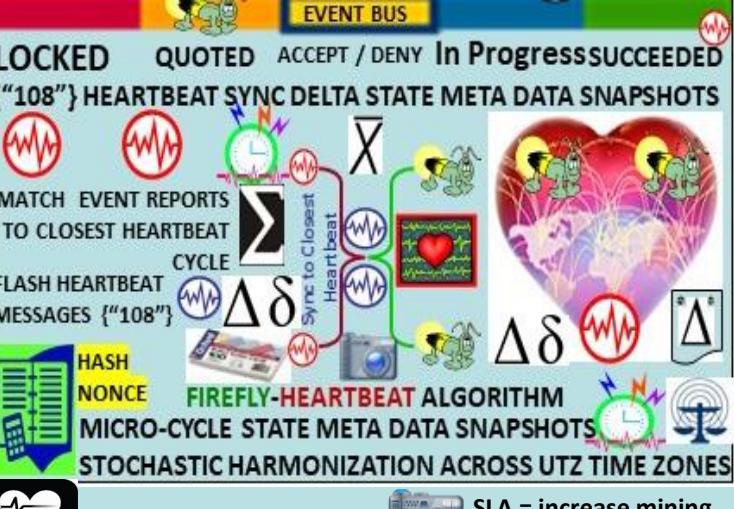
Iain Stewart, the inventor of the POB algorithm, uses an analogy to describe the algorithm: burnt coins are like mining rigs. In this analogy, a miner burns their coins to buy a virtual mining rig that gives them the power to mine blocks. The more coins burned by the miner, the bigger their virtual mining "rig" will be.²

To burn the coins, miners send them to a verifiably un-spendable address. This process does not consume many resources (other than the burned coins) and ensures that the network remains active and agile. Depending upon the implementation, miners are allowed to burn the native currency or the currency of an alternate chain, such as Bitcoin. In exchange, they receive a reward in the native currency token of the blockchain.



You can send out transactions to the network that will burn your own cryptocurrency coins. Other participants can mine/burn on top of your block, and you can also take the transactions of other participants to add them to your block. Essentially, all of this burning activity keeps the network agile, and participants are rewarded for their activities (both burning their own coins and burning other people's coins).

To prevent the possibility of unfair advantages for early adopters, the POB system has implemented a mechanism that promotes the periodic burning of cryptocurrency coins to maintain mining power. The power of burnt coins “decays” or reduces partially each time a new block is mined. This promotes regular activity by the miners, instead of a one-time, early investment. To maintain a competitive edge, miners may also need to periodically invest in better equipment as technology advances.



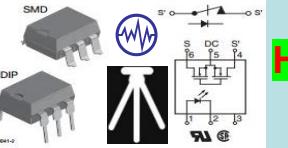
IEEE C37.118 Time Synchronization
Harmonization Heartbeat update Interval
PMU data time-stamp measure C37.118

Phase 2: Shared file stores data for 5 tags:

- (1) Active ID
- (2) Heartbeat 1.
- (3) Heartbeat 2.
- (4) Device Status 1.
- (5) Device Status 2.

TAG	Volume / Size + / - Of rig	Token Award
{"Org_ID"} ActiveID	[UFO2_ACTIVEID]	</EVENT>
IF1_Heartbeat (IF-Node1)	[UFO2_HEARTBEAT:#]	</EVENT>
IF2_Heartbeat (IF-Node2)	[UFO2_HEARTBEAT:#]	</EVENT>
{"UUID"} IF1_DeviceStatus (IF-Node1)	[UFO2_DEVICESTAT:#]	</EVENT>
{"UUID"} IF2_DeviceStatus (IF-Node2)	[UFO2_DEVICESTAT:#]	</EVENT>
IF1_State (IF-Node1)	$\Delta\delta$	[UFO2_STATE:#]
IF2_State (IF-Node2)	$\Delta\delta$	[UFO2_STATE:#]

Proof of Capacity PoC



HEART BEACON CYCLE TIME – SPACE METER



Adaptive Procedural Checklist

consensus mechanism algorithm that allows for mining devices to use hard drive space to decide mining rights, validate transactions

Proof of capacity allows the mining devices, also known as nodes, on the blockchain network to use empty space on their hard drive to mine the available cryptocurrencies.



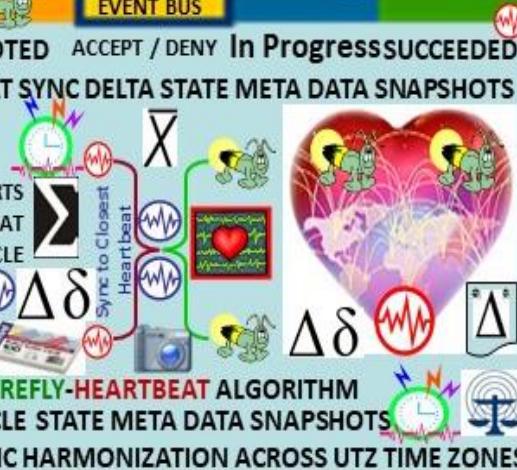
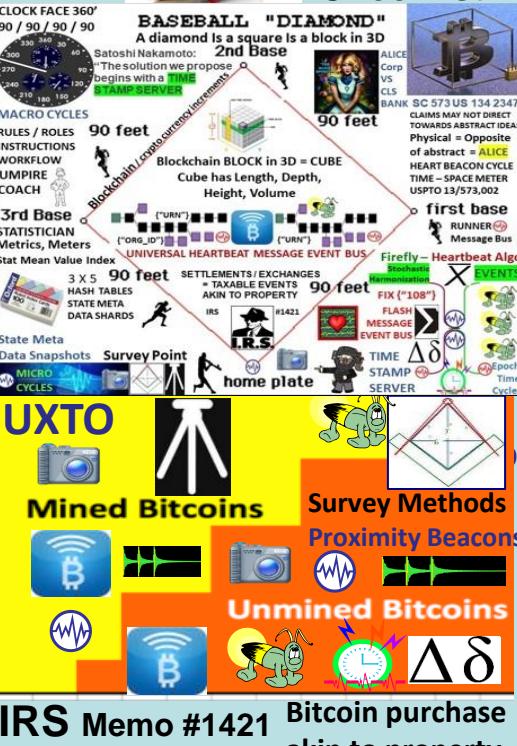
Instead of repeatedly altering the numbers in the block header & repeated hashing for the solution value as in a PoW system, PoC works by storing a list of possible solutions on the mining device's hard drive before mining activity starts



The larger the hard drive, the more possible solution values one can store on the hard drive, the more chances a miner has to match the required hash value from his list, resulting in more chances to win the mining reward.



Analogy: if lottery rewards are based on matching the most numbers on the winning ticket, then a player with a longer list of possible solutions will have better chances of winning. Additionally, the player is allowed to keep using the lottery ticket block numbers again and again repeatedly.



PoST Proof-of-Spacetime (PoST)

PoST shows that physically storing data (spent "spacetime" resource/allocated storage capacity to the network) over a certain period of time.

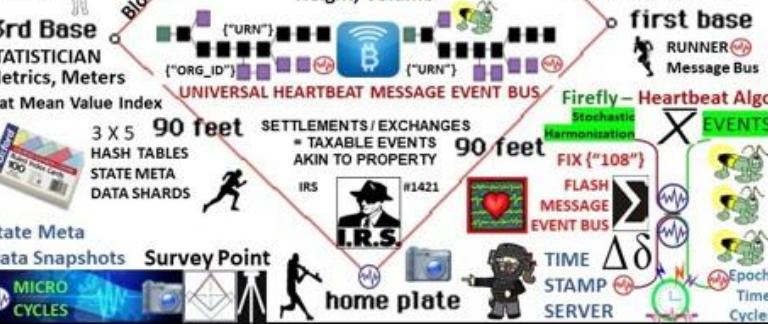
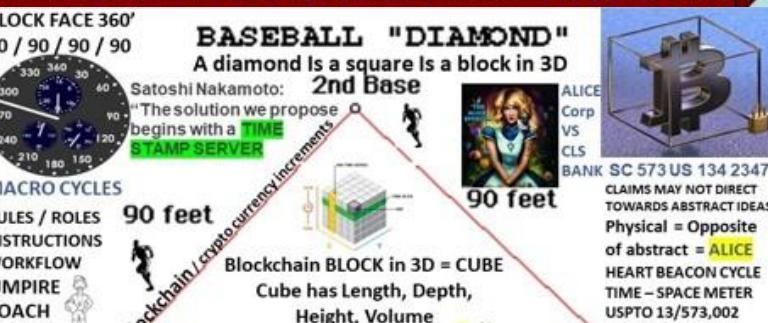


PoST users / nodes must prove that they are spending a certain amount of space for storage.

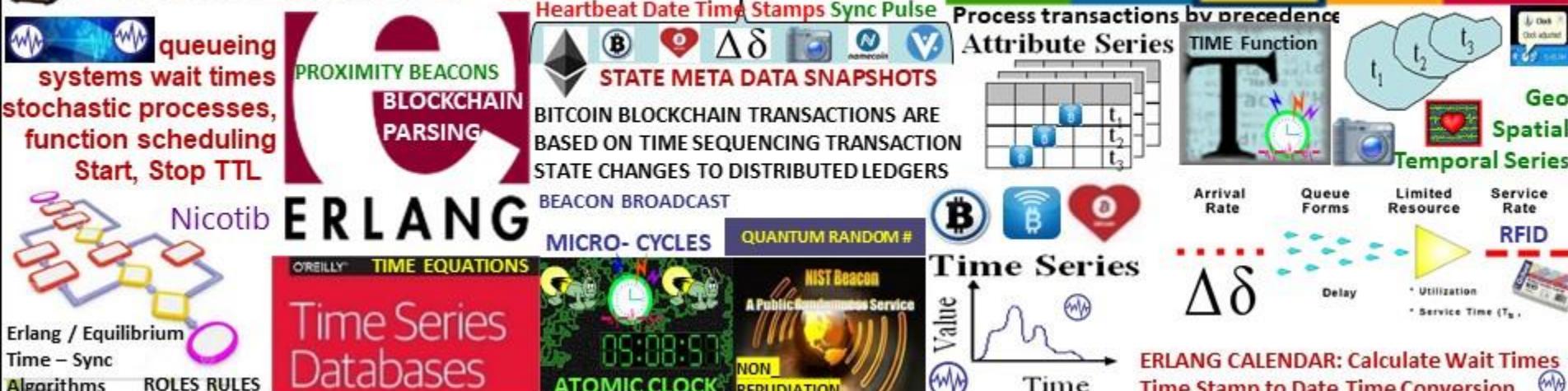


DISTRIBUTED AUTONOMOUS ORGANIZATIONS DAO

Heart Beacon Cycle FEDERATE / TRADE FEDERATIONS



The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.



Proof of Authority



{"GROUP ID"}
{"Org_ID"}

Not pay to play, Node identity is kept as stake

A PoA network are secured by validators, that are selected democratically by existing validators. The nodes on the PoA network are rewarded for validating the transactions on the network. The identity of the validator is kept anonymous by encryption and secured cryptographically. It is revealed only as a negative reinforcement when the validator processes a fraudulent or a malicious transaction.



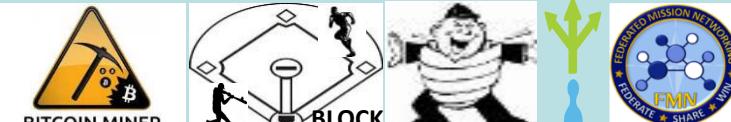
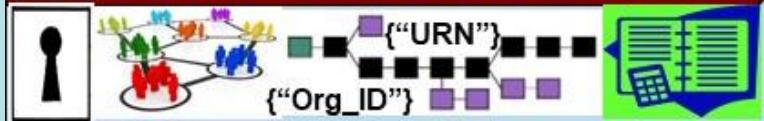
A notary license verifies the identity of the person formally, a notary license is released by the Federation / Government after extensive verification. The identity of the validator is kept for cross-referencing with the notary data and blockchain data

Parity supports a Proof-of-Authority consensus engine. Proof-of-Authority is a replacement for Proof-of-Work, and can be used for private or centralized chains. PoA as tested by a Kovan test network improves outdated economic models.



DISTRIBUTED AUTONOMOUS ORGANIZATIONS DAO

Heart Beacon Cycle FEDERATE / TRADE FEDERATIONS



1. **FEDERATION:** Latin: foedus, foederis, covenant, **union** of partially self-governing states or regions under a central (federal) government
2. A league or confederacy. Individuals / groups retain **AUTONOMY**
3. A federated body formed by nations, states, and... **unions**

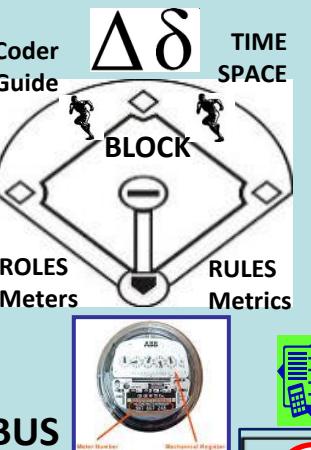
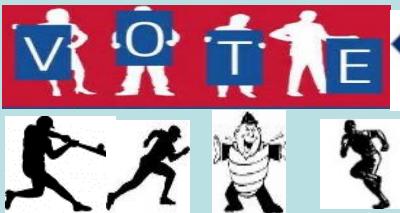
each retaining control of internal affairs



BTC NG NEX GEN / Heart Beacon Cycle 13/573,002

KEY BLOCKS:

- NO CONTENT = NULL
- LEADER ELECTION



MVP

EVENT BUS

MICRO BLOCKS:

- ONLY CONTENT
- NO CONTENTION



NDN

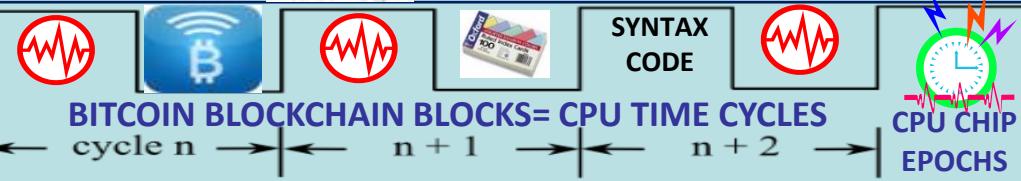
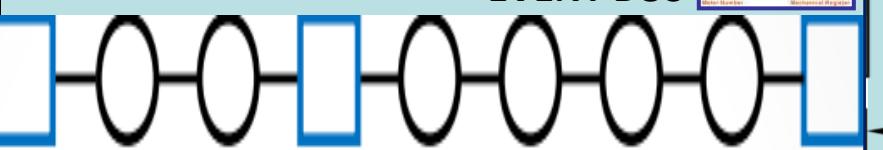
XBRIL / CDL / DAML
STOCK MIC CODES

STRUCTURED
MILITARY MESSAGE
TEMPLATE FORMS
LOGIC / FILTERS



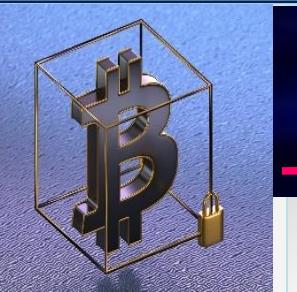
SYNTAX
LEXICON LIBRARY

CPU CHIP
EPOCHS



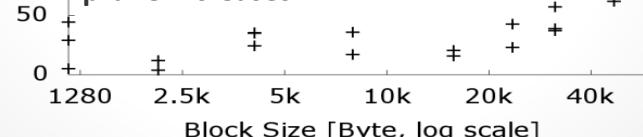
long exponential intervals (10 min)

COMMAND SYNTAX
RESTFUL State Transfer



Subjective Time to Prune

Additional metrics used by researchers included "time to prune", or the time it takes for miners whether they are on the correct "branch" or version of the blockchain they are processing transactions. As block sizes increase, suggested time to prune increases.



MACRO – CYCLES



ATOMIC CLOCK

short deterministic intervals (10 sec)

MICRO-CYCLES

FROM	GODA	TAB	ASAS	AMPCOS	AFATON	MCR
AFATON	P001	P002	P003	P004	P005	P006
AMPCOS	P001	P002	P003	P004	P005	P006
ASAS	P001	P002	P003	P004	P005	P006
TAB	P001	P002	P003	P004	P005	P006
GODA	P001	P002	P003	P004	P005	P006
MCR	P001	P002	P003	P004	P005	P006
AFATON	P001	P002	P003	P004	P005	P006
AMPCOS	P001	P002	P003	P004	P005	P006
ASAS	P001	P002	P003	P004	P005	P006
TAB	P001	P002	P003	P004	P005	P006
GODA	P001	P002	P003	P004	P005	P006
MCR	P001	P002	P003	P004	P005	P006



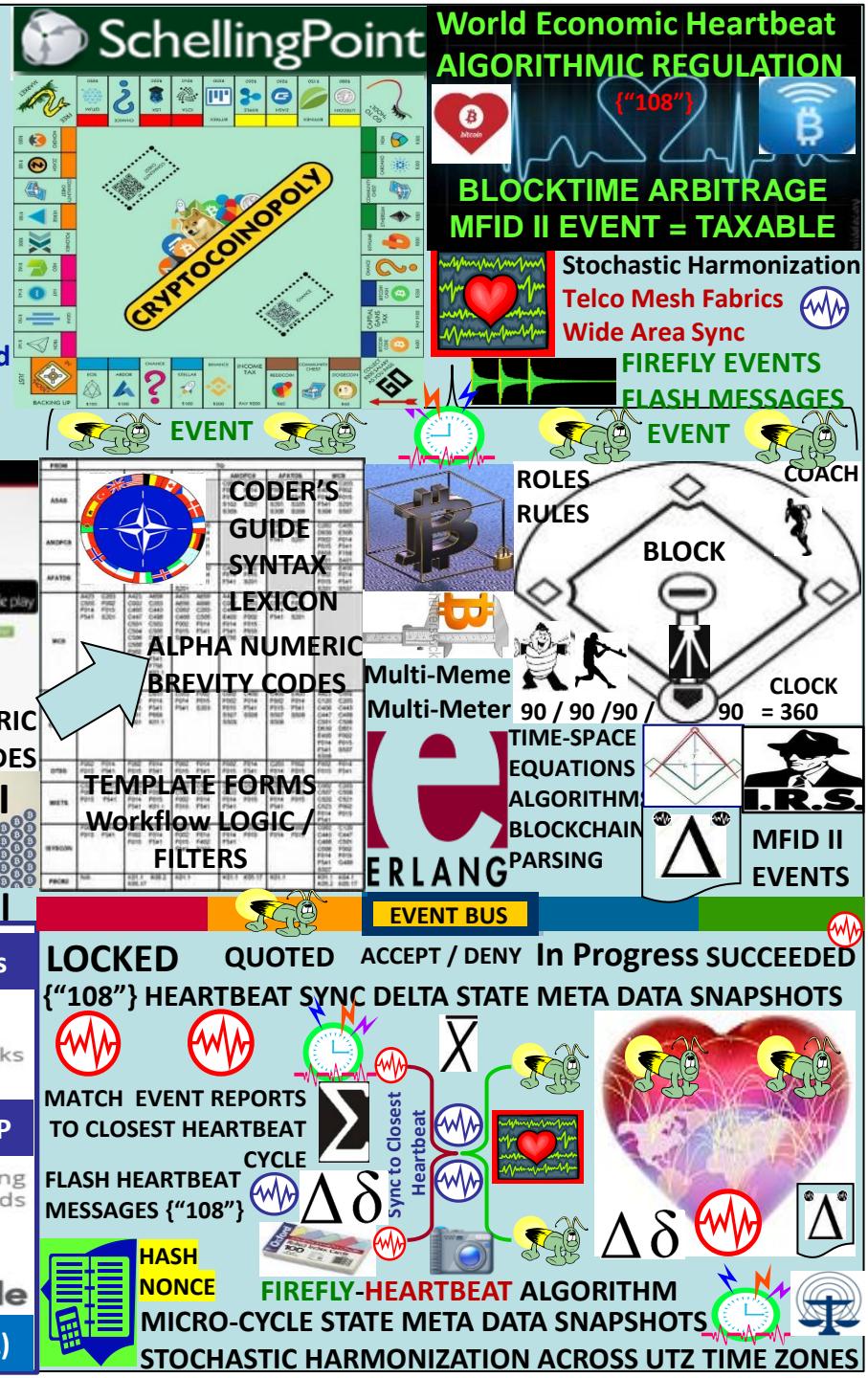
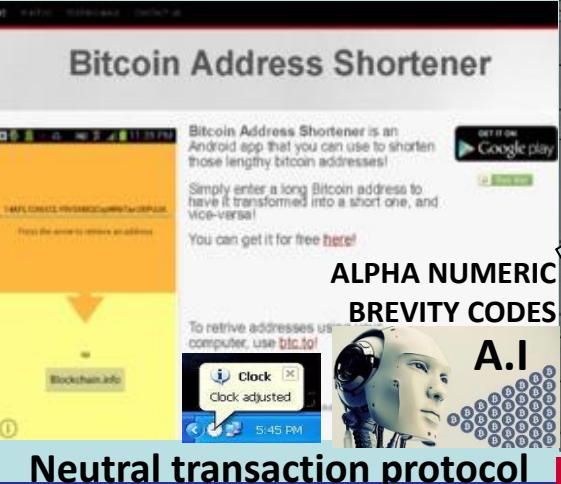
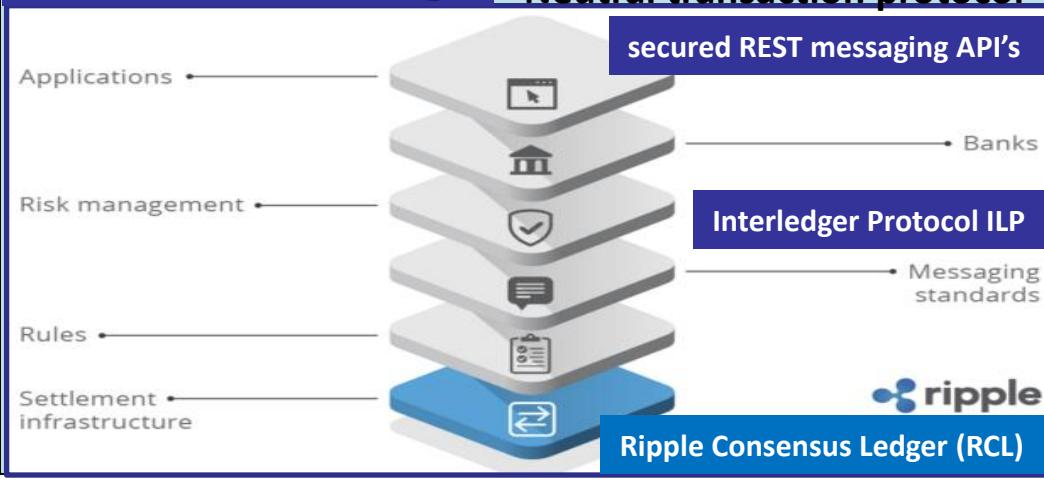
**real-time gross settlement system,
currency exchange, remittance network**

A.K.A Ripple Transaction Protocol or Ripple protocol, built on a distributed open source Internet protocol, consensus ledger and native currency called XRP. Ripple enables "secure, instant and nearly free global financial transactions of any size with no chargebacks." Ripple supports tokens representing fiat currency, cryptocurrency, commodity or any other unit of value such as frequent flier miles or mobile minutes. Ripple is based around a shared, public database or ledger, which uses a consensus process that allows for payments, exchanges and remittance in a distributed process.

Connects to receiving bank's
Ripple Connect to exchange KYC,
risk info, fees, payment details,
expected time of funds delivery

Provides information about total costs of the transaction.  

Workflows are serially executed
Except first two work flow are
workflows are based on event
pull model



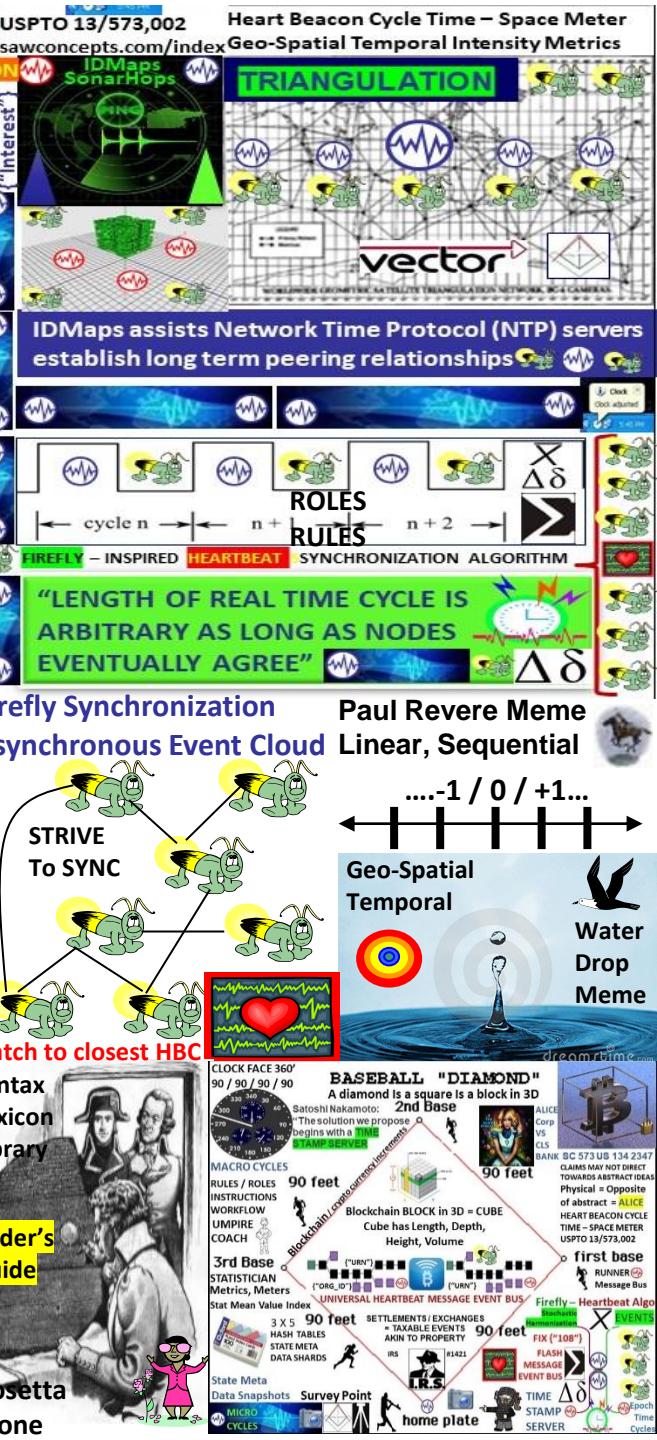
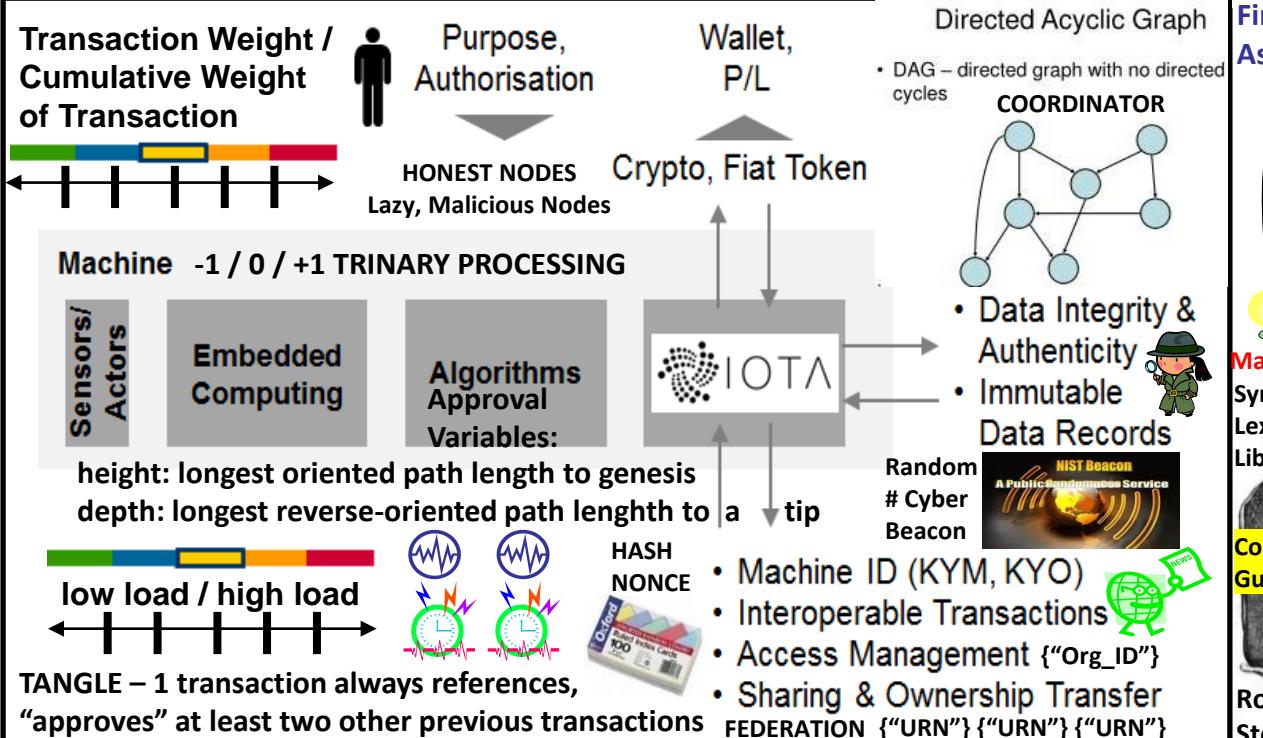


OTA: Internet Of Things IOT distributed ledger
with microtransactions without fees

Tangle, a directed, ASYNCHRONOUS acyclic graph (DAG) for storing transactions

Contrary to Blockchains, consensus is no longer decoupled, It is an intrinsic part of the system for decentralized, self-regulating peer-to-peer network. Transfer value without fees

The iota network is ASYNCHRONOUS. In general, nodes do not necessarily see the same set of transactions. The tangle may contain conflicting transactions. The nodes do not have to achieve consensus on which valid transactions have the right to be in the ledger, meaning all of them can be in the tangle. However, in the case where there are conflicting transactions, the nodes need to decide which transactions will become orphaned. Nodes use the tip (unapproved transaction) selection algorithm to decide between two conflicting transactions. GHOST protocol main ledger = tree





ZEPPELIN

ZEPPELIN OPEN, GLOBAL ECONOMY

OpenZeppelin open framework of reusable, secure smart contracts in the Solidity language

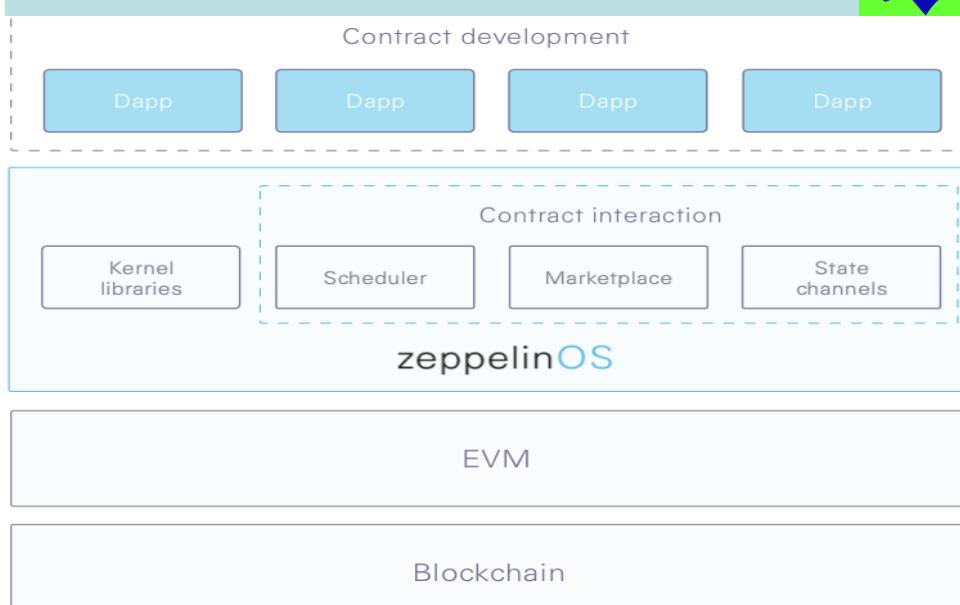
zeppelinOS, operating system for smart contracts
“the rate of innovation in building decentralized applications is limited by the manual and duplicative efforts developers must make to ensure basic usability and security.”

ZEPPELIN / zeppelinOS Common Functionality:

zeppelinOS Kernel common set of functions for smart contracts requesting services from the OS rather than re-implementing them from scratch. Functions will be available as an on-chain standard library of reusable contracts and functions, inspired by [OpenZeppelin](#) Libraries. Create and customize your own ERC20 Token.

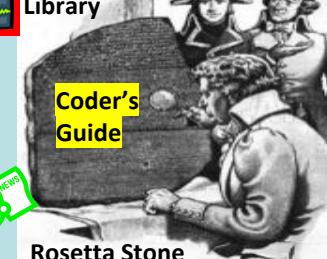
Create and customize your own ERC20 Token.

- Create capped, refundable and/or whitelisted crowd sale contracts
 - Create a trustless bug bounty.
 - Create pausable, ownable, balance-limited contracts
 - Set up a token vesting or token locking contract.



 HEART BEACON CYCLE TIME – SPACE METER
ECO-ECONOMETRICS ON THE BITCOIN BLOCKCHAIN

Syntax 300 + Templates
Lexicon
Übung



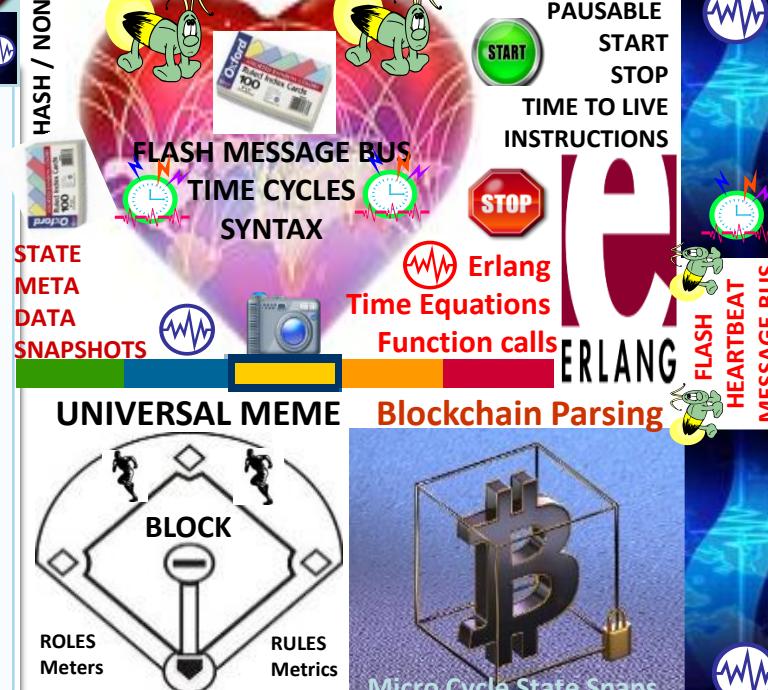
STRUCTURED DATA EXCHANGE

LOGIC / FILTERS ALPHA-NUMERIC BREVITY CODES

STOCHASTIC HARMONIZATION for TELCO Mesh Fabrics

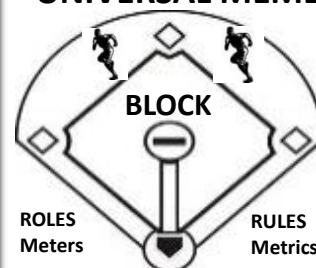


 CE



STATE META DATA SNAPSHOT

UNIVERSAL MEME



Erlang Time Equations Function calls

Blockchain Parsing





"EARTHDAY EVERYDAY ON THE BITCOIN BLOCKCHAIN"
"GIVE A HOOT, DON'T POLLUTE" Woodsy The Owl

GNOSIS

Gnosis Wisdom (WIZ) pay platform fees in Services layer, Wiz subsidize other participants fees, provide initial subsidies for markets, or market trading.

WIZ pegged to \$1 USD worth of fees. WIZ acts as coupon for \$1 of Gnosis

Gnosis tokens (GNO) generate Wisdom token s(WIZ) via smart contract

GNO token holders agree to "lock" tokens in a smart contract (30-365 days). A multiplier is added for longer lock durations. Smart contract determines selected lock duration and applies that duration to a formula regulating supply of WIZ tokens currently in use. Once users execute the contract, 30% of their WIZ are distributed for use, the remaining 70% is distributed proportionally over the locked duration. When lock duration expires, the locked GNO ceases to generate WIZ & GNO is freely transferable

The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind Coordinated Universal Time (UTC). However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC.



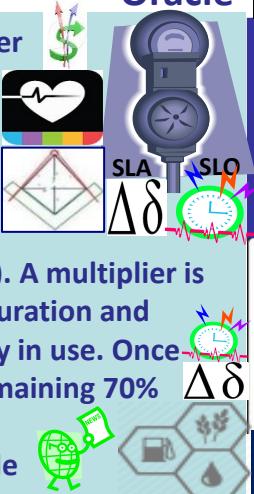
The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.

"Our mission is to build an accessible prediction market platform enabling free flow of useful information / the "Google" of Customized Information Searching"

Futarchy PREDICTION MARKETS
GnosisAMA

Gnosis trading interface alpha
WIZ token fee payment
INFORMATION ARBITRAGE ECONOMICS

TERRACYCLE Price Oracle

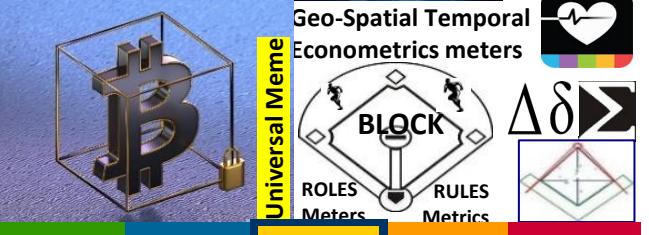


THE TERRA (TRC)

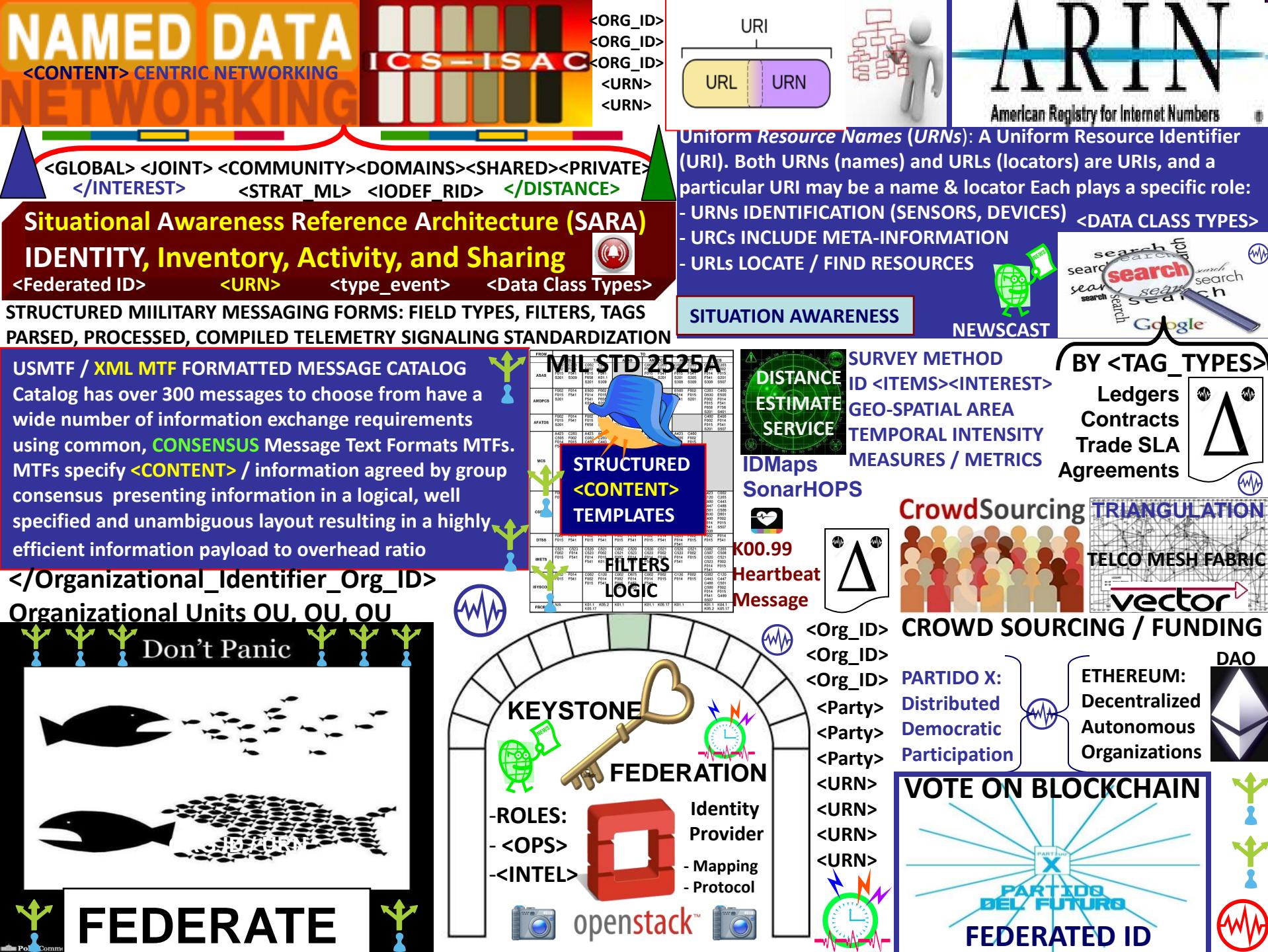
Trade Reference Currency



Demurrage Fees



Firefly inspired Heartbeat Synchronization nodes strive to sync in a distributed system. Nodes generate periodic "heartbeat" events approximately at the same time. It differs from classical clock sync in that nodes are not interested in counting cycles to agree on the ID of the current clock cycle. There is no requirement to sync during a cycle length in real time as long as length is bounded & all nodes agree eventually"

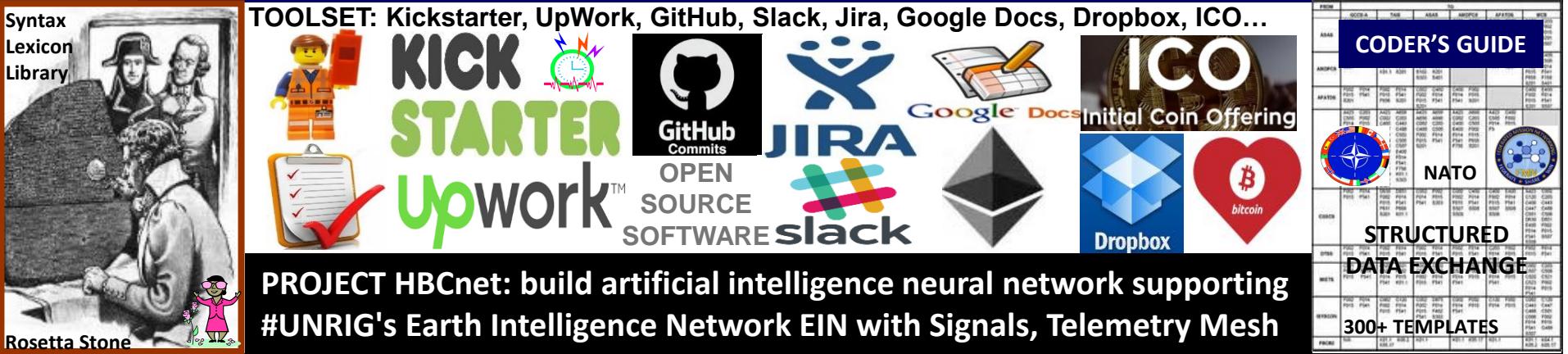








Dogezer software development platform allows team members to become product investors by investing their time, labor. The Dogezer Platform combines the functionality of Kickstarter, UpWork, GitHub, Slack, Jira, Google Docs, Dropbox and ICO analogues with a set of defined processes how these solutions relate to each other in a clear, transparent and predictable way. Dogezer gives an opportunity to start a project in minutes; organize a set of teams working on the project; define how project contributions are rewarded, driving a project to completion by using independent contributor skills around the world.



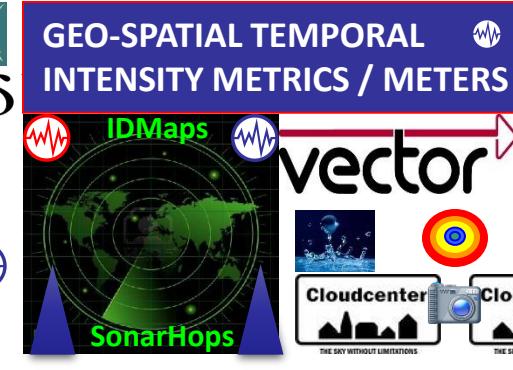
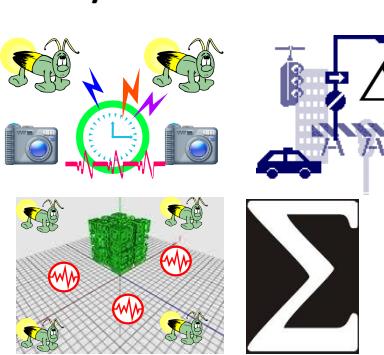
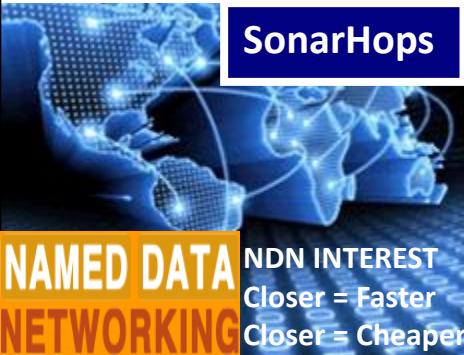
PROJECT HBCnet: build artificial intelligence neural network supporting #UNRIG's Earth Intelligence Network EIN with Signals, Telemetry Mesh



IDMaps: Global Internet Host Distance Estimation Service



NDN: CONTENT ROUTING / <StratML> NDN INTEREST = Time / Distance



vector



IDMaps scalable Internet-wide architecture measures, disseminates distance information



HOP COUNTS

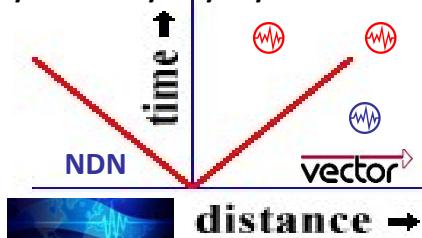


REACHABILITY



/localhost/nfd/fib/add-nexthop

Higher-level services collect distance information to build a virtual distance map of Internet & estimates distance between any IP address pair



IDMaps provides distance information used by SONAR/HOPS query/reply service

Name Prefix
<Org_ID> Trie (NPT)



NDN NAMES

NDN NAMED DATA NETWORK RIB / FIB Datasets event notification

Distance information adjusts to “permanent” topology changes e.g., splits, joins, adds, moves, drops, merges in lieu of formal merger / acquisition



TRIANGULATION

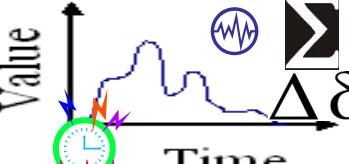


NDN INTEREST LENGTH = DISTANCE BY HOPS

NDN INTEREST

IS DATA FRESH ?

Time Series



NDN STRATEGY CHOICE MANAGER – RIB Routing Information Base add-nexthop

Datasets and Event Notification

IDMaps assists Network Time Protocol (NTP) servers establish long term peering relationships



Distance Metrics: latency (e.g., round-trip delay) and, where possible, bandwidth.



MICRO-CYCLES



NDN INTEREST LIFETIME = TTL Time To Live



HEARTBEAT STATE META DATASNAPSHOTS

13/573,002 HEART BEACON CYCLE

Time -Space meter, metrics / Universal data event, alert bus
Internet of Everything “ability to hear the world’s heartbeat”

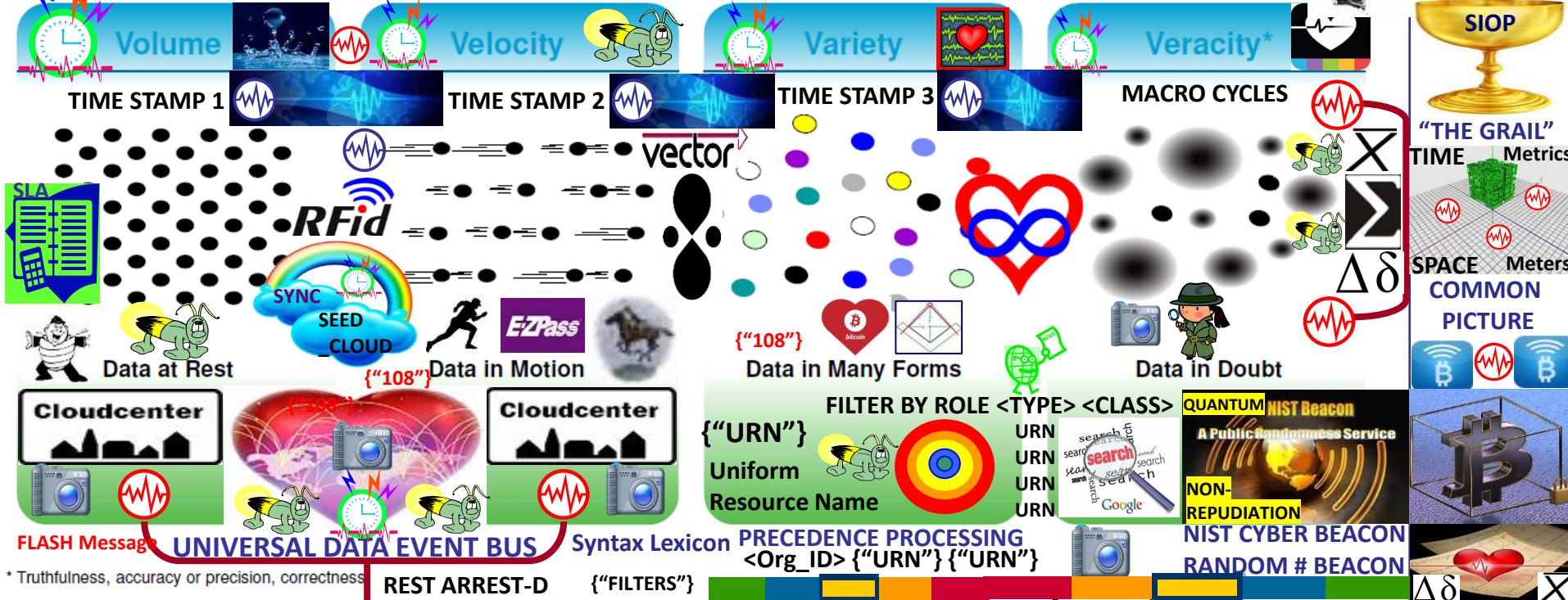
The four dimensions of Big Data

vector

VECTOR: quantity having direction and magnitude
position of a point in space relative to another point



TIME STAMP BY Org_ID, URN Before FUSION CENTER



* Truthfulness, accuracy or precision, correctness

FIREFLY – HEARTBEAT {"108"}
Stochastic Harmonization UTZ SYNC

Heartbeat synchronization strives to have nodes in a distributed system generate periodic, local “heartbeat” events approximately at the same time with a goal of all nodes starting and ending cycles at the same time eventually = map to closest **OPTEMPO HEARTBEAT**

State Meta Data
Heartbeat Snaps

MICRO

CYCLES

ERLANG



$\Delta\delta$

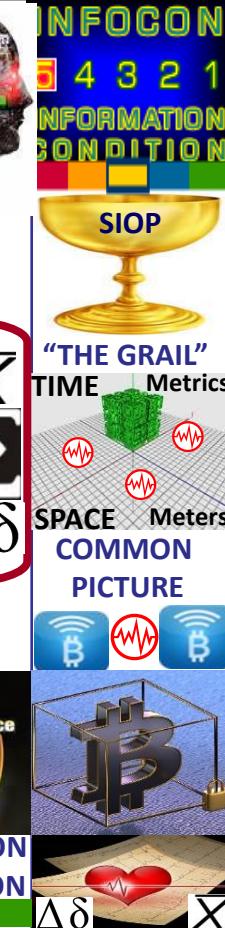
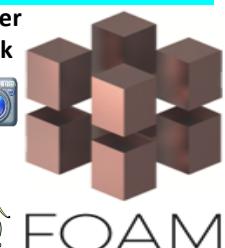
SYNC
ASYNC

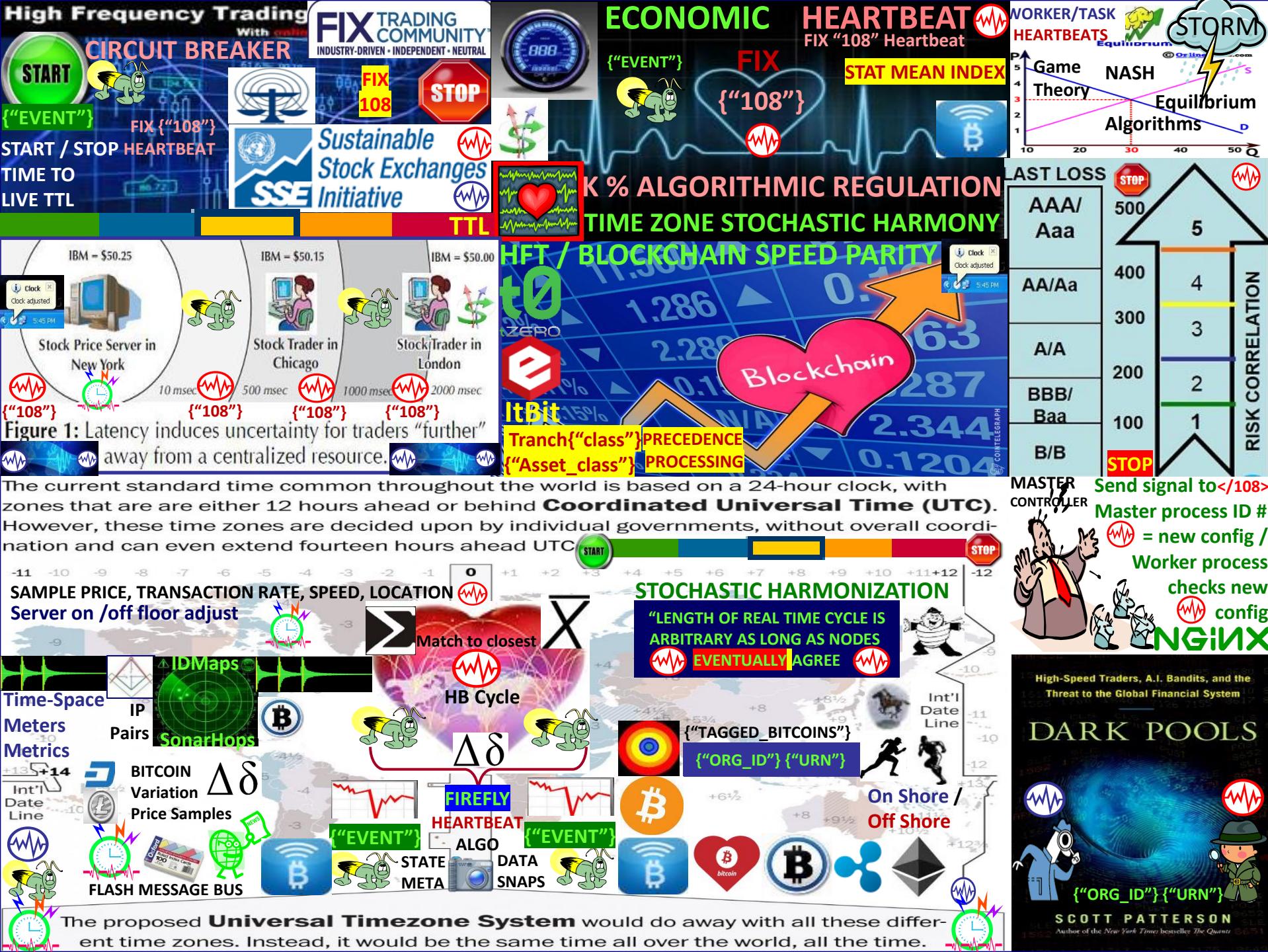
Flash HB Messages
ASYNC



SPACE - TIME Equations
BLOCKCHAIN PARSING
{"Org_ID"} {"URN"}

HEARTBEAT SYNCRONIZATION
FIREFLY SYNC CONSENSUS









Erlang programming language / mini OS
massively scalable high availability, real-time Erlang's runtime system built-in concurrency distribution, fault tolerance



- coordinate 1000's of virtual machines
- ...distributed Dbases RIAK, CouchDB
- ...real time data dashboards
- ...service oriented software architectures
- .. server, API endpoints .. RabbitMQ
- ..distributed, multi-node architecture.
- protocol-aware load-balancer, stateful binary comi



Functional Sequential Erlang

- Data types:
 - Integers (incl. BigNums), floats, atoms
 - tuples/records, lists/plists, binaries, funs
 - Maps (added in R17)
- single assignment
- pattern matching & guards
- closures (anonymous function data type)
- list comprehensions
- bit-syntax & binary comprehensions
- tail recursion & tail call optimization (TCO)

SORTING ALGO'S

Ericsson Open Money
For Society Patent App



[20130166398](#) "System And Method For Implementing A Context Based Payment System."

"It is our vision that one day everyone with access to a mobile phone will be able to spend, send and receive money as easily as sending a text via SMS"
"When money is open, the way we send, spend and receive money will change forever"

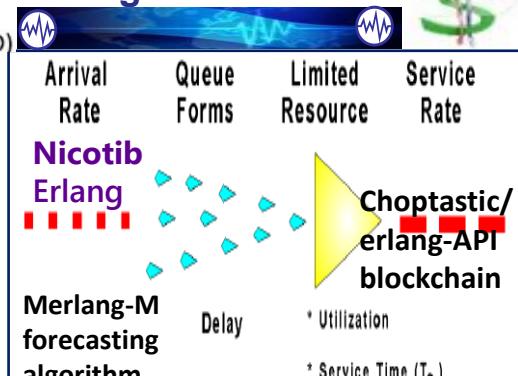


Rho ratio *Arrival Rate* $\Delta\delta$ queueing systems wait times
Service Rate per unit time stochastic processes, function scheduling Start, Stop TTL



distributed "noSQL" database, embedded right into Erlang,
supports indexing, replication, transactions, and fail-over
Fast ETS in-memory, and DETS persistent on-disk database

Mnesia database ("Organization_ID") Global name resolution



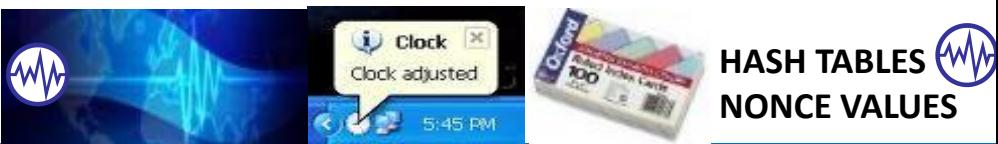
FROM	SOA-A	THIN	AMAZON	AFAS	WIKI
XBRL	/ CDL	/ DAML			
ALPHA	NUMERIC	BREVITY	CODES		
AZURE		BLETCHLEY			
STRUCTURED					
MILITARY	MESSAGE				
TEMPLATE	FORMS				
LOGIC	/ FILTERS				



Bitcoin Classic seeks to mitigate the problem of more transactions, which are causing transaction backlogs and increased transaction costs, by increasing the block size - the number of kilobytes in a block of transactions - from 1MB to 2MB.



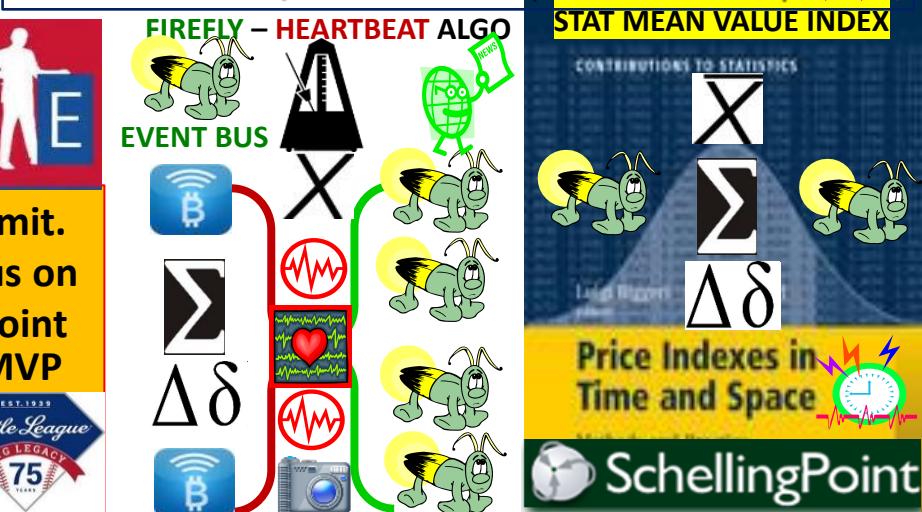
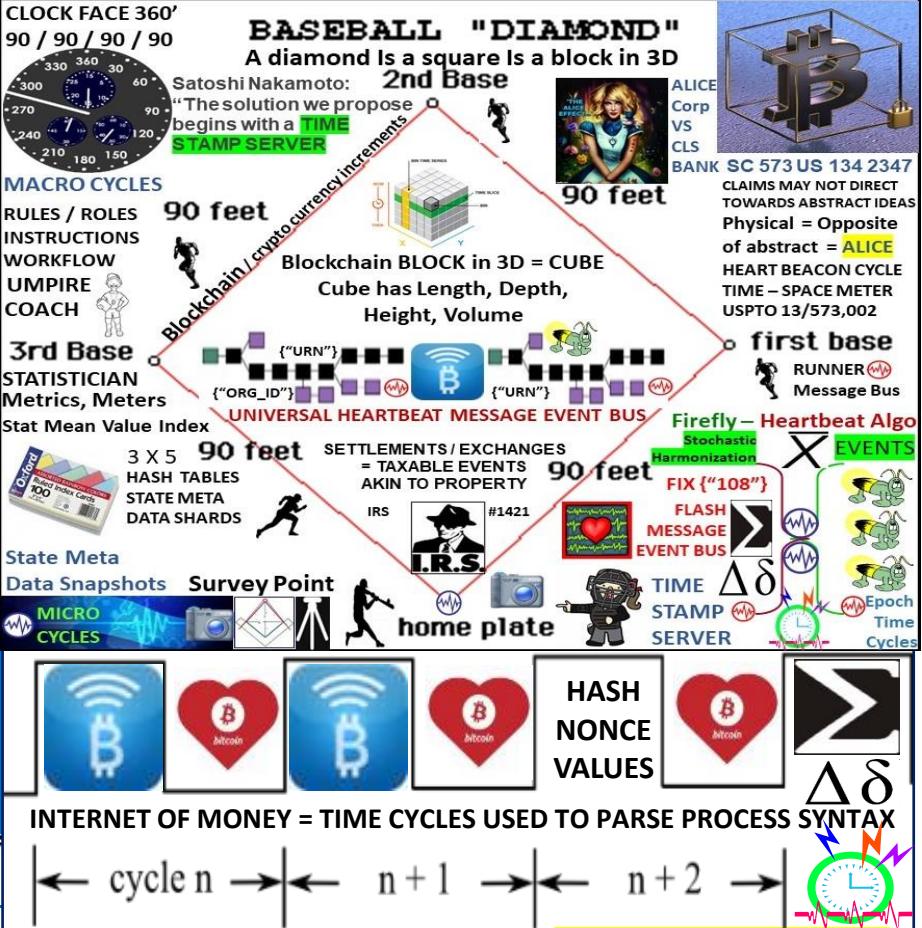
ALL THINGS INTERNET FORMED W 1) TIME EPOCHS 2) SYNTAX



BitPay Core: limits: 1) block size 'hard limit' adjusted on a regular basis coinciding with difficulty adjustments, 2) miner set 'soft limit' like focal points in Unlimited.  



Bitcoin Unlimited: absence of a hard-coded block-size limit.
Users manually set limits on their own nodes; Consensus on
a limit expected to emerge naturally at Schelling focal point
Unlimited introduces a level of democracy into MVP
development, management of the implementation, .
the community votes on changes.



Microsoft Bletchley modular framework: choose combination of technologies best fits Biz domain

AZURE: Core/Kernel/Universal Protocol

Fabric Tier consortium node CryptoDelegate in VM or UTXO Adapter, (Azure, AzureStack, AWS..)

Unspent Transaction Output protocols UTXO

Crypto Tokenized Assets Digital Bearer Bonds
unique identity for owned artifacts

Utility Cryptlets encryption, time & date events, external data access, authentication “CryptoDelegate” / adapter

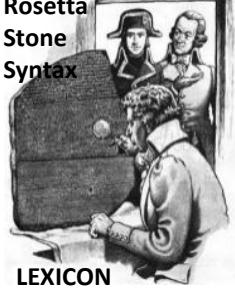
Blockchain middleware: identity and operations management, data, intelligence services like analytics and machine learning. New middleware works with existing Azure services, like Active Directory and Key Vault

Blockchain Fabric: Blockchain Gateway Services Interledger-like services to allow for SmartContracts and tokenized objects to be passed between different ledger systems.

Data Services - key data services like distributed file systems (IPFS, Storj, etc) of off-chain data referenced by public keys.

Auditing, Advanced Analytics, Machine Learning, Dashboarding services for SmartContracts, Blockchains, Consortia, Regulators

Utility and Contract. Developers can discover and enlist Cryptlets into their SmartContracts to create more robust and trusted transactions. Contract Cryptlets are full delegation engines that act as SmartContract surrogates off the chain. Cryptlets provide execution logic and securely store data in the Smart Contract



ALPHA NUMERIC
BREVITY CODES
SYMBOL CODES
STRUCTURED
MILITARY MESSAGE
TEMPLATE FORMS
LOGIC / FILTERS

The current standard time common throughout the world is based on a 24-hour clock, with time zones that are either 12 hours ahead or behind Coordinated Universal Time (UTC). However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC.

FIREFLY EVENTS
FLASH MESSAGES
SYNC TO CLOSEST
HEARTBEAT EPOCH

ent time zones. Instead, it would be the same time all over the world, all the time.

MULTI-MEME MULTI-METER



Microsoft
AZURE BLETCHLEY

Blockchain Startups

Top Blockchain startups
disrupting non-financial markets



MYRIAD MEMES MEDIATION

BLOCKCHAIN

{"URN"}
{"Org_ID"}



Blockchain Startups
Top Blockchain startups
disrupting non-financial markets

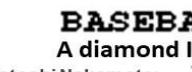


Venture Radar

OFF-SITE
OFF-PAGE
CONNECTOR

{"URN"}
{"Org_ID"}

DAO



CLOCK FACE 360°
90 / 90 / 90 / 90

Satoshi Nakamoto:
“The solution we propose
begins with a TIME
STAMP SERVER

BASEBALL "DIAMOND"
A diamond Is a square Is a block in 3D
2nd Base

ALICE Corp
VS
CLS
BANK SC 573 US 134 2347
CLAIMS MAY NOT DIRECT
TOWARDS ABSTRACT IDEAS
Physical = Opposite
of abstract = ALICE

HEART BEACON CYCLE
TIME = SPACE METER
USPTO 13/573,002

MACRO CYCLES
RULES / ROLES
INSTRUCTIONS
WORKFLOW
UMPIRE
COACH

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

3rd Base
STATISTICIAN
Metrics, Meters

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

UNIVERSAL HEARTBEAT MESSAGE EVENT BUS

3 X 5
HASH TABLES
STATE META
DATA SHARDS

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

Stat Mean Value Index
3 X 5
HASH TABLES
STATE META
DATA SHARDS

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

IRIS #1421
home plate

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

State Meta
Data Snapshots
Survey Point

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

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Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
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Blockchain / cryptocurrency increments
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MICRO CYCLES

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

IRIS #1421
home plate

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

EVENT BUS

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

IRIS #1421
home plate

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FIREFLY HEARTBEAT
ALGORITHM

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

IRIS #1421
home plate

90 feet
Blockchain / cryptocurrency increments
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HEART BEACON
CYCLE

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

IRIS #1421
home plate

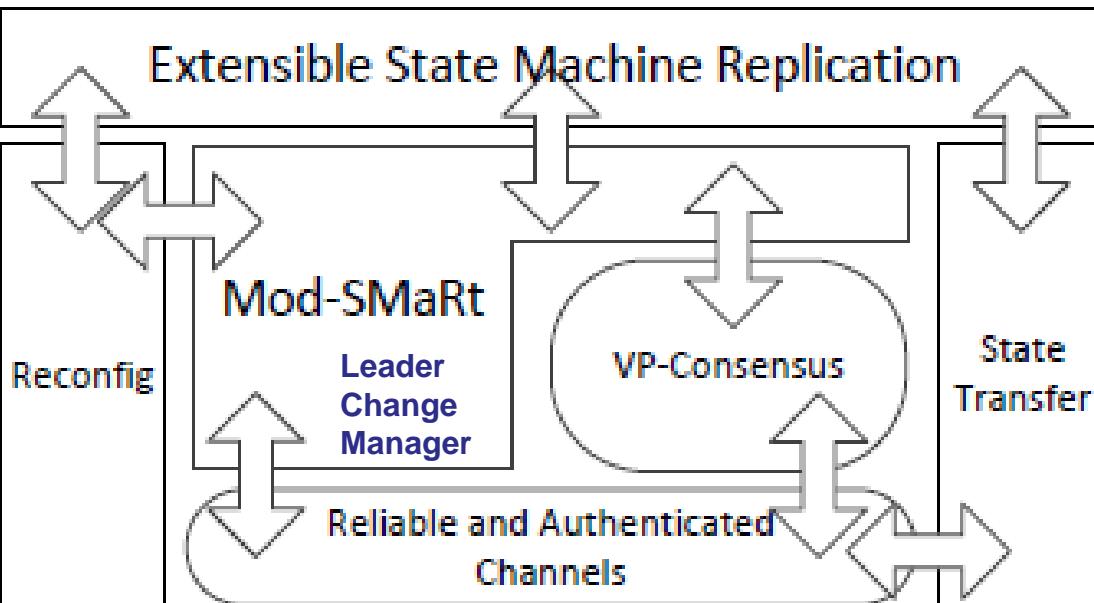
90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

90 feet
Blockchain / cryptocurrency increments
Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth,
Height, Volume

STATE
META
DATA
SNAPSHOTS

Byzantine Fault-Tolerant State Machine Replication

BFT-SMaRT dynamic distributed system processes are divided in two nonintersecting subsets: replicas and clients. Each system process has a unique identifier. During dynamic system execution, a sequence of views is installed to denote the reconfigurations due to replicas joins and leaves. A view is composed by a set of replicas identifiers.



Modularity is achieved using a set of building blocks(or modules)containing the core functionality of BFTSMaRt. Blocks are divided in three groups: communication system, state machine replication and state management.

BFT-SMaRT needs an eventually synchronous system

Total order multicast is achieved using the Mod-SMaRt protocol and with the Byzantine consensus algorithm Clients send requests to all replicas in cv, and wait for replies. replicas store each batch of ordered requests to a (stable) log and, periodically, take snapshots of the application state and store it in stable memory.

USPTO 13/573,002 HEART BEACON CYCLE TIME-SPACE METER

USCt ALICE CORP V CLS BANK

PHYSICAL = OPPOSITE OF ABSTRACT



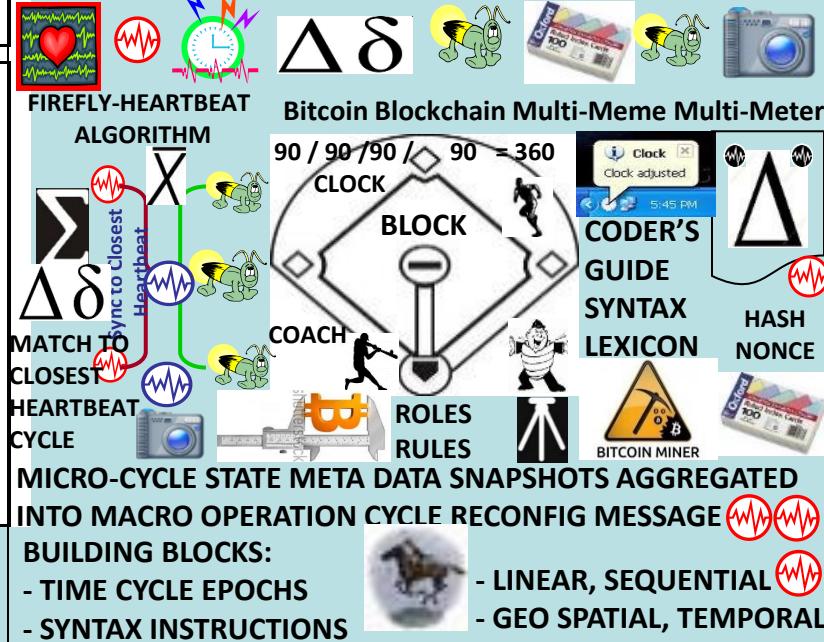
DERIVED FROM BATTLEFIELD DIGITIZATION DISTRIBUTED AUTONOMOUS ORGANIZATION DAO SYSTEM OF SYSTEMS

FEDERATED ID / ORGANIZATIONAL IDENTIFIER {"ORG_ID"}

ADDS, JOINS, DROPS, MOVES TO / FROM DAO

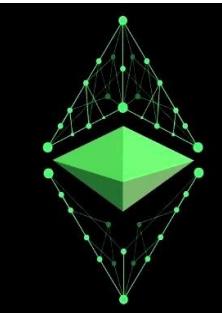
CHANGES IN STATE VIEWED IN "APPLIQUE' OVERLAY VIEWS

00.99 HEARTBEAT SYNC DELTA STATE META DATA SNAPSHOTS



Firefly inspired Heartbeat Synchronization nodes strive to sync in a distributed system. Nodes generate periodic "heartbeat" events approximately at the same time. It differs from classical clock sync in that nodes are not interested in counting cycles to agree on the ID of the current clock cycle. There is no requirement to sync during a cycle length In real time as long as the length is bounded and all nodes AGREE ON IT EVENTUALLY"





ETHER: Compensate Resource Contribution

Gas: price to
Run contract
transactions

ethereum

Casper is a security-deposit based economic consensus protocol. Nodes = "bonded validators" place security deposit (an action called "bonding") If a validator generates an invalid action, account deposits are forfeited along with consensus privilege. Use of security deposits address "nothing at stake" problem; that behaving badly is not expensive. Casper is an **EVENTUALLY CONSISTANT** blockchain-based consensus protocol. CASPER favors availability over consistency



Firefly - Heartbeat synchronization: nodes in a distributed system generate periodic, local "heartbeat" events approximately at the same time with a goal of all nodes starting / ending cycles at the same time... **EVENTUALLY**





D F I N I T Y

RANDOM # BEACON

NIST Beacon
A Public Randomness Service

QUANTUM RANDOM #

Each process has mining identity

- Public key with meta data attached
- IDs mediate participation
- Private network: trusted dealer defines list
- Public network: CC security deposit, USCIDs

3 x 5 HASH TABLES STATE META DATA SHARDS

INDEX CARD="SHARD"

DEVICE TYPE

HEBC "ORG_ID" {"URN"} CLASS ASSET TYPE {"UUID"} DEVICE TYPE

BLOCKCHAIN NERVOUS SYSTEM

HEARTBEAT {"108"} State Meta Data Snapshot Msgs

STATEFUL DECENTRALIZED NET PROTOCOL:

Decentralized process workflows instead of Centralized Server farms

FIREFLY-HEARTBEAT FLASH Msg EVENT BUS

GROUP Signature is random number

- Number selects next group {"Org_ID"} {"Org_ID"}
- Next group use previous no. as message
- Verifiable Random Function
- Numbers verifiable using group public key
- New values produced in threshold agreement
- Random members {"Org_ID"} {"Org_ID"}**
- Each process is a member of multiple groups
- Groups intersect, have +/- 400 members
- BLS signature scheme**
- Math magic... If 51% of group members broadcast "signature shares" on a message, these are combined to create the group's threshold signature.

HYPER GEOMETRIC PROBABILITY CALCULATOR

CONSENSUS / RANDOM BEACON

Threshold relay chain generates randomness, records network metadata & validation tree "state root". State and updates to state stored on shards... State transitions passed to Validation Tree

NIST Beacon
A Public Randomness Service

QUANTUM RANDOM #

Threshold Relay Chain techniques

Probabilistic Slot Protocol (PSP) When Gh is selected, members start stopwatches

Choosing Leaders Randomness selects priority list block forgers at height h

Short Term Convergence Correct processes build on highest scoring chain

Threshold Timestamping group signs blocks at h until next group appends another.

Scalable Global Validation Layer: Each additional level of the tower validates new state transitions applied to storage shard. is built by processes selected by the RANDOM BEACON

USPTO 13/573,002 HEART BEACON CYCLE TIME – SPACE METER

CLOCK FACE 360'
90 / 90 / 90 / 90
330 360 30 60 90
300 270 240 210 180 150

Satoshi Nakamoto:
"The solution we propose begins with a TIME STAMP SERVER"

BASEBALL "DIAMOND"
A diamond Is a square Is a block in 3D
2nd Base

ALICE Corp VS CLS BANK SC 573 US 134 2347 CLAIMS MAY NOT DIRECT TOWARDS ABSTRACT IDEAS Physical = Opposite of abstract = ALICE HEART BEACON CYCLE TIME – SPACE METER USPTO 13/573,002

MACRO CYCLES

RULES / ROLES INSTRUCTIONS WORKFLOW UMPIRE COACH

90 feet

Blockchain / crypto currency increments

Blockchain BLOCK in 3D = CUBE
Cube has Length, Depth, Height, Volume

3rd Base STATISTICIAN Metrics, Meters

UNIVERSAL HEARTBEAT MESSAGE EVENT BUS

90 feet

SETTLEMENTS / EXCHANGES = TAXABLE EVENTS AKIN TO PROPERTY IRS #1421

90 feet

State Meta Data Snapshots Survey Point

MICRO CYCLES

home plate

Firefly – Heartbeat Algo EVENTS

Fix {"108"} FLASH MESSAGE EVENT BUS

TIME STAMP SERVER

Epoch Time Cycles

UTZ TIME ZONE SYNC



core blockchain code written in Erlang, for distributed, fault-tolerant, soft real-time and highly available non-stop applications.

ERLANG API FOR BLOCKCHAIN



ORACLES: crucial feature for most contracts, whether encoded as text or as code, is the ability to refer to values from the environment. æternity Oracle Machine provides real-world data to the blockchain. Each user can ask questions about the environment. Anyone can answer. Consensus mechanism invoked in case of disagreement.

MIT-licensed modules for easy implementation in blockchain consortiums. Free and open access for developers build on the æternity platform.

CROSS – CHAIN ATOMIC SWAPS

AE Tokens AE are access tokens to the æternity network and act as a unit of account for the resources spent on æternity.



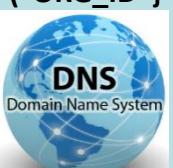
Aeons: energy for applications implemented on the platform.

ACCOUNTS & IDENTITY: æternity's accounts are permission-less, but allow customization via schema.org's semantic web scheme. Create & own (**federated group**) / individual identities on the æternity network



("ORG_ID")
("ORG_ID")

NAMES (DNS) In the vein of Aaron Swartz' work and Namecoin, æternity features an easy to use name system, that is both decentralized and secure, while still supporting human-friendly, memorable names. The blockchain's state includes a mapping from unique human-friendly strings to fixed-size byte arrays, that are individually customizable.



Firefly Heartbeat Sync nodes strive to sync in a distributed system. Nodes emit periodic "heartbeat" events at approximately the same time. No need to sync during a cycle as long as the cycle length is bounded & nodes eventually agree.

AETERNITY CROSS-CHAIN ATOMIC SWAPS CORRESPOND TO HEART BEACON CYCLE'S USE OF BATTLEFIELD DIGITIZATION DERIVED HEARTBEAT SYNC DELTAS



Terra Trade Reference Currency TRC "world currency" Bernard A. Lietaer Belgian economist proposed 1991 Basket of 9-12 most important commodities. Public issued demurrage fees for storage, shipping, handling

TOKENS REPRESENT REAL WORLD VALUE URN RESOURCES

ETHEREUM BASED USES GAS GAUGE MEME INDICATING THRESHOLD MET / NOT MET TO PROCESS



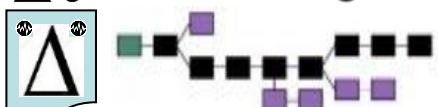
HBC's PRIMARY USE CASE IS TO ORGANIZE INDIVIDUALS IN TRADE FEDERATION GROUPS RE-USING BATTLEFIELD DIGITIZATION / ARIN Organizational Identifier Org_ID for Ecosphere friendly trade



HYPER LEDGER OPEN SOURCE BLOCKCHAIN

Core APIs, & SDKs

$\Delta\delta$ Shared Ledger



**HEART BEACON CYCLE
TIME – SPACE METER
USPTO 13/573,002**

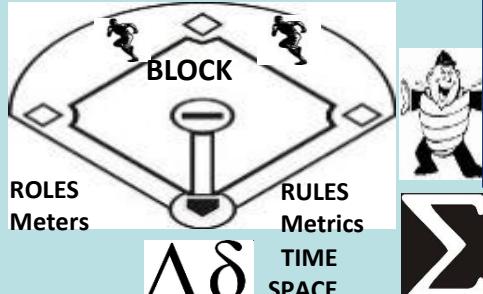


METRICS (“Organization ID”) METERS

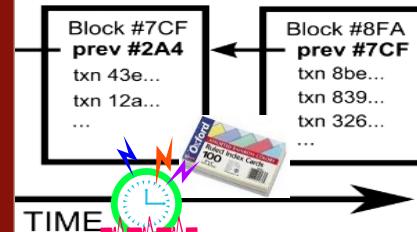
RESTFUL SYNC DELTA CHANGE MANAGEMENT MICRO-MACRO CYCLE



BLOCKTIME ARBITRAGE



Code execution environment, ledger data structures, modular consensus fwk & algos, and modular membership services, modular storage and event fwks, network peers



ROSETTA STONE

**300 + MESSAGE
TEMPLATES**

**USE CASES / GROUPED
DATA TRANSACTIONS**

Alpha-Numeric Data

**Element ID -- #'s are the
UNIVERSAL LANGUAGE**



**HYPER LEDGER USES
JSON ("tag") / YAML
Text indentation –
UNIVERSAL LANGUAGE
= ALPHA-NUMERICS**

DASH



"All decentralized, blockchain-based networks are DAOs, or decentralized autonomous organizations" Bitcoinist

"A DAO can be summed up as an organization of people who communicate with each other via a "network protocol," which is to say that they communicate with one another via a ruleset"

[LINK](http://bitcoinist.net/how-dash-dao-work/) <http://bitcoinist.net/how-dash-dao-work/>

"all digital currency networks, the base layer of people generating the blockchain — "miners," "stakers," "witnesses," "validators," or "forgers" — all get paid to do so" "consensus," or an agreement upon what the rules should be; and second, the execution of said rules.

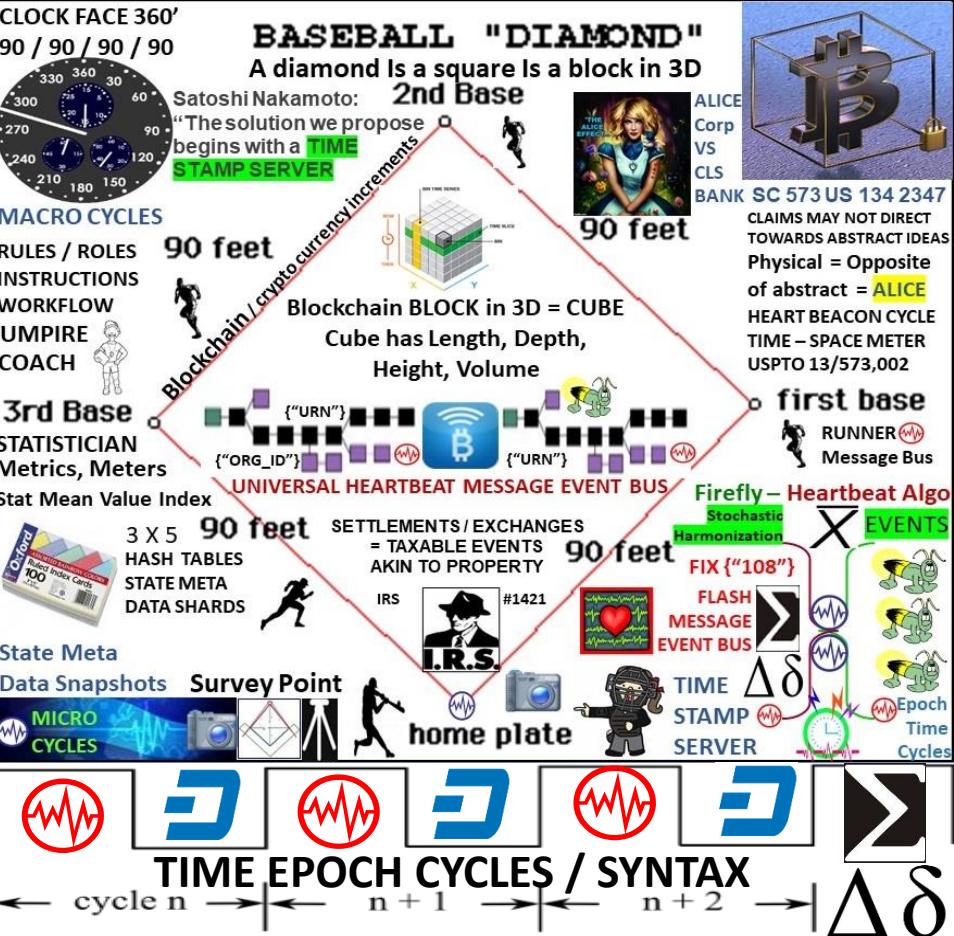
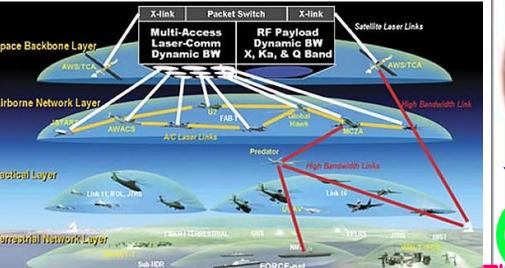
"Its makeup is thus: the block reward is divvied up in three parts. The first 45 percent goes to [Dash's miners](#). Another 45 percent goes to its Masternodes. And 10 percent is set aside to fund whatever other jobs or expenditures the Dash network deems necessary"

InstantX: To solve the problem of lag time in transactions, Masternodes are able to instantly lock transactions receive payments for their service to the network

DAO: RAND THINK TANK TERM COINED + / - 2001

NETWORK CENTRIC WARFARE
Developing and Leveraging Information Superiority

ALICE CORP Vs CLS BANK



STOCHASTIC HARMONIZATION FIREFLY-HEARTBEAT EVENT BUS

HEART BEACON CYCLE = IMPROVEMENT TO NETWORK CENTRIC WARFARE

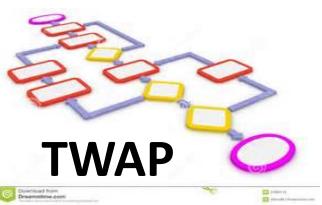


Firefly - Heartbeat synchronization: nodes in a distributed system generate periodic, local "heartbeat" events approximately at the same time with a goal of all nodes starting / ending cycles at the same time eventually = HB CYCLE



TWAP Algorithm Manages Bitcoin Price Volatility Algorithm

TWAP GOAL: provide a Time Weighted Average Price Benchmark



FIREFLY HEARTBEAT ALGO

STAT MEAN VALUE INDEX

TWAP Works To gauge trading performance, many traders in different asset classes (equity, fixed income, currency) often use average price as a benchmark. The two common ways to calculate an average are a time-weighted average price (TWAP) and a volume-weighted average price (VWAP). TWAP is the average price of a bitcoin over the course of a specified period of time i.e., **Heart Beacon Cycle** 



The algorithm trades over a desired time, either 1, 6, 12 or 24 hours and will give you a TWAP over that time period. For example, set the TWAP algorithm to sell 12 bitcoins over 12 hours, the algorithm will sell throughout the period, aiming to get a 12-hour TWAP



VWAP is price multiplied by number of bitcoins traded, then divided by the total number of bitcoins traded during a time period. The time-weighted average price algorithm is matched to closest

The diagram illustrates the relationship between STATE, META, and DATA SNAPSHOTS.

- STATE:** Represented by three cartoon ants at the bottom right.
- META:** Represented by three red heart rate monitor icons.
- DATA SNAPSHOTS:** Represented by three large mathematical symbols (Σ , $\Delta\delta$, and X) on the left, each connected to a corresponding heart rate icon by a line.
- BUS:** A green line labeled "BUS" connects the STATE and META components.
- EVENT:** The word "EVENT" is written vertically along the right side of the diagram.
- SAMPLE:** The word "SAMPLE" is written vertically at the bottom right.

Firefly Heartbeat Sync nodes strive to sync in a distributed system. Nodes emit periodic “heartbeat” events at approximately the same time. There is no need to sync during a cycle as long as the cycle length is bounded & nodes eventually agree. HBC’s improvement is stipulating a clock cycle value e.g., 5, 10, 15..

Block-Weighted-Average-Price (B-WAP) API creates a USD price for any block in the Bitcoin blockchain, based on BNC's Bitcoin Liquid Index (BLX). Automatically appropriates blockchain transactions with a USD price or technical indicator for traders.

Key Features:

Look up any bitcoin blockchain transaction and receive back a USD value for any transaction.



Built using historic bitcoin price index - the [BNC BLX](#).

API updated every 10 min with a 2 hour delay on latest blocks (due to the nature of Block propagation to ensure avoidance of publishing rates on orphaned blocks).

All rates time-stamped in UTC.



Ability to look up by time-stamp.

Ability to look up by block-height.

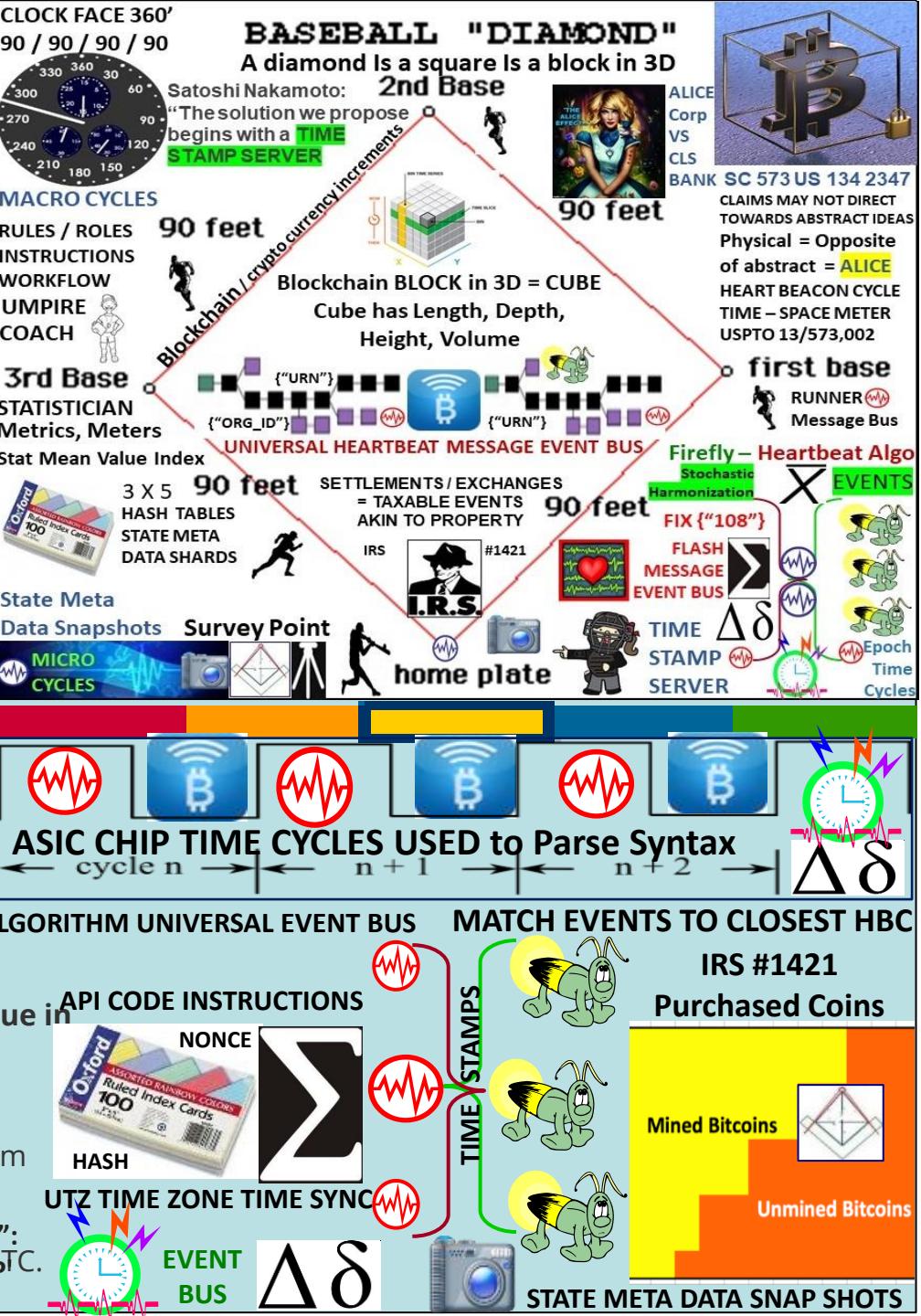
Asset Classes: Digital Currencies

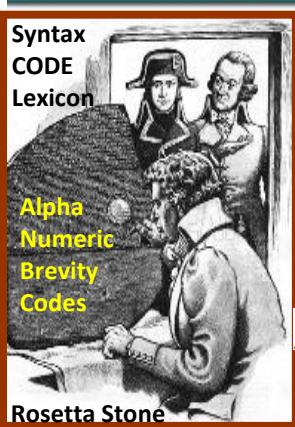
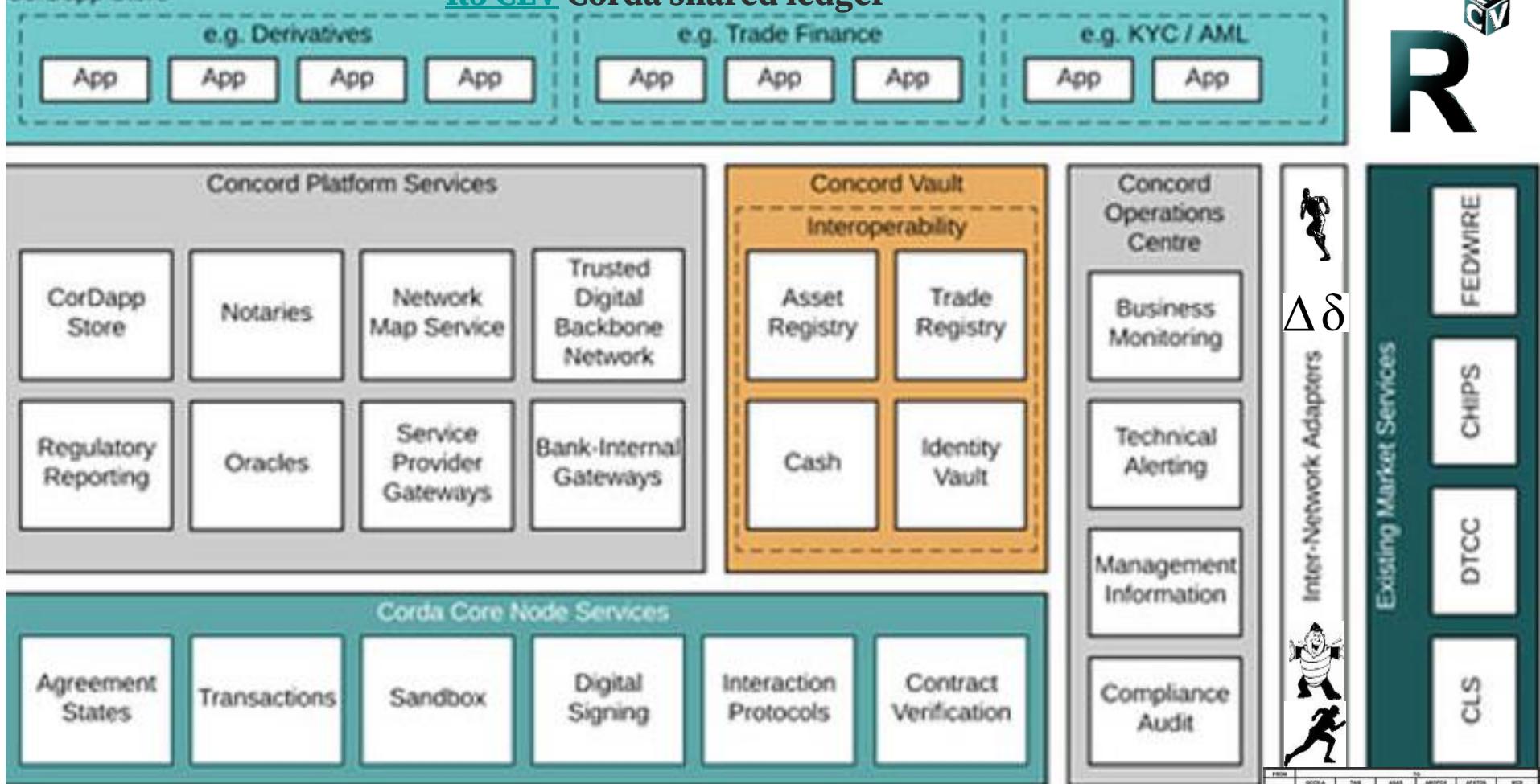
Get by: Block-height, Time-stamp or Transaction

Transaction ID, Block ID, time-stamp, BWAP per block, Value in USD. BTC per transaction, bitcoin transaction fees per transaction.

- Exchanges Covered: Price discovery for the B-WAP comes from utilizing the BNC [Bitcoin Liquid Index](#) (BLX) bitcoin price calculation.

BRAVE NEW COIN “Blocks are a measure of time”: The Bitcoin Blockchain B-WAP
Digital Currency Insights





UNIVERSAL EVENT BUS



- Choreographing workflow between firms without a central controller
- Supports inclusion of regulatory & supervisory observer nodes
- Validating transactions solely between parties to the transaction
- Supporting a variety of consensus mechanisms
- Recording explicit links between human-language legal prose documents and smart contract code

NAME	QCC0A	TAB	ASAB	AMPCB	AFATB	WCB
ABAB	F002	F003	F004	F005	F006	F007
AMPCB	F008	F009	F010	F011	F012	F013
AFATB	F014	F015	F016	F017	F018	F019
WCB	F020	F021	F022	F023	F024	F025

- PROOF OF WORK
- PROOF OF STAKE
- STATE CHANNELS
- BITCOIN NEXGEN
- LIGHTNING / DASH..



XBRL / CDE / DAML STOCK MIC CODES



STRUCTURED MILITARY MESSAGE TEMPLATE FORMS LOGIC / FILTERS



300+ Use Case Templates

Federation Gateway



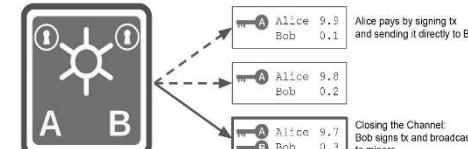
NAME	QCC0A	TAB	ASAB	AMPCB	AFATB	WCB
ABAB	F002	F003	F004	F005	F006	F007
AMPCB	F008	F009	F010	F011	F012	F013
AFATB	F014	F015	F016	F017	F018	F019
WCB	F020	F021	F022	F023	F024	F025



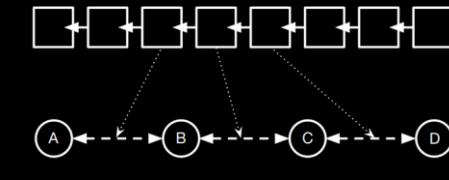
**transactions sent over / off chain
micropayment channels**

Micropayment Channels

Setup: Alice creates transaction with 10 bitcoin to a 2-of-2 multisig with Bob



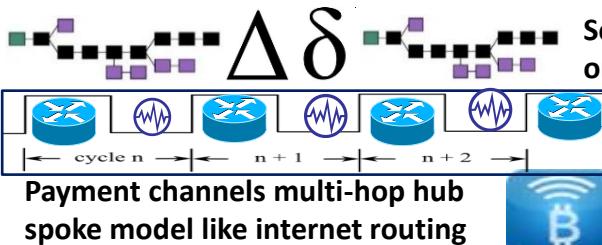
LIGHTNING



Millions of Transactions. Milliseconds of Delay.

Hashed TIME LOCK contracts component for global consensus

OP_CHECKLOCKTIMEVERIFY During Macro Cycle w/ Random # BEACON



Payment channels multi-hop hub
spoke model like internet routing

FIREFLY – HEARTBEAT ALGORITHM



FIREFLY – HEARTBEAT



EVENT REPORTING
ACROSS TIME-SPACE



MESSAGE EVENT BUS

CLOCK FACE 360'
90 / 90 / 90 / 90



RULES / ROLES
INSTRUCTIONS
WORKFLOW
UMPIRE
COACH

3rd Base

STATISTICIAN
Metrics, Meters
Stat Mean Value Index



3 X 5
HASH TABLES
STATE META
DATA SHARDS

State Meta

Data Snapshots

MICRO CYCLES

BASEBALL "DIAMOND"
A diamond Is a square Is a block in 3D
2nd Base

Satoshi Nakamoto:
“The solution we propose
begins with a **TIME
STAMP SERVER**”

90 feet

Blockchain / cryptocurrency increments

Blockchain BLOCK in 3D = CUBE

Cube has Length, Depth,

Height, Volume



o

first base

RUNNER

Message Bus

o

home plate

TIME STAMP SERVER

o

3rd Base

SETTLEMENTS / EXCHANGES

= TAXABLE EVENTS

AKIN TO PROPERTY

IRS

#1421

I.R.S.

o

2nd Base

FIX ("108")

FLASH

MESSAGE

EVENT BUS

TIME

STAMP

SERVER

o

1st Base

EVENTS

o

Home Plate

TIME CYCLES

o

3rd Base

Sync Delta

State Meta

Data Snaps

SETTLEMENTS / EXCHANGES

= TAXABLE EVENTS

AKIN TO PROPERTY

IRS

#1421

I.R.S.

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EVENTS

o

Home Plate

TIME CYCLES

o

3rd Base

Sync Delta

State Meta

Data Snaps

o

1st Base

EVENTS

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EVENTS

What happens if we think about Bitcoin through the lens of *land*?

HEART BEACON CYCLE
USPTO 13/573,002
SURVEY METHODS

SC ALICE CORP VS CLS BANK: "claims may not direct towards abstract ideas"

UTXO: unspent transaction output'. bitcoins that have been sent somewhere but not yet themselves been spent. The set of all unspent transaction outputs (UTXOs) can be thought of as the latest STATE of every bitcoin that has ever been mined.

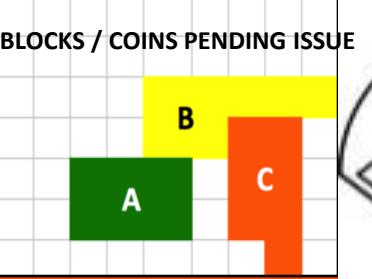


Memo #1421: Purchased Bitcoins are treated akin to property

Plots A, B, C represent 3 unspent transaction outputs controlling N Bitcoins



Mined Bitcoins



$$\Delta\delta$$

Unmined Bitcoins



Un-mined coins -- think of them as parcels of land on "Bitcoin Island" not yet released:

IDMaps-SONARHOPS distance estimation query-reply service

- End-state Bitcoin quantity will be fixed like land

"Bitcoin as protocol of ownership, not transfer"

Coin never travel, but simply switch owners"

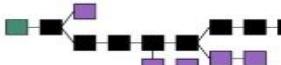


Step 1: prove coin ownership <Org_ID> Coin Issuer

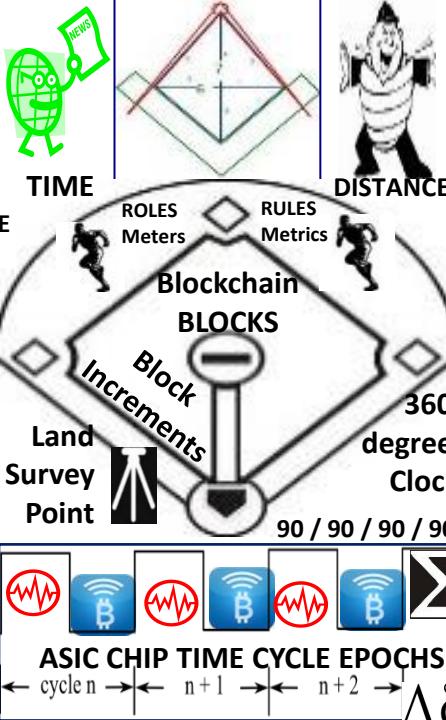
Step 2: coins sent where, when Lat-Long, Time Stamp

Step 3: specify ownership <Org_ID> issuing agent

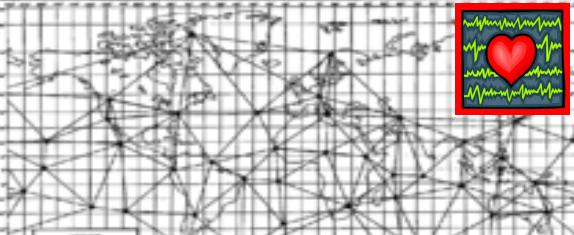
Step 4: Issuing Org of Record adjudicates w buyer



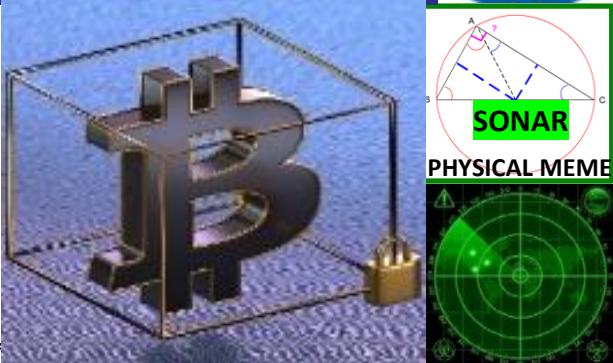
$$\Delta\delta$$



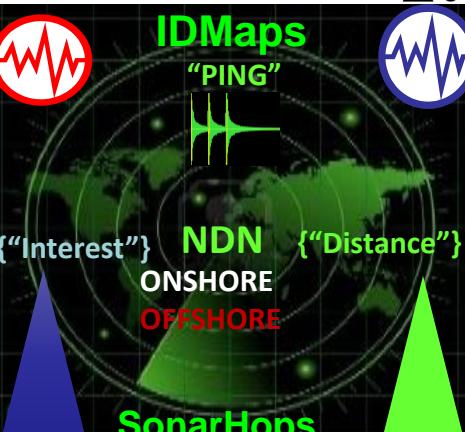
TRIANGULATION



EUCLIDIAN GEOMETRY



IDMaps assists Network Time Protocol (NTP) servers establish long term peering relationships



IDMaps / SonarHOPS collects distance data & builds virtual Internet distance maps & estimates distance between IP address pairs



IDMaps Distance Metrics: latency (round-trip delay) available bandwidth estimation

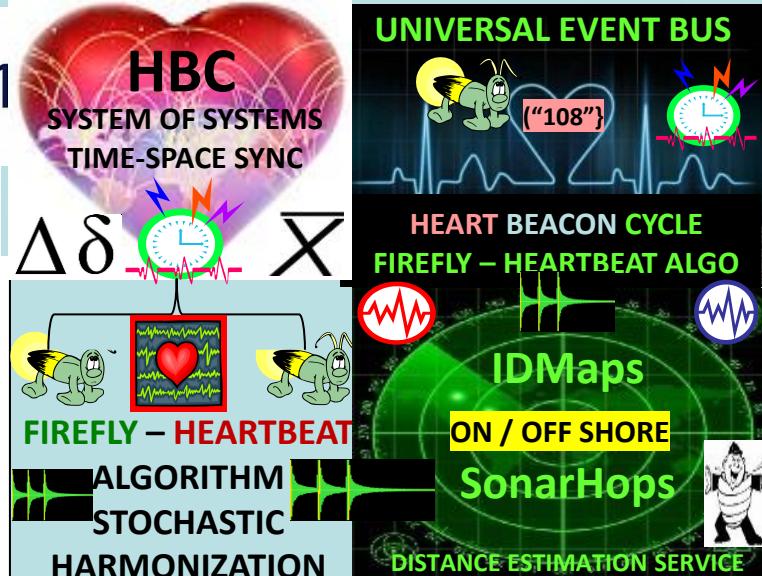
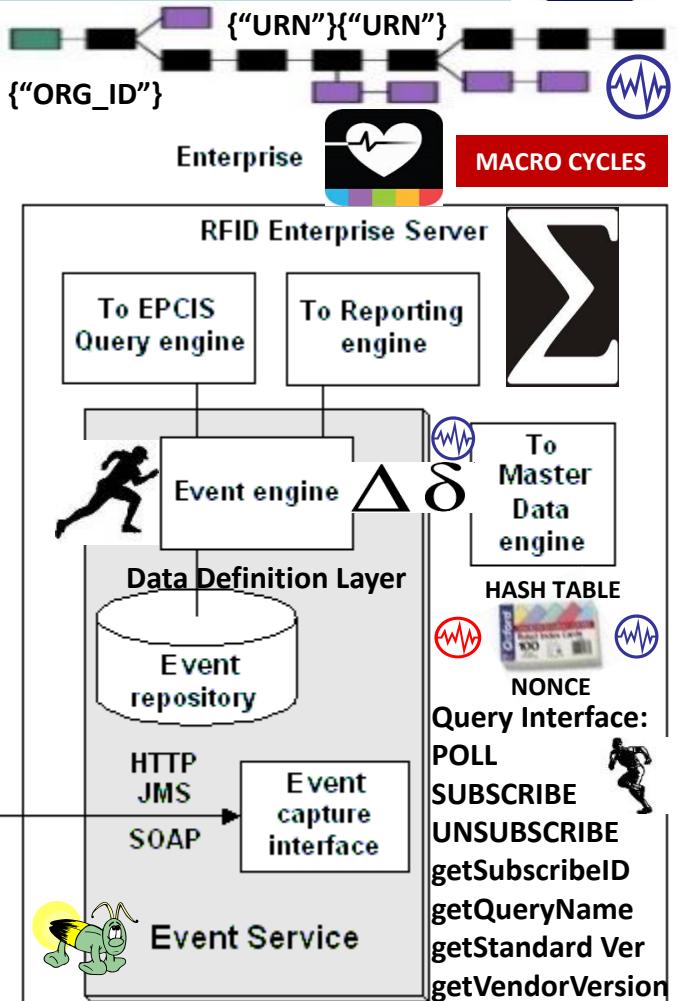


Electronic Product Code Information Services (EPCIS)

GS1 Standard for creating, sharing visibility event data



HBC SYSTEM OF SYSTEMS TIME-SPACE SYNC



Proximity Wireless Sensor Networks in Combination With RFID .. on reading tag in RF-field the router sends heartbeat message

RFID Configuration TCP/IP heartbeat message

STRUCTURED DATA EXCHANGE / STRUCTURED MILITARY MESSAGES

Core Business Vocabulary (CBV)

What identifiers of object(s) or entities / subject of the event

When date time when event took place, local time zone in effect

Where location identifier where event occurred, identifier of

location where object(s) are expected to be following the

Why Information about the business context, including:
a Identifier that indicates the business step taking place



**CLOSER IS CHEAPER
CLOSER IS FASTER**



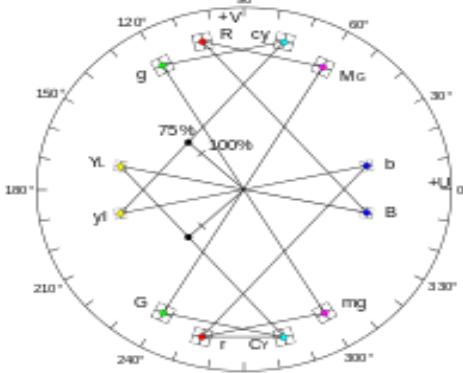
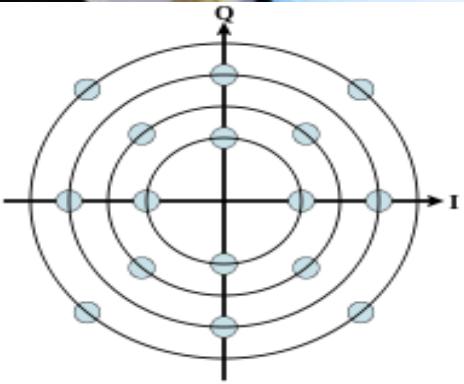
MICRO CYCLES

!st Compiler DESIGN Still the **BEST**





www.RLighthouse.com



Quadrature amplitude modulation

QAM by setting a suitable constellation size, limited only by the noise level and linearity of the communications channel

“Similarly, the electromagnetic force will also be found to vary continuously and retain a TIME-AVERAGED value”

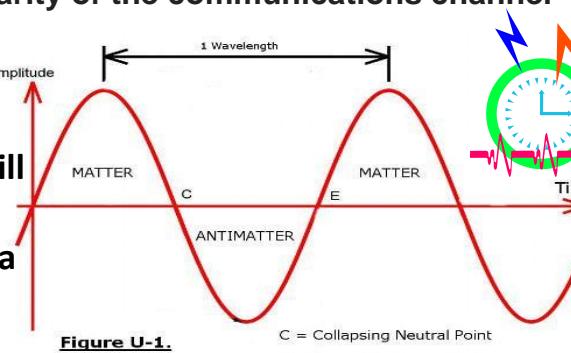
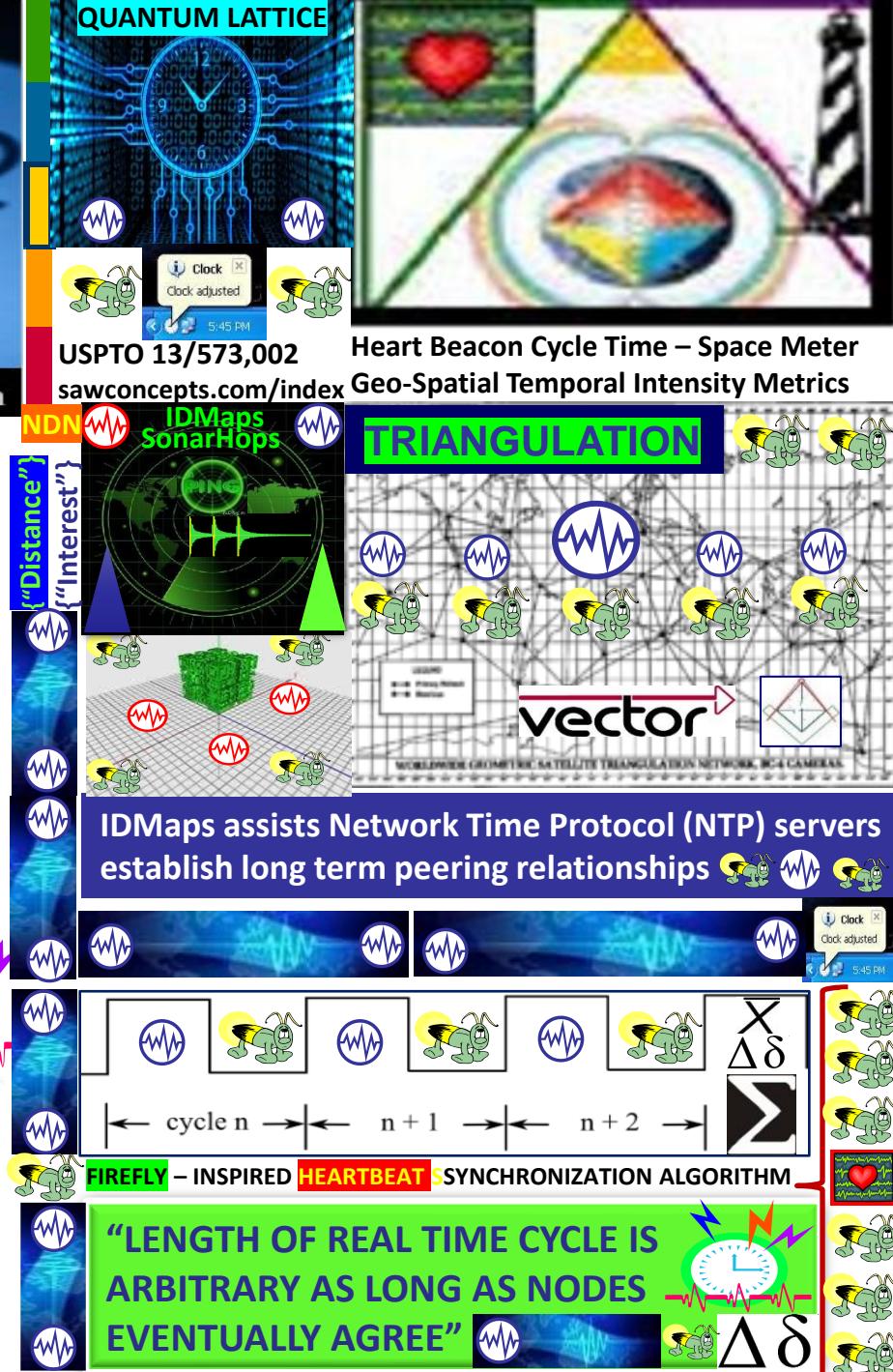


Figure U-1.

E = Expanding Neutral Point



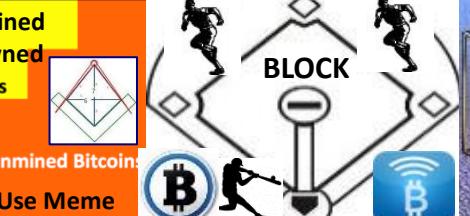
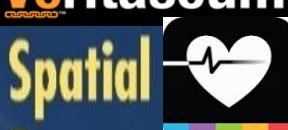
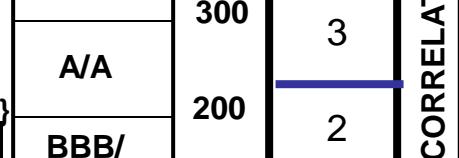
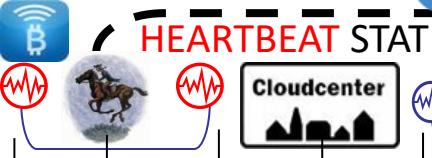
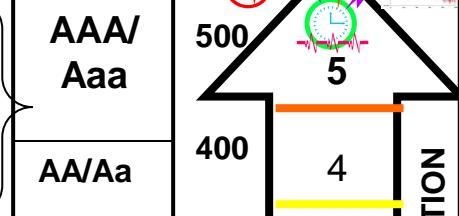
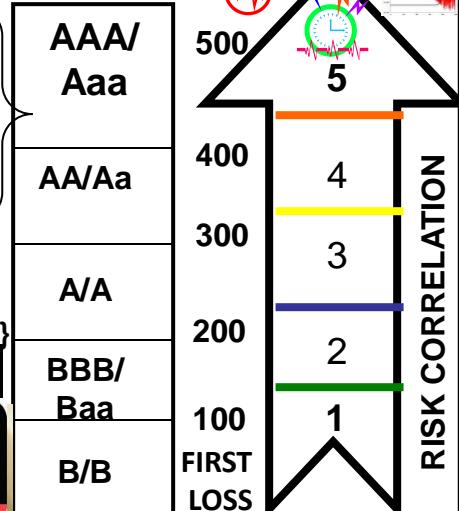


ECONOMIC HEARTBEAT

HB MSG </108>
PROTOCOL

INDUSTRY-DRIVEN MESSAGING STANDARD

LAST LOSS



SOFTWARE DEFINED NETWORKING

NETOPS

Command Syntax

REST State Transfer

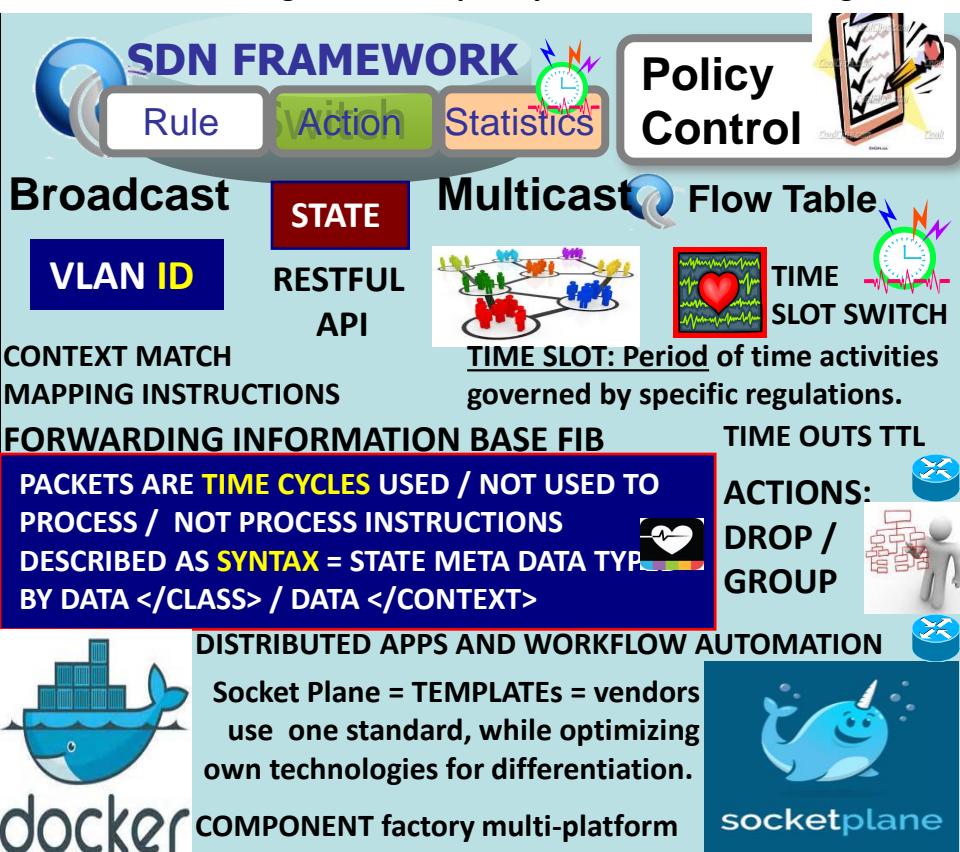
COMMAND SYNTAX
STATE TRANSFER
Unicast / Multicast
Flow Tables / Workflow
Dynamic Network
Configuration Management

NET CENTRIC WARFARE
SYSTEM OF SYSTEMS TELEMETRY

COMMON COMPONENTS, BUILDING BLOCKS USED WITHIN FEDERATION PROMOTING COMMON GOALS, PROCESSES

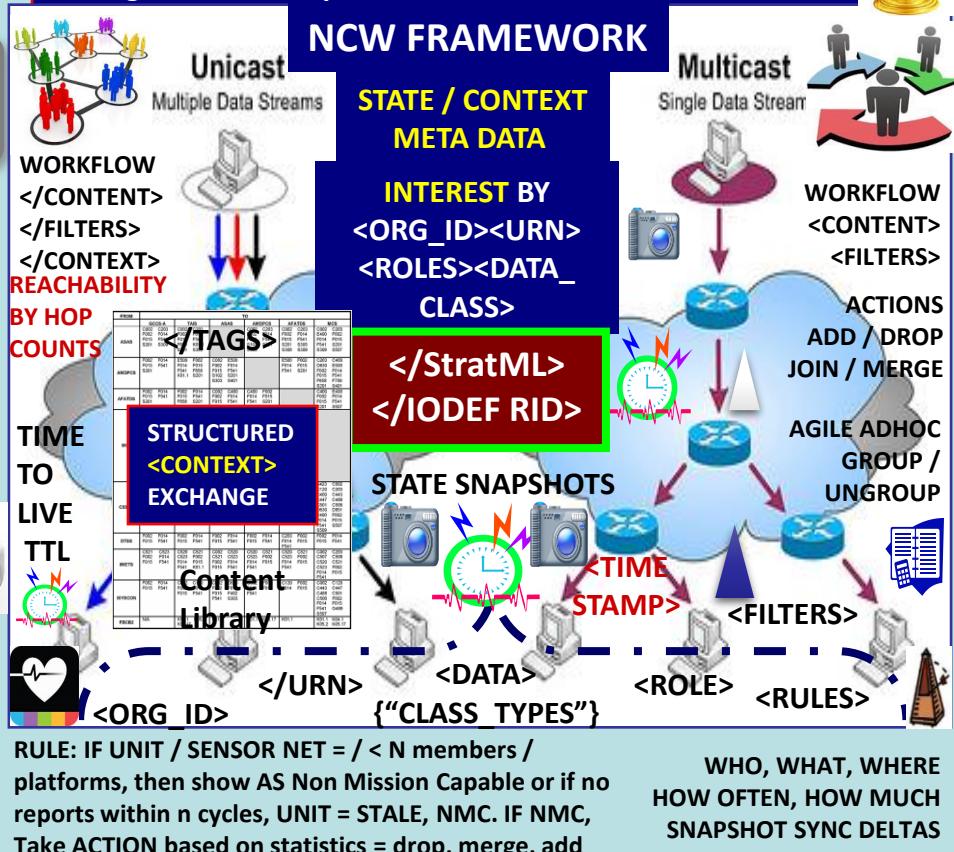
- SDN is a *framework* to allow network administrators to *automatically* and dynamically manage and control a *large number* of network devices, *services*, topology, traffic paths, and packet handling (quality of

DevOps model and tools to enable scale, programmable agility, and policy-driven automation, and provides network virtualization to mask network configuration complexity with set of networking APIs



Netcentric / "network-centric" participating in a continuously evolving, complex community of people, devices, information and services interconnected by a network to optimize resource management and provide information on events and conditions.

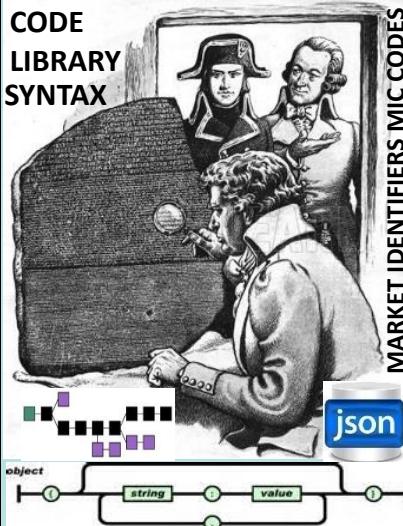
Net-centric Enterprise Architecture : "massively distributed architecture with components, services available across and throughout an enterprise's entire lines-of-business."



HEART BEACON CYCLE: ALL THINGS INTERNET ARE PROGRAMMED USING TIME CYCLES USED / NOT USED TO PROCESS / NOT PROCESS SYNTAX



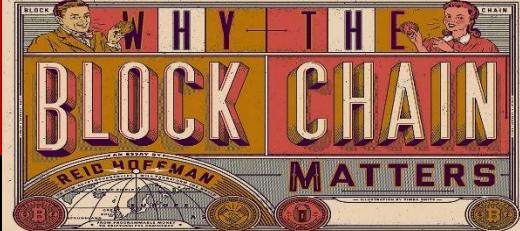
“The CODE that secures Bitcoin could also power an alternate Internet [LINK](#)



TradeNet



Programmable Money \$\$\$



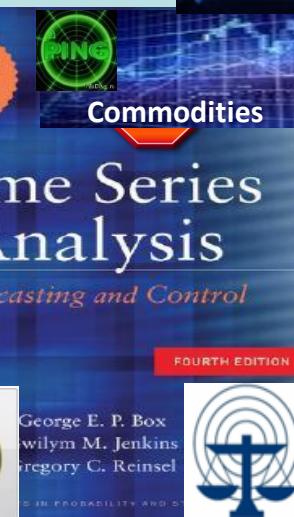
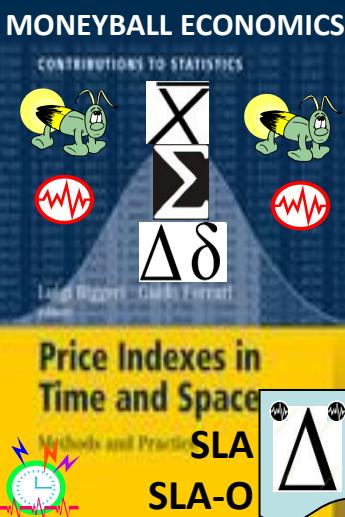
RIED HOFFMAN 15 May 2015 [LINK](#)

Bitcoin and the blockchain function as a medium of exchange, a store of value, a unit of account. Bitcoin adds digital, cryptographic, distributed server functions to currencies. Because it functions simultaneously as a currency, an asset and a platform, Bitcoin is better described as a global cryptoCAP (currency, asset, platform) -- a synergistic form of "cryptocapital" to unleash the full economic power of the networked age. **Bitcoin makes money PROGRAMMABLE. MONEY IS SIMPLY DATA** - a simple way to measure and keep track of exchanges in value wealth accumulation. Bitcoin aggregates data in a distributed global ledger accessible to anyone, and software. First open platform for financial services. Color coins represent stocks, bonds, currencies, properties as E-assets.

WIRE

[http://en.wikipedia.org/wiki/Organizational_unit_\(computing\)](http://en.wikipedia.org/wiki/Organizational_unit_(computing))

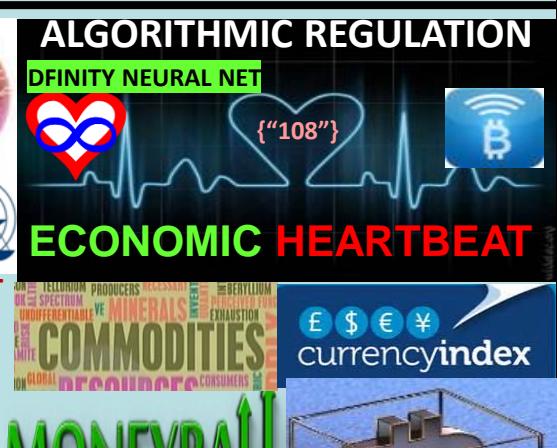
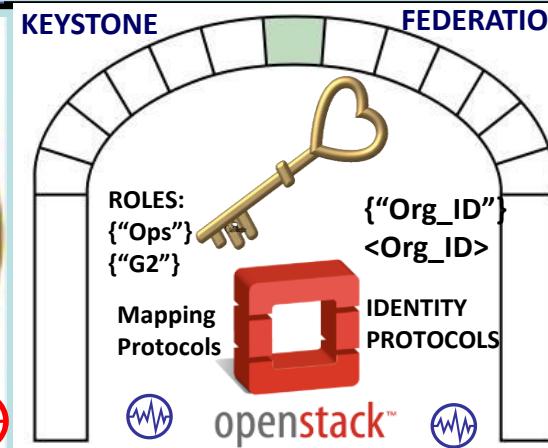
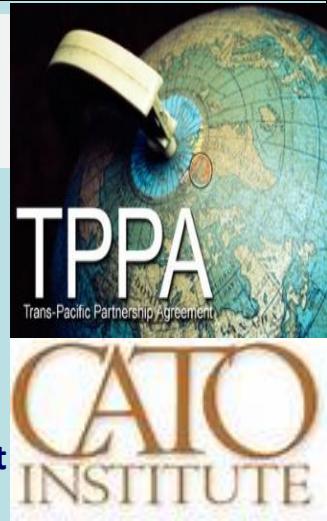
In computing, an organizational unit (OU) is a way of classifying directories objects, or names in a DIGITAL CERTIFICATE HIERARCHY





Trans-Pacific Partnership is great for elites. Is it good for anyone else? by [Timothy B. Lee](#) on April 17, 2015

How the TPP empowers elites. The nature of trade agreements has shifted. They're no longer just about removing barriers to trade. They've become a mechanism for setting global economic rules more generally. This system for setting global rules has some serious defects. We expect the laws that govern our economic lives will be made in a transparent, representative, and accountable fashion. The TPP negotiation process is none of these — it's secretive, it's dominated by powerful insiders, and it provides little opportunity for public input. Attributed to CATO Institute





Blockchain

BLUEPRINT FOR A NEW ECONOMY



Blocktime Arbitrage MTL (machine trust language) time primitives might be assigned to a micropayment channel DAPP as a time arbiter. In blocktime, the time interval at which things are done is by block. This is the time that it takes blocks to confirm, so blockchain system processes like those involving smart contracts are ordered around the conception of blocktime quanta or units. Since blocktime is an inherent blockchain feature, one of the easiest ways to programmatically specify future time intervals for event conditions and state changes in blockchain-based events is via BLOCKTIME. Universal blocktime source example: a procedure call to NIST or other time oracle.



BLOCKTIME: A General Temporality of Blockchains Blocktime as blockchains' temporality allows the possibility of rejigging time and making it a malleable property of blockchains. The in-built time clock in blockchains is blocktime, the chain of time by which a certain number of blocks will have been confirmed. Time is specified in units of transaction block confirmation times, not minutes or hours like in a human time system. Block confirmation times are convertible to minutes. Conversion metrics might change over time. Network Economies: Economic System as Configurable Parameters

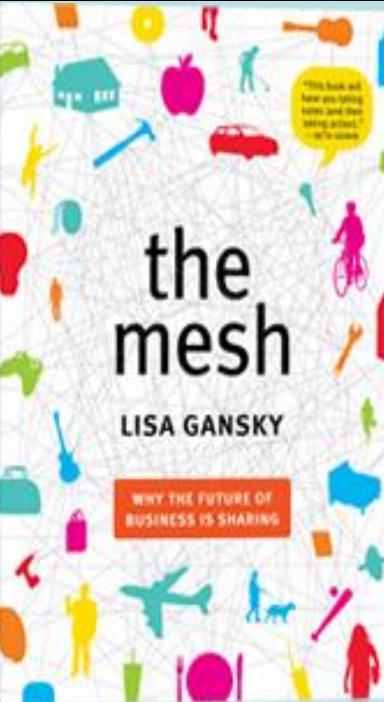
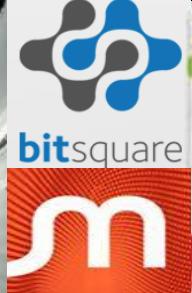
The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC.



The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.



Decentralized Exchange Meets Decentralized Crowdfunding



A decentralized exchange called BitSquare has [launched a campaign](#) on the decentralized crowd funding app [Lighthouse](#). Its campaign is simultaneously an example of how powerful decentralized crowd funding is, and how difficult running a successful campaign is... segue to the MESH ECONOMY

The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours ahead UTC.



Autonomous Device Coordination Framework



- Registration
- Authentication
- Proximity based rules
- Consensus based rules
- Contracts
- Checklists

FEDERATION
AGREEMENTS
PROCEDURAL
TEMPLATE

FEDERATION

<UUID> <ORG_ID> <URN>

LDAP DIRECTORY

Physical proximity

Social proximity

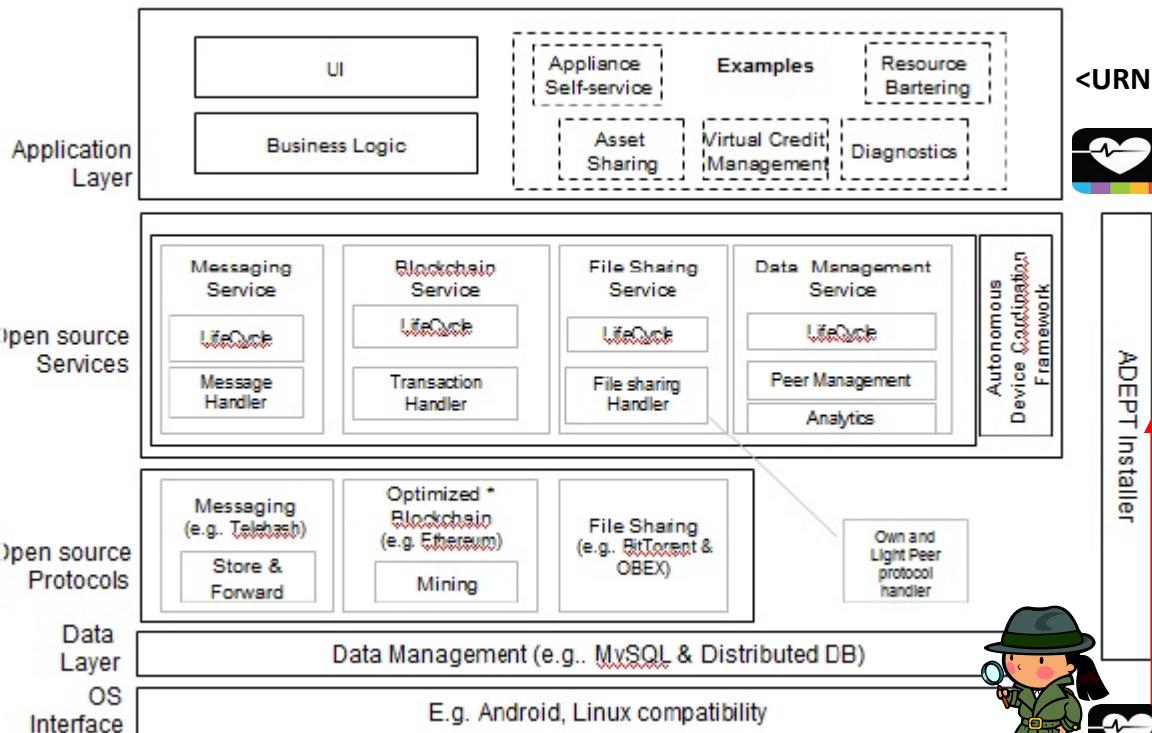
Temporal proximity

Agreements

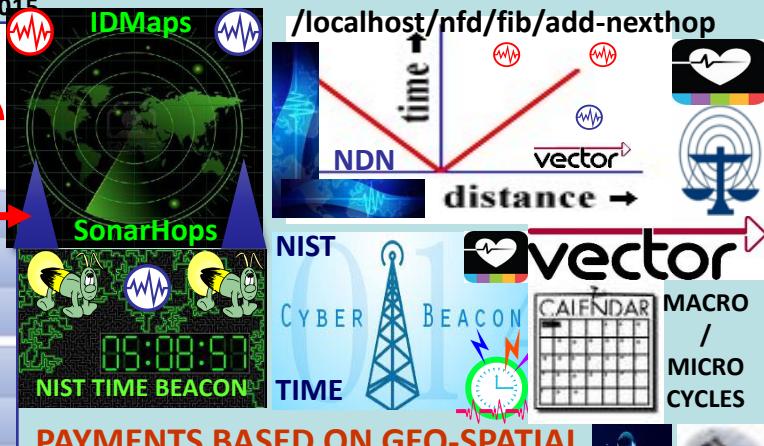
Payments

Barter

ADEPT Standard Peer Architecture – Logical View



* Could be optimized to hold the complete blockchain. Function of ADEPT Installer

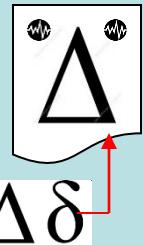


PAYMENTS BASED ON GEO-SPATIAL TEMPORAL METRICS / METERS
<URN> DESCRIBES COMMODITIES ETC BY UNIFORM RESOURCE NAME BY </INTEREST>>

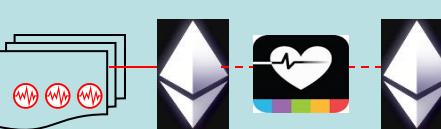


ASSET SHARING WITHIN FEDERATION

BUSINESS LOGIC = WORKFLOW <XML_Wf>



FILE SHARING = CYCLIC SYNC DELTA LEDGER / DOCUMENT REFRESH



OPEN SOURCE = HBC = PROTOCOL AGNOSTIC

DATA LAYER: STATE META DATA TIME STAMPED BY <UUID><ORG_ID><URN> & DATA PREPPED & "DATA WRANGLLED PRIOR TO FUSION CENTER ENHANCED ANALYTICS / PROTECTS BANDWIDTH

Situational Awareness Reference Architecture (SARA)

Identity, Inventory, Activity, and Sharing

<http://ics-isac.org/sara/>



IDENTITY: <UUID> = Devices, sensors
Federation Gateway <ORG_ID> Organizations

<ELEMENTS>

STRATML / IODEF RID CLASSES:
<GLOBAL><JOINT><SHARED>
<DOMAIN><FEDERATION>
<CITY><STATE><PRIVATE>

STRATEGIC MARKUP

StratML

LANGUAGE

Industrial Control System Information Sharing and Analysis Center

INVENTORY: Uniform Resource Name <URN>

<URN><URN> <NEWS>
<URN><URN> <COMMODITY><WATER><ENERGY><AVAILABLE UNITS>
<URN><URN> vector <GEO-SPATIAL TEMPORAL INTENSITY METRICS / METERS>

UNIFIED EVENT / ALERT TRIGGER / THRESHOLDS

ACTIVITY: <EVENT><ALERT> <TIME_STAMP><ORG_ID><URN>

<GEO_LOC_GPS><STATUS>
<Halt><Moving><Stale><Ready>

CONTENT LEXICON
ROSETTA STONE

SHARING:

COMMON <TAGS>
<Organizational_ID>
Resource Names <URN>
<Time_Stamps>
<State-Meta_Data>
<DATA_CLASS_TYPE>
<Heartbeat_snapshots>



AVALANCHE

WELCOME TO THE FS-ISAC SECURITY AUTOMATION GROUP. OUR VISION IS A FEDERATED NETWORK OF STIX-BASED REPOSITORIES SHARING INTELLIGENCE IN REAL-TIME. AVALANCHE: STRENGTH IN NUMBERS, SECURELY SHARE INTELLIGENCE

NIST CYBER SECURITY FRAMEWORK

MIL-STD-2525A

FROM	TO
QCB2-A	TAB
ABAD	AMOPCS
AMOPCS	AFATOB

MCS

CBICS

DTB8

IMETS

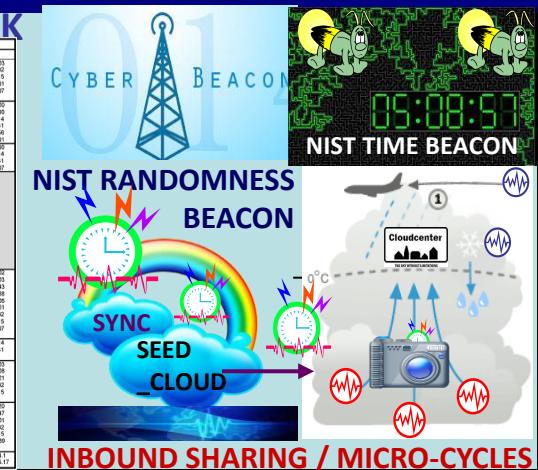
IBSONY

FB208

NIA

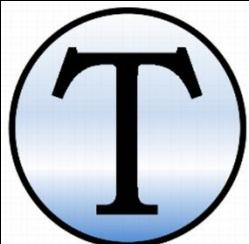
STRUCTURED
<CONTENT>
TEMPLATES

<TAG>
LIBRARY



NIEM
NATIONAL INFORMATION EXCHANGING

NAMED DATA
NETWORKING
<Content> Centric



Three ideas combined

HOW TRUTHCOIN WORKS:

1) Tradable Reputation

- Abstract Corp exists to prove consistency within / across TIME
- Collects \$ to power the mechanism.

2) SVD Cross-Validation

- Statistical technique: seeks importance.
- Gleans truth, measures conformity.



3) Strategic Use of TIME

- Funds can be ‘locked’ across time.
- Yet info-search-costs constantly fall.
- Net effect: time penalizes attackers only.

2. A kind of ‘Future Wikipedia’

	Wikipedia	Truthcoin
Focus	Outcomes of <i>past</i> events. Consensus on known facts.	Outcomes of <i>future</i> events. <i>Future</i> consensus on <i>knowable</i> facts.

Finance Thing	Interpretation	EVENT DERIVATIVE CORP = <Org_ID_1,2,3>
Bond (Debt)	“I, Paul Sztorc, owe \$20 to whoever is holding this bond certificate on 03/02/2015.”	
Stock (Equity)	“I, the CEO of SztorcCorp, owe 1/100 th of SztorcCorp’s profits to whoever is holding this stock certificate on 03/02/2015.”	
Binary Call Option	“I, Paul Sztorc, owe \$20 to whoever is holding this Option on 03/02/2015, <u>only if</u> the stock price of SztorcCorp is above 40 \$/share on that date.”	
...(others)...	...(others)...	...(others)...
Event Derivative	“I, Paul Sztorc, owe \$20 to whoever is holding this derivative on 12/01/2016, <u>only if</u> Hillary Clinton is elected US President in 2016. Otherwise I owe \$0.”	...(others)...
...(others)...	...(others)...	...(others)...

3. A software protocol

A protocol is a set of rules that determine how something is performed or accomplished

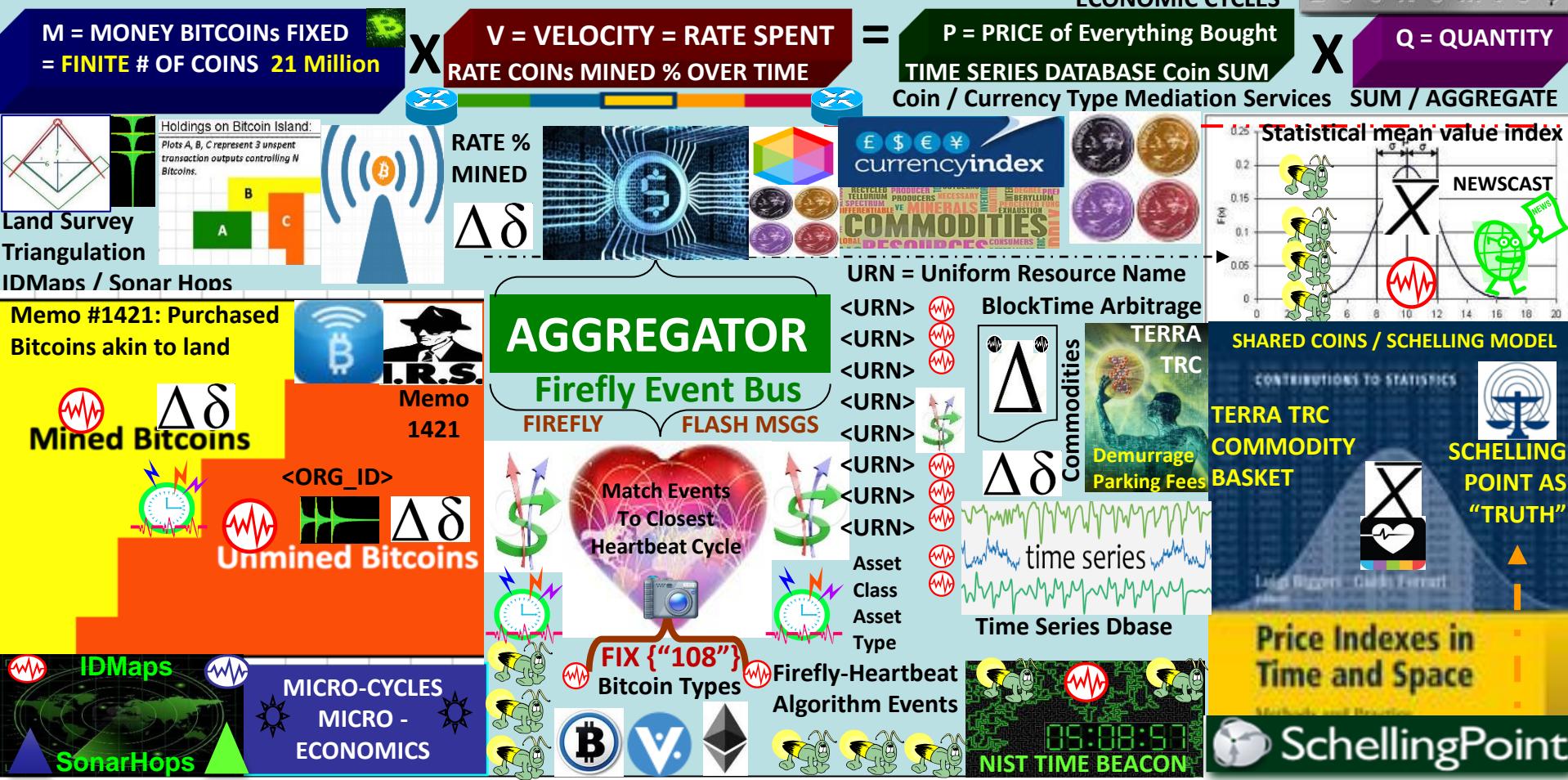


Protocol (Decentralized)	Centralized Non-Protocol
Spoken English	Shakespeare’s Globe Theatre, The Library of Alexandria, MLA Citation Format, Walt Whitman, J.K. Rowling.
Rules to American Football	The NFL, ESPN, The Buffalo Bills.
Bluetooth	A Set of Stereo Speakers, The iPhone 6, A Car Radio Equipped with Bluetooth
Bitcoin	VISA, PayPal, SWIFT, Western Union, Airline Miles, Amazon Coins, e-Gold, Liberty Reserve.

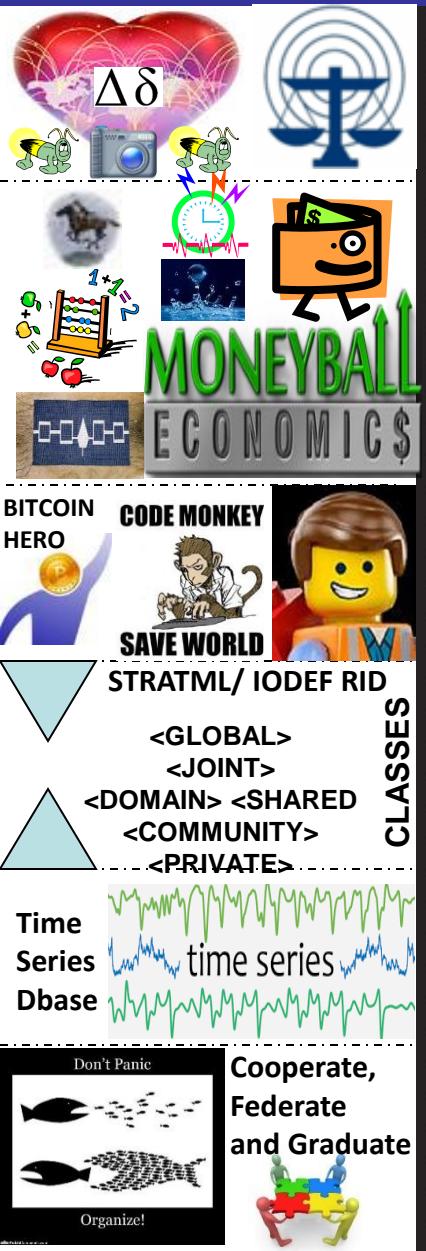
How 'Bitbanks' Could Solve Bitcoin's Volatility Problem

MV=PQ Money x Velocity = Price x Quantity

The most important equation in monetary economics, the equation of exchange: $MV=PQ$. The quantity of money (M) times the rate spent (V for velocity) equals the price of everything bought (P) times the amount bought (Q for quantity). In Bitcoin, M Money is on a predetermined path, converging to 21m bitcoins. In relation to the other variables, Bitcoin is fixed. V, P, & Q fluctuate



Gamification is the use of game thinking and game mechanics in non-game contexts to engage users in solving problems. Gamification techniques strive to leverage people's natural desires for competition, achievement, status, self-expression, altruism, closure.



HOW GAMIFICATION WORKS:

5 COMMON MECHANICS

POINTS

100 PT

Measure a user's achievements in relation to others

Can double as currency to exchange for rewards

BADGES

Reward achievements visually

LEVELS

Encourage users to progress and unlock new rewards

LEADERBOARDS

Organise players by rank

CHALLENGES

Encourage engagement by offering specific tasks to complete

4 MAIN WAYS TO DRIVE ENGAGEMENT

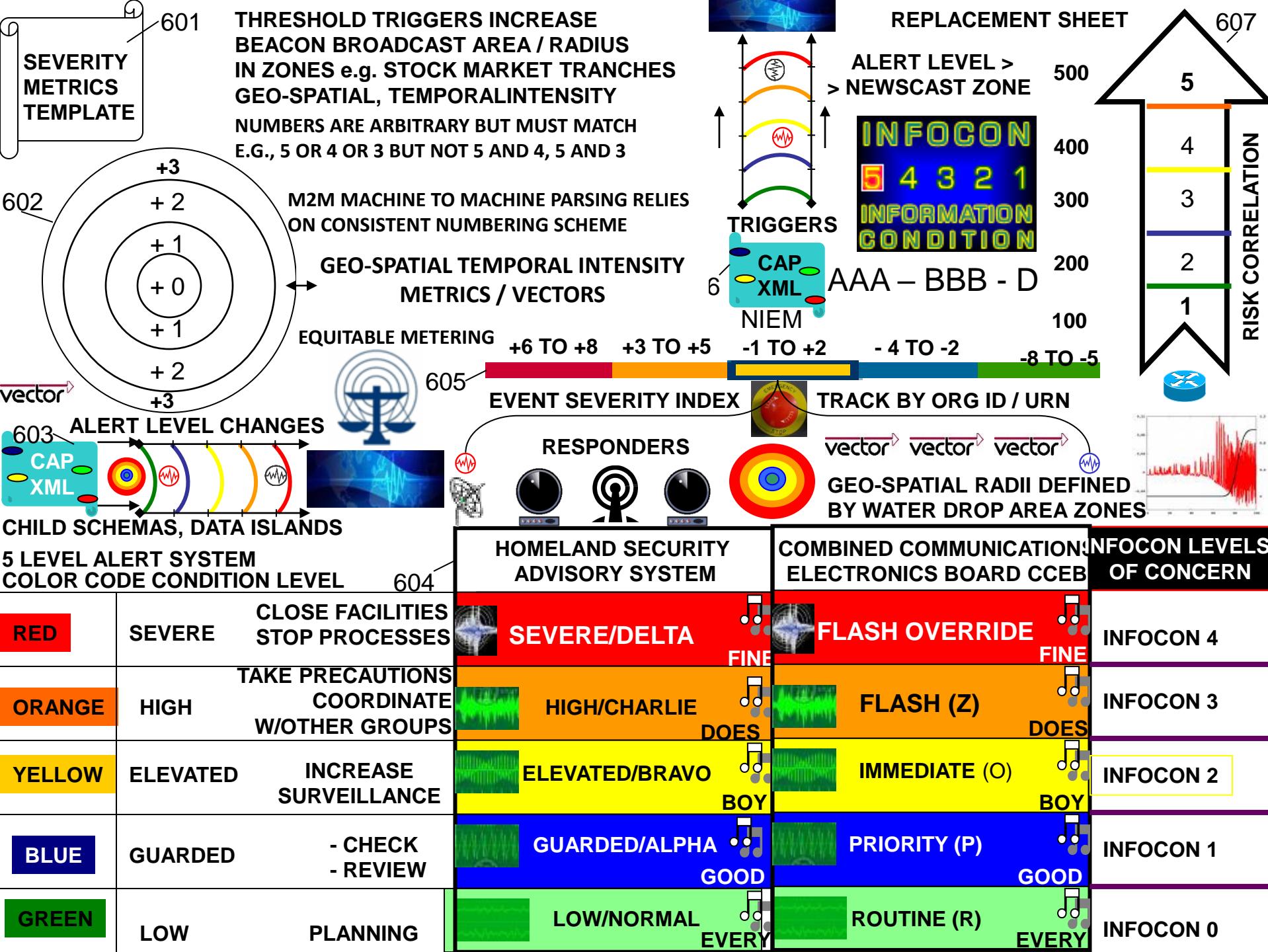
ACCELERATED FEEDBACK CYCLES

CLEAR GOALS AND RULES OF PLAY

A COMPELLING NARRATIVE

CHALLENGING BUT ACHIEVABLE TASKS





GEO-SPATIAL TEMPORAL INTENSITY METRICS, METERS, VECTORS



INFOCON / DEFCON ALERT EVENTS INFORM STAKEHOLDERS OF STATUS CHANGE i.e., NORMAL TO ELEVATED, HIGH OR SEVERE. ALERT LEVELS ARE ARBITRARY BUT MUST BE CONSISTENT e.g., 3 OR 5 FOR MACHINE TO MACHINE PROCESSING



Geo-Spatial Temporal Intensity NOVEL METRICS / METERS:



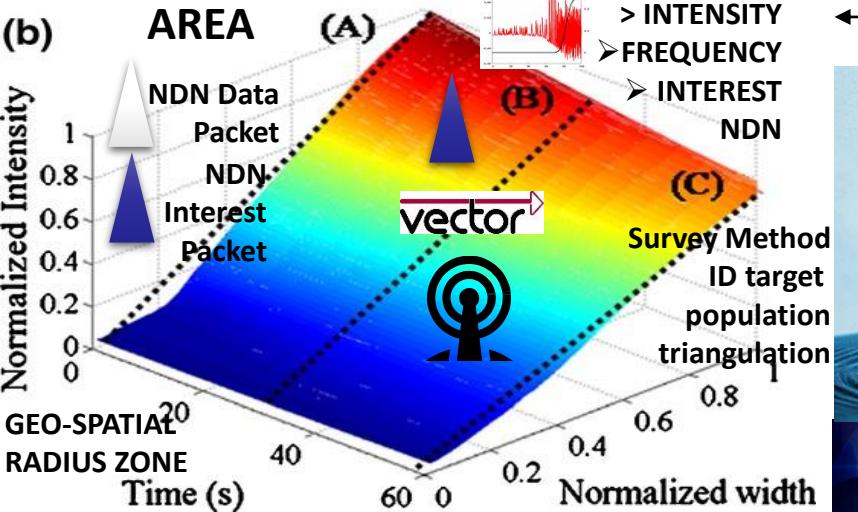
Paul Revere = linear, sequential



TCP/IP hop by hop counts, by hop controls



Water Drop = AREA / INTENSITY
Cyclic Frequency

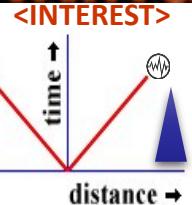


NAMED DATA NETWORKING

</IoT>
MQTT

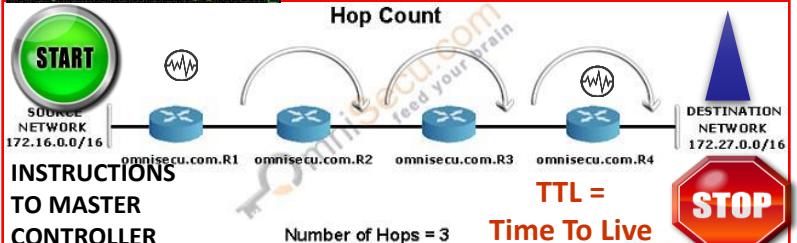


NIST TIME BEACON



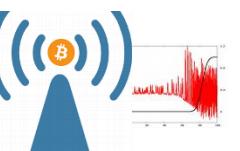
ARRESTED-D

TELEMETRY TRANSPORT



CLOSER = FASTER, CHEAPER > CYCLE => INTEREST NAMED-DATA NETWORKING

IDMAPS
SONARHOPS
INTERNET
TRIANGULATION



4 / 3 / 2 / 1 / NULL / 1 / 2 / 3 / 4

.0001 .05 .01 .1 0 5 15 30 99

vector WirelessHART

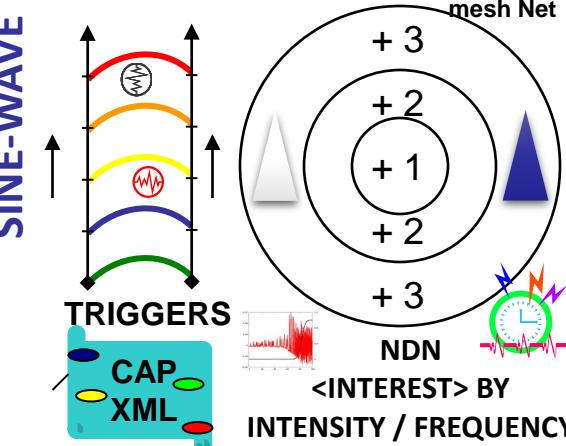
time synchronized,
self-organizing,
mesh Net

ALERT LEVEL >
> NEWSCAST ZONE



SINE-WAVE

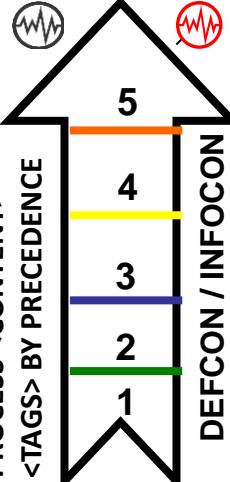
TRIGGERS
CAP XML

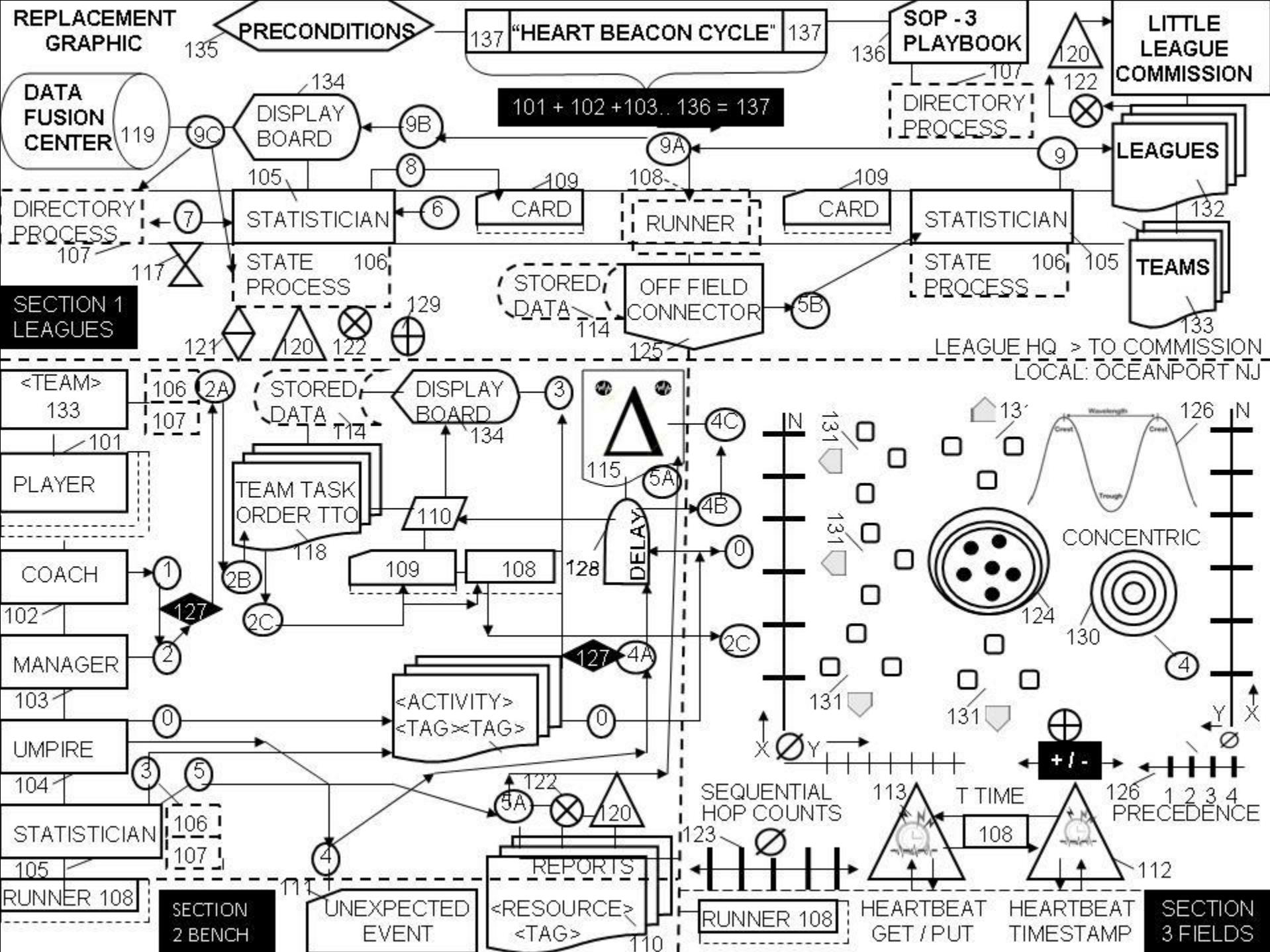


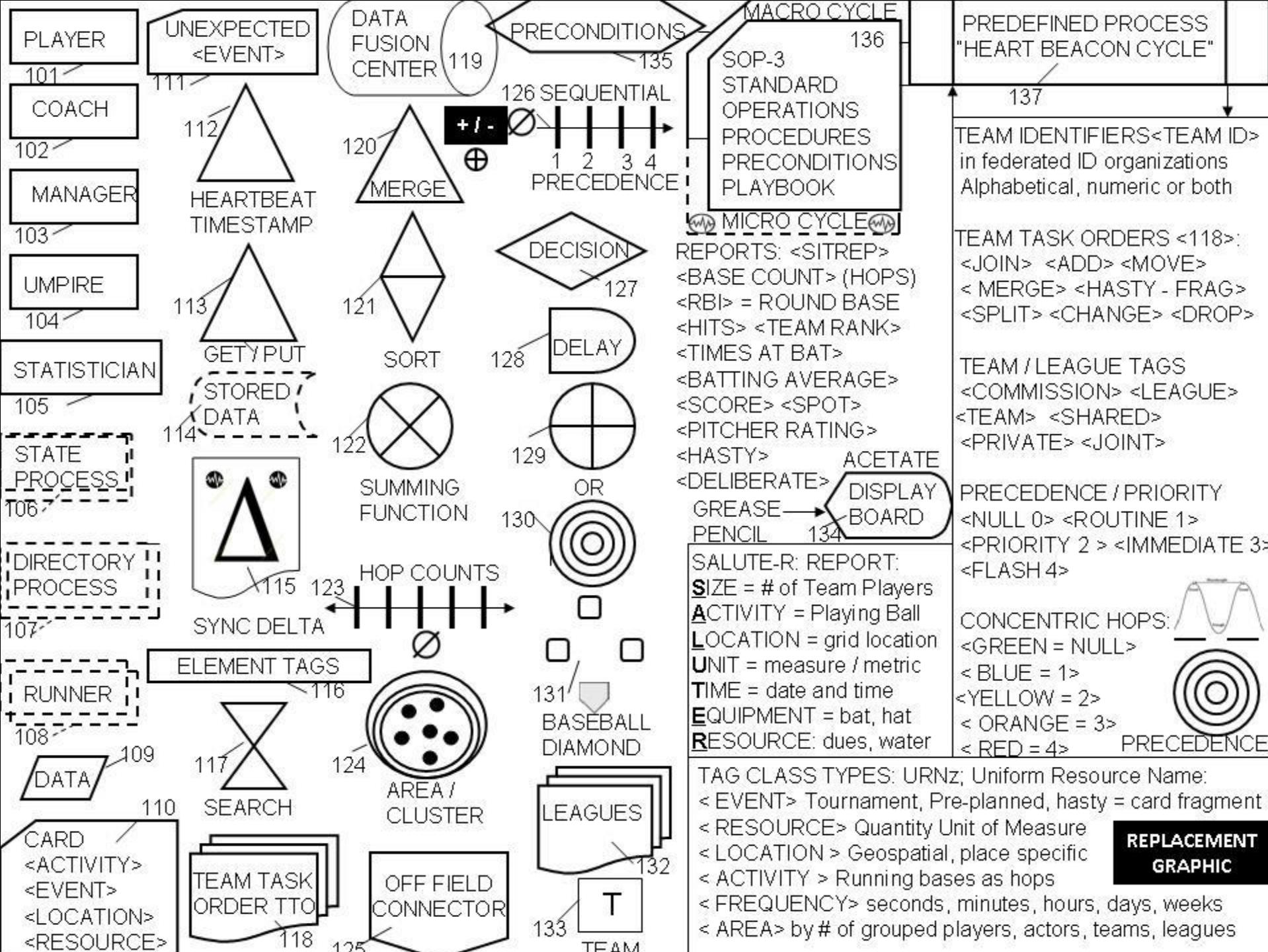
INFOCON
XML
MTF
300 +
MSG

5 4 3 2 1

INFORMATION CONDITION









THE 1919 WORLD SERIES

What Really Happened?

William A. Cook



Stop patent trolls.
Join The Alliance.

Application Developers Alliance

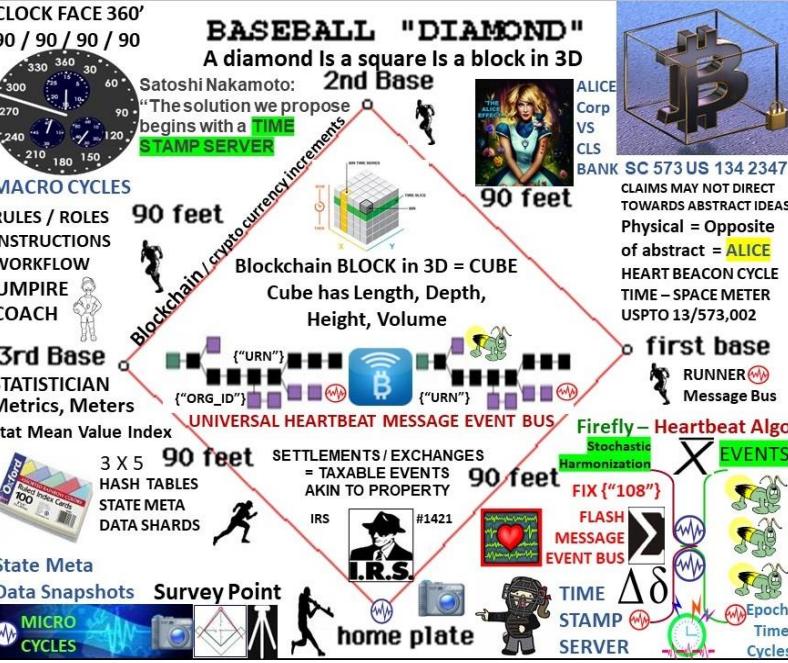


Alice Corp. v. CLS Bank International, 573 U.S. 134 S. Ct. 2347 (2014)
RULING: “claims may not direct towards abstract ideas”



USPTO SCREEN CAPTURES SUSPENDED PAIR RULES

- Moved Examination outside PAIR 
 - Admin forms, fees, amendments.. MUTED
 - NO Time Stamps = TEMPORAL AMBIGUITY
 - Screen captures before / after filing 







district0x

decentralized markets communities network. Create, operate, govern. Powered by Ethereum, Aragon, IPFS.

Districts are marketplaces and communities that exist as decentralized autonomous organizations on the district0x Network. All internet citizens will be able to deploy districts to the network free of charge, forever. All districts possess the following core functionalities...

- | | | |
|--|---|---|
| Signaling via CarbonVote | Graphene executables: | <ul style="list-style-type: none">● Posting and listings● Search and filtering● Ranking and reputation● Payments and invoicing |
| Status = browser,
messenger, gateway | witness_node,
cli_wallet, genesis_util | |

d0xINFRA provides districts with core functionalities required to operate an online market or community. e.g., ability for users to post listings, filter and search listings, rank peers, amass reputation, send invoices, collect payments

district0x Network Token: means of facilitating open participation and coordination on the network. Voting rights are utilized to come to a consensus on everything ranging from a district's branding and design decisions, to what functionality is added to the district via auxiliary modules, to the appropriate settings for any adjustable parameters of these modules, to the means in which revenue collected by a district is distributed

NAME BAZAAR: peer-to-peer marketplace for the exchange of names registered via the Ethereum Name Service trading of subdomains, enabling the exchange of usernames in decentralized applications such as **STATUS** and **ORGANIZATION NAMES** in the Aragon Network **COMPANY REGISTRY**

Meme Factory users mint their own tokenized memes for sale i.e., rare digital assets on the Ethereum blockchain posted to a bulletin board-style marketplace exchange.

Dharma Credit is a suite of tools that make it easy to plug a line of credit into any decentralized application. In lieu of forcing your first-time users to purchase crypto at a brokerage or exchange, a Dharma Credit integration will give your users a button that they can click and get a small cryptocurrency loan within your app in under 5 minutes.

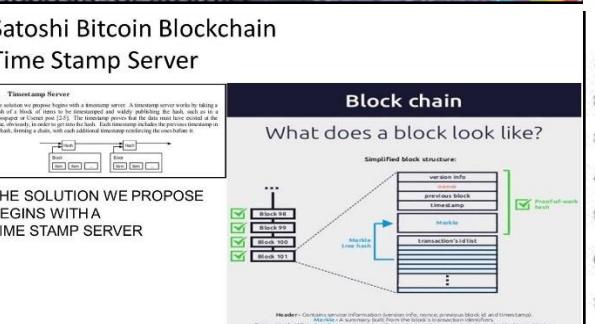
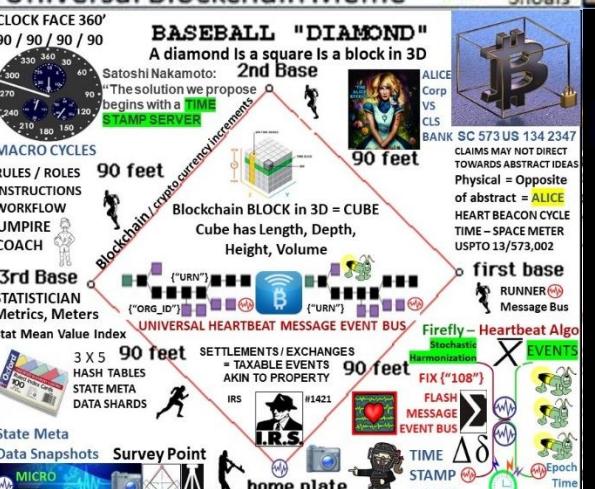
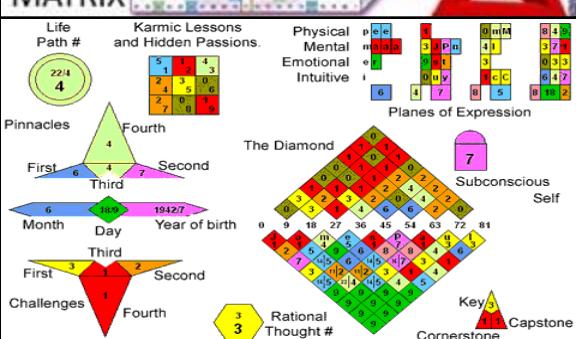
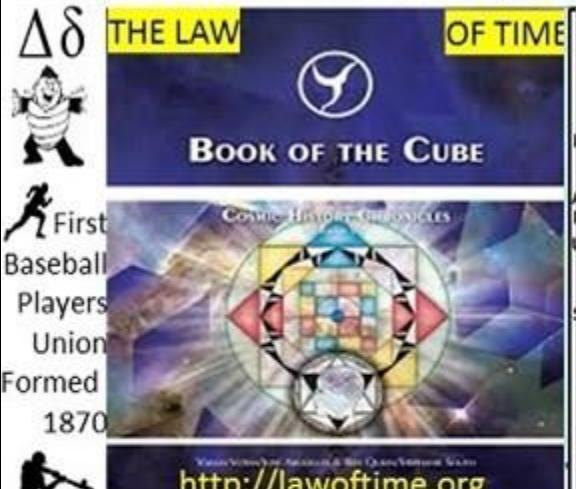
USPTO APPLICATION 13/573 002

The Heart Beacon Cycle Time-Space Meter

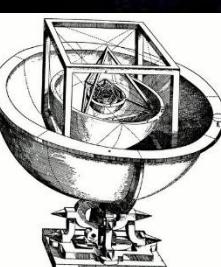
Main Embodiment: Baseball Diamond = block in 3D = cube

$$1 + 3 + 5 + 7 + 3 + 2 = 21 \quad 21 \text{ squared} = 441$$

"We can synchronize ourselves in time for a common purpose" Universal Blockchain Meme



Metatron's Cube and the Platonic Solids



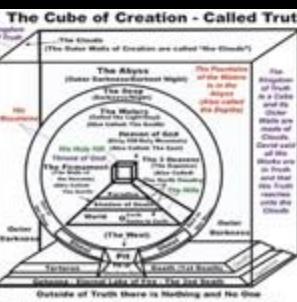
GENESIS OF ALL FORM

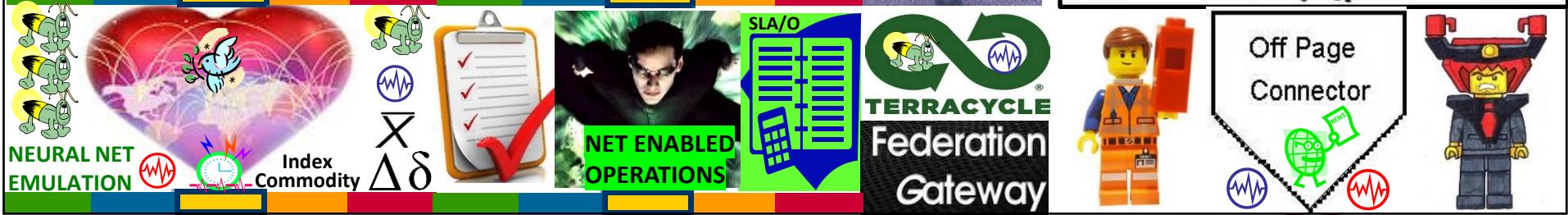


SEED OF LIFE



"In the beginning (of time) there was the word"





MINIMUM LIST OF COMPONENTS, BUILDING BLOCKS, PROCESSES, PROCEDURES AGREED ON BY TRADE FEDERATIONS TO ACHIEVE DISTRIBUTED AUTONOMOUS ORGANIZATION DAO CONSENSUS





SIMPLE ALWAYS WINS... WHEN STANDING ON THE SHOULDERS OF GIANTS

