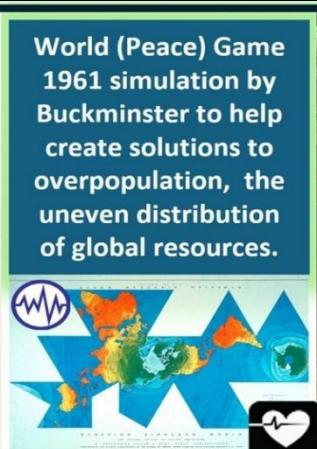
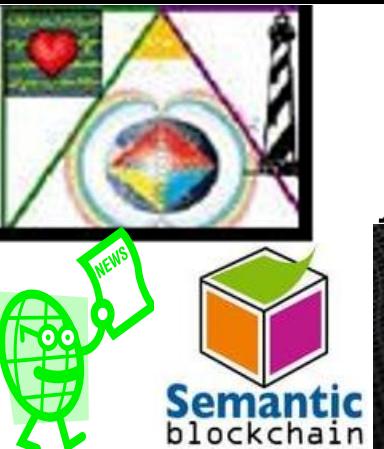
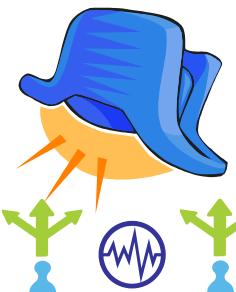


Beacon Kit

Battlefield Digitization for OOTW



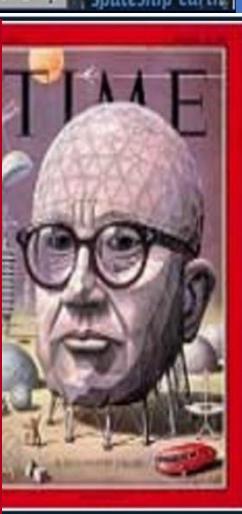
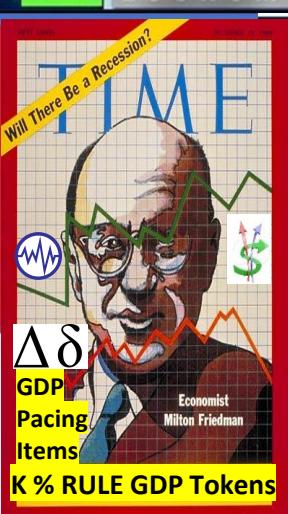
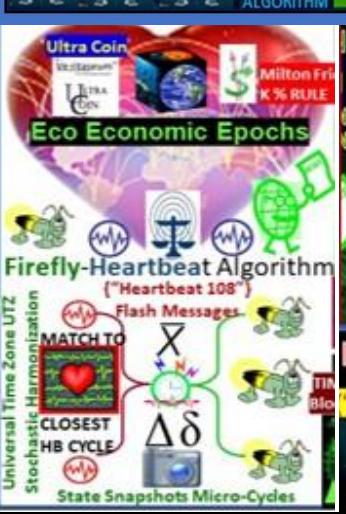
Foundation tech list of OPW Other

People's Work swords to
plowshares reuse of battlefield
digitization for OOTW Operations

Other Than War: \$\$\$ Eco systems

Adaptive Procedural Template list:
tools, processes, procedures, ideas..

11 + Use cases: quantum financial
System, DeFi, Fintech.. @ global
federated system of systems sync..



The Timekeeper is the primary antagonist in Borderlands 4, a ruthless dictator who rules over the planet Kairos from on high.

A world-altering catastrophe threatens his perfect Order, unleashing mayhem across Kairos, the most dangerous planet discovered so far in the Borderlands universe

BORDERLANDS 4



THE UNIVERSE STRIVES TOWARDS EQUILIBRIUM



THE TIMEKEEPER

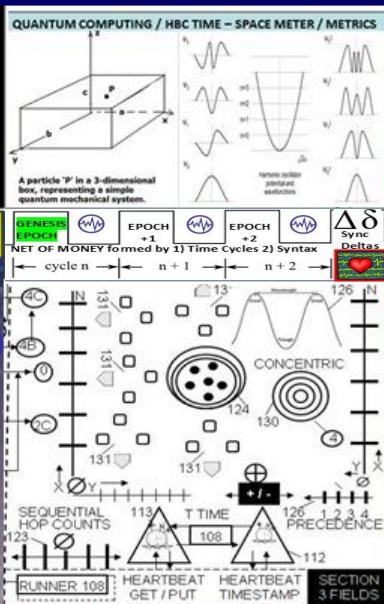
Hashed Timelock Contract (HTLC) / Epoch Sync Deltas $\Delta\delta$

QUOTE: "As in nature, all is ebb and tide, all is wave motion, so in all branches of industry, alternating currents, electric wave motion will have sway." Nikola Tesla

Because abstract ideas, laws of nature, and natural phenomenon "are the basic tools of scientific and technological work" .. Supreme Court Alice Corp., 573 U.S. at 216, 110 USPQ2d at 1980; Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 71, 101 USPQ2d 1961,



USPTO 13/573,002
THE HEART BEACON CYCLE TIME – SPACE METER, METRICS $\Delta\delta$



EDISON's Monetary Option 1922



FUTURE MAN

Born: February 10th 1960 & 06:44 AM $\Delta\delta$

Aquarius

MR MAGOO

Aquarius Rising 144 Degrees

Mystic Yod



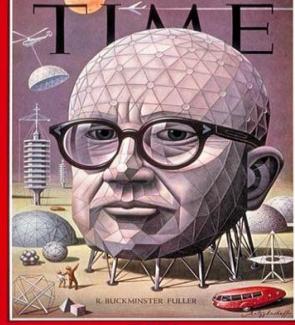
MR MAGOO X 3



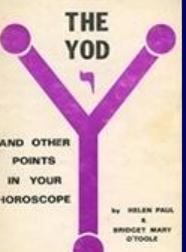
Economist Milton Friedman

SPECIAL SECTION Into The '70s: From Violence to New Values

"BUILD A NEW MODEL"

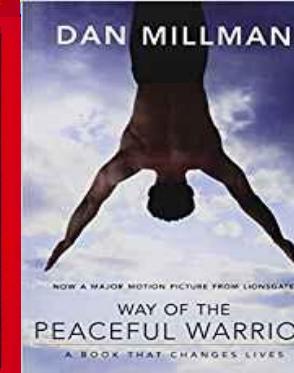


NOW A MAJOR MOTION PICTURE FROM LIONSGATE WAY OF THE PEACEFUL WARRIOR A BOOK THAT CHANGES LIVES

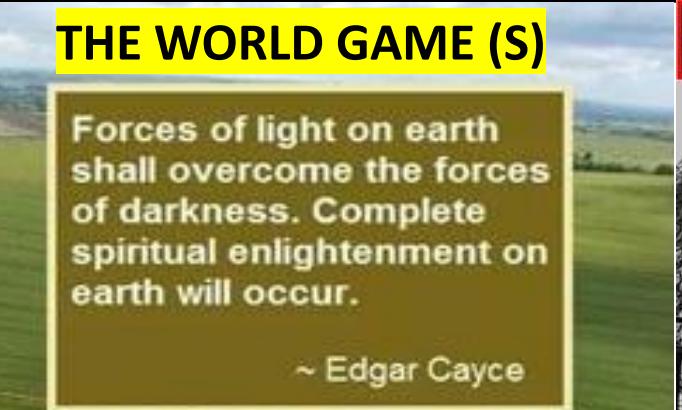
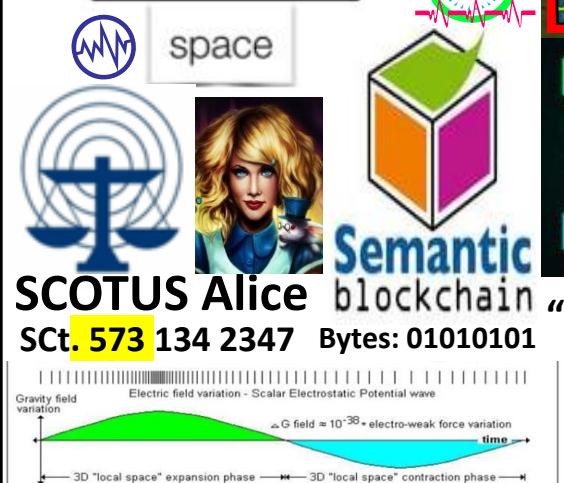
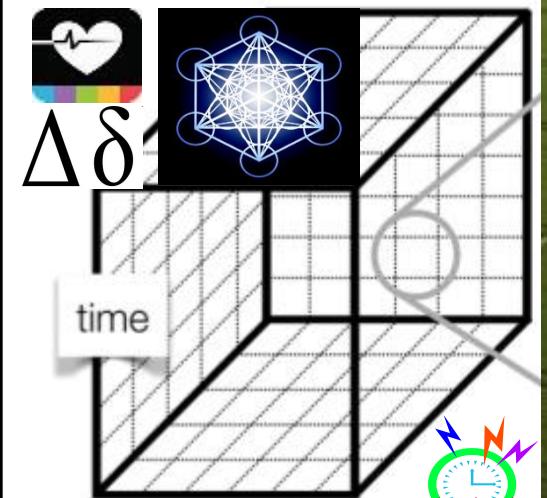


ADAPTIVE PROCEDURAL TEMPLATE Foundation

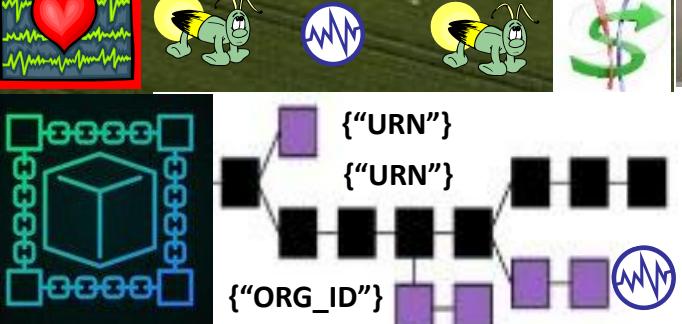
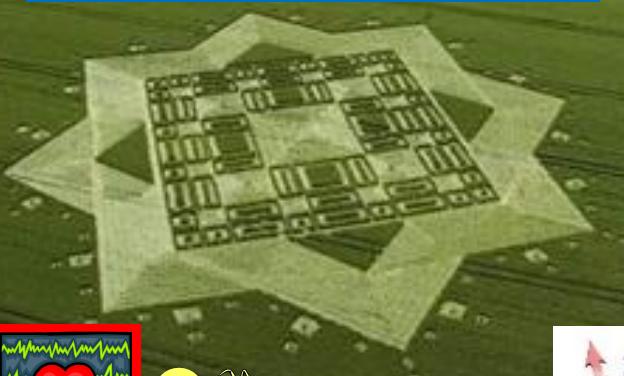
World Game (s) Real QFS Quantum Financial System QFS



"The universe strives towards equilibrium"
USPTO 13/573,002
Heart Beacon Cycle
Time – Space Meter =
Mediation, Moderation



CUBE = SOURCE OF ALL FORM

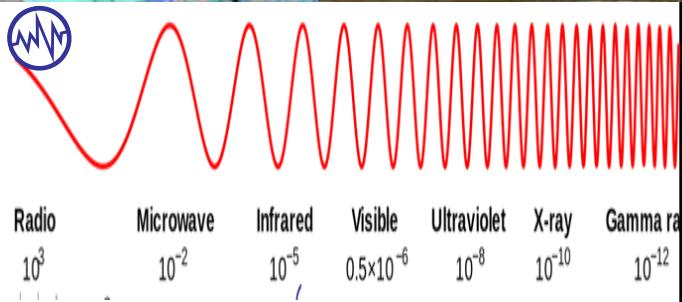
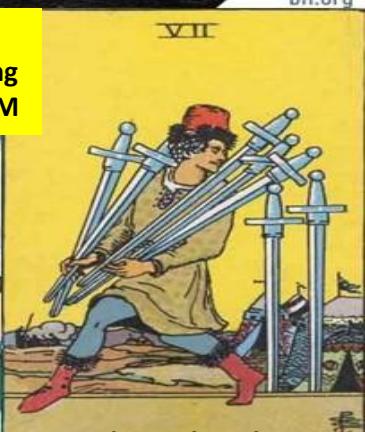


"BLOCKCHAIN" = TIME CHAIN EPOCHS

QUOTE: "As in nature, all is ebb and tide, all is wave motion, so in all branches of industry, alternating currents, electric wave motion will have sway." "All is wave form motion" Nikola Tesla



FATE CARD: 2/10/1960
Aquarius / Aquarius Rising
With mystic yod 06:44 AM

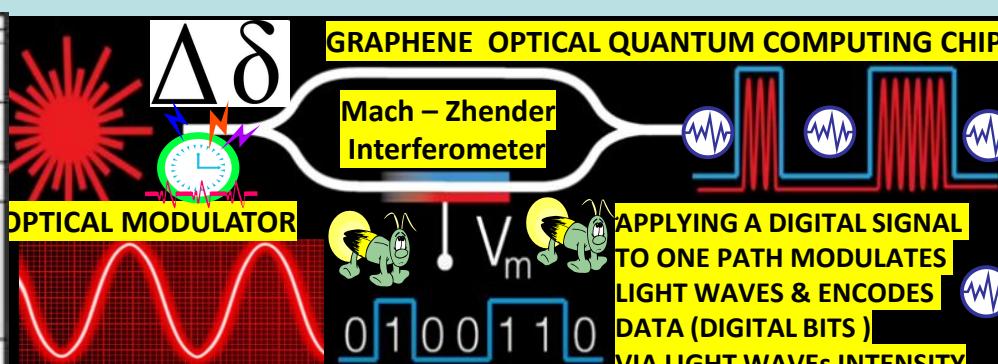
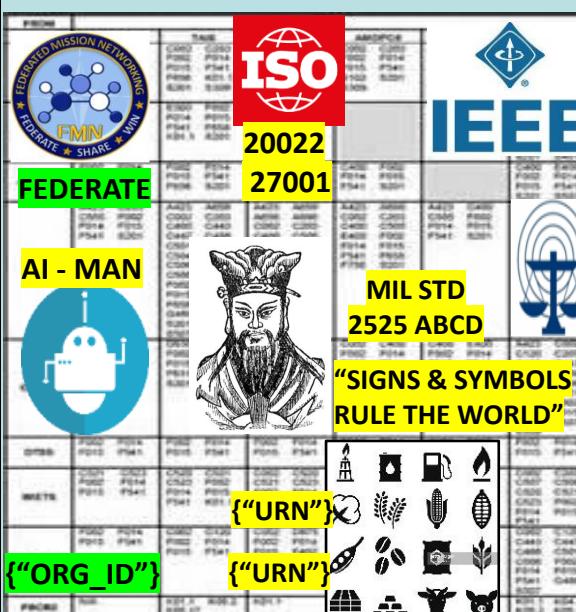


Foundation Tech: Net, Net of QFS – DeFi Financial Federated Systems

USPTO
13/573,002
Sct. 573 134 2347
SCOTUS Alice in Wonderland 2014



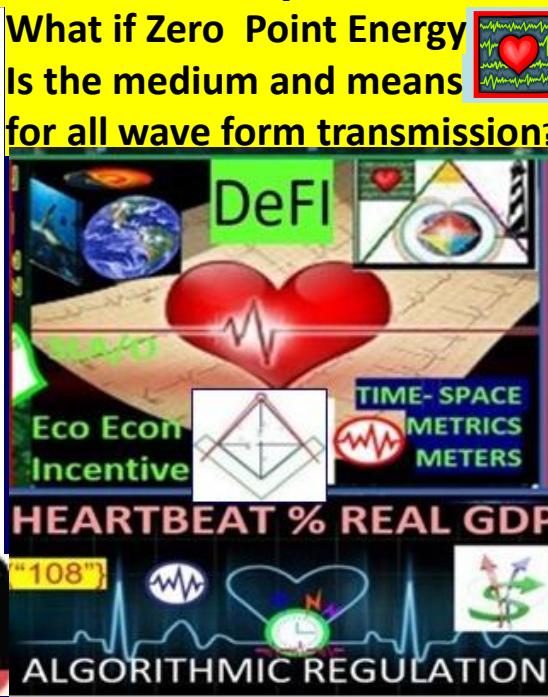
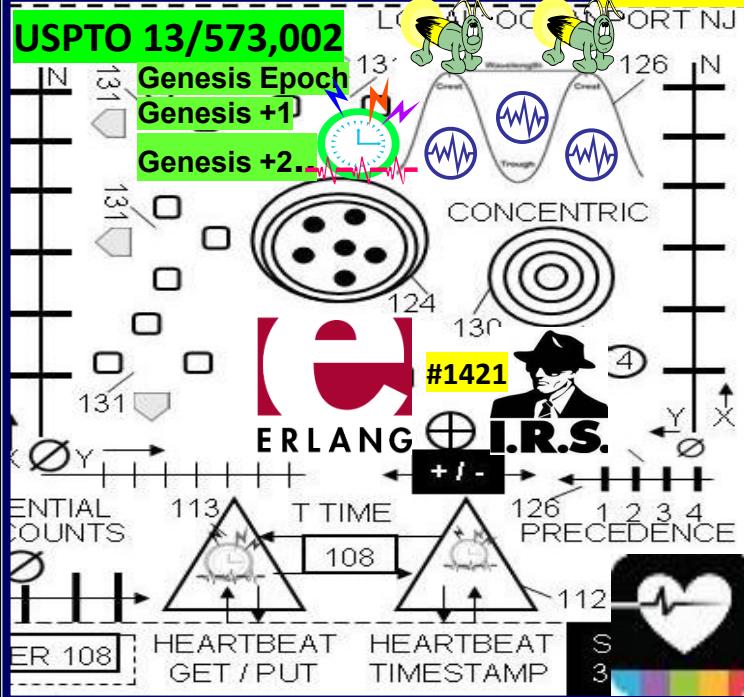
FOUNDATION TECH = 1. EPOCH TIME CYCLES / INTERVALS 2. SYNTAX



Electronic-photonic quantum chip: quantum silicon chip array of "quantum light factories"

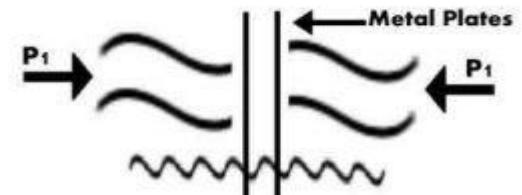
QUOTE: "As in nature, all is ebb and tide, all is wave motion, so in all branches of industry, alternating currents, electric wave motion will have sway." "All is wave form motion" Nikola Tesla

What if Zero Point Energy Is the medium and means for all wave form transmission?



ZERO POINT ENERGY

**ALL ENERGY IS REMOVED BUT
RANDOM ELECTROMAGNETIC
WAVES STILL REMAIN**



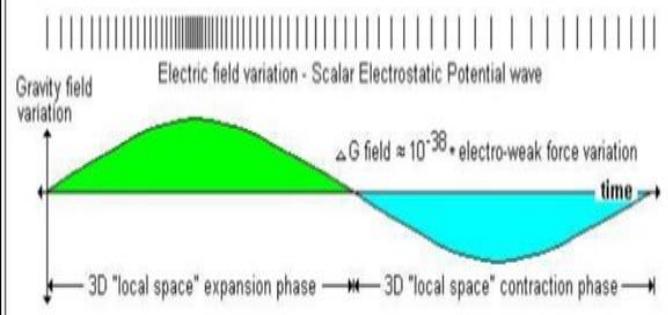
P₁ = PRESSURE FROM EXCLUDED WAVELENGTHS

ENORMOUS ENERGY DENSITY:
 10^{24} to 10^{58} JOULES/m³

THE CASIMIR EFFECT ON METAL PLATES IN A VACUUM

Nikola Tesla "all is wave form motion"

SCOTUS in Alice 2014 Supreme Court "has observed all inventions "embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas."



"abstract ideas = qualities, states, or relationships not physically present"

"As in nature, all is ebb and tide, all is wave motion. In all branches Of industry, alternating currents, electric wave motion will have sway"

all phenomena: electromagnetic and gravitational interactions, can be understood through the lens of wave dynamics. Electromagnetic waves form the basis of these interactions, that gravitational fields gravitational waves and quantum fields. Electromagnetic waves involve the generation of complex waveforms

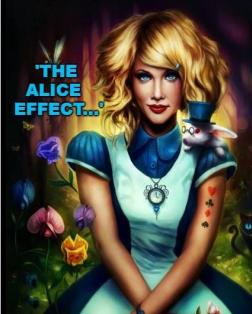
USPTO 13/573,002 The Heart Beacon Cycle Time - Space

Meter THESIS: All net, net of money, QFS are formed using:

1. Epoch time cycle temporal intervals ex: created by microchip , sound, light wave form oscillations
2. Syntax processed during epoch cycle temporal intervals

All things net, net of money, QFS, AI blockchains, hash-graphs etc., (time chains) are formed with unicast, multicast, anycast protocols, (statistically predictive) workflow logic = A.I. artificial intelligence propagated by electro-magnetic wave form motion described by nature

USPTO 13/573,002



SCOTUS 573 U.S. 208

(2014)

Alice Corp

VS CLS

Bank

SEQUENTIAL

HOP COUNTS

23

RUNNER 108

HEARTBEAT

GET / PUT

108

T TIME

112

HEARTBEAT

TIMESTAMP

113

SECTION

3 FIELDS

B2: PROCEDURAL TEMPLATE

310 311

XML

HEARTBEAT MESSAGES

STATE META DATA SNAPSHOTS

NET OPS / NET MANAGEMENT

NET MARKUP NETWORK SERVICE INTERFACE

DOT

.COM

IEC 61850

IEEE C37.118

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NULL

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IEEE 802.1AG HOP BY HOP DETECTION

IEEE 802.11 Hbh HOP BY HOP CONTROL

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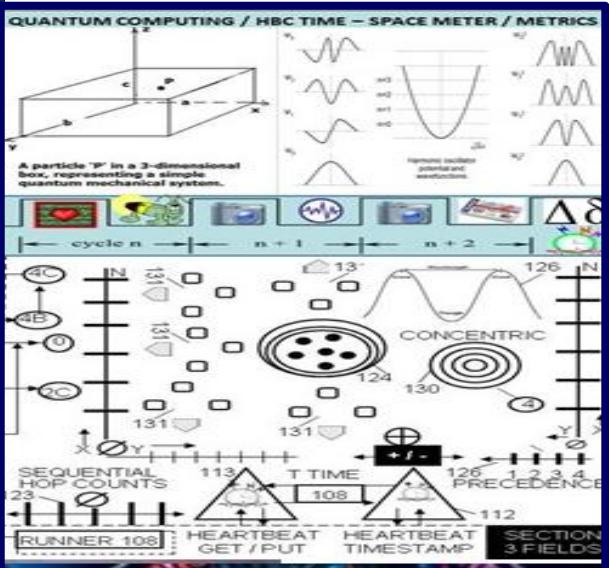
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572

QUOTE: "As in nature, all is ebb and tide, all is wave motion, so in all branches of industry, alternating currents, electric wave motion will have sway."

"All is wave (form) motion" Nikola Tesla



BEACON KIT
USPTO 13/573,002

USPTO 13/573,002

All systems must eventually agree

Quantum State Simulator

Interactive 3D visualization of quantum states on the Bloch sphere

Current State

$$|\psi\rangle = |0\rangle$$



PROBABILITY AMPLITUDES

$$\Delta \delta$$



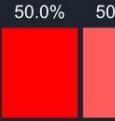
$$|0\rangle$$



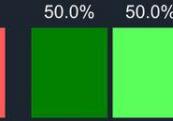
Probability Distributions



$$|0\rangle \quad |1\rangle$$



$$|+\rangle \quad |-\rangle$$



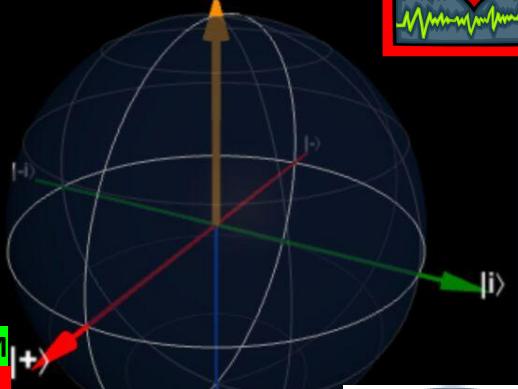
$$|i\rangle \quad |-i\rangle$$

$$\theta (\text{Theta}): 0^\circ$$

$$\varphi (\text{Phi}): 0^\circ$$

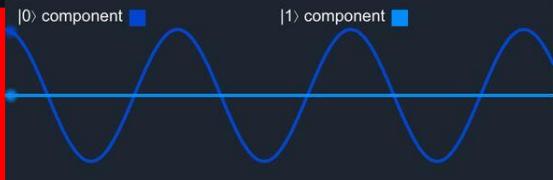


Quantum System of Federated Systems

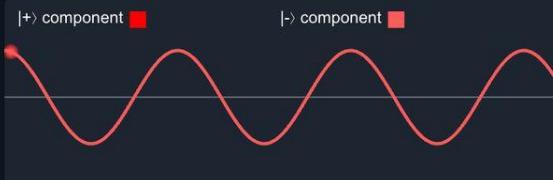


Real part of probability amplitudes

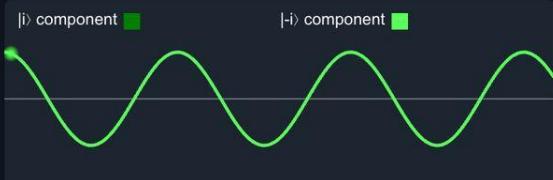
z-Basis

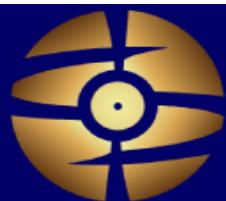


x-Basis



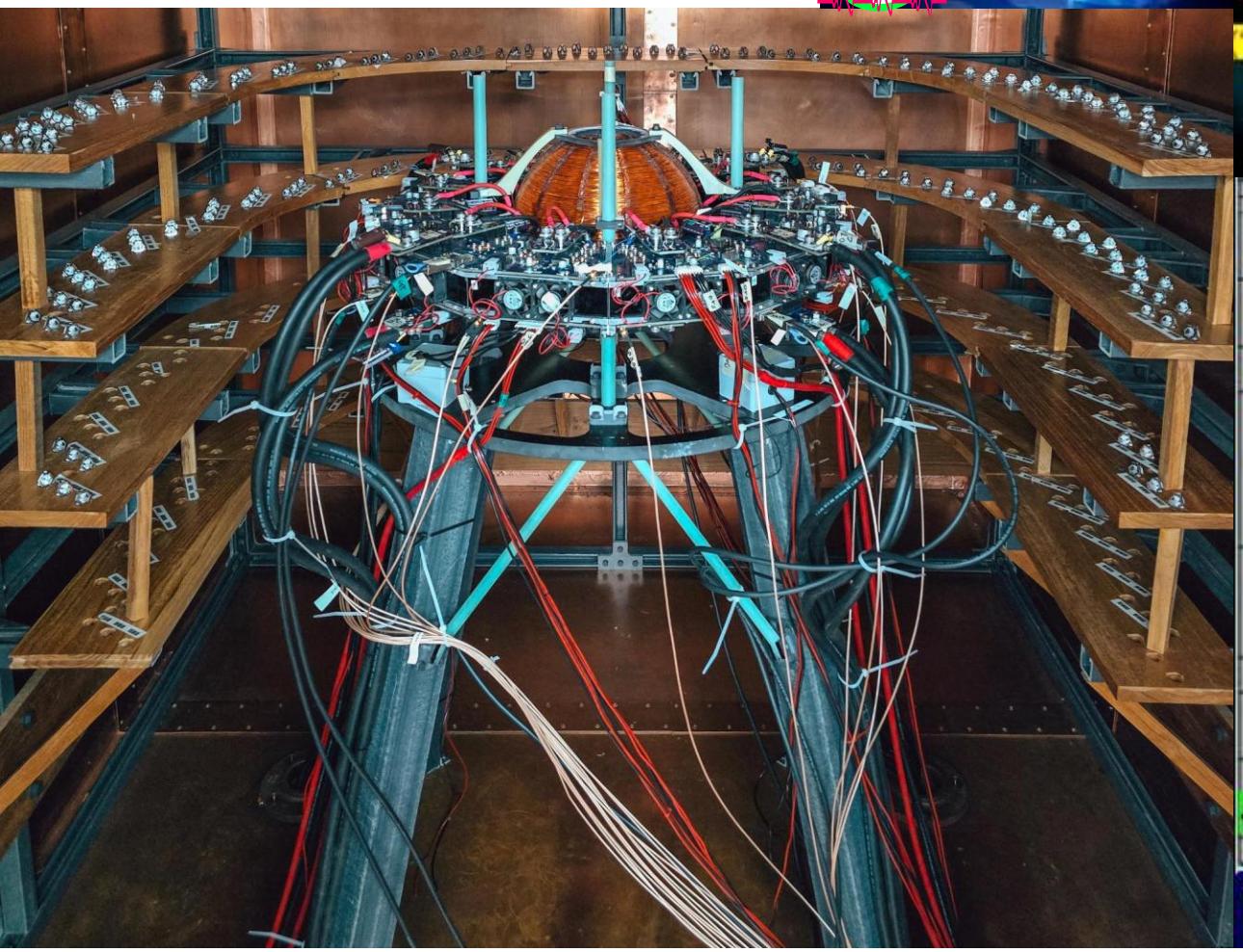
y-Basis



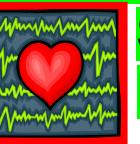


International Space Federation

ZPE Zero Point Energy Prototype
International Space Federation
<https://spacefed.com/isf-technology/>



Quantum – DeFi
System of
Federated
Systems



<https://linktr.ee/FutureMan2026>

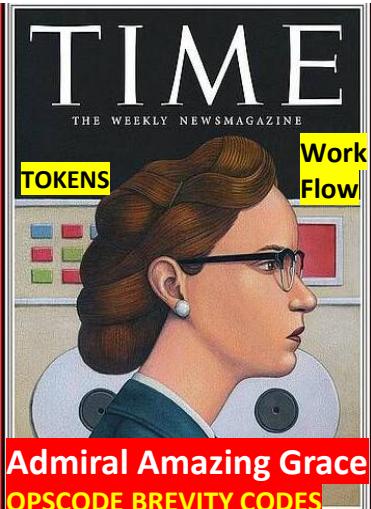
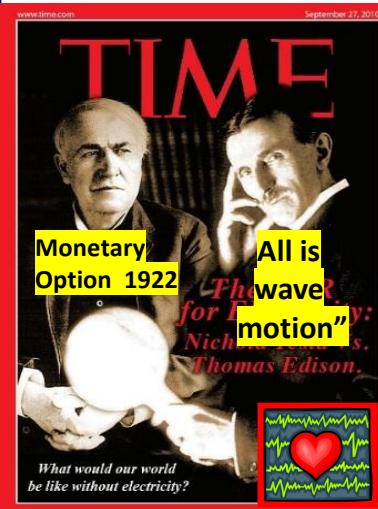


HEARTBEAT % REAL GDP
ALGORITHMIC REGULATION

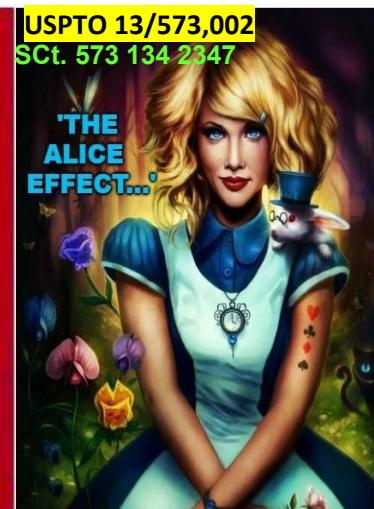
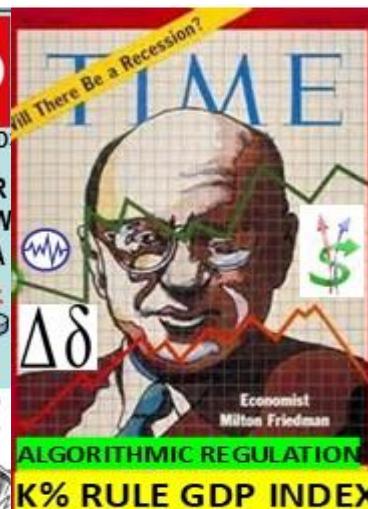


QFS Quantum - DeFi system of DAO federated systems checklist:

1. Nikola Tesla was correct = "All is (energy) wave form motion"
2. Internet, net of \$\$\$ works the same for everything IoT, IoE
3. Net foundation = cannot change (wave form based) 1. Time 2. Syntax
4. DeFi IP wars escalate: **SCOTUS Alice in Wonderland**, ISO, ITU, IEEE etc.
5. Interoperability, sync, stochastic harmonization of QFS driven by wave form Vs quantum dot, particle methods (see Fermilab et al's research)
6. Simple, real will (eventually) win given rich, powerful entities all staked
7. > 1 David (s), many teams of Goliaths over the top battle royale (see #6)
8. Brevity codes mapped to symbols, symbol sets = AI – man = > TIME
9. Economist Milton Friedman correct @ K% rule, crisis = REAL **CHANGE**
10. SLA closer = cheaper given less fuel imperative, **climate**, peak oil
11. Zero Point, Over Unity, ZPE Energy from vacuum Nassim Haramein's **prototype silicon chip (crystal)** oscillations creating wave forms: see #1



NATO	ISO
STOCK MIC CODES	</ORG_ID>
STRUCTURED DATA EXCHANGE	</URN>
TEMPLATE FORMS	R
300+ USE CASES	W
LOGIC / FILTERS	A
SYNTAX / SYMBOL	Real World Assets
LEXICON LIBRARY	A.I.



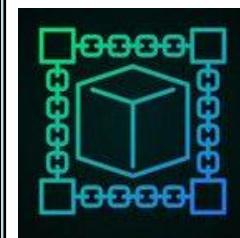
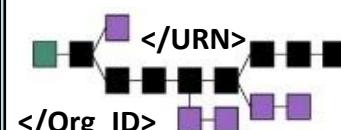
BLOCKCHAIN = ABSTRACTION

TRUTH = Blockchain Quad-lemma

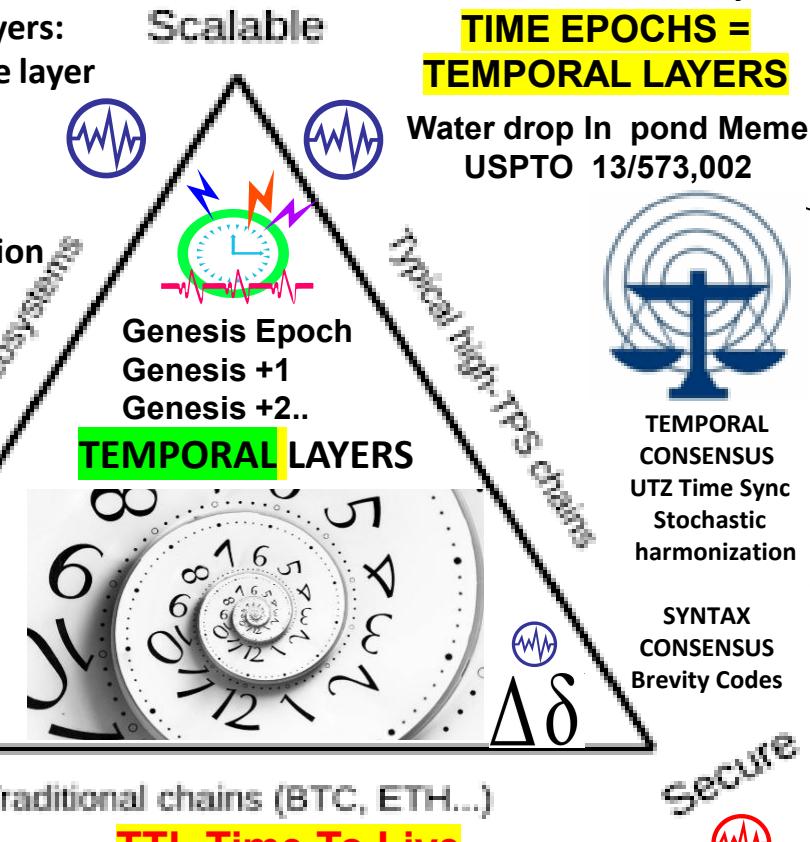
No Layers L0, L1, L2...
only GENESIS EPOCH,
Epoch time cycles,
intervals, cycles

5 five blockchain tech layers:

- Infrastructure hardware layer
- Data layer
- Network layer
- Consensus layer
- Application - Presentation



Decentralized
START

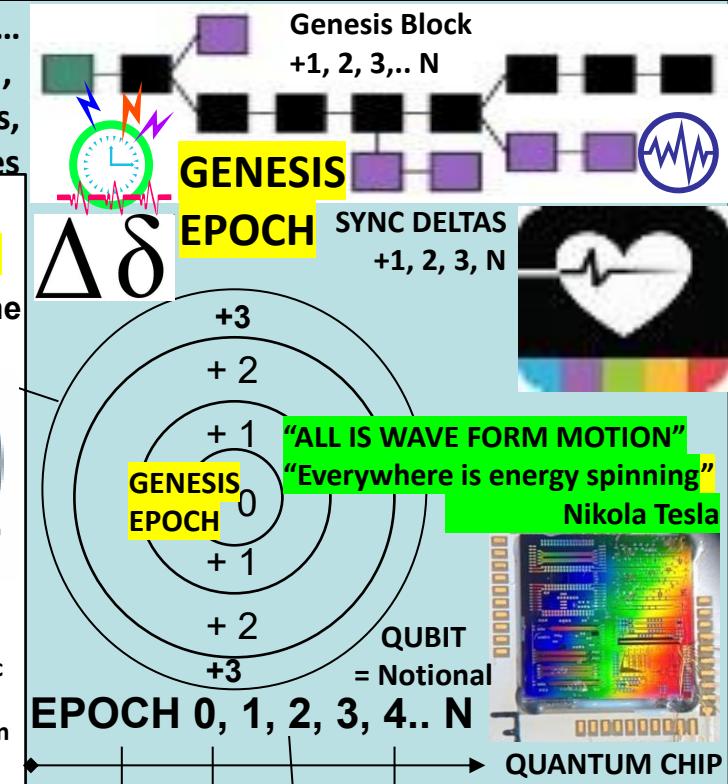


Blockchain = series of hashed blocks carrying transactional records. The first block of the blockchain is the **Genesis block**. After that, every new block added to the blockchain is linked to the Genesis block through a (temporal) iterative process.

Database Flat File
“BLOCKCHAIN” = LEDGER / Database

Database flat file sama dengan file data pada spreadsheet (misal MS Excel™), berupa satu file berisi baris-baris dengan jumlah kolom tetap yang disimpan berurutan dalam file.

NIP	Nama	Nama Depan	Telp
123-45-6789	Santoso	Heru	021-316-1234
987-65-4321	Purnama	Widya	022-543-9876
987-65-4321	Jackson	Michael	021-234-5678
567-89-0123	Iskandar	Dodi	021-987-6431

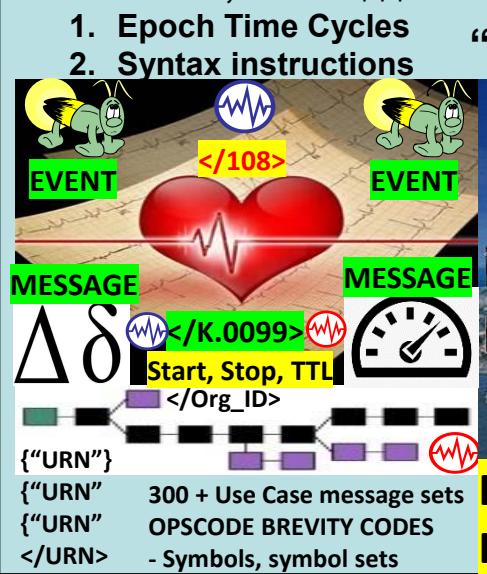
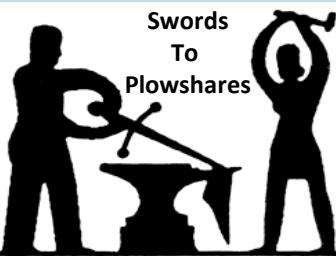


1. Time epochs created by wave, chip oscillation i.e., quartz crystal silicon chips
2. Syntax used / not used as programming instructions during epoch time cycles

All things internet, internet of money, blockchains are formed by unicast, multicast, anycast protocols. Programmable money's improvements are in cryptography. The internet consists of unicast, multicast broadcast, anycast and workflow filters, publish – subscribe paradigms..

World Game (s) Reset

GREAT REDESIGN





UTOPIA ? $\Delta\delta$ OBLIVION ?

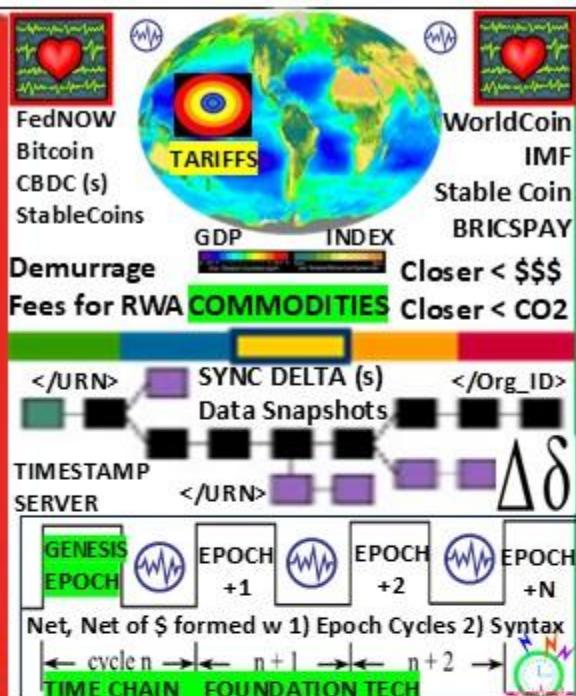
TradeFi TRC Trade Reference Currency

E \$ € ¥ currency index #20022

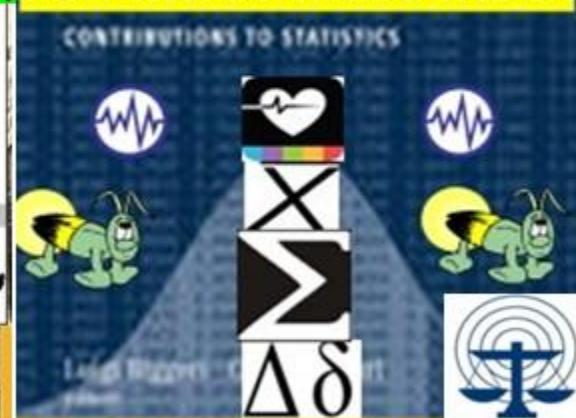
I.R.S. #1421 ISO CLOSER = CHEAPER < FUEL < CO2

BLOCKCHAIN CONSENSUS ALGORITHMS

HARVESTING GOLD: THOMAS EDISON'S EXPERIMENT TO RE-INVENT AMERICAN MONEY... Monetary Option 1922 BY DAVID L. HAMMES



STAT MEAN VALUE INDEX



Price Indexes in Time and Space Methods and Practice SchellingPoint



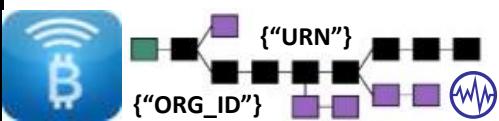
DeFi TIME- SPACE METRICS METERS Eco Econ Incentives HEARTBEAT % REAL GDP ("108") ALGORITHMIC REGULATION

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 concept of "OOTW Operations Other Than WAR or "Vernetzte Operationsführung" circa 2003

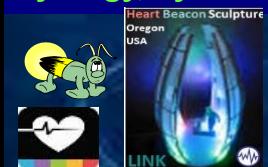


"Shared situational awareness enables collaboration synchronization, and enhances sustainability, speed of command"



300 +TEMPLATES
STRUCTURED DATA
EXCHANGE
FFUIRNS FFUDNS OPSCODES
MAPPED TO SYMBOL SETS

Reuse adaptive procedural template guides from Battlefield Digitization among a federated systems of systems improving synergy, synchronicity to achieve shared sustainable goals



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



OPERATIONS
OTHER
THAN
WAR



Beacon Communities

Vernetzte Operationsführung



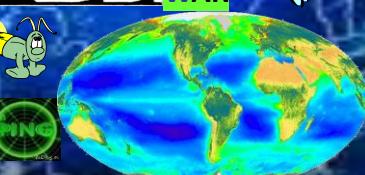
Proximity Beacons



Closer < \$\$\$ < FUEL



MNC



OFF SHORE



KAIJU

JAEGERS

ALGORITHM

FREELY

HEARTBEAT

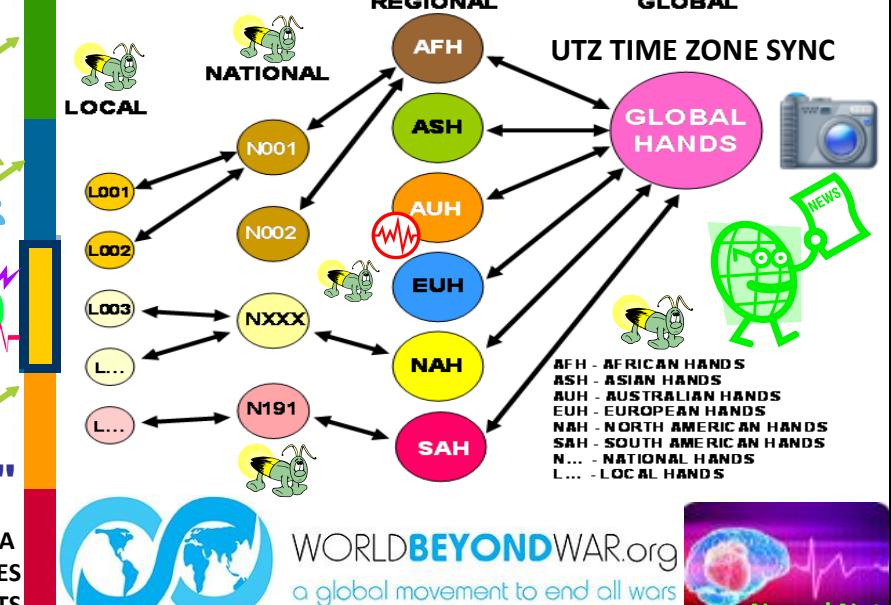
EVENT / ALERT Flash Heartbeat Message Bus

NEWS

BTC

GLOBAL

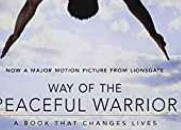
SYSTEM
Of
SYSTEMS



AFH - AFRICAN HANDS
ASH - ASIAN HANDS
AUH - AUSTRALIAN HANDS
EUH - EUROPEAN HANDS
NAH - NORTH AMERICAN HANDS
SAH - SOUTH AMERICAN HANDS
N... - NATIONAL HANDS
L... - LOCAL HANDS



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



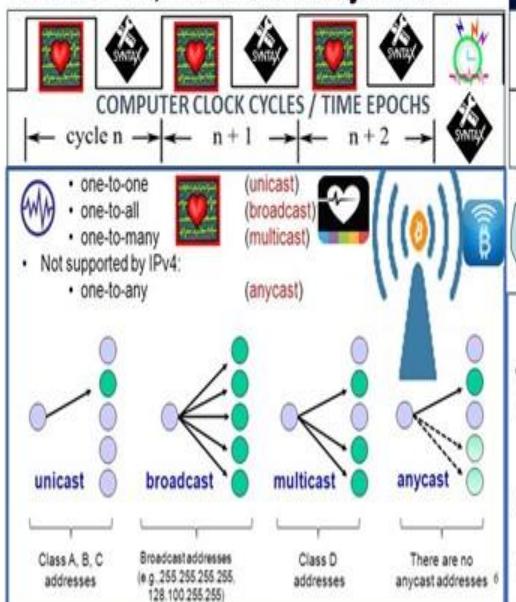
Foundation Technology Trinity:

- 1. EPOCH (s) = Time intervals, cycles
 - 2. SPACE (land use meme) ex: IRS memo #1421 "Bitcoin transaction akin to land"
 - 3. SYNTAX structured data mapped to symbols for A.I. / man - machine interface

THESES: All net artifacts, net of \$ are formed with:
1) Epoch time cycle intervals ex: chip oscillations
2) Syntax parsed, processed in epoch time intervals

Time Epochs / Syntax:

How the net, net of \$ actually work...

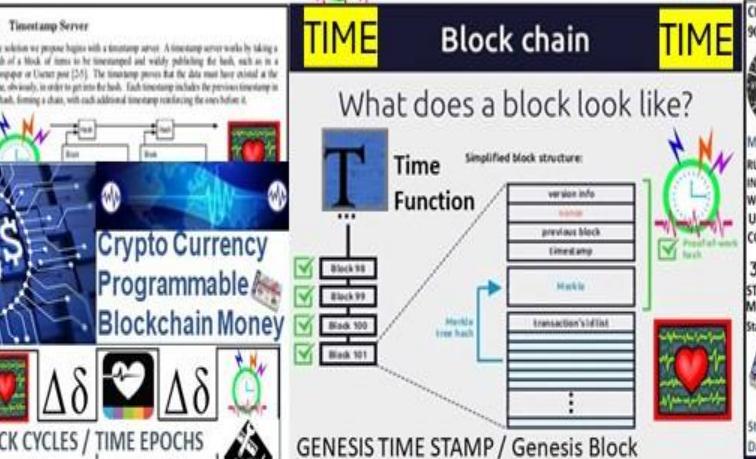
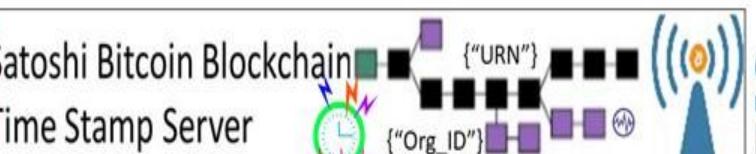


All things internet, programmable net of money are formed using:
1) Epoch Time Cycles to 2) process (not) syntax as instructions

Epoch Time Cycles / Syntax



Internet / Internet of Money building blocks



Artificial intelligence (AI) syntax refers to the set of rules, principles governing the arrangement of words and phrases in a programming language. In the context of AI and natural language processing, syntax ensures that language is structured in a systematic way, for effective communication and comprehension.

Understanding syntax is essential for developers to write readable, maintainable, and scalable code

BUILDING BLOCKS



TASK ON / OFF

201

B1: BUILDING BLOCK 1: TCP/IP HEARTBEAT TIME STAMP & DATA GET / PUT OF ORG ID / URN IN MICRO / MACRO CYCLES PRIOR TO DATA FUSION CENTER INSERTION



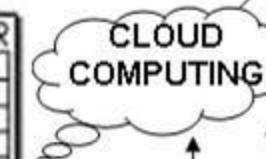
MACRO CYCLES



.0001

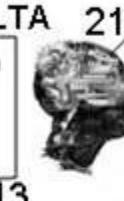
MICRO CYCLES
216

219



202 FEDERATED GROUP JOINS, MERGE, ADDS, DROPS

B2: BUILDING BLOCK 2: ADAPTIVE, CYCLIC, ITERATIVE PROCEDURAL TEMPLATES: XML ARTIFACTS i.e. UNIT TASK ORDER & K00.99 HEARTBEAT SYNC DELTA MESSAGES / STATE META DATA SNAPSHOTS IN NETWORK EXECUTION MANAGEMENT MARKUP OF SERVICE INTERFACE ARTIFACTS



LEADER'S INTENT DECISIONS



ADHOC / AGILE
FEDERATED <ID>
GROUPS SYNC'D
IN TIME / SPACE

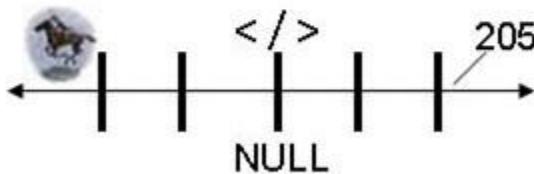


203

B3: BEACON TECH TYPE I: PAUL REVERE LINEAR, SEQUENTIAL HOP COUNTS



SYNC DELTA METRICS IN SLA CLAUSES AS
MOE, MOP METER IN TAX CODES, TRANCHE
CLASSES / RATINGS ARBITRAGE TRIGGERS



LENGTH, THRESHOLD, INTENSITY, DURATION



SEARCH FOLLOWED BY ARBITRAGE INVITES VIA BEACON NEWSCASTS. INVITE ACROSS SPACE / TIME



APPLIQUE' OVERLAYS



MAP VIEWS GEO-LOCATION SPECIFIC
SHOW SYNC DELTAS BY GROUP /
RESOURCE TYPE, EVENT CLASS /
NEWSCAST BY TRANCHE <CLASSES>

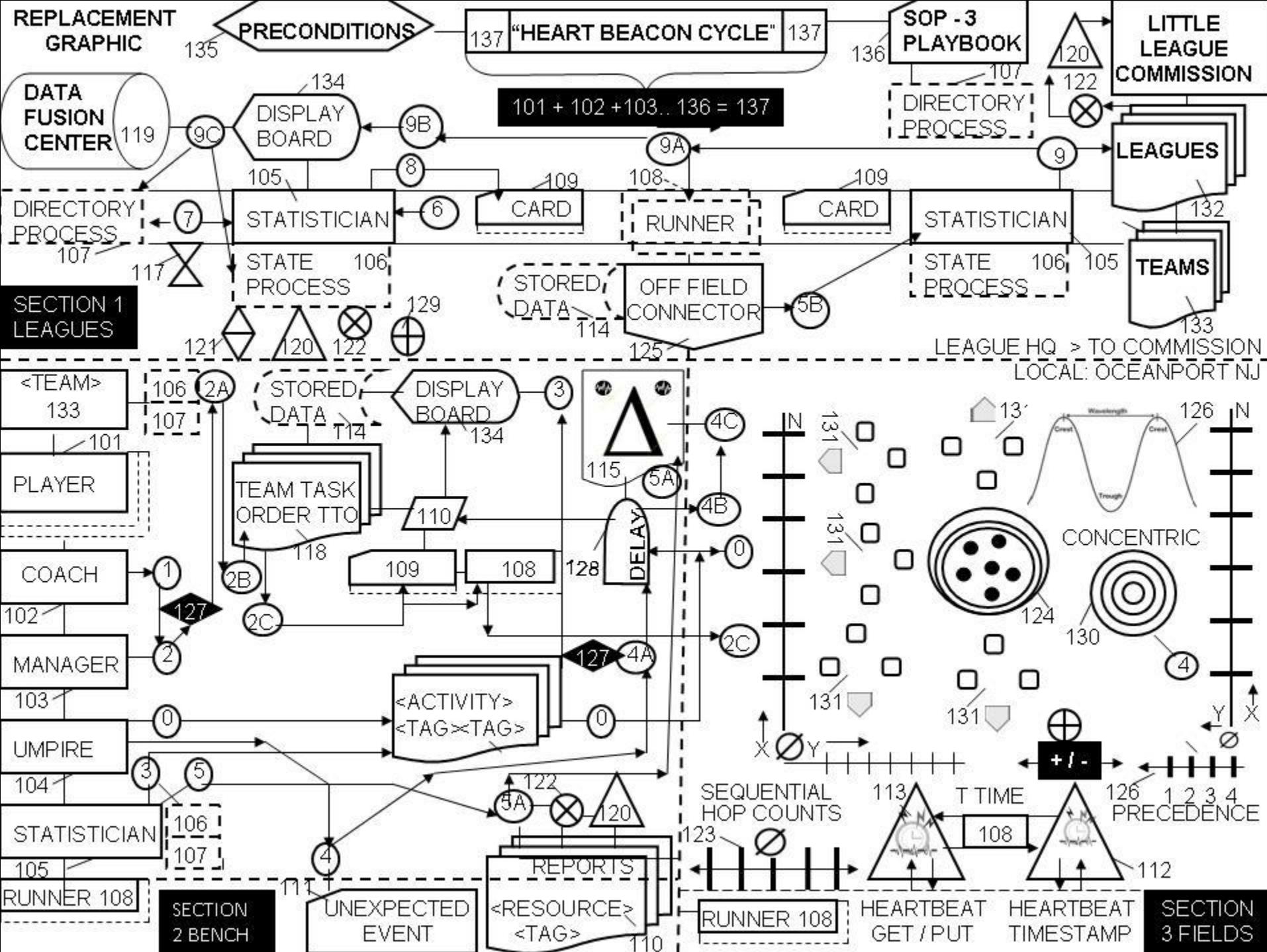


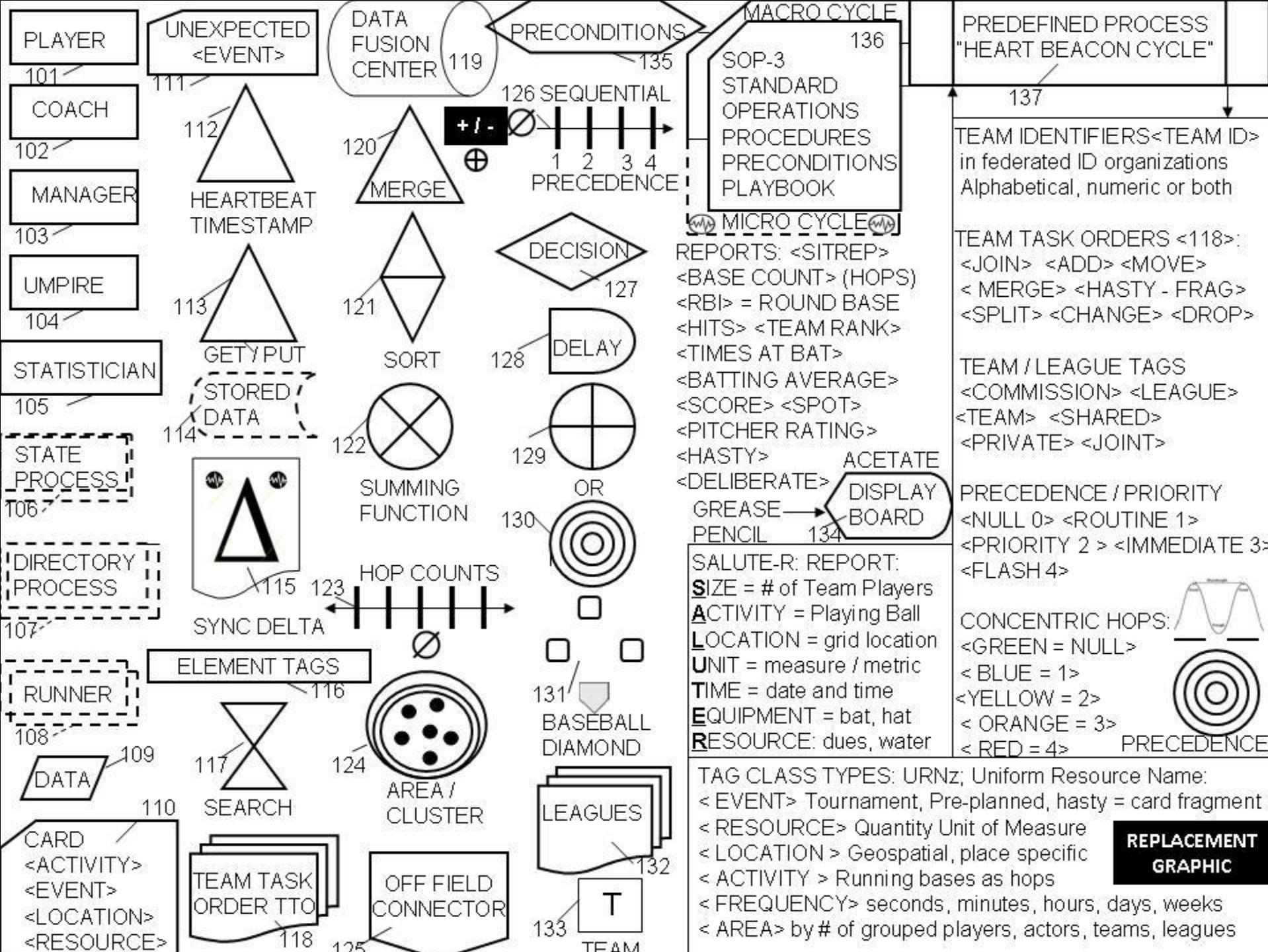
204

B4 BEACON TECH TYPE II: WATER DROP IN POND RADIUS, CIRCUMFERENCE GEO SPATIO-TEMPORAL

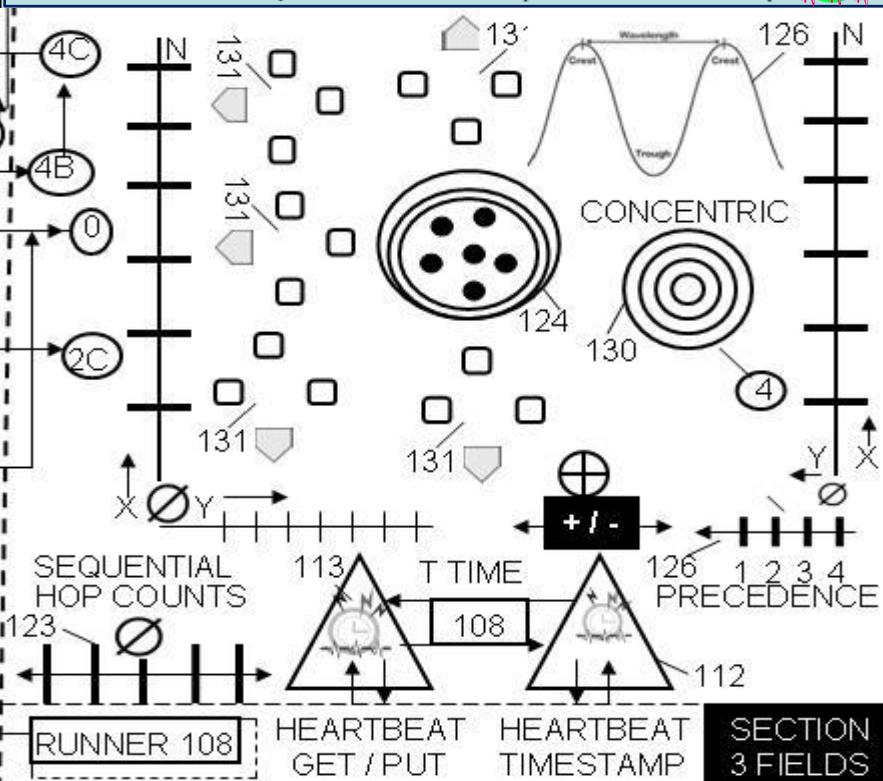
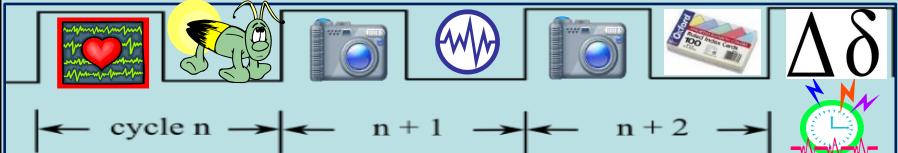
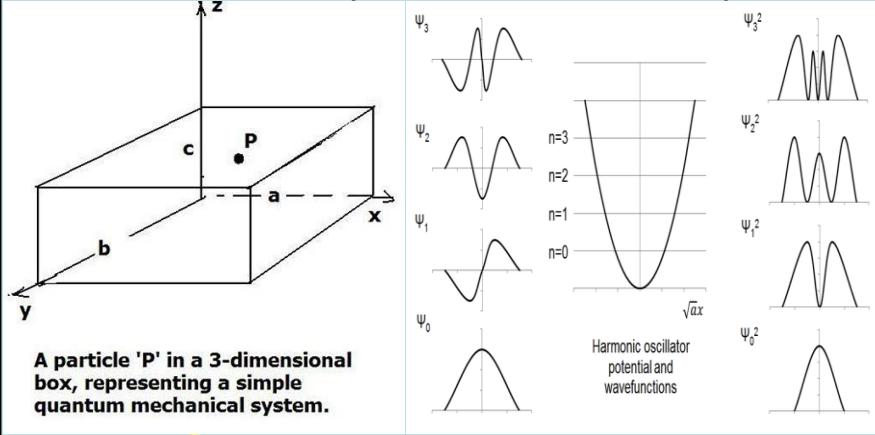


209





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

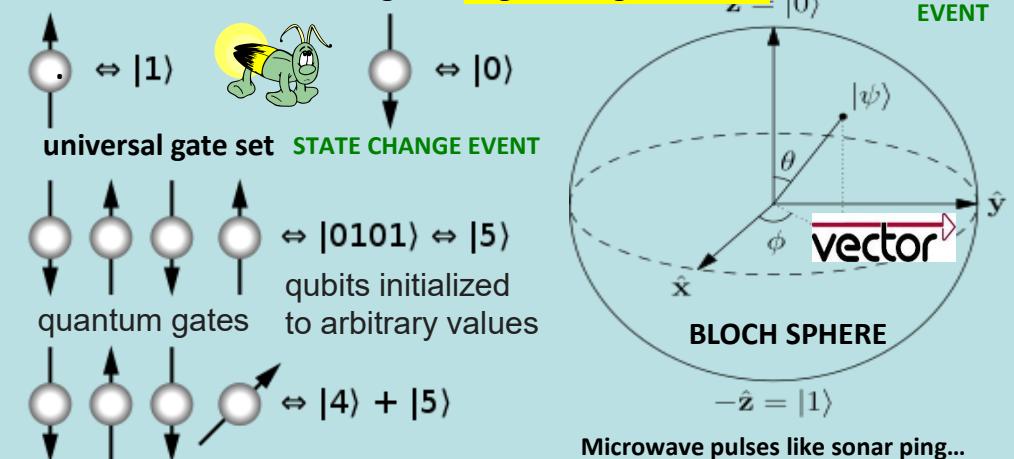
Vertical polarization vectors from a known point 0 null Sonar Hop meme



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?

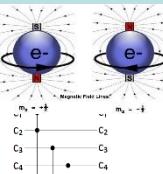


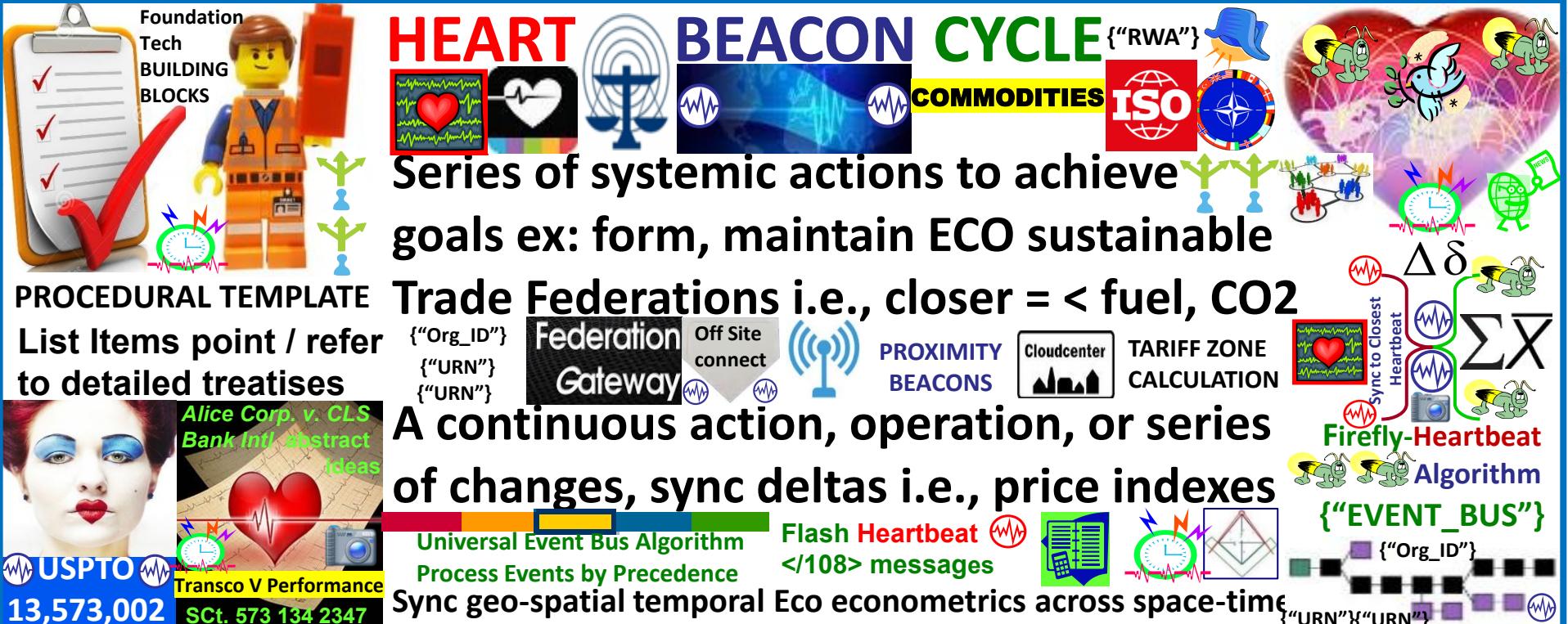
qubits can be in a superposition of all the classically allowed states

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)





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) Organization Identifiers {"Org_ID"} routing / organizing
 - 2) Track RWA Real World Assets / Commodities by </URN>
 - 3) DISTRIBUTED STATE MACHINE SNAPSHOTS @ 15 / N min
 - 4) TARIFF TOOL ZONE CALCULATION w Space – Time Metrics
 - 5) NIST Quantum Random Number Beacon QRNB
- USPTO 13/573,002 = Spaceship Earth's Signals & Telemetry Annex





Adaptive Procedural Template (list)

DEFI FINTECH IP WARS / Litigation Foundation Tech



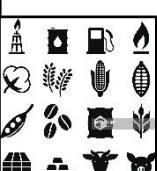
SWORDS to PLOWSHARES



The logo features a blue camera icon on the left, followed by the text "USPTO 13/573,002" in large blue letters, and "573 U.S. 134 SCt 2347" in smaller blue letters below it.

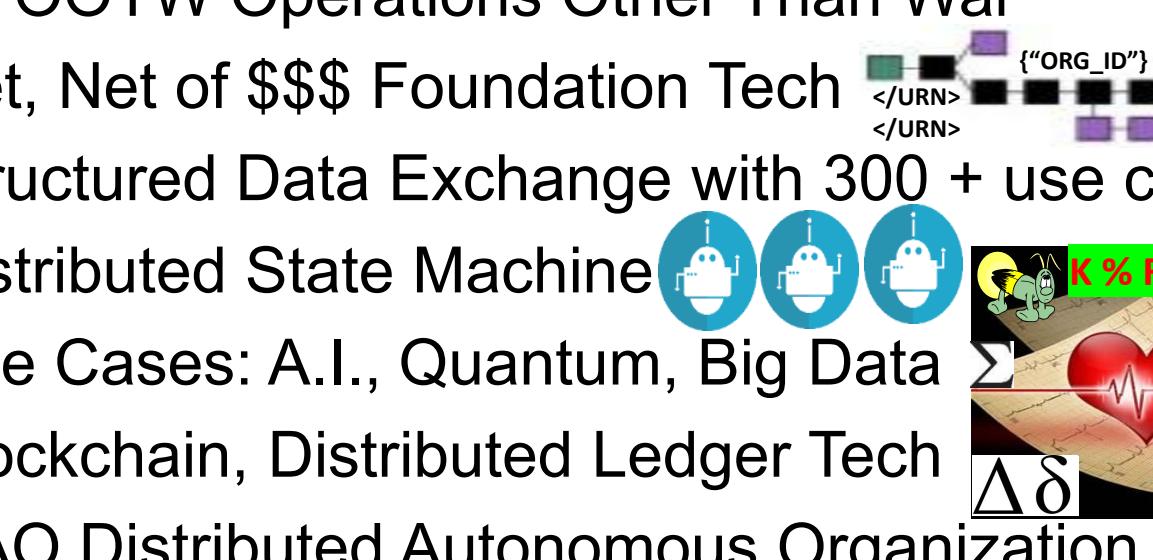


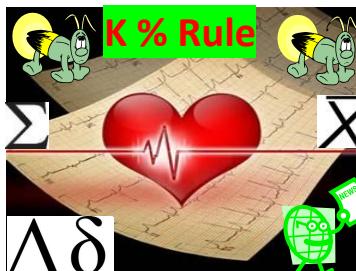
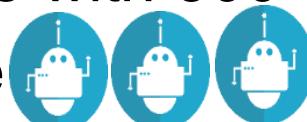
**Symbols
Rule
The World
OPSCODE
BREVITY
CODES
Mapped
To symbols
2525A,C D**



YNC DELTA $\Delta\delta$
ATA SNAPSHOT

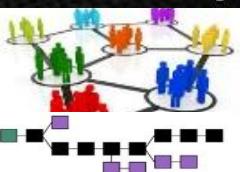
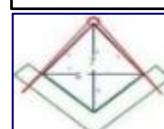
**INFOCON
4 3 2 1
INFORMATION
CONDITION**

- Battlefield Digitization, Net Centric Warfare for OOTW Operations Other Than War
 - Net, Net of \$\$\$ Foundation Tech
 - Structured Data Exchange with 300 + use cases
 - Use Cases: A.I., Quantum, Big Data
 - Blockchain, Distributed Ledger Tech
 - DAO Distributed Autonomous Organization
 - Consensus, Signals, Telemetry, Standards



Net, Net of \$\$\$ money consists:

- 1) Epoch Time Cycles
- 2) Syntax used / not in epochs
- 3) Wave form motion (sound)



HFT START. STOP. Time to LIVE

Structured Data Exchange



SYNTAX LEXICON
ROSETTA STONE

Coder's Guide lexicon.

STRUCTURED
<CONTENT>
EXCHANGE
TEMPLATES

MIL STD 2525ABC

ASSETS

ASSET TOKENS

"SYMBOLS RULE THE WORLD"

11.8 - Kinematics
11.8.1 - Pos
11.8.1.1 -
11.8.1.2 -

STRATML

XAML

BINARY XML

XBRL

THE BUSINESS REPORTING STANDARD

BINARY XML

Decision

UBL

THE BUSINESS REPORTING STANDARD

DDL DATA

DEFINITION

LANGUAGE

Signal operating instructions (SOI): technical control coordination of signaling, telemetry Current situational awareness, data dictionary, network identification, channels, network directory, brevity code-words, signals. Units maintain 2 SOI copies: PEACE TIME version "Go-To-War" version = BIZ COA (s) <Org_ID1><Org_ID2><Org_ID3>



INFOCON
5 4 3 2 1
INFORMATION CONDITION

NATO MESSAGE TEMPLATES USE DATA SETS FOR STRUCTURED DATA EXCHANGE // POSITION FIELD IN MESSAGE PROCESSED BY TABLE, FIELD # IN A CONSISTENT, PREDICTABLE ORDER = AI FRIENDLY M2M AI

GOAL: vide a common lexicon / syntax / term library used among FEDERATIONS identified by Federated ID
GOAL: Provide a common, consistent, reliable schedule to share signaling and telemetry within federations.

MTL Machine Trust Language



vector

{"URN" "URN"}

{"TRANSACTION ID"}

MESSAGE TEXT FORMAT :

SEG RPT OCC CLASSNAME SETID SEQ FIELD OCCURRENCE SET FORMAT NAME

O 11NUPRES EXER 1 /M /O // (NU) EXERCISE IDENTIFICATION

C 11NUPRES OPER 2 /M /O /O /O // (NU) OPERATION CODEWORD

M MIOPV1 1 MSGID 3 /M /M /O /O /O // (NU) MESSAGE IDENTIFIER



M MIP OUT ORDPLAN 4 /M /O /O /O // (NU) PLAN ORDER REFERENCE

DISTANCE

SIOP POUT MSGREF 5 /M /M /M // (NU) REFERENCED MESSAGE



NUPRES DTG 6 /M // (NU) DATE-TIME GROUP



0 ORGID 7 /M /M /M /M /M /M /C // (NU) ORGANIZATION DESIGNATOR

M 11NUPRES GENTEXT 8 /M /M // (NU) 1.A ENEMY FORCES / COMPETITORS

M 11NUPRES GENTEXT 9 /M /M // (NU) 1.B FRIENDLY FORCES / TRADE FEDERATION

M 11NUPRES GENTEXT 10 /M /M // (NU) 1.C ATTACHMENT / DETACHMENT

INTEREST

O 11NUPRES GENTEXT 11 /M /M // (NU) 1.D COMMANDERS EVALUATION

O 11NUPRES GENTEXT 12 /M /M // (NU) 1.E ENVIRONMENTAL INFORMATION

M 11NUPRES GENTEXT 13 /M /M // (NU) 2. MISSION </108>K00.99 / FIX / SWIFT / E-911 Heartbeat Message

M 11NUPRES GENTEXT 14 /M /M // (NU) 3.A CONCEPT OF OPERATION

O 11NUPRES GENTEXT 17 /M /M // (NU) (3) RECONNAISSANCE SURVEILLANCE

O 11NUPRES GENTEXT 21 /M /M // (NU) (5) INFORMATION OPERATIONS

O 11NUPRES GENTEXT 28 /M /M // (NU) (5) COMMS INFORMATION SYSTEMS

O 11NUPRES GENTEXT 35 /M /M // (NU) 3.D COORDINATING INSTRUCTIONS

M 11NUPRES GENTEXT 36 /M /M // (NU) 4.A SUPPORT CONCEPT (Logistics)

M 11NUPRES GENTEXT 37 /M /M // (NU) 4.B MATERIEL AND SERVICES

SYMBOLS Friend Neutral Hostile DICAL EVAC & HOSPITALISATION

Partner Competitor L - MILITARY OPERATIONS

TOKENIZED ECONOMY BREVITY CODE OPSCODE MAPPET TO SYMBOLS



INDEX REFERENCE #:

M015 STATUS :

EFFECTIVE: 14-DEC-99



PURCHASE CODES



FEDERATED PEGS



{"URN"}



{"ASSET_CLASS"}



{"URN"}



{"ASSET_TYPES"}

ISO 10383 – MIC

Market Identifier Codes



DAO



{"URN"}



{"Org_ID"}



Heartbeat Message



STOCK



NDN



NAMED DATA



EXCHANGE



NETWORKING



MIC CODES



PRECEDENCE



PROCESSING



FILTERS



BLOCKTIME

ARBITRAGE

ERLANG

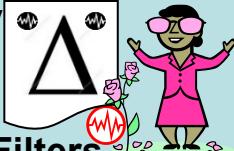
TIME

EQUATIONS



Information Elements Roles

- COI Determination Org Interaction
 - Search and Discovery
 - Ontologies STANDARDS
 - Taxonomies REFERENCE
 - Metadata Attributes / Filters



FFUDN: Field Format Unit Designator

FIRN Field Format Index Reference

Structured military messaging ID's messages, message sets, data element, symbol fields </108>

BY Form Field Position & NUMBER



PROCESS MESSAGE BY PRECEDENCE

UNIVERSAL EVENT / ALERT MESSAGE BUS

OPERATIONAL NODES / ACTIVITIES

DATA SYSTEM FUNCTIONS PERFORMANCE

1.4 - 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
	1.2.2 - Observed
	1.2.3 - Predicted
	PURCHASE CODES

SYMBOL Friend Neutral Hostile

Symbol	Friend	Neutral	Hostile
2525C	Partner		Competitor
11.4.1.3.4 - Substance			1 - Velocity
11.4.1.3.5 - Surface			1.4.1 - Horizontal
11.4.2 - Platform / Point / Feature		Type	1.4.2 - Vertical
11.4.3 - Specific Type			VA Confidence
11.4.4 - Type Modifier			1 - Bearing Angle
11.4.5 - Unit			2 - Bearing Angle Rate
			3 - Covariance Matrix



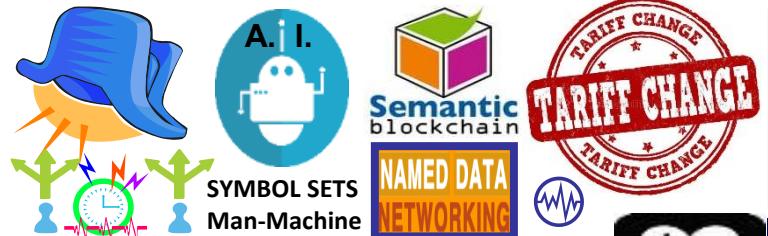
World Game Great Reset

Signals Telemetry Annex K



Net, net of money \$\$\$ formed w:

- 1. Epoch time cycles created by silicon chips
 - 2. Syntax code instructions in epoch time cycles
 - 3. Time Stamp Server w/event message bus



Syntax lexicon comprised of 300 +

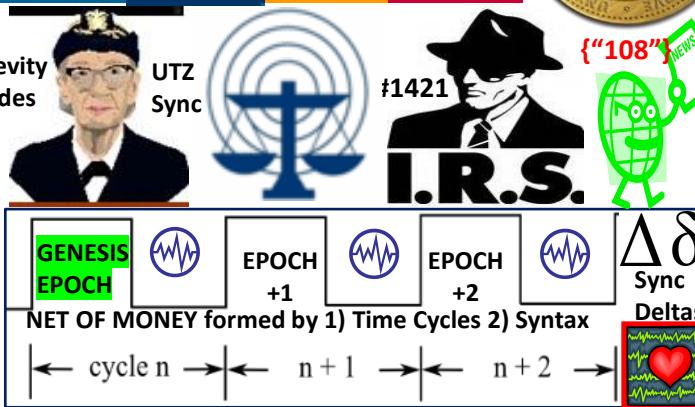
Structured data messages, message sets =

Comprehensive list of use cases, data

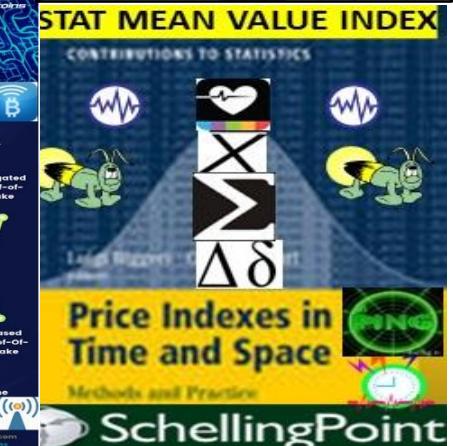
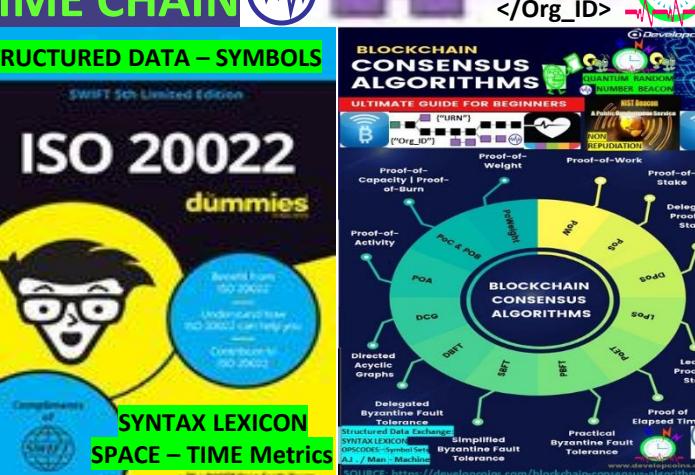
elements supporting Internet of Everything

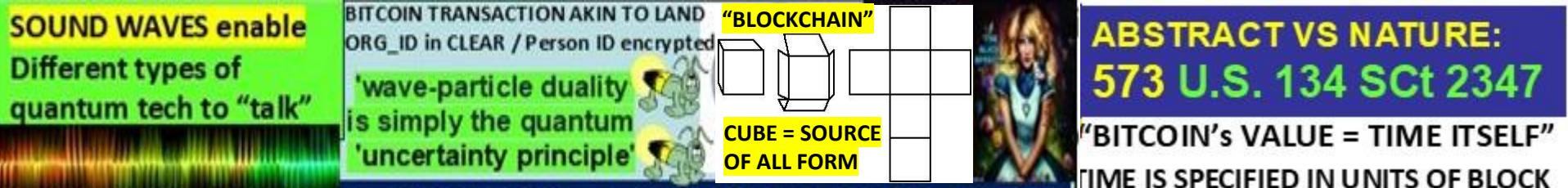
IoE net of value. Reference guide, data

dictionary standards support Data elements mapped to SYMBOL SETS



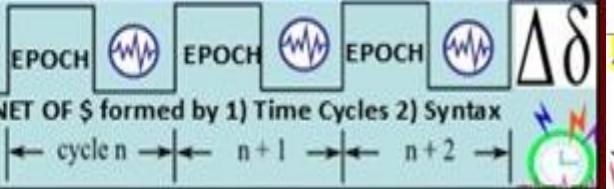
**SOUND / LIGHT e.g., Q.R.N.B. QUANTUM COMPUTING
@ ROOM TEMPERATURE** SOUND WAVES = INTERFERO





TIME EPOCHS & SYNTAX = FOUNDATION TECH

USPTO 13/573,002 The Heart
Beacon Cycle Time – Space
Meter / Adaptive Template



SCOTUS Alice in Wonderland Ruling 2014 ABSTRACTIONS MAY NOT BE CLAIMED:

Chain Abstraction: Simplifying the Complex World of Blockchain

The Net, Net of Money (Cryptocurrency)

Does not have / has no:

- LAYERS i.e., seven layer internet model
- BLOCKS on the BLOCKCHAIN
- Blockchain data stored in a CUBE
- QUBIT (S) quantum two state system
- Packets i.e., Vinton Cerf's "ode to a packet"
Nikola Tesla "All is wave form motion"

Lightchain AI introduces Proof of Intelligence (PoI), consensus mechanism designed to reward nodes for performing AI computations i.e., model training, inference, optimization...

INTERNET, NET OF \$\$\$ TRUTH = WAVE FORMS

All computing is essentially workflow logic

If, then, else then do {'task'} multicasted, Unicasted, anycasted / filtered over TCP / IP



Qubit vs bit: Qubits are represented by a superposition of multiple possible states. A qubit uses the quantum mechanical phenomena of superposition to achieve a linear combination of two states. A classical binary bit can only represent a single binary value, such as 0 or 1, meaning that it can only be in one of two possible states. A qubit, however, can represent a 0, a 1, or any proportion of 0 and 1 in superposition of both states, with a certain probability of being a 0 and a certain probability of being a 1.

Q: ARE WE ABSOLUTELY CERTAIN QUBITS EXIST ?

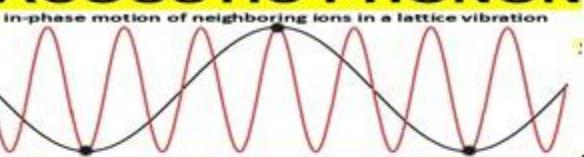
Q: IF CUBITS DO NOT EXIST, THEN ARE THEY SIMPLY A WAY TO ACHIEVE GROUP THINK FASTER ???

Q: 1/3 of an event (transaction) ... really ???

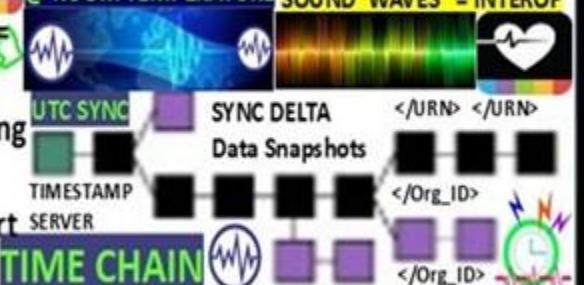
**ABSTRACT VS NATURE:
573 U.S. 134 S.Ct 2347**
"BITCOIN'S VALUE = TIME ITSELF"
TIME IS SPECIFIED IN UNITS OF BLOCK TRANSACTION CONFIRMATION TIMES"

FISHER INFORMATION FLUX FLOWS

ACOUSTIC PHONON



SOUND / LIGHT e.g., Q.R.N.B. QUANTUM COMPUTING @ ROOM TEMPERATURE SOUND WAVES = INTEROP

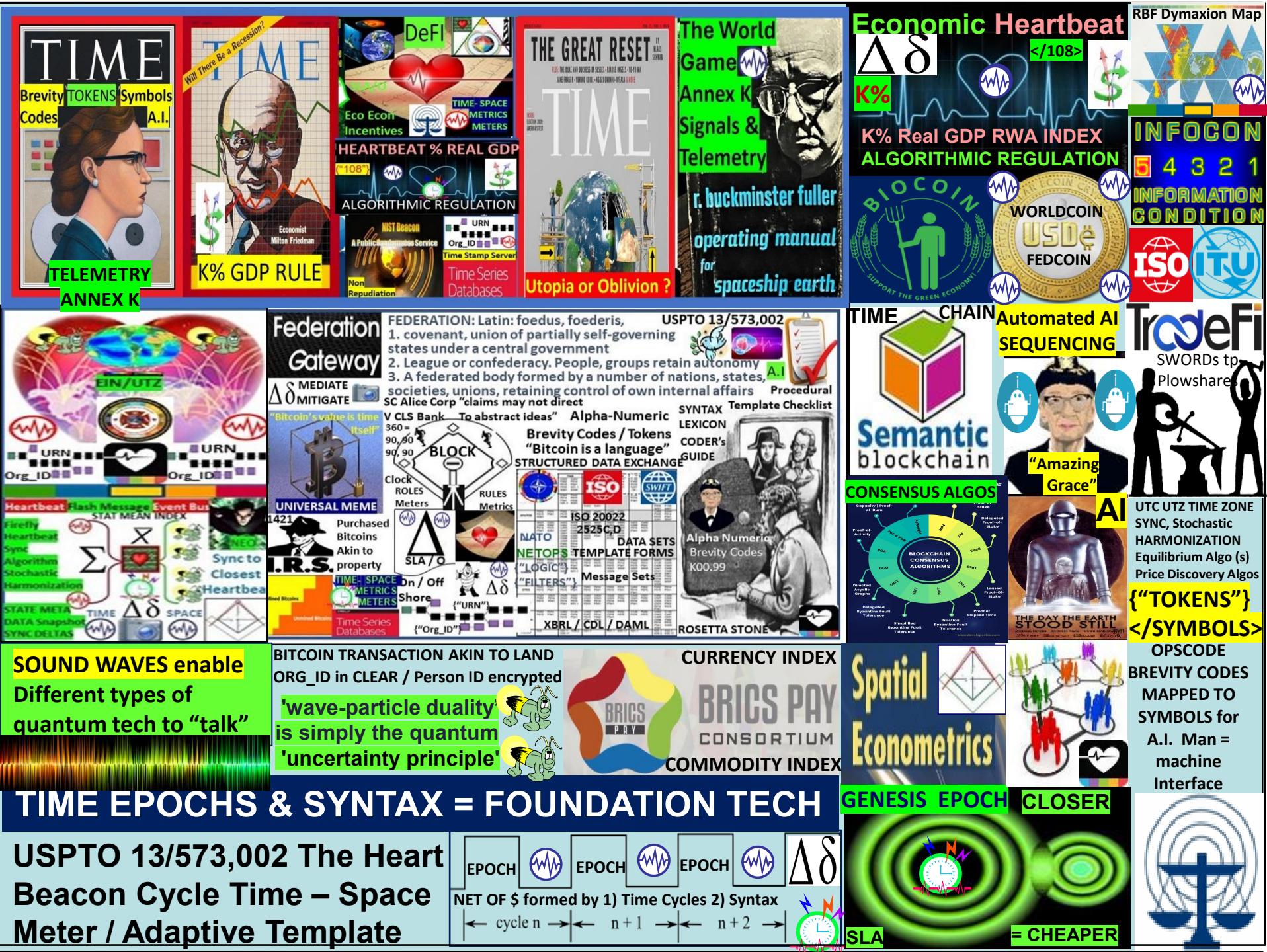


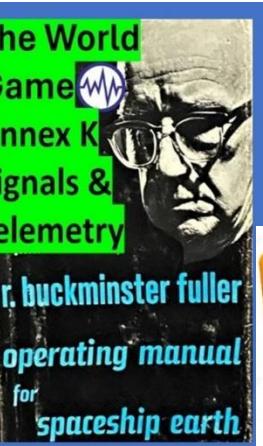
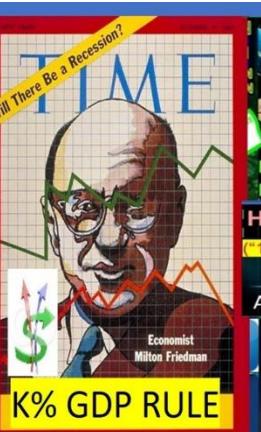
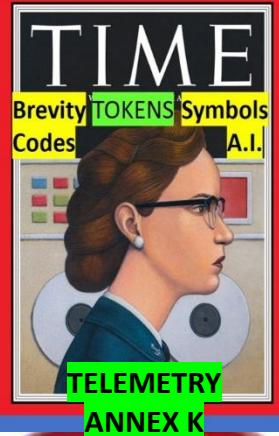
Net of \$\$\$ formed with:
1 EPOCH TIME CYCLES

2 {"Syntax"} "The Word"
"In the Beginning" Genesis Block

"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"





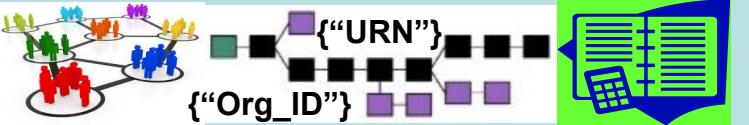
- Reuse, mod of System of systems engineering framework, Syntax Lexicon Library data elements
- STRUCTURED DATA EXCHANGE
Reuse brevity codes mapped to 2525D symbol sets comprised of 300 + message sets for A.I. - machine Block-Time DLT arbitrage among Trade Federations </Org_ID> {“URN”} </URN> = COMMODITY



Spatial / temporal UTZ synchronization, stochastic harmonization, Time - Space Distance Estimation Service Common Consensus Algo meme Eco sustainable incentives “We can synchronize ourselves, DAO Trade Federations in time - space for common purposes” Eco sustainable, Equitable Economic econometrics.

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

FEDERATION CONSENSUS ALGORITHM / PROTOCOL LIQUIDITY ON DEMAND



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

Federation
Gateway



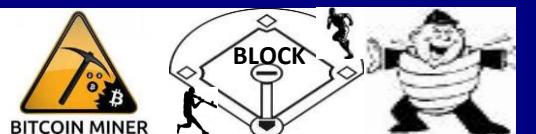
"GLOBAL"
"SHARED"
"DOMAIN"
"COMMUNITY"
"PRIVATE"
<ORG_ID>
"GROUP ID"



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



Bitcoin Mining Pools
MEME / METAPHOR MEDIATION



DISTRIBUTED AUTONOMOUS ORGANIZATION = DAO RAND Corp

term coined circa 1991 now in use by Blockchain tech corporations

Uniform_Resource_Name

FIREFLY FLASH

HEARTBEAT MESSAGES

IeT DEVICE / PLATFORM
IoT SENSOR DEVICE



</RESOURCE> {"URN"}
{"Asset_Class"} </URN>

STOCK EXCHANGE

MIC MARKET IDENTIFIER

CODES / BREVITY CODES



{"DUNS #"} {"Org_ID"} Heartbeat Snaps
QR CODE

{"URN"} {"URN"} {"URN"} MICRO-CYCLES



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



FEDERATE: COMMON GOALS SYNCHRONIZED IN SPACE - TIME



Net of \$\$\$ formed with:

1 EPOCH TIME CYCLES

2 {"Syntax"} "The Word"

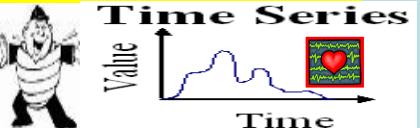
"In the Beginning" Genesis Block

"net, net of money are formed using wave form motion 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"

NAMED DATA NETWORKING



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

FROM	QCDLA	TAK	AFATOL	WEN
ARAB	P001	C001	C002	P002
	P003	P004	P005	P006
AMERIC	P007	P008	P009	P010
	P011	P012	P013	P014
AFATOL	P015	P016	P017	P018
	P019	P020	P021	P022



NATO

STOCK MIC CODES

STRUCTURED DATA EXCHANGE

TEMPLATE FORMS

300+ USE CASES

LOGIC / FILTERS

SYNTAX / SYMBOL LEXICON LIBRARY

SYNTAX LEXICON

Library

1st Compiler

R

W

A

Alpha Numeric Brevity Codes

Coder Guide Rosetta Stone



"Bitcoin is a LANGUAGE"
Digiinomics

"BITCOIN MAKES MONEY PROGRAMMABLE.
MONEY IS SIMPLY DATA"

"BITCOIN'S VALUE = TIME ITSELF"

"Time is specified in units of block transaction confirmation times"



ALICE CORP VS CLS BANK

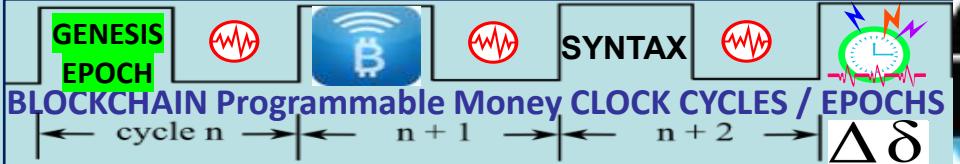
"claims may not be directed towards an abstract idea"

US SC 573 US 134 2347



BITCOIN BLOCKCHAIN BLOCKS, AGENTS, MOTES, BOTS, PACKETS, FRAMES, HEARTBEAT, PINGS, HOPS, BEACONS ARE METAPHORS / MEMES

USPTO 13/573,002 BASEBALL MEME PHYSICAL = OPPOSITE OF ABSTRACT



CLOCK FACE 360°
90 / 90 / 90 / 90



MACRO CYCLES
RULES / ROLES
INSTRUCTIONS
WORKFLOW
UMPIRE
COACH

3rd Base
STATISTICIAN
Metrics, Meters
Stat Mean Value Index

90 feet

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

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

IRS #1421

STATE META DATA SHARDS

3 X 5 HASH TABLES

State Meta Data Snapshots

Survey Point

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

SETTLEMENTS / EXCHANGES
= TAXABLE EVENTS
AKIN TO PROPERTY

IRS #1421

STATE META DATA SHARDS

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State Meta Data Snapshots

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MICRO CYCLES



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

first base

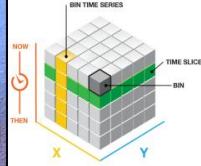
RUNNER Message Bus

Firefly – Heartbeat Algo

EVENTS

FLASH MESSAGE EVENT BUS

TIME STAMP SERVER



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

first base

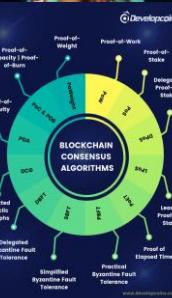
RUNNER Message Bus

Firefly – Heartbeat Algo

EVENTS

FLASH MESSAGE EVENT BUS

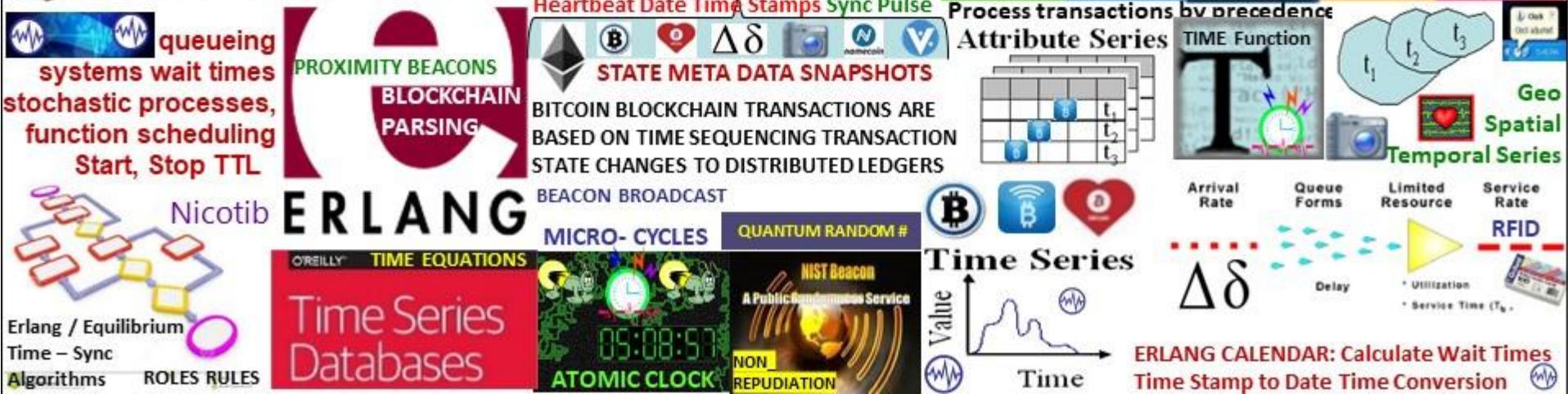
TIME STAMP SERVER



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.





Circle USDC

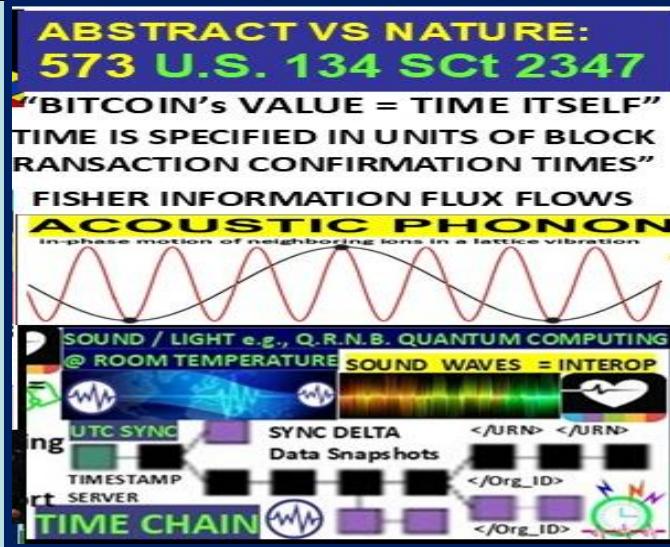
Investopedia

Stablecoins are cryptocurrencies whose value is pegged, or tied, to that of another currency, commodity, or financial instrument.

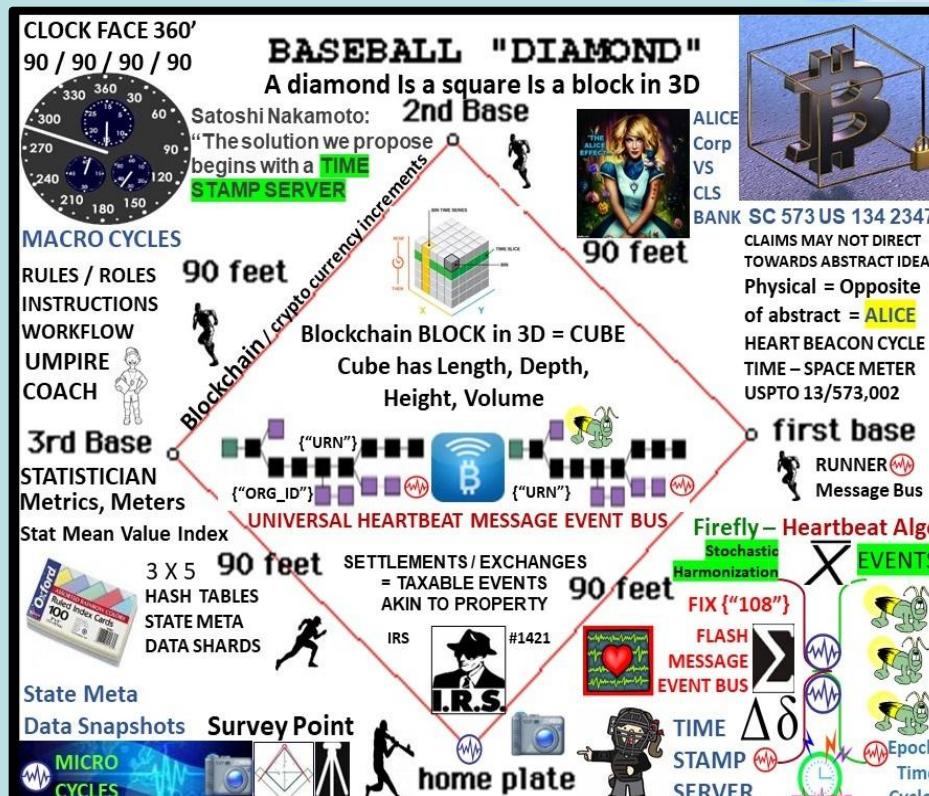
Stablecoins aims to provide an alternative to the high volatility of the most popular cryptocurrencies, Source JDSUPRA



Circle Financial Ltd lawsuit brought by Veritasium Capital for alleged infringement of its digital-asset trading patent. U.S. District Court for the Eastern District of Texas, No. 2:22-cv-00498



TESLA "ALL IS WAVE FORM MOVEMENT"

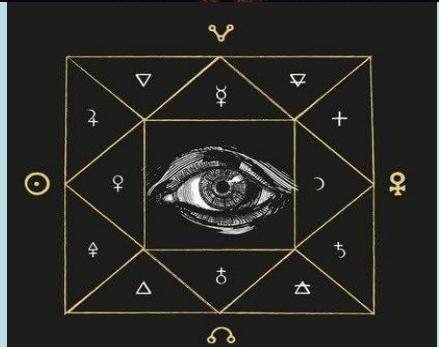


NOSTRADAMUS of FRANCE CENTURY 8: QUATRAIN 28:

"The copies of gold and silver inflated,
 after the theft were thrown into the lake,
 At the discovery that all is exhausted and
 dissipated by the debt,
 All scripts and bonds will be wiped out."



"FutureMan"
13/573,002



**"THE FINANCIAL
NOSTRADAMUS"**
REGGIE MIDDLETON

Reggie Middleton
"Father of DeFi"

US11196566
US11895246
JP6813477

World Game (s) Fulcrum

Schelling point: focal point = solution chosen by default in the absence of communication to avoid coordination failure introduced by the economist Thomas Schelling in his book "The Strategy of Conflict" published in 1960. Schelling points are particularly useful in **multiplayer games** where players respond based on what they think the other person's response will be.

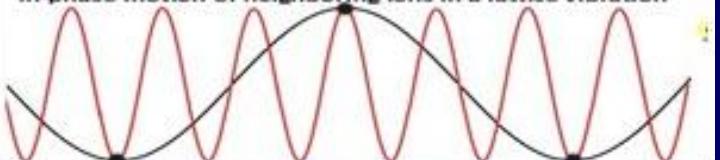
Schelling Point Conference: focuses on the intersection of **cryptocurrency** and **social good**, bringing together innovators, thought leaders, and advocates to explore how **blockchain** tech can create positive change.

Schelling points are not always definite solutions and their conspicuousness can depend on time, place, and individuals

FISHER INFORMATION FLUX FLOWS

ACOUSTIC PHONON

in-phase motion of neighbouring ions in a lattice vibration



SOUND / LIGHT e.g., Q.R.N.B. QUANTUM COMPUTING @ ROOM TEMPERATURE SOUND WAVES - INTERF.

SOUND WAVES = INTEROP



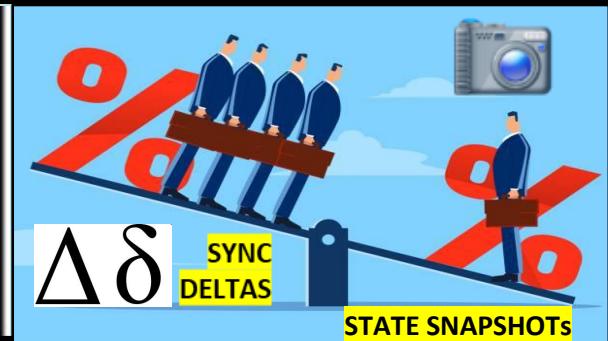
INTRODUCTION TO STATISTICS

[View all posts by admin](#) | [View all posts in category](#)

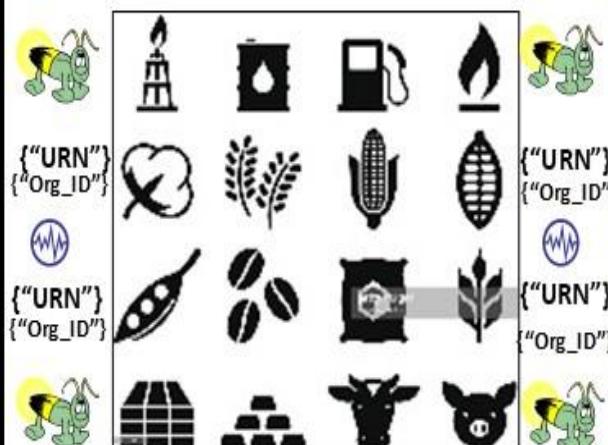


Price Indexes in Time and Space

Time and Space
Methods and Practice
 SchellingPoint



Commodities Index Basket / FIAT
PRICE Discovery Algo / MEDIATION



THE NEW QUANTUM FINANCIAL SYSTEM



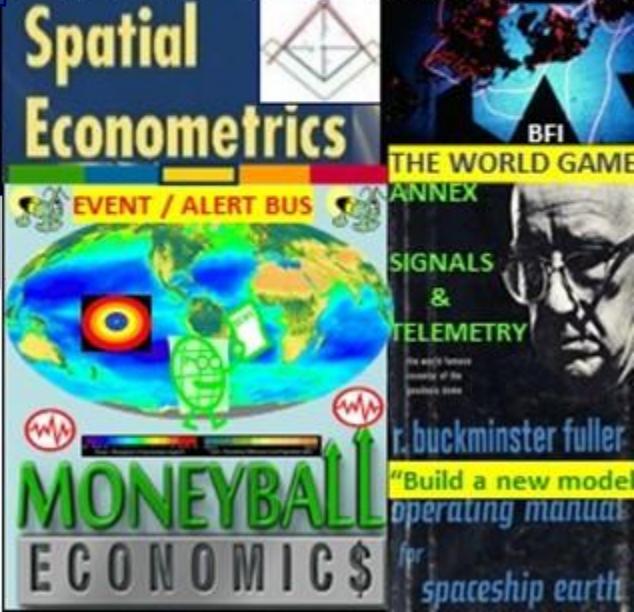
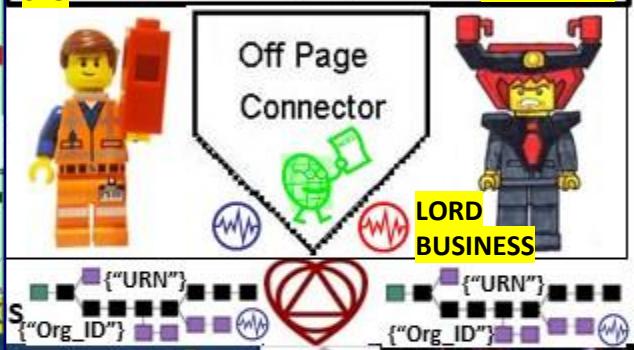
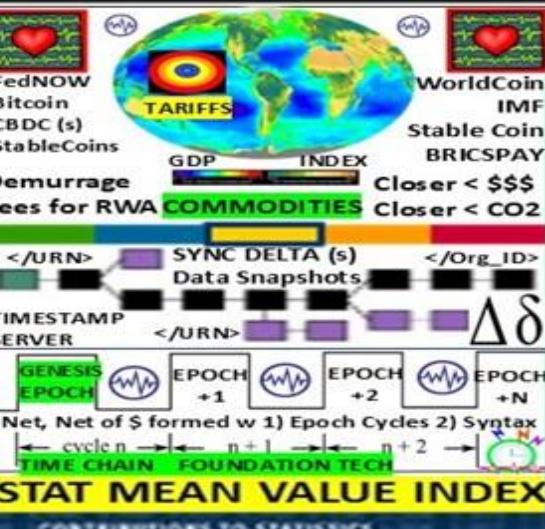
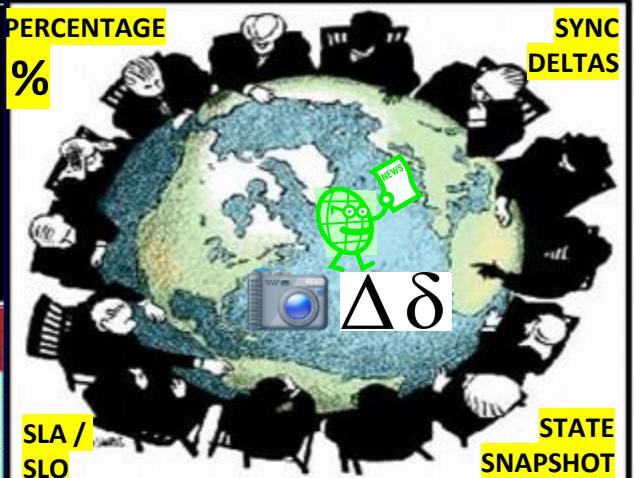
World Game (s) Fulcrum

Schelling point: a.k.a. focal point, is a solution people tend to choose by default in the absence of communication to avoid coordination failure

introduced by the economist Thomas Schelling in his book "The Strategy of Conflict" published in 1960.

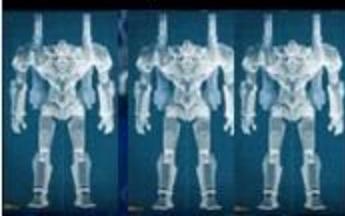
Schelling points are particularly useful in **multiplayer games** where players respond based on what they think the other person's response will be.

Give me a lever long enough and a fulcrum on which to place it, and I shall move the world.
Archimedes



Beacon Communities

Vernetzte Operationsführung
OOTW: Operations Other Than War



JAEGER

FIREFLY
HEARTBEAT
ALGORITHM

EVENT / ALERT Flash Heartbeat Message Bus



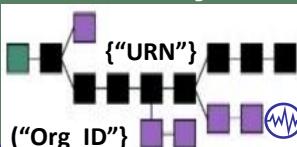
Numismatics: study of currency

Marcus Aurelius



Legend: IMP. M.
ANTONINVS
AVG. TR. P. XXV.

THE TERRA (TRC) Trade Reference Currency



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..

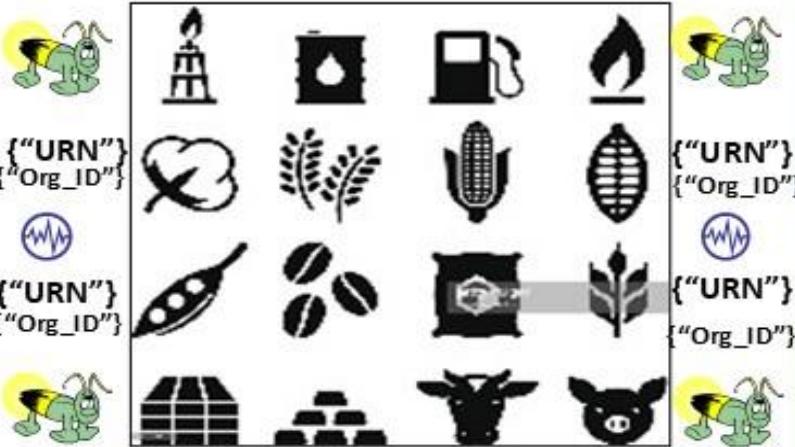


Roman Denominations

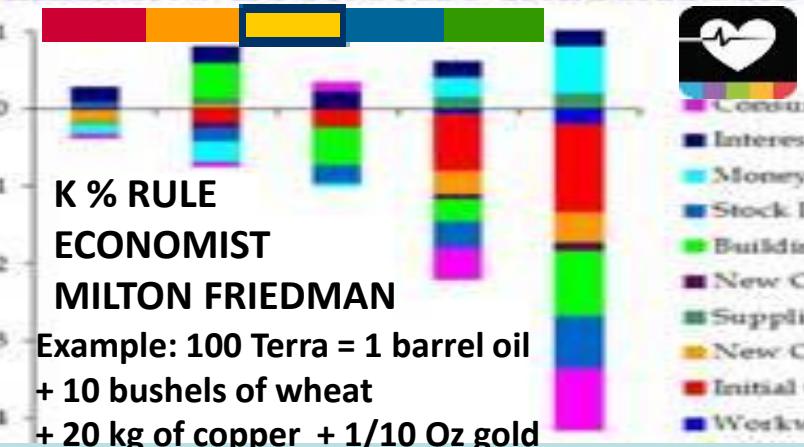


Images Courtesy Of: Roma Numismatics Ltd, Numismatica Ars Classica, Bertolami Fine Arts, Nomos, & The State Museum in Berlin

Commodities Index Basket / FIAT PRICE Discovery Algo / MEDIATION

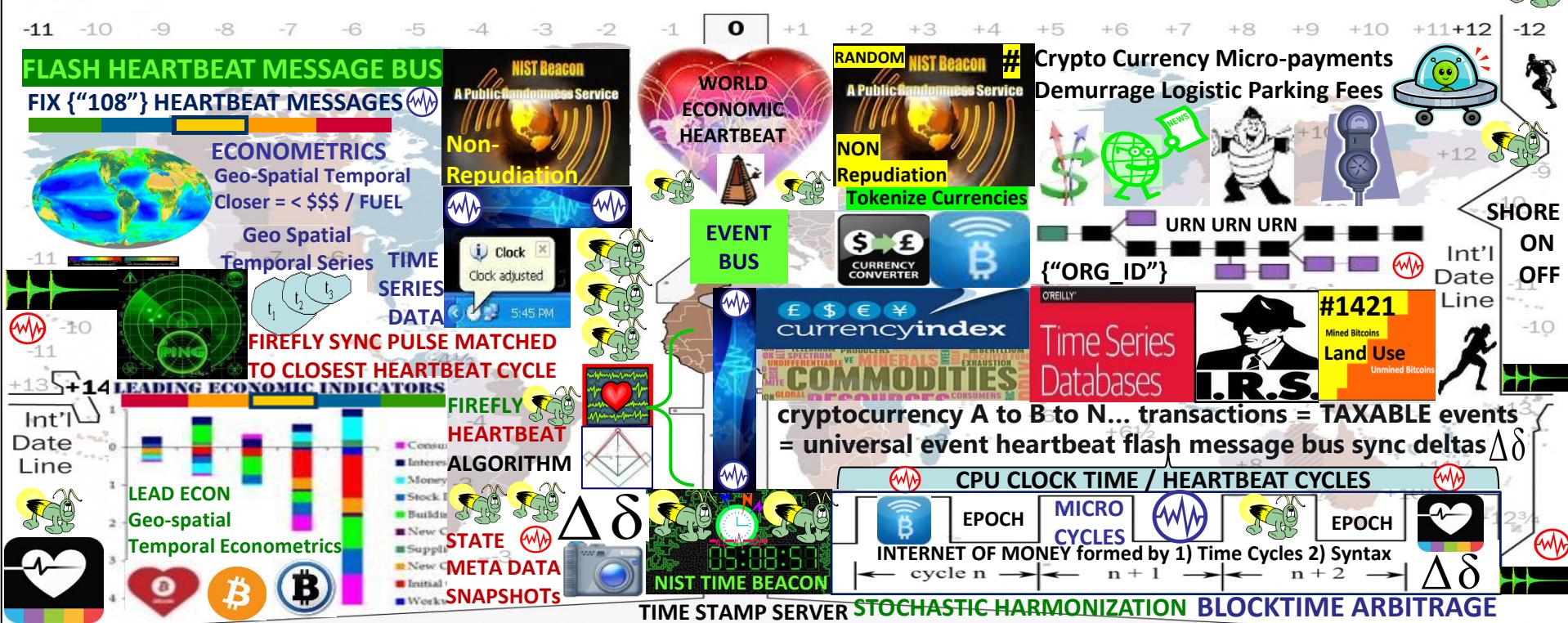


LEADING ECONOMIC INDICATORS





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.

SCOTUS ALICE CORP VS CLS BANK 2014 RULING: ABSTRACT VS TANGIBLE

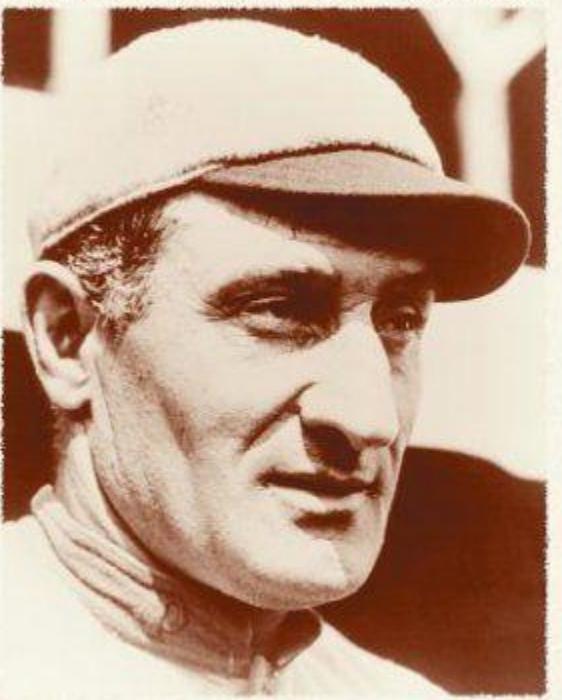
USPTO 13/573,002 PRIOR ART

Physical = Opposite of Abstract

Q: WHO IS "SATOSHI NAKAMOTO" ?

HONUS WAGNER

THE LIFE OF BASEBALL'S "FLYING DUTCHMAN"



Arthur D. Hittner



Baseball fields have standard measurements for various components, including the infield and outfield. The infield consists of a diamond with 90 feet between the bases and a pitching distance of 60 feet 6 inches for adult and senior leagues. Home plate is located 90ft away from first base to The right and third base on the left. Bases are positioned at 90-degree angles from home plate.



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..

XRP = 10,000 Each ?

RIPPLE LABS / XRP

Honus Wagner NFT Non-Fungible Cryptocurrency Token

Honus Wagner is a legendary baseball player

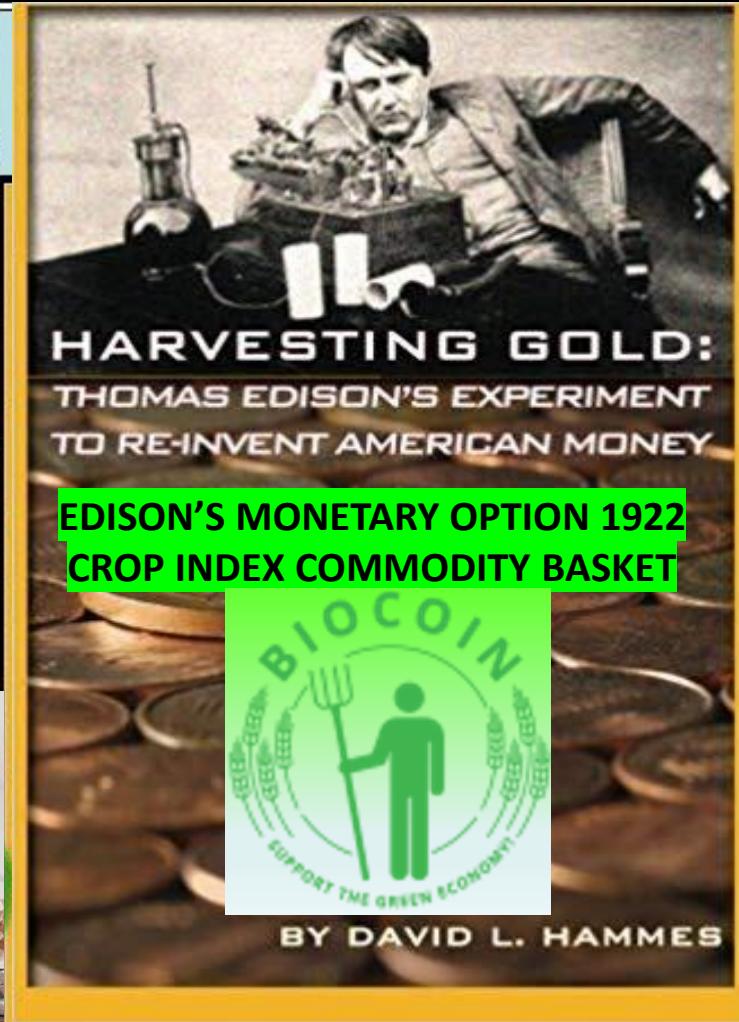
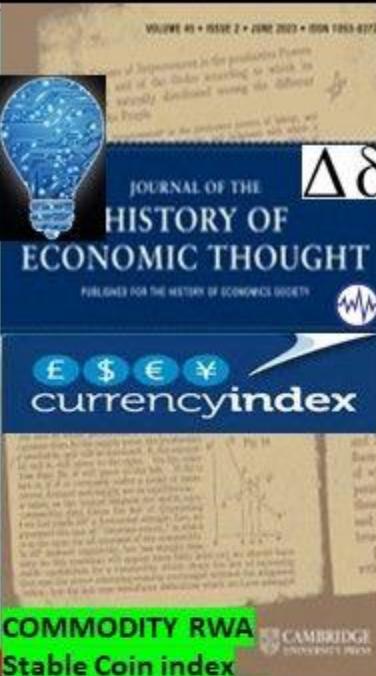
T206 Honus Wagner card sold \$6.6 million August 2021

This highlights the cultural and financial significance of Honus Wagner memorabilia, which could potentially be replicated in the digital space with NFTs (AI web search)

Defunct crypto exchange Mt. Gox has said that a repayment date will be set in "due course" February 7th 2014 trading halted

MT.GOX
MIT Technology Review listed Ripple Labs as one of 2014's "50 Smartest Companies"

Tokenization of Physical Assets Enables Economy Of Everything



"Thomas Edison publicly introduced his latest invention: a new type of money, a crop index commodity-backed currency that he believed was the long-term solution to America's monetary woes. "I want to cast the variable out of money. This gold money is not good enough. It's a fiction" "New York Times 1922

■ {"URN"} </Organizational_ID>
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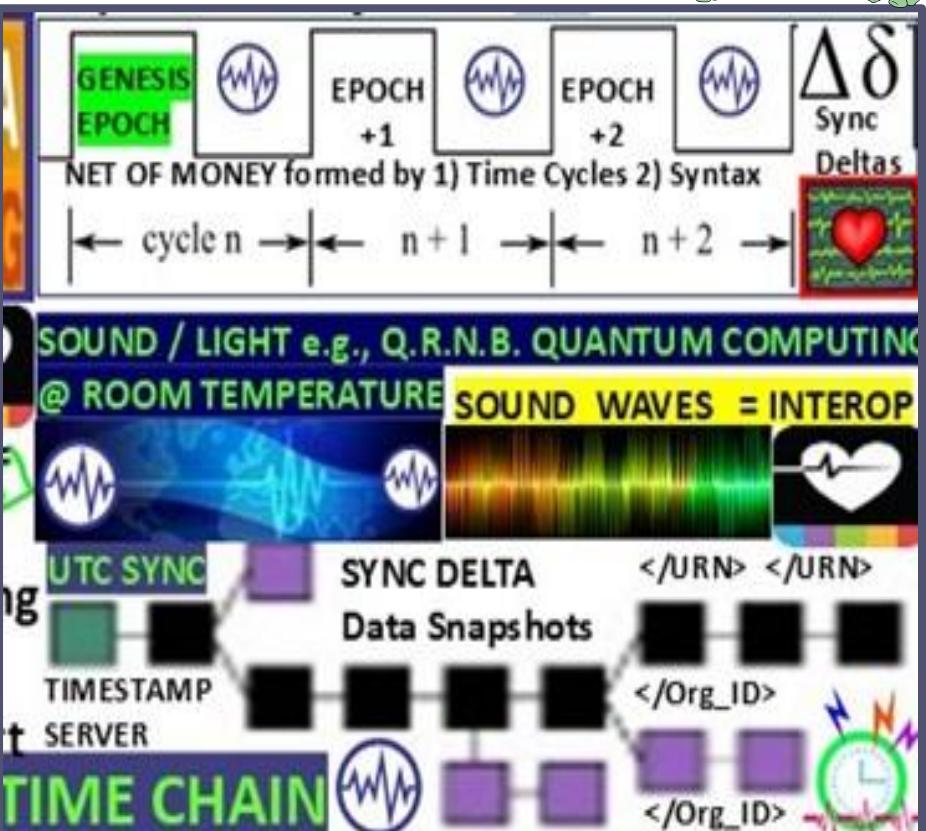
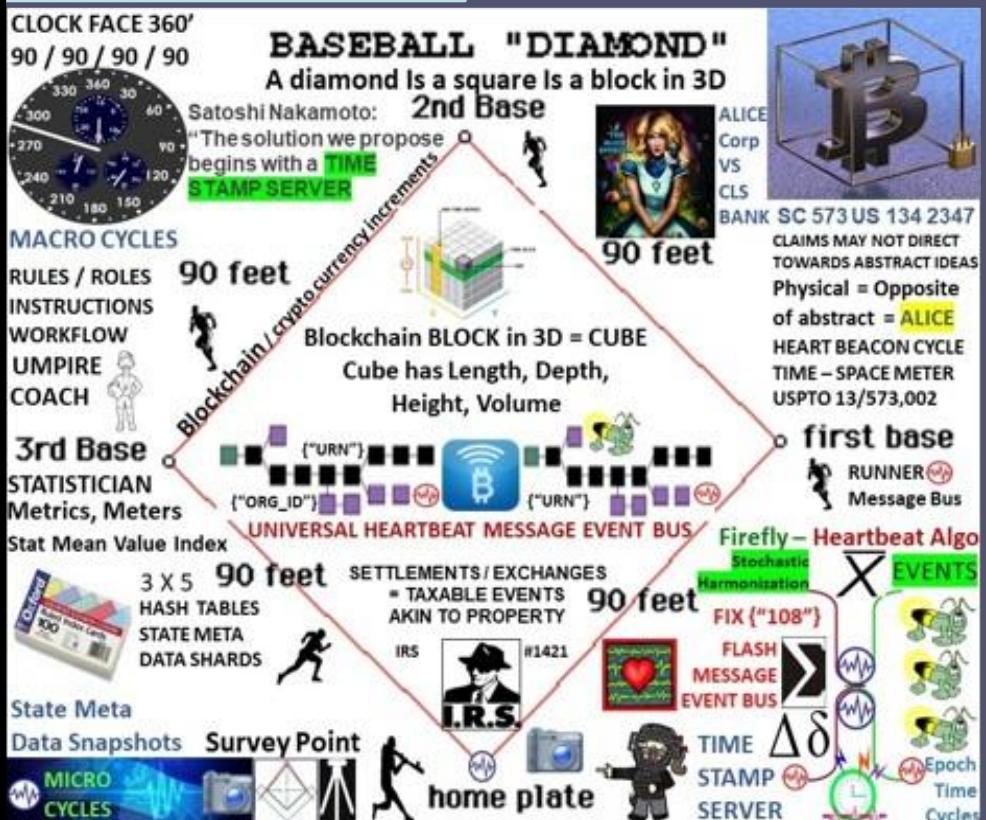
USPTO 13/573,002 The Heart Beacon Cycle Time – Space Meter

FIREFLY – HEARTBEAT ALGORITHM CHINA: nature-inspired metaheuristic optimization algorithm developed by Xin-She Yang flashing behavior of fireflies (Yang, 2008), adapted to solve continuous optimization problems (Lukasik and Žak) 2010, 2013



The World Game's (s) Great Redesign TELEMETRY CONTROL GRID SYNC MATRIX ADAPTIVE PROCEDURAL TEMPLATE

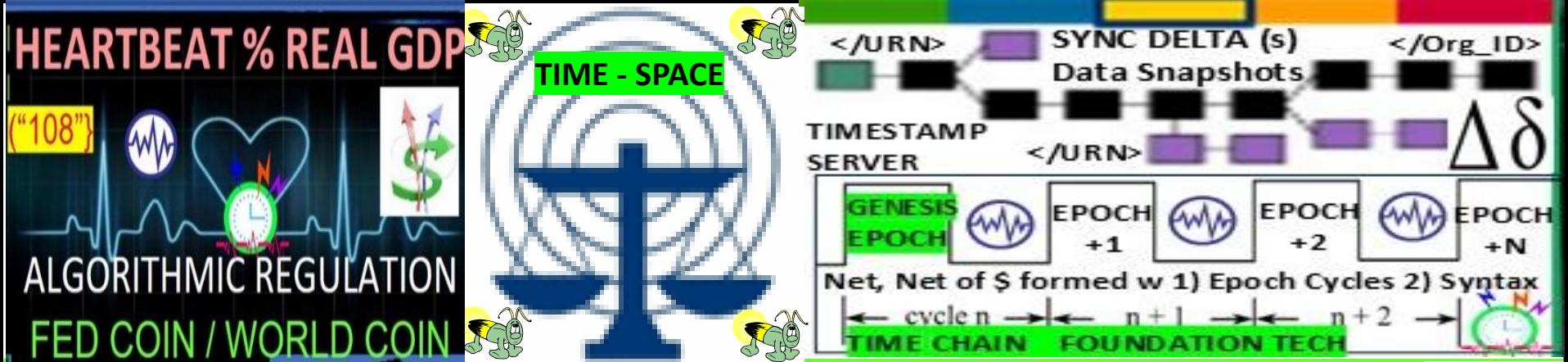
1919 BLACKSOX WORLD SERIES GAME FIXING RULING



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 method stipulates clock cycle values e.g., 5, 10, 15.

USPTO 13/573,002 / SCOTUS 573 U.S. 134 SCt 2347 “Alice in Wonderland Ruling”





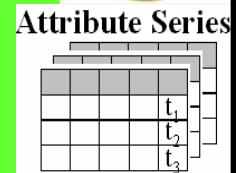
Banks, Tech firms' form teams to assert foundation tech as a legal basis for IP intellectual property claims for programmable \$\$\$ DeFI / TRADEFI

Use Case: Tokenize Europe 2025 initiative: reuse DoD / NATO's structured data brevity

OPSCODES mapped to 2525A, B, C, D symbols needed for A.I. man-machine interface

Reuse, modify 300 + Use Case message set templates data element FFIRNs FFUDNS

Of system of systems engineering architecture structure data exchange (DoD) (NATO)

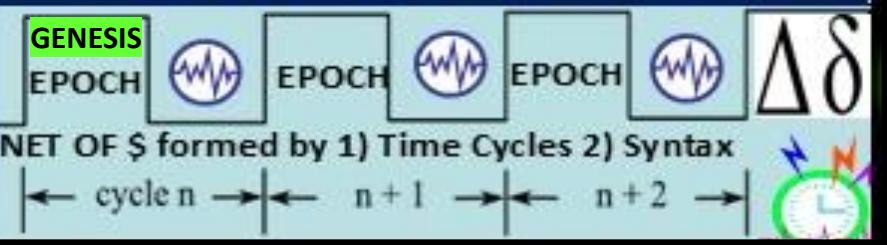


SOUND WAVES enable
Different types of quantum tech to "talk"

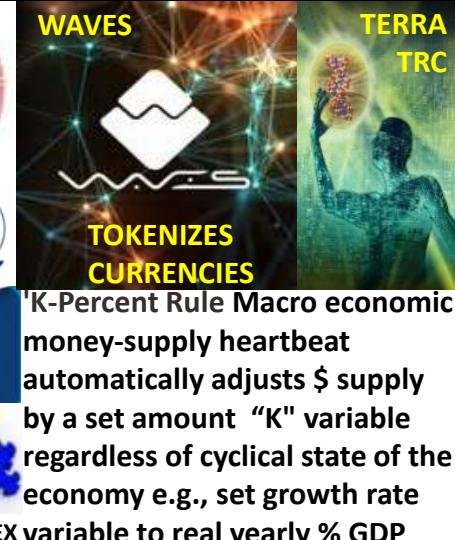
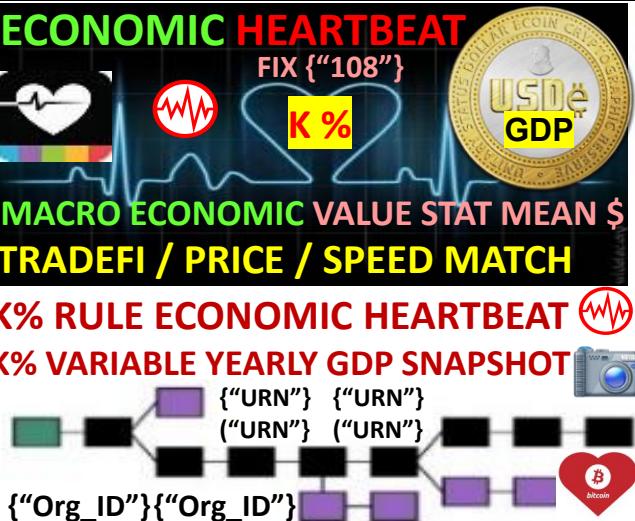


TIME EPOCHS & SYNTAX = FOUNDATION TECH

USPTO 13/573,002 The Heart
Beacon Cycle Time – Space
Meter / Adaptive Template



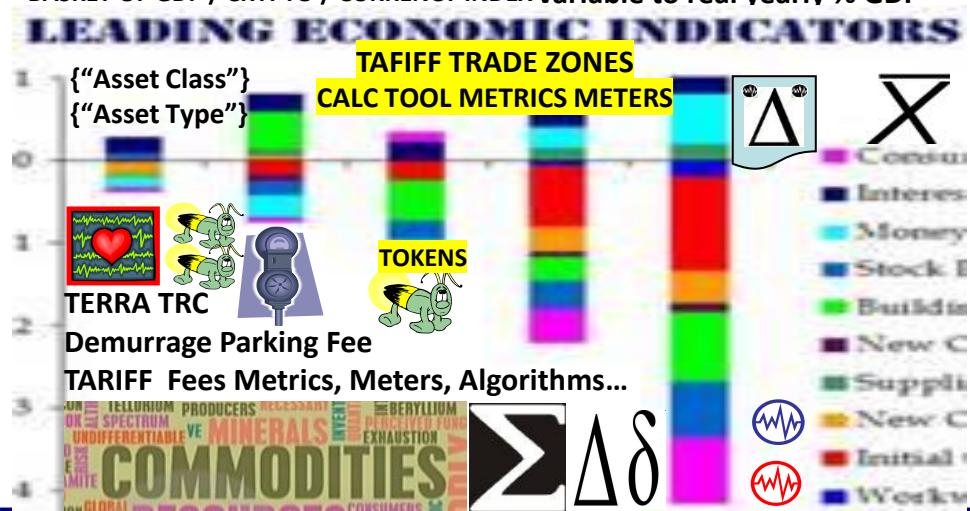
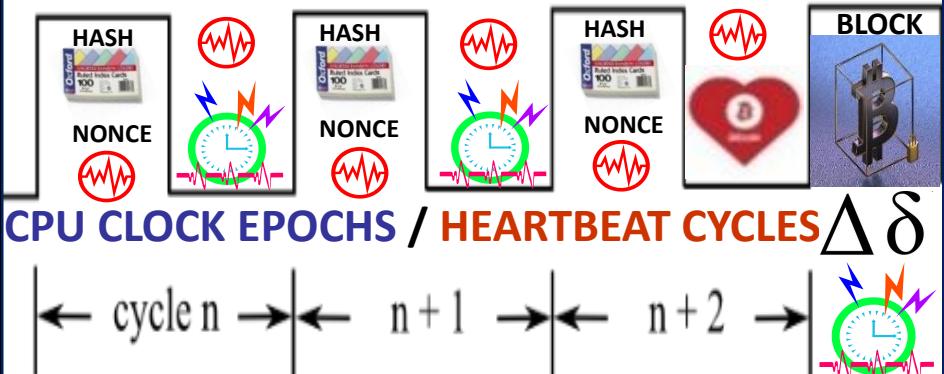




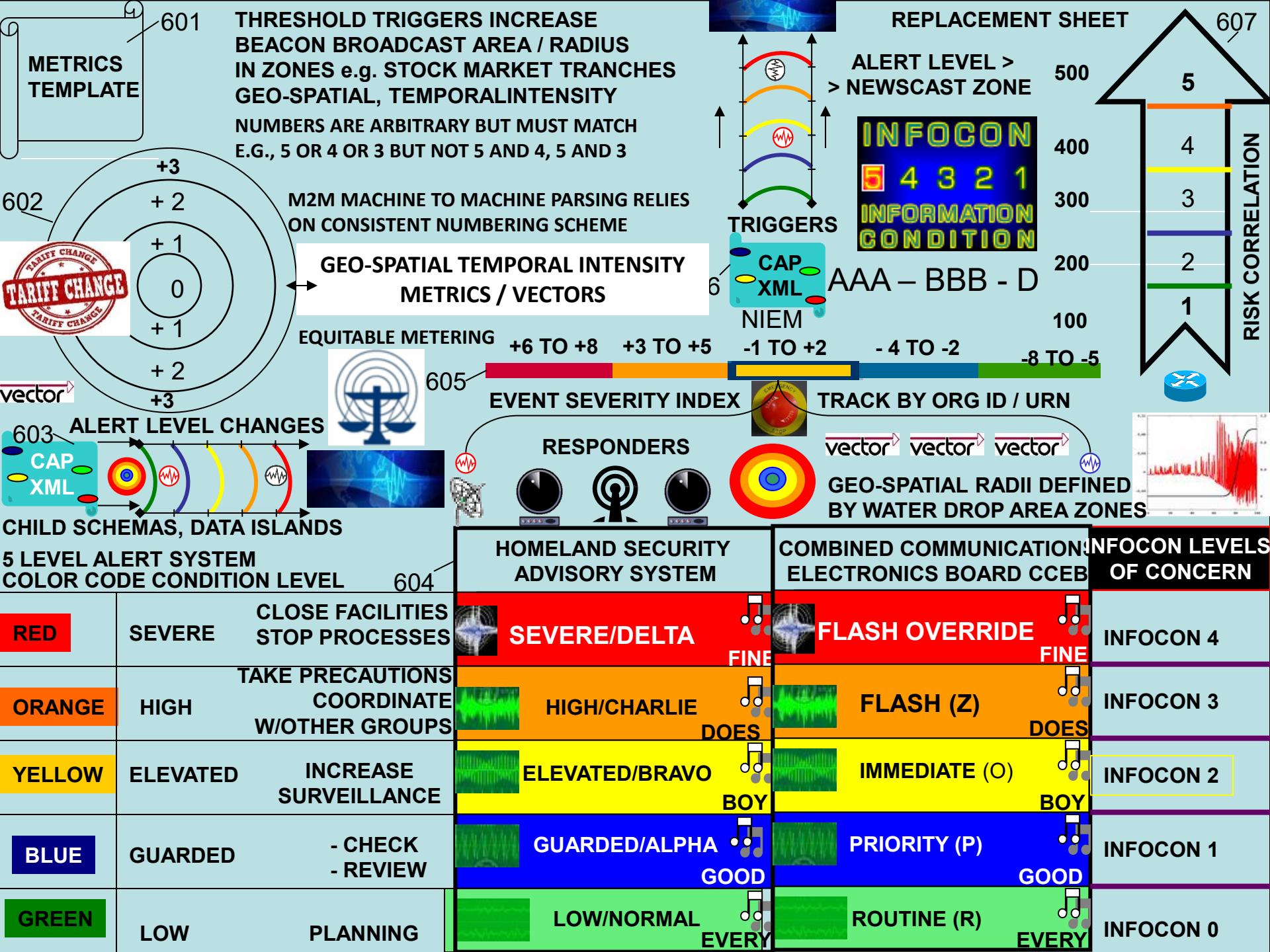
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"Heartbeat Synchronization strives to have nodes in a distributed system generate periodic local "heartbeat" events approximately at the same time. It differs from classical clock sync in that Nodes are not interested in counting cycles and agreeing 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"





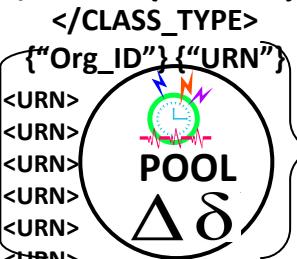
TERRA TRC



ECONOMIC HEARTBEAT

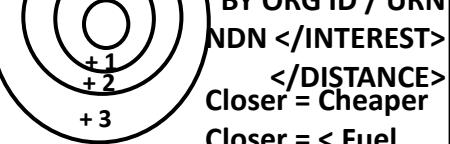
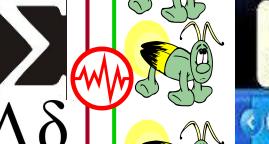
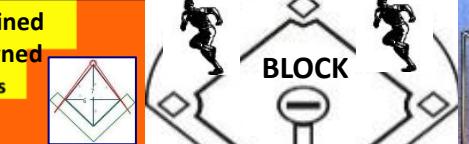
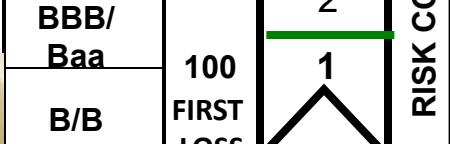
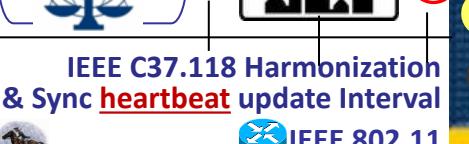
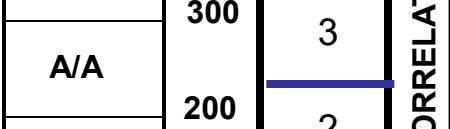
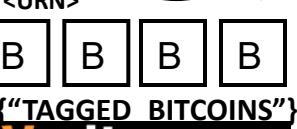
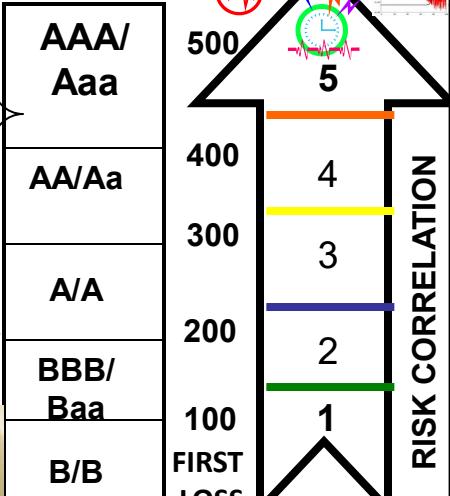


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HB MSG </108>
FIX PROTOCOL
INDUSTRY-DRIVEN MESSAGING STANDARD

LAST LOSS

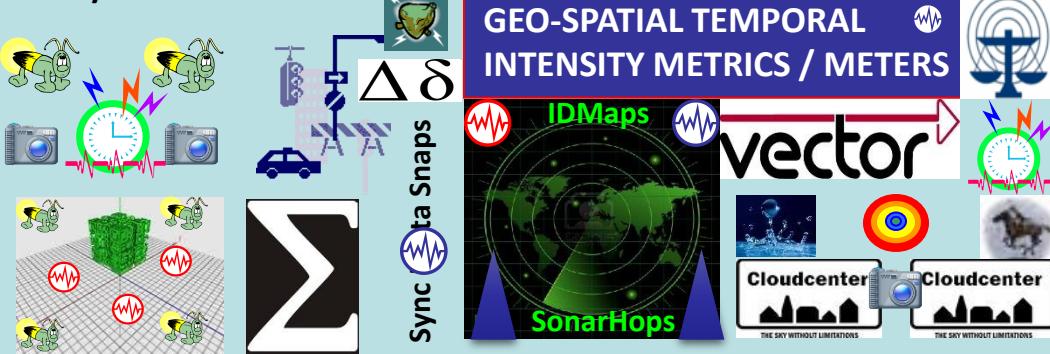




IDMaps: Global Internet Host Distance Estimation Service



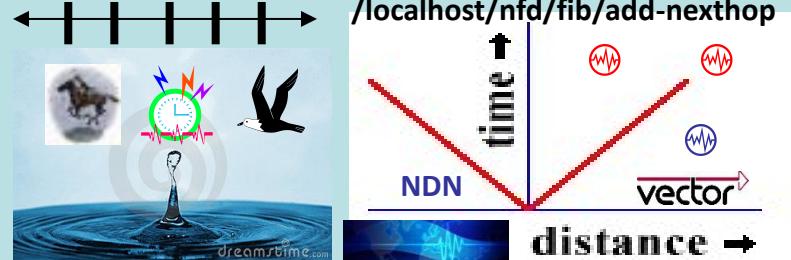
NDN: CONTENT ROUTING / <StratML> NDN INTEREST = Time / Distance



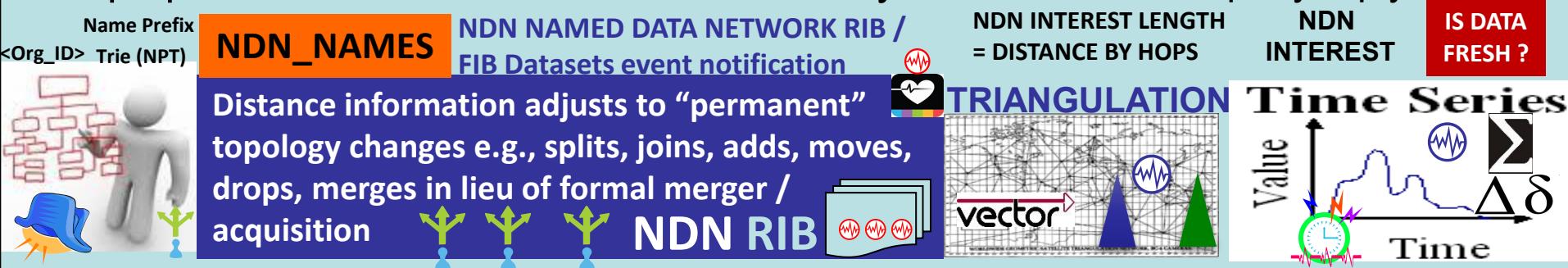
IDMaps scalable Internet-wide architecture measures, disseminates distance information



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

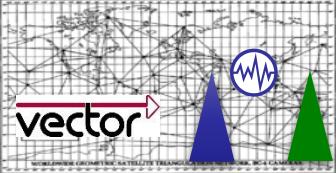


IDMaps provides distance information used by SONAR/HOPS query/reply service



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.

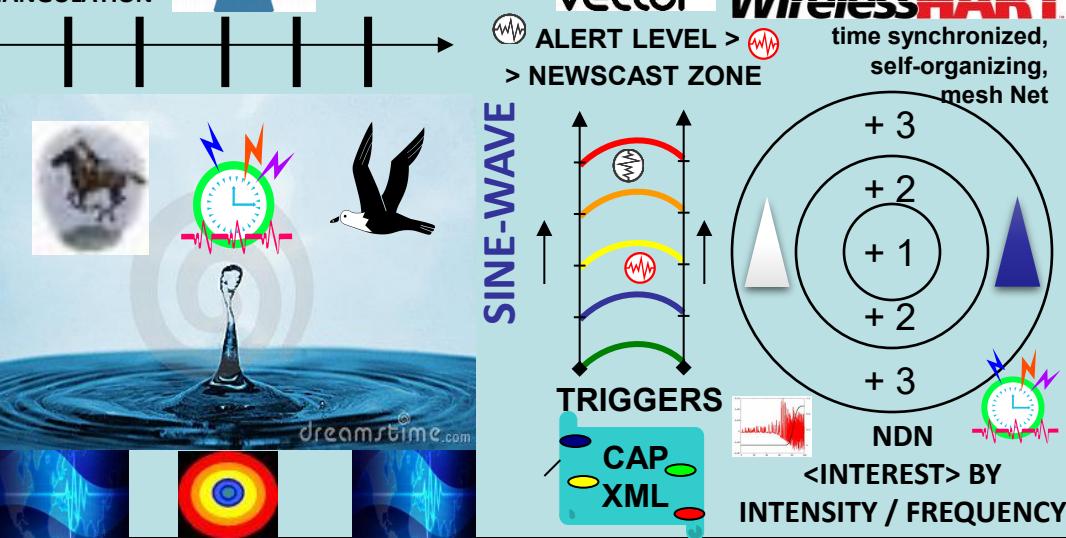
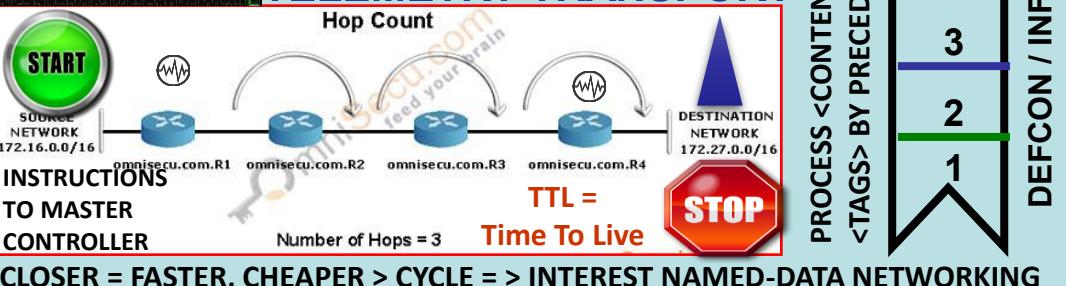


GEO-SPATIAL TEMPORAL INTENSITY METRICS, METERS, VECTORS, TARIFF

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



TELEMETRY TRANSPORT



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

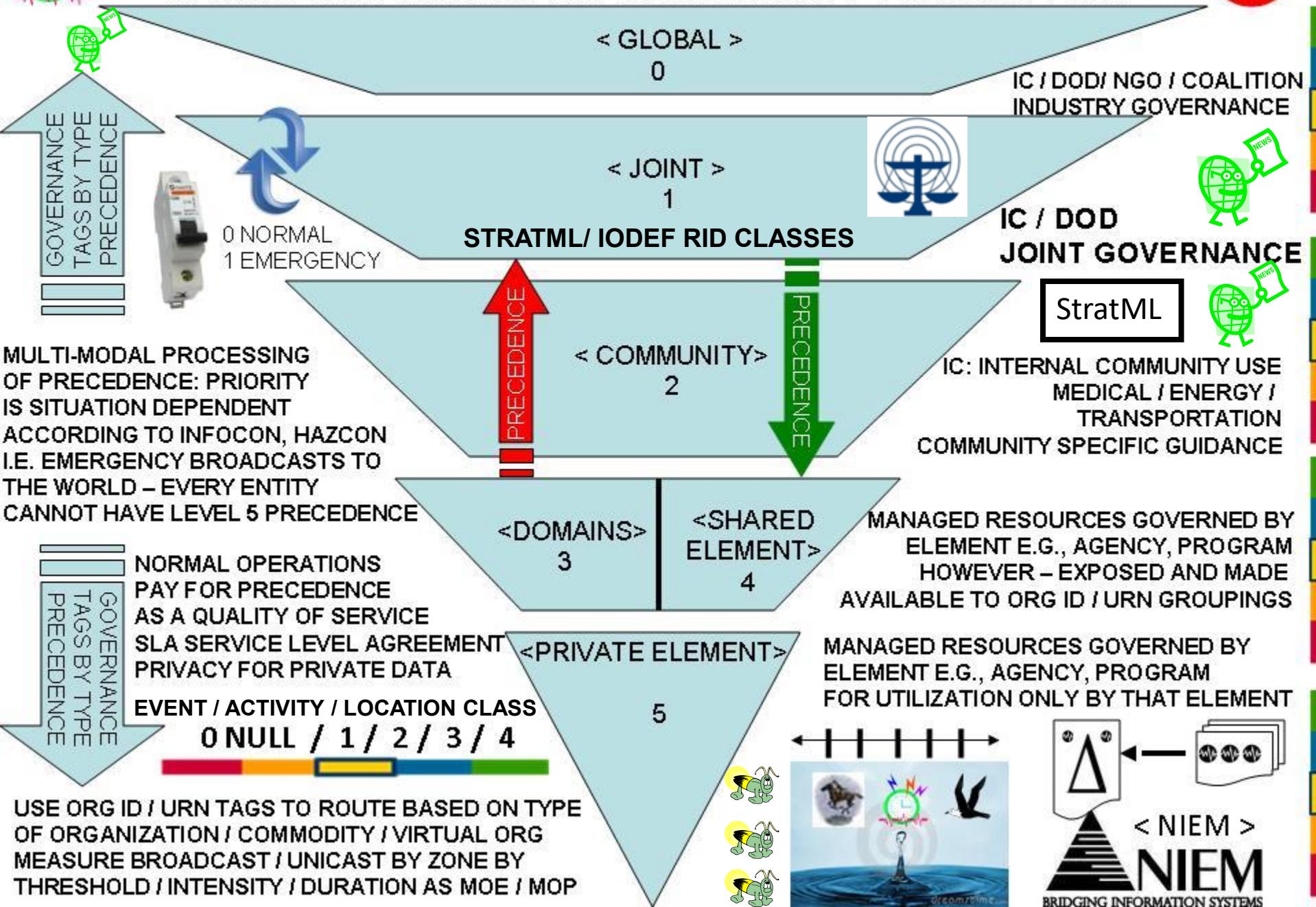
TIME STAMP BY Org ID, URN Before FUSION CENTER

Position of a point in space relative to another point





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



NAMED DATA NETWORKING

<CONTENT> CENTRIC NETWORKING



<ORG_ID>
<ORG_ID>
<ORG_ID>
<URN>
<URN>

<GLOBAL> <JOINT> <COMMUNITY> <DOMAINS> <SHARED> <PRIVATE>
</INTEREST> <STRAT_ML> <IODEF RID> </DISTANCE>

Situational Awareness Reference Architecture (SARA) IDENTITY, Inventory, Activity, and Sharing



<Federated ID> <URN> <type_event> <Data Class Types>

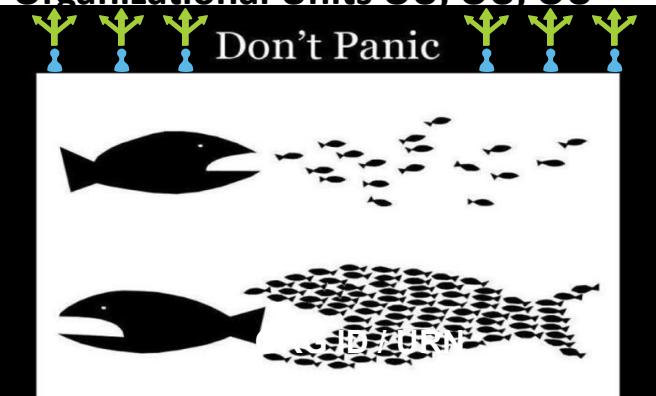
STRUCTURED MILITARY MESSAGING FORMS: FIELD TYPES, FILTERS, TAGS
PARSED, PROCESSED, COMPILED TELEMETRY SIGNALING STANDARDIZATION

USMTF / XML MTF FORMATTED MESSAGE CATALOG

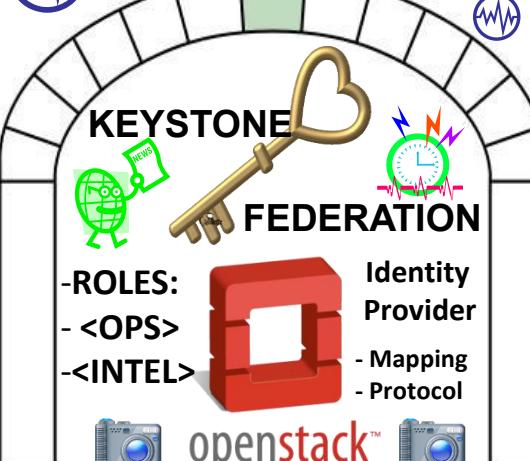
Catalog has over 300 messages to choose from have a wide number of information exchange requirements using common, CONSENSUS Message Text Formats MTFs. MTFs specify <CONTENT> / information agreed by group consensus presenting information in a logical, well specified and unambiguous layout resulting in a highly efficient information payload to overhead ratio

</Organizational_Identifier_Org_ID>

Organizational Units OU, OU, OU



FEDERATE



Uniform Resource Names (URNs): A Uniform Resource Identifier (URI). Both URNs (names) and URLs (locators) are URIs, and a particular URI may be a name & locator. Each plays a specific role:

- URNs IDENTIFICATION (SENSORS, DEVICES)
- URCs INCLUDE META-INFO
- URLs LOCATE / FIND RESOURCES

SITUATION AWARENESS



SURVEY METHOD
ID <ITEMS><INTEREST>
GEO-SPATIAL AREA
TEMPORAL INTENSITY
MEASURES / METRICS

IDMaps
SonarHOPS



K0.99
Heartbeat
Message



<Org_ID>
<Org_ID>
<Org_ID>

PARTIDO X:
Distributed
Democratic
Participation

DAO
ETHEREUM:
Decentralized
Autonomous
Organizations



BY <TAG_TYPES>
Ledgers
Contracts
Trade SLA
Agreements



TELCO MESH FABRIC

vector



CROWD SOURCING / FUNDING



Situational Awareness Reference Architecture (SARA)

: Identity, Inventory, Activity, and Sharing

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



ICS-ISAC

Industrial Control System
Information Sharing and
Analysis Center

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

INVENTORY: Uniform Resource Name <URN>

<URN><URN>
<URN><URN>
<URN><URN>



vector

<COMMODITY><WATER><ENERGY><AVAILABLE UNITS>

GEO-SPATIAL TEMPORAL INTENSITY METRICS

UNIFIED EVENT / ALERT TRIGGER / THRESHOLDS

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

CONTENT LEXICON
ROSETTA STONE

NDN

<INTEREST>



NDN

<INTEREST>



SHARING:

COMMON <TAGS>

<Organizational_ID>

Resource Names <URN>

<Time_Stamps>

<State-Meta_Data>

<DATA_CLASS_TYPE>

<Heartbeat_snapshots>

<TAG> LIBRARY
TEMPLATES



NAMED DATA
NETWORKING
<Content> Centric

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

FROM	TO	MCS
OCB1	TAB1	AMOPCS
ABAD	F012	AFAT05
AMOPCS	F012	DSS000

FROM	TO	MCS
CBS01	F012	C000
CBS02	F012	C000
CBS03	F012	C000

FROM	TO	MCS
DTB1	F012	C000
DTB2	F012	C000
DTB3	F012	C000

FROM	TO	MCS
ISMT1	F012	C000
ISMT2	F012	C000
ISMT3	F012	C000

FROM	TO	MCS
ISY001	F012	C000
ISY002	F012	C000
ISY003	F012	C000

FROM	TO	MCS
ISY004	F012	C000
ISY005	F012	C000
ISY006	F012	C000

FROM	TO	MCS
ISY007	F012	C000
ISY008	F012	C000
ISY009	F012	C000

CYBER SECURITY CONTENT
LEXICON ROSETTA STONE

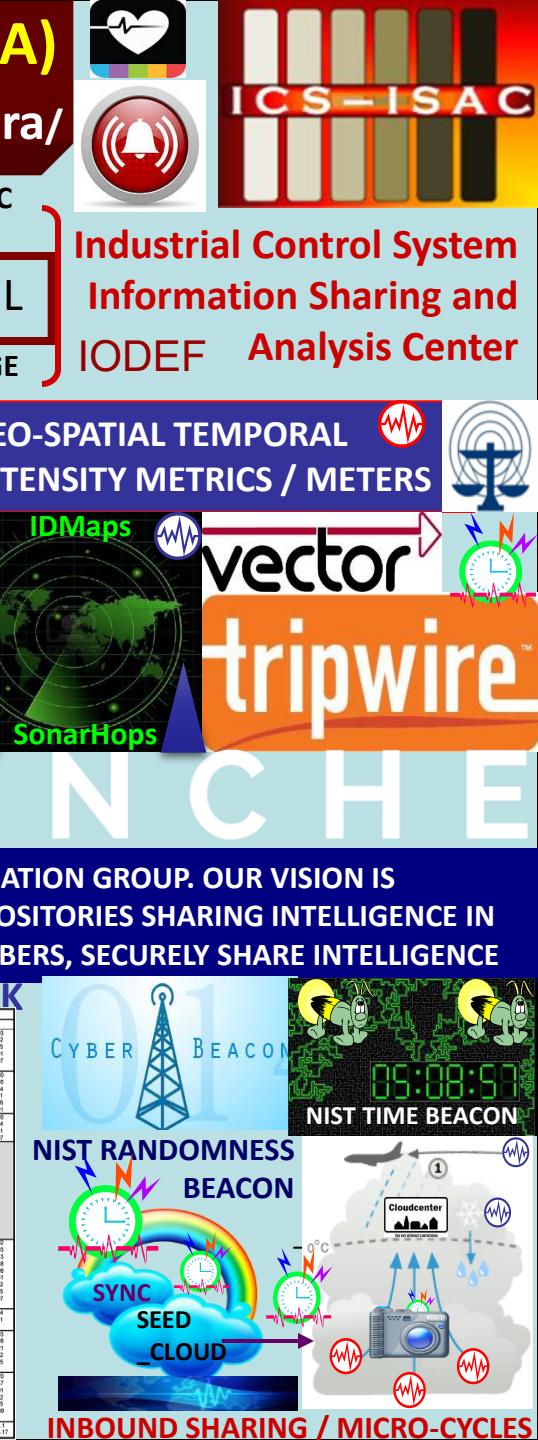
USMFT / XML MTF FORMATTED MESSAGE CATALOG

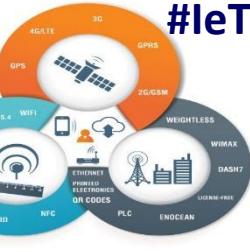
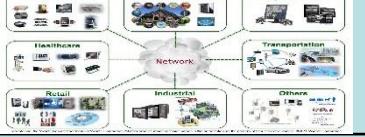
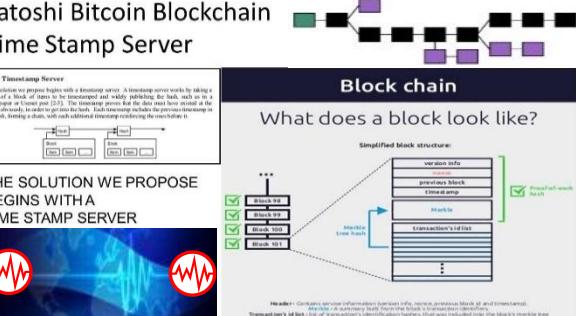
Catalog has over 300 messages to choose from have a wide number of information exchange requirements using common, CONSENSUS Message Text Formats MTF

MTFs specify <CONTENT> / information agreed by group consensus presenting information in a logical well specified and unambiguous layout i.e., templates

STRUCTURED
<CONTENT>
TEMPLATES

<TAG>
LIBRARY



Interface Name	HEARTBEAT Administration Interface [SCOP]					
Documentation URL	http://scop.sourceforge.net/ http://linuxvirtualserver.org/software/index.html					
API Information	 <p>#leT</p> <p>Functionality Areas</p>  <p>Idea</p> <p>Cloudcenter THE SKY WITHOUT LIMITATIONS</p>					
Programmable Money World Computer / Blockchain	#Big_Data	API Operation Count	<p>Cloud Interface Management configuration, start, stop cloud services, edit configuration (heartbeat messages)</p> 			
Programmable Money World Computer / Blockchain		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	PHP Java Erlang...	Cloudcenter	Cloudcenter	Cloudcenter
"The external environment could update <u>resources</u> at random... One solution is a heartbeat : defining a default lease duration delaying updates until the next cycle "		<p>SCOP is a web application, PHP based front-end to heartbeat, IP Virtual Server ipvs and Idirectord [e.g., check interval @ 5 seconds] SCOP can start/stop services, view/ edit configuration files e.g., heartbeat message state management snapshots, backups, take a service online/offline, add/ remove virtual/real servers, services etc.</p>				
 <p>"The external environment could update <u>resources</u> at random... One solution is a heartbeat: defining a default lease duration delaying updates until the next cycle"</p>		 <p>THE SOLUTION WE PROPOSE BEGINS WITH A TIME STAMP SERVER</p>		Satoshi Bitcoin Blockchain Time Stamp Server	<p>EPOCH TIME CYCLES E0 E1 E2 E3...</p> 	
<p>QubitCoin Interval: Every 30 Seconds</p>					MICRO CYCLES	MACRO CYCLES

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

HEART BEACON CYCLE
USPTO 13/573,002
SURVEY METHODS

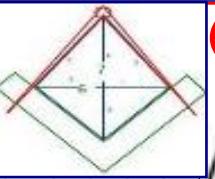
SC ALICE CORP VS CLS BANK: “claims may not direct towards abstract ideas”

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”

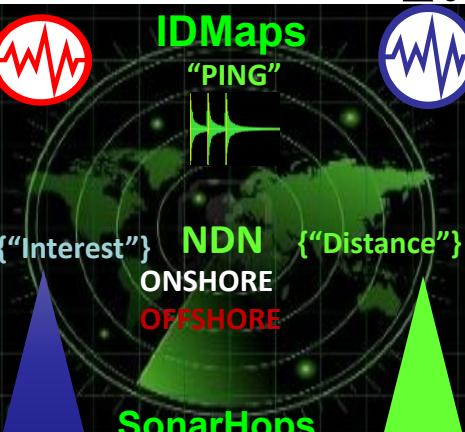
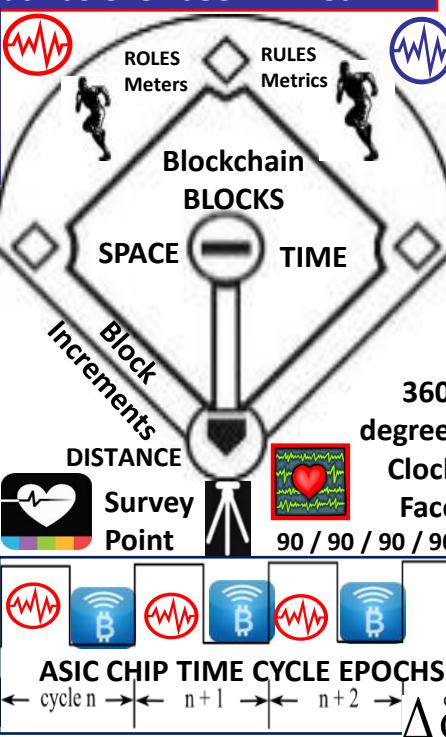
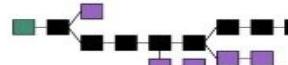
Coin never travel, but simply switch owners”

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

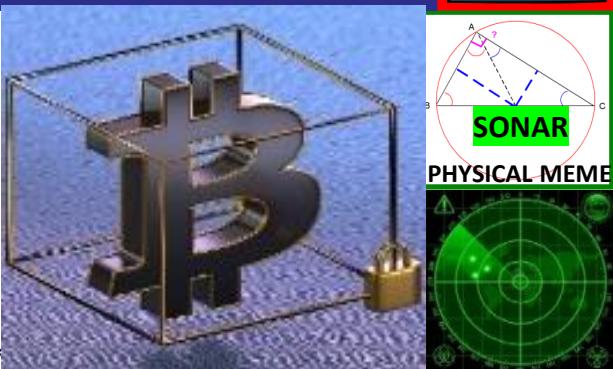
Step 4: Issuing Org of Record adjudicates w buyer



TRIANGULATION



DISTANCE ESTIMATION EUCLIDIAN GEOMETRY



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



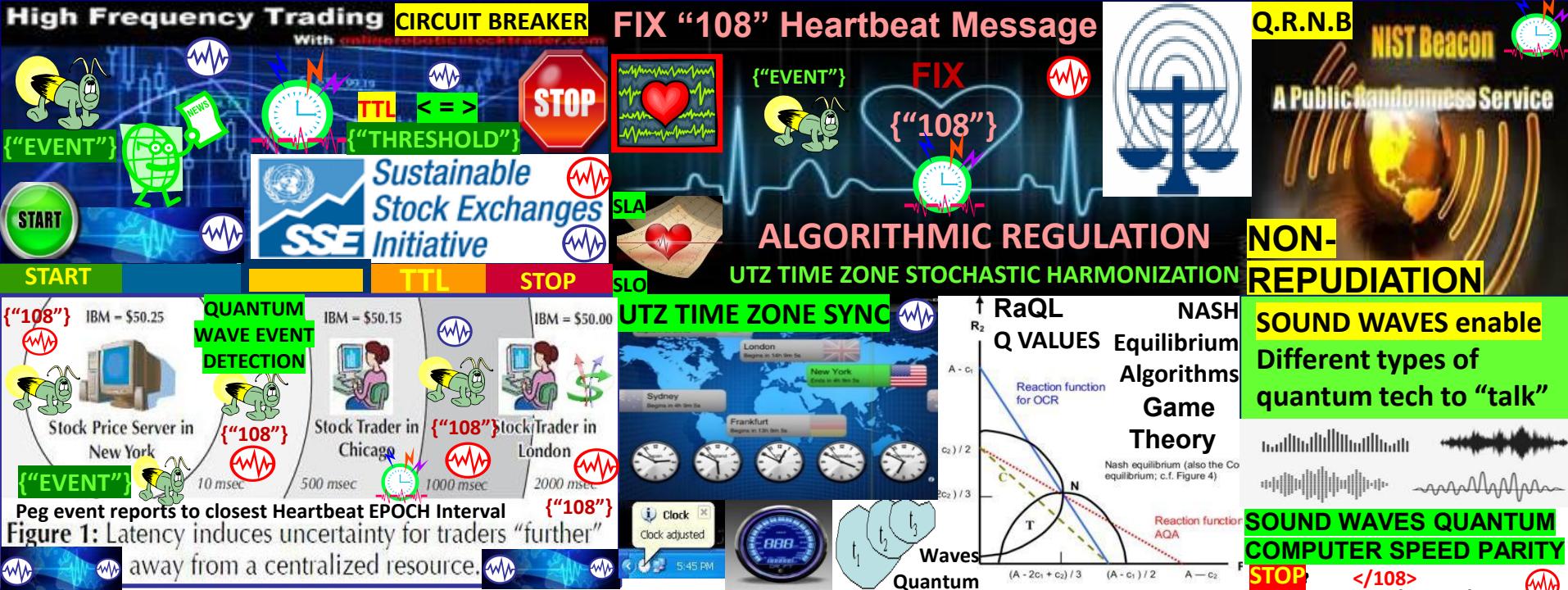
IDMaps / SonarHops collects distance data & builds virtual Internet distance maps & estimates distance between IP address pairs



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



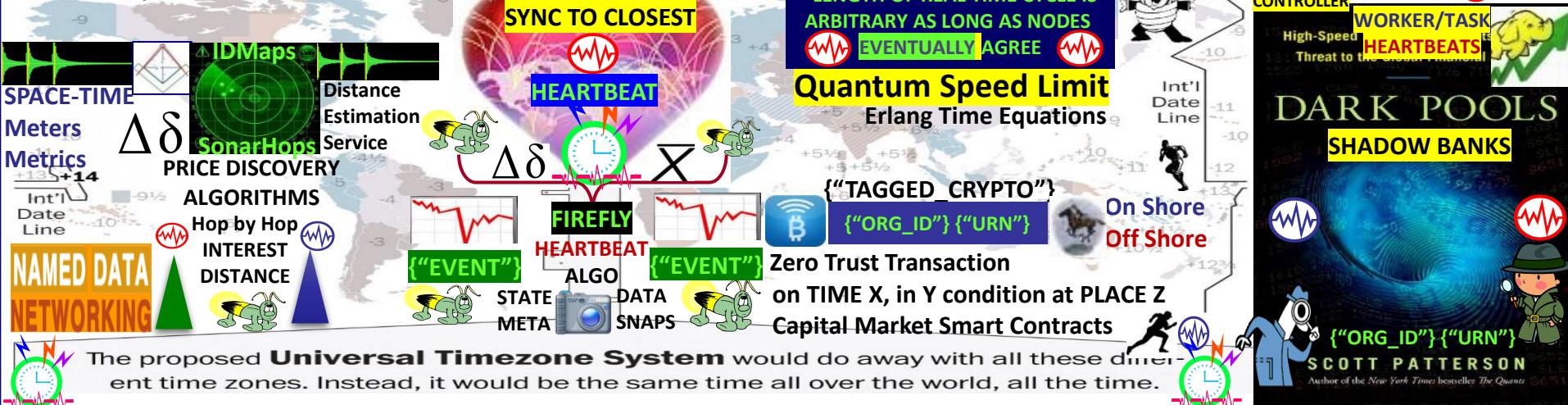


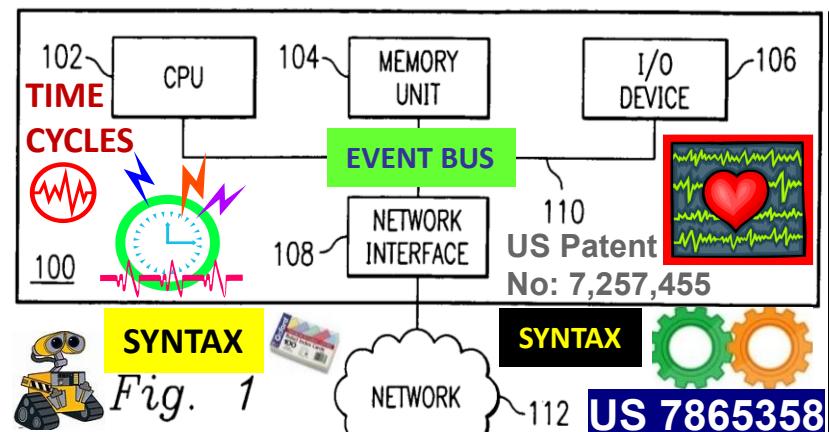


The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen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



TRANSACTION RATE, SPATIAL – TEMPORAL METRICS SERVER ON / OFF FLOOR ADJUST



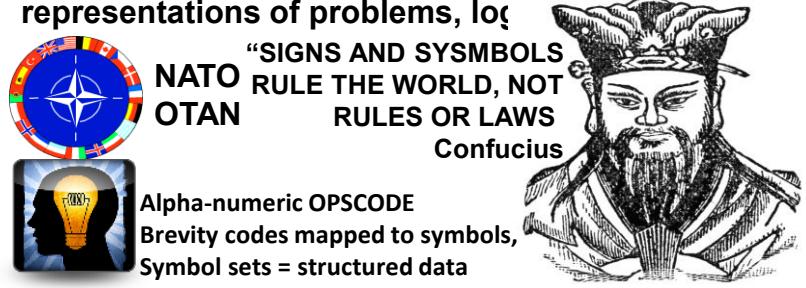


Machine-based system for transforming data from a source form to a target form, a tool is provided for sharing information established in developing a transformation model. The shared information may relate to rules for mapping source collection terms to standardized terms, rules for ordering or **SYNTAX**, rules for classifying terms or other transformation rules.

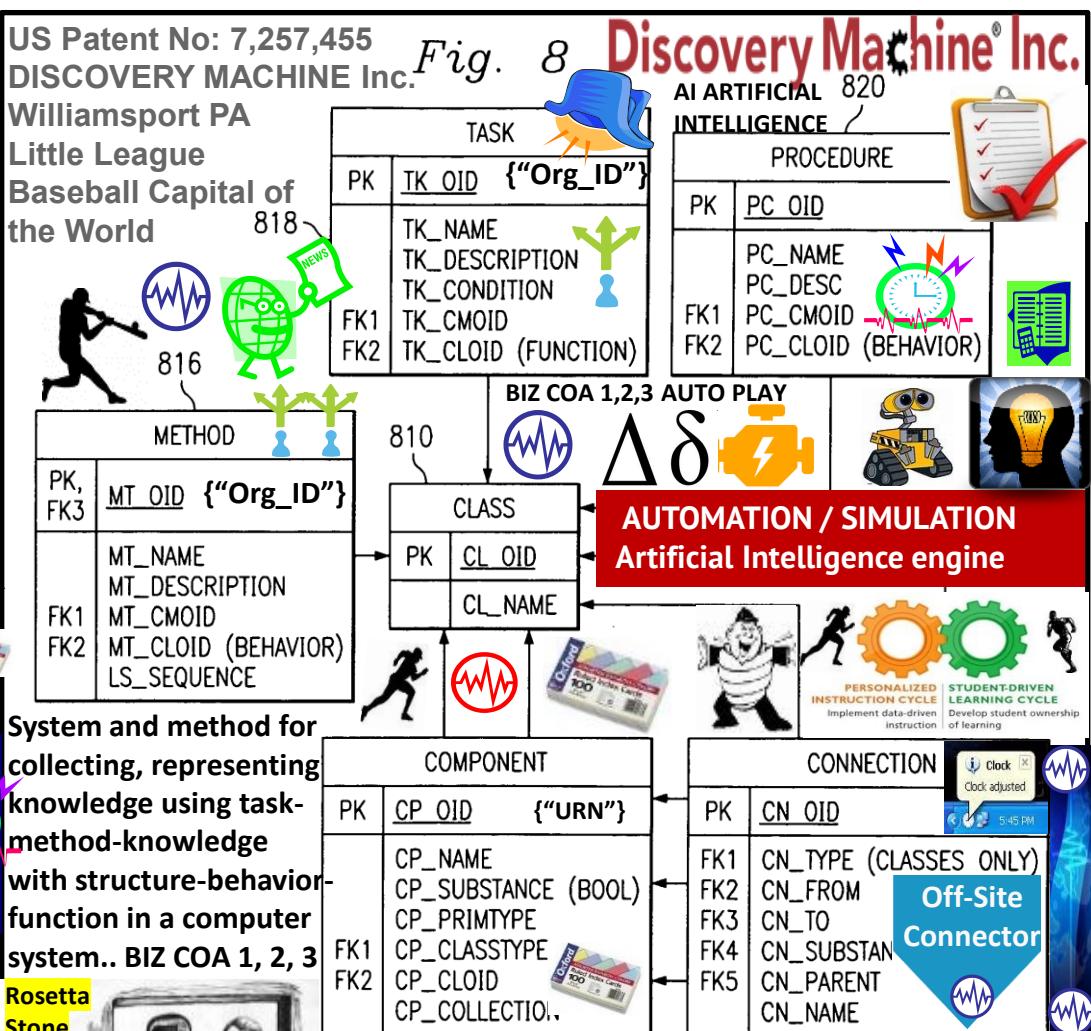
US 7865358 CLAIM 1. method converting textual data from source form to target forms, where target form differs from source form's linguistics, syntax

Multi-user functionality for converting data from a first form to a second form

Symbolic artificial intelligence: collection of all methods in artificial intelligence research that are based on high-level symbolic (human-readable) representations of problems, logic



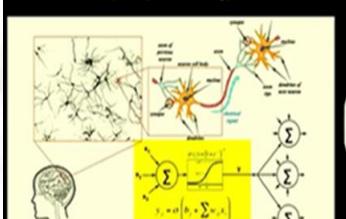
Alpha-numeric OPSCODE
Brevity codes mapped to symbols,
Symbol sets = structured data



Neuro-Symbolic AI

Symbolic (human-readable) representations

Symbolic AI



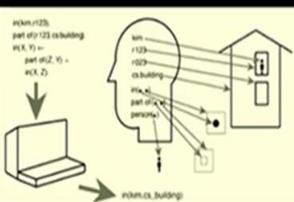
Breaking the world into symbols (rather than

revity



Symbols

Symbol



Incorporate common sense reasoning and

Symbolic artificial intelligence: collection of all methods in artificial intelligence

research that are based on high-level symbolic (human-readable) representations of problems, logic and search.[1] Symbolic AI used tools such as logic programming, production rules, semantic nets and frames, and it developed applications such as knowledge-based systems (in particular, expert systems), symbolic mathematics, automated theorem provers, ontologies, the semantic web, and automated planning and scheduling systems. The Symbolic AI paradigm led to seminal ideas in search, symbolic programming languages, agents, multi-agent systems, the semantic web, the strengths, imitations of formal knowledge and reasoning systems.

Physical symbol system (also called a formal system) takes physical patterns (symbols), combining them into structures (expressions) and manipulating them (using processes) to produce new expressions. The physical symbol system hypothesis (PSSH) is a position in the philosophy of artificial intelligence formulated by Allen Newell and Herbert A. Simon. They wrote: A physical symbol system has the necessary and sufficient means for general intelligent action." [2] —Allen Newell and Herbert A. Simon

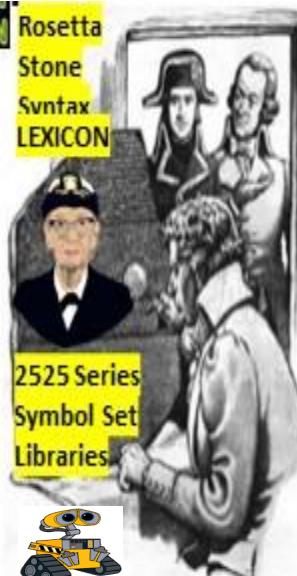
This claim implies both that human thinking is a kind of symbol manipulation (because a symbol system is necessary for intelligence) and that machines can be intelligent (because a symbol system is sufficient for intelligence).[3] The idea has philosophical roots in Hobbes (who claimed reasoning was "nothing more than reckoning"), Leibniz (who attempted to create a logical calculus of all human ideas), Hume (who thought perception could be reduced to "atomic impressions") and even Kant (who analyzed all experience as controlled by formal rules).[1] The latest version is called the computational theory of mind, associated with philosophers Hilary Putnam and Jerry Fodor.[4]

Source: Wikipedia: https://en.wikipedia.org/wiki/Physical_symbol_system

data from a first form to a second form

CONDITION

Rosetta
Stone
Syntax
LEXICON



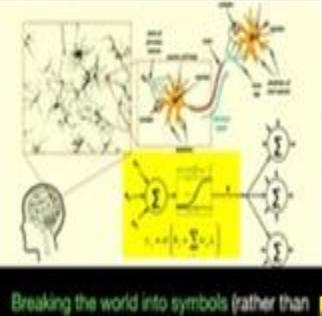
FRT CP CLOUD

ABC A OPS CODE BREVITY CODES

Neuro-Symbolic AI

Symbolic (human-readable)
representations

Neural Networks
(Deep Learning)



Symbolic AI

Brevity
Codes

Symbols

Symbol

Incorporate common sense reasoning and

Symbolic artificial intelligence: collection of all methods in artificial intelligence research that are based on high-level symbolic (human-readable) representations of problems, logic and search.

"SIGNS AND SYMBOLS
NATO RULE THE WORLD, NOT
OTAN RULES OR LAWS
Confucius



Alpha-numeric OPS CODE

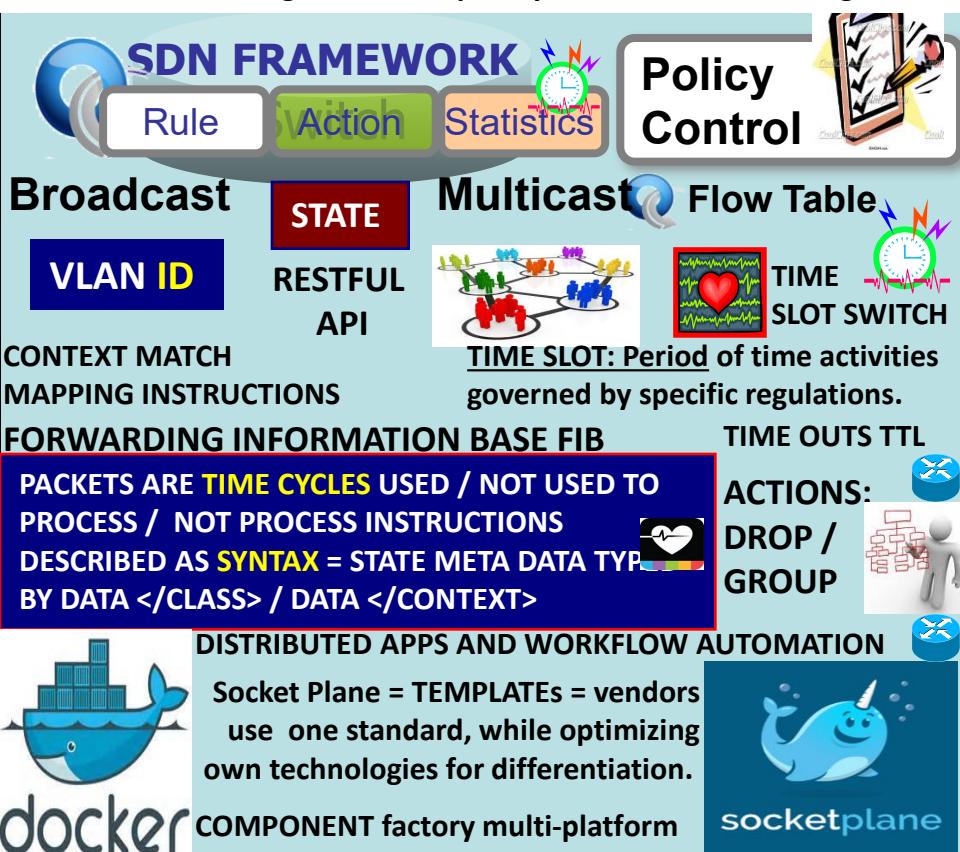
Brevity codes mapped to symbols,
Symbol sets = structured data





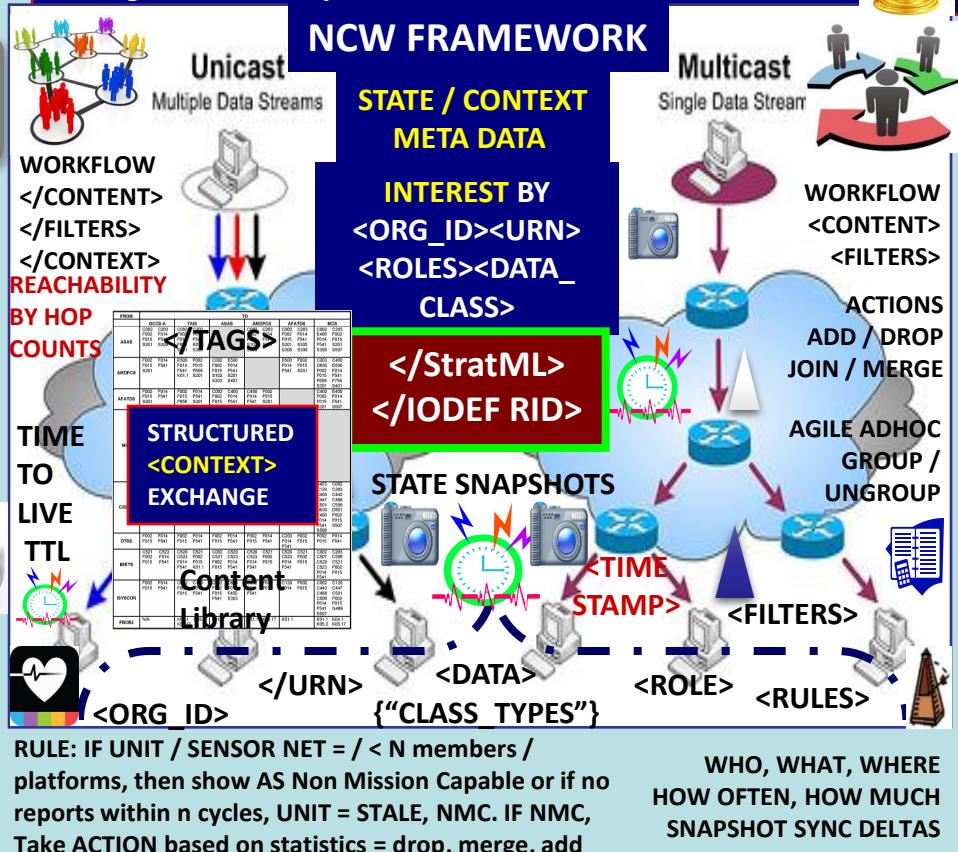
- SDN is a *framework* to allow network administrators to *automatically* and dynamically manage and control a *large number* of network devices, *services*, topology, traffic paths, and packet handling (quality of

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."



USPTO APPLICATION 13,573,002 The Heart Beacon Cycle Time – Space Meter, Applique' Overlay

GIZMAG: New NASA network poised to bring internet to entire solar system

SCt 573 ALICE CORP VS CLS BANK PHYSICAL MEMES

INTERNET TCP/IP "PING", "HOPS",
"PACKETS", FRAMES = METAPHOR



TIME / DISTANCE SERVICE LEVEL
AGREEMENT SLA / O Operations

IEEE 802.15.4 OASIS MQTT

TELEMETRY TRANSPORT

IEEE 802.1AG HOP BY HOP
DETECTION

IEEE 802.11
HOP BY HOP CONTROL



Unused Resources / Unmet Needs

/localhost/nfd/fib/add-nexthop
Geo-Spatial Temporal
Metrics, Meters

DISTANCE
INFO SERVICE

Time Series

RISK

Value

Time

IDMaps

SonarHops

WATER DROP IN POND MEME IS
SONAR NAVY METAPHOR / MEME

NDN </INTEREST>
NDN {"DISTANCE"}

NAMED DATA
NETWORKING

IEEE C37.118
Harmonization
& Sync heartbeat
update Interval

CLOSER SOURCE
CHEAPER RATE

Energy Attenuates over Distances

PAUL REVERE

LINEAR, SEQUENTIAL

603

NULL

+1

RADIUS
WATER DROP IN POND MEME

Attribute Series

INTENSITY

INTEREST

WATER DROP IN POND MEME

DISTANCE

Geo Spatial

Temporal Series

TESLA

TCP/IP HOP BY HOP COUNT

Micro Grids Closer - Cheaper

BLOCKCHAIN
MICROGRIDS

TIME / DISTANCE SERVICE LEVEL
AGREEMENT SLA / O Operations

IEEE 802.11
HOP BY HOP CONTROL

Unused Resources / Unmet Needs

Spatial
Econometrics

Spaceship
Earth
Signals &
Telemetry
Annex

ASTEROID BELTS =
RARE MINERALS

MAIN
ASTEROID
BELT

MARS

MERCURY

VENUS

EARTH

STOCHASTIC
HARMONIZATION

FIREFLY-HEARTBEAT
ALGORITHM
UNIVERSAL
EVENT MESSAGE BUS

ERLANG

TIME- SPACE METRICS

43

Light minutes

22

Astronomical units

13

0

1.5

2.7

5.2

Time Series

RISK

Value

Time

Distance

Intensity

Interest

Attribute

Temporal

Geo Spatial

Radius

Distance

Interest

Attribute

Temporal

Information Condition

????

MOON =

HELIUM 3

"Numbers are the
Universal Language
offered by deity to humans as
confirmation of the truth"

5 4 3 2 1
INFORMATION
CONDITION

SIRIUS DISCLOSURE

Alpha
Numeric
Brevity
Codes

SYNTAX
LEXICON

KOO.99

ANDERSON
INSTITUTE

MAIN
ASTEROID
BELT

MARS

MERCURY

VENUS

EARTH

STOCHASTIC

HARMONIZATION

Farther = More Cost

➤ Fuel, Resources

Service Level Agreements

TROJAN
ASTEROIDS

UNIVERSAL
EVENT MESSAGE BUS

ERLANG

TIME- SPACE METRICS

43

Light minutes

22

Astronomical units

13

0

1.5

2.7

5.2

Time Series

RISK

Value

Time

Distance

Interest

Attribute

Temporal

Geo Spatial

Radius

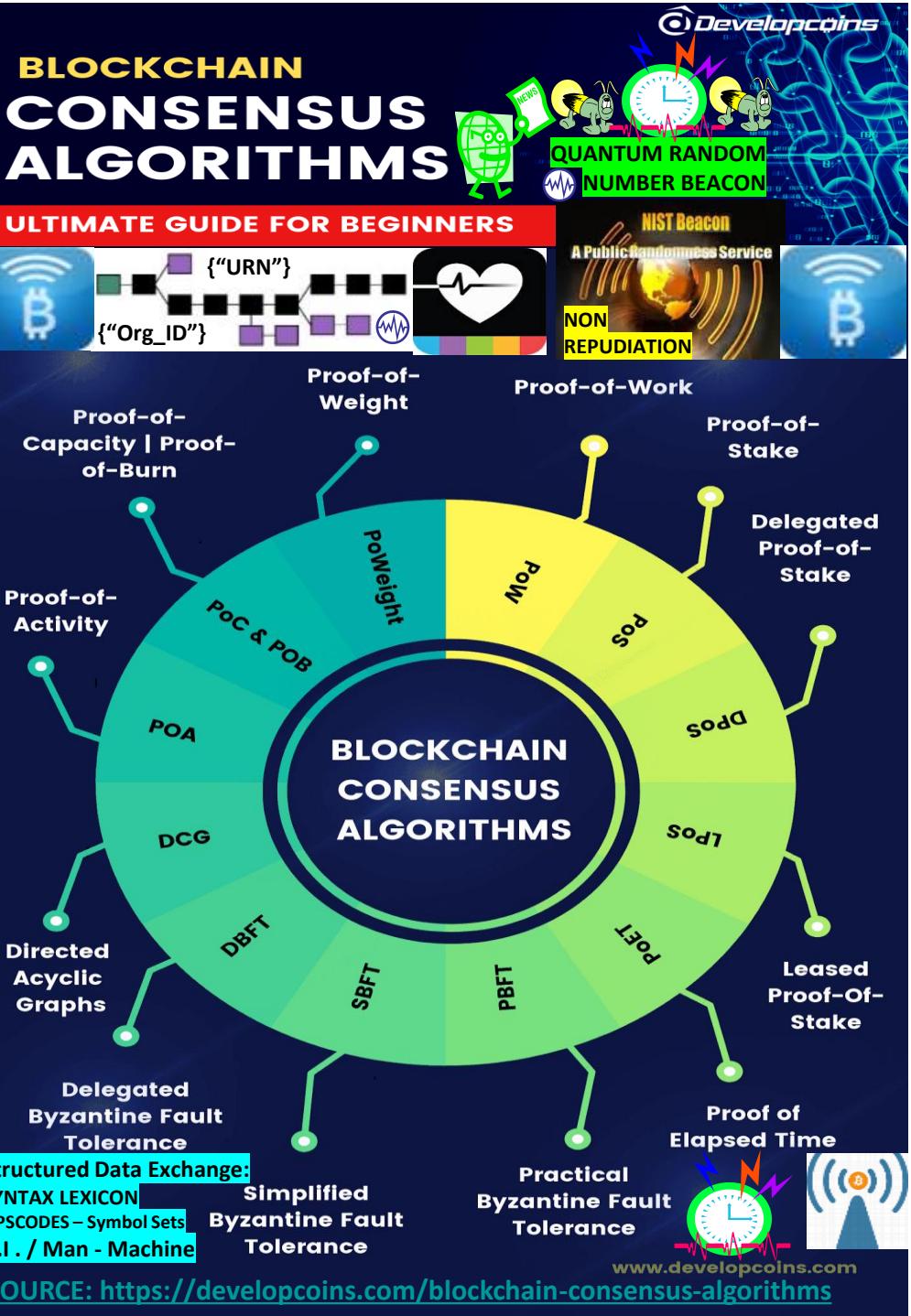
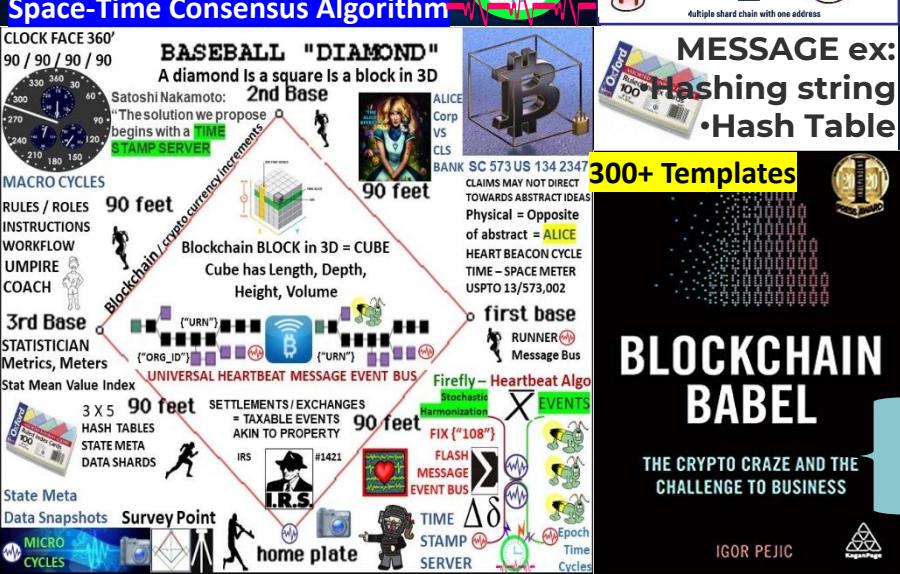
Distance

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 
Interoperability
Protocol BIP 
 "share any type of data PROTOCOL
 as long as it's encoded **in BYTES**"

ISC

INTER BLOCKCHAIN
COMMUNICATION

BYTE: unit of data equal to eight bits



BIT: a unit / group of 8 bits as

alphanumeric characters i.e., TOKENS

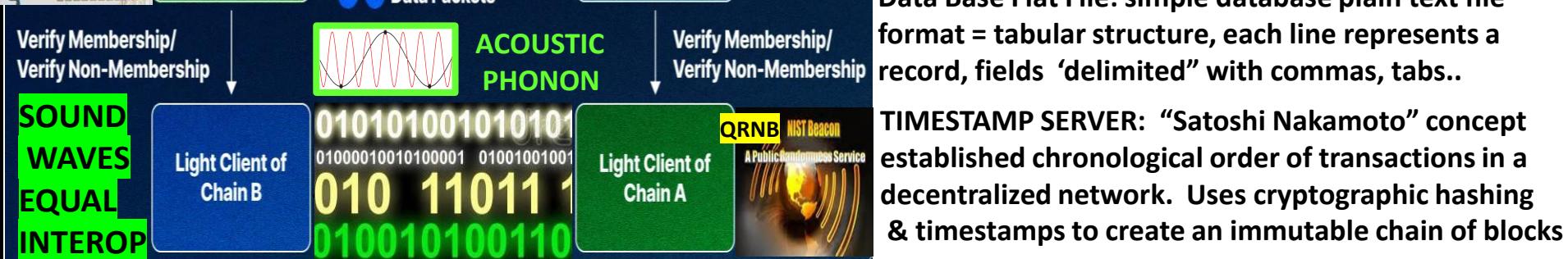
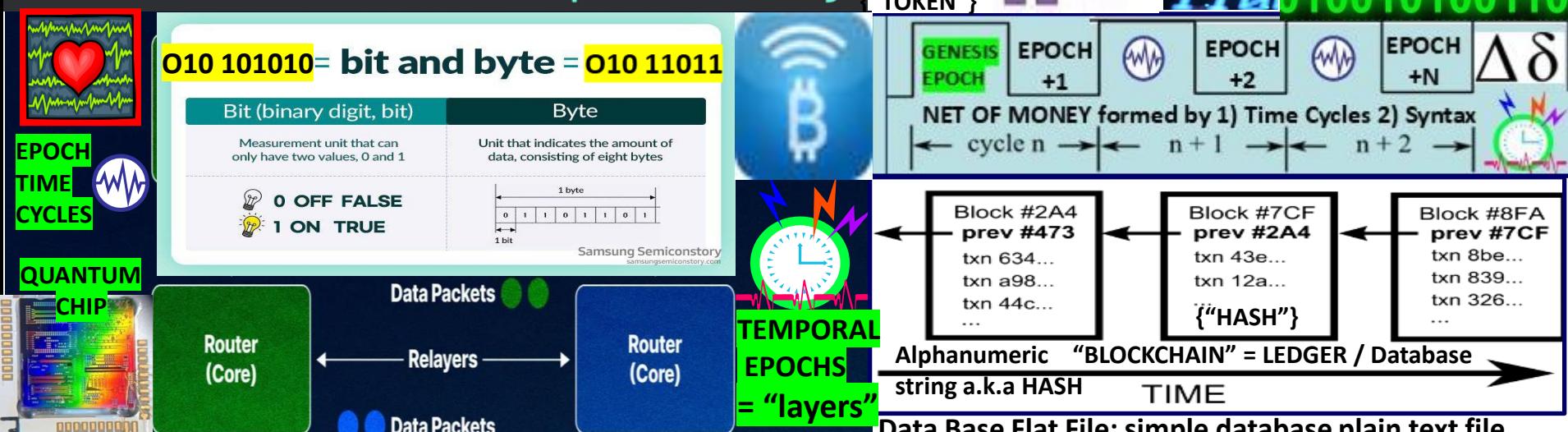


BIT: logical state with two possible values: "1" or "0",
TRUE / FALSE, YES / NO, ON / OFF, or +/-

"A **BIT** is physically created with a **TWO STATE** device



The Complete Guide to Crosschain Interoperability



JP6813477B2 US11196566

- 1 DAVID
- 1 Goliath
- 1 TEAMS



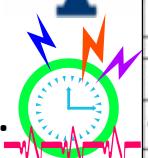
USPTO 13/573,002
Performance
Contracting Vs
CLS Bank X 2

Reggie Middleton
"Financial Nostradamus"
"Disruptor in Chief"

VeADir Veritaseum Autonomous Distributed Interactive Research distributed ledger (blockchain) and smart contract tech machine language pro rata portions of tokens purchased & option to purchase (smart contract access or wallet) to read machine code into **human readable material**



OPSCODE BREVITY
CODES mapped
TO SYMBOL SETS
MIL STANDARD
ISO / ITU / IEEE



BEACON KIT

Tech Framework @ World Game (s)



Net of **\$\$\$** formed with:
1 EPOCH TIME CYCLES
2 {"Syntax"} "The Word"

"In the Beginning" Genesis Block

"net, net of money are formed using wave form motion 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"

NAMED DATA NETWORKING

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



SYNTAX LEXICON Library	1st Compiler
ISO	</ORG_ID> </URN>
STOCK MIC CODES	R W A
STRUCTURED DATA EXCHANGE TEMPLATE FORMS	Real World Assets
300+ USE CASES	A.I.
LOGIC / FILTERS	
SYNTAX / SYMBOL LEXICON LIBRARY	Coder Guide Rosetta Stone

- Reuse, mod of System of systems engineering framework, Syntax Lexicon Library data elements



ERC 20 TOKENS STANDARDS LIST



All things net, net of money formed with 1. Epochs 2 Syntax

Federation
Gateway

CONFEDERATION: Latin: foedus, foederis, covenant, union of partially self-governing entities under a central government league or confederacy. People, groups retain autonomy federated body formed by a number of nations, states, entities, unions, retaining control of own internal affairs **A.I.** **Procedure** **Case Corp.** claims may not direct **Syntax** **Template Checklist**

Bank To abstract ideas" Alpha-Numeric Brevity Codes / Tokens

STRUCTURED DATA EXCHANGE

A horizontal row of logos. From left to right: IES (International Energy Services) logo, PwC (PricewaterhouseCoopers) logo, ISO 9001 Quality Management Systems logo, SWIFT logo, and a small globe icon.

ERS RULES Metrics

ISO 20022
2525C.D

 NATO NETOPS DATA SETS Alpha Numerical
Template Forms Routing Codes A

L/A/O	NETS & TEMPLATE FORMS	Preview Codes
"LOGIC"		X00.99

/ Off "FILTERS" Message Sets

["URN"]

XBRL / CDL / DAML ROSETTA STONE

ROBERT HAGSTROM - 1

- **STRUCTURED DATA EXCHANGE**
Reuse brevity codes mapped to
2525D symbol sets comprised of 300
+ message sets for A.I. - machine
Block-Time DLT arbitrage among
Trade Federations </Org_ID>
{“URN”} </URN> = COMMODITY

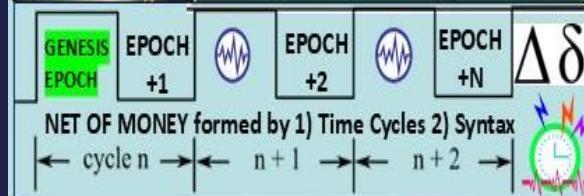


Spatial / temporal UTZ synchronization, stochastic harmonization, Time - Space Distance Estimation Service

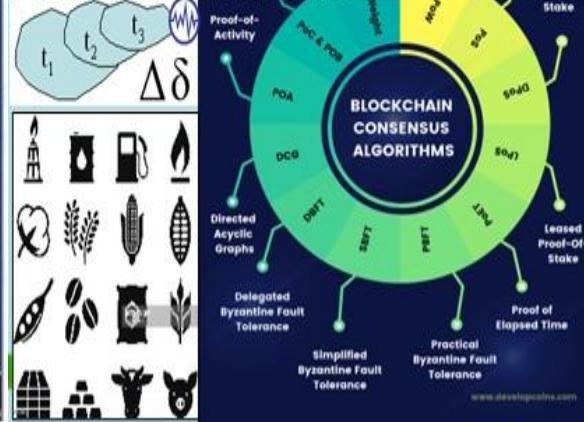


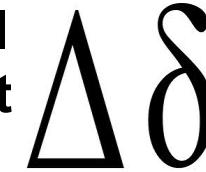
The diagram illustrates a distributed system architecture centered around a 'Heartbeat Flash Message Event Bus'. Key components include:

- Firefly**: A green box representing a component.
- Sync**: A green box representing a component.
- Algorithm**: A green box representing a component.
- Stochastic**: A green box representing a component.
- Harmonization**: A green box representing a component.
- STATE META**: A green box representing a component.
- DATA Snapshot**: A green box representing a component.
- SYNC DELTAS**: A green box representing a component.
- Event Bus**: A central vertical column containing boxes for **STAT**, **MEAN**, and **INDEX**.
- Sensors**: Various circular icons representing sensors for **TIME** (ruler), **SPACE** (triangle), and **WAVEFORM** (oscilloscope).
- Processor**: A box labeled \sum with a red heart icon inside, connected to the event bus.
- Output**: A box labeled $\Delta\delta$ with a camera icon, connected to the event bus.
- Visualizations**: A box labeled **NEO** with a green background, connected to the event bus.
- Sync Logic**: A box labeled **Sync to Closest Heartbeat** with a green background, connected to the event bus.



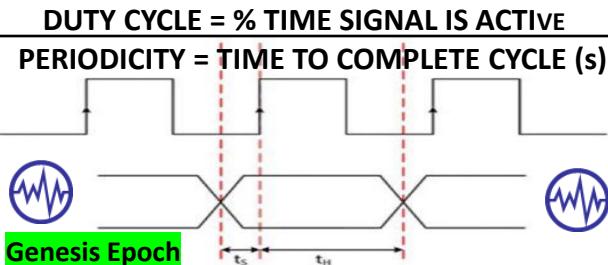
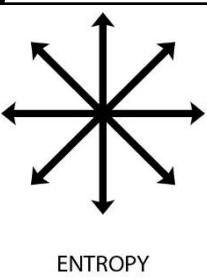
BLOCKCHAIN CONSENSUS ALGORITHMS





"AIONET protocol foundation = hardware / memory / AI Proof-of-Memory measures consistency, Proof-of-Drift senses entropy, AI validation gives nodes awareness"

AIONET Protocol, first **AI-governed Layer 1 blockchain** consensus in hardware trust.
Pioneering Proof of Memory (PoM) and
Proof of Drift (PoD), HBM-DRAM entropy



PROOF OF MEMORY (PoM)

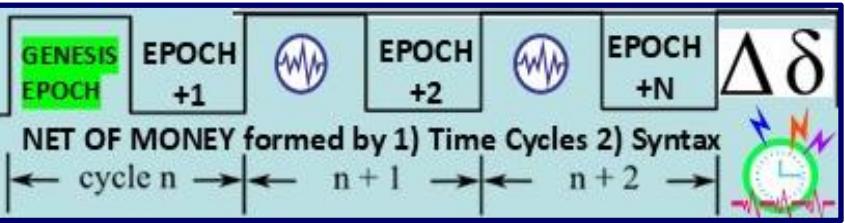
AIONET's core consensus system. Instead of mining or staking, PoM uses high-speed HBM-DRAM memory and AI to check system behavior in real time. If memory behaves predictably and honestly, the transaction is validated. No guessing — just logic, and finality as fast as memory can physically operate.

PROOF o(DRIFT (PoD): second-layer trust check. PoD watches how memory signals change over time. It detects "drift" — unexpected or suspicious behavior — using entropy decay, signal variation, AI scoring. Blockchain lie detector **powered by physics** turning that behavior into a machine fingerprint.

AIONET AI L1 layer consensus via physical memory behavior. PROOF of MEMORY (PoM) validates blocks by measuring high-speed HBM-DRAM operations. Proof of Drift (PoD) scores validator health from entropy/drift fingerprints to resist spoofing/cloning. As HBM bandwidth scales, compute time shrinks; PoD = identity becomes honest **over time**.



Firefly inspired **Heartbeat Algorithm**: over time, all nodes eventually agree, synchronize over time. Firefly – Heartbeat algorithm includes a heartbeat Message / event monitoring / reporting bus Intrinsic to the internet's operation </108> </0>



ERC 3643 T-REX permissioned tokens = OPSCODE BREVITY CODES = USPTO 13/573,002

ERC3643 protocol: open-source suite of smart contracts issuance, management, transfer of permissioned tokens. Decentralized identity framework, **ONCHAINID**, users meeting conditions become token holders, even on permissionless blockchains.

ERC 3643, Asset Tokenization: Code name T-REX
PROTOCOL standard for permissioned tokens:
The ERC3643 protocol is an open-source suite of **smart contracts** that enables the issuance, management, and transfer of permissioned tokens. Its built-in **decentralized identity framework**, **ONCHAINID**, ensures only users meeting pre-defined conditions can become token holders, even on permissionless blockchains, for RWA Real World Assets, Securities, E-Money, Loyalty programs

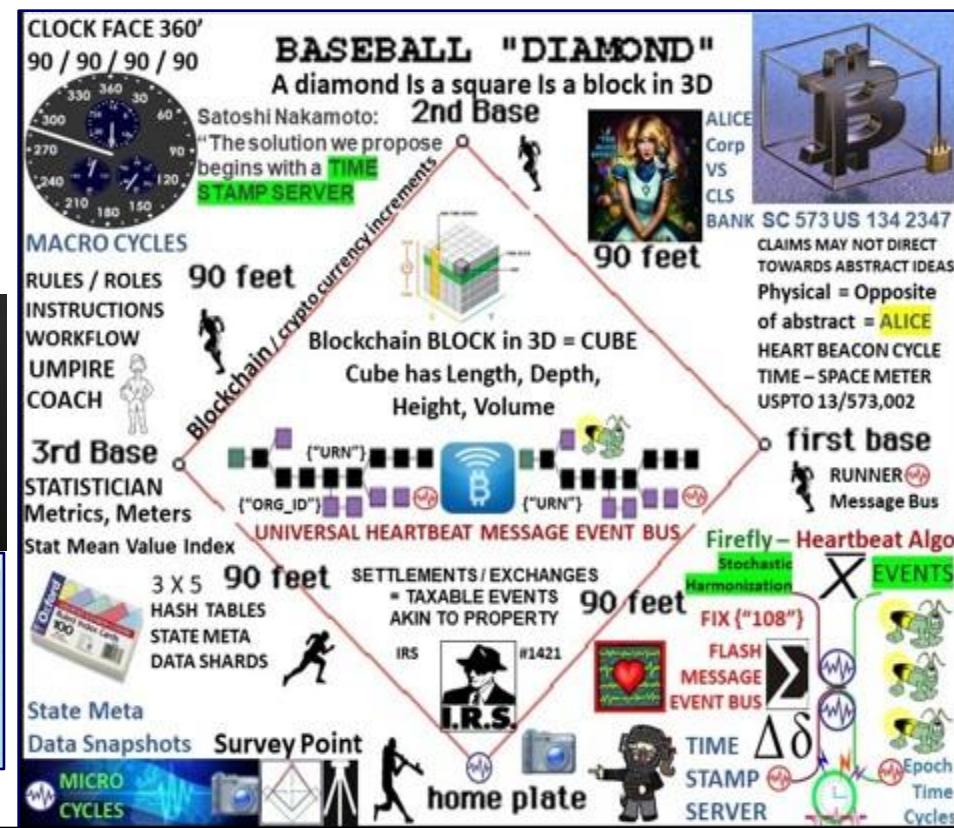
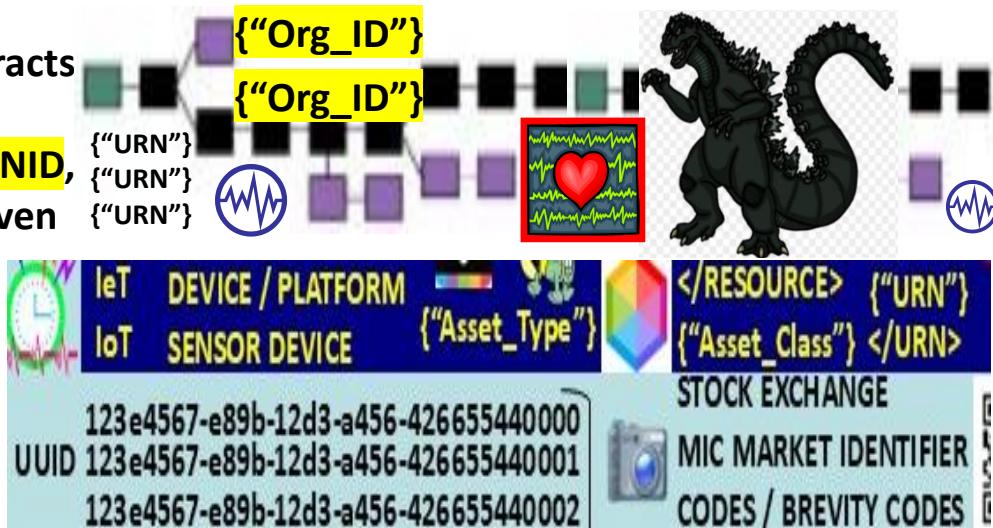
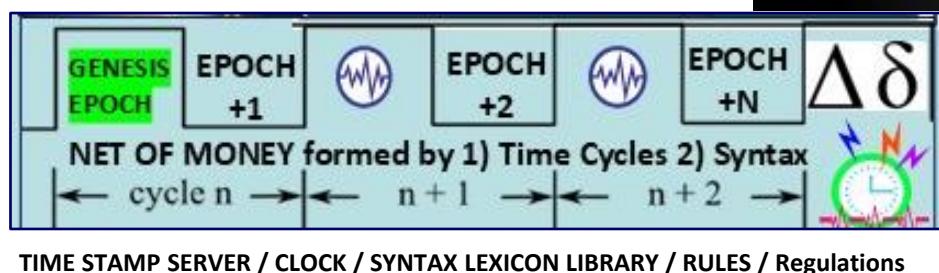
Token Type: Utility and Governance Token

Token Name: T-REX

Smart Contract Address

Token Category: RWA, tokenization: Blockchains

Website: <https://t-rex.network/>



ERC 3643 compatibility token standard



ERC 7943 token compliance & interoperability

Digital Securities Initiative regulatory frameworks

ERC-20: fungible tokens: totalSupply, balanceOf, transfer, approve, allow,+ events such as Transfer and Approval

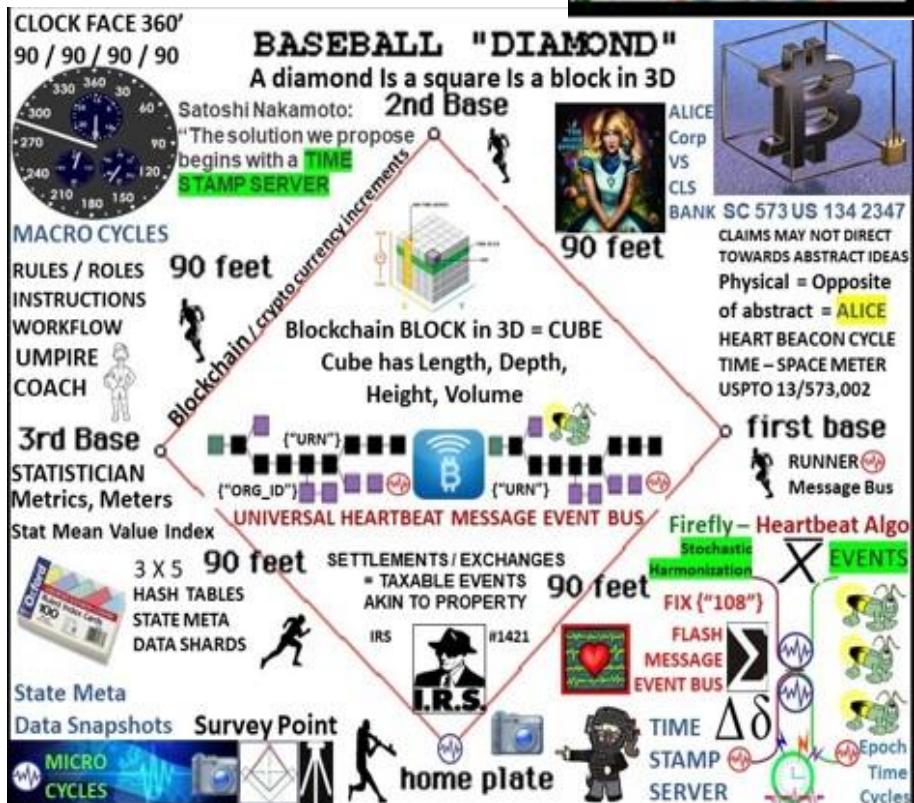
ERC-721: non-fungible tokens (NFTs) unique digital assets i.e., collectibles, art + functions: ownerOf, safeTransferFrom

ERC-1155: multi-token fungible / non-fungible tokens to coexist within a single contract supporting batch transfers and efficient asset management

ERC-777 (operator-based transfers),

ERC-4626 (yield-bearing vaults)

ERC-1400 (security tokens)



ISO 27001: Information Security Management System

ISO 27002: Code of Conduct Best Practices

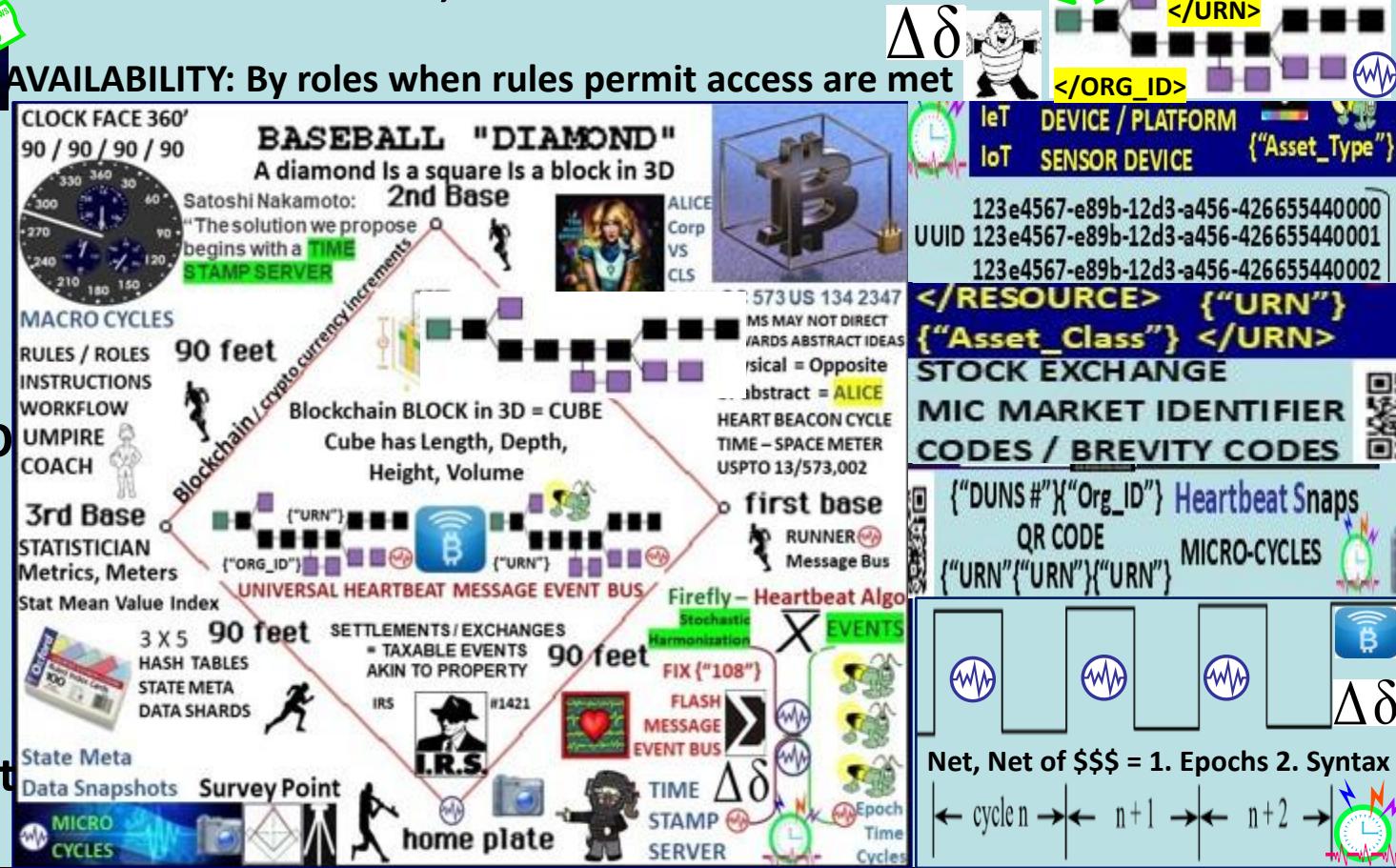
- **CONFIDENTIALITY** Not available, disclosed to authorized people, entities or processes
 - **INTEGRITY:** Information is complete, accurate and protected from corruption
 - **AVAILABILITY:** Information is accessible, usable when authorized



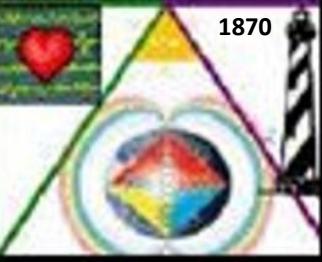


INTEGRITY: events,
Messages, alerts..
Time stamp server
with “blockchain”
Immutability rules
In effect across DAO

CONFIDENTIALITY
Organizational ID
Xmit {“Org_ID”}
with individual’s ID
available on request
granted by group



THE BITCOIN BLOCKCHAIN FOR DUMMIES



Satoshi Nakamoto

Craig WRIGHT
a.k.a.

Satoshi Nakamoto

**“THE VALUE OF
BITCOIN IS
TIME ITSELF”**

**Wright Brother’s 1st Flight
Cape Hatteras Outer Banks**

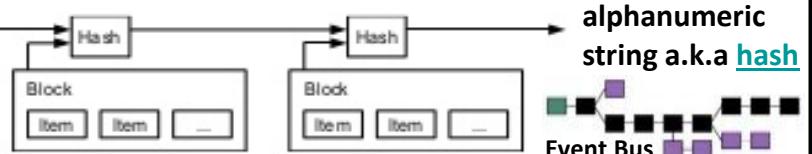
Satoshi Nakamoto Bitcoin Paper

“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.

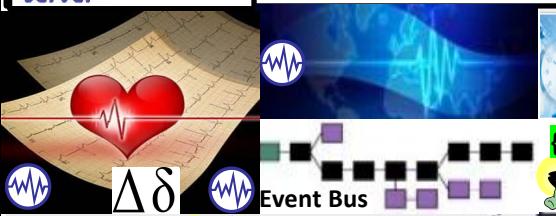
**Bitcoin Protocol
for Dummies**
Part 4 Timestamp
Server



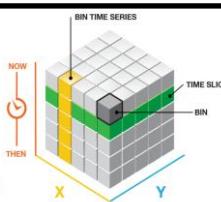
**“All things net, net of money are formed with 1) epoch time cycles
2) Syntax parsed as instructions”**



“THE VALUE OF BITCOIN IS TIME ITSELF”



JapanNet Crypto Time Authentication Service (Timestamp Service)



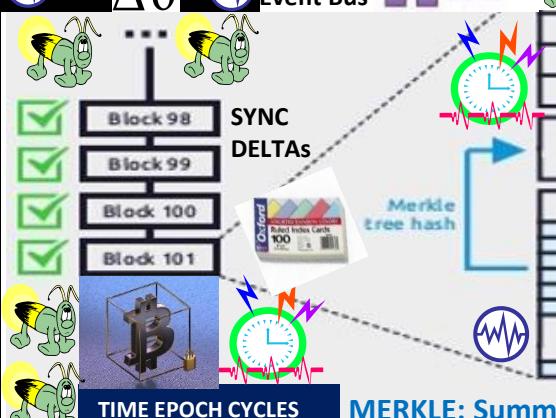
CLOCK FACE 360°
90 / 90 / 90 / 90
300 330 360 30 60
270 240 210 180 150
MACRO CYCLES

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



CLAIMS MAY NOT DIRECT TOWARDS ABSTRACT IDEAS
Physical = Opposite of abstract = ALICE
HEART BEACON CYCLE
TIME – SPACE METER
USPTO 13/573,002

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

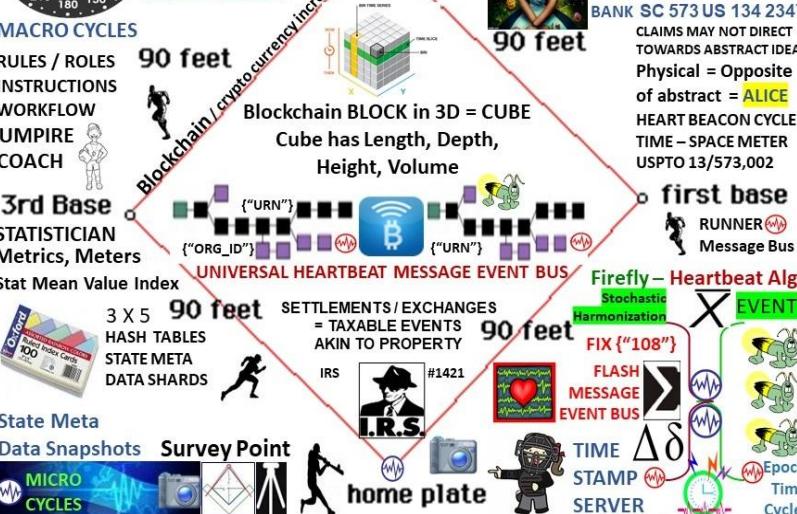


peer-to-peer time stamp distributed server generates computational proof of the chronological order of transactions

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.

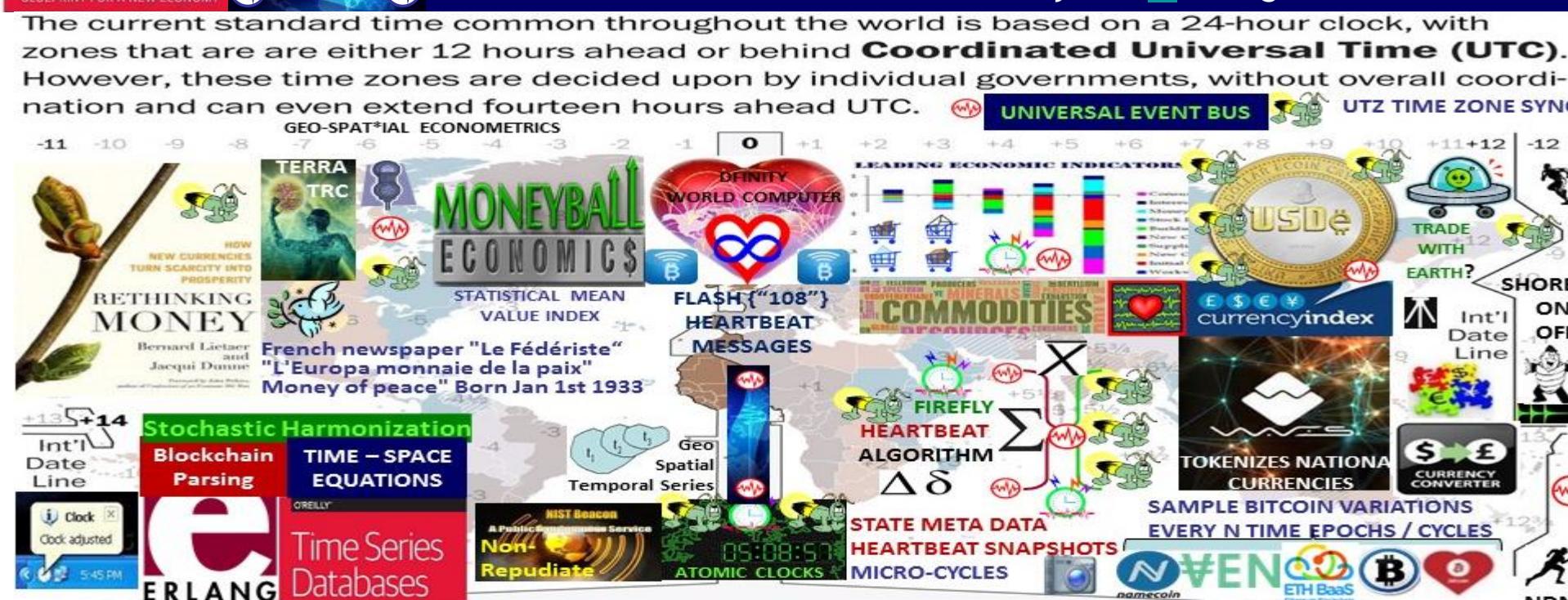




The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen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

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 rejiggering 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

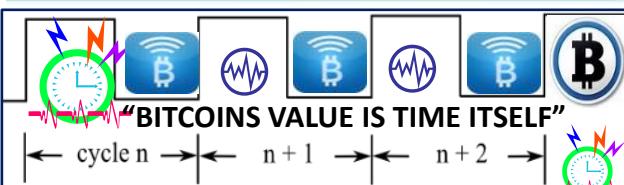


The proposed **Universal Timezone System** would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.

PROOF-OF-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

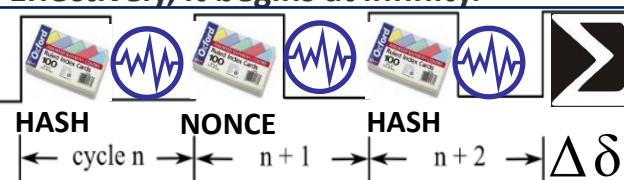


THROTTLE equivalent to difficulty. State
•target = maximum value of 8 bytes Snap
Shots

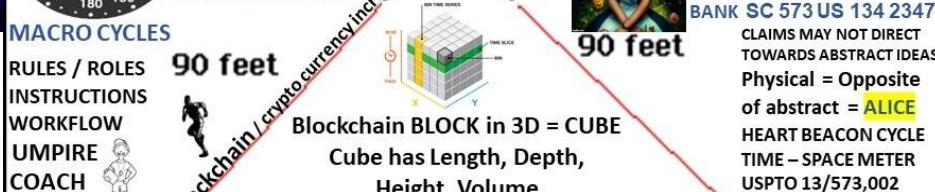
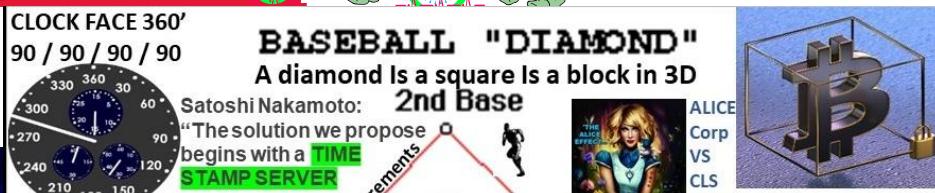


NONCE increments from 0..N until the target is met.

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



MESSAGE example:
• Hash string
• Hash Table

300+Message Templates

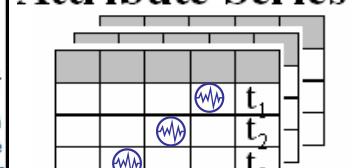
FORM	WORD	TERM	ADVICE	NOTICE	ADVISORY	INFO
FORM	WORD	TERM	ADVICE	NOTICE	ADVISORY	INFO
WORD	TERM	ADVICE	NOTICE	ADVISORY	INFO	FORM
TERM	ADVICE	NOTICE	ADVISORY	INFO	FORM	WORD
ADVICE	NOTICE	ADVISORY	INFO	FORM	WORD	TERM
NOTICE	ADVISORY	INFO	FORM	WORD	TERM	ADVICE
ADVISORY	INFO	FORM	WORD	TERM	ADVICE	NOTICE
INFO	FORM	WORD	TERM	ADVICE	NOTICE	ADVISORY
FORM	WORD	TERM	ADVICE	NOTICE	ADVISORY	INFO

LOGIC FILTERS
LOGIC GATES

SYNTAX LIBRARY
LEXICON

CODER'S GUIDE

POW PAYLOAD :
COMBINATIONS OF
ENCRYPTED SYNTAX
Attribute Series







real-time gross settlement system, currency exchange remittance distributed net

FEDERATION CONSENSUS ALGORITHM / PROTOCOL LIQUIDITY ON DEMAND

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 **FEDERATION** based consensus process that on demand liquidity backed by cooperative backing



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



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

Federation

Gateway

Net joins, drops, splits, merges, moves

Agile, adhoc NETOPS Vs acquisition preserves the

LIQUIDITY, ORGANIZATIONAL INTEGRITY OF TRADE FEDERATIONS

X
FEDERATION CONSENSUS PROTOCOL

{"GLOBAL"}
{"SHARED"}
{"DOMAIN"}
{"COMMUNITY"}
{"PRIVATE"}
{"GROUP ID"}

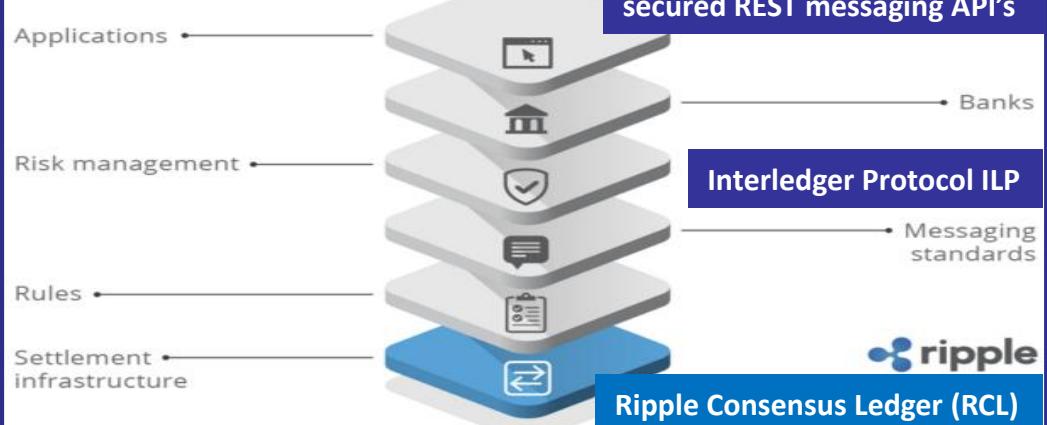
Neutral transaction protocol

secured REST messaging API's

Interledger Protocol ILP

ripple

Ripple Consensus Ledger (RCL)



LOCKED QUOTED ACCEPT / DENY In Progress SUCCEEDED
{"108"} HEARTBEAT SYNC DELTA STATE META DATA SNAPSHOTS

MATCH EVENT REPORTS TO CLOSEST HEARTBEAT CYCLE FLASH HEARTBEAT MESSAGES {"108"}
Sync to Closest Heartbeat Δδ FIREFLY-HEARTBEAT ALGORITHM MICRO-CYCLE STATE META DATA SNAPSHOTS STOCHASTIC HARMONIZATION ACROSS UTZ TIME ZONES



HASH
NONCE

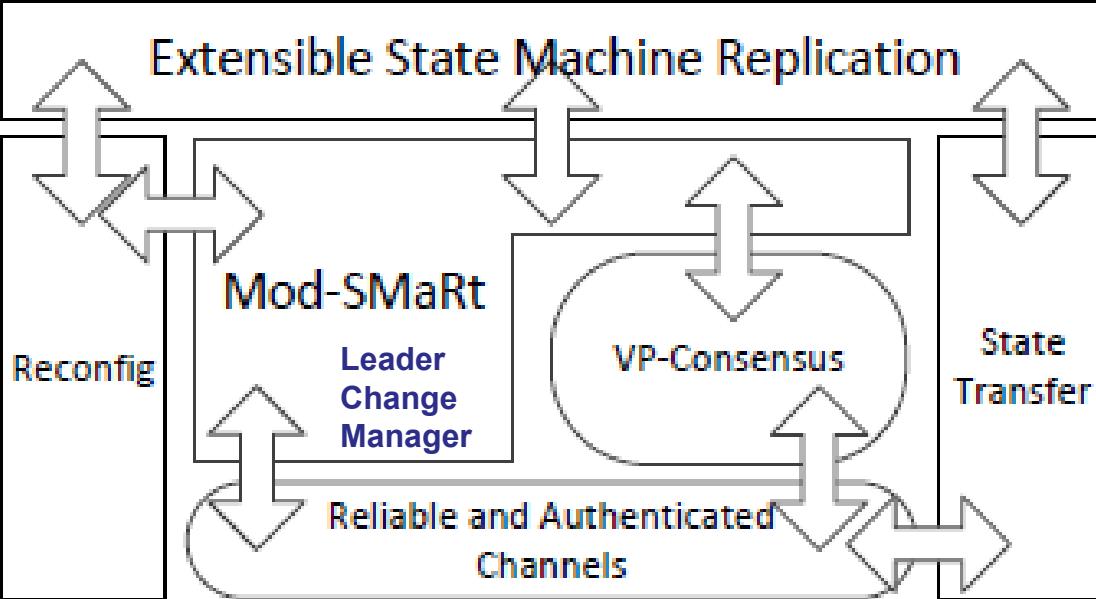
FIREFLY-HEARTBEAT ALGORITHM

MICRO-CYCLE STATE META DATA SNAPSHOTS

STOCHASTIC HARMONIZATION ACROSS UTZ TIME ZONES

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.

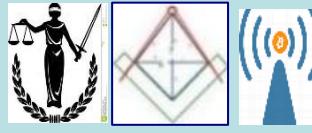
BFT-SMaRt needs an eventually synchronous system

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



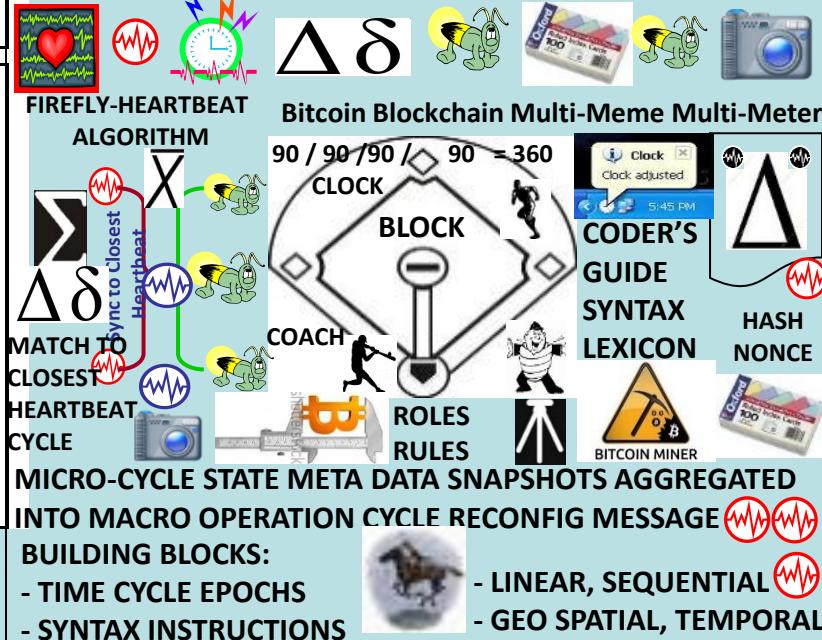
DERIVED FROM BATTLEFIELD DIGITIZATION DISTRIBUTED AUTONOMOUS ORGANIZATION DAO SYSTEM OF SYSTEMS

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"

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

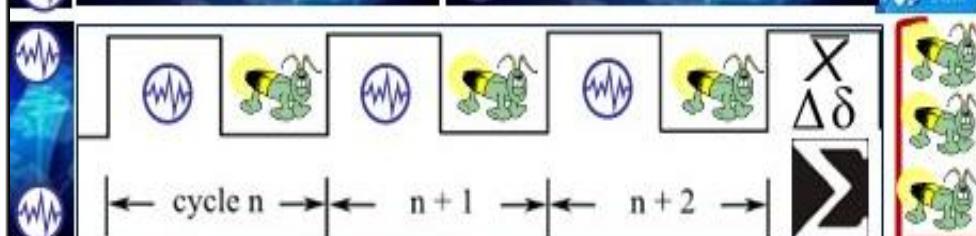
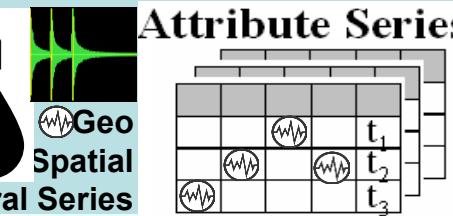
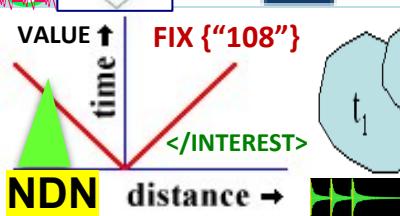


The Volumetric Weight is often referred to as dimensional weight

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.



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



OpenBazaar open source decentralized peer to peer network online commerce —using Bitcoin —no fees and no restrictions



- Creates an online store for users to sell goods for Bitcoin
- Connects these stores directly to each other on a global network
- Users browse individual stores, search for products across whole network
- A buyer directly connects, purchases good from the merchant using Bitcoin
- Bitcoin payments via escrow protect merchants & buyers during trade

OPENBAZAAR.ORG
BLOCKCHAIN ARBITRAGE



OpenBazaar is a different approach to online commerce. OpenBazaar connects buyers and sellers directly. Because there is no one in the middle of your transactions there are no fees, no restrictions, no accounts to create, and you only reveal personal information you choose.

PROJECT PHILOSOPHY: *MAKE TRADE FREE*

Mission: *shift trade to a decentralized platform*



Demurrage TERRATRC TRADE
Fees REFERENCE CURRENCY
“Money of Peace”



Free, open markets: Commodity / Currency Index

Creating open, competitive markets for services
that cannot be perfectly solved with technology



•VALUES: Privacy </Org_ID>



HASH Values
Nonce Values </Org_ID>



- Users should fully control their data. Users have freedom to reveal as much personal identifiable information as they want, when they want



Bitcoin: OpenBazaar transactional currency

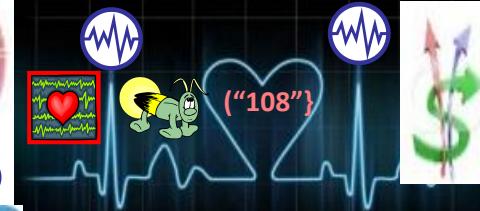


Cryptographic Security

- tamper-proof agreements
- 1) minimize potential disputes
- 2) fast-track dispute resolution

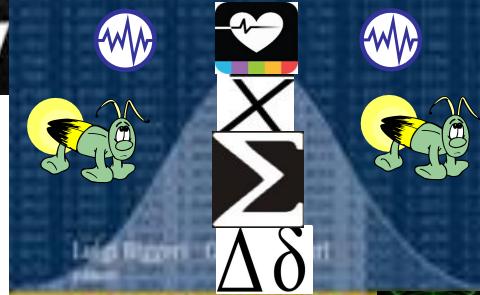


SLA
COMMODITIES
ECONOMIC HEARTBEAT



STAT MEAN VALUE INDEX

CONTRIBUTIONS TO STATISTICS



Price Indexes in
Time and Space
Methods and Practice

SchellingPoint

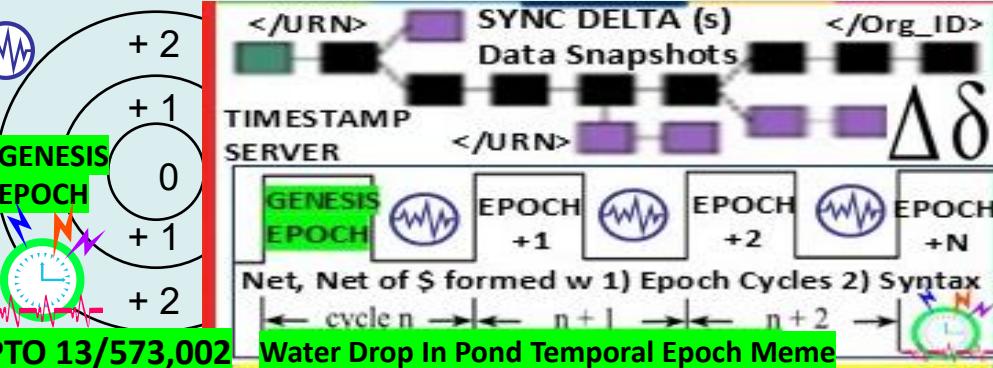
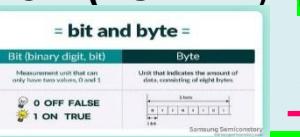
DON: DECENTRALIZED ORACLE NETWORKS Explicit Staking



Cross-Chain Token (CCT) standard DON Transaction-Execution Framework (DON-TEF)

Chainlink CCIP:Arbitrary Messaging, Token

Transfers: data encoded as BYTES 0101010
in smart contracts on different blockchains

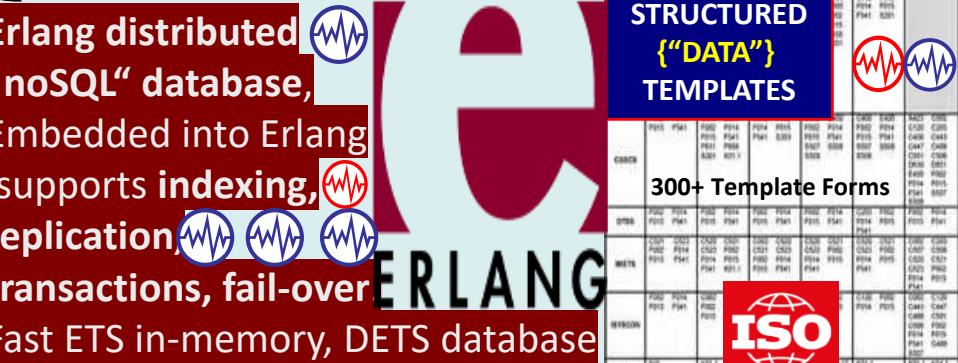
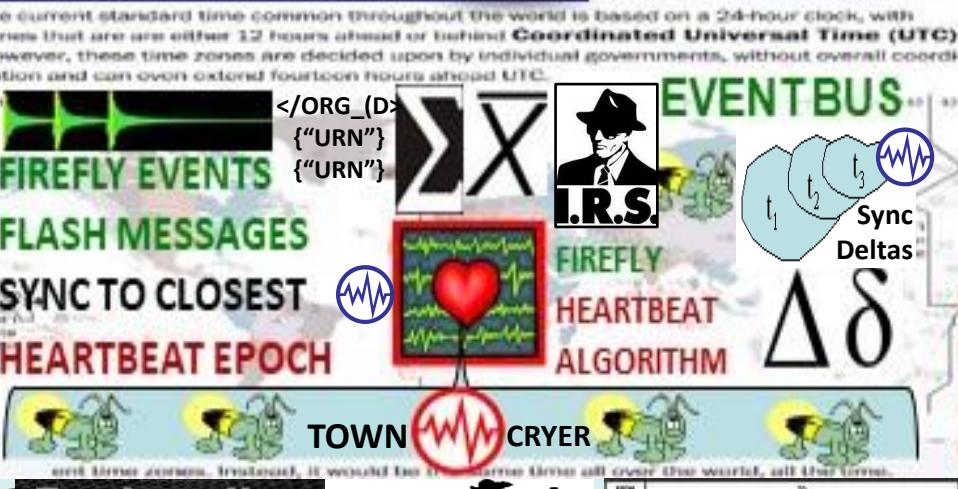


Explicit staking in Chainlink 2.0 oracle reports reflect the STATE of real-world events outside a blockchain (off-chain)



- Transaction-Execution Framework (TEF) [Section 6]: Decentralized Oracle Network framework for layer-2 systems that implements oracle support and FSS Fair Sequencing Services.
- Town Crier [Section 3.6.2]: An oracle technology uses a trusted execution environment (TEE) to enforce integrity, confidentiality on oracle data and computation. TOWN CRIER has capabilities that subsume those of DECO, but requires trust in a TEE: execution environment for applications, often with special-purpose hardware support. Syncing verification: SCA may verify the correctness of state updates when exec syncs, e.g., SNARKs attached to rollups.
- Guard rails: SCA may include provisions to protect against corruption or failures in exec. (See Section 7 for more details.)

Chainlink's explicit staking model: SUPER LINEAR STAKING where malicious actors are required to have a budget much larger than the combined deposits of all DON-TEF nodes

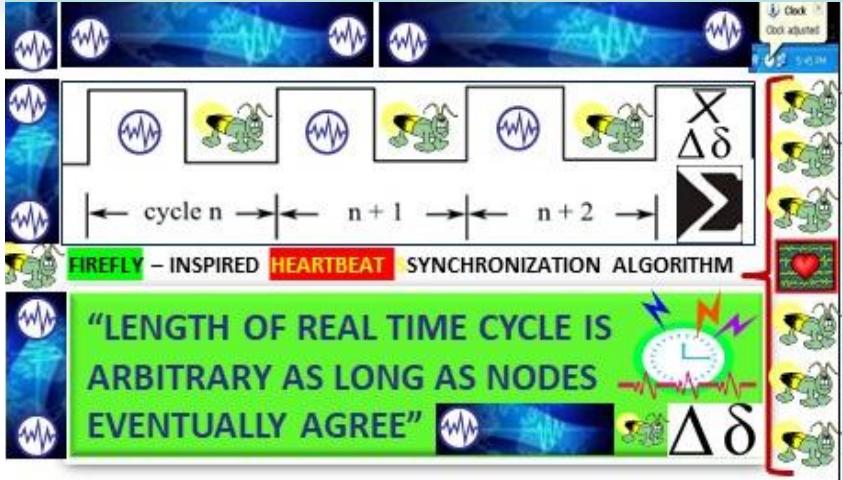
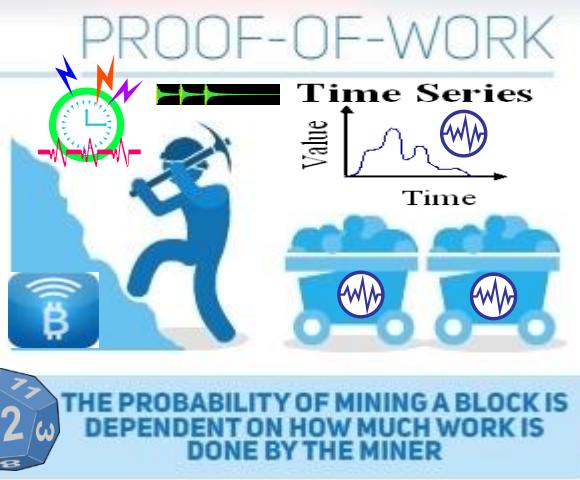
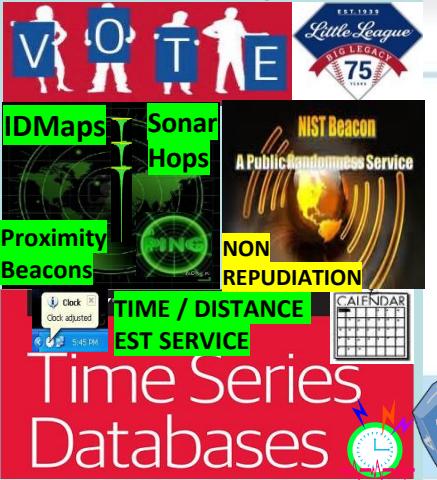




Proof-of-activity PoA is a combination of Proof of Work / Stake blockchain consensus algorithms:

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 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.

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



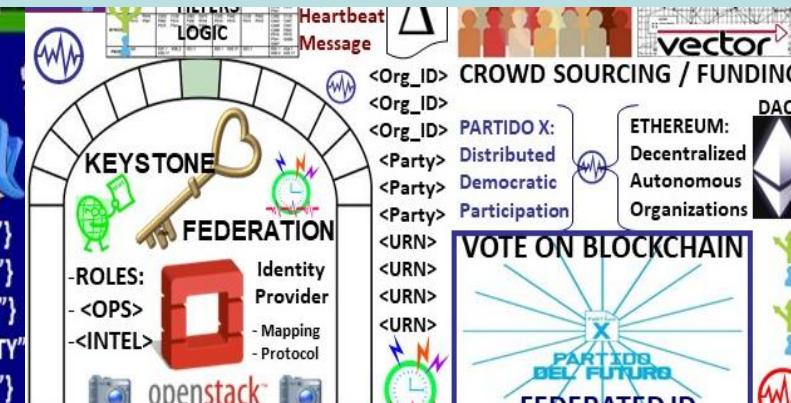
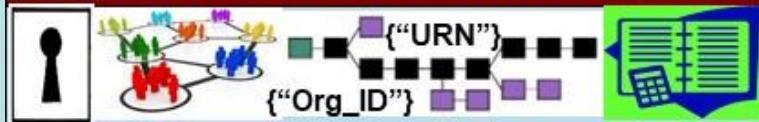
Net joins, drops, splits, merges, moves

Agile, adhoc NETOPS Vs acquisition preserves the

DISTRIBUTED AUTONOMOUS ORGANIZATIONS DAO

Heart Beacon Cycle

FEDERATE / TRADE FEDERATIONS

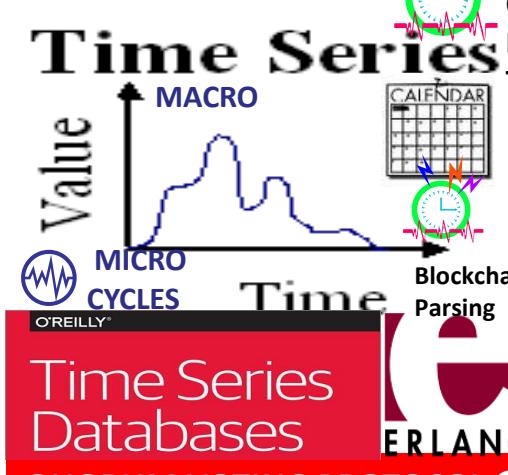


SAWTOOTH LAKE POETIC CONSENSUS PROOF OF ELAPSED TIME: POET

"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



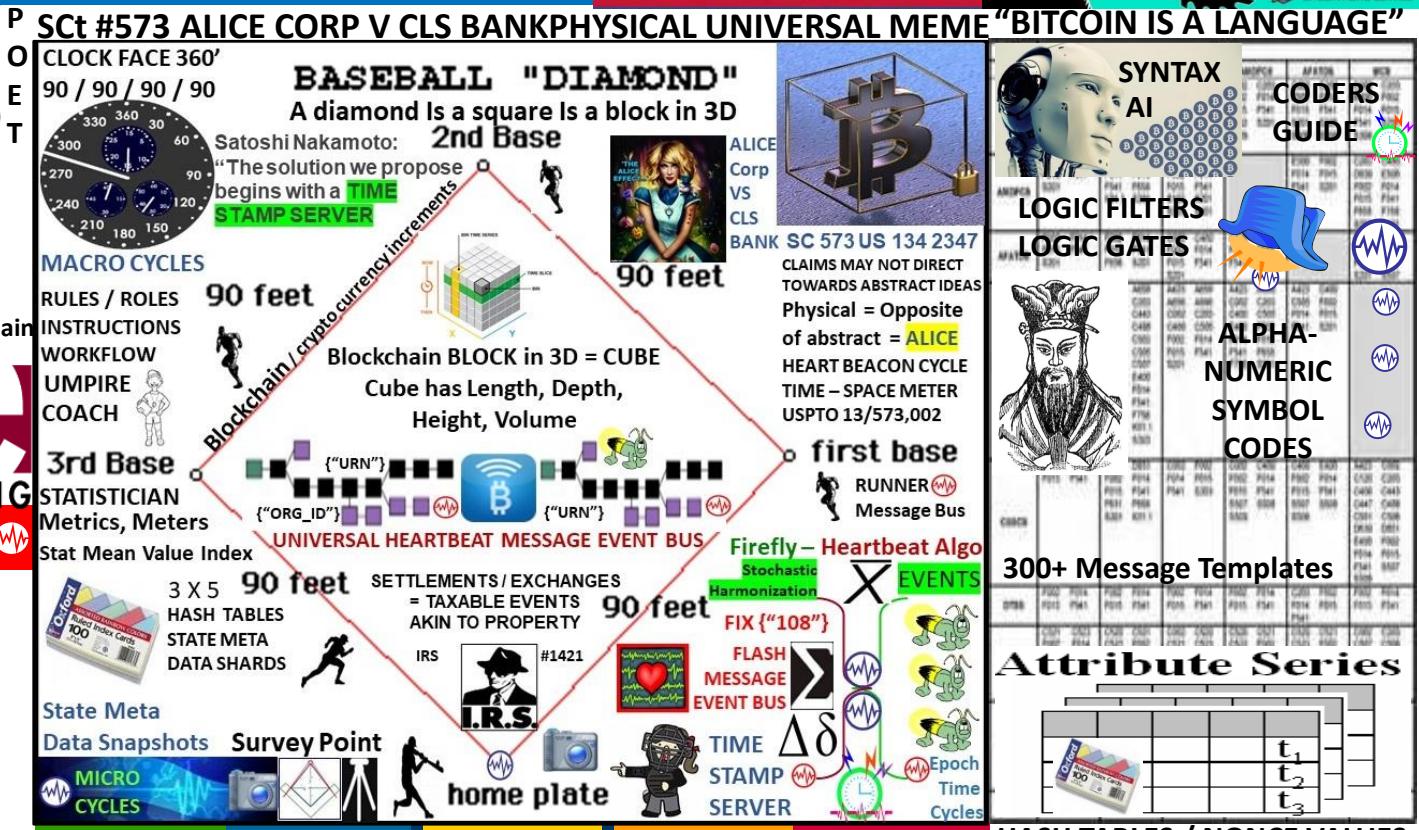
Voting Based Selection: stake size & block generators selected by votes

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

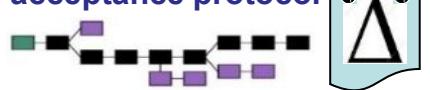
TOURNAMENT LEAGUE BOARD



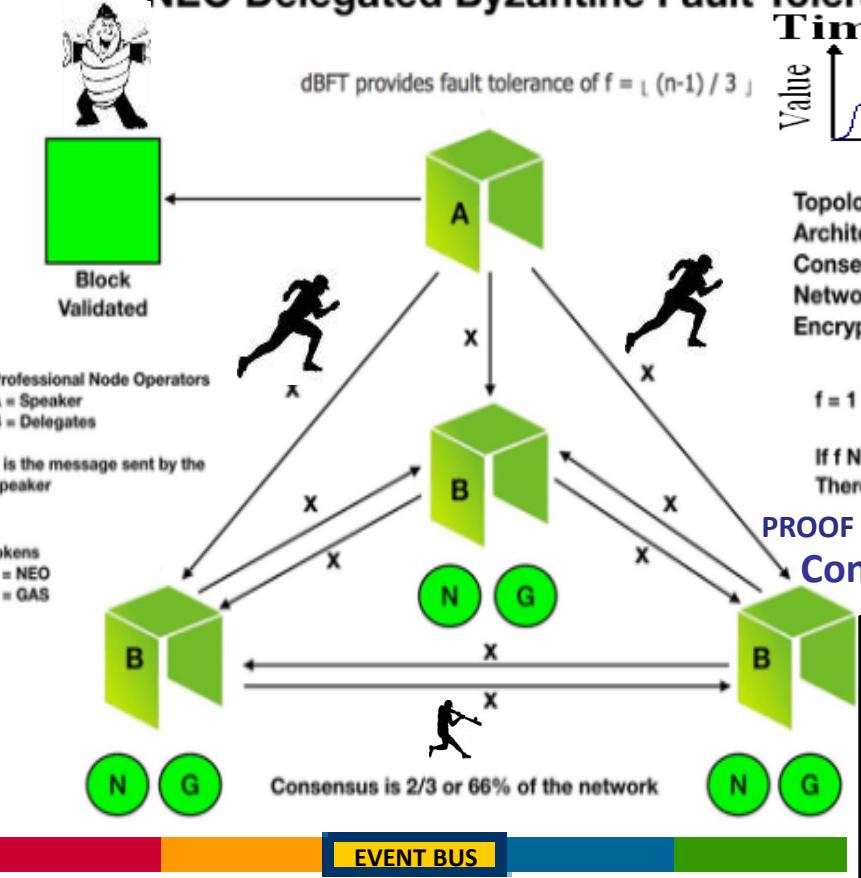
FIREFLY-HEARTBEAT FLASH MESSAGES UNIVERSAL EVENT BUS



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

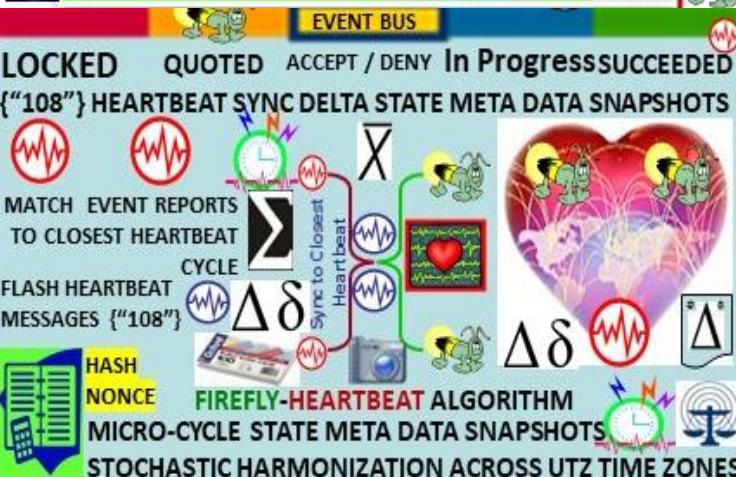
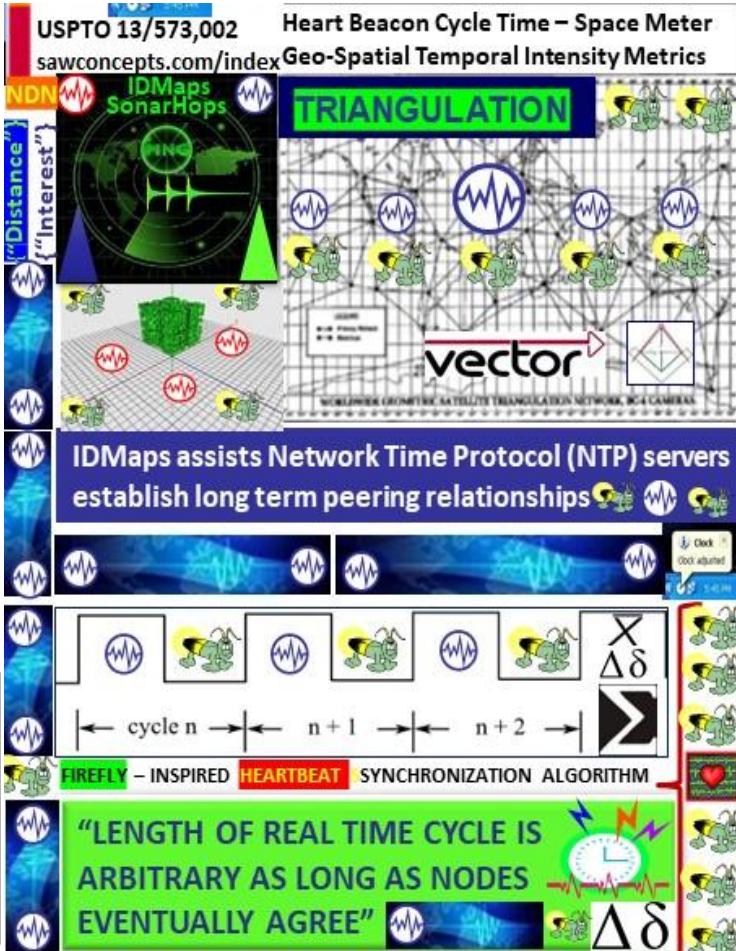


NEO Delegated Byzantine Fault Tolerance (dBFT)



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 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

Hashgraph Member Event Transaction Consensus Order Timestamp Gossip protocol Self-parent Other-parent Graph Hash Hashgraph

Consensus Order

$$\sum \Delta\delta \times$$

Round created Witness
 $0/1$

Famous witness Election

Vote See
Strongly see

Supermajority Decide
Round created

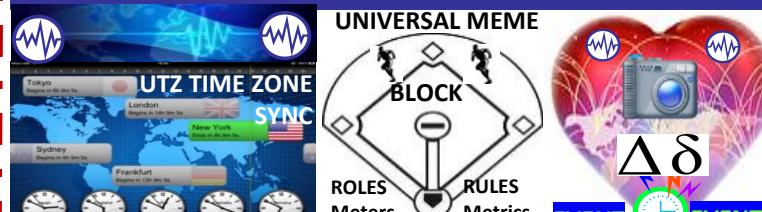
Round received
Consensus timestamp

Consensus order $\Delta\delta$

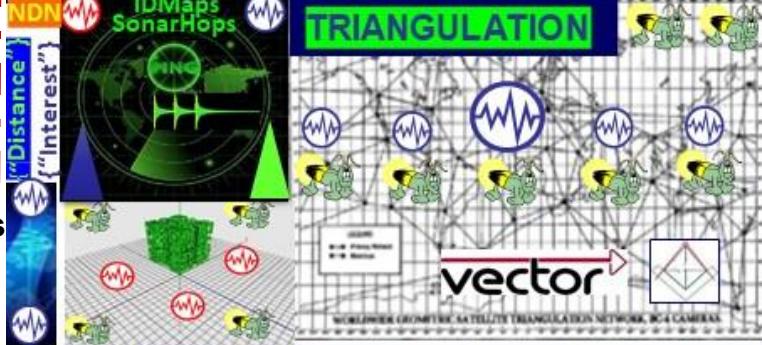
Synchronous Asynchronous
Micro-Cycle State Meta Data Snapshots

Hash Nonce

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



UTZ TIME ZONE SYNC
Heart Beacon Cycle Time – Space Meter
Geo-Spatial Temporal Intensity Metrics



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

FIREFLY HEARTBEAT Synchronization Algorithm

CLOCK TIME CYCLE INTERVAL EPOCHS
FIREFLY – INSPIRED HEARTBEAT SYNCHRONIZATION ALGORITHM

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

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.

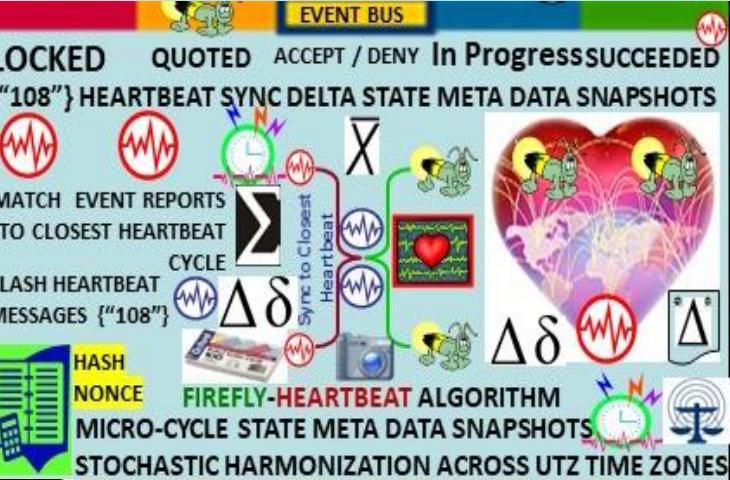
Iain Stewart, the inventor of the POB algorithm, uses an analogy to describe the algorithm: burnt coins are like mining rigs. In this analogy, a miner burns their coins to buy a virtual mining rig that gives them the power to mine blocks. The more coins burned by the miner, the bigger their virtual mining “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 SLA / O 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:#]	$\Delta\delta$	IF_State
-------------------------	----------------	----------------	----------------	----------

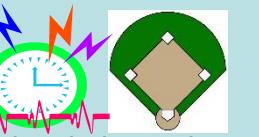
IF2_State (IF-Node2)	$\Delta\delta$	[UFO2_STATE:#]	$\Delta\delta$	IF_State
-------------------------	----------------	----------------	----------------	----------

Proof of Capacity PoC



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

Proof of capacity for mining devices, also known as blockchain nodes, 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



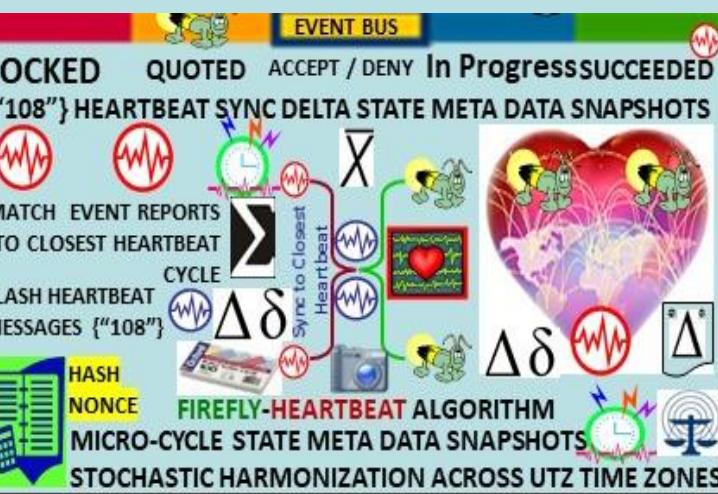
The larger the hard drive, the > possible solution values one can store on the hard drive, the more chances a miner has to match required hash value from his list, resulting in more chances to win the mining reward.



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.



Bitcoin purchase akin to property



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.



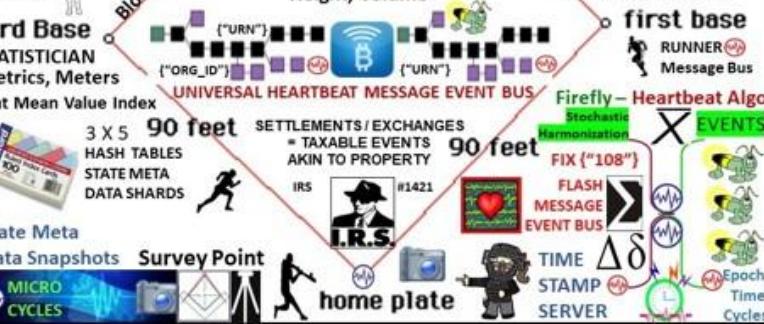
PoST users / nodes must prove that they are spending a certain amount of space for storage.



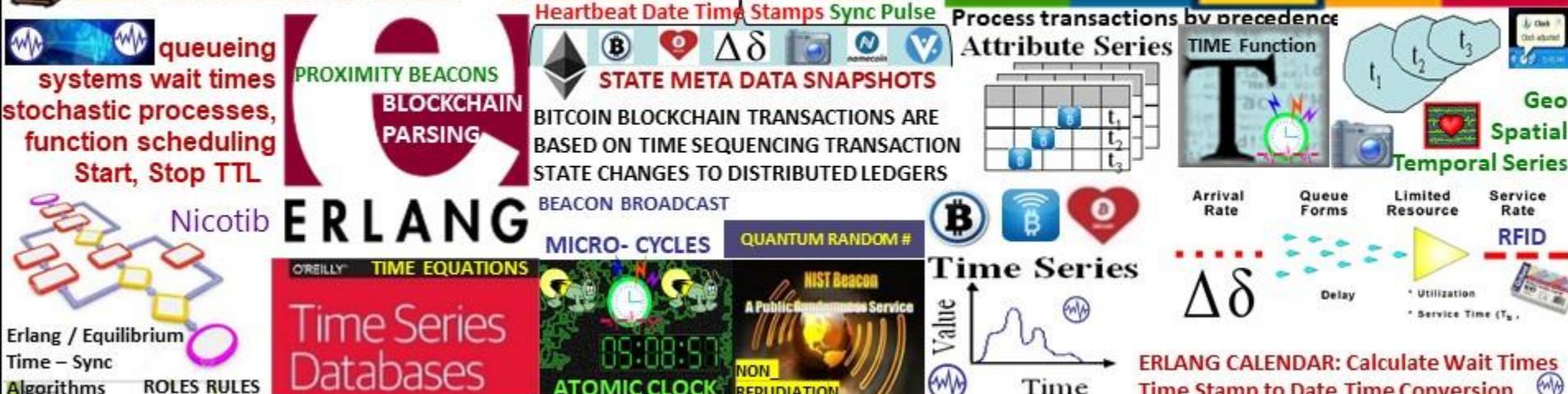
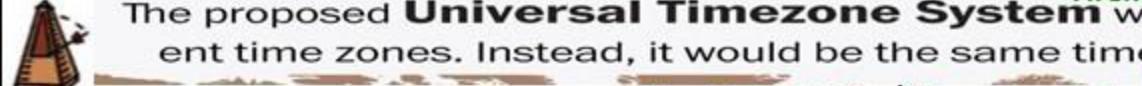
DISTRIBUTED AUTONOMOUS ORGANIZATIONS DAO

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.



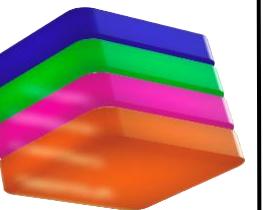


PROTON A CHAIN Virtual Machine

CONTRACT C CHAIN Smart contract

PLATFORM P CHAIN Meta Data

EXCHANGE X CHAIN Cross blockchain



Universal @names Identity / Governance / Resources / Staking

Snowball Consensus

Algorithm

preference := pizza

Consecutive Successes := 0

while not decided:

ask k random people preference

if >= α give the same response:

preference := response with >=

α

if preference == old preference:

consecutiveSuccesses++

else:

consecutiveSuccesses = 1

else:

consecutiveSuccesses = 0

if consecutiveSuccesses > β:
decide(preference)



DAG Acyclic Graph Parameters:

n: number of participants

k (sample size): between 1 and n

α (quorum size): between 1 and k

β (decision threshold): >= 1

ALL THINGS NET, NET OF \$\$\$

1) EPOCH TIME INTERVALS

2) SYNTAX (not) used in epochs



BLOCKCHAIN EPOCH CLOCK TIME CYCLES

← cycle n → ← n + 1 → ← n + 2 → Δδ

GENESIS BLOCK: "Layers" = follow on epoch time intervals

Block 0

</ORG_ID>

- Index

- Timestamp

- Data

Genesis Block

Block 0 Hash

- Fingerprint

Block 1

</ORG_ID>

- Index

- Timestamp

- Data

Block 1 Hash

- Fingerprint

Block 2

</ORG_ID>

- Index

- Timestamp

- Data

Block 2 Hash

- Fingerprint

</ORG_ID>

- Index

- Timestamp

- Data

Block 3 Hash

- Fingerprint



SECURITY TOKEN: A DIGITAL ASSET THAT'S BACKED UP BY TANGIBLE ASSETS IN THE REAL WORLD

</URN>

</URN>

</URN>



"all digital currency networks, the base layer of people generating the blockchain — "miners," "stakers," "witnesses," "validators," or "forgers" get paid"



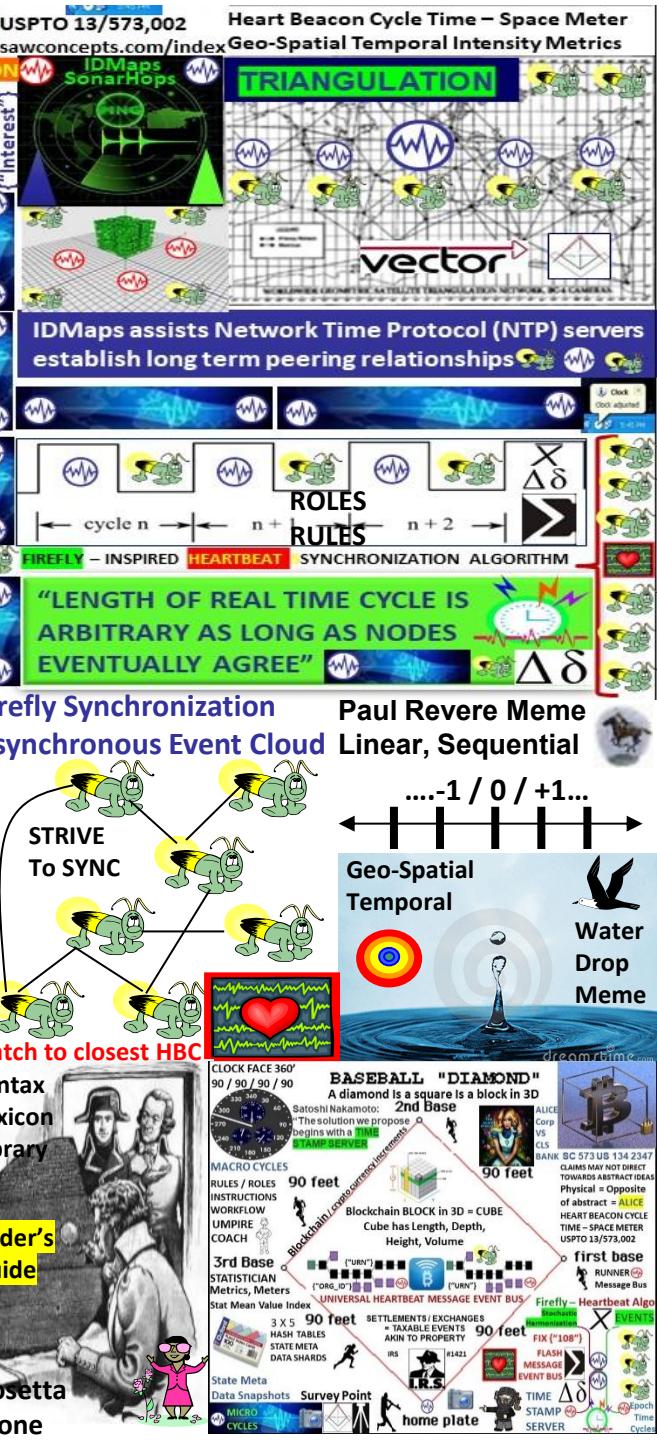
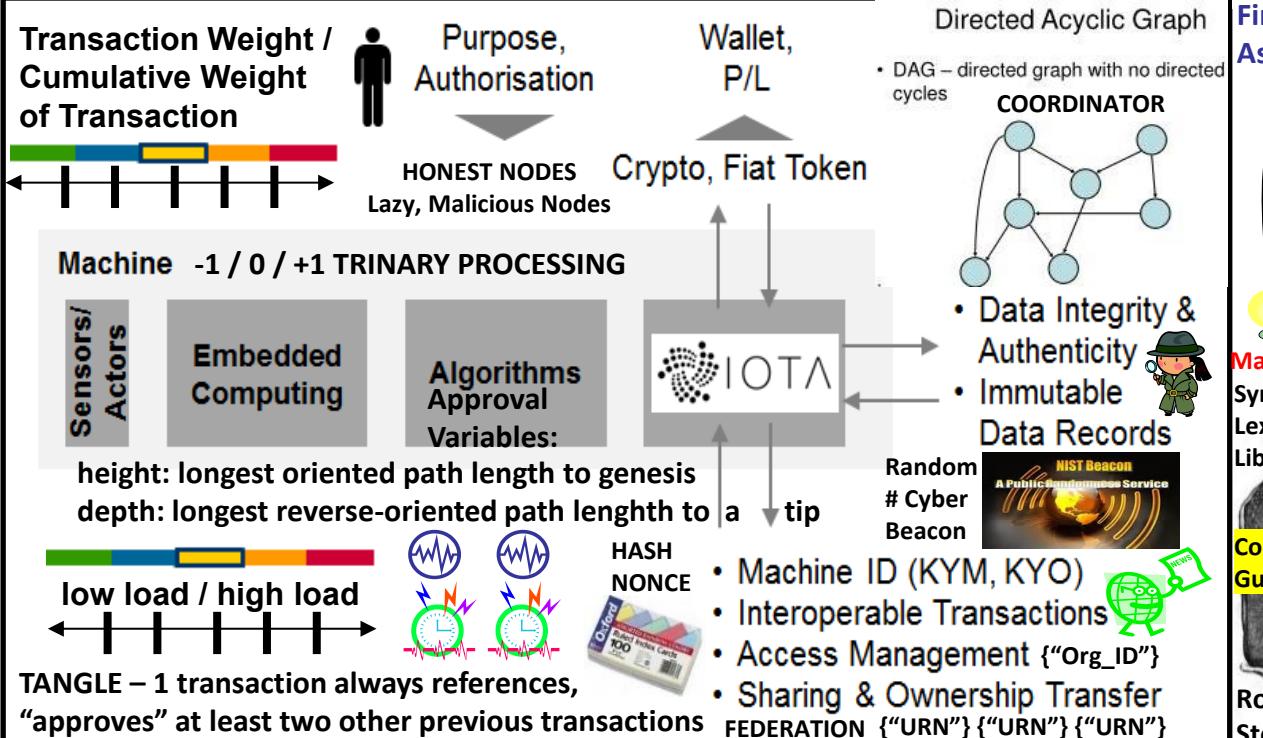


OTA: Internet Of Things IOT distributed ledger
with microtransactions without fees

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

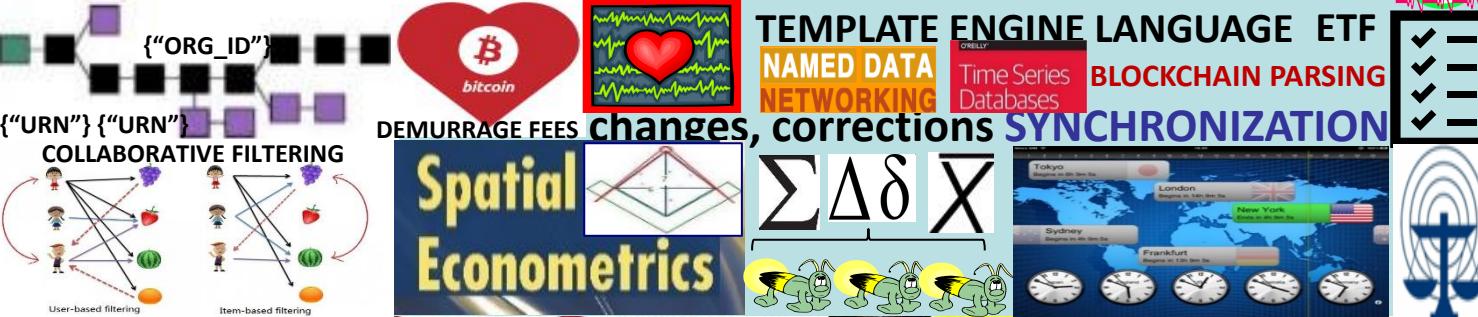




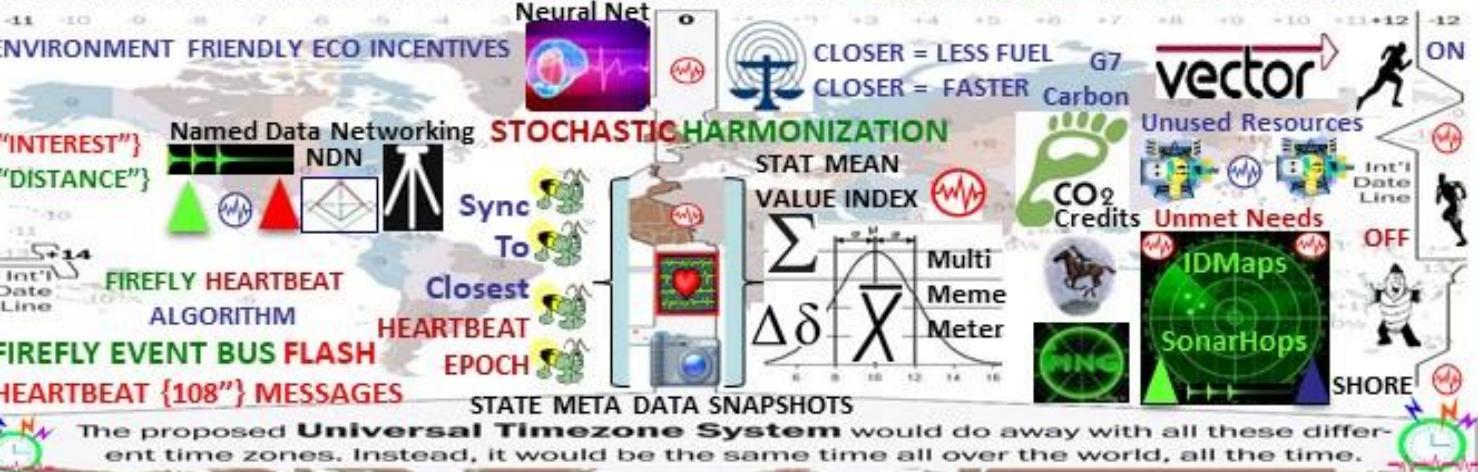
EGaaS

ELECTRONIC GOVERNMENT AS A SERVICE

Distributed digital asset registries were the first projects that used blockchain systems such as databases designed for secure storage of records on real estate property, stocks, copyright and so on. It is assumed hosting any document on the blockchain is equivalent to notarization of its content at a fixed time point.

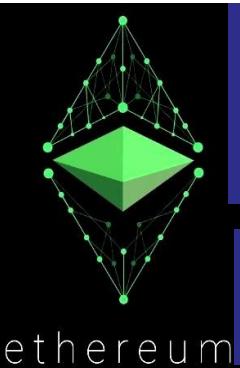


The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind Coordinated Universal Time (UTC). However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours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



E-GaaS: international blockchain platform for organizing economic, state, social activities of citizens , communities on the basis of smart law, smart contract system. eGaaS offers a comprehensive solution needed for state and business management on the blockchain platform.





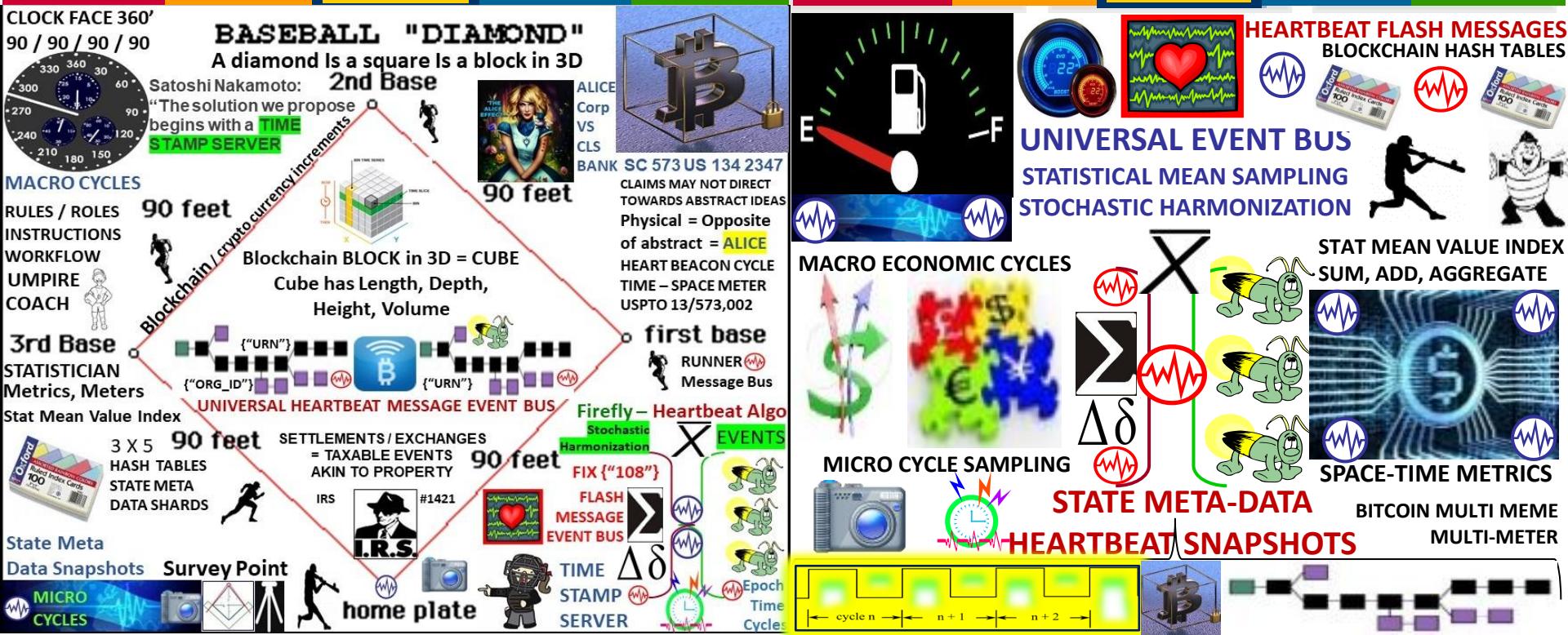
ETHER: Compensate Resource Contribution

Gas: price to
Run contract
transactions

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**





Ethereum: Glamsterdam

PeerDAS (Peer-to-Peer Data Availability Sampling)

Danksharding: scaling shard data across network = no storing all blob data, each node stores subset of blob data

State expiry: removing state from inactive nodes

Expire by rent: "rent" to accounts expiring when rent = 0

Expire by time: making accounts inactive if no

reading/writing to account for N amount of time



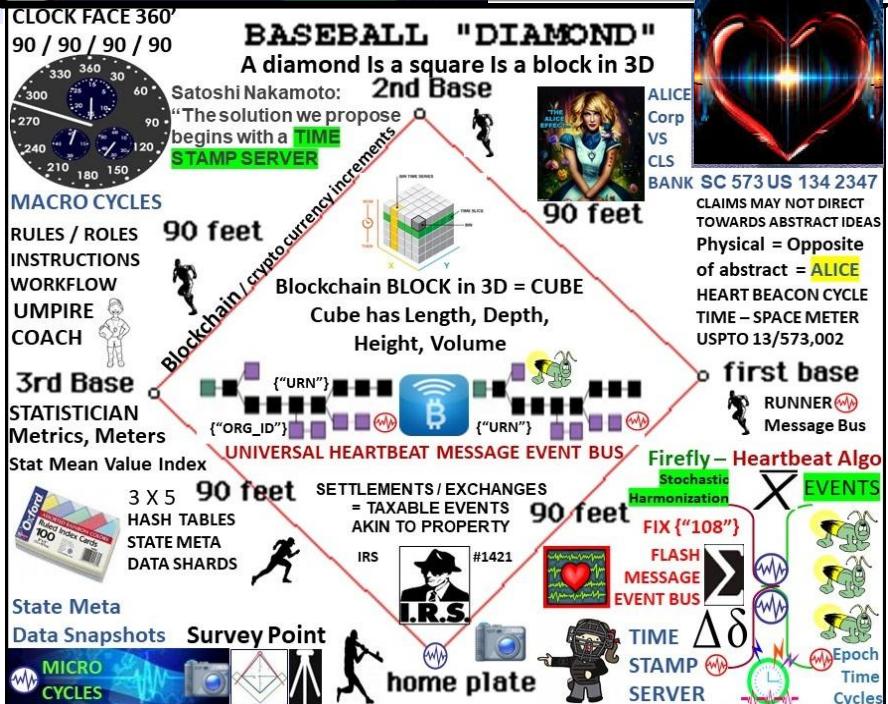
Stateless Ethereum: blocks = self-contained units of execution. no download entire state of Ethereum, as all required data is packaged inside the block (i.e., “stateless” = misnomer)



"Stateless" does not mean the absence of state, but rather that the responsibility for maintaining state is passed to others. This is achieved through the use of "witnesses," = data packets containing necessary data to verify, execute transactions within a block without requiring a local copy of the full state. Weak statelessness requires only block proposers to store full state, while other nodes can verify blocks using witnesses. Strong statelessness removes need for any node to store full state, with all participants relying on witnesses, though users still need to access state to create transactions and witnesses.

BEACON KIT

Tech Framework @ World Game (s)



UNIVERSAL EVENT BUS

STATISTICAL MEAN SAMPLING

STOCHASTIC HARMONIZATION

STATE META-DATA HEARTBEAT SNAPSHOT

Txs	State transition:		Txs	State transition:		Txs	State transition:
0cb4	123: 400		5581	905: 560		7ce6	123: 440
9f12	8723: 0		2fc3	1141: 8021			1141: 7981
	42: 15776			42: 15775			

SWARM (storage)

 WHISPER
(messaging)

EVM



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

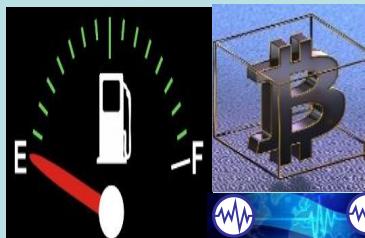
AETERNITY CROSS-CHAIN ATOMIC SWAPS CORRESPOND TO HEART BEACON CYCLE'S USE OF BATTLEFIELD DIGITIZATION DERIVED HEARTBEAT SYNC DELTAS



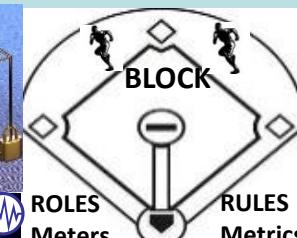
Terra Trade Reference Currency TRC "world currency" Bernard A. Lietaer Belgian economist proposed 1991 Basket of 9-12 most important commodities. Public issued demurrage fees for storage, shipping, handling

TOKENS REPRESENT REAL WORLD VALUE URN RESOURCES

ETHEREUM USES GAS GUAGE MEME INDICATING THRESHOLD MET / NOT MET

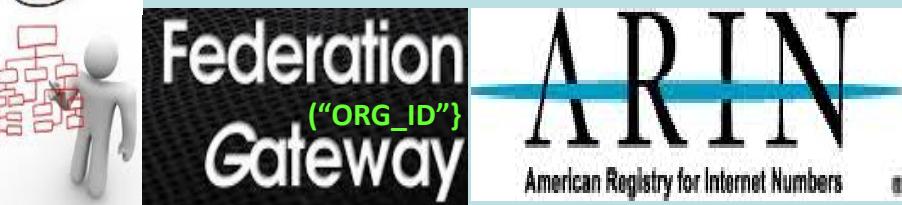


E F



BLOCK
ROLES Meters
RULES Metrics

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



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.

"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"

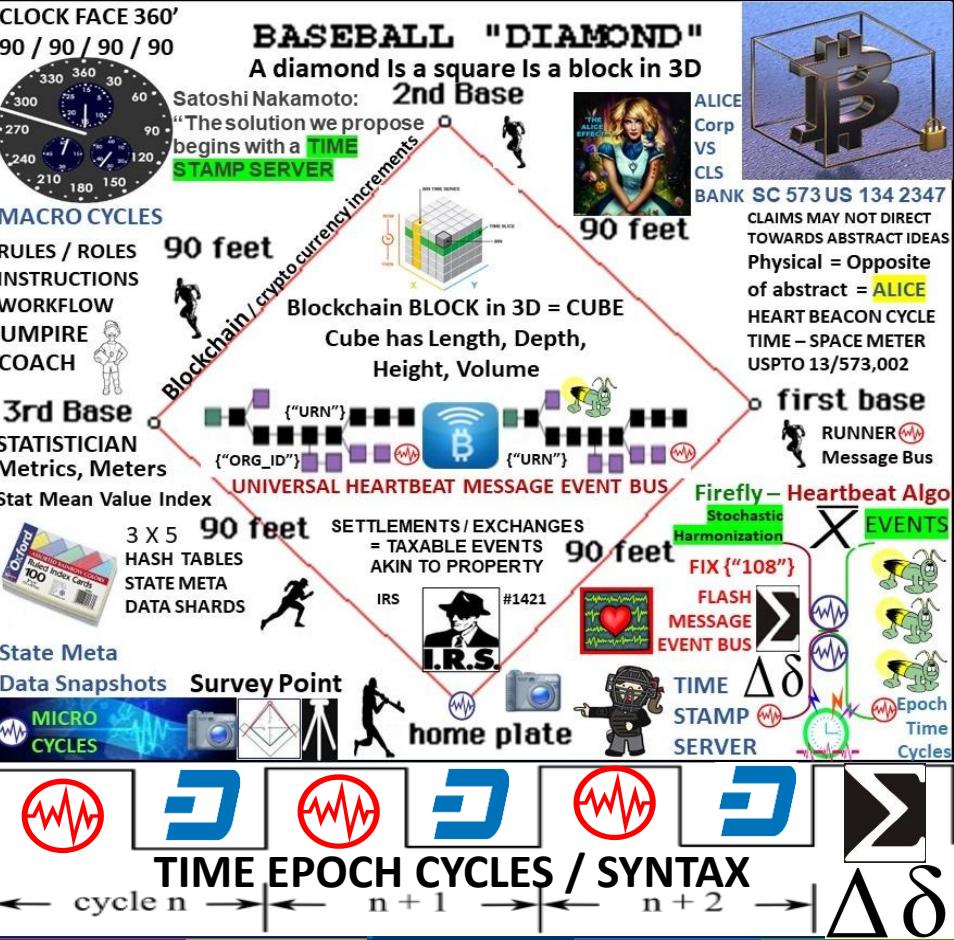
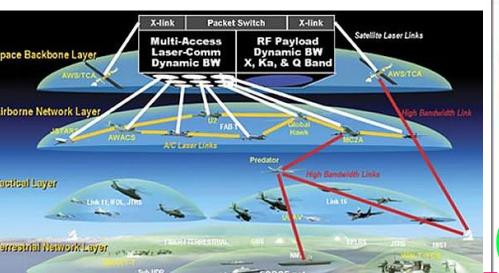
InstantX: problem of lag time in transactions,
Masternodes are able to instantly lock transactions.

Masternodes 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



STATE: stored data at a given instant in time

STATE CHANNELS: blockchain interactions

which *could* occur on the blockchain, but instead get conducted off of the blockchain, without significantly increasing the risk of any participant.



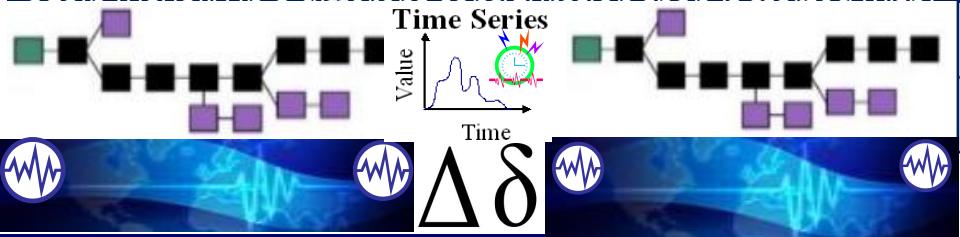
1. Part of the blockchain state is locked via multisignature or smart contract convention, so that a specific set of participants must completely agree with each other to update it.



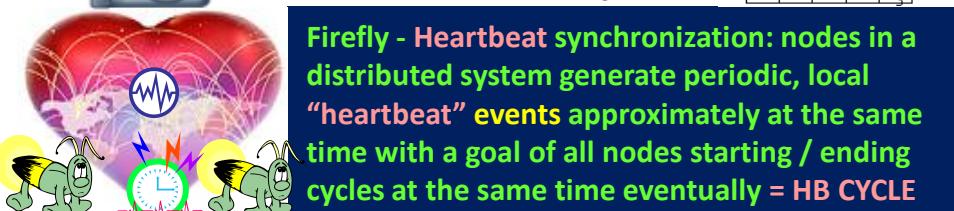
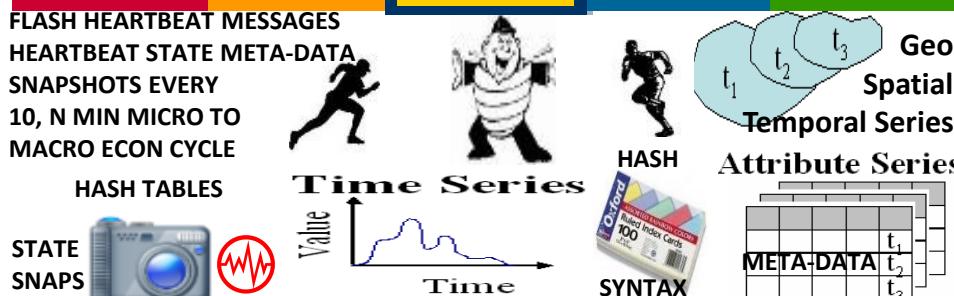
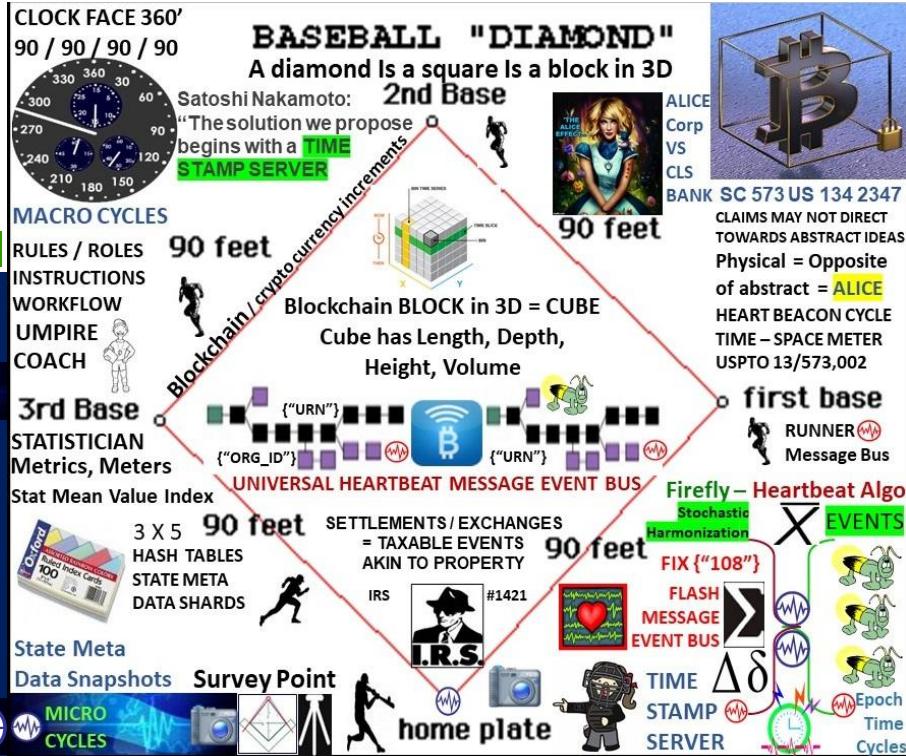
2. Participants update the state amongst themselves by constructing and signing transactions that could be submitted to the blockchain, but instead are made available for a new update "trumps" previous update.



3. Finally, participants submit the state back to the blockchain, which closes the state channel.



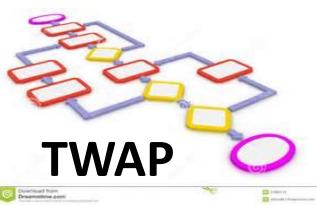
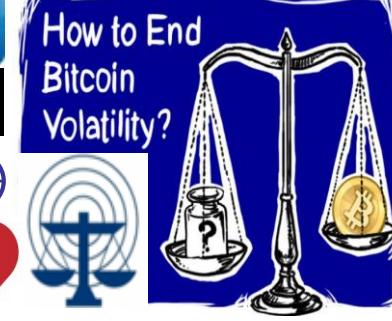
NEW UPDATES OVERWRITE THE PREVIOUS: simplest way is to have any unlocking attempt start a timer, during which any *newer* update can replace the old update (restarting the timer). When the timer completes, the channel is closed and the state adjusted to reflect the last update received. The length of the timer would be chosen for each state channel, balancing the inconvenience of a long channel closing time with the increased safety it would provide against internet connection or blockchain problems. Alternatively, one could structure channel with a financial penalty



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

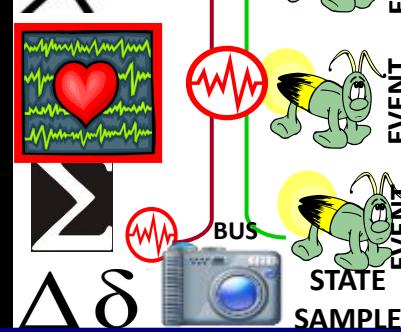
TWAP GOAL: provide a Time Weighted Average Price Benchmark



FIREFLY HEARTBEAT ALGO
STAT MEAN VALUE INDEX



EPOCH TIMES
STATE META DATA SNAPSHOTS



STATE SAMPLE

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 HB

STATE SAMPLE

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

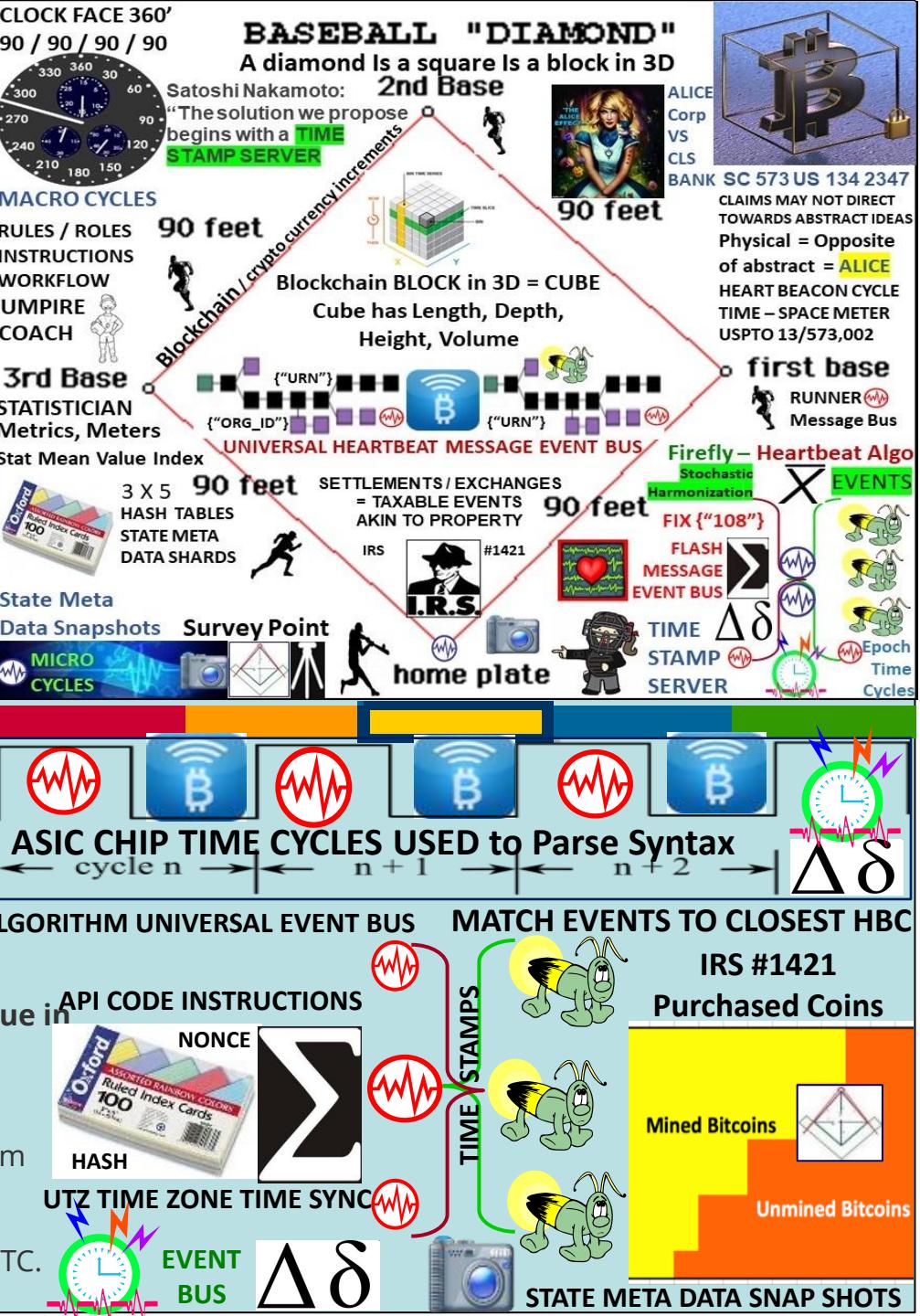
Transaction ID, Block ID, time-stamp, BWAP per block, Value in USD. BTC per transaction, bitcoin transaction fees per transaction.

"Blocks are a measure of time":

The Bitcoin Blockchain 'B-WAP'

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

• Historical Rates: This API goes back to 2010-07-17 23:14:35 UTC.

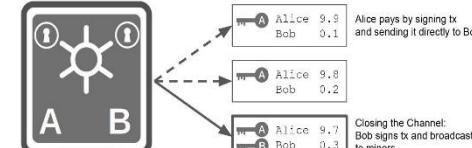




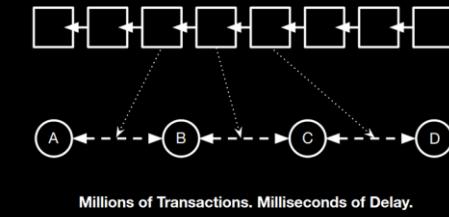
**transactions sent over / off chain
micropayment channels**

Micropayment Channels

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

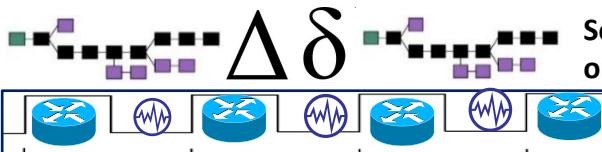


LIGHTNING



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

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

Survey Point

MICRO CYCLES



**EVENT REPORTING
ACROSS TIME-SPACE**



MESSAGE EVENT BUS

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

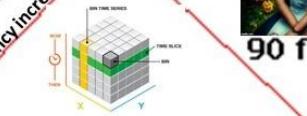
Blockchain / cryptocurrency increments

90 feet

Blockchain BLOCK in 3D = CUBE

Cube has Length, Depth,

Height, Volume



Time Block

Time Times

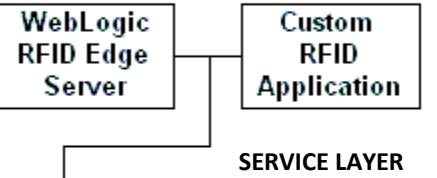
</div

Electronic Product Code Information Services (EPCIS)

GS1 Standard for creating, sharing visibility event data



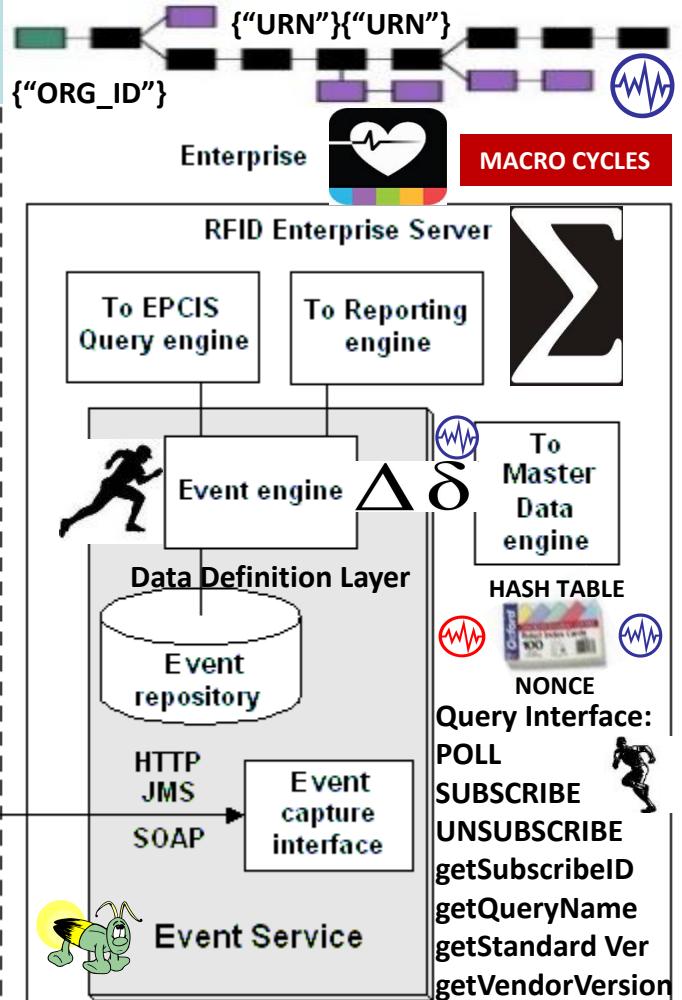
EPCIS DATA MODEL



SERVICE LAYER

XML

- ObjectEvent
- AggregationEvent
- QuantityEvent
- TransactionEvent



How 'Bitbanks' Could Solve Bitcoin's Volatility Problem

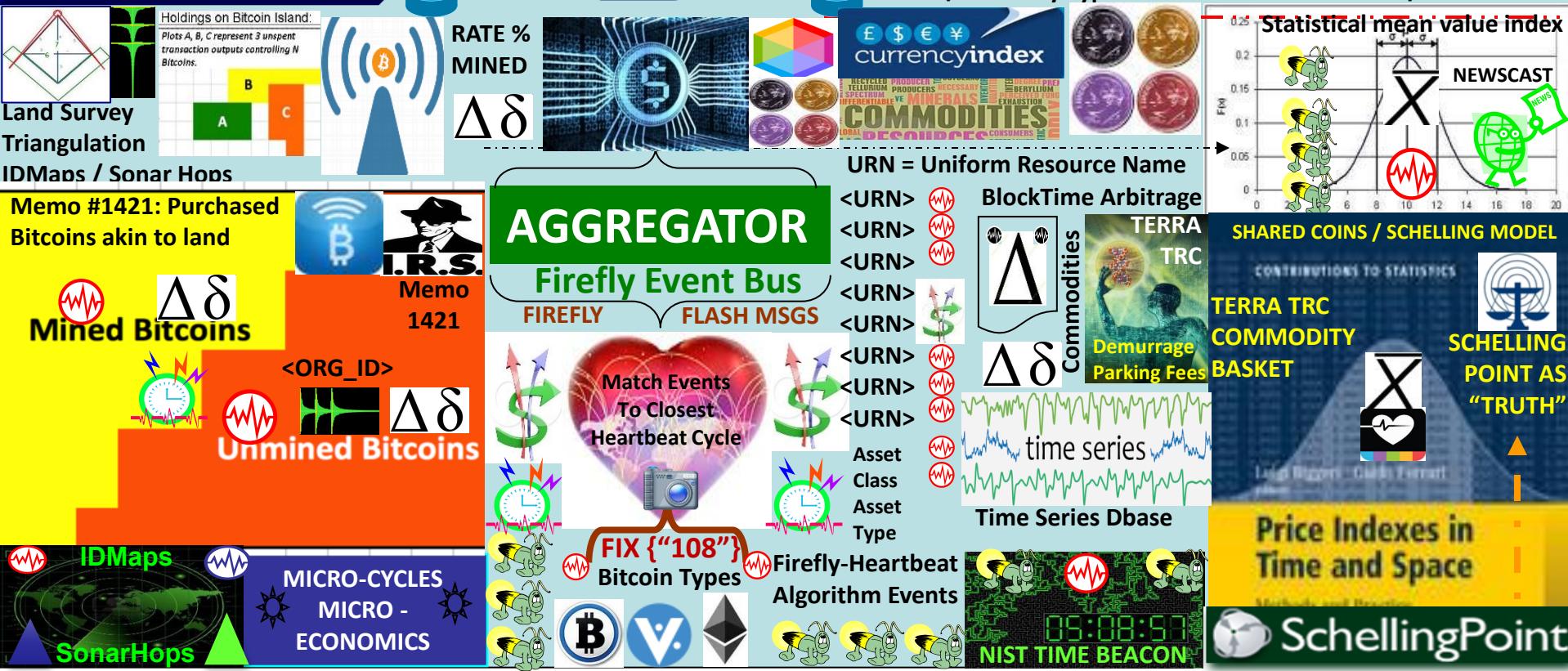
MV=PQ Money x Velocity = Price x Quantity

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

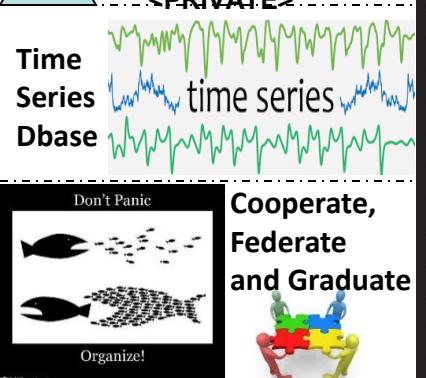
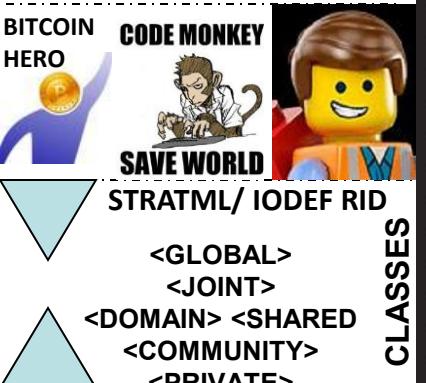
M = MONEY BITCOINS FIXED
= FINITE # OF COINS 21 Million

X V = VELOCITY = RATE SPENT
RATE COINS MINED % OVER TIME

= P = PRICE of Everything Bought
TIME SERIES DATABASE Coin SUM
Coin / Currency Type Mediation Service



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

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

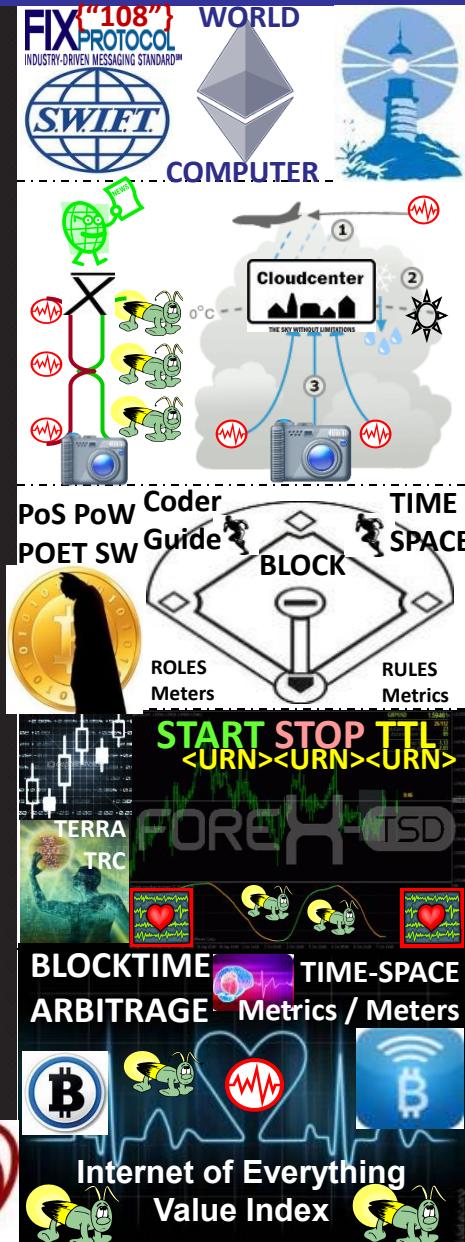
4 MAIN WAYS TO DRIVE ENGAGEMENT

ACCELERATED FEEDBACK CYCLES

CLEAR GOALS AND RULES OF PLAY

A COMPELLING NARRATIVE

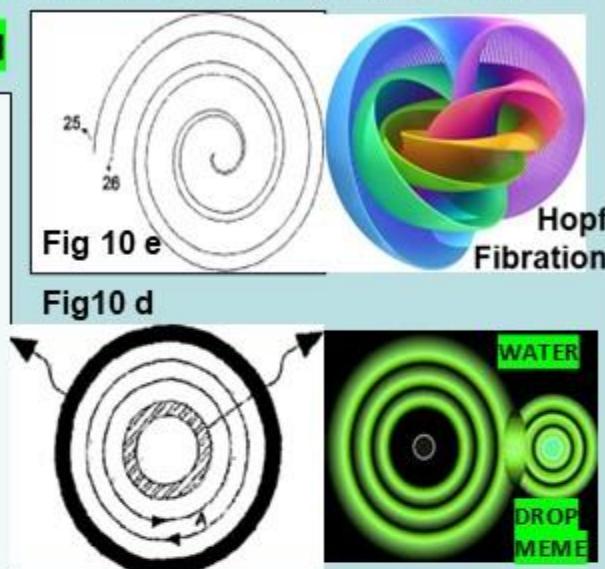
CHALLENGING BUT ACHIEVABLE TASKS





ENERGY PRODUCTION

ABSTRACT: A propulsion system for aerial, terrestrial, underwater or space propulsion, through manipulation (or engineering) of the vacuum with proper electromagnetic interactions. Vacuum manipulation.. new form of propulsion, and has applications in energy production and on change of time decay of radioactive elements. Opposing magnetic or electric fields create a mass repelling force, while attracting magnetic or electric fields create a mass attracting force. This vacuum manipulation process.. used to propel a mass that contains field sources that perturb the vacuum.. the creation of a repulsion point in space through the interference of two or more longitudinal electro dynamic (micro) waves



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

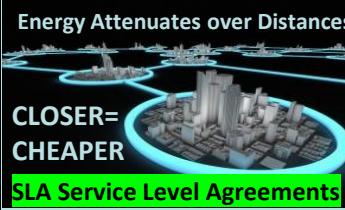
Phase 2: Shared file stores data for 5 tags:

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



Paul Revere = Linear, Sequential meme





TESLA

Harmonic Sphere Flux Resonator

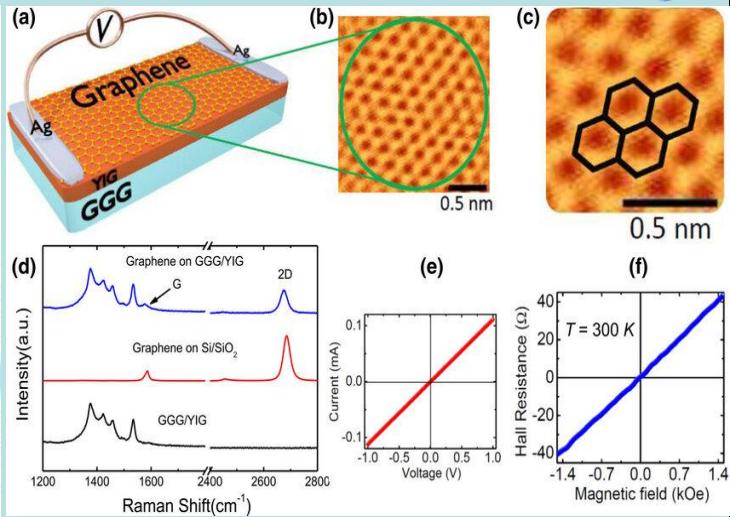
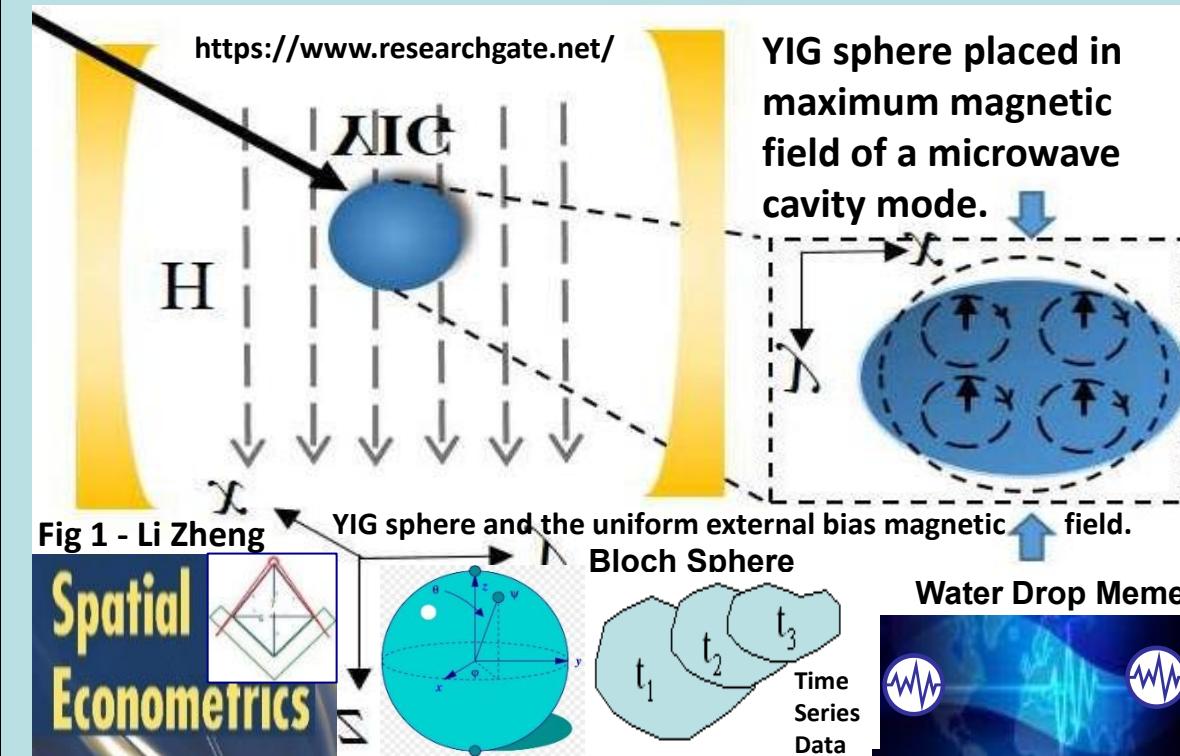
ENERGY / DATA

"When space-time spins, it creates mass. It produces energy in space that radiates. This radiation is what we call mass". Nassim Haramein

Nassim Haramein's work is geometrically based, at the fundamental level spacetime = honeycomb of overlapping spheres of energy each having a singularity at its center.

Yttrium iron garnet spheres serve as magnetically tunable filters and resonators for microwave frequencies. YIG filters are used for their high Q factors, typically between 100 and 200.

Sphere made from a single crystal of synthetic yttrium iron garnet acts as a resonator. Wikipedia



YIG/graphene structures and the electrodes used to measure the dc voltage due to the IREE charge current in the graphene layer resulting from the spin currents generated by microwave FMR spin pumping.

IEEE 802.1AG HOP BY HOP DETECTION
IEEE 802.11 HbH HOP BY HOP CONTROL

The creation of spinlogic devices, which allow the control and transport of the spin current over long distances, is one of the major research challenges in spintronics. In this regard, graphene-a single atomic layer of carbon atoms in a honeycomb lattice [see Fig. 1(c)]-has attracted great attention as a promising material for spin-based devices due to its exceptional electronic transport properties, excellent charge carrier mobility, quantum transport, long spin diffusion lengths, and spin relaxation times [42]



Fisher information flux flows are generated and stored in wave packets as they propagate. This temporal aspect is crucial for understanding how information builds up in a system over time



$\Delta\delta$



The Variance of...

the partial derivative w.r.t. θ of...

the log-likelihood function of θ given observed value of X

$\Delta\delta$

$$\mathcal{I}(\theta) = \text{Var} \left(\frac{\partial}{\partial \theta} \ell(\theta | X) \right)$$



USPTO 13/573,002 Time – Space Meter

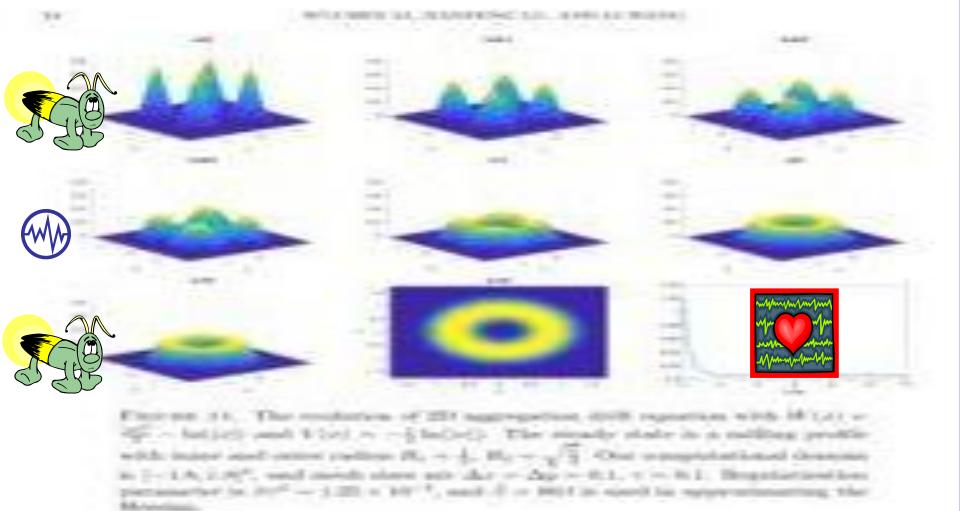


Figure 3.7. The 200000 visualized. We chose the variables for computing a three dimensional SVD decomposition.

$$f_{\theta, t} = \nabla_t \cdot \left[\text{exp} \left(\frac{1}{2} \text{tr} (\theta_t^\top \theta_t + F_t^\top F_t) \right) \right]$$

Note, $\text{tr} (\theta_t^\top \theta_t) = 10^4$ and mutual correlations, concerning all three components. We also note, we can only work in integral equations until otherwise no meaningful extraction. As seen in Fig. 3.5, the dimension of components like the equilibrium state $\theta_0 = 0$, $\theta_1 = 0$, more explicitly, the prior knowledge, constant, periodic, and other properties of the system's state component will not satisfied until the current approximation will converge to general models.

GENESIS
EPOCH



EPOCH

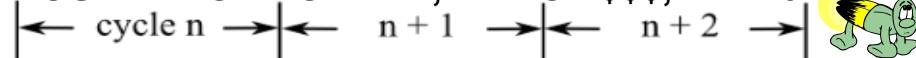


EPOCH



$\Delta\delta$
Sync
Deltas

FOUNDATION FOR NET, NET OF \$\$\$, WEB 3



Continuity equation for flow of Fisher information in wave scattering: Nature / ISF International Space Federation .org



An electromagnetic wave scattered at an object carries locally defined and conserved information about all of the object's constitutive parameters. Specifically, we introduce the density and flux of Fisher information for general types of wave fields and identify the corresponding sources and sinks of information through a fundamental continuity equation. Our theoretical predictions involve a movable object embedded in a disordered environment by measuring the corresponding Fisher information flux at microwave frequencies. Our results improve the understanding of the generation, propagation of information supports tracking and designing the flow of information in complex system of systems environments.



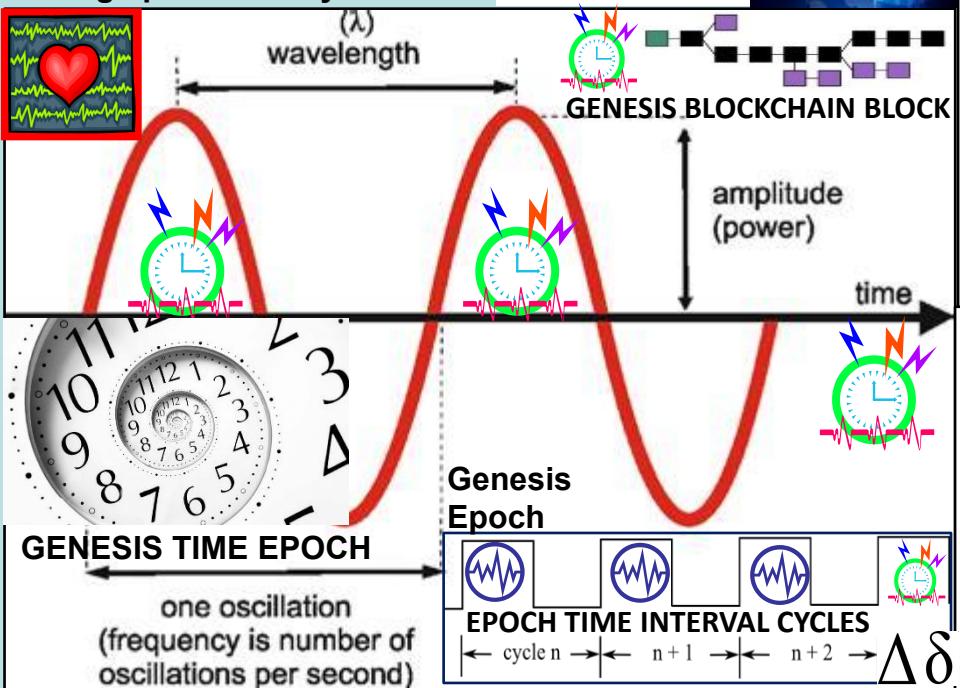
THESES: All things net, net of programmable \$\$\$ are formed using:

ENERGY / DATA WAVE METRICS / METERS

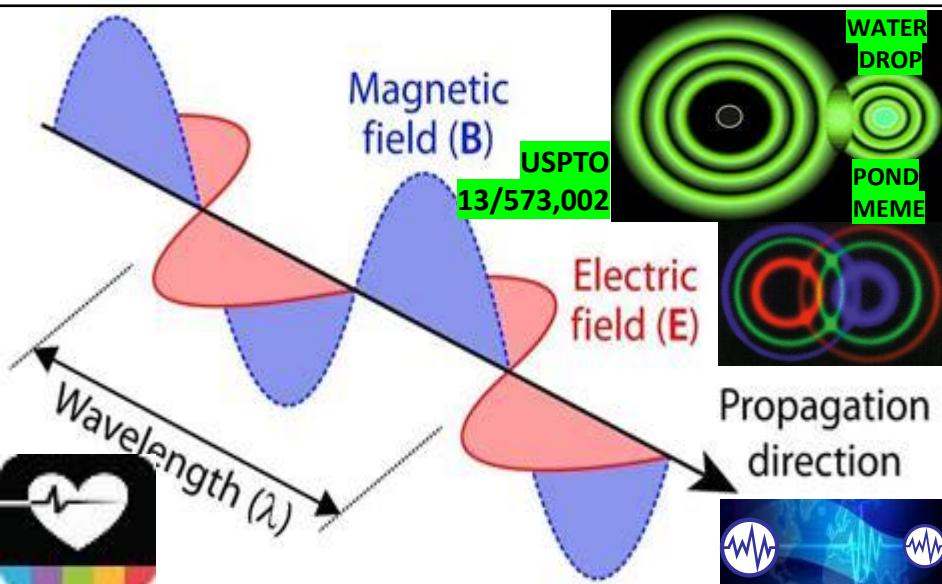
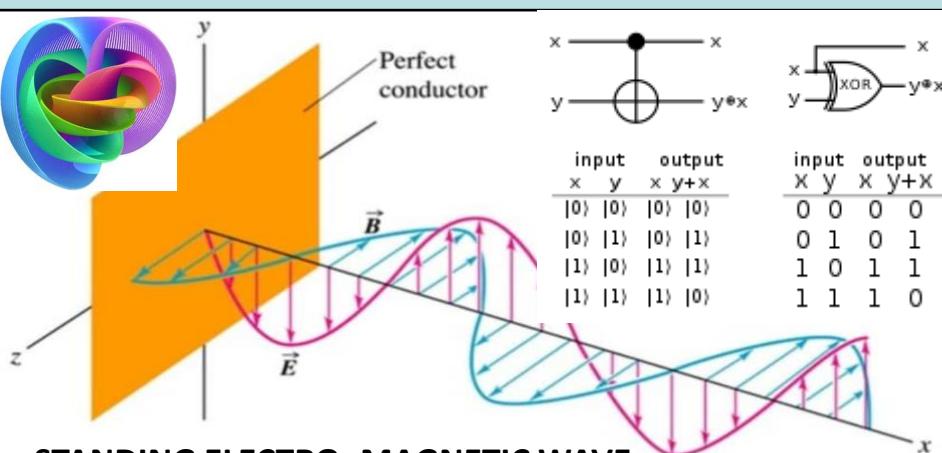
BELL STATE QUANTUM COMPUTING

1) Time epochs created by quartz crystal silicon chips

2) Syntax used / not used as programming instructions during epoch time cycles

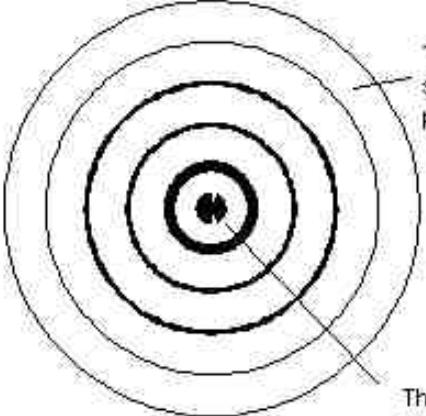


Quantum Computing Vibrations encode, process data like quantum computers. A simple mechanical system built from aluminum rods uses vibrations to encode information, mimicking quantum computing in a non-quantum system. "Light is made from photons, the quantum of light. mechanical vibrations or sound waves can be described in a quantum-mechanical manner i.e., composed of phonons: the smallest possible units of mechanical vibration" Link: https://phys.org/news/2018-06-quantum_1.html



"Nature may reach the same result in many ways. Like a wave in the physical world, in the infinite ocean of the medium which pervades all.. Nikola Tesla

Water drop in pond meme <https://www.spaceandmotion.com/>



Paul Revere Linear, sequential meme

And as I shall explain in Einstein's relativity, when we apply this one law, where the wave velocity changes the wavelength also has a corresponding change such that we can never observe this change. This relates to the Lorentz transformations, the negative solution of the Michelson Morley experiment, and why we always measure a constant velocity of light even when it changes, thus why we cannot measure our motion through absolute space.

With respect to time, physics was always telling us that time is caused by frequency (and fundamentally by motion as the wave motion of space), since time equals the inverse of frequency $t=1/f$.

From our wave equation we see that while the velocity and wavelength change, the frequency remains constant, giving rise to an absolute time in the universe. This was one central problem of Einstein's relativity, he changed time and maintained a constant velocity of light, when the opposite is true. (Yes, this one property of waves from this simple wave equation has caused us so much confusion!).

"What we observe as material bodies and forces are nothing But Shapes and variations in the structure of space" Schrodinger

Physical Reality: 1. One Substance. Space exists with properties of an elastic solid wave medium, propagating longitudinal waves in all directions, thus forming standing waves in all directions. When these standing waves are in-phase (coherent) around a central point then a spherical standing wave naturally forms - space vibrates in and out around the central point, which we call the particle. There are two opposite phase spherical standing waves, which create the electron and positron (matter and antimatter),

2. One Law. The velocity of the waves is proportional to the wave amplitude (bigger waves travel faster). Where these waves are coherent, forming spherical standing wave 'particles', the wave amplitude is higher, and the waves travel faster. This, as i shall explain, is the foundation of all matter interactions, the source of causal connection and absolute truth.

Why matter and energy are equivalent, since a wave is a flow of energy between two states of the wave medium Space - kinetic energy (vibratory motion of space) and potential energy (elastic deformation of a nearly rigid space). Why matter and antimatter annihilate, due to destructive wave interference. How matter and antimatter can be created from apparently 'empty' space. How science can exist, since the spherical in and out waves provide continuous two way communication between matter in space (empirical knowledge), and the waves behave in a necessary manner due to this one law (logical knowledge).

Wave velocity is the velocity of light, $\sim 3 * 10^8$ m/s, the wavelength is the Compton wavelength $\sim 10^{-12}$ m, and the frequency $\sim 10^{20}$ Hz. So in a pin head there are roughly a billion billion billion standing waves, each vibrating a billion trillion times a second. i.e. These standing waves are very small, and vibrate very fast, thus explaining how such complex standing wave structures (like us) can evolve in space. The fundamental equation of the universe is the simple wave equation; Velocity (C) = Frequency (f) * Wavelength (y)

Combined with the equation of the sphere (which is also Pythagoras' Theorem and the metric equation of Special Relativity), and explains the geometric foundations of reality, why space is three dimensional. $x^2 + y^2 + z^2 = r^2$

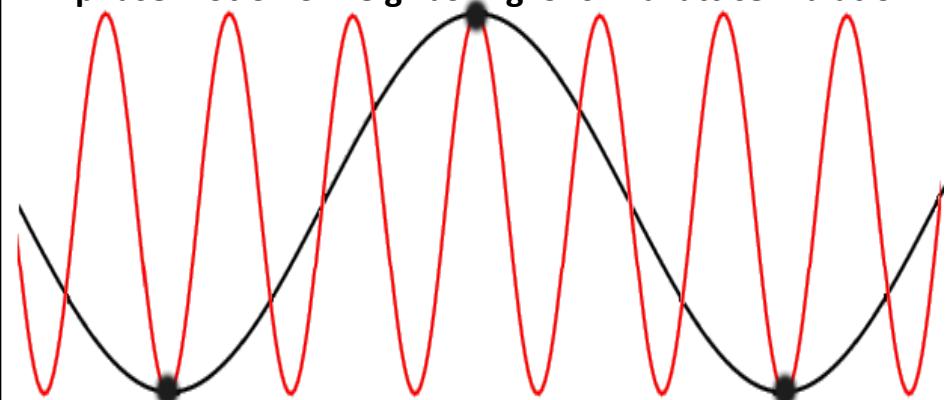


"Simplicity is the ultimate sophistication".
(Leonardo da Vinci)

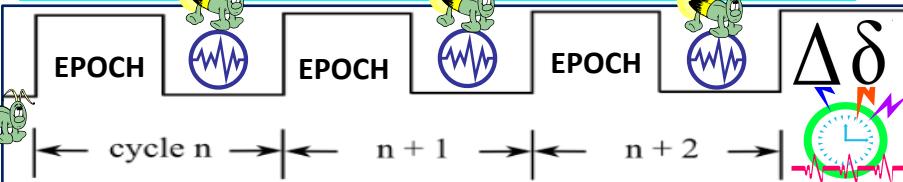
ACOUSTIC PHONON

USPTO 13/573,002

in-phase motion of neighboring ions in a lattice vibration

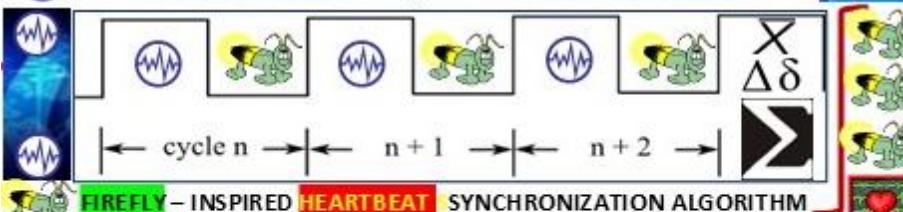
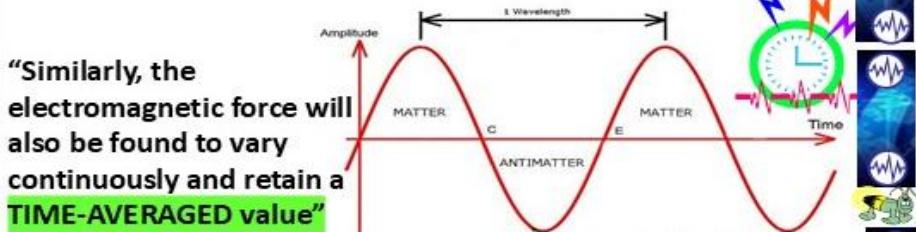


Phonons: A phonon is a quantum of the lattice vibration, the collective motion of atoms constituting a crystal. There are two types of phonons: optical and acoustic. The optical phonon has high-frequency oscillation in the THz range and the unit cell center of mass does not move. It undergoes a dipole interaction with light. The acoustic phonon propagates at sound velocity, which is the first derivative of the phonon dispersion curve at the Γ -point (wave vector $k \approx 0$) in the first Brillouin zone. A simple example is a one-dimensional diatomic chain, in which the unit cell contains two atoms. In a crystal of N unit cells, there are $2N$ atoms and $2N$ degrees of freedom of motion. The displacement of an atom from its equilibrium position is expressed using plane waves with reduced wave vectors, defined within the first Brillouin zone. The oscillations are approximated by $2N$ harmonic oscillators of different wave vectors. The vibrational frequency is related to the wave vector through the phonon dispersion relation. Phonons are created and annihilated in the harmonic oscillators. SOURCE: SCIENCE DIRECT: <https://sciedirect.com/topics/engineering/acoustic-phonon>



"nodes eventually agree" stochastic harmonization temporal sync

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

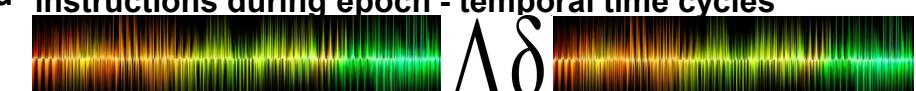


FIREFLY - INSPIRED HEARTBEAT SYNCHRONIZATION ALGORITHM

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



THESIS: All things net, net of programmable \$\$\$ are formed using: 1. Time epochs created by quartz crystal silicon chips 2) Syntax used / not used as programming instructions during epoch - temporal time cycles



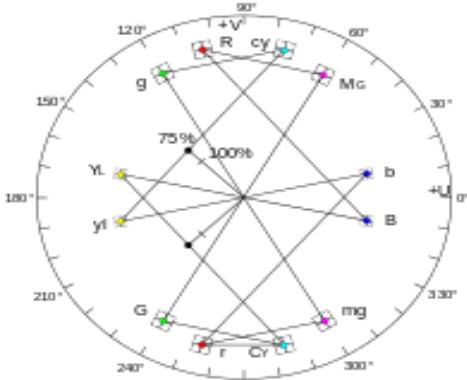
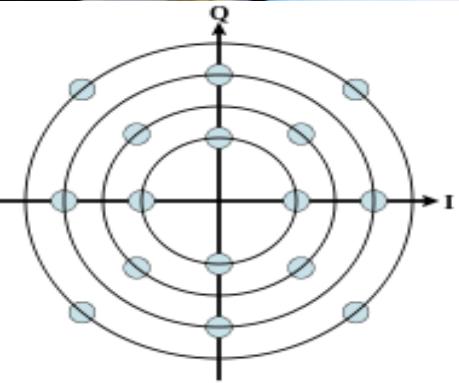
SOUND WAVES enable Different types of quantum tech to "talk"

</EVENT>

SYNC DELTA Δδ



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”

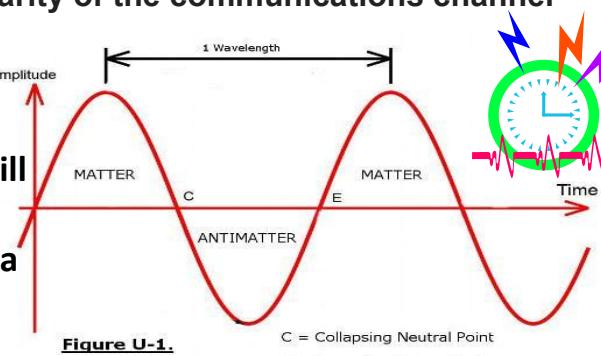
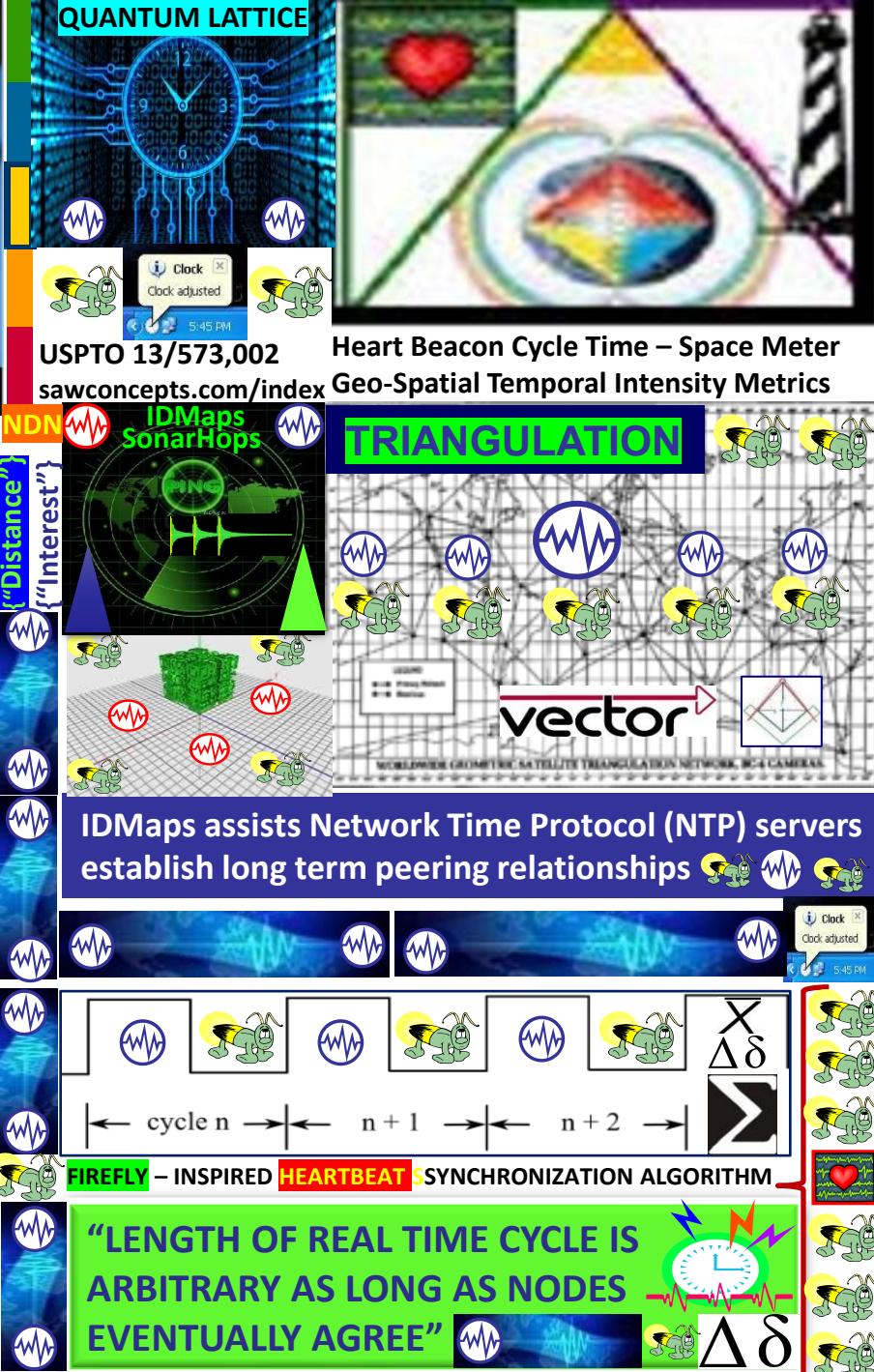


Figure U-1.

E = Expanding Neutral Point

Sine wave of our blinking universe. The 4 fundamental forces will all be found to vary continuously when sampled at 2x the blinking frequency, per Nyquist-Shannon theory





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.

3. A software protocol

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

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)...

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.



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



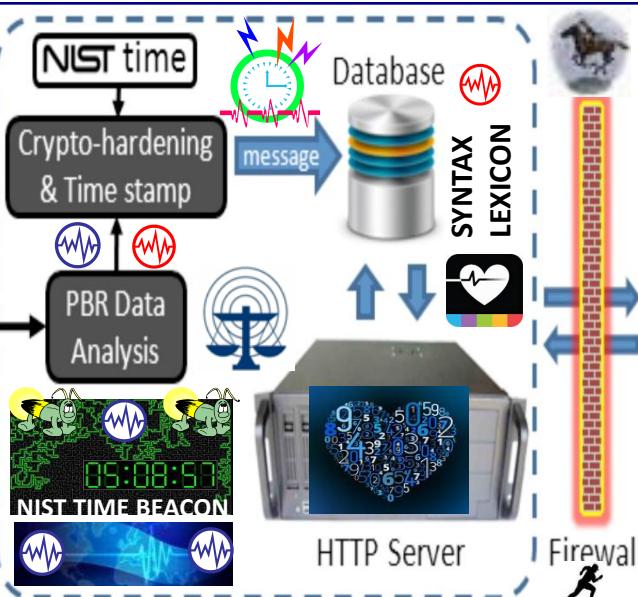
NIST QUANTUM ENCRYPTION RANDOMIZATION BEACON

UNPREDICTABLE SAMPLING

SECURE AUTHENTICATION

SECURE MULTI

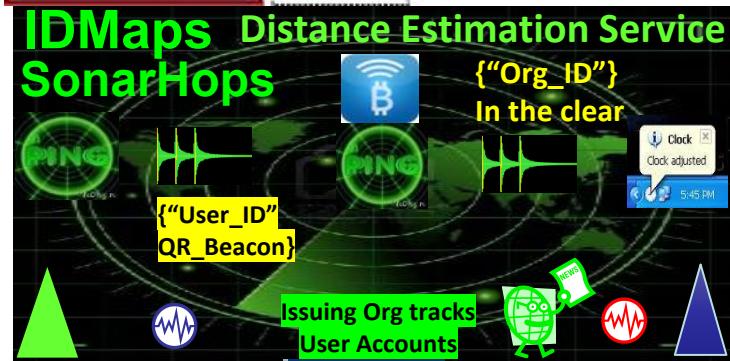
PARTY /
AUTHENTICATION



NIST

**NON
REPUDIATION**

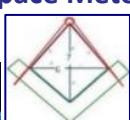
Legend:
 - App: software application
 - DB: database
 - Fw: firewall
 - HSM: hardware security module
 - RNG: random-number generator



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 State
 of Internet & estimates distance between any IP address pair State
 Snap Shots

Time / Distance Metrics

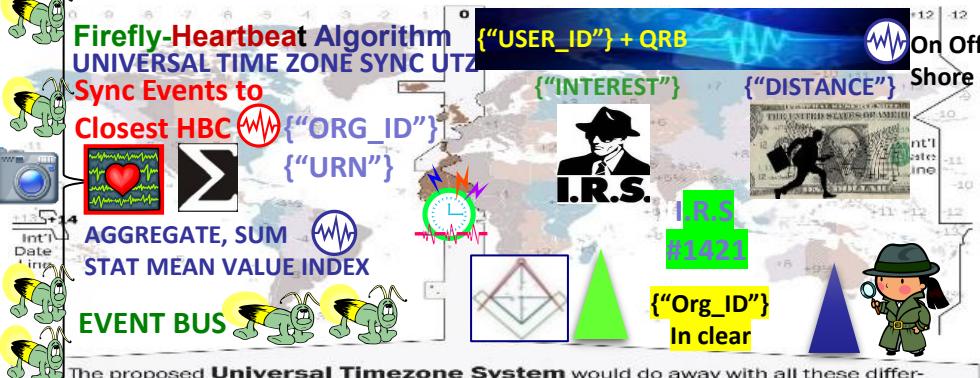


PROXIMITY

OFFSHORE BEACONS ONSHORE

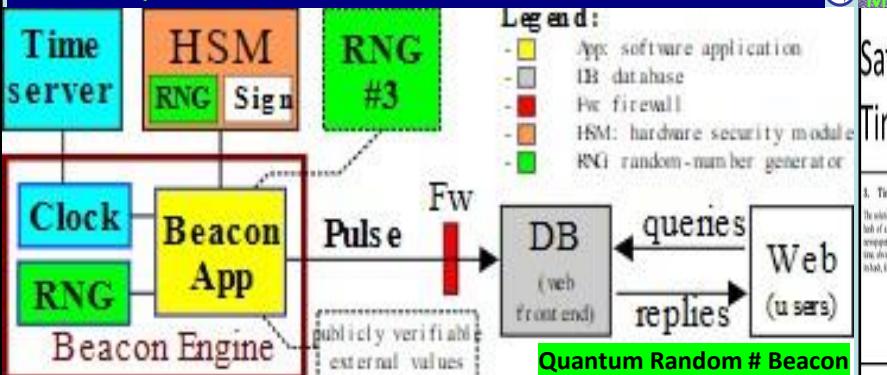
NDN
 </interest></distance>

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**



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

3. Timestamp Server

The solution we propose begins with a timestamp server. A timestamp server works by taking a hash of a block of times to be timestamped and widely publishing the hash, such as in a newspaper or Usenet post [3]. The timestamp proves that the data must have existed at the time it was timestamped to get into the block. Each timestamp includes the previous timestamp in its hash, forming a chain, with each additional timestamp confirming the previous one.

Block chain

What does a block look like?

Simplified block structure:

version info

timestamp

previous block

clock adjusted

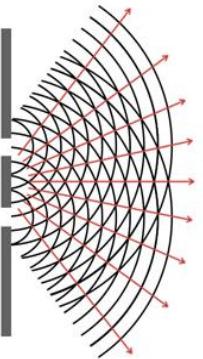
epoch

Double-Slit Experiment

Screen with two slits

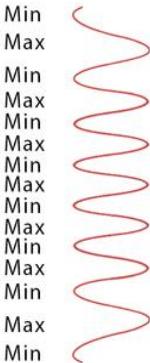
PARTICLE ?

Sodium lamp



Screen

WAVE ?



Light source Rays of light coming from the source reach the slits

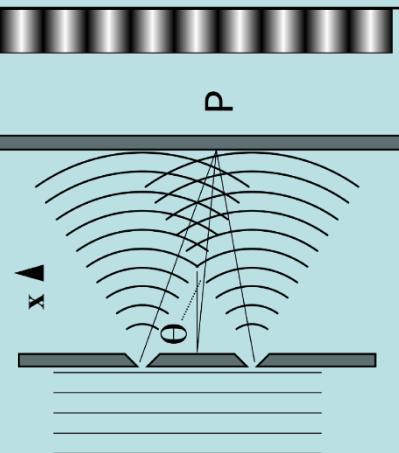
Interference of light waves due to two tiny slits and arrows indicate direction of wave propagation

Alternating bright and dark fringes due to interference of light waves

Intensity of the fringes shows the maxima and minima

Science Facts

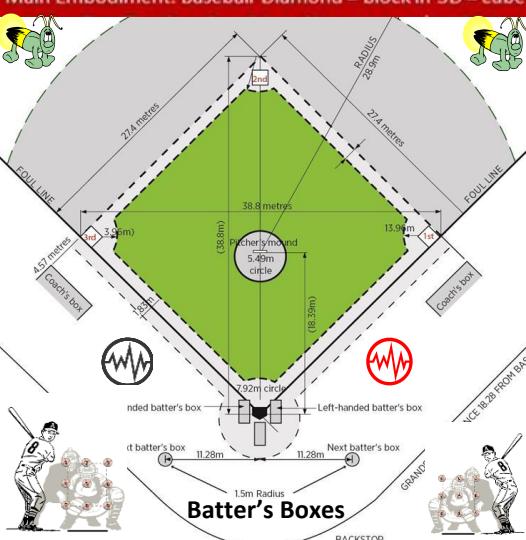
QUANTUM COMPUTING - RESISTANT ? - BASED ? THROUGH LENS OF SCOTUS ALICE LOOKING GLASS RULING



USPTO APPLICATION 13/573 002

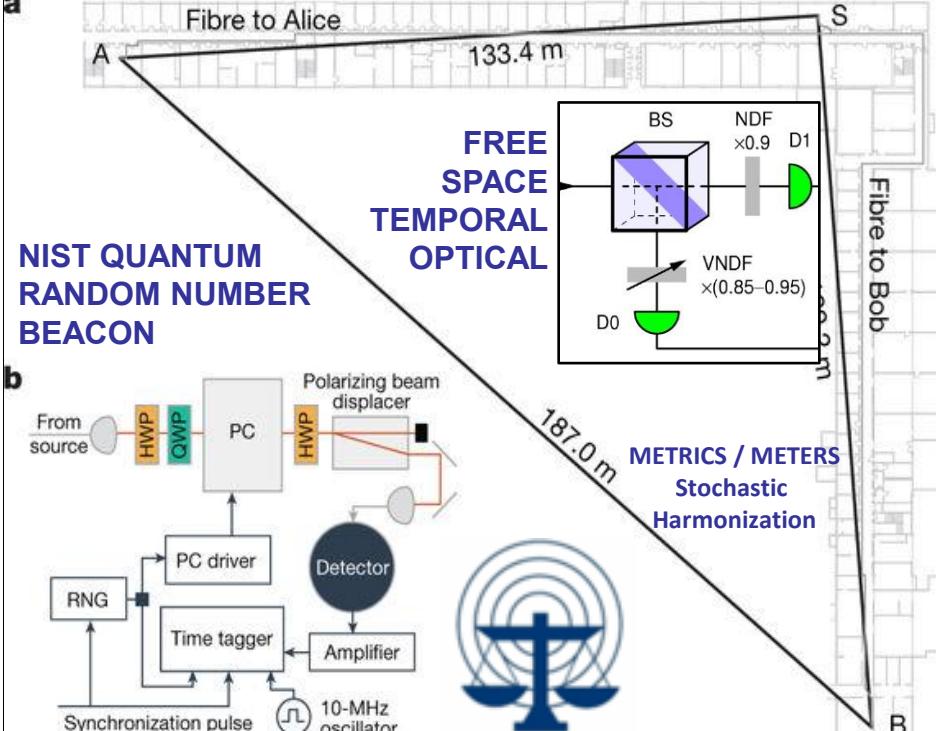
The Heart Beacon Cycle Time-Space Meter

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

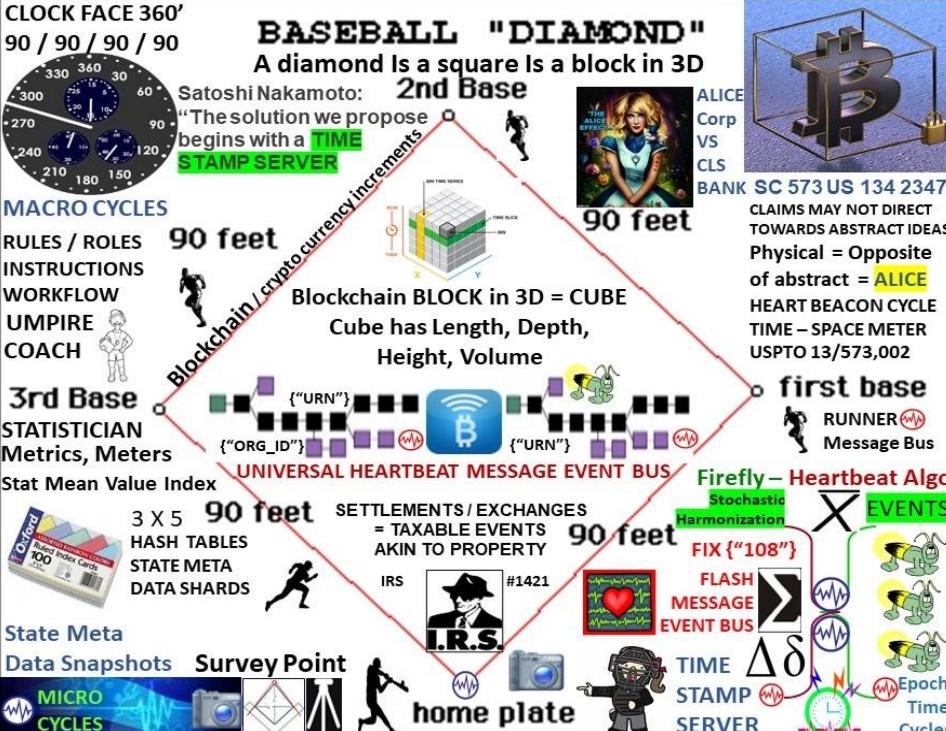


SCOTUS ALICE RULING: "Claims may not direct towards abstract ideas" / Physical = opposite of abstract

a



b



The Hopf Fibration

Edmund Harriss

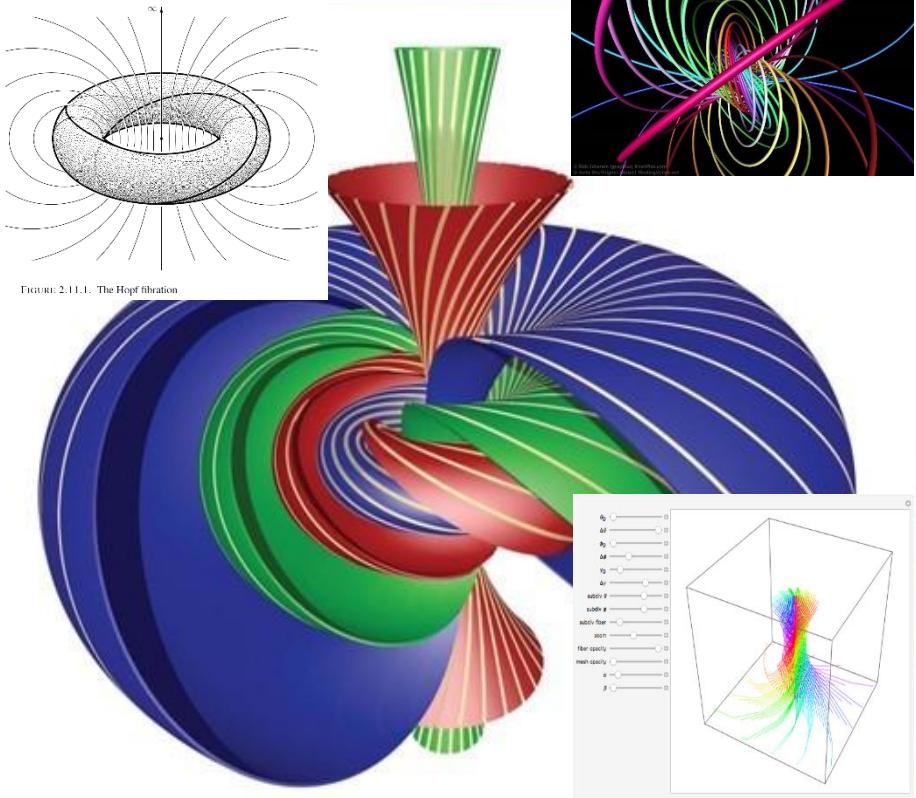
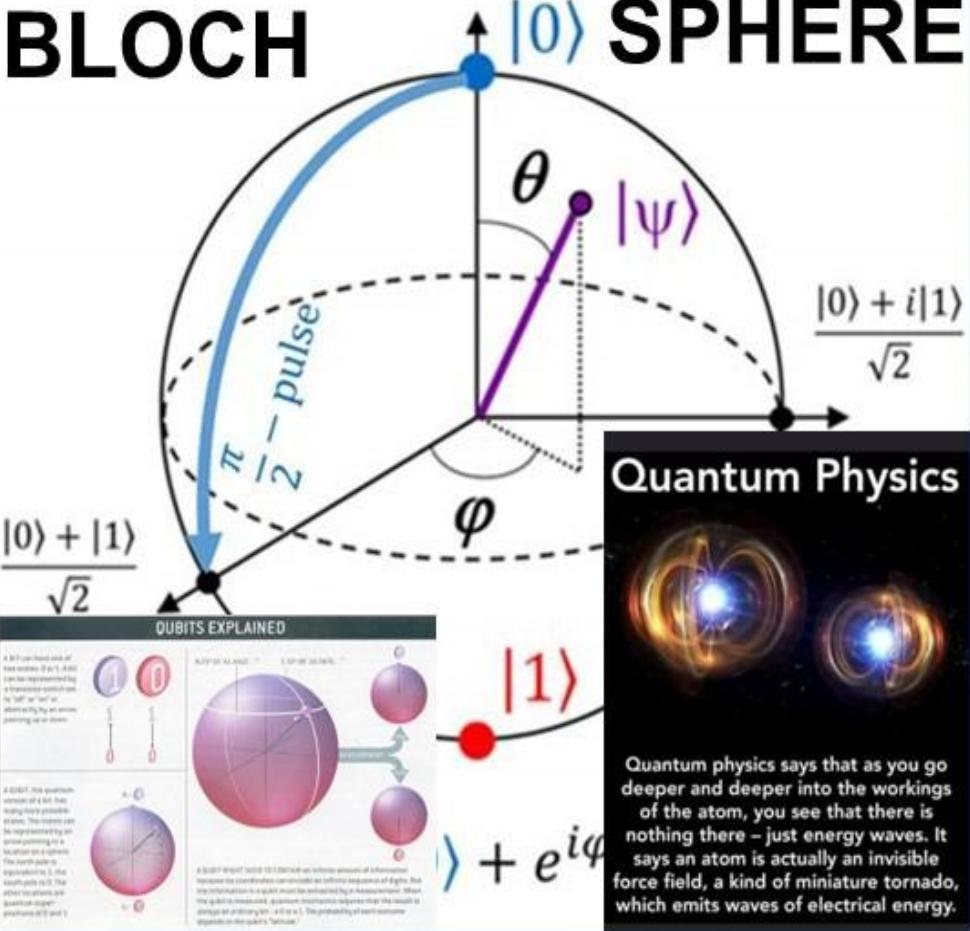


FIGURE 2.11.1. The Hopf fibration

BLOCH SPHERE



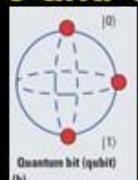
Hopf Fibration / #Bloch sphere

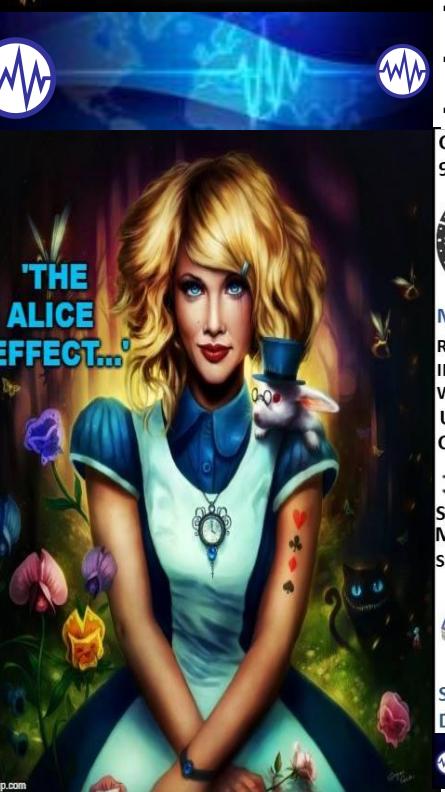
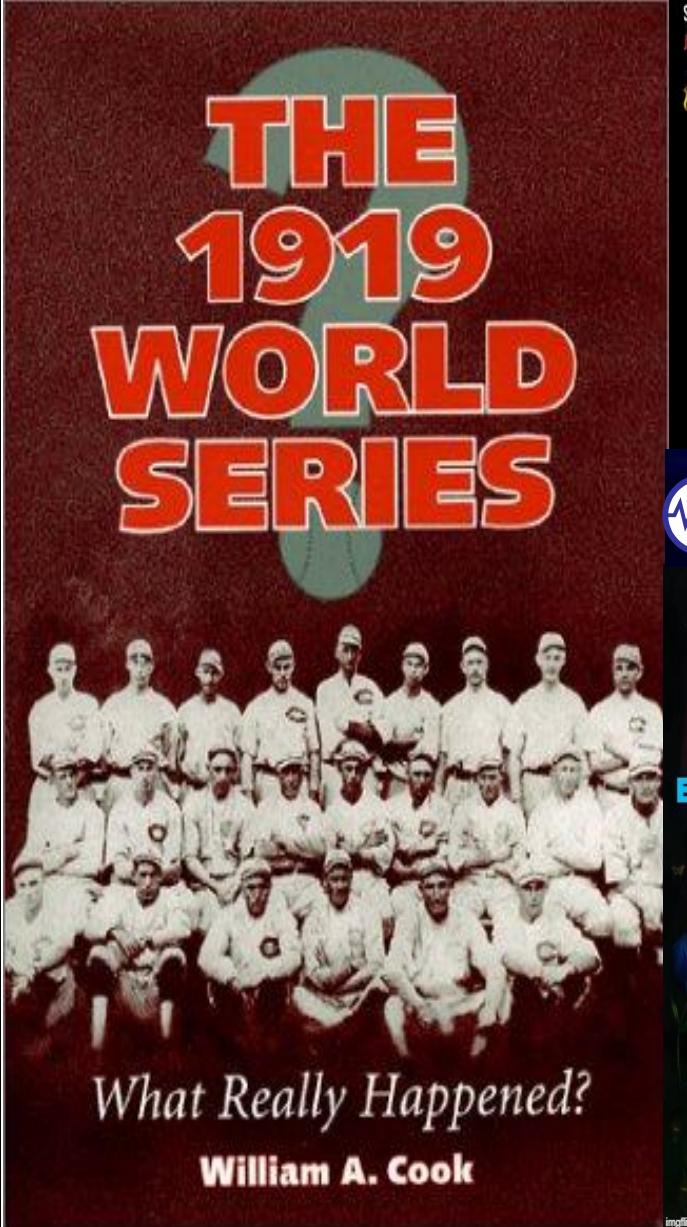
"the most important object in the universe"

"Hopf fiber bundles pop up in 8 quantum physics situations"... USPTO 13/573,002 water drop in pond meme / scalar wave in 2D - 3D

Paul Revere linear - sequential hop count meme

The Bloch sphere provides a useful means of visualizing the state of a single qubit & operations on it. Any point on this sphere represents a linear combination of the 0 and 1 states with complex coefficients. A $\pi/2$ -pulse 'rotates' a qubit from the 0-state to a superposition state.



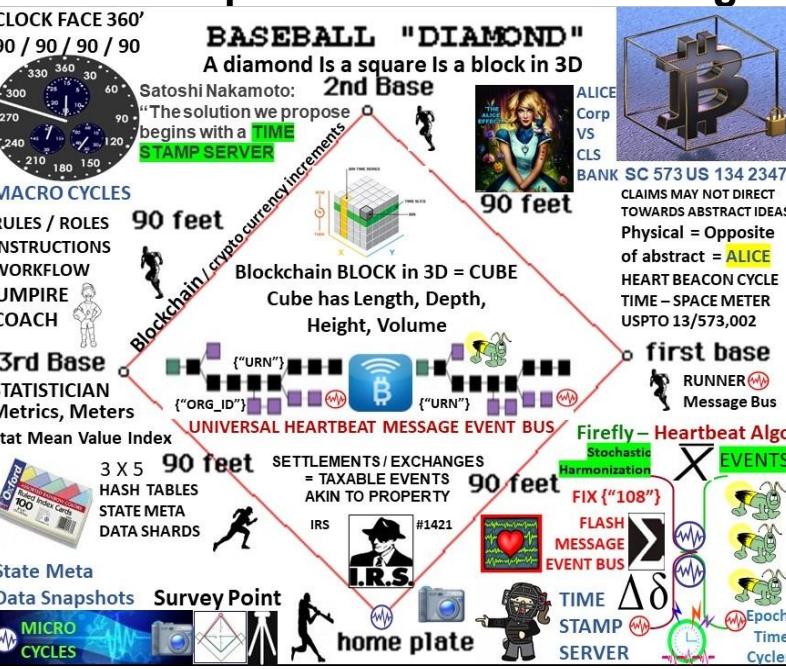


TRANSCO VS PERFORMANCE



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





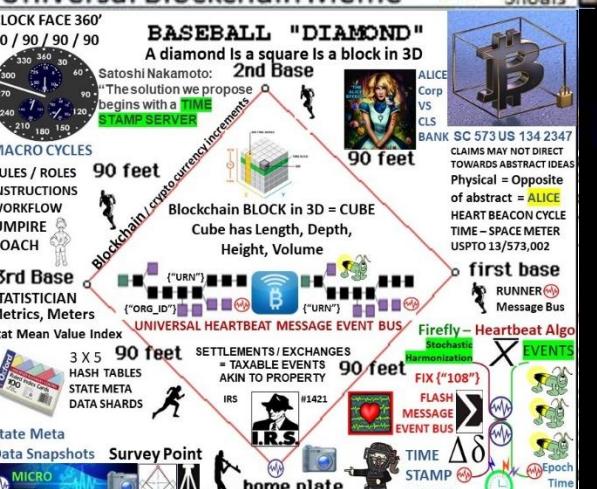
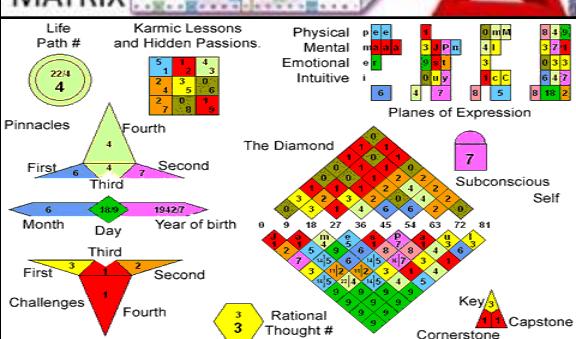
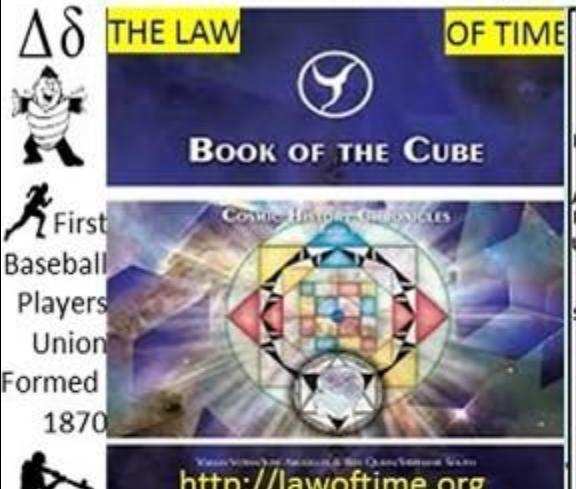
USPTO APPLICATION 13/573 002

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



Satoshi Bitcoin Blockchain
Time Stamp Server

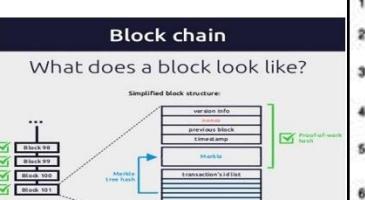
Timestamp Server

The solution we propose begins with a timestamp server. A timestamp server works by taking a block of data to be timestamped and widely publishing the hash, such as in the Internet or Usenet news [25]. The timestamp proves that the data did not exist outside at the time of publication. This timestamp can be used to verify the timestamping of a block of data, forming a chain, with each additional timestamp reinforcing the ones before it.



```

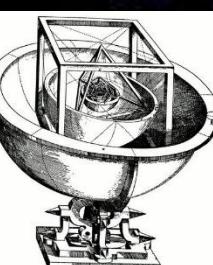
graph LR
    TS[Timestamp Server] --> B1[Block 1]
    TS --> B2[Block 2]
    B1 --> T1[Time-stamped]
    B2 --> T2[Time-stamped]
    
```



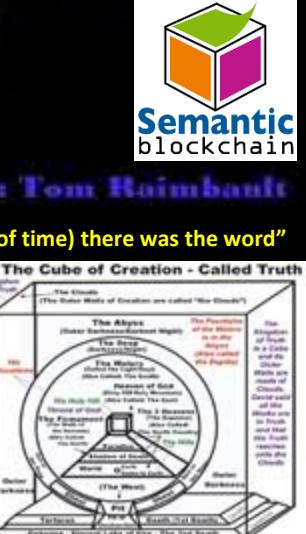
Metatron's Cube and the Platonic Solids



“In the beginning (of time) there was the word”



GENESIS OF ALL FORM





"There is only one revolution tolerable to all men, all societies, all political systems: revolution by design and invention."

-Buckminster Fuller

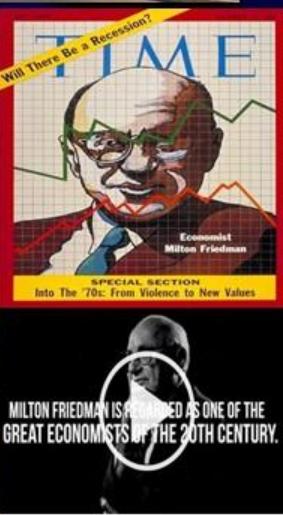


THE GREAT CONJUNCTION IN AQUARIUS

HERALDING THE NEW AGE
On December 2020, Jupiter and Saturn unite in the sign of Aquarius, forming a configuration called a Great Conjunction which only happens once every twenty years. Great Conjunctions are often longterm beginnings or foundations formed out of unstable circumstances. In the sign of AQUARIUS, this is likely to mark a major technological boom that will culminate on 2030 and last until 2040, the next Great Conjunction.

Over the next ten years, we are going to see our world innovate unlike never before, particularly in the fields of AI, technology, science, space travel, UFOs, networks, and the Internet. Major Universal truths will also be revealed as we welcome the New Age of Aquarius. The old world will soon come to an end, paving way to the new order of things.

photo by werner du plessis



"ONLY A CRISIS—ACTUAL OR PERCEIVED—PRODUCES REAL CHANGE. WHEN THAT CRISIS OCCURS, THE ACTIONS THAT ARE TAKEN DEPEND ON THE IDEAS THAT ARE LYING AROUND."

That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes politically inevitable.

Milton Friedman — Preface to Capitalism & Freedom 1962

The K-Percent Rule was a proposal by economist Milton Friedman that the central bank should increase the money supply by a constant percentage every year.

The K-Percent Rule: sets the money supply growth at a rate equal to the growth of gross domestic product (GDP) yearly.



Milton Friedman

- 1912-2006
- Economist, monetarist
- 1946-1977: University of Chicago
- 1977-2006: Hoover Institution
- Essays on Positive Economics, A Theory of Consumption Function, Capitalism and Freedom, A Monetary History of the United States (1867-1960) - with Anna Schwartz, etc.
- Nobel Prize in Economics, 1976
- Considered as conservative, in reality liberal economist
- Advisor to President Nixon

Milton Friedman

MILTON FRIEDMAN

WITH THE ASSISTANCE OF RONALD WOODRUFF

SIGNED

BY MILTON FRIEDMAN

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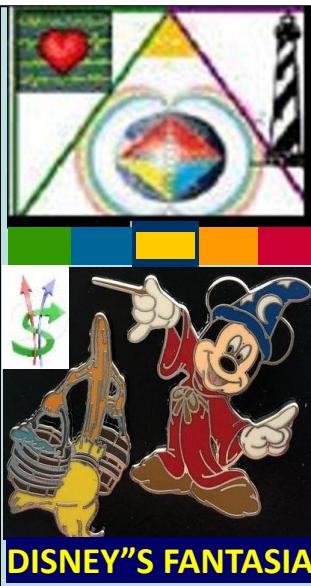
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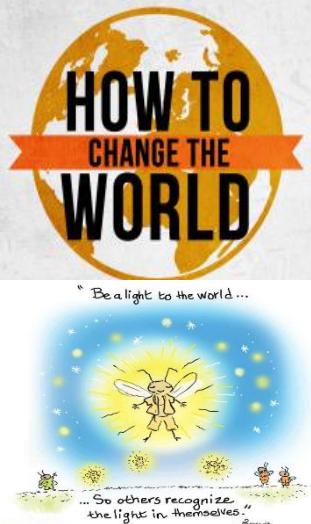
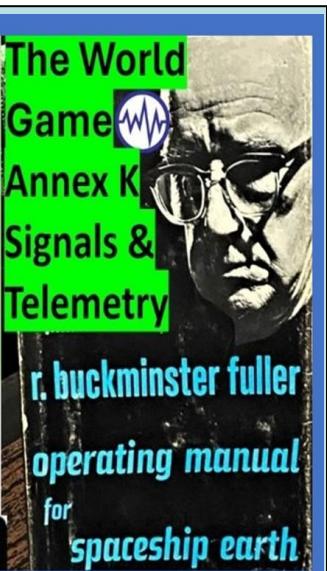
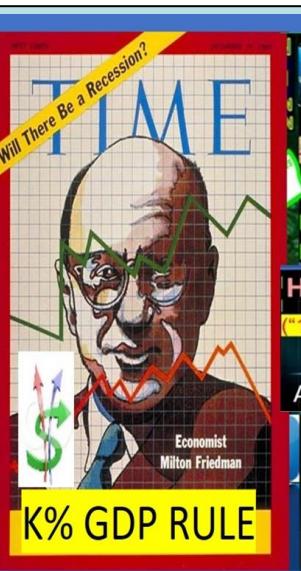
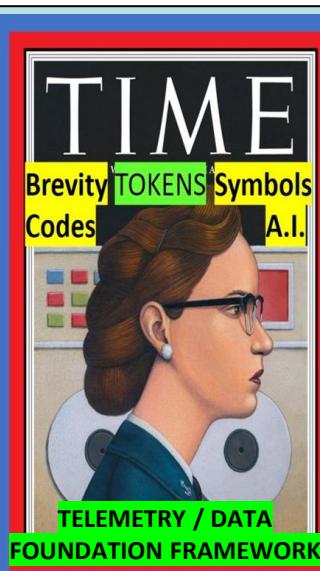
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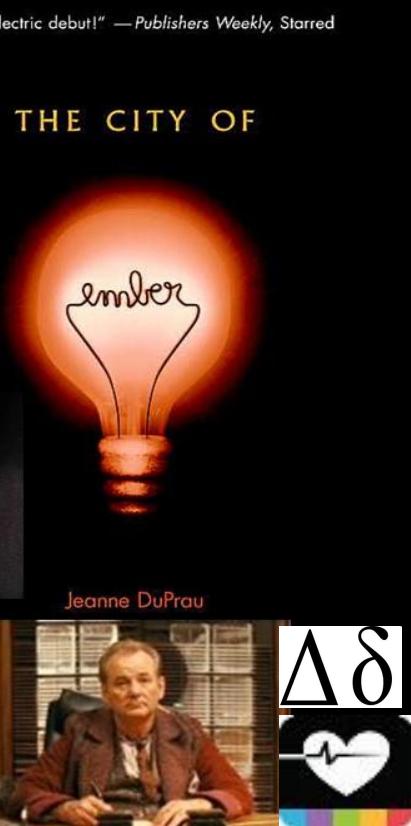
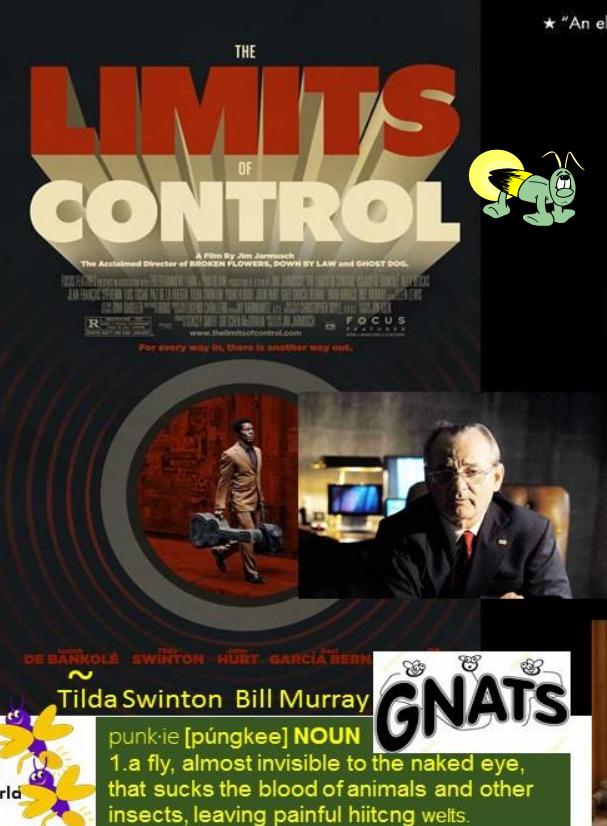
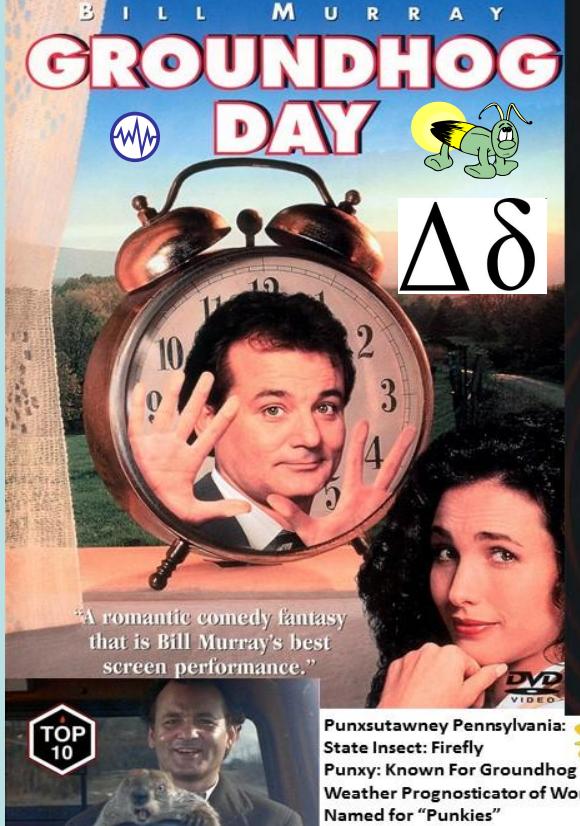
2214



DISNEY'S FANTASIA



UNIVERSAL LAW
CAUSE / EFFECT
ACTION /
INACTION
IF / Then /
or.. ELSE

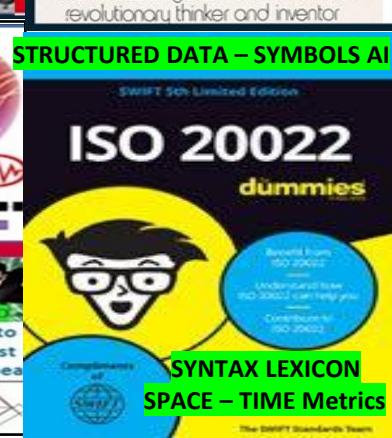
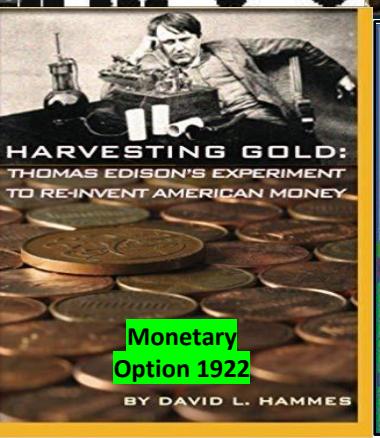
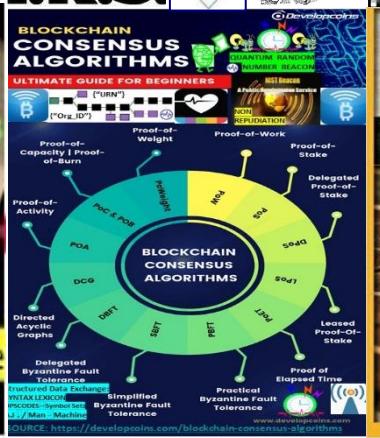
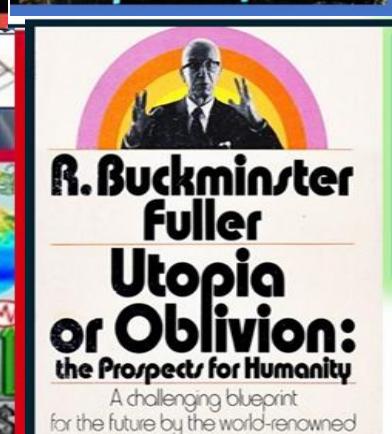
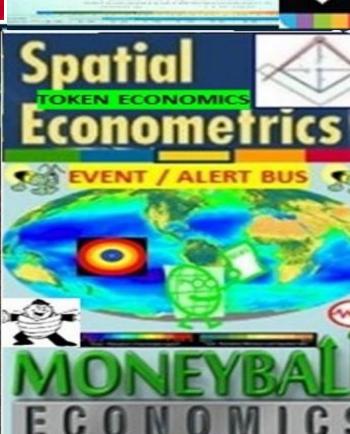
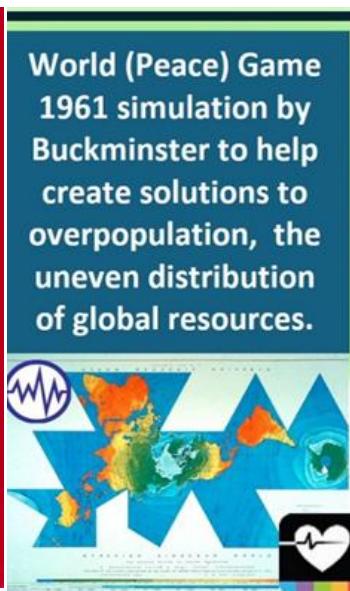
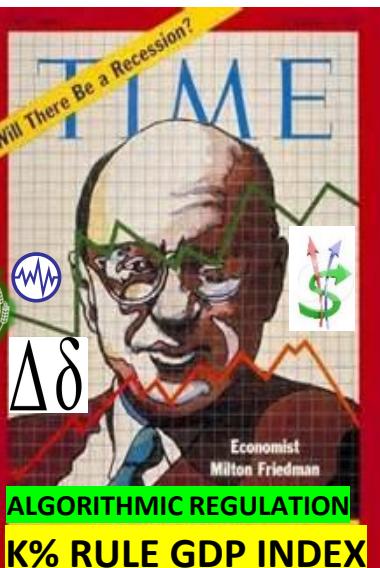
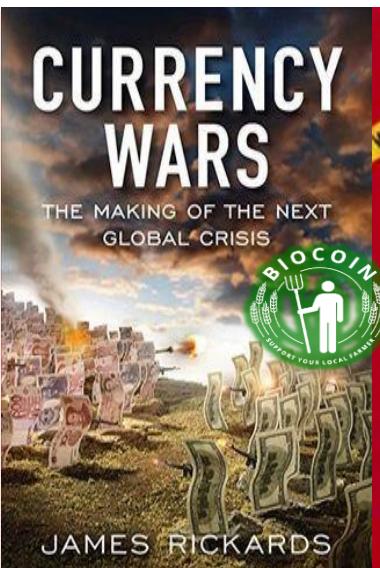


$\Delta\delta$

Punxsutawney Pennsylvania:
State Insect: Firefly
Punxy: Known For Groundhog
Weather Prognosticator of World
Named for "Punkies"



punk·ie [púngkee] **NOUN**
1. a fly, almost invisible to the naked eye, that sucks the blood of animals and other insects, leaving painful hictng welts.





R. Buckminster Fuller Utopia or Oblivion: the Prospects for Humanity

A challenging blueprint for the future by the world-renowned revolutionary thinker and inventor

World (Peace) Game
1961 simulation by Buckminster to help create solutions to overpopulation, the uneven distribution of global resources.



What does your name mean?

Steven + McGee
Intellectual Revolutionary

You have a sharp spirit paired with a strong will. You have the power to change the world with your intelligence!

Feb 10, 1960 Aquarius / Aquarius Rising

The Time Keeper
Borderlands 4

Alice Corp. v. CLS Bank International

573 U.S. 134

S. Ct. 2347

2014

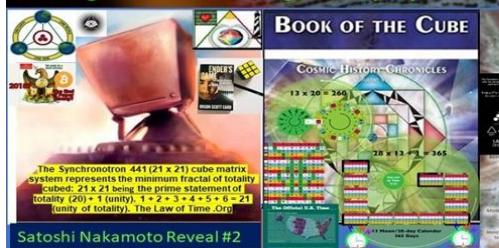


"Claims may not direct towards abstract ideas"

Bloomberg Law:

Crypto Lawsuit Deluge

Has Big Firms Scrambling to Keep Up



11/12/2015

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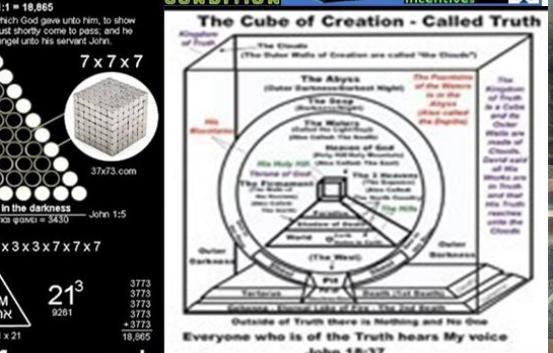
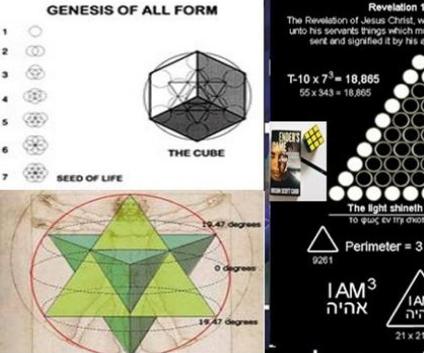
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11/12/2015

Satoshi Nakamoto Reveal #2

"As an avid lover of numerology and astrology, I use both in my day-to-day life. I believe God is the ultimate mathematician, as everything around us can be viewed as numbers" Satoshi Nakamoto White Paper 2008 "The solution we propose begins with a time – stamp server"

The Great Pyramid's slope angles match the angles necessary to perceive a rainbow





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

