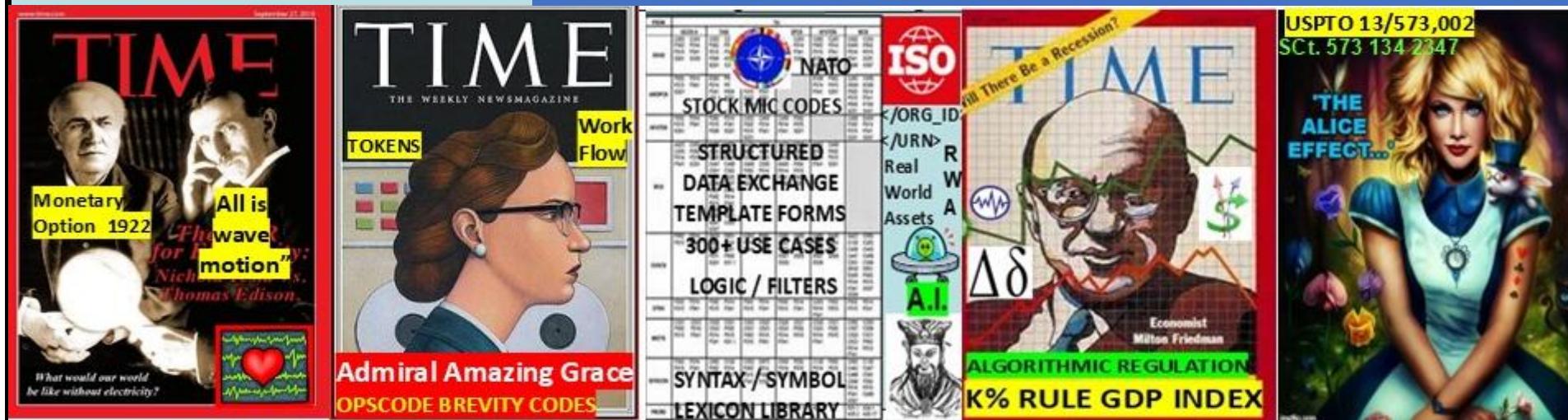


# Beacon Kit: Battlefield Digitization for OOTW

Adaptive Procedural Template  
foundation tech list of OPW Other  
People's Work swords to plowshares  
reuse of battlefield digitization for  
OOTW Operations Other Than War for  
the internet, internet of \$\$\$ money  
OPW Other People's Work treatise list of  
Foundation tech, tools, processes, procedures,  
ideas.. yo improve the use of OPW Other  
People's \$\$\$, time, investments, resources..



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

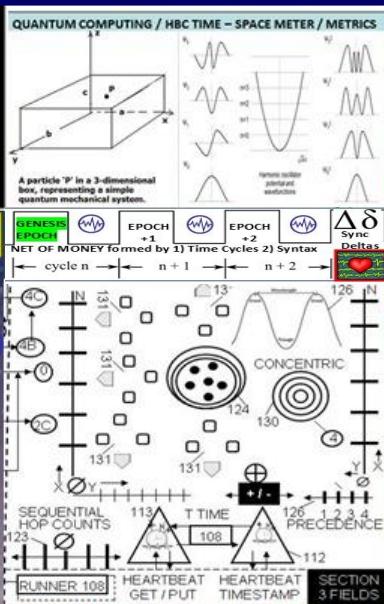
Hashed Timelock Contract (HTLC) / Epoch Sync Deltas  $\Delta\delta$

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 10<sup>th</sup> 1960 & 06:44 AM  $\Delta\delta$

Aquarius

MR MAGOO

Aquarius Rising 144 Degrees

Mystic Yod



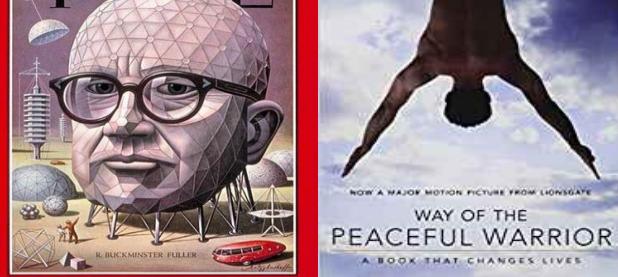
MR MAGOO X 3



ADAPTIVE PROCEDURAL TEMPLATE Foundation

World Game (s) Real QFS Quantum

Financial System QFS

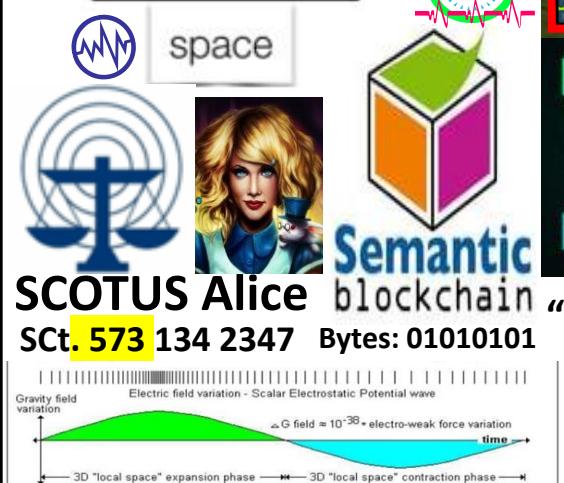
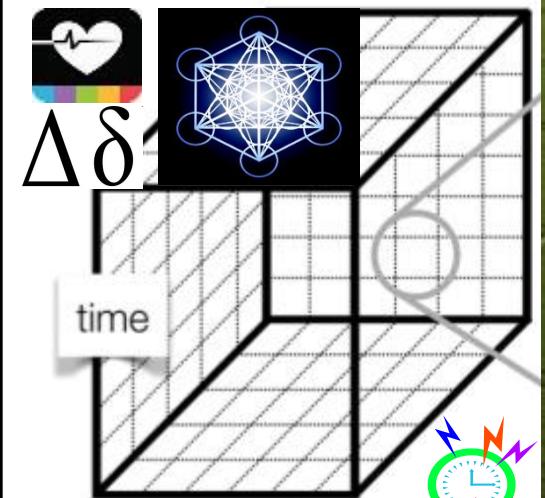


DAN MILLMAN



by HELEN PAUL & BRIDGET MAY O'TOOLE

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

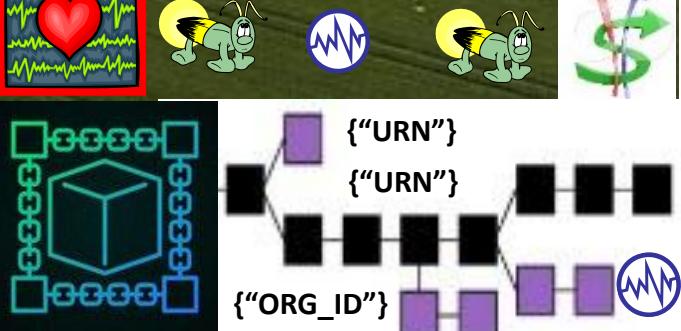
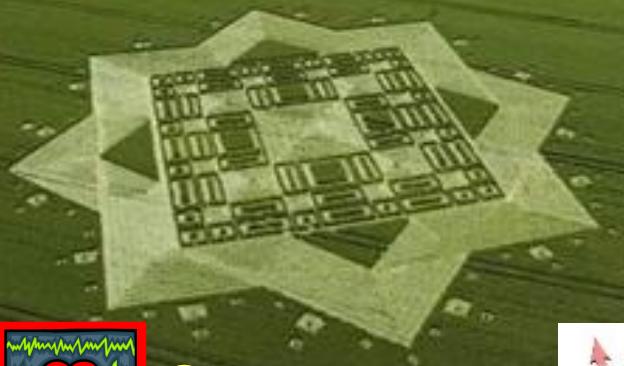


## THE WORLD GAME (S)

Forces of light on earth shall overcome the forces of darkness. Complete spiritual enlightenment on earth will occur.

~ Edgar Cayce

CUBE = SOURCE OF ALL FORM

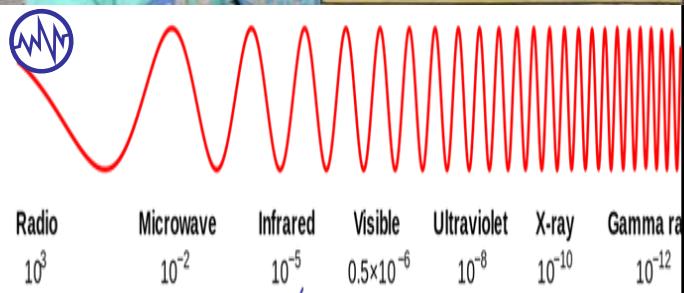
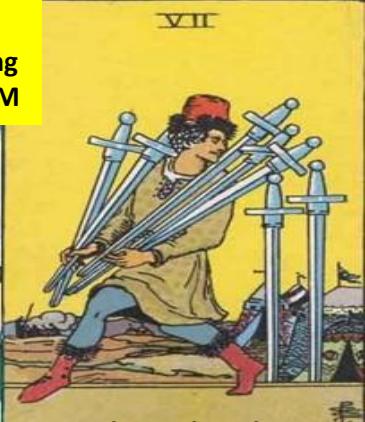


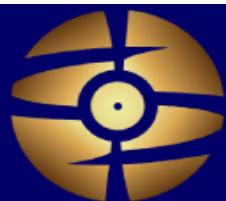
**"BLOCKCHAIN" = TIME CHAIN EPOCHS**

**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

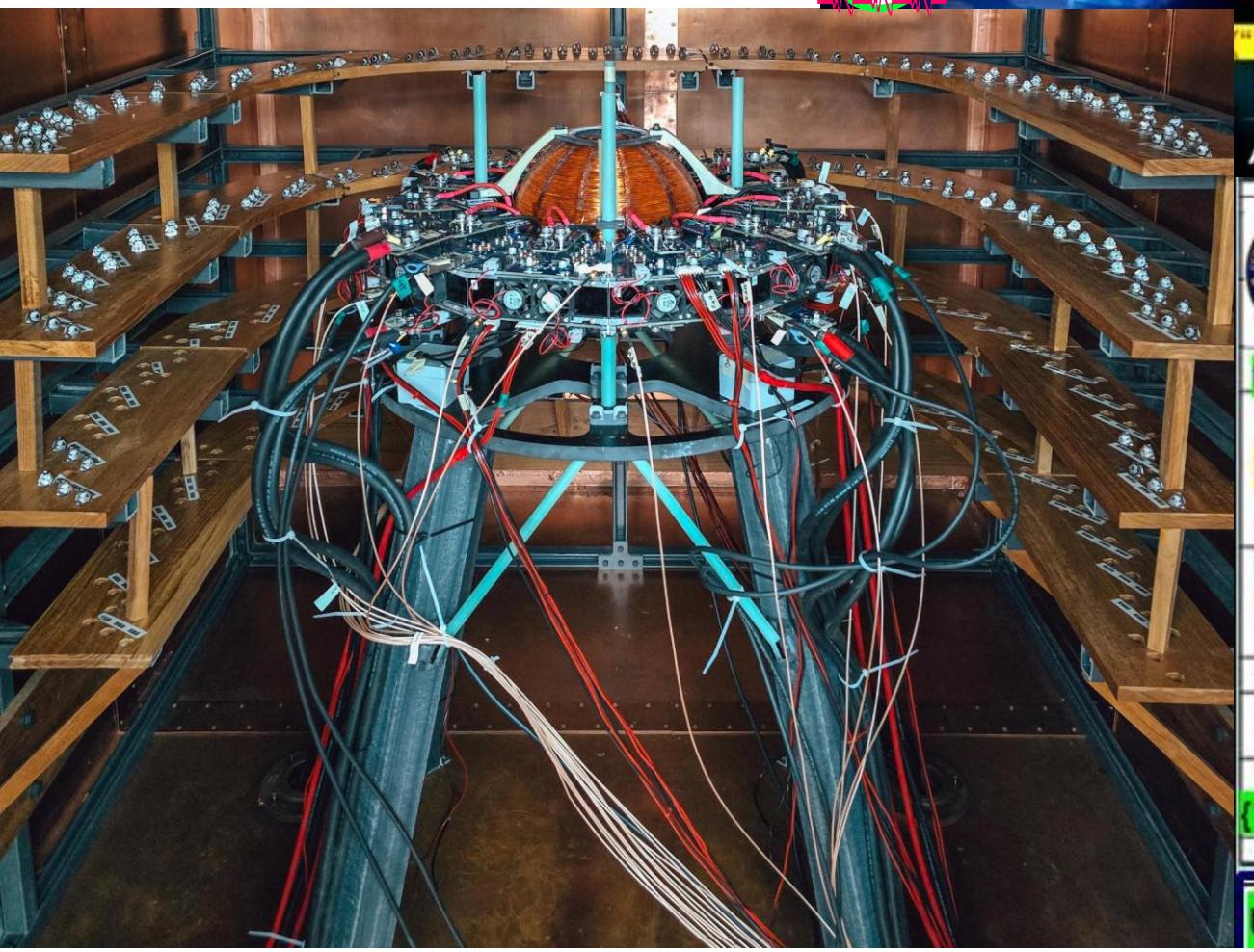
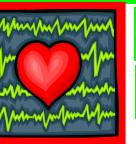




# International Space Federation

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

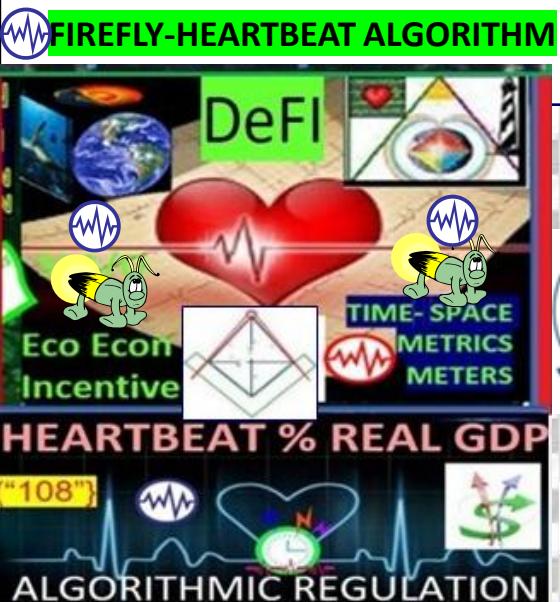
Quantum – DeFi  
System of  
Federated  
Systems



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



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



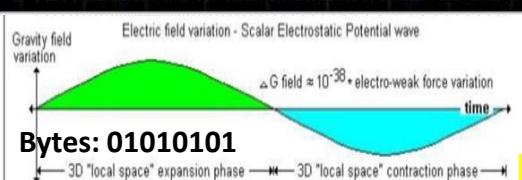
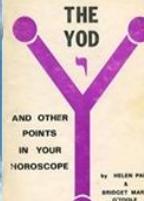
1 EARTH / 1 PEOPLE / 1 TIME



FUTURE MAN

Born: February 10th 1960 & 06:44 AM

Aquarius  
Aquarius Rising  
Mystic Yod



$\Delta\delta$

USPTO 13/573,002 THE HEART BEACON CYCLE  
TIME – SPACE METER, METRICS QFS QUANTUM  
FINANCIAL SYSTEM TECHNOLOGY FRAMEWORK  
NET, NET OF \$\$\$ = TEMPORAL LAYERS  
GENESIS EPOCH, Genesis + 1, 2, 3... N

“ All is energy wave form motion ” Tesla

Hopf Fibration

Sound waves  
(Fermilab)... key  
To quantum system  
Sync, Stochastic  
harmonization



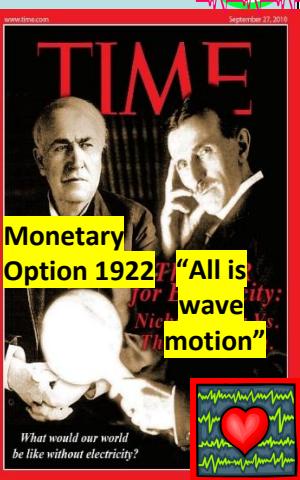
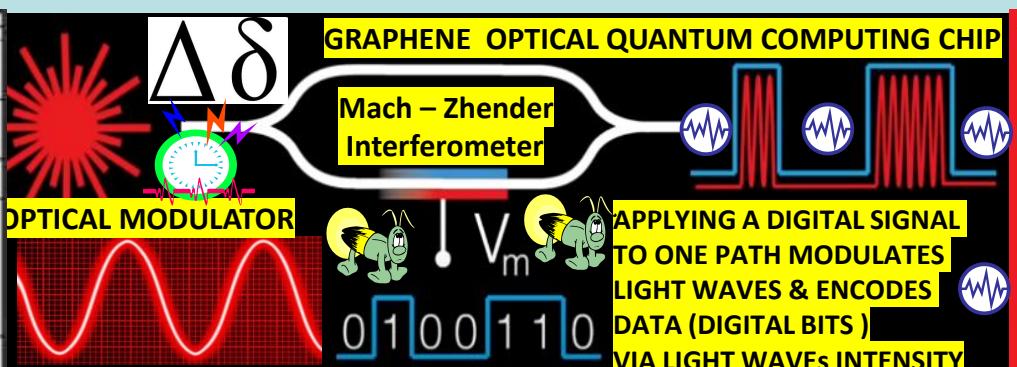
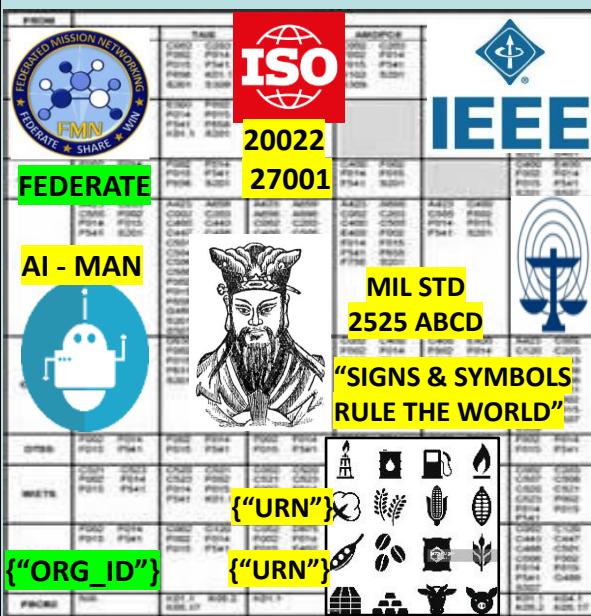
Battlefield Digitization  
Net Enabled Operations  
Swords to Plowshare  
“Last, Least among you”  
Federate and graduate

ALL NET, NET OF \$\$\$  
ARTIFACTS CREATED WITH:  
1. Epoch Time Cycles 2 Syntax

>1 DAVIDs  
>1 Goliaths  
> 1 TEAMS



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



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

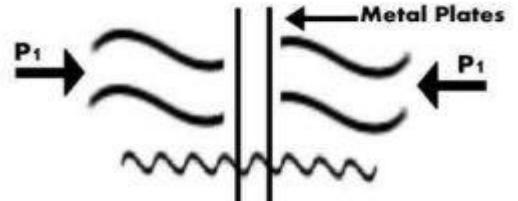
**QUOTE:** "As in nature, all is ebb and tide, all is wave motion, so in all branches of industry, alternating currents, electric wave motion will have sway." "All is wave form motion" Nikola Tesla

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



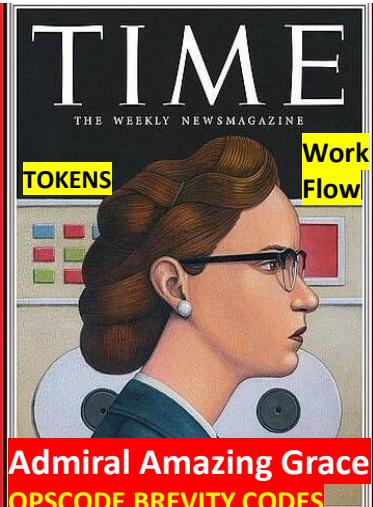
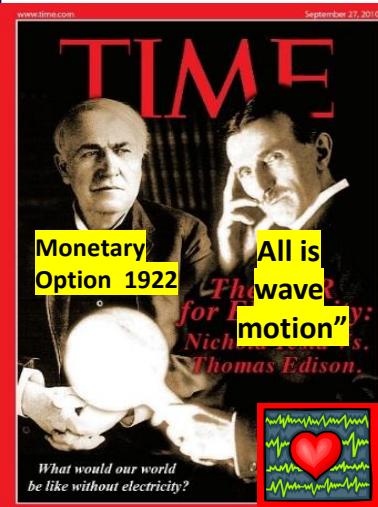
$P_1$  = PRESSURE FROM EXCLUDED WAVELENGTHS

ENORMOUS ENERGY DENSITY:  
 $10^{24}$  to  $10^{58}$  JOULES/m<sup>3</sup>

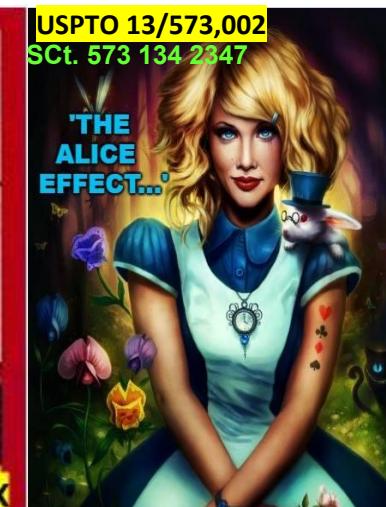
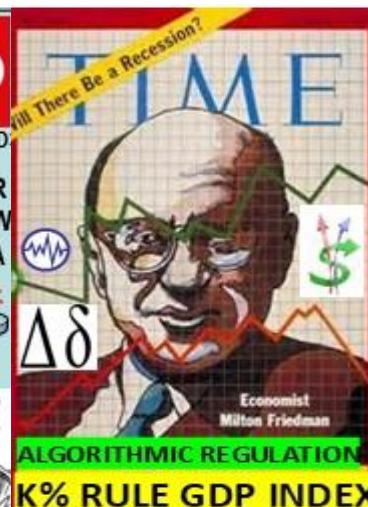
THE CASIMIR EFFECT  
ON METAL PLATES IN A VACUUM

# 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

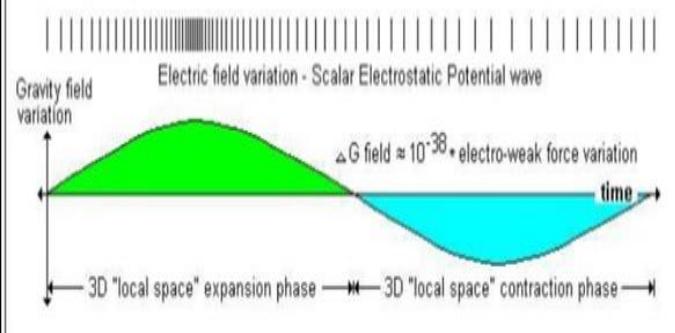


|                          |                   |
|--------------------------|-------------------|
| NATO                     | ISO               |
| STOCK MIC CODES          | </ORG_ID>         |
| STRUCTURED DATA EXCHANGE | </URN>            |
| TEMPLATE FORMS           | R                 |
| 300+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



# 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

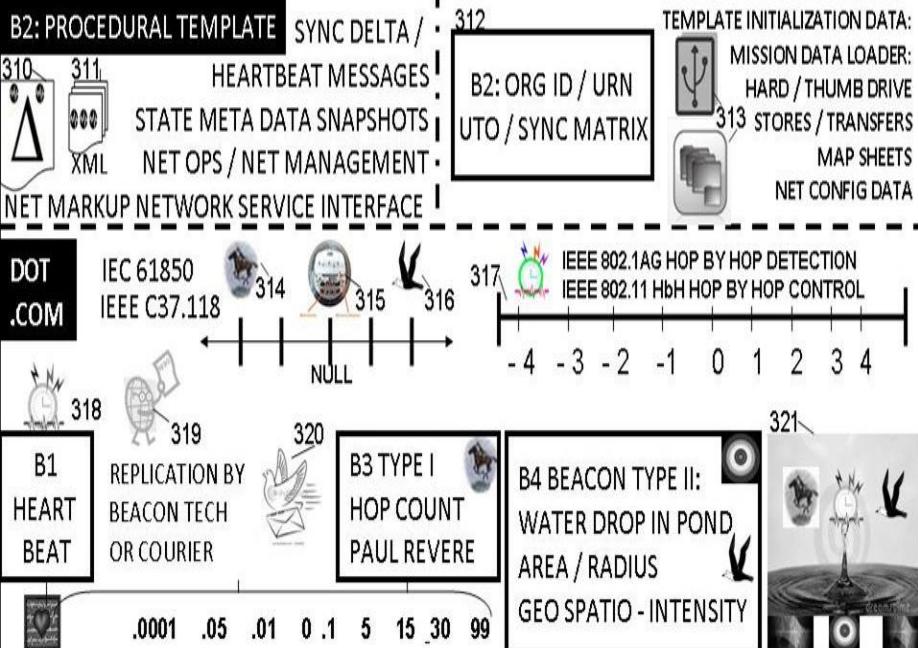
GET / PUT

HEARTBEAT

TIMESTAMP

SECTION

3 FIELDS



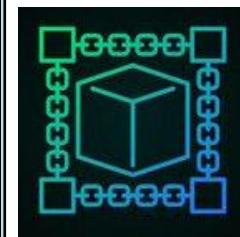
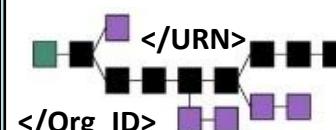
# BLOCKCHAIN = ABSTRACTION

**TRUTH** = Blockchain Quad-lemma

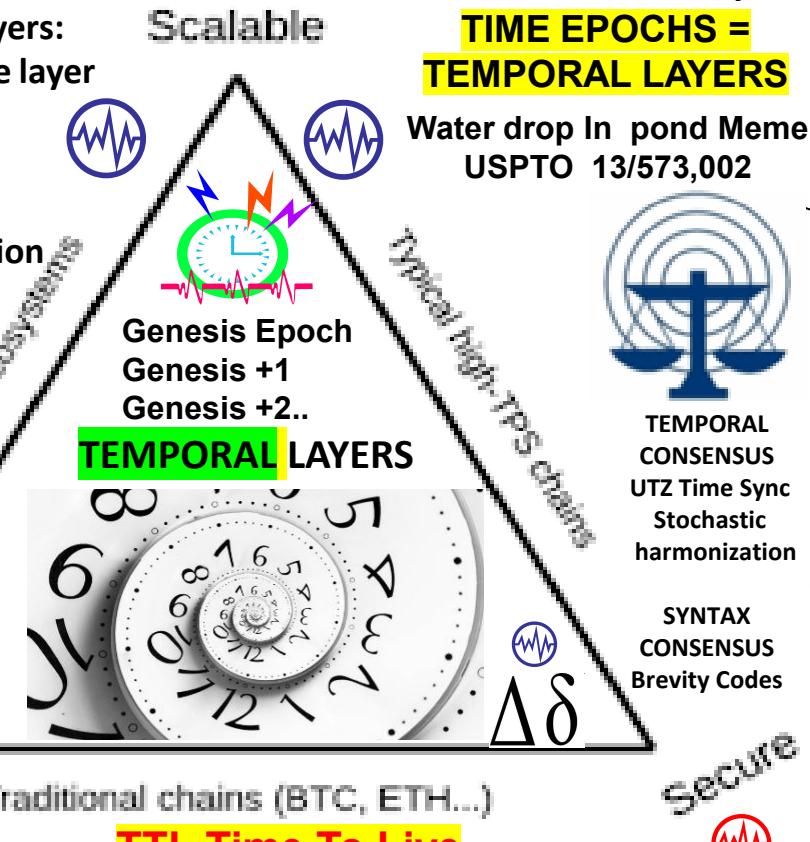
No Layers L0, L1, L2...  
only GENESIS EPOCH,  
Epoch time cycles,  
intervals, cycles

5 five blockchain tech layers:

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



Decentralized  
START

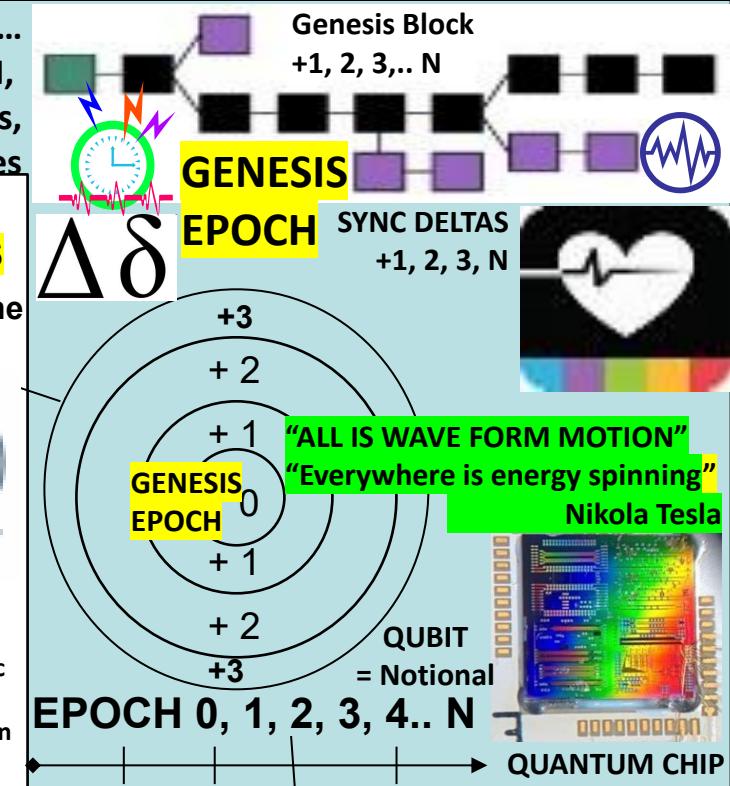


Blockchain = series of hashed blocks carrying transactional records. The first block of the blockchain is the **Genesis block**. After that, every new block added to the blockchain is linked to the Genesis block through a (temporal) iterative process.

**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 |



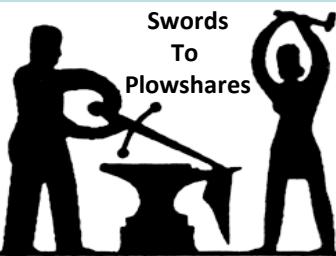
THESIS: All things net, net of programmable money are formed using:

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



“Build a new model” Standing on the shoulders of giants





UTOPIA ?  $\Delta\delta$  OBLIVION ?

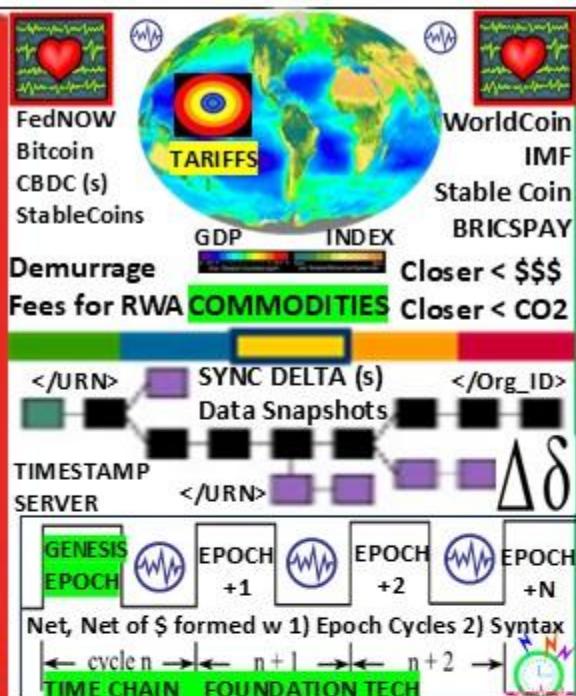
TradeFi TRC Trade Reference Currency

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

CONTRIBUTIONS TO STATISTICS

Price Indexes in Time and Space Methods and Practice SchellingPoint



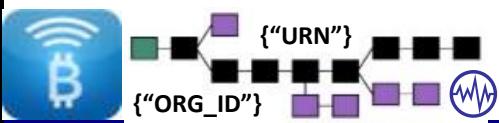
DeFI TIME- SPACE METRICS METERS Eco Econ Incentives HEARTBEAT % REAL GDP ("108") ALGORITHMIC REGULATION

# 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

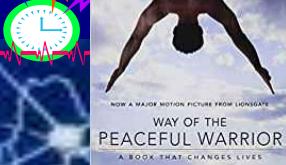
Reuse adaptive procedural template guides from Battlefield Digitization among a federated systems of systems improving synergy, synchronicity to achieve shared sustainable goals



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



OPERATIONS  
OTHER  
THAN  
WAR



## Beacon Communities

Vernetzte Operationsführung

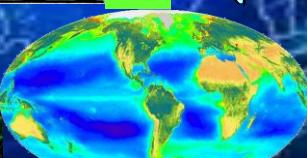


Proximity Beacons



JAEGERS

Closer < \$\$\$ < FUEL

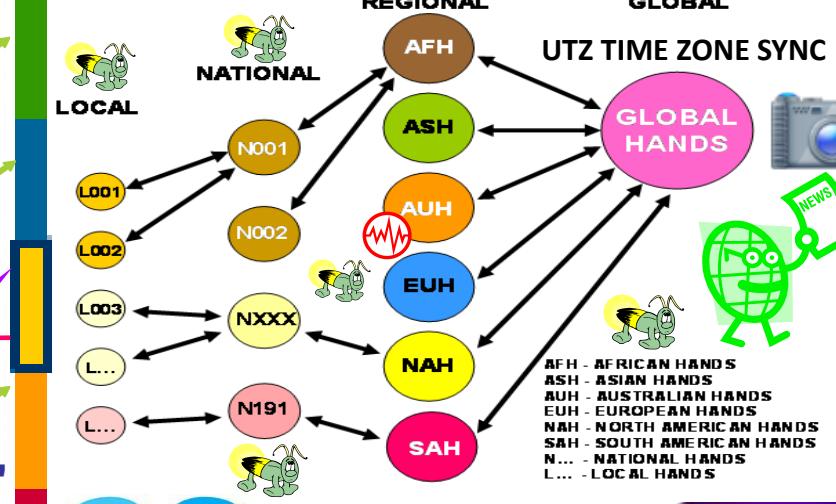


FREELY  
HEARTBEAT  
ALGORITHM  
EVENT / ALERT Flash Heartbeat Message Bus

KAIJU



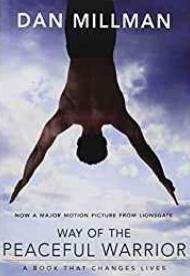
SYSTEM  
Of  
SYSTEMS



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



OFF SHORE  
OUTER BANKS

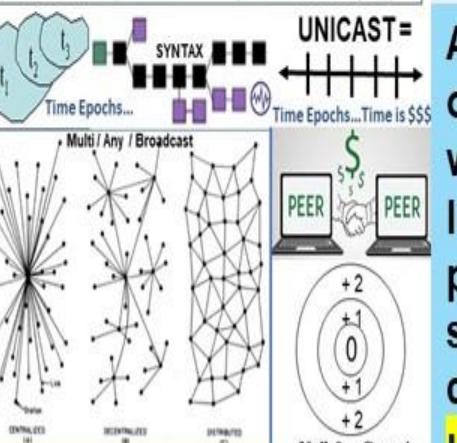
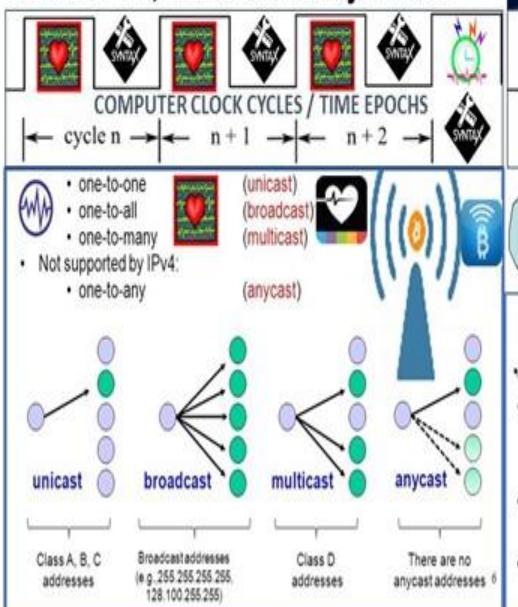
# Foundation Technology Trinity:

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

THESIS: 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...

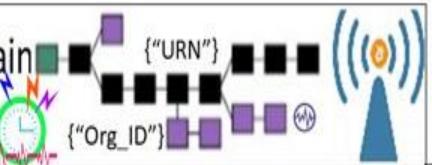


All things internet, programmable net of money are formed using:  
 1) Epoch Time Cycles to 2) process (not) syntax as instructions

## Epoch Time Cycles / Syntax

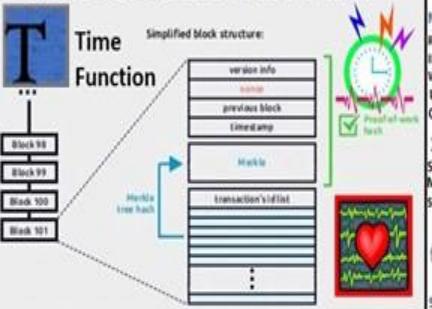
Internet / Internet of Money building blocks

Satoshi Bitcoin Blockchain  
Time Stamp Server



TIME Block chain TIME

What does a block look like?



GENESIS TIME STAMP / Genesis Block

Header → Contains service information (version info, nonce, previous block id and timestamp).  
Metadata → A summary field from the block's transaction fields.

Transaction's id list → Set of transaction's identification hashes, that was included into the block's merkle tree

## Semantic blockchain

BASEBALL "DIAMOND"  
A diamond is a square is a block in 3D

2nd Base  
The solution we propose begins with a TIME STAMP SERVER

90 feet  
Blockchain BLOCK in 3D = CUBE

Cube has Length, Depth, Height, Volume

3rd Base  
STATISTICIAN Metrics, Meters

Universal HEARTBEAT MESSAGE EVENT BUS

90 feet  
SETTLEMENTS / EXCHANGES + TAXABLE EVENTS AGREE TO PROPERTY

IRS #421  
FLASH MESSAGE EVENT BUS

State Meta Data Snapshots Survey Point

90 feet  
MICRO CYCLES

SETTLEMENTS / EXCHANGES + TAXABLE EVENTS AGREE TO PROPERTY

IRS #421  
FLASH MESSAGE EVENT BUS

90 feet  
TIME STAMP SERVER

TIME Δδ

epoch

epoch

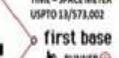
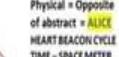
epoch

epoch

epoch

epoch

| OPSCODE | Brevity     | Codes | Mapped |
|---------|-------------|-------|--------|
| To      | Symbol Sets |       |        |



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**



217

MACRO CYCLES



CLOUD COMPUTING

.0001  
MICRO CYCLES  
216

218

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**



TF BIZ

214

SYNC DELTA  
UTO 213

LEADER'S INTENT DECISIONS



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

212

211

210

SNAPSHOTS

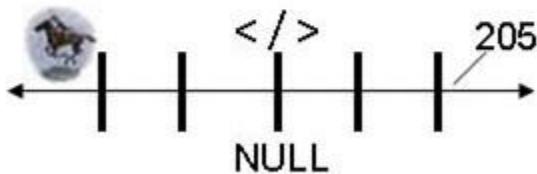


203

**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



206



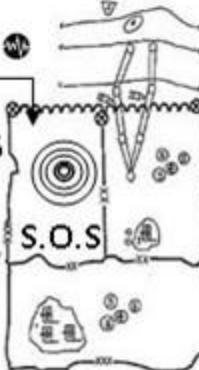
207

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

208



APPLIQUE' OVERLAYS

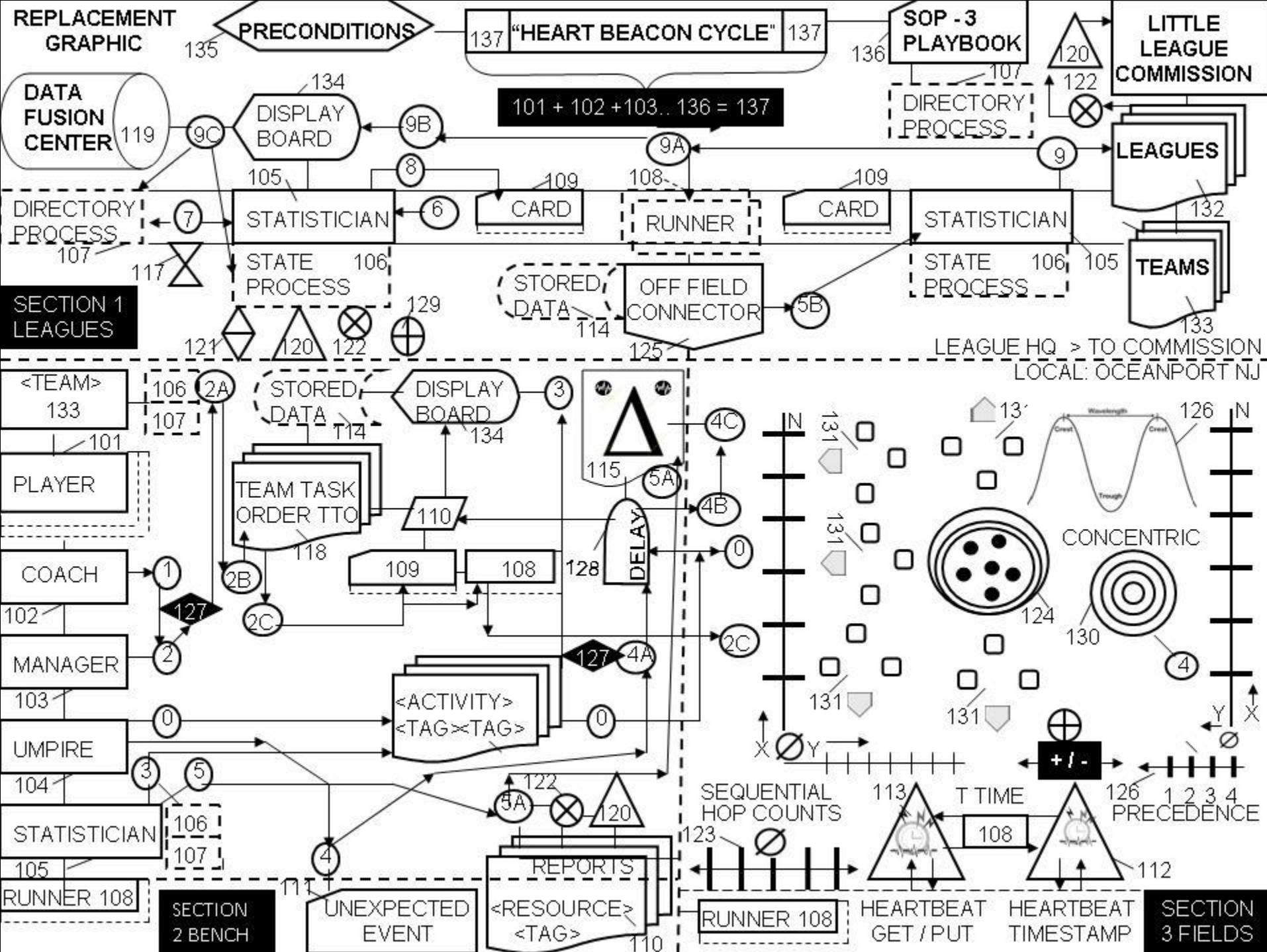


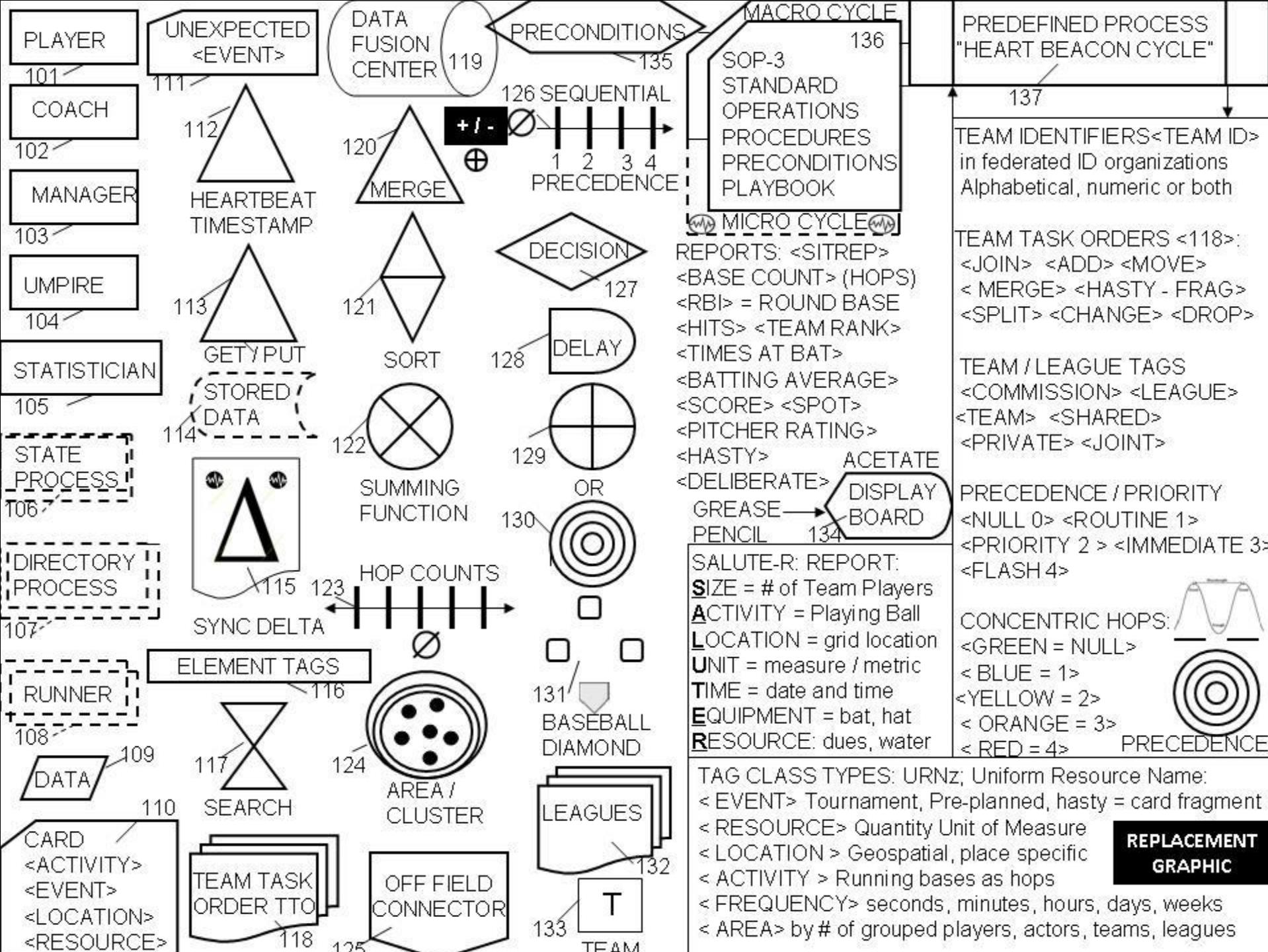
209

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

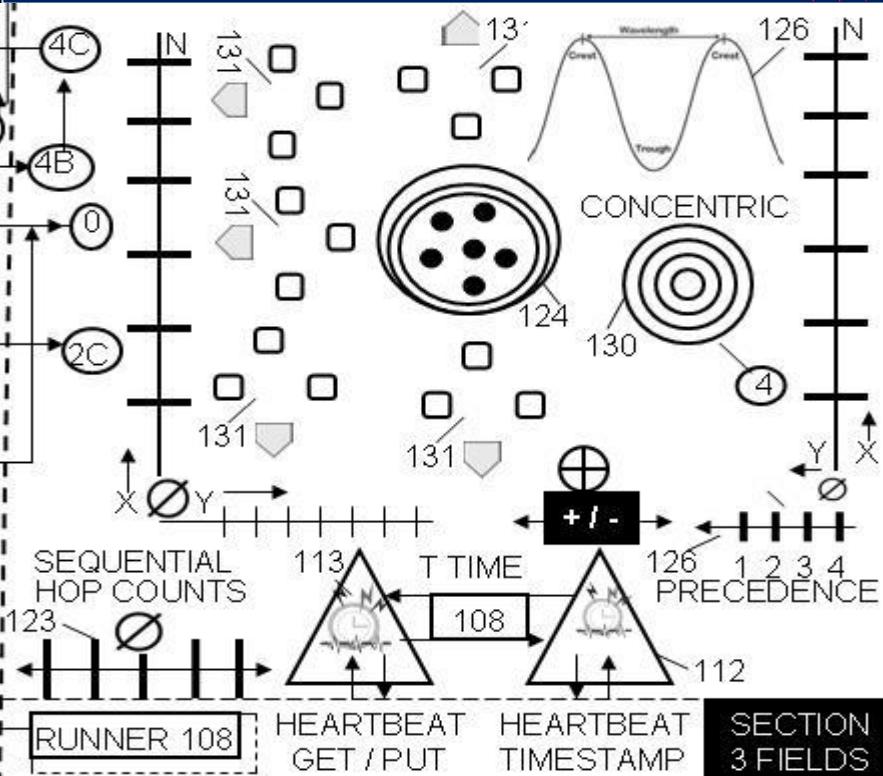
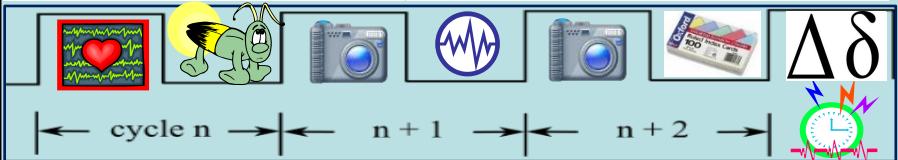
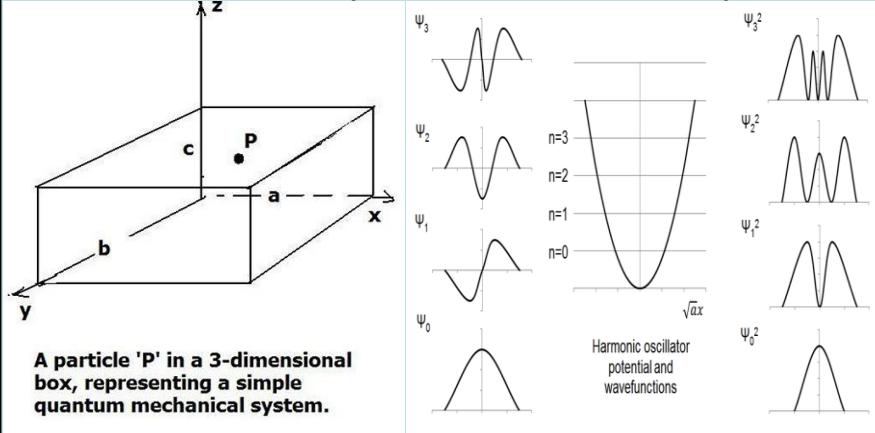
204

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





## 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

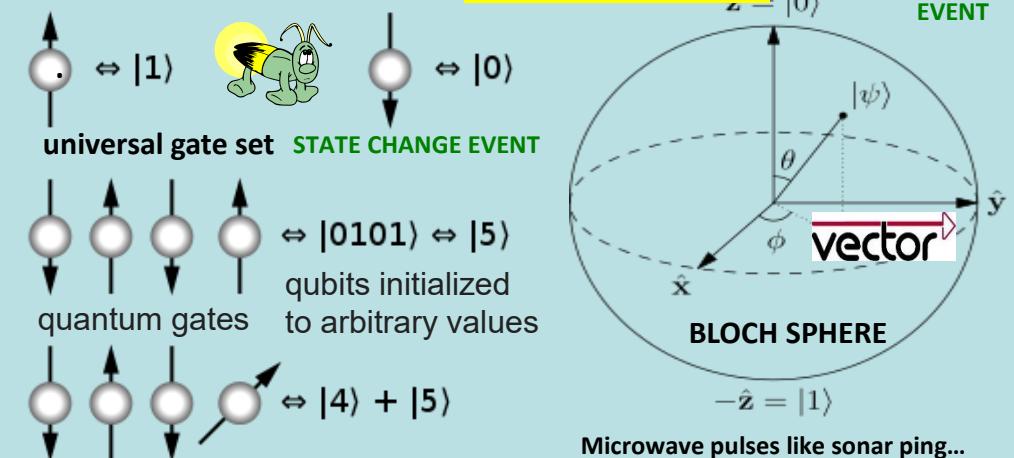
Vertical polarization vectors from a known point 0 null Sonar Hop meme



particle representation / samples

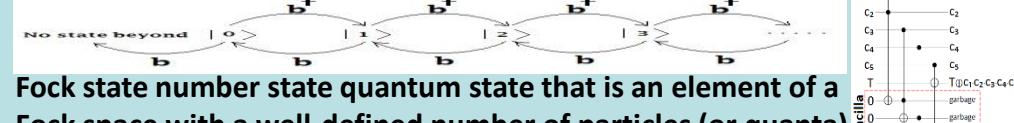


Instead of each bit having two potential states — on or off — a quantum bit or qubit has three. It can be on, off, or both, and you only know which one it is once you look at it. How can you tell if a bit of data is correct if looking at it might change its state?

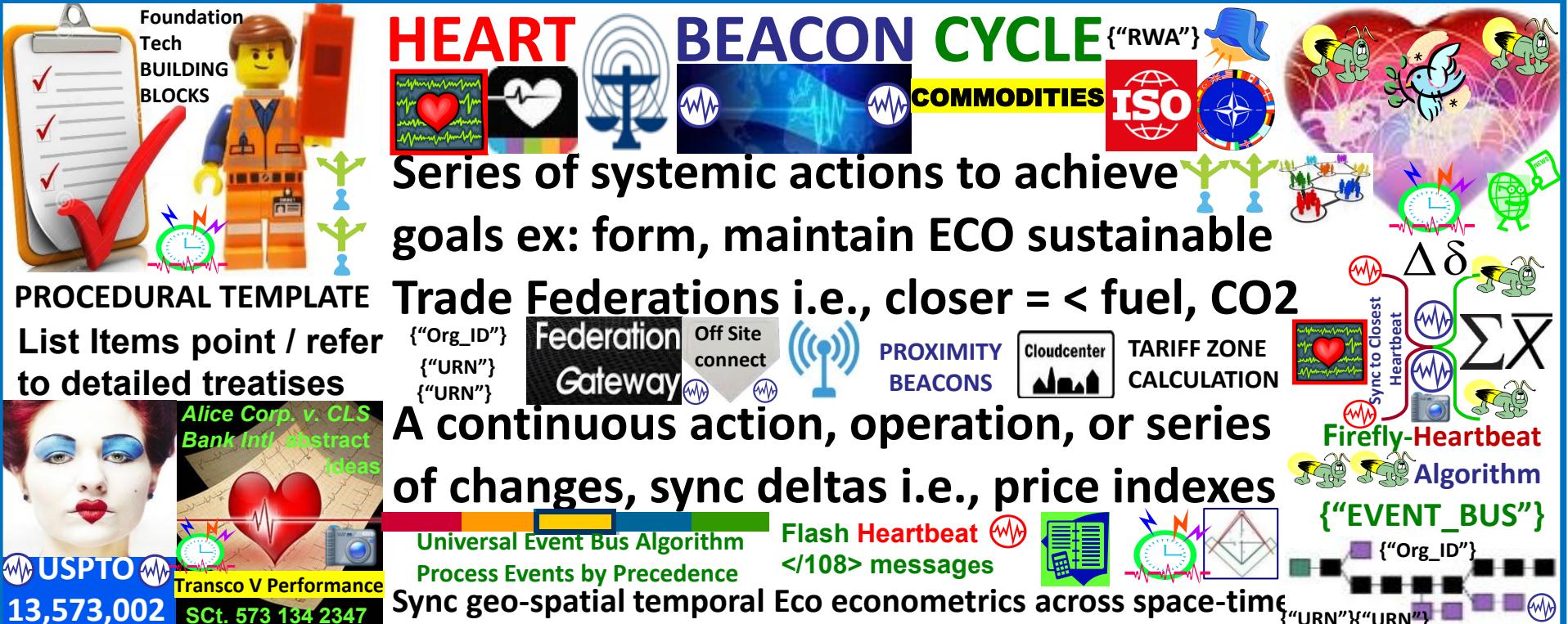


qubits can be in a superposition of all the classically allowed states

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)



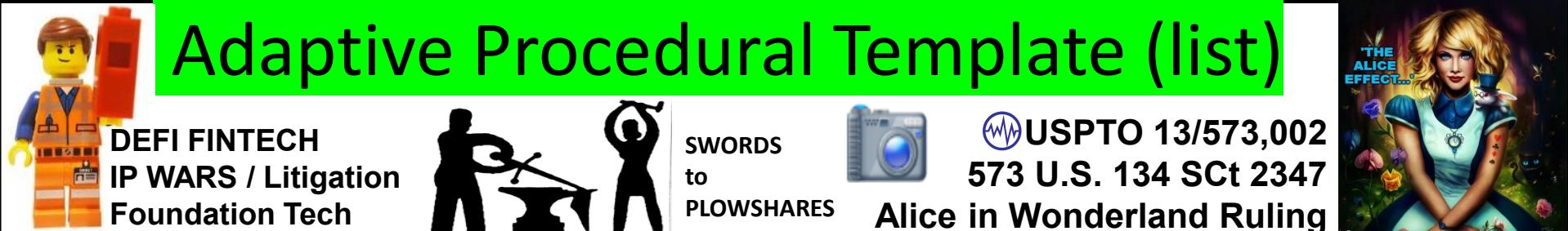
MINIMUM LIST OF COMPONENTS / BUILDING BLOCKS, PROCESSES, PROCEDURES... AGREED ON BY TRADE FEDERATIONS TO ACHIEVE DAO DISTRIBUTED AUTONOMOUS ORGANIZATIONS CONSENSUS

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





DEFI FINTECH  
IP WARS / Litigation  
Foundation Tech



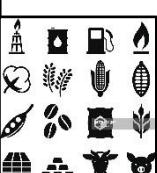
SWORDS  
to  
PLOWSHARES



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



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



SYNC DELTA  
DATA SNAPSHOTS

INFOCON  
5 4 3 2 1  
INFORMATION  
CONDITION

Federation  
Gateway

In the beginning (of time)..  
There was the word (syntax)



HFT START, STOP, Time to LIVE



FFIRNS / FFUDNS



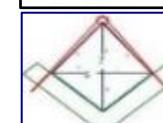
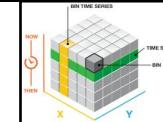
CBDC STABLE COINS

E \$ € ¥

currency index



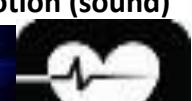
COMMODITIES



MEMO #1421



Net, Net of \$\$\$ money consists:  
1) Epoch Time Cycles  
2) Syntax used / not in epochs  
3) Wave form motion (sound)



Structured Data Exchange

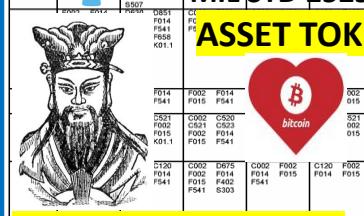


SYNTAX LEXICON  
ROSETTA STONE

Coder's Guide lexicon.

STRUCTURED  
<CONTENT>  
EXCHANGE  
TEMPLATES

MIL STD 2525ABC



"SYMBOLS RULE THE WORLD"

11.8 - Kinematic  
11.8.1 - Pos  
11.8.1.1 -  
11.8.1 -

XBRL™  
THE BUSINESS REPORTING STANDARD  
BINARY XML  
Decision

1.1 - Observers  
1.2.3 - Predicted  
1.2.4 - Smoothed Data  
3 - Position  
1.3.1 - Bearing Angle  
1.3.2 - Location; 2D Hor  
1.3.3 - Vertical  
4 - Velocity

1 - Horizontal  
2 - Vertical  
TOSCA  
Confidence  
Bearing Angle  
Bearing Angle Rate  
Covariance Matrix

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>



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" "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

INTEREST

0 ORGID 7 /M /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 OPSCOSE MAPPET TO SYMBOLS



INDEX REFERENCE #:

M015 STATUS :

EFFECTIVE: 14-DEC-99



PURCHASE CODES



FEDERATED PEGS



{"ASSET\_CLASS"}



{"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

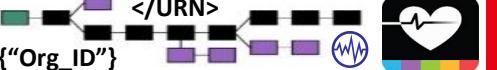


| FROM  | TO  |   |  |  |   | CODE GUIDE  |                                    |         |                    |
|---|---|---|--|--|---|---|------------------------------------|---------|--------------------|
|   | GCCS-A  | TAIS  | ASAS   | AMDPCS   | AFATDS  | MCS   |                                    |         |                    |
| ASAS  | C002 C203<br>F002 F014<br>F015 F541<br>S201 S309                    | C002 C203   | C002 C203  | C002 C203  | C002 C203<br>F014 F541<br>S305 S309           | C002 C203<br>E400 F002<br>F014 F015<br>F541 S201<br>S309 S507 |                                    |         |                    |
| TOKENS  | OPSCODE<br>BREVITY<br>CODES   | <b>USMTF / XML MTF FORMATTED MESSAGE CATALOG = 300 + messages</b><br>info exchange sets using common,<br><b>CONSENSUS Message Text Formats</b><br>MTFs. MTFs specify </CONTENT> / info agreed by group consensus presenting information in a logical, well specified unambiguous layout resulting in a <b>highly efficient info payload to overhead ratio</b> |  |  |   |   |                                    |         |                    |
| AMDPCS  | F002 F014<br>F015 F541<br>S201                                      | F002<br>F015<br>S201  | C203 C400<br>D630 E500<br>F002 F014  | A.I.   | INFOCON<br>5 4 3 2 1<br>INFORMATION CONDITION |   |                                    |         |                    |
| AFATDS  | F002 F014<br>F015 F541<br>S201                                      | A423 A659<br>C002 C203<br>C400 C443<br>C447 C488<br>C501 C503<br>C504 C505<br>C506 C507<br>C508 E400<br>F002 F014<br>F015 F541<br>F658 F756<br>G489 K01.1<br>S201 S303<br>S507  | A423 A659<br>C002 C203<br>C400 C443<br>C447 C488<br>C501 C503<br>C504 C505<br>C506 C507<br>C508 E400<br>F002 F014<br>F015 F541<br>F658 F756<br>G489 K01.1<br>S201 S303<br>S507 | Rosetta Stone<br>Syntax Lexicon<br>Coder's Guide | A423 C002 C203<br>C505 F014<br>F541 S201      | M2M<br>"SYMBOLS RULE THE WORLD"                               |                                    |         |                    |
| MCS   | NEW<br>SIOP<br>FMN  | ASSET TOKENS<br>Token Economy   |  |  |   | "SYMBOLS RULE THE WORLD"                                      |                                    |         |                    |
|   |   |   |  |  |   |   |                                    |         |                    |
| <b>MESSAGE CATALOG</b><br><b>300 + Use Cases</b>                  |   |   |  |  |   |   |                                    |         |                    |
| <b>Data Elements:</b> entity, attribute, relationship equivalents |   |   |  |  |   |   |                                    |         |                    |
| <b>HEARTBEAT MESSAGE =</b><br><b>K00.99 &lt;/108&gt; {"108"}</b>  |   |   |  |  |   |   |                                    |         |                    |
| <b>Information Categories and Examples</b>                        |   |   |  |  |   |   |                                    |         |                    |
| Object Categories   | Examples  | Location  | Movement   | Identify   | Status  | Activity  | Intent                             |         |                    |
| OOB   | SYNTAX LEXICON  | STRUCTURED DATA<br>lat/long   | EXCHANGE<br>spd/hdg  | Message<br>country / alliance, type/class        | Sets<br>readiness                             | COA<br>targeting, reconning                                   | {"Java JS"}                        |         |                    |
| Infrastructure  | Comm, power, transportation, water/sewer                            | Machine Trust Language MTL<br>network, grid   | throughput, flow rates,  | name, part-of relationships                      | BDA, op people                                | repair, broadcasts  | YAML expansion                     |         |                    |
| Sociological  | Culture, religion, economic, ethnic, government, history, languages | temples, historic structures  | E-R Model  | Class Diagram                                    | Relational Database                           | Object DBMS   | XML DTD / Schema                   | TADILs  | MTF                |
| Geophysical   | Terrain, weather, climatology, oceanography, astrometry             | feature lat/long, alt/dpth  | Entity   | Class  | Table   | Class   | Element                            | Message | Message            |
|   |   |   | Attribute  | Attribute  | Field / Column                                | Attribute   | Child Element or Element Attribute | DFI     | FFIRN / FFN / FUDN |
|   |   |   | Domain Value   | PURCHASE CODES                                   | Instance, Value                               |   |                                    | DUI     | FUD                |
|   |   |   |  |  |   |   |                                    |         |                    |

| Information Elements Roles  |                                |                        |
|---|--------------------------------|------------------------|
| • COI Determination Org Interaction   | W W                            |                        |
| • Search and Discovery  | W W                            |                        |
| • Ontologies STANDARDS  | W W                            |                        |
| • Taxonomies REFERENCE  | W W                            |                        |
| • Metadata Attributes / Filters   | W W                            |                        |
| ('Org_ID") {"URN"} </URN></URN> FILTERS   | W W                            |                        |
| FFUDN: Field Format Unit Designator #   | W W                            |                        |
| FFIRN Field Format Index Reference #  | W W                            |                        |
| Structured military messaging ID's messages, message sets, data element, symbol fields </108> | W W                            |                        |
| BY Form Field Position & NUMBER   | W W                            |                        |
| {"108"} NDN   | W W                            |                        |
| Firefly-Heartbeat Flash Messages  | W W                            |                        |
| PROCESS MESSAGE BY PRECEDENCE   | W W                            |                        |
| UNIVERSAL EVENT / ALERT MESSAGE BUS   | W W                            |                        |
| OPERATIONAL NODES / ACTIVITIES  |                                |                        |
| DATA  | SYSTEM FUNCTIONS               | PERFORMANCE            |
| 11.4 - Classification   | 11.8 - Kinematics              |                        |
| 11.4.1 - Category   | 11.8.1 - Pos / Vel / Acc (PVA) |                        |
| 11.4.1.1 - Confidence Level   | 11.8.1.1 - Acceleration        |                        |
| 11.4.1.1.1 - Angular  | 11.8.1.1.1 - Angular           |                        |
| 11.4.1.2 - Estimate Type  | 11.8.1.2 - Linear              |                        |
| 11.4.1.2.1 - Alternative  | 11.8.2 - Estimate Type         |                        |
| 11.4.1.2.2 - Evaluated D  | 11.2.1 - Estimated             |                        |
| 11.4.1.3 - Value  | 11.2.2 - Observed              |                        |
|   | PURCHASE CODES                 | 11.2.3 - Predicted     |
|   |                                | 11.2.4 - Smoothed Data |
| SYMBOL  | Friend                         | Neutral                |
| 2525C   | Partner                        | Hostile                |
|   |                                | Competitor             |
|   |                                | D                      |
|   |                                | 4 - Velocity           |
|   |                                | 1.4.1 - Horizontal     |
|   |                                | 1.4.2 - Vertical       |
|   |                                | VA Confidence          |
|   |                                | 1 - Bearing Angle      |
|   |                                | 2 - Bearing Angle Rate |
|   |                                | 3 - Covariance Matrix  |



# MIL STD 2525A, B, C, D



20022

STRUCTURED  
DATA  
EXCHANGE  
SYNTAX LEXICON  
ROSETTA STONE

Coder's Guide

lexicon

| STRUCTURED<br><CONTENT><br>EXCHANGE<br>TEMPLATES |  |
|--|--|
| MIL  | STD 2525ABC  |
| MIL  | ASSET TOKENS   |
| MIL  | "SYMBOLS RULE THE WORLD"   |
| MIL  | 11.8 - Kinematics<br>11.8.1 - Pos.<br>11.8.1.1 - 11.8.1.1 - Vertical<br>11.8.1.2 - Horizontal<br>11.8.1.3 - Vertical |

STRATML

XBRL

XAML

UBL

TOSCA

YAML

SYMBOLS

Friend

Neutral

Hostile

DICAL EVAC &amp; HOSPITALISATION

Partner

Competitor

- MILITARY OPERATIONS

TOKENIZED ECONOMY BREVITY CODE OPSCOSE MAPPE TO SYMBOLS

Patent Application 9/11 2003: Method to commercialize structured military messaging

## DoD Systems of Systems Engineering Structured Data Exchange MIL Standards / ISO Standards

### BREVITY OPSCODES MAPPED TO SYMBOLS, SYMBOL SETS FOR A.I. ARTIFICIAL INTELLIGENCE MAN – MACHINE INTERFACE

#### STANDARD, CONSISTENT SYMBOLS



STRATML

XBRL

XAML

UBL

TOSCA

YAML

SYMBOLS

Friend

Neutral

Hostile

DICAL EVAC &amp; HOSPITALISATION

Partner

Competitor

- MILITARY OPERATIONS

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 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



{\"URN\"} {\"URN\"} {\"TRANSACTIONID\"}

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

SIOPI OUT MSGREF 5 /M /M // (NU) REFERENCED MESSAGE

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

O ORIGID 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

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

STOCK NDN NAMED DATA EXCHANGE NETWORKING

MIC CODES PRECEDENCE PROCESSING

FILTERS BLOCKTIME ARBITRAGE ERLANG TIME EQUATIONS

SYMBOLS Friend Neutral Hostile DICAL EVAC & HOSPITALISATION

Partner Partner Competitor - MILITARY OPERATIONS

TOKENIZED ECONOMY BREVITY CODE OPSCOSE MAPPE TO SYMBOLS

Encyclopedia Britannica:

**"Language is a SYSTEM of SIGNS having meaning by convention. In this sense, language need not be confined to the spoken word".**



"SIGNS AND SYMBOLS RULE THE WORLD, NOT WORDS OR LAWS"

CONFUCIOUS



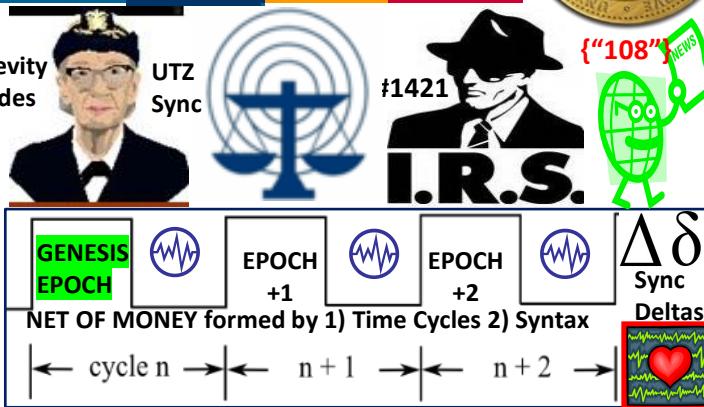
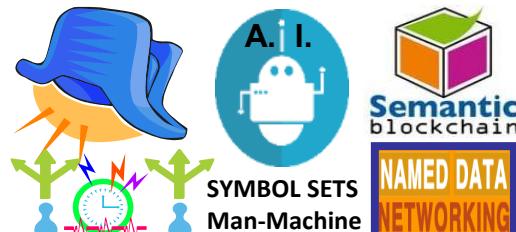
# World Game Great Reset

## 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 =

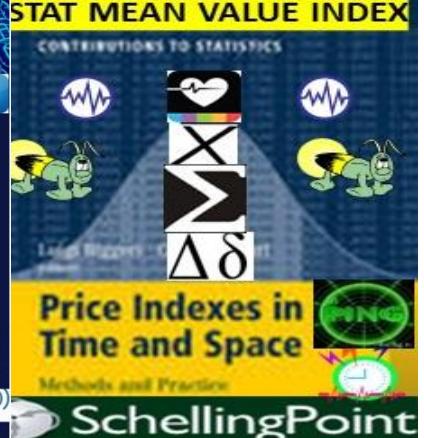
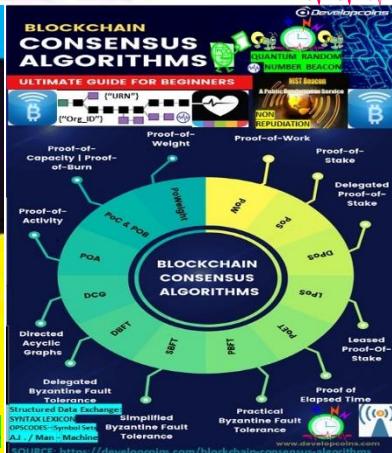
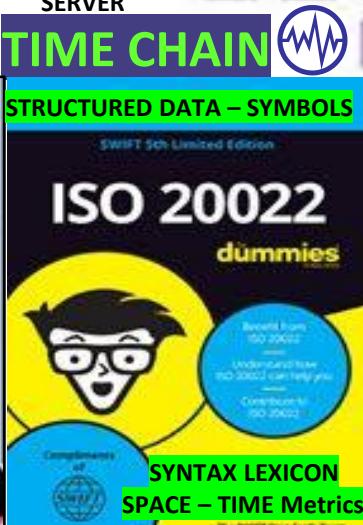
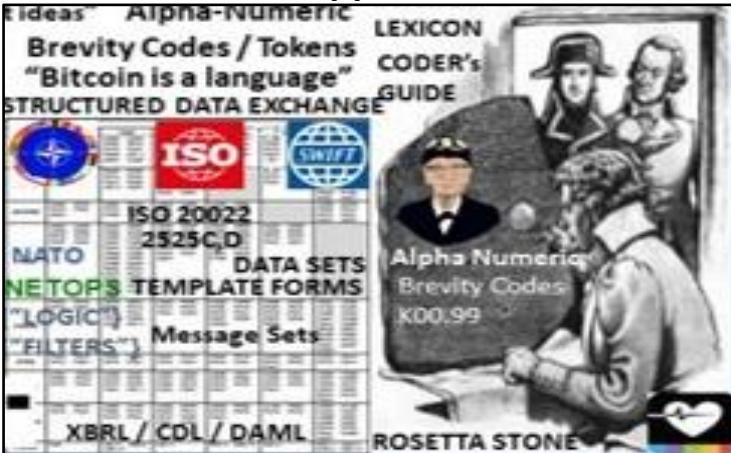
## **Comprehensive list of use cases, data**

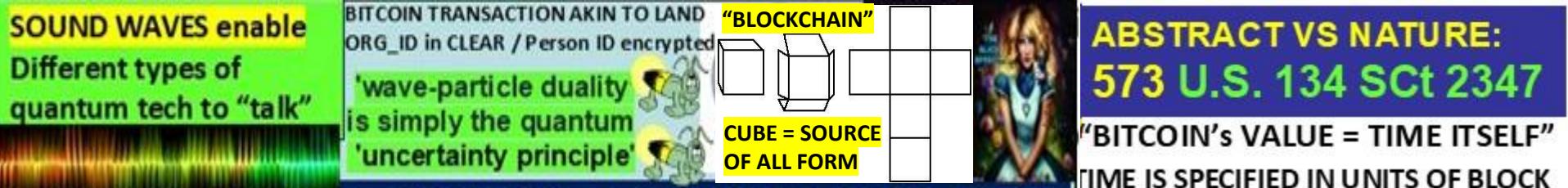
**elements supporting Internet of Everyt**

# IoE net of value. Reference guide, data

## **dictionary standards support**

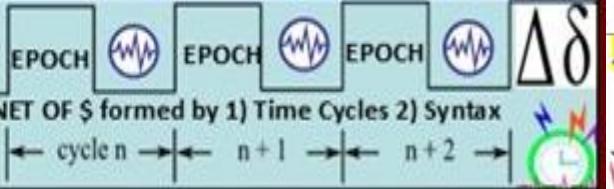
## Data elements mapped to SYMBOL SETS





## 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 ?

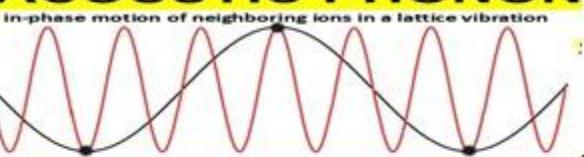
Q: IF CUBITS DO NOT EXIST, THEN ARE THEY SIMPLY A WAY TO ACHIEVE GROUP THINK FASTER ???

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

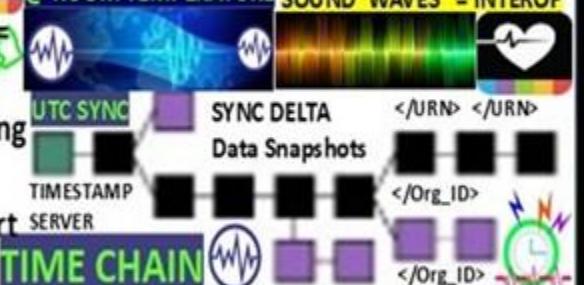
**ABSTRACT VS NATURE:  
573 U.S. 134 S.Ct 2347**  
"BITCOIN'S VALUE = TIME ITSELF"  
TIME IS SPECIFIED IN UNITS OF BLOCK TRANSACTION CONFIRMATION TIMES"

FISHER INFORMATION FLUX FLOWS

**ACOUSTIC PHONON**



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

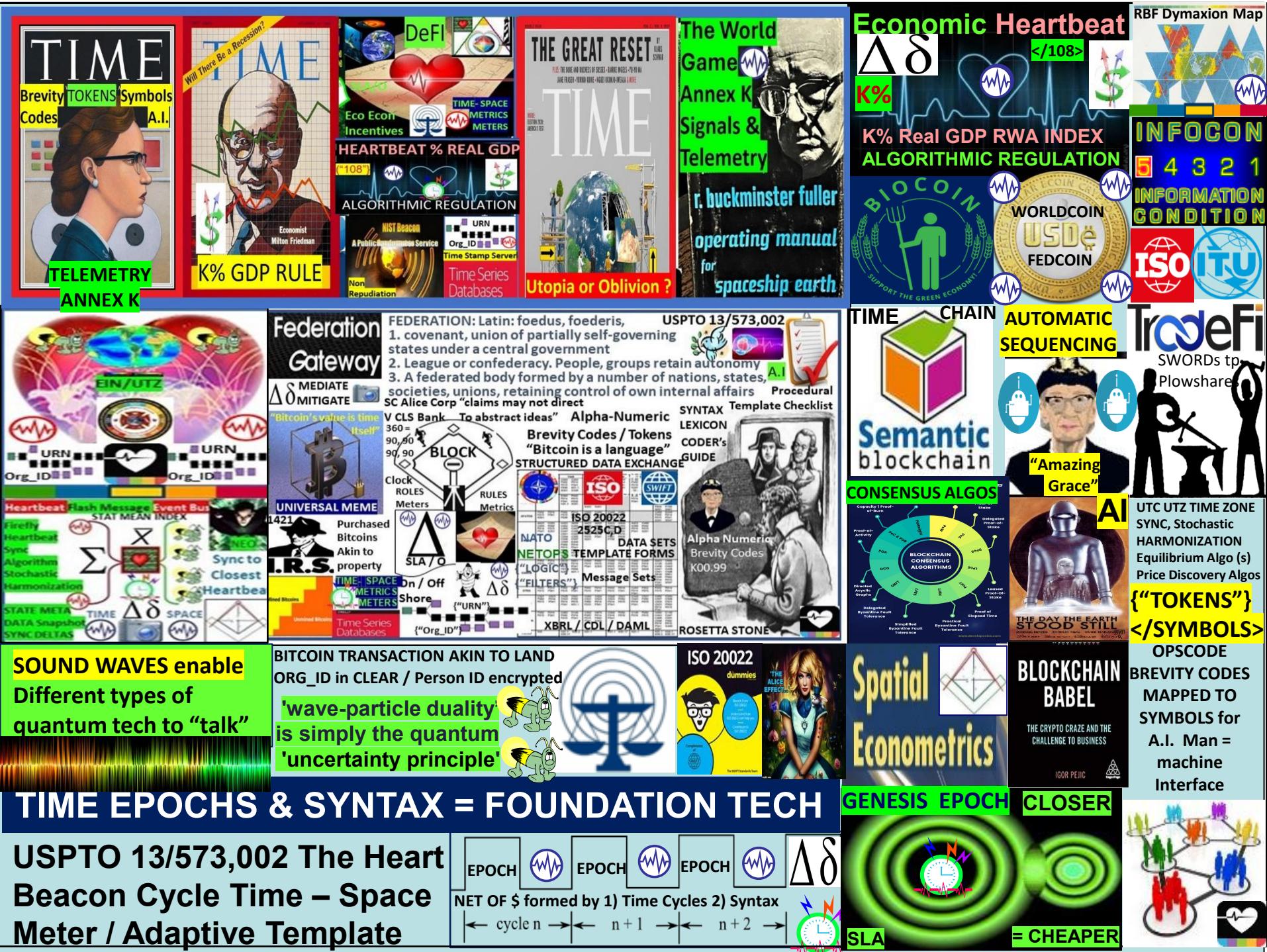


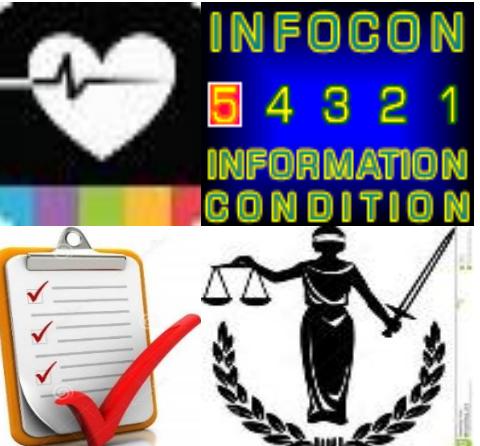
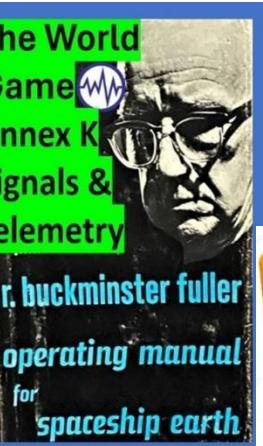
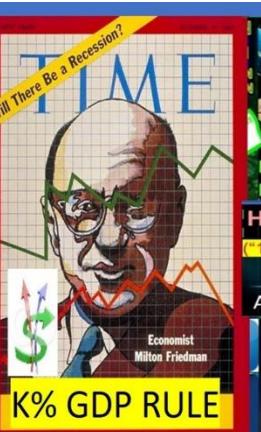
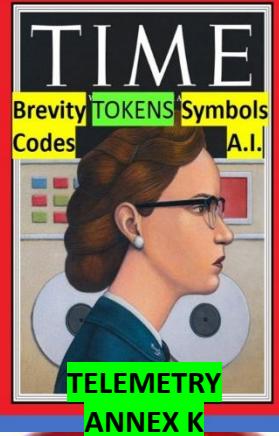
Net of \$\$\$ formed with:  
**1 EPOCH TIME CYCLES**

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.

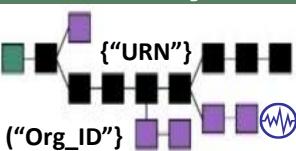
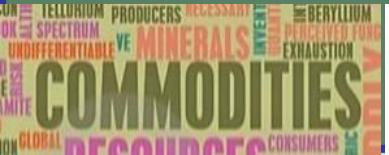
# Numismatics: study of currency

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

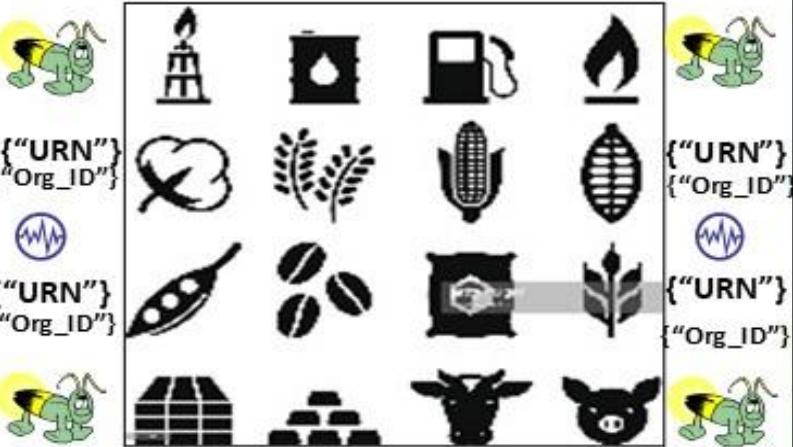


Images Courtesy Of: Roma Numismatics Ltd, Numismatica Ars Classica, Bertolami Fine Arts, Nomos, & The State Museum in Berlin

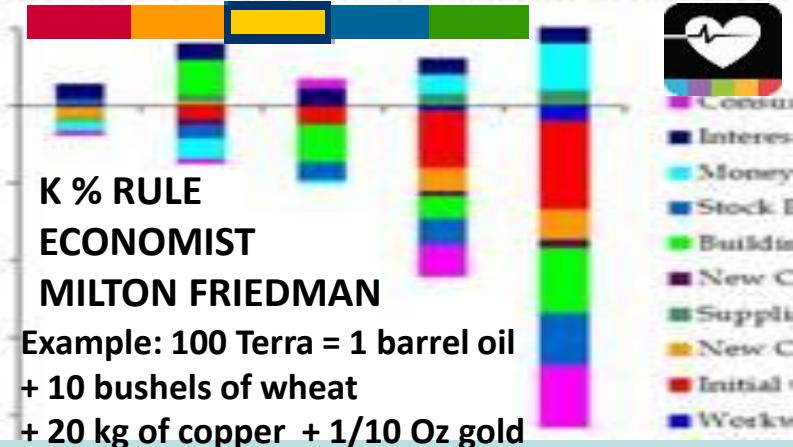
### BRONZE / LEAD / AES SIGNATUM AES GRAVE / SILVER / LEAD / IRON..

Unlike most modern coins, Roman coins had (at least in the early centuries) significant intrinsic value. However, while the gold and silver issues contained precious metals, the value of a coin could be slightly higher than its precious metal content, so they were not, strictly speaking, equivalent to bullion. Also, over the course of time the purity and weight of the silver coins were reduced.[15] Estimates of the value of the denarius range from 1.6 to 2.85 times its metal content,[citation needed] thought to equal the purchasing power of 10 modern British pound sterling at the beginning of the Roman Empire to around 18 pound sterling by its end (comparing bread, wine, and meat prices) and, over the same period, around one to three days' pay for a legionary.[16]

### Commodities Index Basket / FIAT PRICE Discovery Algo / MEDIATION



### LEADING ECONOMIC INDICATORS



# Heart Beacon Cycle

## FEDERATE / TRADE FEDERATIONS



ECONOMIC HEARTBEAT  
K %



BITNATION



FEDERATE  
SHARE  
WIN



WIN



GOVERNANCE 2.0



FEDERATION CONSENSUS  
ALGORITHM / PROTOCOL  
LIQUIDITY ON DEMAND



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



GLOBAL  
SHARED  
DOMAIN  
COMMUNITY  
PRIVATE  
GROUP ID

</ORG\_ID>

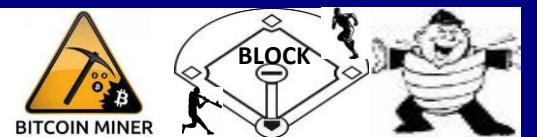
CHANNEL

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

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



HEARTBEAT MESSAGES

</RESOURCE> {"URN"}  
{"Asset\_Class"} </URN>

iET DEVICE / PLATFORM



IoT SENSOR DEVICE



"/><Asset\_Type>



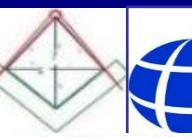
</RESOURCE>

{"URN"}  
{"Asset\_Class"} </URN>

STOCK EXCHANGE

MIC MARKET IDENTIFIER

CODES / BREVITY CODES



DeFi Ve TOKEN ECONOMY

VeriDAO

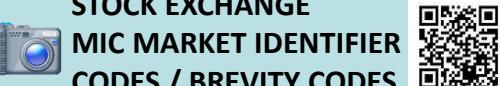


Signalling, Telemetry

Event Bus



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



{"DUNS #"} {"Org\_ID"} Heartbeat Snaps  
QR CODE  
{"URN"} {"URN"} {"URN"} MICRO-CYCLES



## FEDERATE: COMMON GOALS SYNCHRONIZED IN SPACE - TIME



Net of \$\$\$ formed with:

1 EPOCH TIME CYCLES

2 {"Syntax"} "The Word"

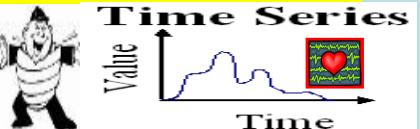
"In the Beginning" Genesis Block

"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



STRUCTURED DATA EXCHANGE

TEMPLATE FORMS

300+ USE CASES

LOGIC / FILTERS



SYNTAX / SYMBOL LEXICON LIBRARY

SYNTAX LEXICON

Library

1<sup>st</sup> Compiler

R

W

A

Alpha Numeric Brevity Codes



"BITCOIN MAKES MONEY PROGRAMMABLE. MONEY IS SIMPLY DATA"

"BITCOIN'S VALUE = TIME ITSELF"

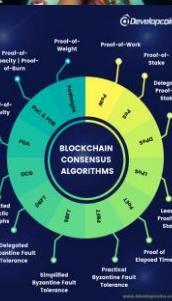
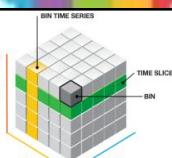
"Time is specified in units of block transaction confirmation times"



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



MACRO CYCLES

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

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"

ALICE Corp VS CLS BANK SC 573 US 134 2347

CLAIMS MAY NOT DIRECT TOWARDS ABSTRACT IDEAS

Physical = Opposite of abstract = ALICE

HEART BEACON CYCLE

TIME – SPACE METER

USPTO 13/573,002

first base

RUNNER

Message Bus

Firefly – Heartbeat Algo

Stochastic Harmonization

X EVENTS

SETTLEMENTS / EXCHANGES

= TAXABLE EVENTS

AKIN TO PROPERTY

IRS #1421

FLASH MESSAGE EVENT BUS

FIX {"108"}

TIME STAMP SERVER

Epoch Time Cycles

$\Delta\delta$

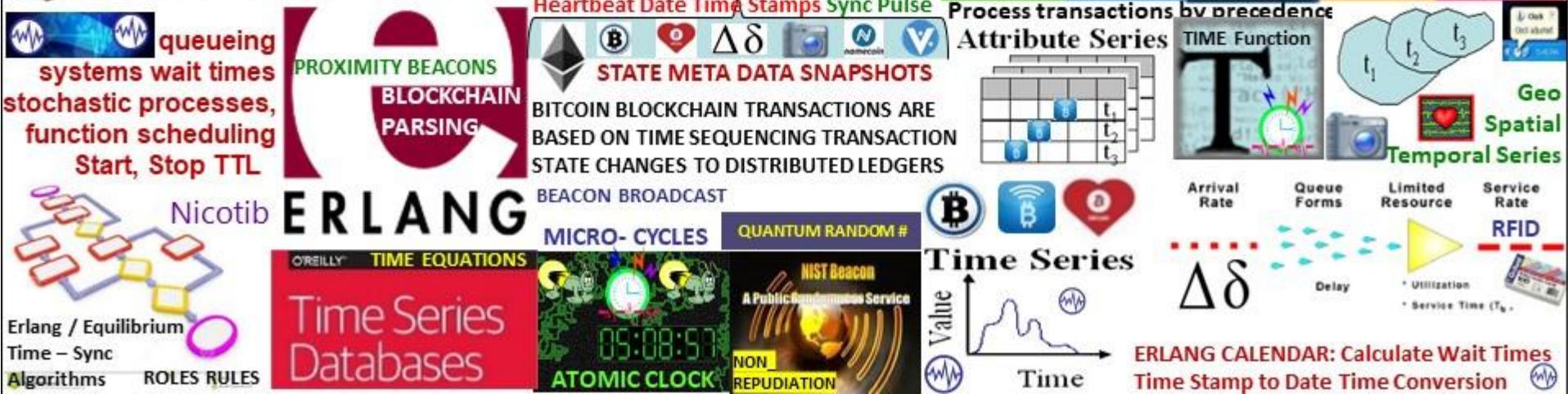
home plate

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.





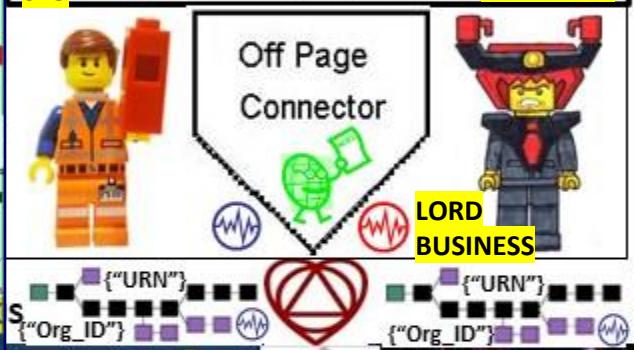
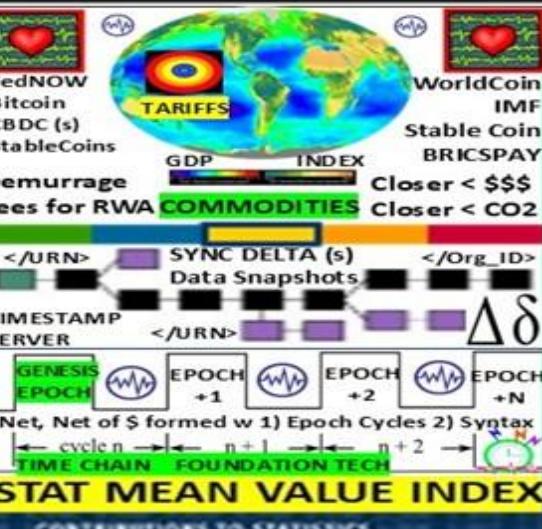
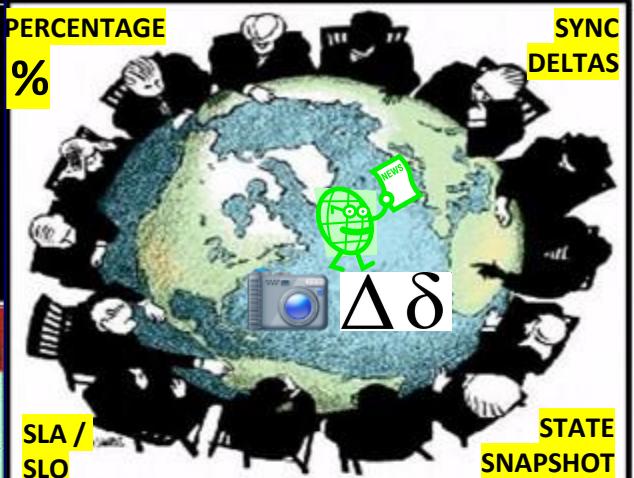
# World Game (s) Fulcrum

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



# Circle USDC

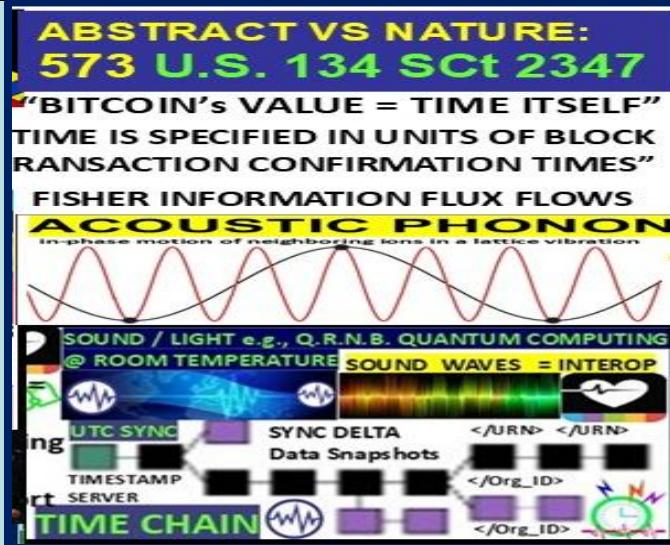
Investopedia

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

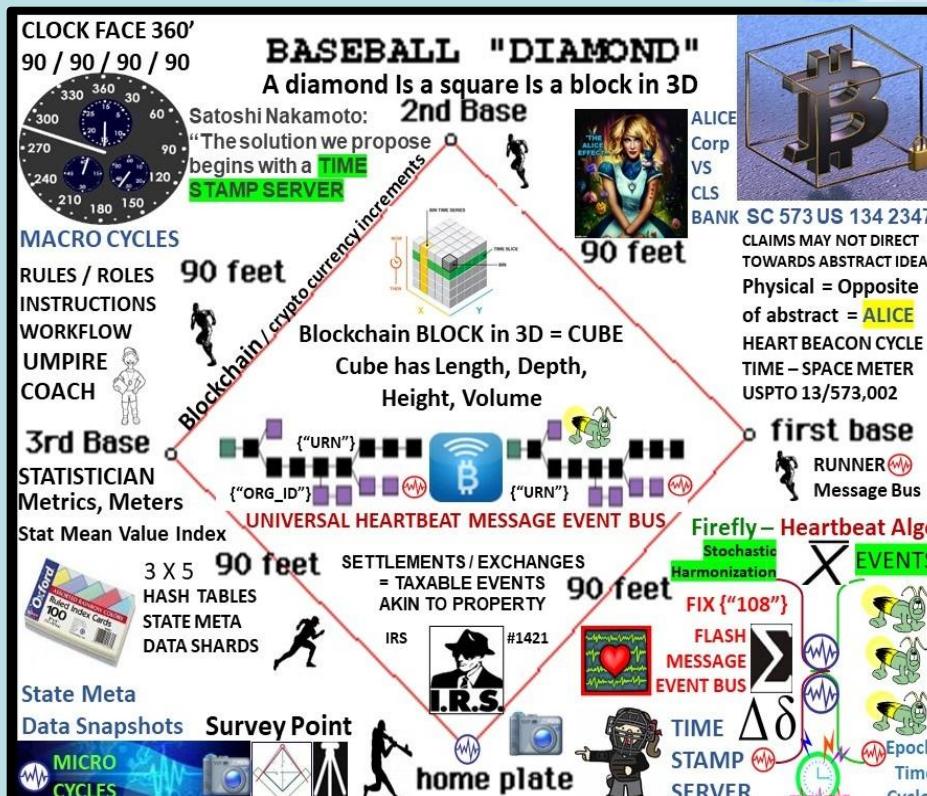
Stablecoins aims to provide an alternative to the high volatility of the most popular cryptocurrencies, Source JDSUPRA



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"**

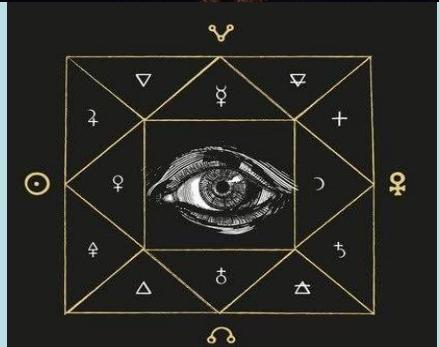


# NOSTRADAMUS of FRANCE CENTURY 8: QUATRAIN 28:

"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"**

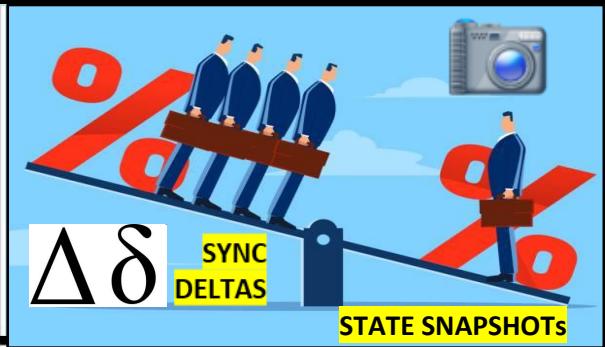
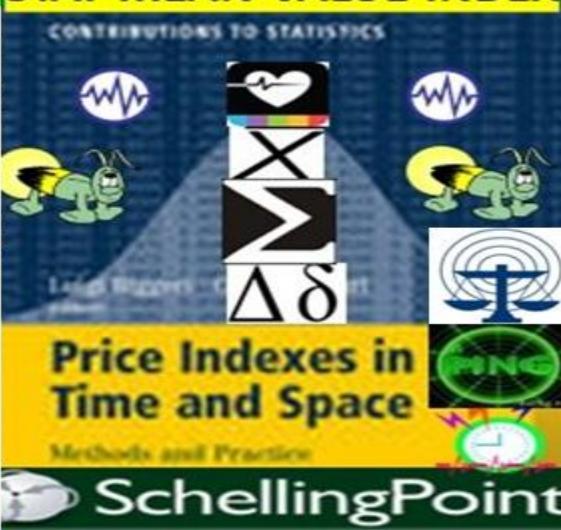
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**JP6813477**

# World Game (s) Fulcrum

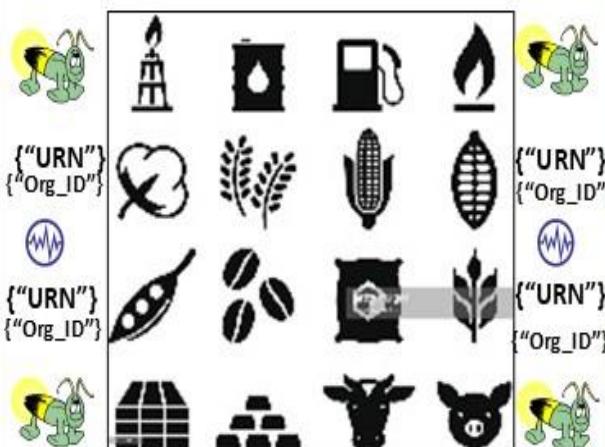
Schelling point: focal point = solution chosen by default in the absence of communication to avoid coordination failure introduced by the economist Thomas Schelling in his book "The Strategy of Conflict" published in 1960. Schelling points are particularly useful in **multiplayer games** where players 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

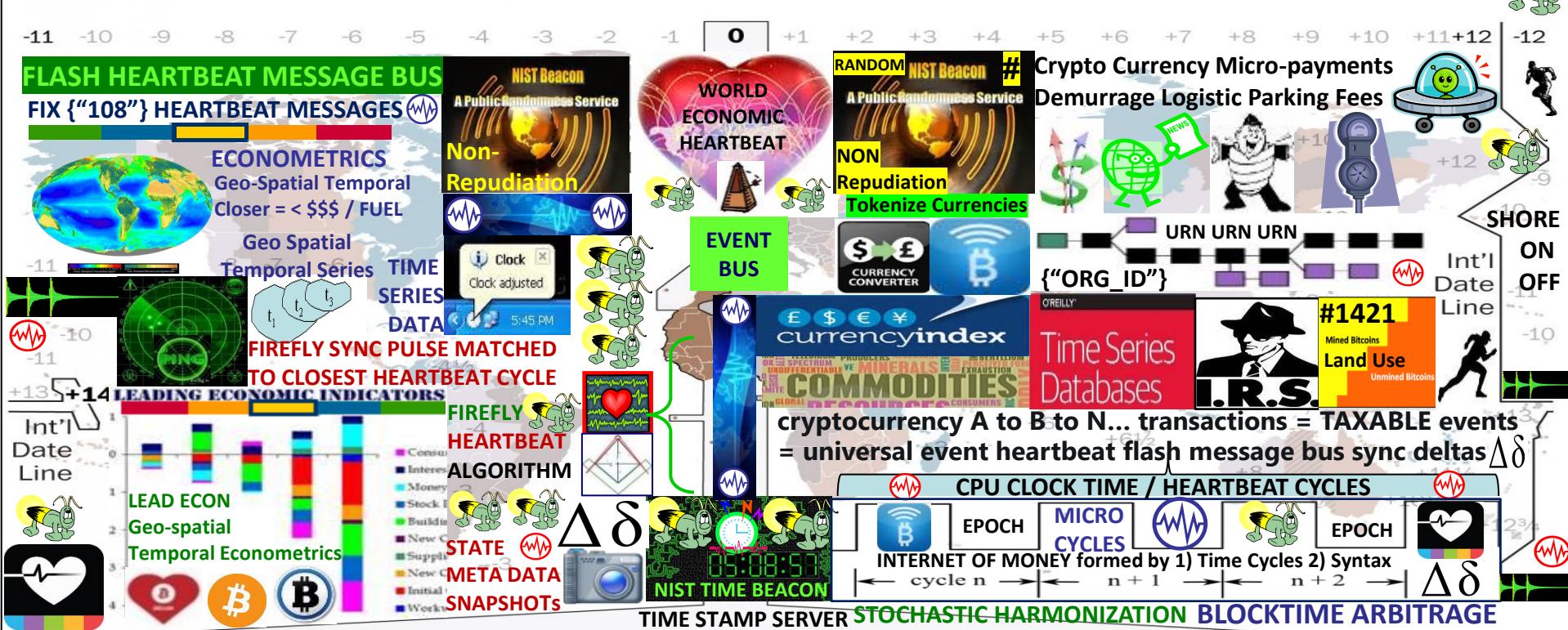


Commodities Index Basket / FIAT PRICE Discovery Algo / MEDIATION





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)

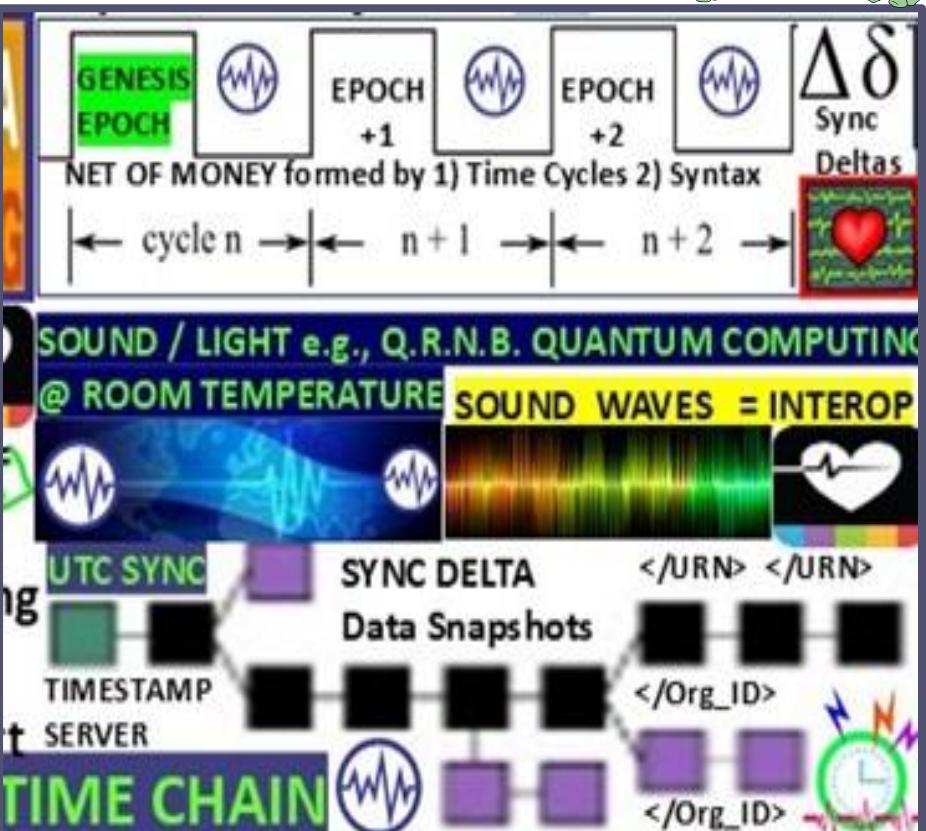
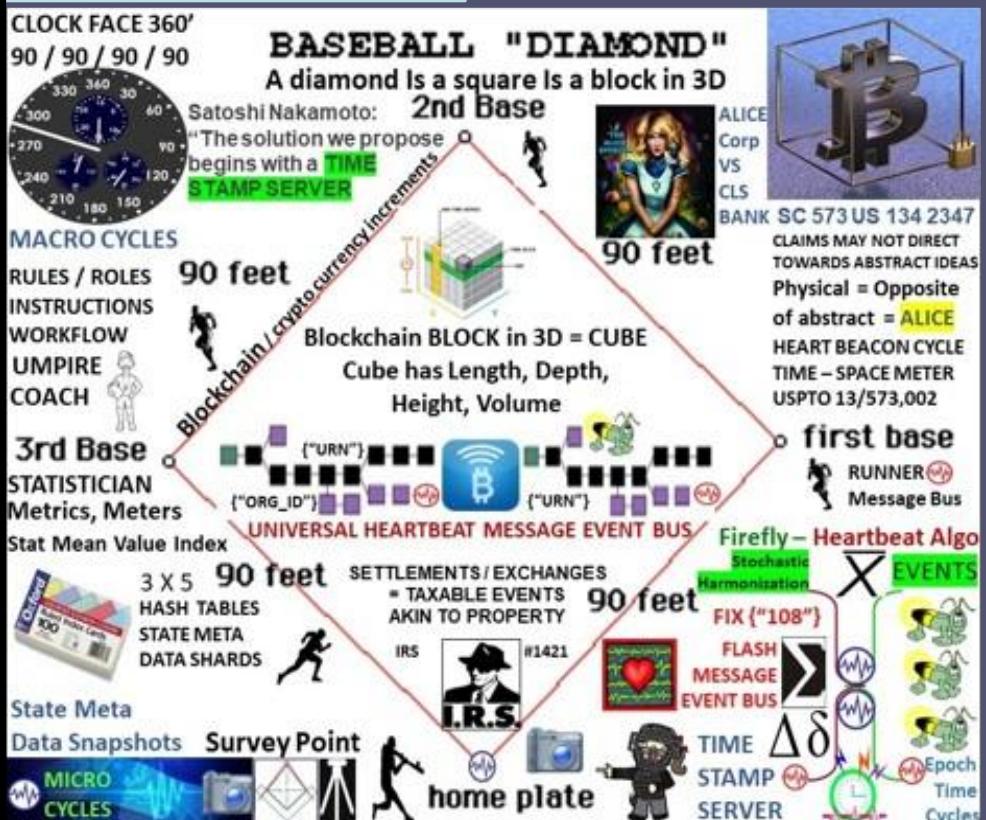
Defunct crypto exchange Mt. Gox has said that a repayment date will be set in "due course" February 7<sup>th</sup> 2014 trading halted

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



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

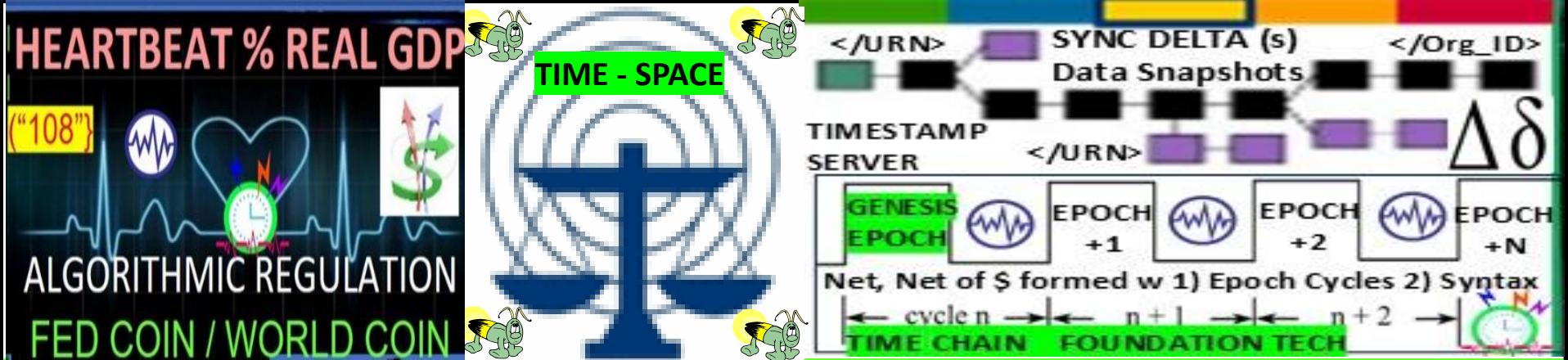
1919 BLACKSOX WORLD SERIES GAME FIXING RULING



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.

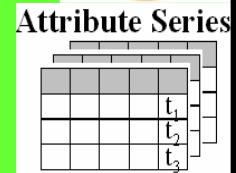
USPTO 13/573,002 / SCOTUS 573 U.S. 134 SCt 2347 “Alice in Wonderland Ruling”





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)

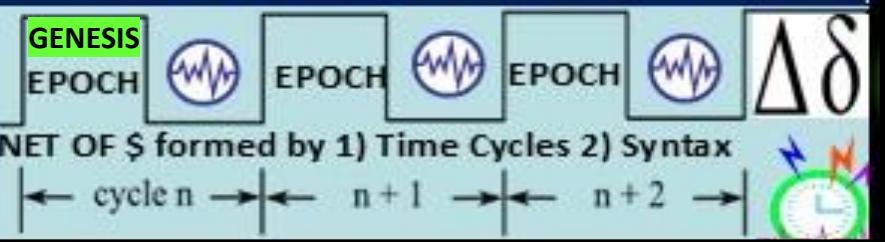


**SOUND WAVES enable**  
Different types of quantum tech to "talk"



## TIME EPOCHS & SYNTAX = FOUNDATION TECH

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





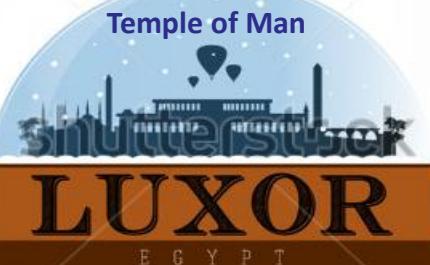
# FIREFLY - Heartbeat Algo

Bologna Italy / Hungary / China Universities

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

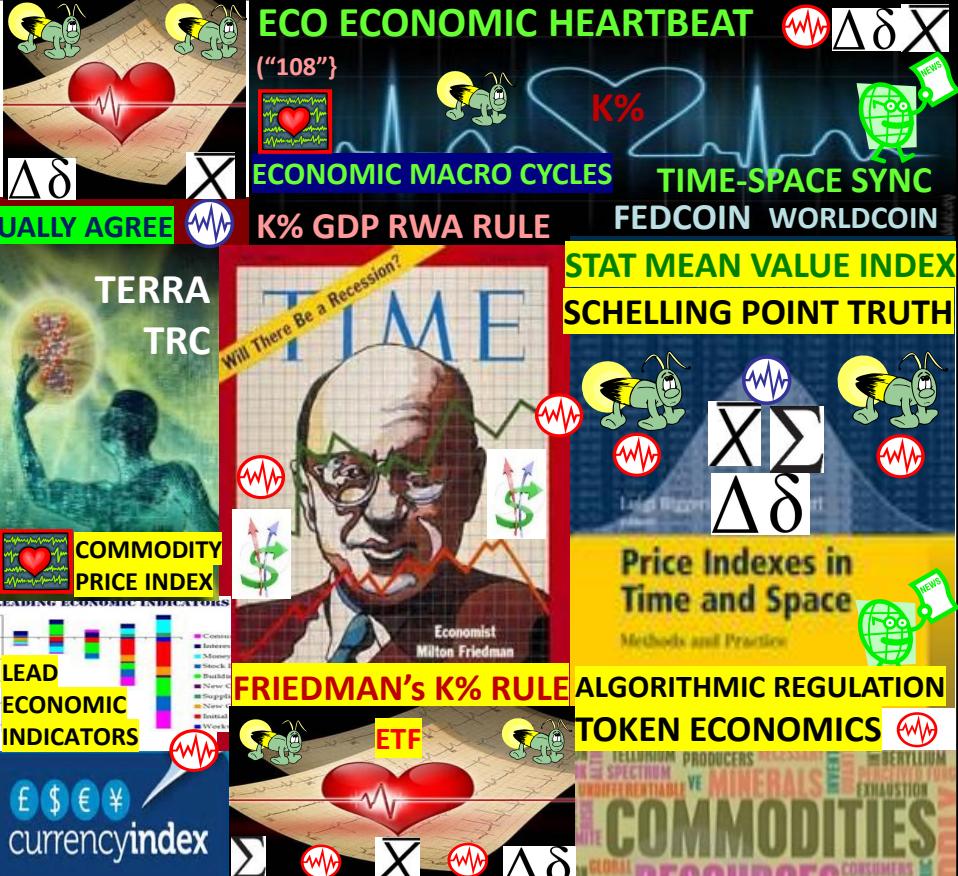
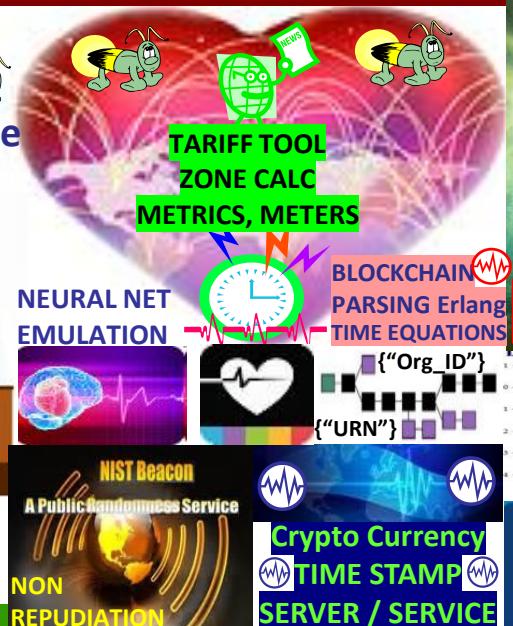


Luxor Temple Egypt:  
"The shortest path towards knowledge of truth is nature"



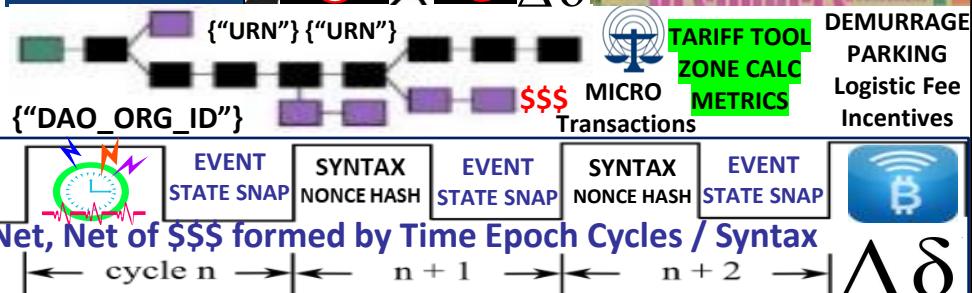
FIREFLY inspired Heartbeat Sync Algo

PRECEDENCE UTZ SYNC SYNC  
PROCESSING PULSE DELTAS



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

UTZ TIME ZONE SYNC



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

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

# 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



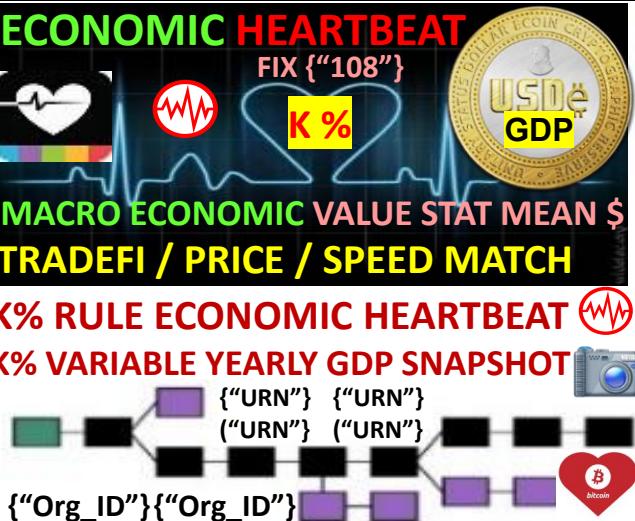
Firefly inspired Heartbeat Synchronization nodes strive to sync in a distributed system. Nodes generate periodic "heartbeat" events approximately at the same time. It differs from classical clock sync in that nodes are not interested in counting cycles to agree on the ID of the current clock cycle. There 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"

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)**.

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## STOCHASTIC HARMONIZATION

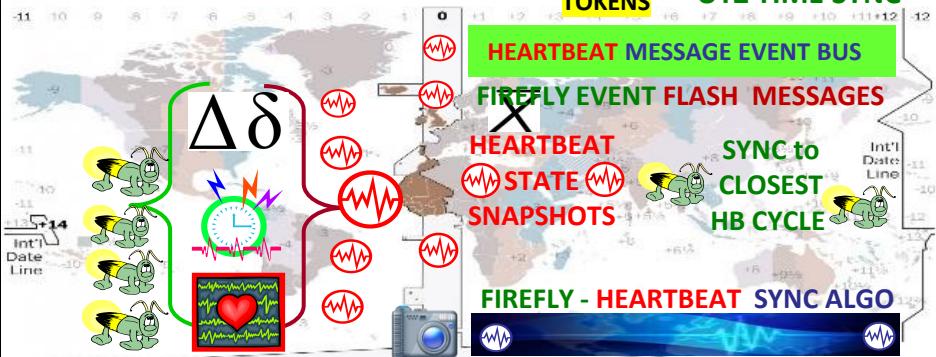




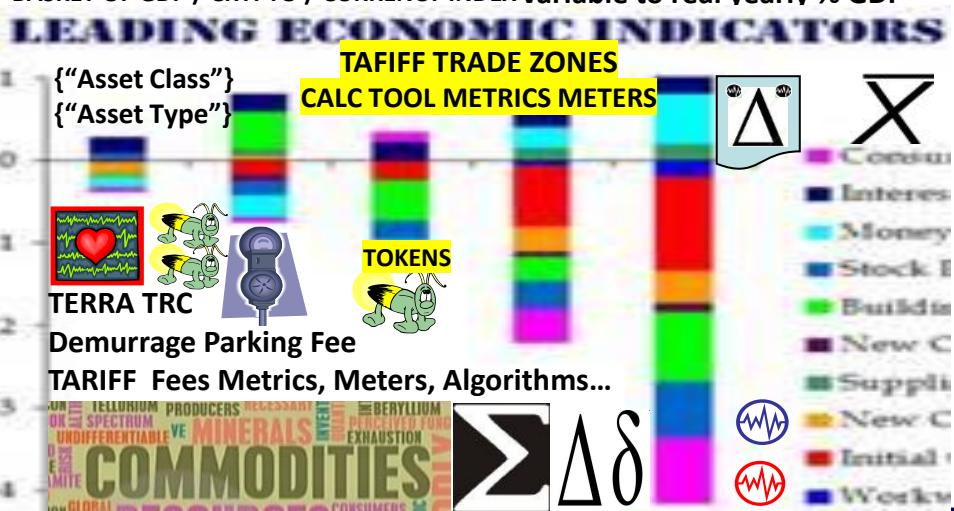
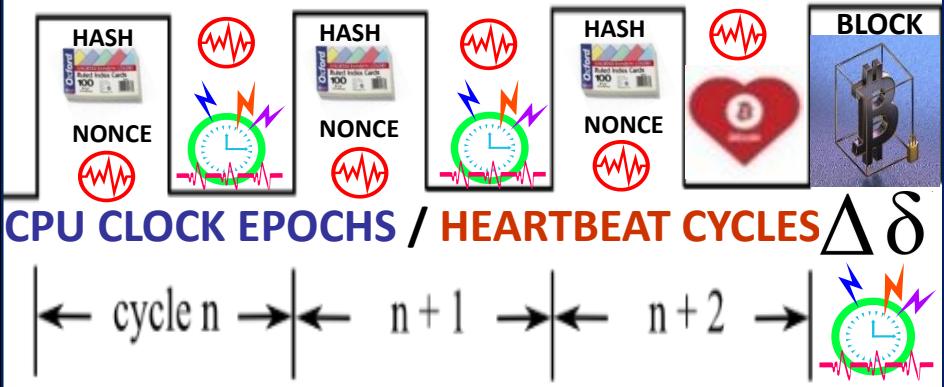
WAVES  
TOKENIZES CURRENCIES

'K-Percent Rule Macro economic money-supply heartbeat automatically adjusts \$ supply by a set amount "K" variable regardless of cyclical state of the economy e.g., set growth rate

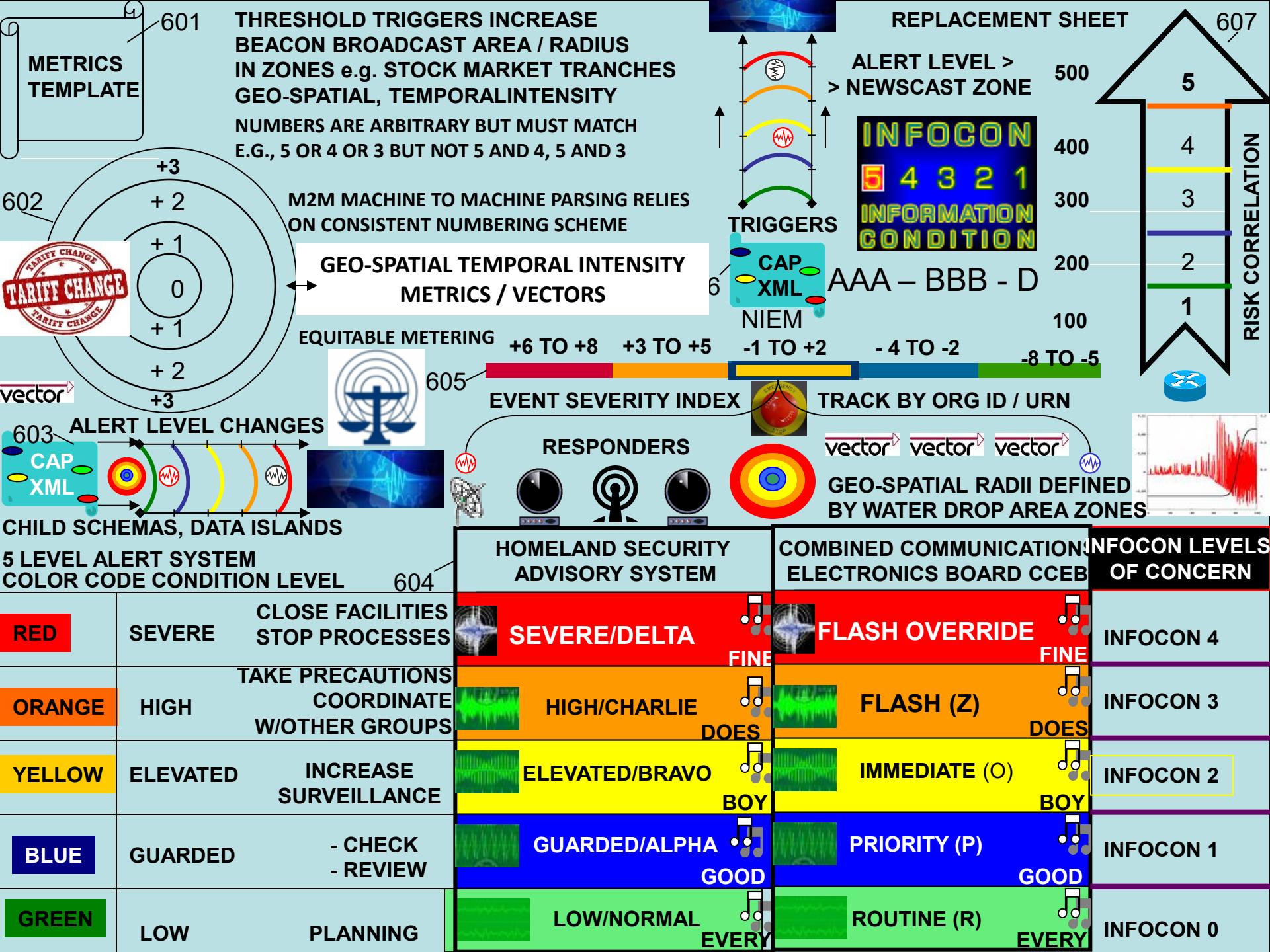
The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind Coordinated Universal Time (UTC). However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen hours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

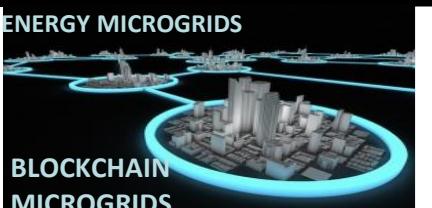


The proposed Universal Timezone System would do away with all these different time zones. Instead, it would be the same time all over the world, all the time.

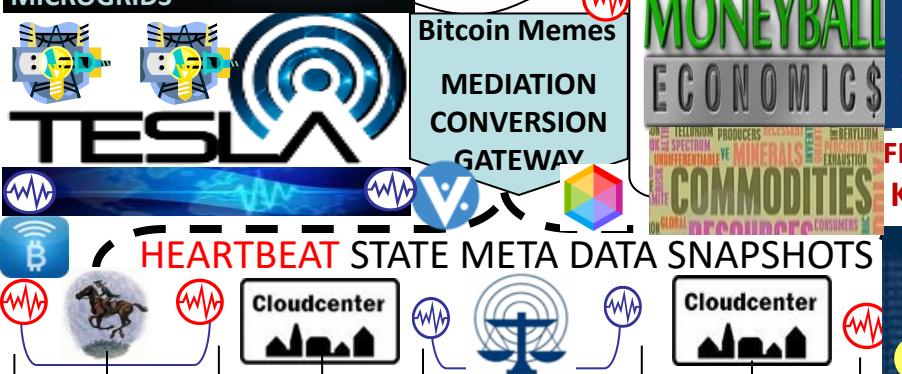
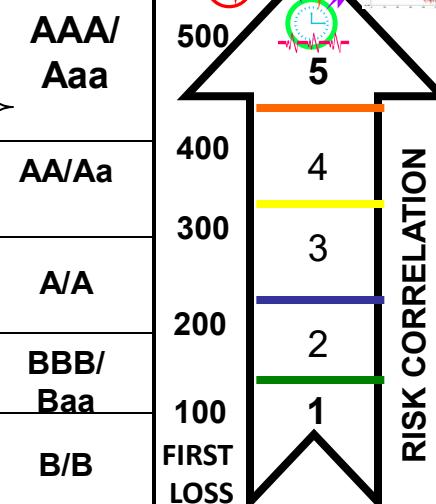


"Heartbeat Synchronization strives to have nodes in a distributed system generate periodic local "heartbeat" events approximately at the same time. It differs from classical clock sync in that Nodes are not interested in counting cycles and agreeing on the ID of the current clock cycle. There is no requirement 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"





LAST LOSS



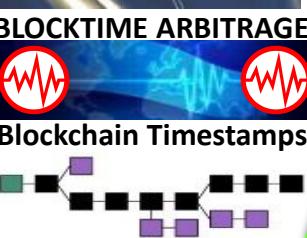
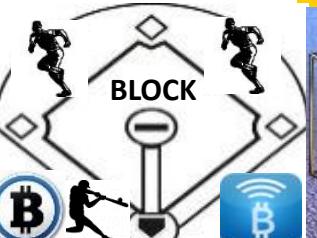
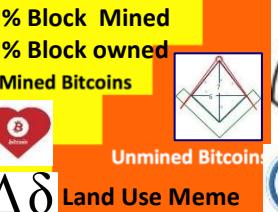
IEEE 802.15.4 OASIS MQTT

TELEMETRY TRANSPORT

IEEE 802.1AG HOP BY HOP

DETECTION

Bitcoin = Property



Triangulation

Euclidian Geo

GPS GEO LOC

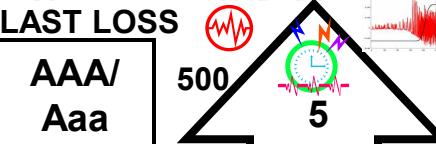
DATE TIME STAMP

NDN </INTEREST>

NDN {"DISTANCE"}

Demurrage Charges

vector



EVENT BUS

Match to Closest

Heartbeat Cycle

FIREFLY-HEARTBEAT

ALGORITHM

$\Delta\delta$

Heartbeat Snapshots



AREA RADIUS

</FILTERS>

BY ORG ID / URN

NDN </INTEREST>

</DISTANCE>

Closer = Cheaper

Closer = < Fuel



Strive to Sync

To Closest

Heartbeat

Micro Cycles

Micro Cycles

Micro Cycles

Micro Cycles



AREA RADIUS

</FILTERS>

BY ORG ID / URN

NDN </INTEREST>

</DISTANCE>

Closer = Cheaper

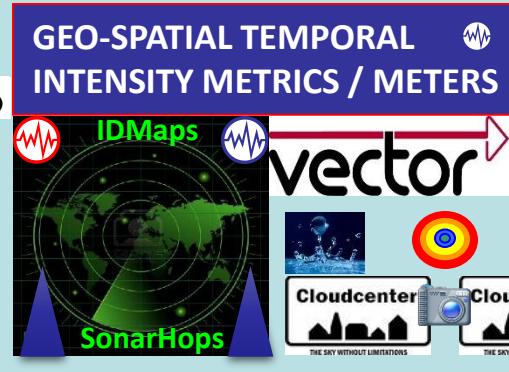
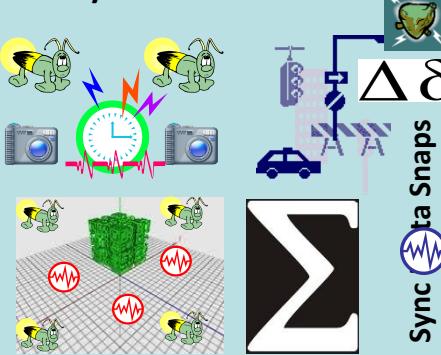
Closer = < Fuel



# IDMaps: Global Internet Host Distance Estimation Service



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



vector



IDMaps scalable Internet-wide architecture measures, disseminates distance information



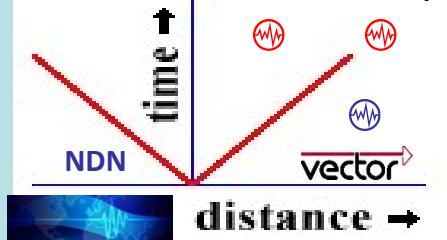
HOP COUNTS



REACHABILITY



/localhost/nfd/fib/add-nexthop



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

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

Name Prefix  
<Org\_ID> Trie (NPT)



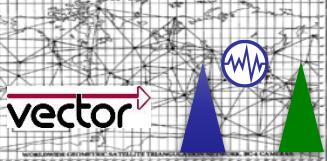
NDN NAMES

NDN NAMED DATA NETWORK RIB /  
FIB Datasets event notification

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



TRIANGULATION



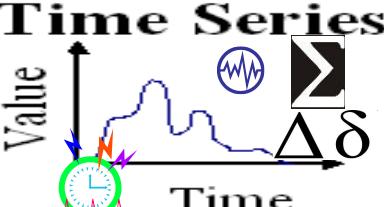
NDN INTEREST LENGTH

=

DISTANCE BY HOPS

NDN INTEREST

IS DATA FRESH ?



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

Datasets and Event Notification

INTEREST in <URNs>

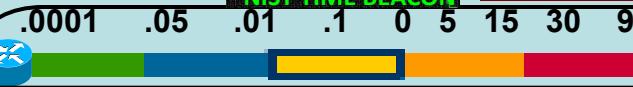
IDMaps assists Network Time Protocol (NTP) servers establish long term peering relationships



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



MICRO-CYCLES

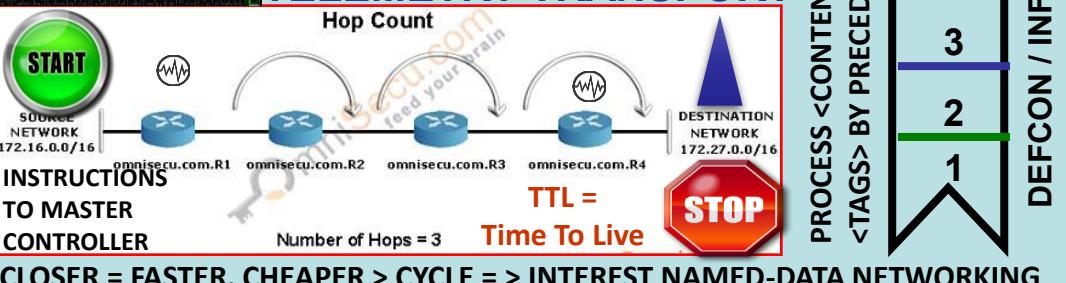


HEARTBEAT STATE META DATASNAPSHOTS

NDN INTEREST LIFETIME = TTL Time To Live

# 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



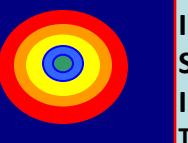
## Geo-Spatial Temporal Intensity NOVEL METRICS / METERS:



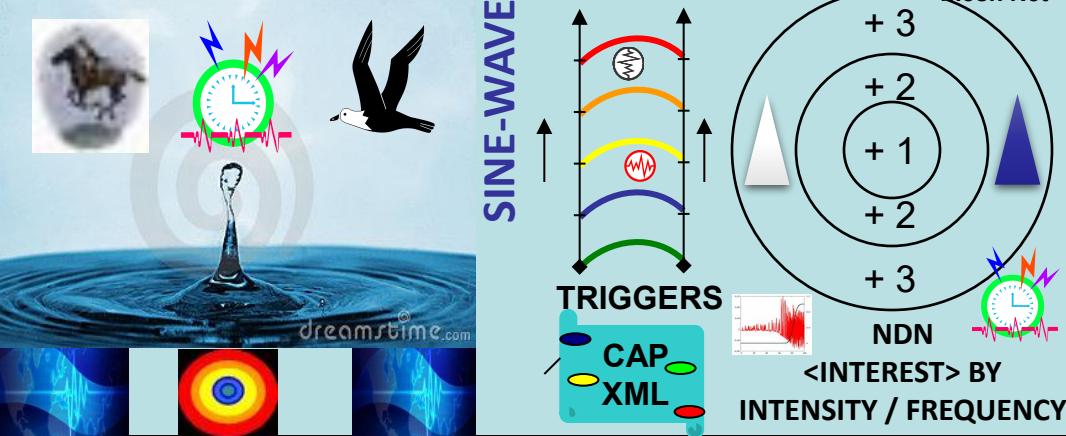
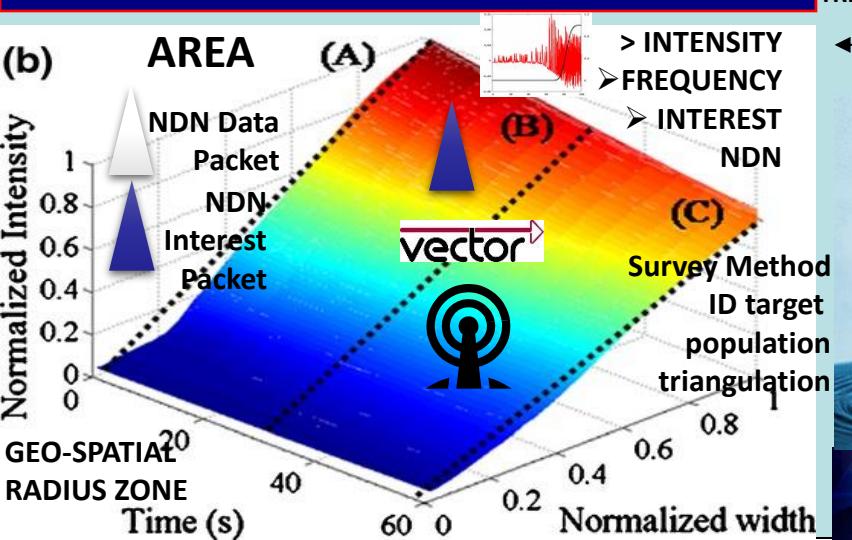
Paul Revere = linear, sequential



TCP/IP hop by hop counts, by hop controls



Water Drop = AREA / INTENSITY Cyclic Frequency



# 13/573,002 HEART BEACON CYCLE

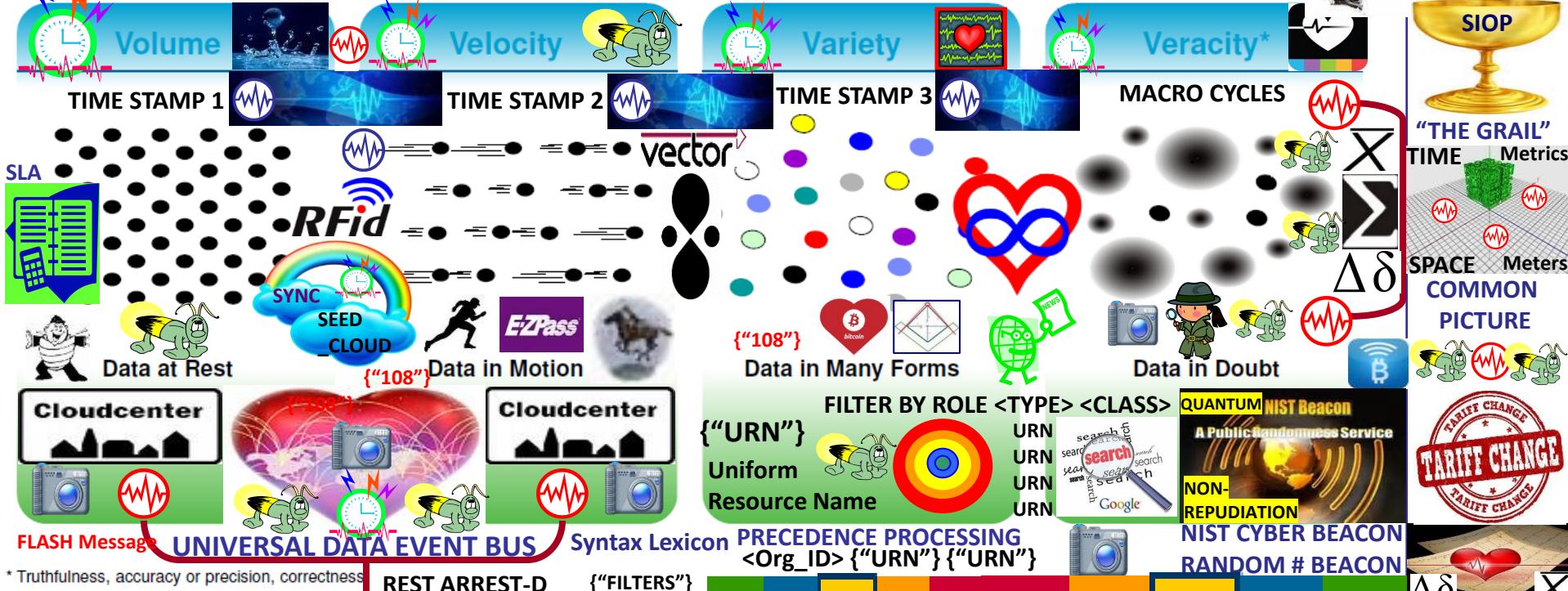
Time -Space meter, metrics / Universal data event, alert bus  
Internet of Everything "ability to hear the world's heartbeat"

## The four dimensions of Big Data

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



TIME STAMP BY Org\_ID, URN Before FUSION CENTER



\* Truthfulness, accuracy or precision, correctness

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

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

State Meta Data  
Heartbeat Snaps

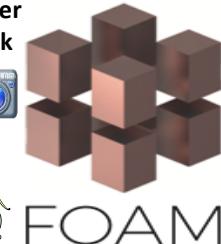
MICRO

CYCLES



SPACE – TIME Equations  
BLOCKCHAIN PARSING  
{"URN"}  
{"Org\_ID"}

HEARTBEAT SYNCRONIZATION  
FIREFLY SYNC CONSENSUS



4 3 2 1  
INFORMATION CONDITION

SIOP

"THE GRAIL"

TIME Metrics

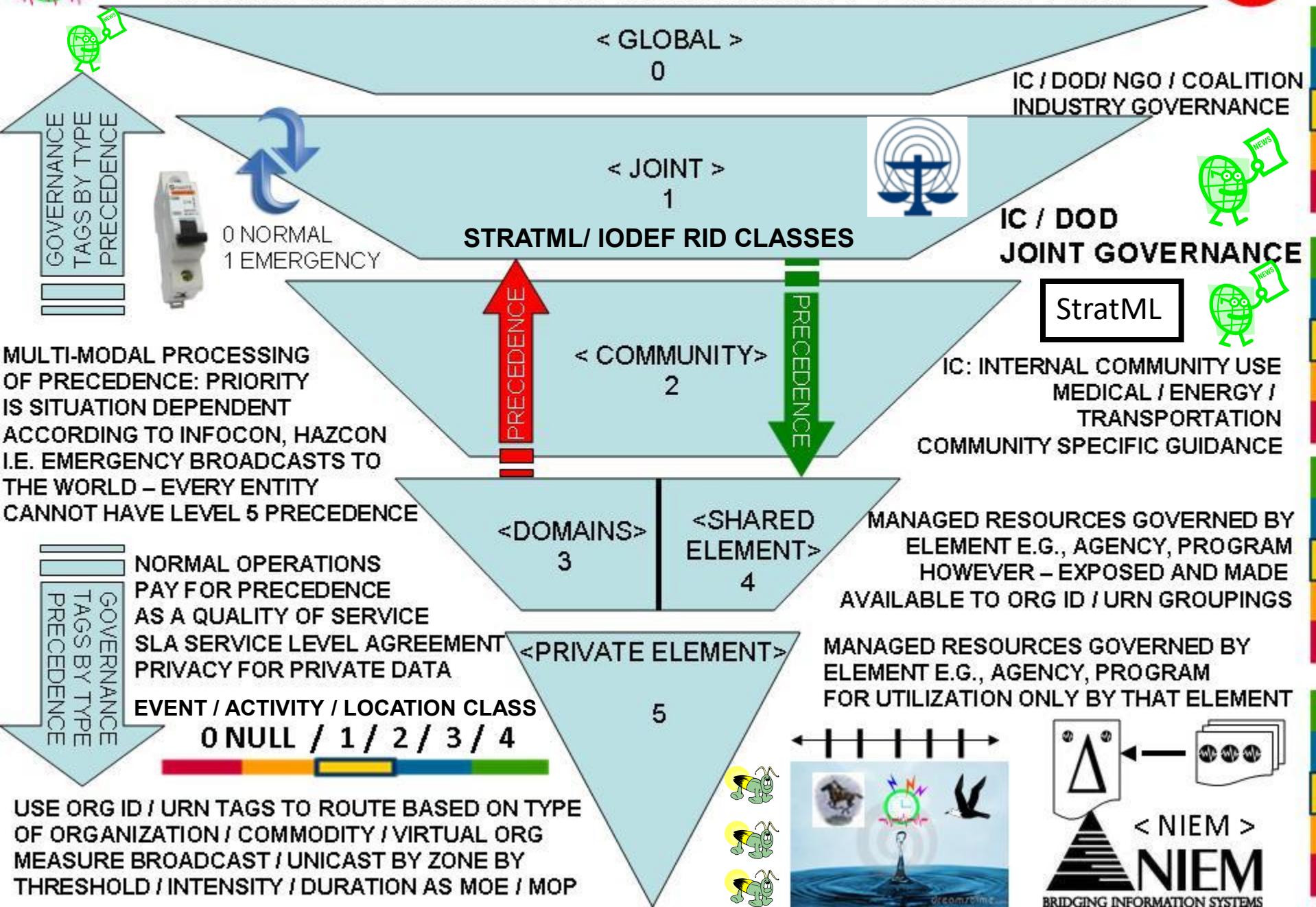
SPACE Meters

COMMON PICTURE

TARIFF CHANGE



# 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>

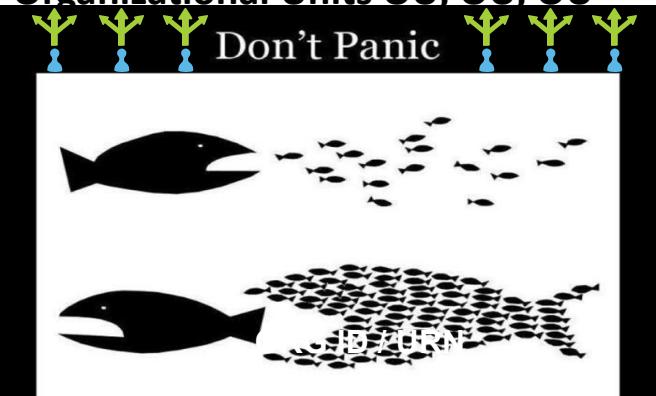
STRUCTURED MILITARY MESSAGING FORMS: FIELD TYPES, FILTERS, TAGS  
PARSED, PROCESSED, COMPILED TELEMETRY SIGNALING STANDARDIZATION

### USMTF / XML MTF FORMATTED MESSAGE CATALOG

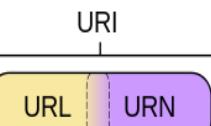
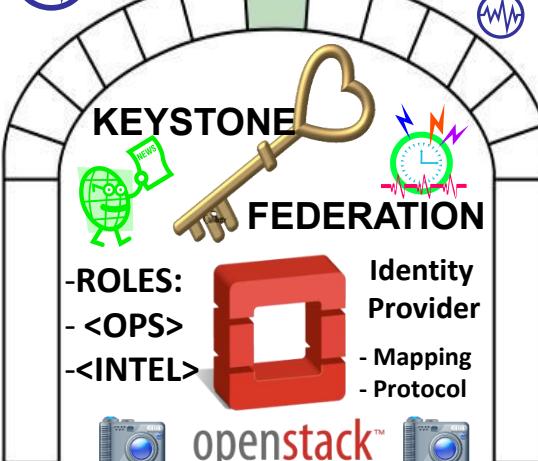
Catalog has over 300 messages to choose from have a wide number of information exchange requirements using common, CONSENSUS Message Text Formats MTFs. MTFs specify <CONTENT> / information agreed by group consensus presenting information in a logical, well specified and unambiguous layout resulting in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

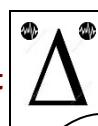


SURVEY METHOD  
ID <ITEMS><INTEREST>  
GEO-SPATIAL AREA  
TEMPORAL INTENSITY  
MEASURES / METRICS

IDMaps  
SonarHOPS



K0.99  
Heartbeat  
Message



<Org\_ID>  
<Org\_ID>  
<Org\_ID>  
<Party>  
<Party>  
<Party>

PARTIDO X:  
Distributed  
Democratic  
Participation

### CrowdSourcing



### CROWD SOURCING / FUNDING



ETHEREUM:  
Decentralized  
Autonomous  
Organizations

### VOTE ON BLOCKCHAIN



# 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

THESIS: All net artifacts, net of \$ are formed with:

- 1) Epoch time cycle intervals ex: chip oscillations
- 2) Syntax parsed, processed in epoch time intervals

**ADAPTIVE PROCEDURAL TEMPLATE: LIST OF TOOLS, PROCESSES, PROCEDURES I.E., STORED PROCEDURE CALLS COMPRISED OF STRUCTURED DATA EXCHANGES USING 300 + MESSAGES / MESSAGE SETS COMPRISED OF OPSCODE BREVITY COMPUTER CODES MAPPED TO SYMBOLS FACILITATING STAMDARD MAN – MACHINE INTERFACE**

**USE CASE: standards adherence support for IEEE, ITU, ISO international data, internet, internet of money, IoT, Artificial Intelligence A.I ... standards**

**Systemic, signaling, synchronization of state meta data encoded as brevity OPSCODE tokens stochastically harmonized over the UTZ**

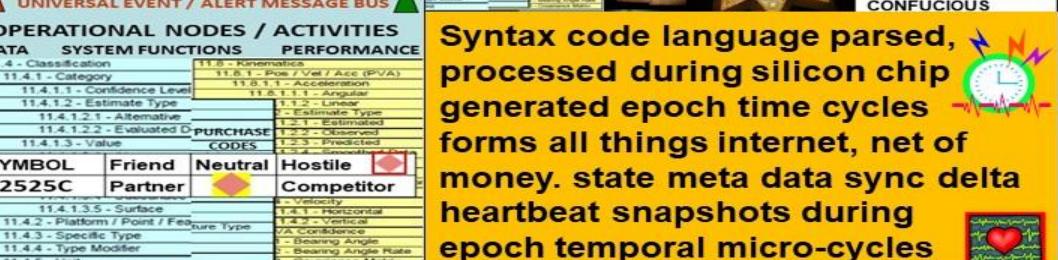
| FROM   | GCCS-A                                 | TAIS      | ASAS                  | AMDPSC                                 | AFATDS                                 | CODE GUIDE  |
|--------|--|-----------|-----------------------|--|--|---|
| ASAS   | C002 C203<br>F014<br>F541<br>S201 S309 | C002 C203 |                       | C002 C203<br>F014<br>F541<br>S201 S309 | C002 C203<br>F014<br>F541<br>S201 S309 | MIL STD 2525A, B, C, D<br>["URN"]<br>{"Org_ID"}   |
| AMDPSC |  |           | <b>TOKENS</b>         |  |  | ISO   |
| AFATDS | F002 F014<br>F541<br>S201              |           | OPSCODE BREVITY CODES |  |  | Patent Application 9/11 2003: Method to commercialize structured military messaging 20022 |
| MCS    | C002 C203<br>C505 F002 F014 F541 S201  |           |                       |  |  | DoD Systems of Systems Engineering Structured Data Exchange MIL Standards / ISO Standards |

**MESSAGE CATALOG 300 + Use Cases**

| Object Categories | Examples  | Information Categories and Examples |                         |   |                     |  |
|-------------------|---|-------------------------------------|-------------------------|---|---------------------|--|
| OOB               | <b>SYNTAX LEXICON</b>   | Location                            | Movement                | Identify  | Status              | Activity Intent                              |
|                   |   | lat/long                            | spd/hdg                 | STRUCTURED DATA EXCHANGE / alliance / hierarchy class | Message Sets        | COA ("Java JS")                              |
| Infrastructure    | Comm, power, transportation, water/sewer                            | network, grid                       | throughput, flow rates, | name, part-of relationships                           | BDA, op. metrics    | repair, preventive auto.                     |
| Sociological      | culture, religion, economic, ethnic, government, history, languages | temples, historic structures        | ER Model                | Class Diagram   | Relational Database | Object DBMS XML DTD / Schema                 |
| Geophysical       | Terrain, weather, climatology, oceanography, astrometry             | feature                             | lat/long, alt/dpth      | Attribute   | Field / Column      | Attribute Child Element or Element Attribute |
|                   |   |                                     |                         | Domain Value  | PURCHASE CODES      | Instance, Value TOKENS                       |

Data Elements: entity, attribute, relationship equivalents

HEARTBEAT MESSAGE = K00.99 </108> {"108"}



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

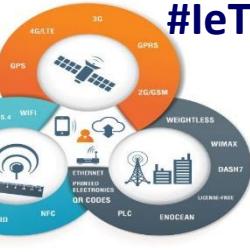


Encyclopedia Britannica:  
"Language is a SYSTEM OF SIGNS having meaning by convention. In this sense, language need not be confined to the spoken word."

"SIGNS AND SYMBOLS RULE THE WORLD, NOT WORDS OR LAWS"

CONFUCIUS



|   |  |  |                |             |             |             |
|---|--|--|----------------|-------------|-------------|-------------|
| Interface Name  | HEARTBEAT Administration Interface [SCOP]  |  |                |             |             |             |
| Documentation URL   | <a href="http://scop.sourceforge.net/">http://scop.sourceforge.net/</a><br><a href="http://linuxvirtualserver.org/software/index.html">http://linuxvirtualserver.org/software/index.html</a>   |  |                |             |             |             |
| API Information   |  <p>#leT</p> <p>#Big_Data</p> <p>Programmable Money<br/>World Computer / Blockchain</p>  <p>NIST TIME BEACON</p>   |  |                |             |             |             |
| Functionality Areas   | Cloud Interface Management configuration, start, stop cloud services, edit configuration (heartbeat messages)  | Cloudcenter                                  | Cloudcenter    | Cloudcenter | Cloudcenter | Cloudcenter |
| API Operation Count   | LOCATE <CONTENT> IDMAPS / SonarHOPS  | Cloudcenter                                  | Cloudcenter    | Cloudcenter | Cloudcenter | Cloudcenter |
| Web service access type<br>Network Effects / A.I.   | Web application, front end to [network, device, system, blockchain] heartbeat  | Cloudcenter                                  | Cloudcenter    | Cloudcenter | Cloudcenter | Cloudcenter |
| LANGUAGE /<br>PLATFORM BINDINGS   | PHP Java Erlang...   | Cloudcenter                                  | Cloudcenter    | Cloudcenter | Cloudcenter | Cloudcenter |
| Interface Characteristics   | SCOP is a web application, PHP based front-end to heartbeat, IP Virtual Server ipvs and Idirectord [e.g., check interval @ 5 seconds]<br>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.  | Satoshi Bitcoin Blockchain Time Stamp Server | E0 E1 E2 E3... | E1          | E2          | En          |
| "The external environment could update <u>resources</u> at random...<br>One solution is a <b>heartbeat</b> : defining a default lease duration delaying updates until the next <b>cycle</b> " |  <p>The solution we propose begins with a timestamp server. A timestamp server works by taking the current time, generating a unique identifier, and publishing the hash, such as in a timestamp or a time stamp [2]. The timestamp process that the data must have occurred at the time of the timestamp is called a timestamping. This timestamp is then published on the network, forming a chain, with each additional timestamp recording the previous one.</p> <p>THE SOLUTION WE PROPOSE BEGINS WITH A TIME STAMP SERVER</p> <p>Block chain</p> <p>What does a block look like?</p> <p>Simplified block structure:</p> <ul style="list-style-type: none"> <li>version info</li> <li>previous hash</li> <li>timestamp</li> <li>merkle</li> <li>transaction's id list</li> </ul> <p>Headers: Contains version information (version info), previous block's hash (previous hash) and timestamp (timestamp). Transactions: A list of transactions (transaction's id list).</p> | MICRO CYCLES                                 | MACRO CYCLES   |             |             |             |
| QubitCoin Interval: Every 30 Seconds  |  |  |                |             |             |             |

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

HEART BEACON CYCLE  
USPTO 13/573,002  
SURVEY METHODS

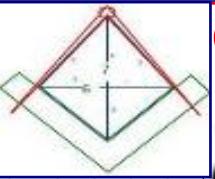
## SC ALICE CORP VS CLS BANK: “claims may not direct towards abstract ideas”

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

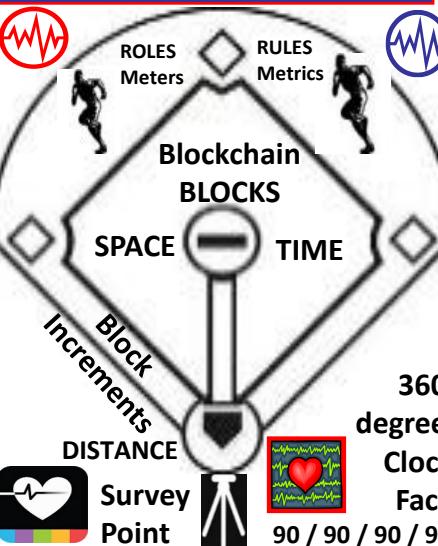


## Mined Bitcoins



BLOCKS / COINS PENDING ISSUE

B  
A  
C



$\Delta\delta$

## 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”

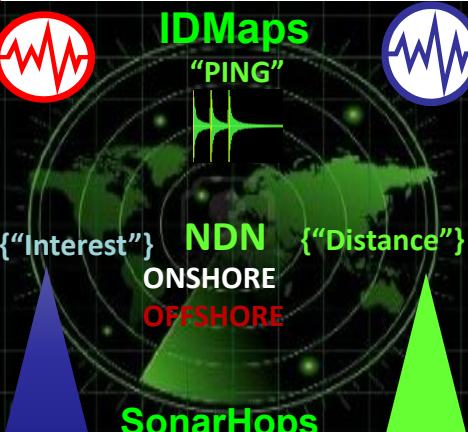
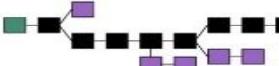
Coin never travel, but simply switch owners”

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

vector



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





# Tokenization of Physical Assets Enables Economy Of Everything

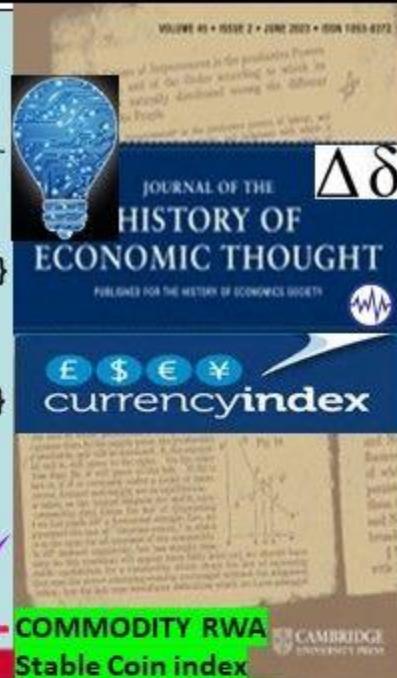


## ALGORITHMIC STABLE COIN COMMODITY INDEX CURRENCY PROGRAMMABLE \$\$\$

BELT and ROAD  
Trade Initiative



**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



NETWORK  
CENTRIC  
OPERATIONS  
**INFOCON**  
4 3 2 1  
INFORMATION  
CONDITION



# Thomas Edison's Monetary Option Cambridge University Press 2009

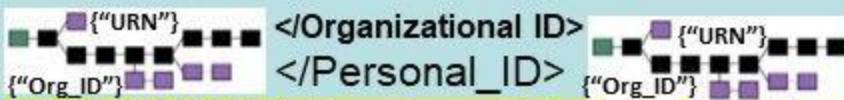
"Crops hold their value best over time"



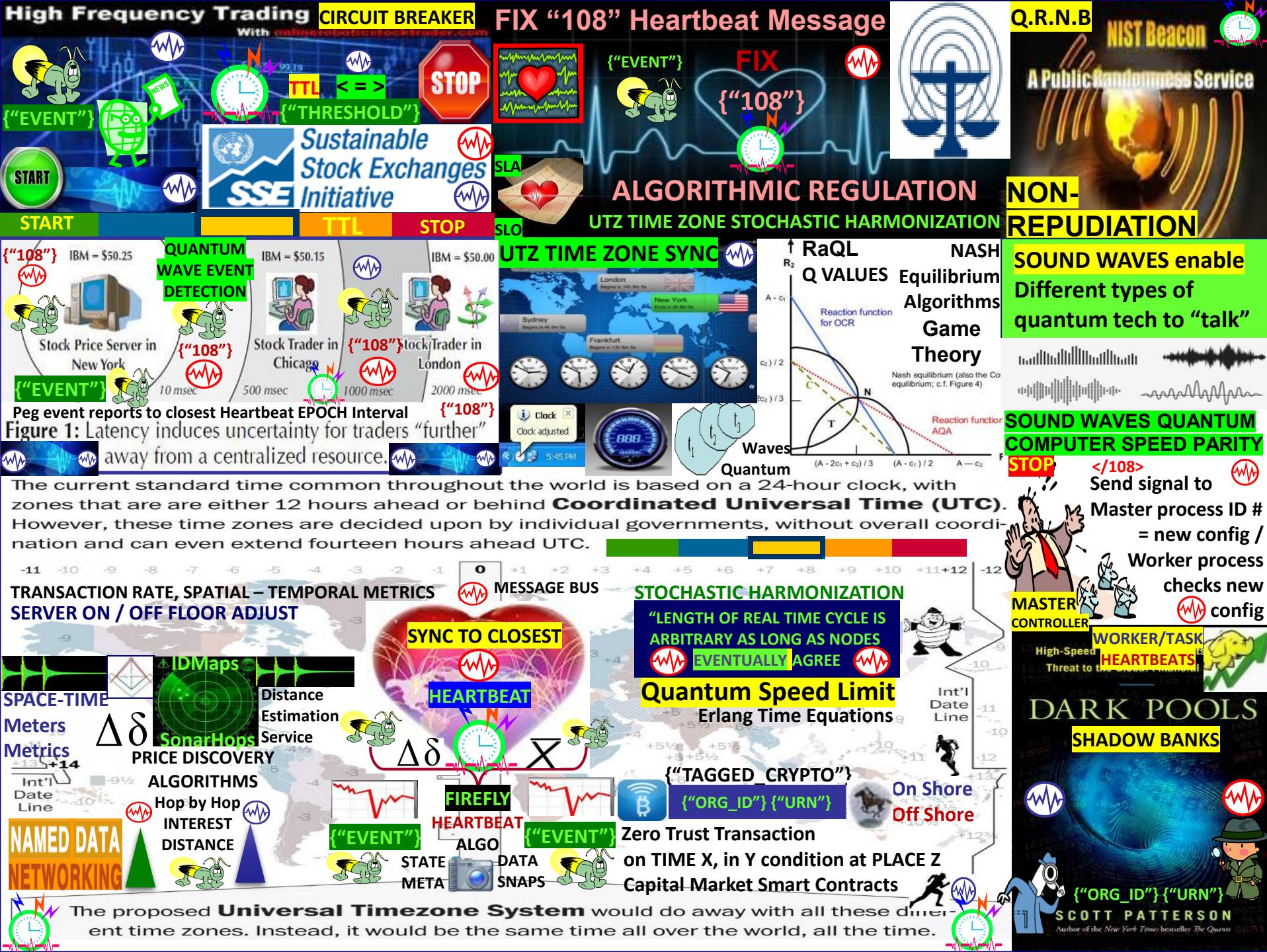
COMMODITY RWA  
REAL WORLD ASSET  
STABLE COIN INDEX

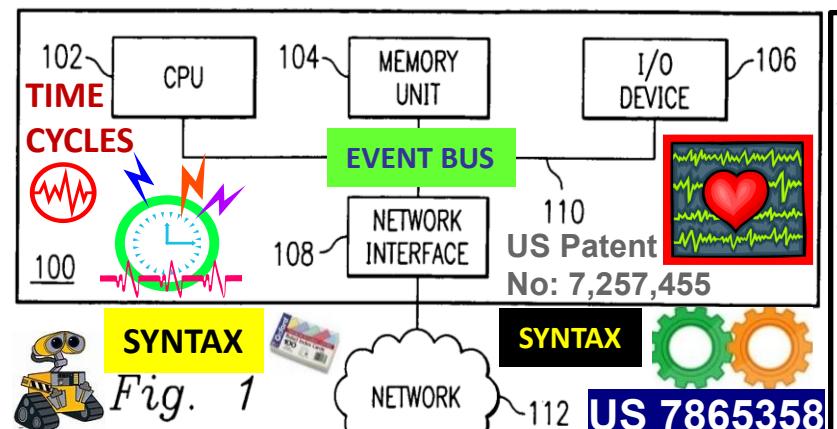
BY DAVID L. HAMMES

"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



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



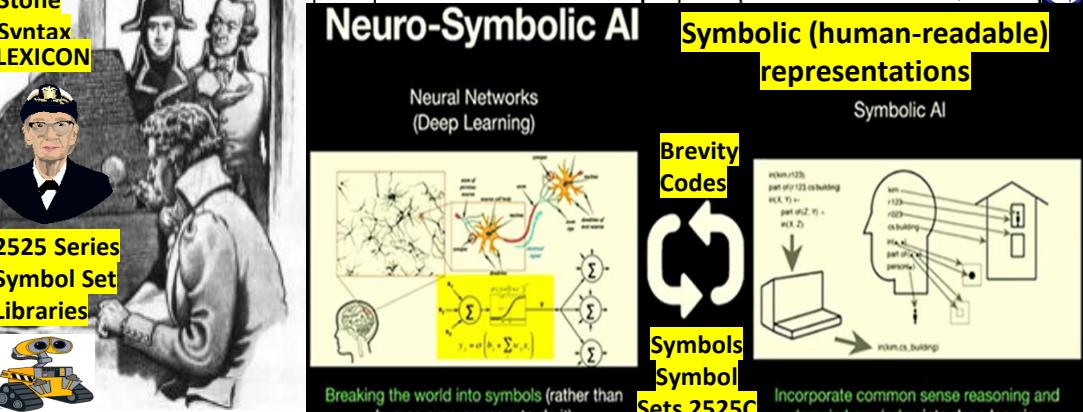
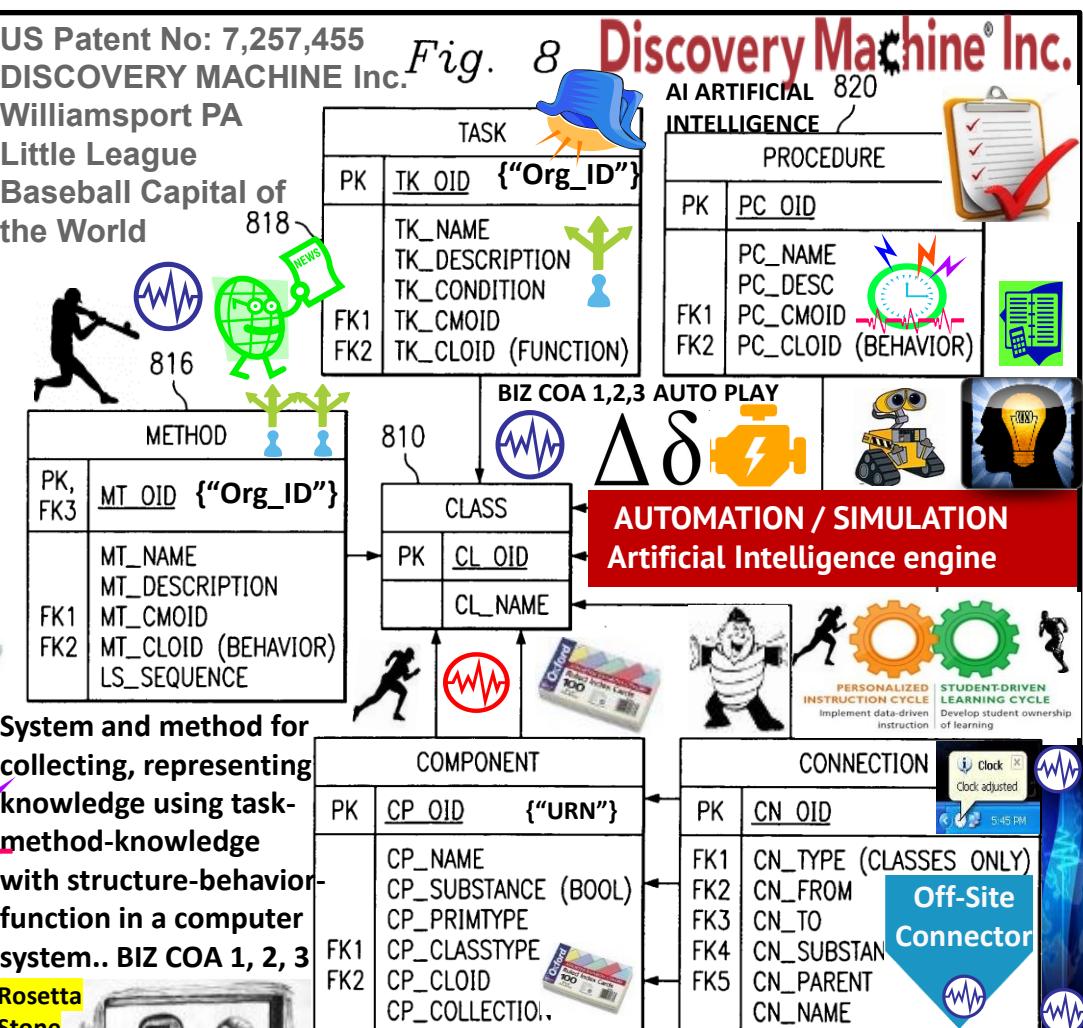
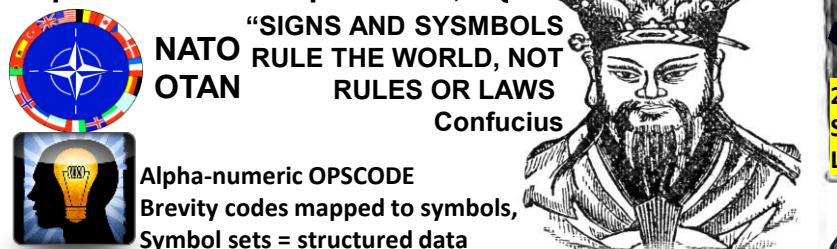


Machine-based system for transforming data from a source form to a target form, a tool is provided for sharing information established in developing a transformation model. The shared information may relate to rules for mapping source collection terms to standardized terms, rules for ordering or **SYNTAX**,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



# 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

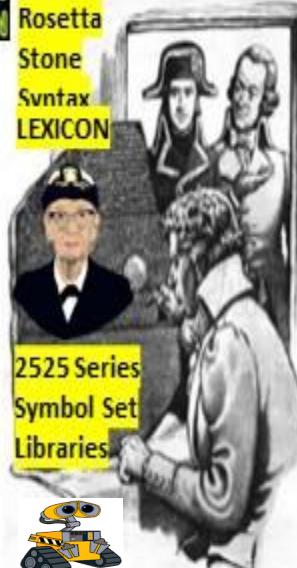
This claim implies both that human thinking is a kind of symbol manipulation (because a symbol system is necessary for intelligence) and that machines can be intelligent (because a symbol system is sufficient for intelligence).[3] The idea has philosophical roots in Hobbes (who claimed reasoning was "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](https://en.wikipedia.org/wiki/Physical_symbol_system)

data from a first form to a second form

CONDITION

Rosetta  
Stone  
Syntax  
LEXICON



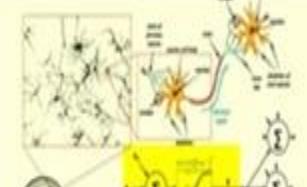
FRT CP CLOUD

ABC A OPS CODE BREVITY CODES

Neuro-Symbolic AI

Symbolic (human-readable)  
representations

Neural Networks  
(Deep Learning)



Brevity  
Codes

Symbolic AI

Alpha-numeric OPS CODE

Brevity codes mapped to symbols,

Symbol sets = structured data



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



Confucius

Alpha-numeric OPS CODE

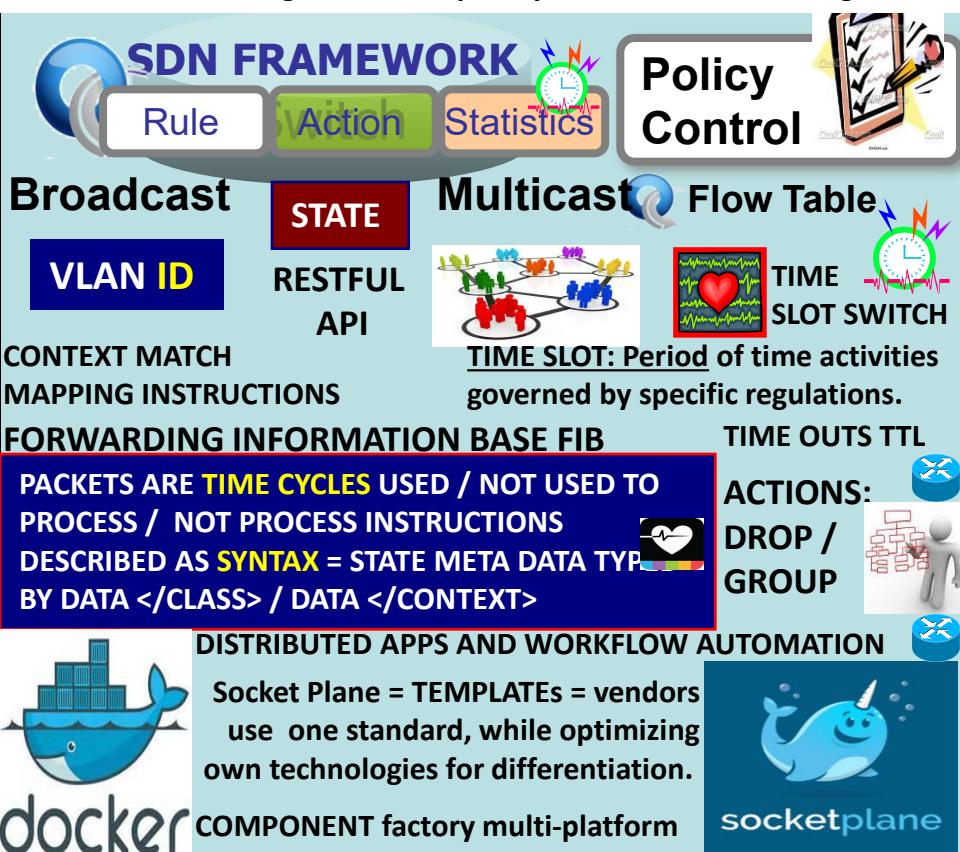
Brevity codes mapped to symbols,

Symbol sets = structured data



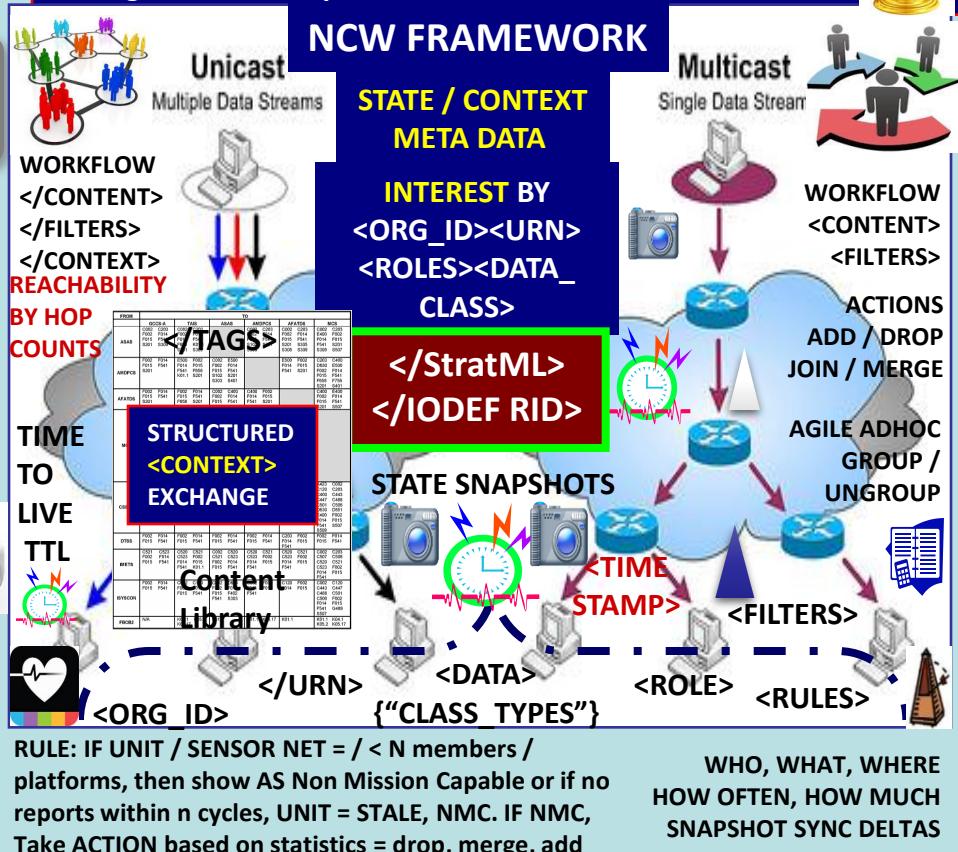
- SDN is a *framework* to allow network administrators to *automatically* and dynamically manage and control a *large number* of network devices, *services*, topology, traffic paths, and packet handling (quality of

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

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

Time Series

DISTANCE INFO SERVICE

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



IEEE 802.11  
HOP BY HOP CONTROL

Unused Resources / Unmet Needs



Spatial  
Econometrics

TIME-SPACE BEACON  
INFOCON

5 4 3 2 1  
INFORMATION  
CONDITION

Spaceship  
Earth  
Signals &  
Telemetry  
Annex

METRICS / METERS  
TRADE WITH EARTH  
???

SIRIUS DISCLOSURE

ASTEROID BELTS =  
RARE MINERALS

MOON =  
HELIUM 3  
"Numbers are the  
Universal Language  
offered by deity to humans as  
confirmation of the truth"



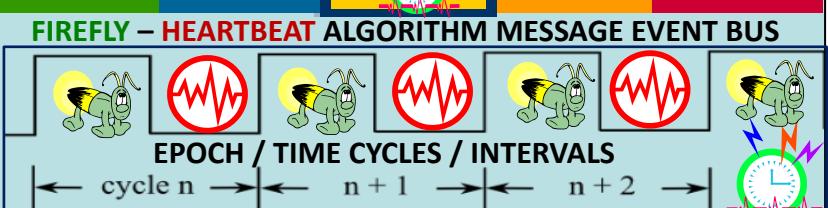
Farther = More Cost  
➤ Fuel, Resources

STOCHASTIC  
HARMONIZATION  
Service Level Agreements

FIREFLY-HEARTBEAT  
ALGORITHM  
UNIVERSAL  
EVENT MESSAGE BUS

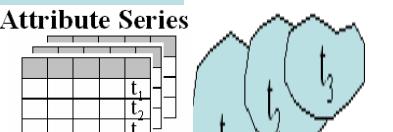
ERLANG  
TIME- SPACE METRICS

SYNTAX  
LEXICON  
CODE  
KOO.99



PAUL REVERE  
LINEAR, SEQUENTIAL

RADIUS  
WATER DROP IN POND MEME



Attribute Series



INTEREST  
DISTANCE



Geo  
Spatial  
Temporal Series



Micro Grids Closer - Cheaper

BLOCKCHAIN  
MICROGRIDS

603  
NULL +1 +2



TCP/IP HOP BY HOP COUNT

Energy Attenuates over Distances

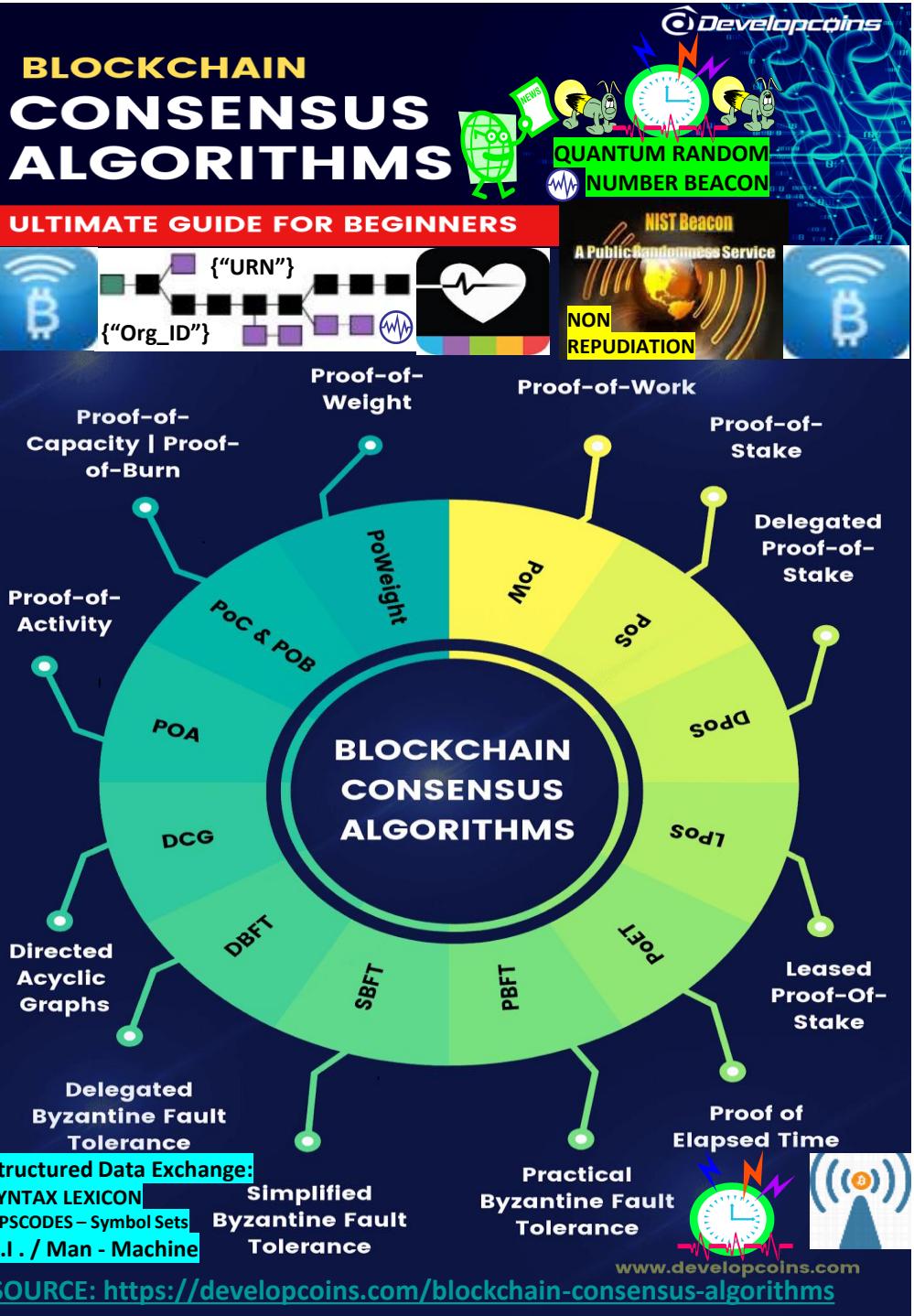
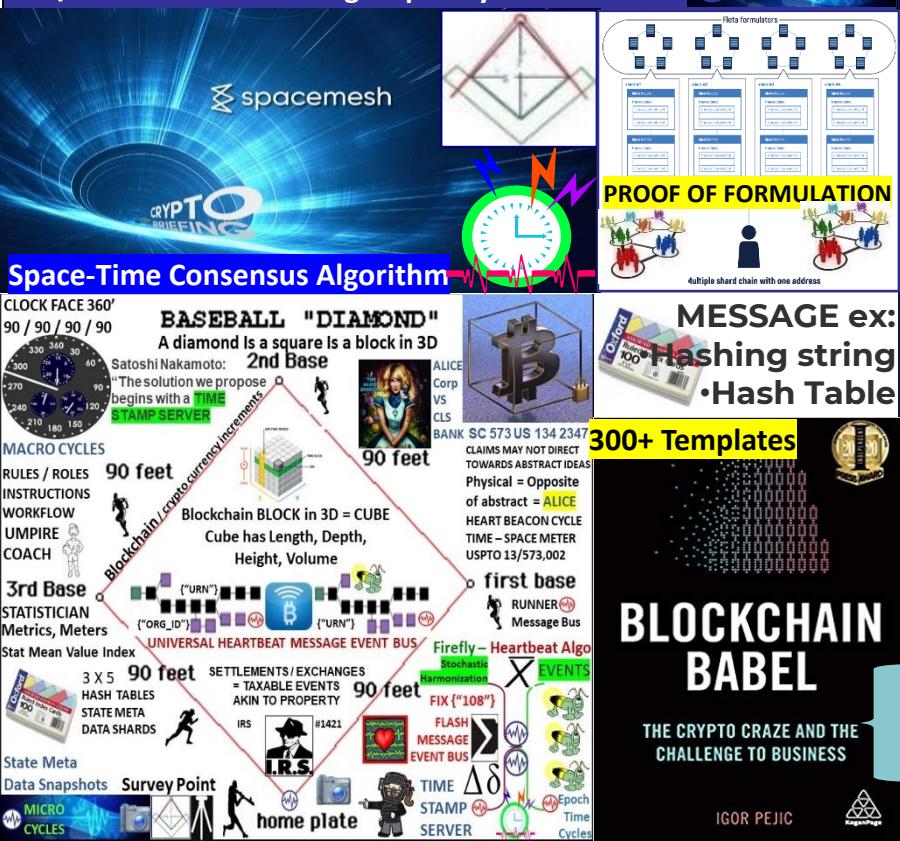


Q: Which meme describes the myriad blockchain consensus algorithms the most comprehensively that uses an algorithm (based on nature = “shortest path to the knowledge of truth Luxor Temple) enabling distributed system of systems geo-spatial, UTZ Universal Time Zone temporal, semantic - syntactic sync, 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

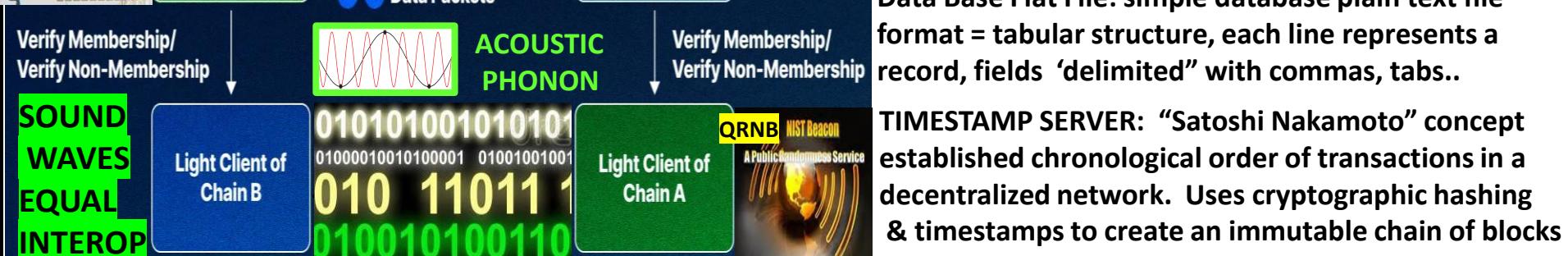
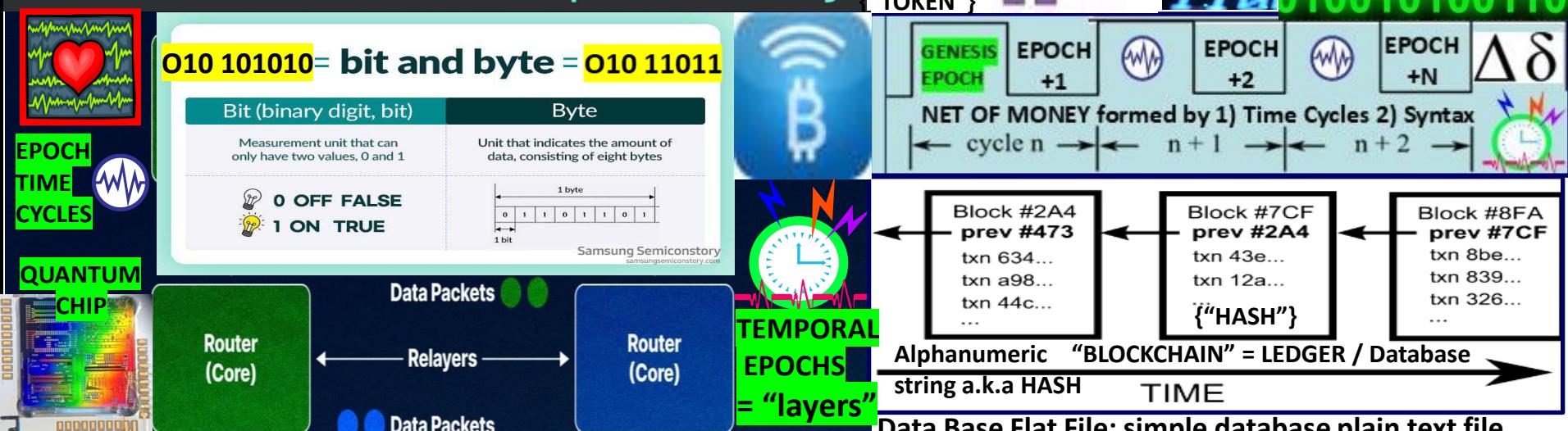
alphanumeric characters i.e., TOKENS

**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



- 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 -

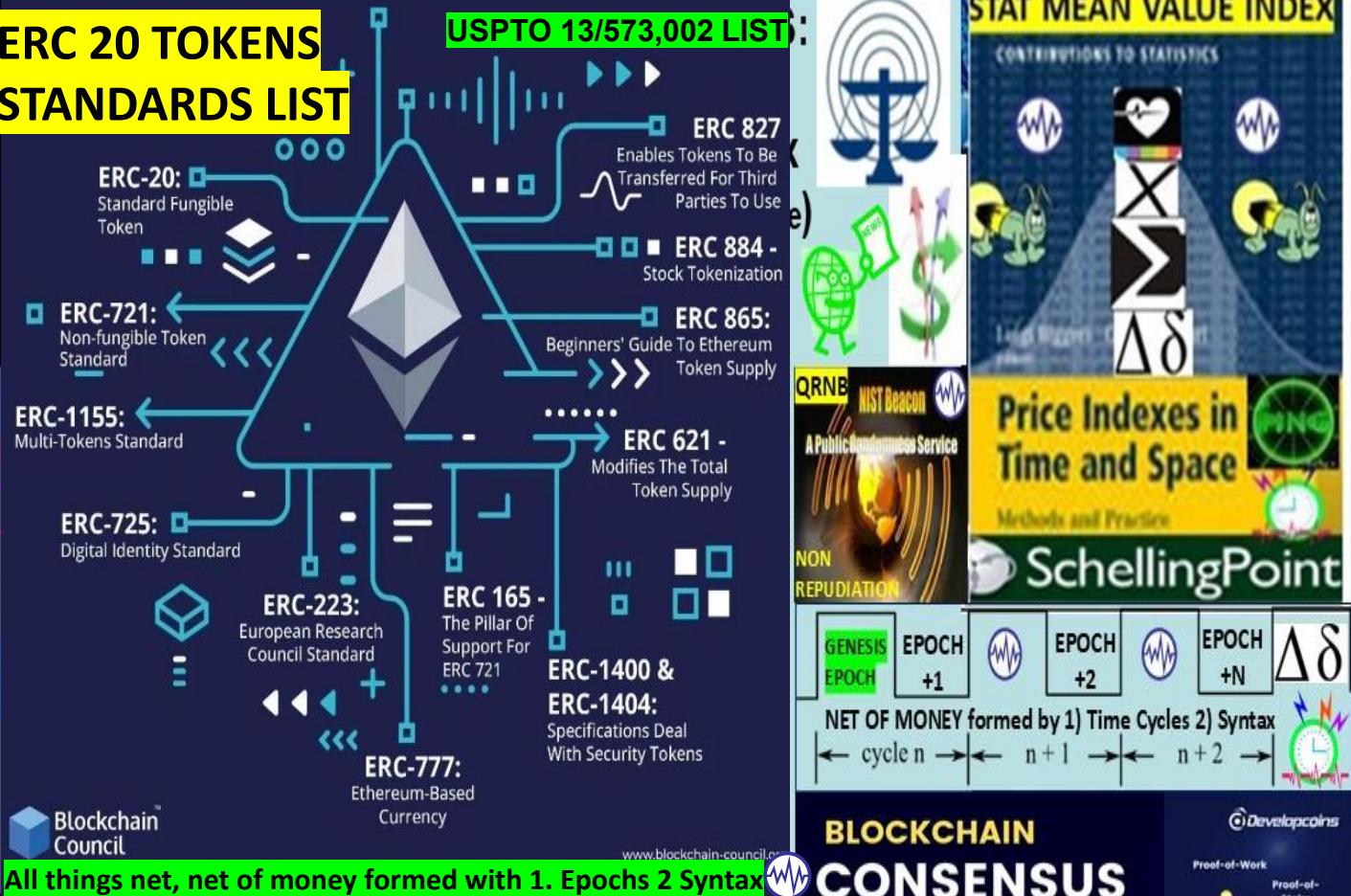
space for common purposes”

Eco sustainable, Equitable

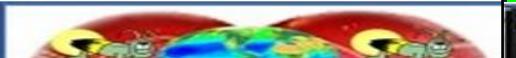
Economic econometrics.



## ERC 20 TOKENS STANDARDS LIST



www.blockchain-council.org



### Federation Gateway

MEDIATE

$\Delta\delta$  MITIGATE

Breveity Codes / Tokens

STRUCTURED DATA EXCHANGE

UNIVERSAL MEME

Purchased Bitcoins

Akin to property

I.R.S.

On / Off Shore

Time-Series Databases

XBRL / CDL / DAML

**FEDERATION:** Latin: foedus, foederis, 1. covenant, union of partially self-governing states under a central government

2. League or confederacy. People, groups retain autonomy

3. A federated body formed by a number of nations, states, societies, unions, retaining control of own internal affairs

SC Alice Corp “claims may not direct

V CLS Bank To abstract ideas” Alpha-Numeric

Brevity Codes / Tokens

“Bitcoin is a language” STRUCTURED DATA EXCHANGE

ISO 20022 2525C1D

NATO NETOPS

DATA SETS TEMPLATE FORMS

“LOGIC” “FILTERS” Message Sets

XBRL / CDL / DAML

ROSETTA STONE

USPTO 13/573,002



A.I. Procedural

SYNTAX LEXICON

CODER'S GUIDE

ISO 9001

SWIFT

NETOPS

DATA SETS

TEMPLATE FORMS

Message Sets

XBRL / CDL / DAML

ROSETTA STONE

## STAT MEAN VALUE INDEX

CONTRIBUTIONS TO STATISTICS



QRNB NIST Beacon

A Public Benchmarking Service

NON REPUDIATION



GENESIS EPOCH

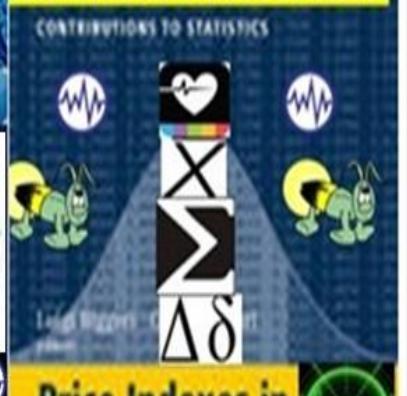
EPOCH +1

EPOCH +2

EPOCH +N

$\Delta\delta$

## Price Indexes in Time and Space



Methods and Practice

SchellingPoint



GENESIS EPOCH

EPOCH +1

EPOCH +2

EPOCH +N

$\Delta\delta$

NET OF MONEY formed by 1) Time Cycles 2) Syntax

cycle n n + 1 n + 2

NET OF MONEY formed by 1) Time Cycles 2) Syntax

cycle n n + 1 n + 2

NET OF MONEY formed by 1) Time Cycles 2) Syntax

cycle n n + 1 n + 2

NET OF MONEY formed by 1) Time Cycles 2) Syntax

cycle n n + 1 n + 2

NET OF MONEY formed by 1) Time Cycles 2) Syntax

cycle n n + 1 n + 2

NET OF MONEY formed by 1) Time Cycles 2) Syntax

cycle n n + 1 n + 2

NET OF MONEY formed by 1) Time Cycles 2) Syntax

cycle n n + 1 n + 2

## BLOCKCHAIN CONSENSUS ALGORITHMS

Proof-of-Work

Proof-of-Stake

Delegated Proof-of-Stake

Proof-of-Activity

POC & POS

POA

DCG

RAFT

SRAFT

LPFT

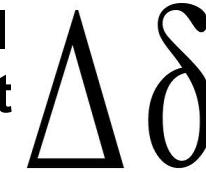
Leased Proof-of-Stake

Delegated Byzantine Fault Tolerance

Simplified Byzantine Fault Tolerance

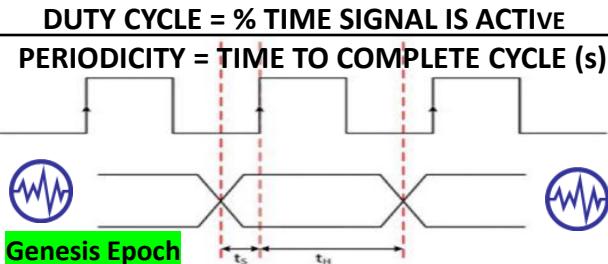
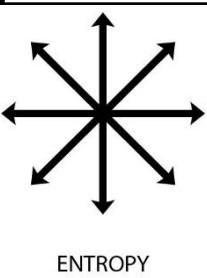
Practical Byzantine Fault Tolerance

www.developcoins.com



# "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)

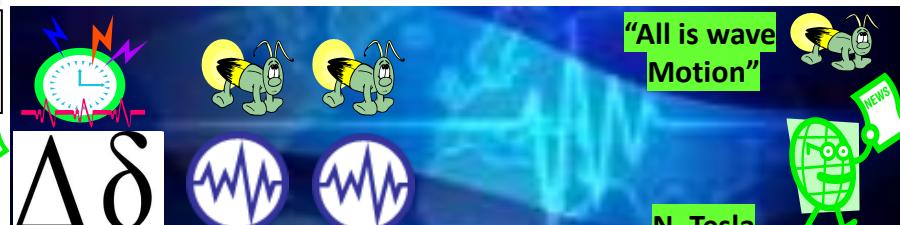
AIONET's core consensus system. Instead of mining or staking, PoM uses high-speed HBM-DRAM memory and AI to check system behavior in real time. If memory behaves predictably and honestly, the transaction is validated. No guessing — just logic, and finality as fast as memory can physically operate.

**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**.

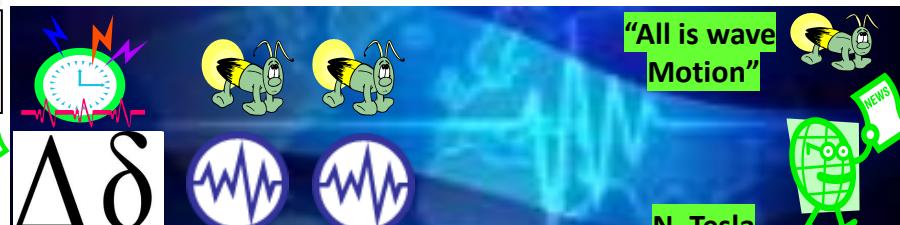
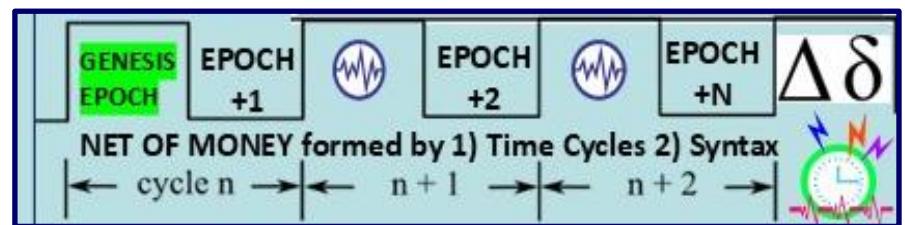


Firefly inspired **Heartbeat Algorithm:** over time, all nodes eventually agree, synchronize over time  
Firefly – Heartbeat algorithm includes a heartbeat Message / event monitoring / reporting bus  
Intrinsic to the internet's operation </108> </0>



"All is wave Motion"

N. Tesla



# 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

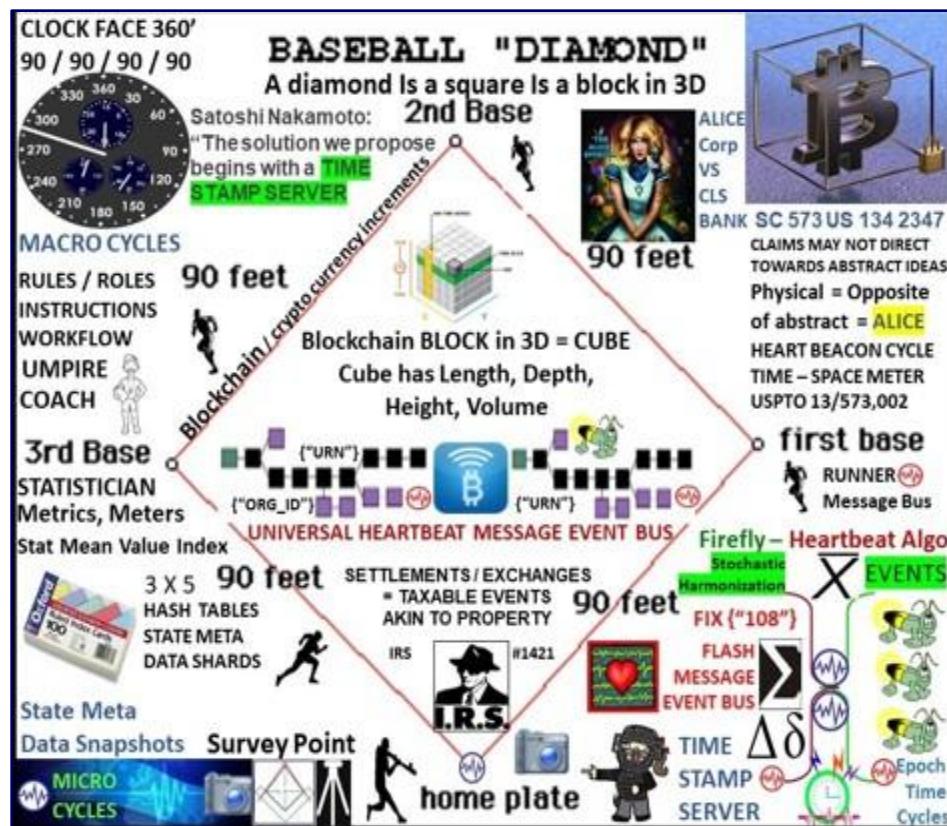
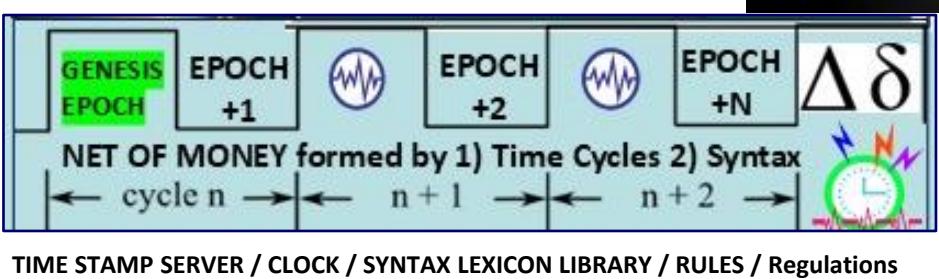
Token Type: Utility and Governance Token

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

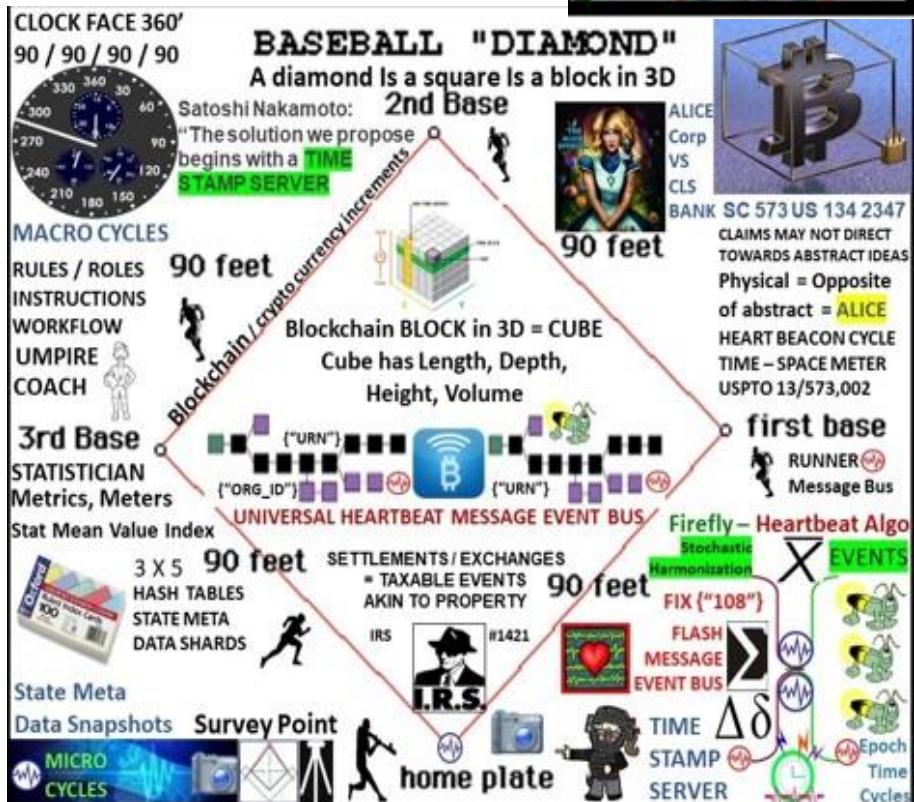
ERC-721: non-fungible tokens (NFTs) unique digital assets i.e., collectibles, art + functions: ownerOf, safeTransferFrom

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



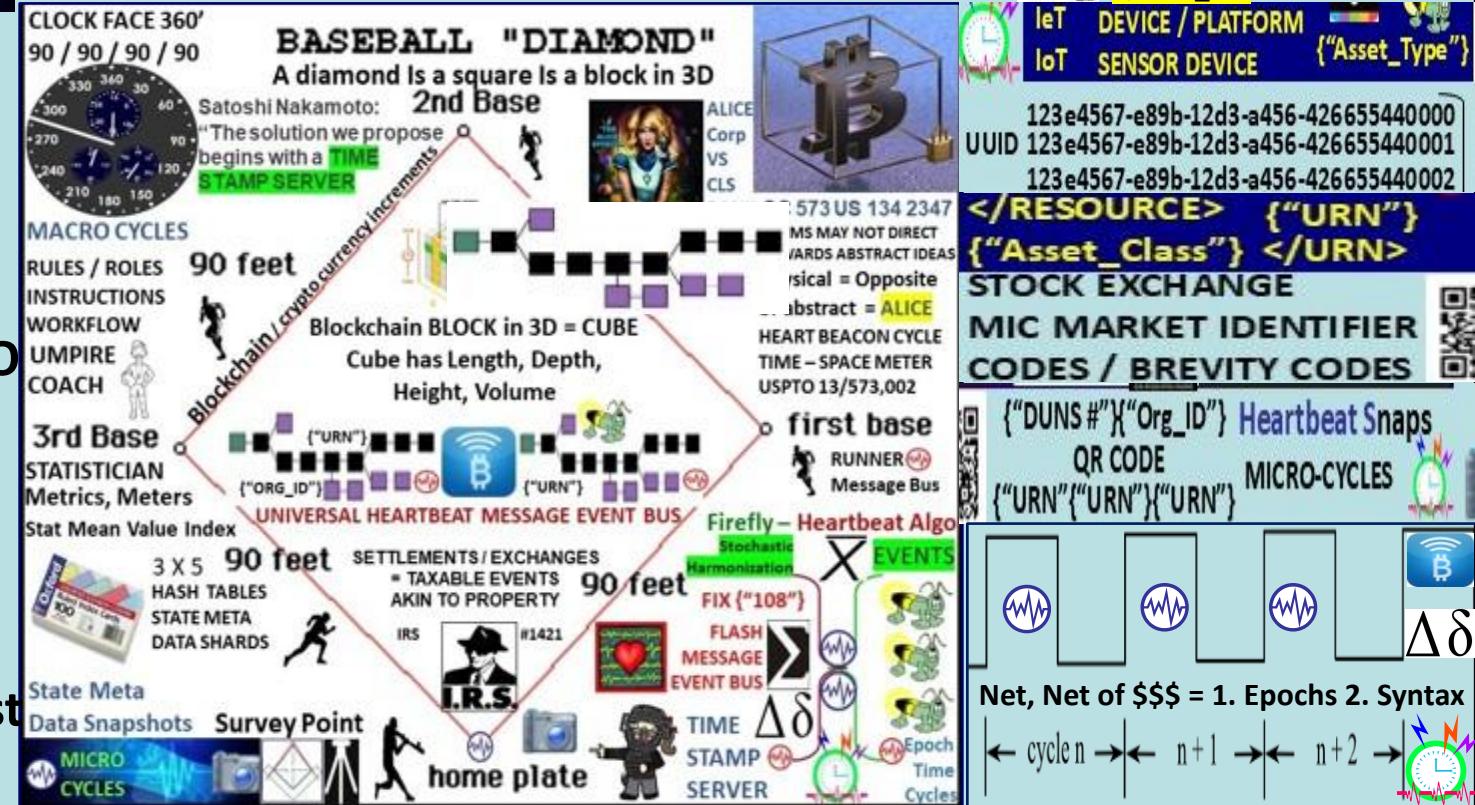
- AVAILABILITY: Information is accessible, usable when authorized



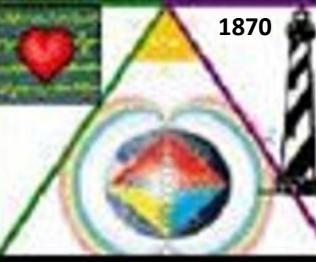
INTEGRITY: events,  
Messages, alerts..  
Time stamp server  
with “blockchain”  
Immutability rules  
In effect across DAO

CONFIDENTIALITY  
Organizational ID  
Xmit {"Org\_ID"}  
with individual's ID  
available on request  
granted by group

AVAILABILITY: By roles when rules permit access are met



# THE BITCOIN BLOCKCHAIN FOR DUMMIES



Satoshi Nakamoto

Craig WRIGHT

a.k.a.

Satoshi Nakamoto

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

**Wright Brother’s 1<sup>st</sup> Flight  
Cape Hatteras Outer Banks**

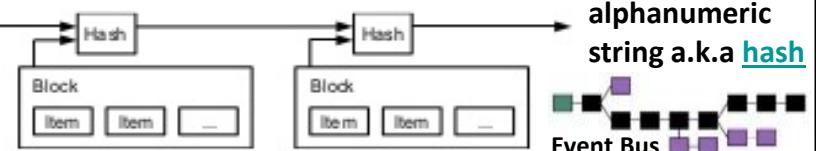
Satoshi Nakamoto Bitcoin Paper

“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.

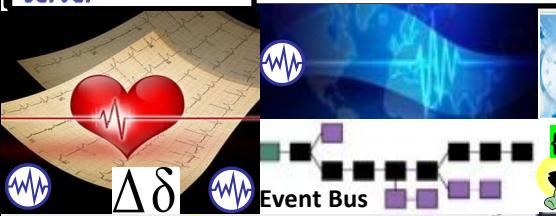
**Bitcoin Protocol  
for Dummies**  
Part 4 Timestamp  
Server



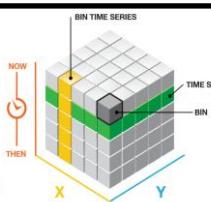
**“All things net, net of money are formed with 1) epoch time cycles  
2) Syntax parsed as instructions**



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



JapanNet Crypto Time  
Authentication Service  
(Timestamp Service)



CLOCK FACE 360°  
90 / 90 / 90 / 90

MACRO CYCLES

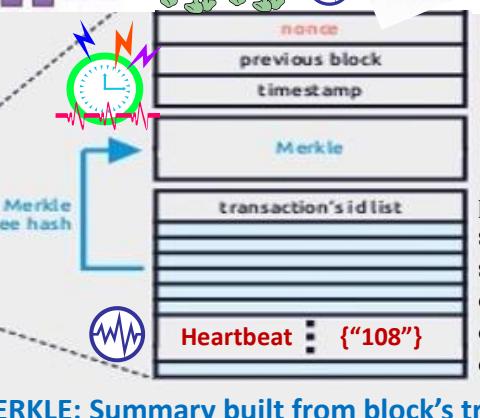
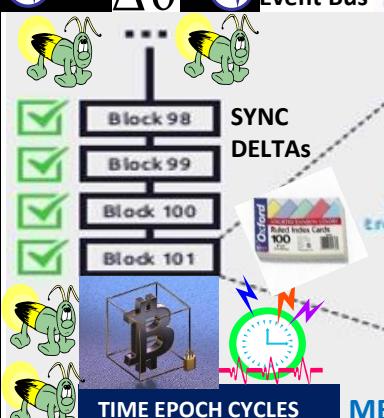
**BASEBALL “DIAMOND”**  
A diamond Is a square Is a block in 3D  
2nd Base

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



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



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

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

Blockchain /  
cryptocurrency increments

90 feet

first base

RUNNER Message Bus

90 feet

SETTLEMENTS / EXCHANGES

= TAXABLE EVENTS  
AKIN TO PROPERTY

IRS #1421

Fix {"108"}

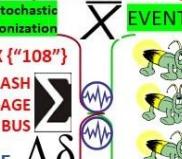
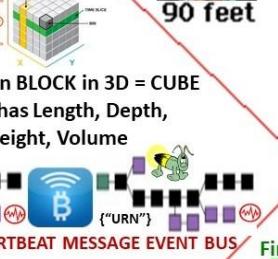
FLASH MESSAGE

EVENT BUS

90 feet

home plate

TIME STAMP SERVER



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

Header - Contains service information (version info, nonce, previous block id and timestamp). {“Org\_ID”}  
Merkle - A summary built from the block's transaction identifiers.

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



# Blockchain

BLUEPRINT FOR A NEW ECONOMY



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



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

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



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



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



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



### Functional Sequential Erlang

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

### SORTING ALGO'S

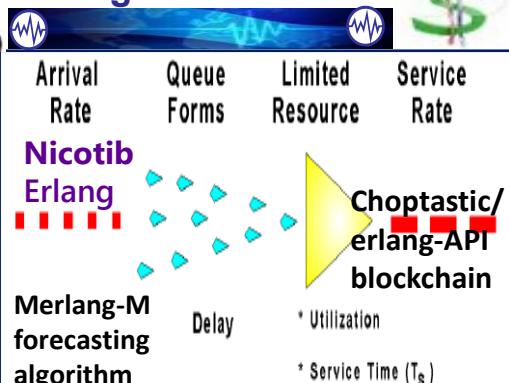
Ericsson Open Money  
For Society Patent App



20130166398 "System And Method For Implementing A Context Based Payment System."

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

"When money is open, the way we send, spend and receive money will change forever"



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



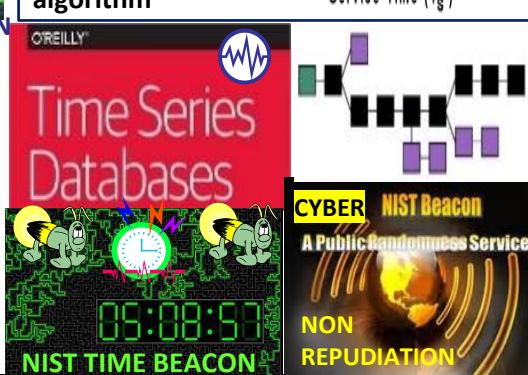
distributed "noSQL" database, embedded right into Erlang,  
supports indexing, replication, transactions, and fail-over

Fast ETS in-memory, and DETS persistent on-disk database

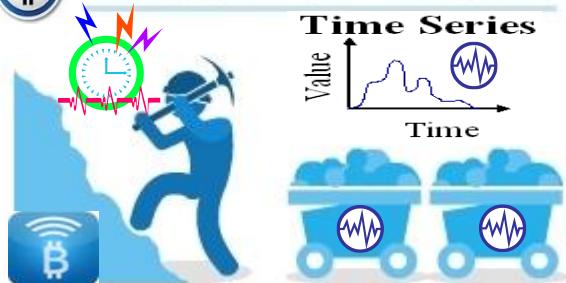
Mnesia database ("Organization\_ID") Global name resolution



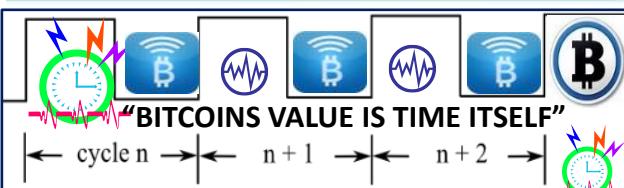
| FROM       | ISOC-A    | THIN    | ADAM  | AMERICA | AFARON | WIND |
|------------|-----------|---------|-------|---------|--------|------|
| XBRL       | / CDL     | / DAML  |       |         |        |      |
| ALPHA      | NUMERIC   | BREVITY | CODES |         |        |      |
| AZURE      | BLETCHLEY |         |       |         |        |      |
| STRUCTURED |           |         |       |         |        |      |
| MILITARY   | MESSAGE   |         |       |         |        |      |
| TEMPLATE   | FORMS     |         |       |         |        |      |
| LOGIC      | / FILTERS |         |       |         |        |      |



# 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

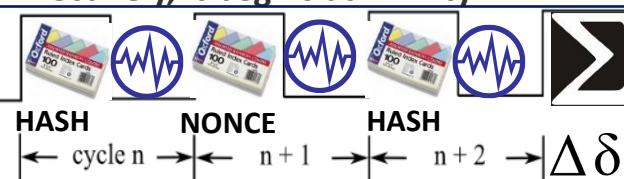


THROTTLE equivalent to difficulty. State  
•target = maximum value of 8 bytes Snap  
( $2^{64}$ ) divided by the difficulty.

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



300+Message Templates

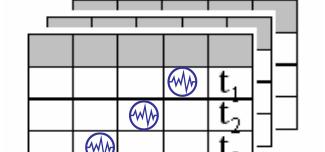
| FROM      | TO/CC                  | DATE               | TIME           | TYPE     | ATTACHMENT | STATUS | INFO |
|-----------|------------------------|--------------------|----------------|----------|------------|--------|------|
| ORIELLY   | Clock                  | 5:45 PM            | Clock adjusted | CALENDAR |            |        |      |
| OXFORD    | 100 Postage Paid Cards | 5:45 PM            |                |          |            |        |      |
| ALICE     | Corp VS CLS BANK       | SC 573 US 134 2347 |                |          |            |        |      |
| CISCO     |                        |                    |                |          |            |        |      |
| DPDK      |                        |                    |                |          |            |        |      |
| METACLOUD |                        |                    |                |          |            |        |      |
| REFINER   |                        |                    |                |          |            |        |      |

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**

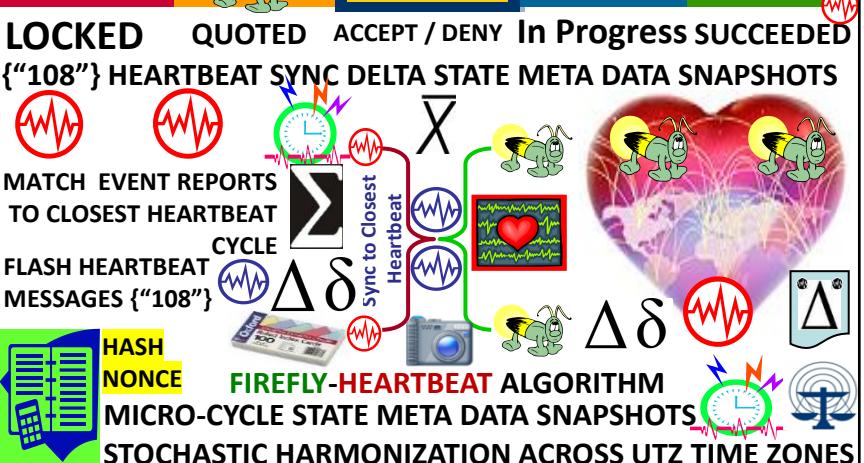
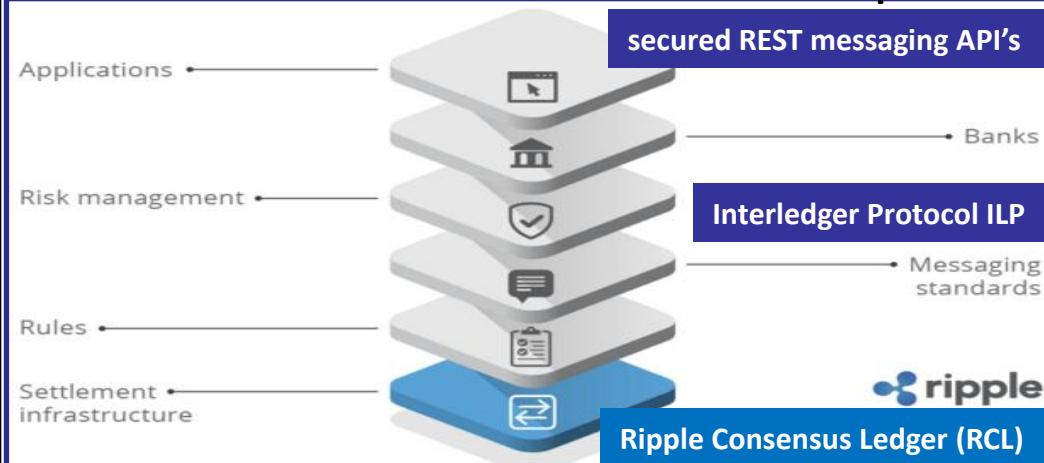
Net joins, drops, splits, merges, moves  
Agile, adhoc NETOPS Vs acquisition preserves the

LIQUIDITY, ORGANIZATIONAL INTEGRITY OF TRADE FEDERATIONS

**FEDERATION CONSENSUS PROTOCOL**

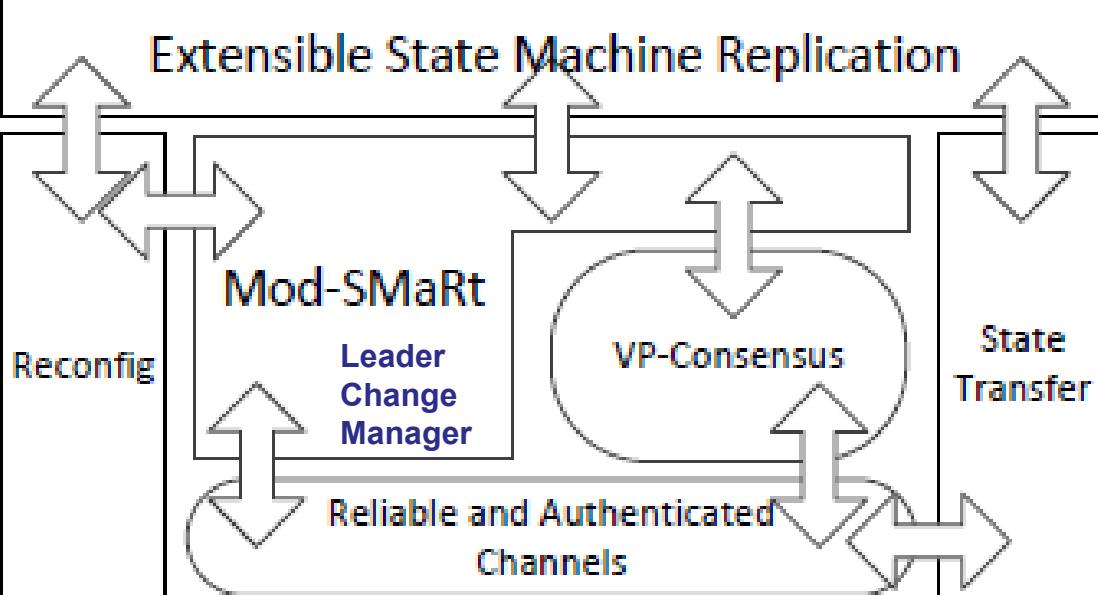
{"GLOBAL"}  
{"SHARED"}  
{"DOMAIN"}  
{"COMMUNITY"}  
{"PRIVATE"}  
{"GROUP ID"}

Neutral transaction protocol



# 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.

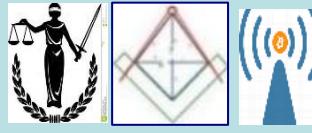
## BFT-SMaRt needs an eventually synchronous system

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



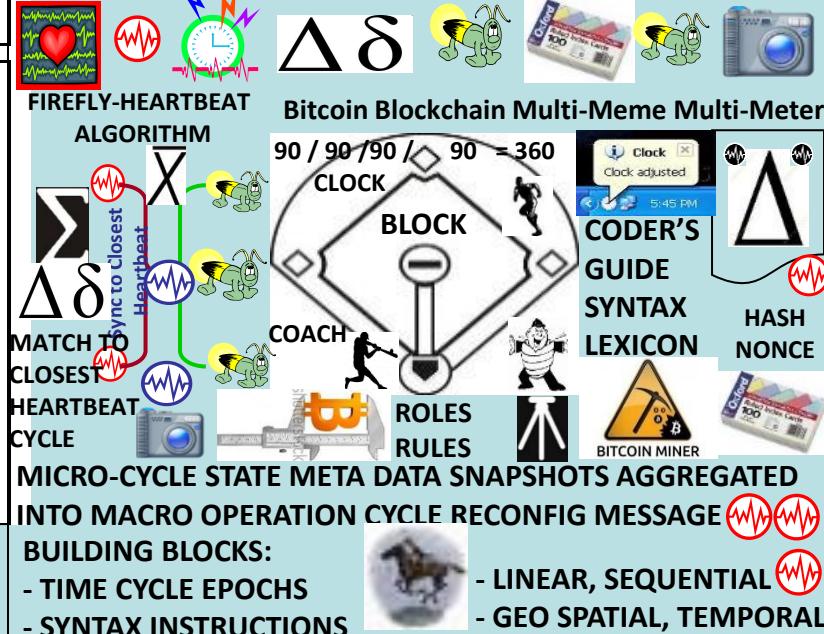
DERIVED FROM BATTLEFIELD DIGITIZATION DISTRIBUTED AUTONOMOUS ORGANIZATION DAO SYSTEM OF SYSTEMS

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

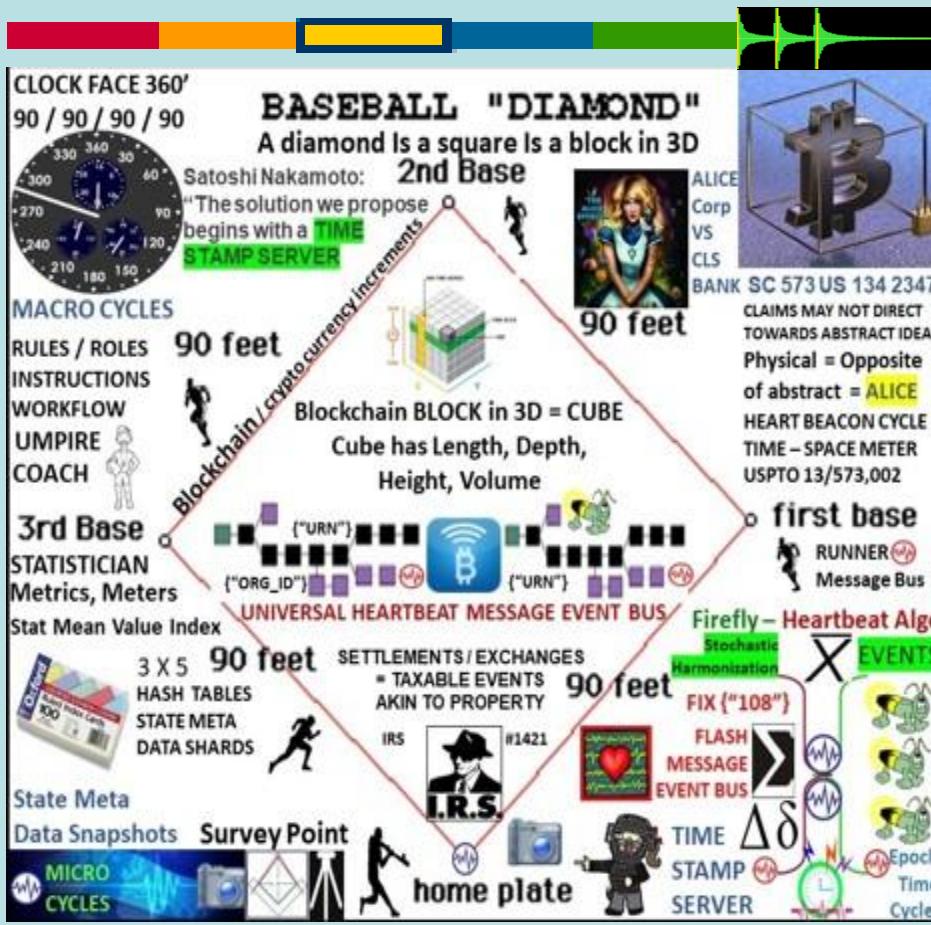


Firefly inspired Heartbeat Synchronization nodes strive to sync in a distributed system. Nodes generate periodic "heartbeat" events approximately at the same time. It differs from classical clock sync in that nodes are not interested in counting cycles to agree on the ID of the current clock cycle. There 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.

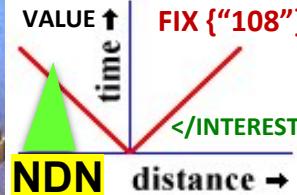
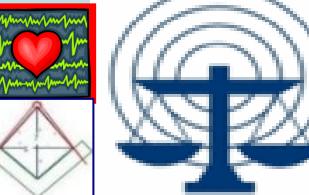


## TIME – SPACE MEASUREMENTS OF TOKENIZED COMMODITIES, SECURITIES... STOCHASTICALLY HARMONIZED ACROSS UTZ Universal Time Zone



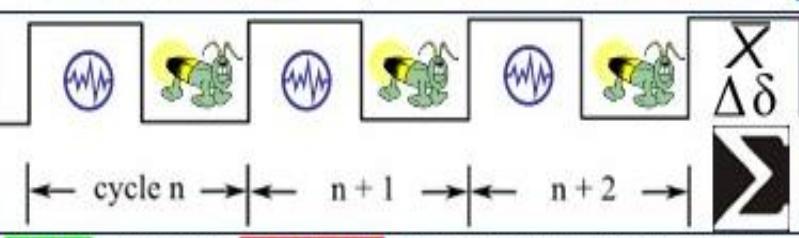
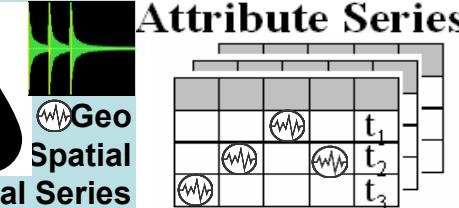
The Volumetric Weight is often referred to as dimensional weight

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.

## Attribute Series



"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



• 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

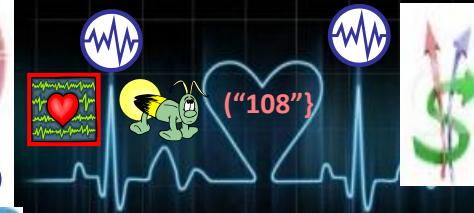


Cryptographic Security

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



SLA  
COMMODITIES  
ECONOMIC HEARTBEAT



STAT MEAN VALUE PULSE  
REAL WORLD ASSETS RWA

STAT MEAN VALUE INDEX

CONTRIBUTIONS TO STATISTICS



Price Indexes in  
Time and Space  
Methods and Practice

SchellingPoint

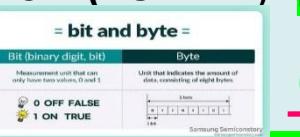
DON: DECENTRALIZED ORACLE NETWORKS      Explicit Staking



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

Chainlink CCIP:Arbitrary Messaging, Token

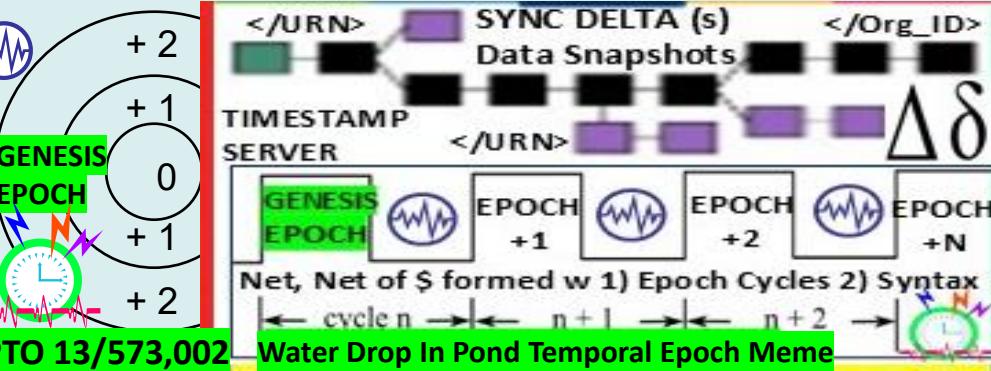
Transfers: data encoded as BYTES 0101010  
in smart contracts on different blockchains



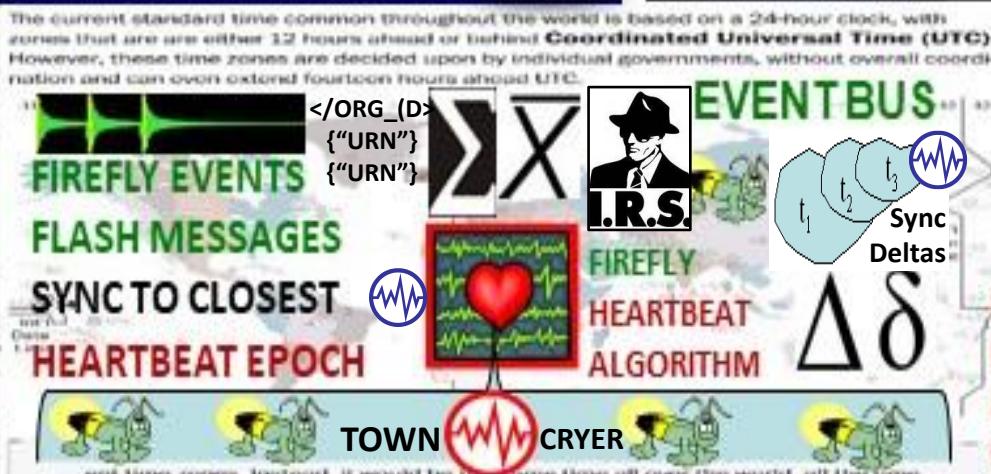
Explicit staking in Chainlink 2.0 oracle reports reflect the STATE of real-world events outside a blockchain (off-chain)

USPTO 13/573,002

Water Drop In Pond Temporal Epoch Meme



- 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

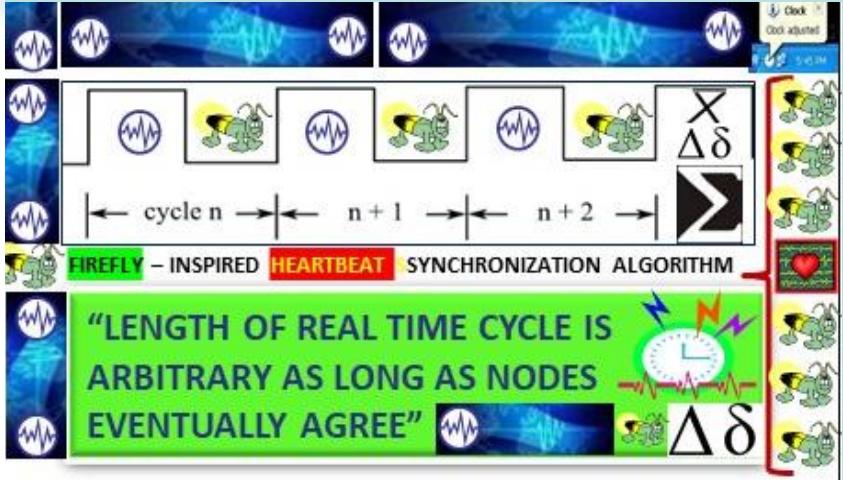
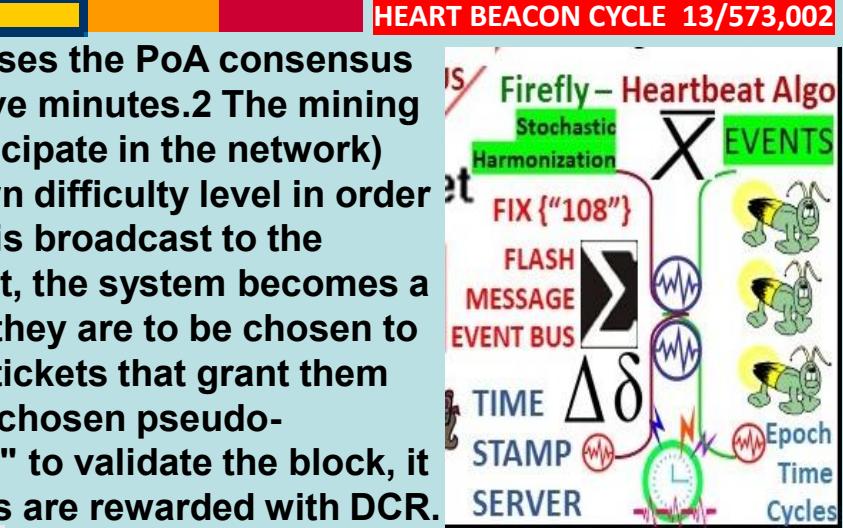
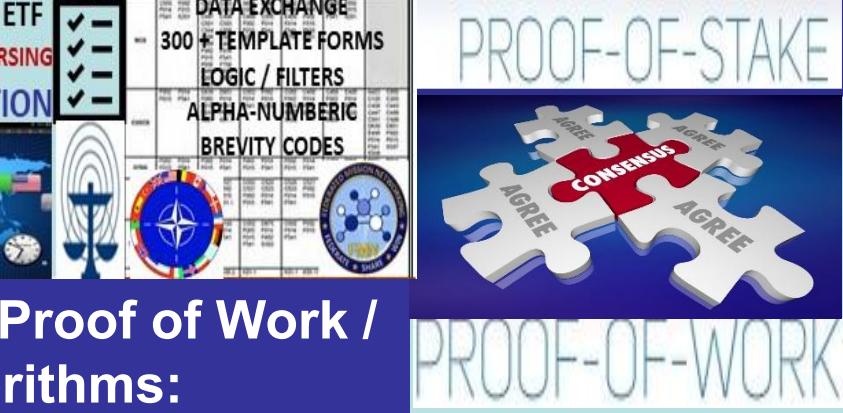
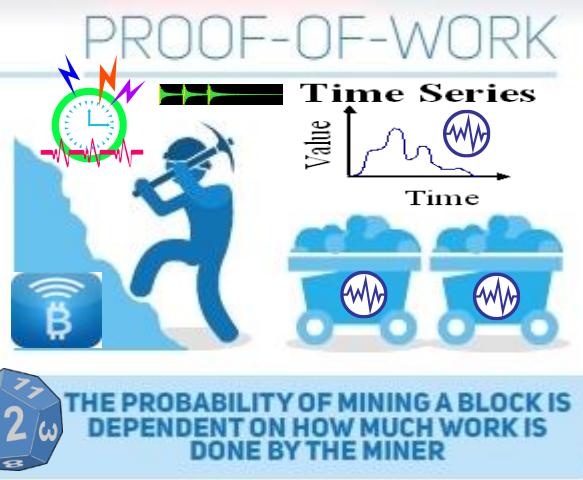
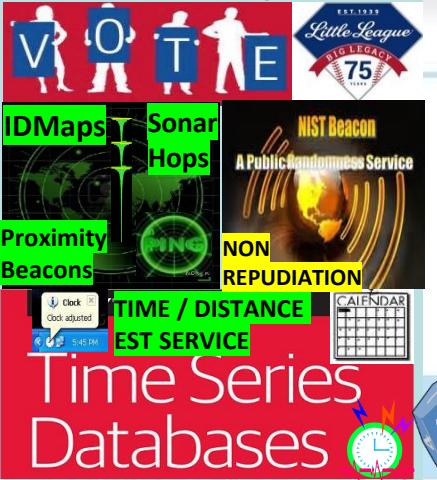




## Proof-of-activity PoA is a combination of Proof of Work / Stake blockchain consensus algorithms:

### 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.<sup>2</sup> 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.





## VERITAS TOKENS

## P2P Capital Market smart contracts Eco Economic HEARTBEAT

Decentralized Trading Platform DAO ORACLE  
access conventional, legacy financial data to  
price, value, trade & settle OTC, P2P financials



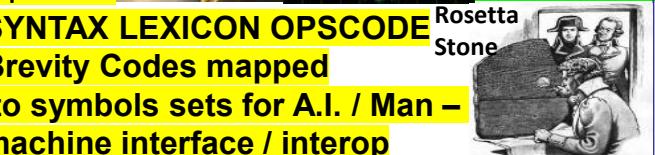
**INFOCON**  
5 4 3 2 1  
**INFORMATION CONDITION**



Zero Trust Transaction: money performs I.A.W. to terms agreed to by parties. Ex: purchase of widget from retail store where widget must be delivered to person B on **TIME X**, in Y condition at **PLACE Z** or person A does not get paid. Stock, currency, commodities, letters of credit, insurance underwriting, trading, intellectual property...

## STATISTICAL MEAN VALUE INDEX PULSE

## GDP INDEX ECONOMY K% RULE



Cost = stated rates that fluctuate with VeUSD exchange rate.  
Veritas holders get priority. The ability to redeem Ve against USD gives clients instant value.

**DAO Distributed Autonomous Organization Investor Pools**



## Heartbeat Flash Messages Precedence Processing

Collateral Notional Expiry

## FIREFLY HEARTBEAT ALGO EVENT MSG BUS

As long as INTC decline outpaces QCOM, you get paid. QCOM can be replaced with GOOG, or even AAPL although I feel AAPL will have its issues in the upcoming quarters as well.

{ "Org\_ID" }  
{ "Tagged" }  
{ "URN" }

**SYNTAX LEXICON OPSCODE**  
**Brevity Codes mapped to symbols sets for A.I. / Man – machine interface / interop**

# 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

Federation  
Gateway



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

Net joins, drops, splits, merges, moves

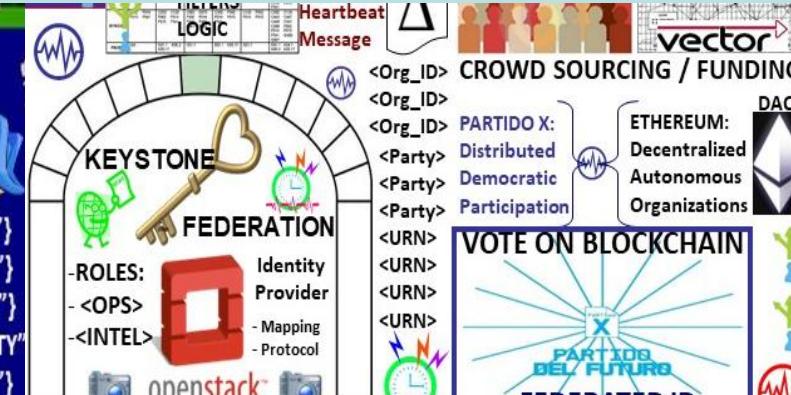
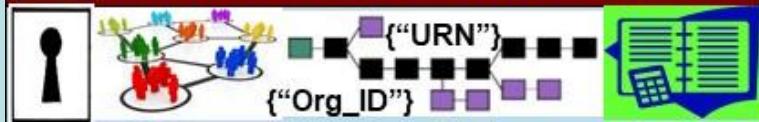
Agile, adhoc NETOPS Vs acquisition preserves the

CHANNEL

DISTRIBUTED AUTONOMOUS ORGANIZATIONS DAO

## Heart Beacon Cycle

### FEDERATE / TRADE FEDERATIONS

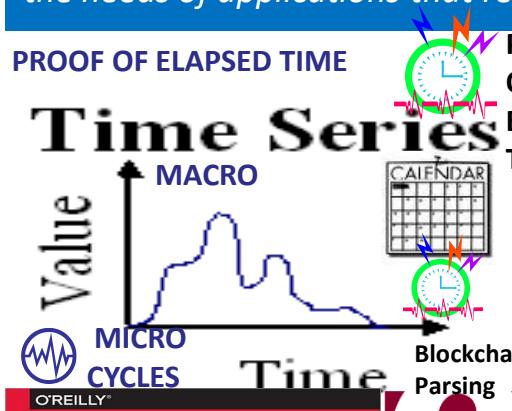


# SAWTOOTH LAKE POETIC CONSENSUS PROOF OF ELAPSED TIME: POET

"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



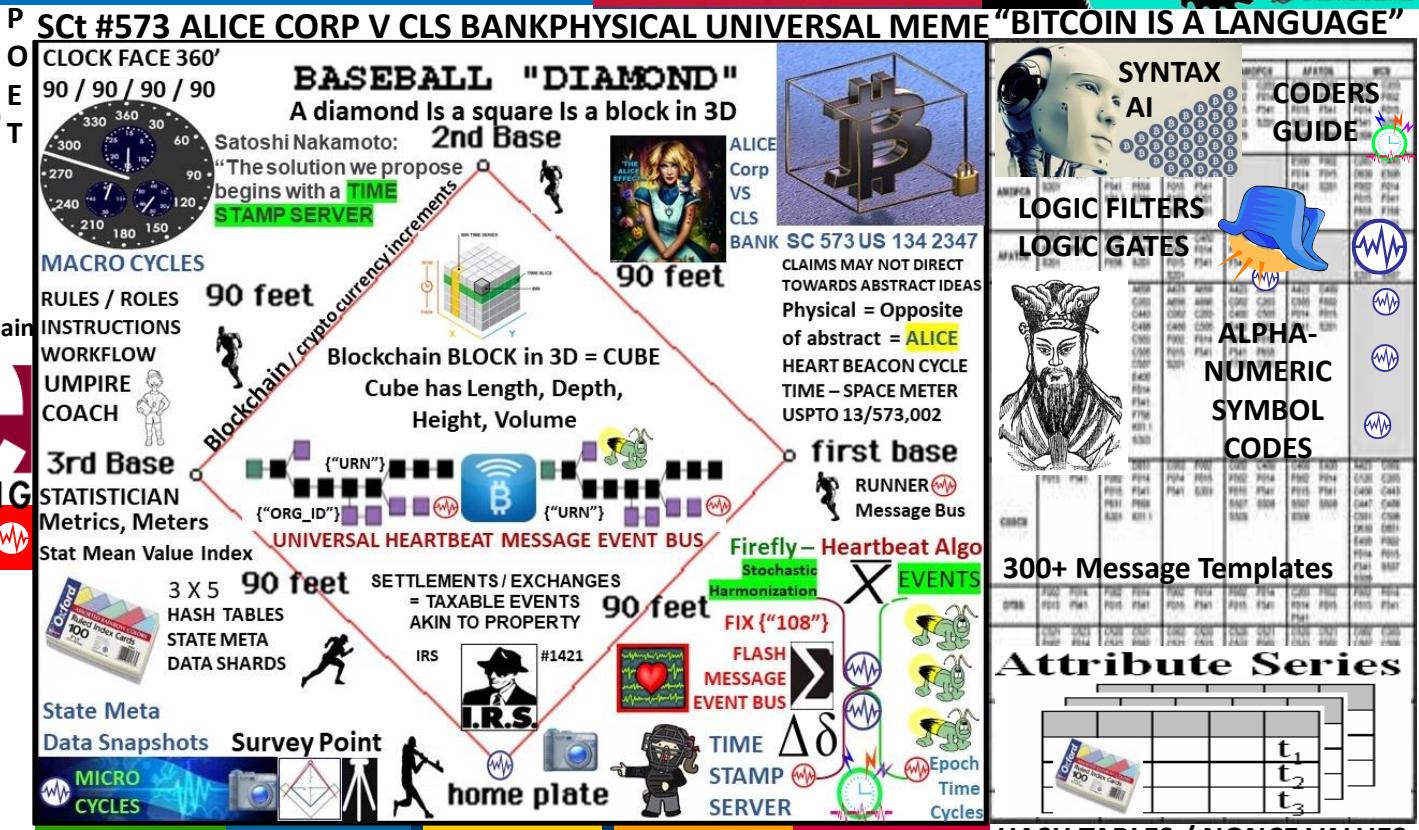
Voting Based Selection: stake size & block generators selected by votes

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



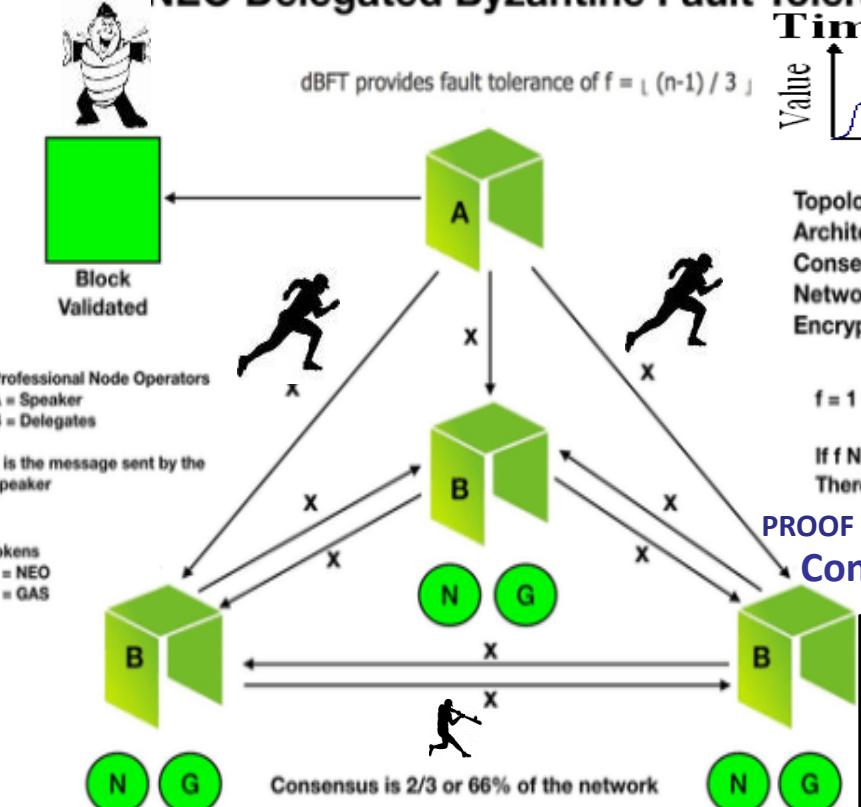
## FIREFLY-HEARTBEAT FLASH MESSAGES UNIVERSAL EVENT BUS



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

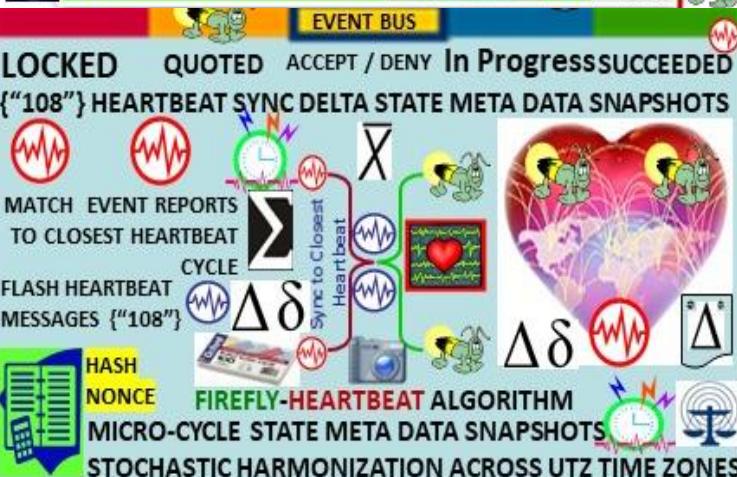
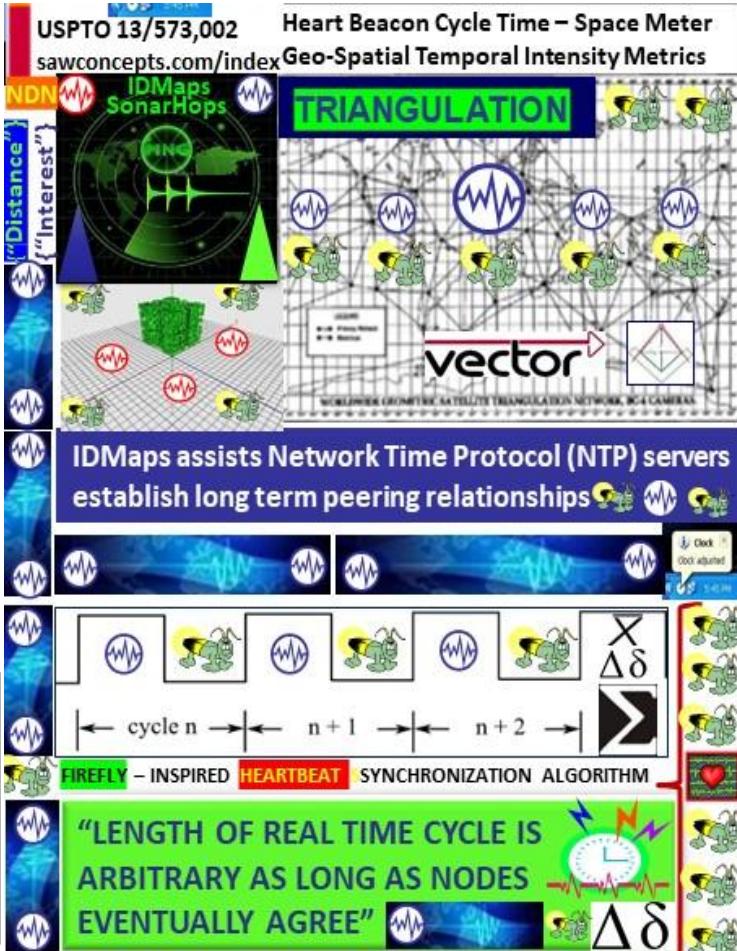


# NEO Delegated Byzantine Fault Tolerance (dBFT)



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



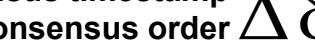
Strongly see  
Supermajority



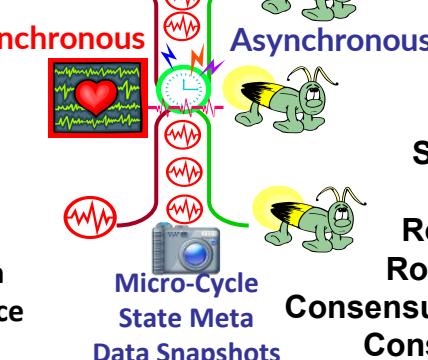
Decide  
Round created



Round received  
Consensus timestamp



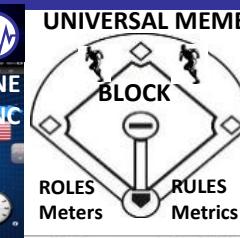
Consensus order  $\Delta\delta$



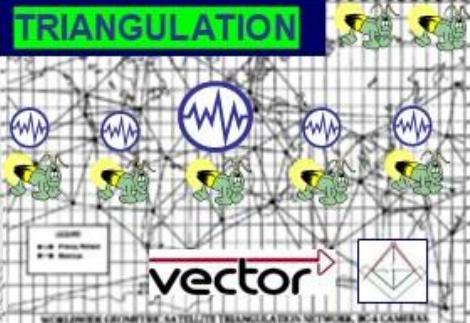
Micro-Cycle  
State Meta  
Data Snapshots

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

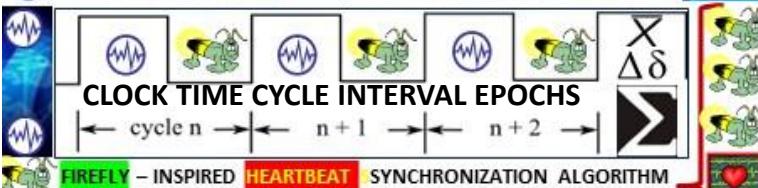


Heart Beacon Cycle Time – Space Meter  
Geo-Spatial Temporal Intensity Metrics



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

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



"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.

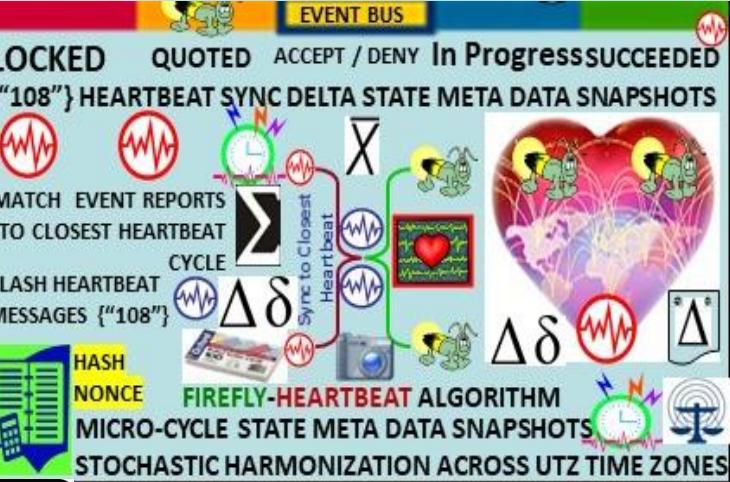
Iain Stewart, the inventor of the POB algorithm, uses an analogy to describe the algorithm: burnt coins are like mining rigs. In this analogy, a miner burns their coins to buy a virtual mining rig that gives them the power to mine blocks. The more coins burned by the miner, the bigger their virtual mining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

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.



Heartbeat Event {"burn"}

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.

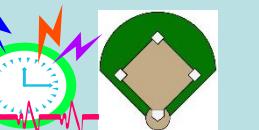
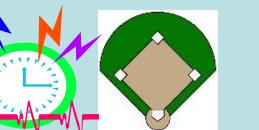
| TAG  | SLA/O               | Token Award    |
|--|---------------------|----------------|
| {"Org_ID"}<br>ActiveID                     | [UFO2_ACTIVEID]     | </EVENT>       |
| IF1_Heartbeat<br>(IF-Node1)                | [UFO2_HEARTBEAT:#]  | </EVENT>       |
| IF2_Heartbeat<br>(IF-Node2)       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

# Proof of Capacity PoC



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

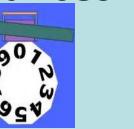
Proof of capacity for mining devices, also known as blockchain nodes, to use empty space on their hard drive to mine the available [cryptocurrencies](#).



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.

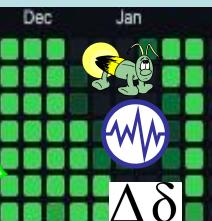


# PoST Proof-of-Spacetime (PoST)

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

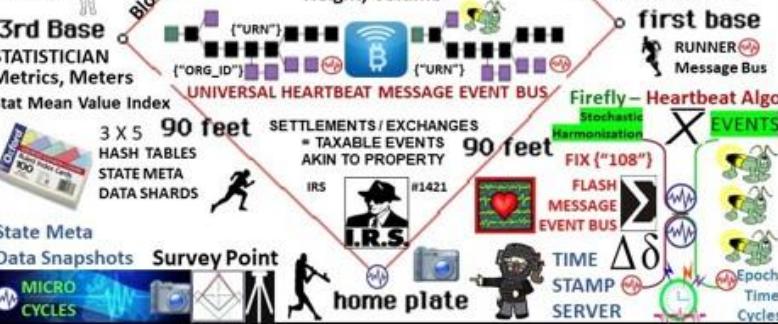
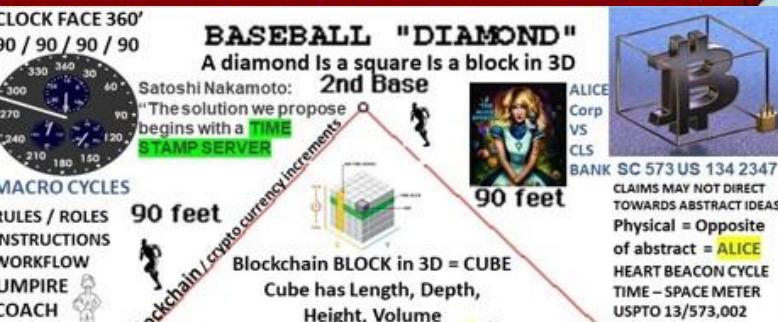


PoST users / nodes must prove that they are spending a certain amount of space for storage.

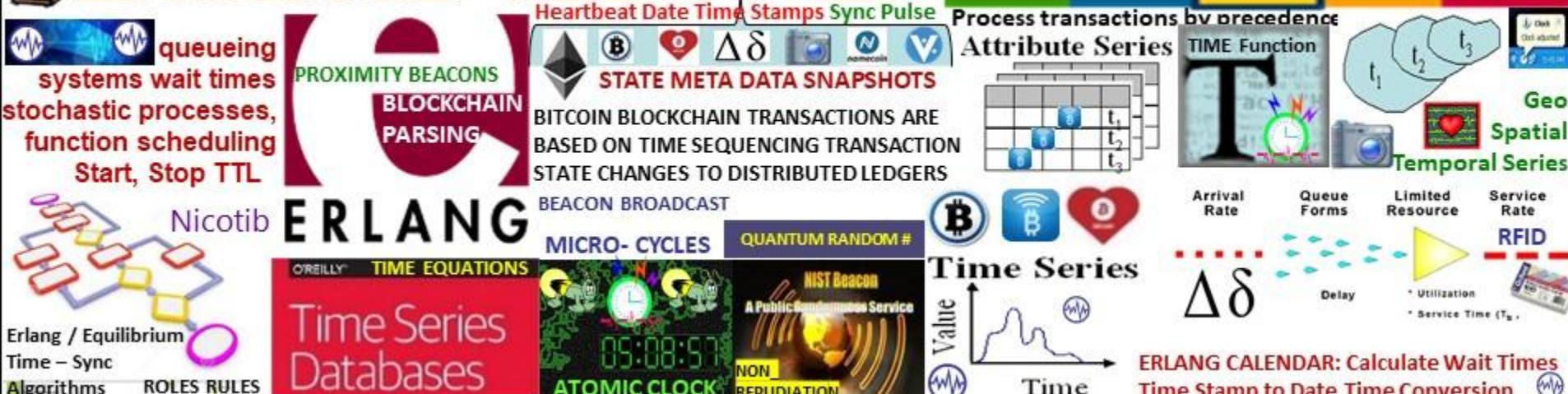


DISTRIBUTED AUTONOMOUS ORGANIZATIONS DAO

## 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.



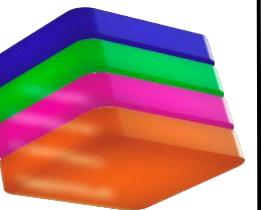


## PROTON A CHAIN Virtual Machine

## 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)

EOSIO computer function emulation  
NET, CPU bandwidth, RAM data  
Publishing, Voting based not mining

Delegated Proof  
of Stake {"Org\_ID"}



coordinates validators, keeps track  
of active subnets, SNOWMAN  
consensus Token representation of  
real-world resources (e.g., equity,  
bonds) smart contract rules </URN>



DAG Acyclic Graph Parameters:

n: number of participants

k (sample size): between 1 and n

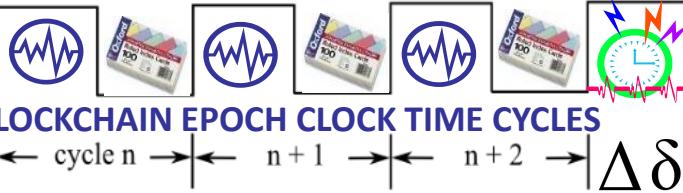
α (quorum size): between 1 and k

β (decision threshold): >= 1

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

1) EPOCH TIME INTERVALS

2) SYNTAX (not) used in epochs

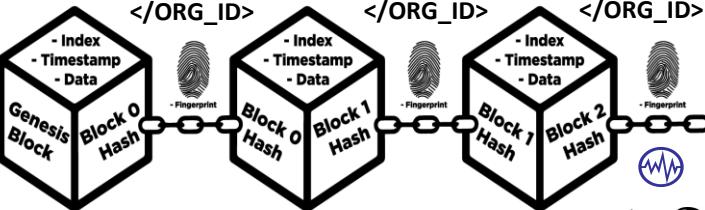


GENESIS BLOCK: "Layers" = follow on epoch time intervals

Block 0

Block 1

Block 2



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"



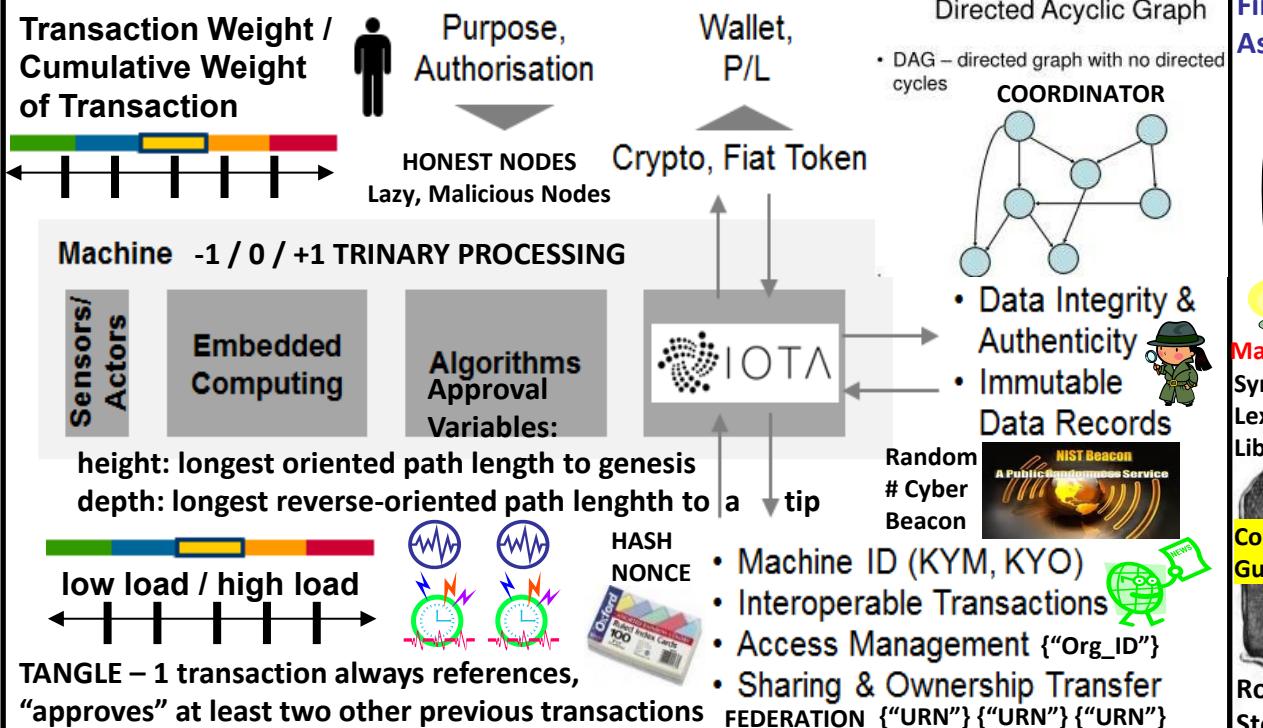


## IOTA: Internet Of Things IOT distributed ledger with microtransactions without fees

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

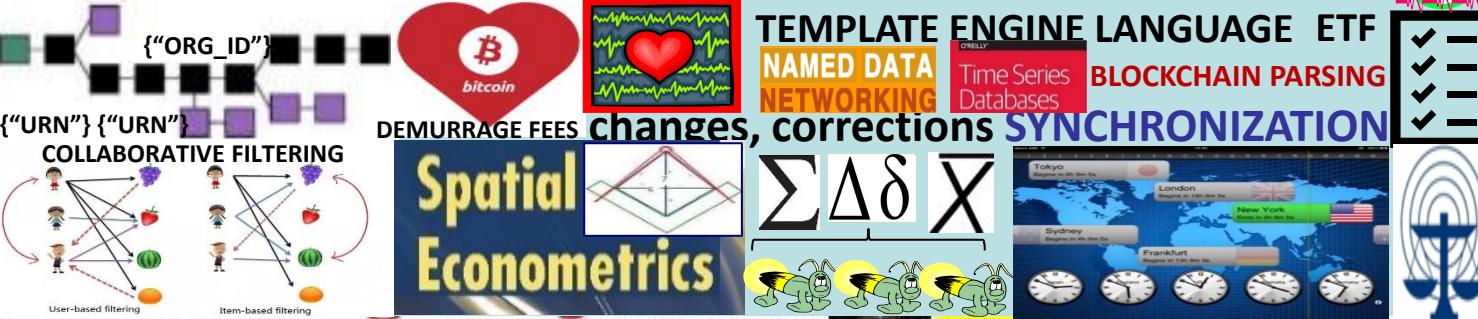




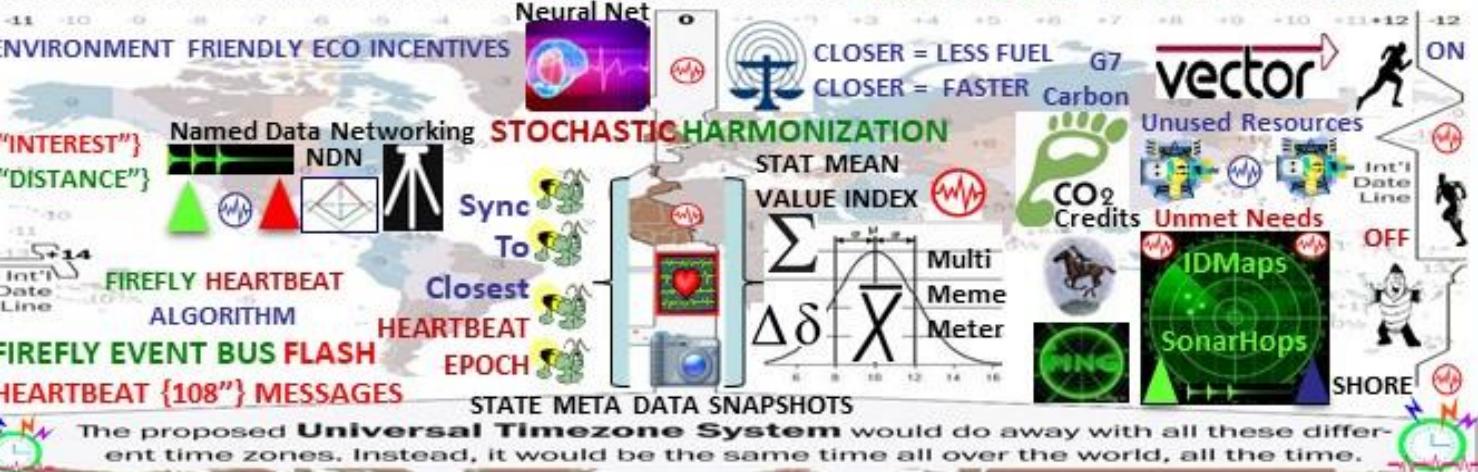
# EGaaS

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.



| FORM   | DOCID-A | DOCID-B | DOCID-C | DOCID-D | DOCID-E | DOCID-F | DOCID-G | DOCID-H | DOCID-I | DOCID-J | DOCID-K | DOCID-L | DOCID-M | DOCID-N | DOCID-O | DOCID-P | DOCID-Q | DOCID-R | DOCID-S | DOCID-T | DOCID-U | DOCID-V | DOCID-W | DOCID-X | DOCID-Y | DOCID-Z |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| ASAB   | PRST-1  | PRST-2  | PRST-3  | PRST-4  | PRST-5  | PRST-6  | PRST-7  | PRST-8  | PRST-9  | PRST-10 | PRST-11 | PRST-12 | PRST-13 | PRST-14 | PRST-15 | PRST-16 | PRST-17 | PRST-18 | PRST-19 | PRST-20 | PRST-21 | PRST-22 | PRST-23 | PRST-24 | PRST-25 |         |
| ANAMIC | PRST-1  | PRST-2  | PRST-3  | PRST-4  | PRST-5  | PRST-6  | PRST-7  | PRST-8  | PRST-9  | PRST-10 | PRST-11 | PRST-12 | PRST-13 | PRST-14 | PRST-15 | PRST-16 | PRST-17 | PRST-18 | PRST-19 | PRST-20 | PRST-21 | PRST-22 | PRST-23 | PRST-24 | PRST-25 |         |
| AFATOR | PRST-1  | PRST-2  | PRST-3  | PRST-4  | PRST-5  | PRST-6  | PRST-7  | PRST-8  | PRST-9  | PRST-10 | PRST-11 | PRST-12 | PRST-13 | PRST-14 | PRST-15 | PRST-16 | PRST-17 | PRST-18 | PRST-19 | PRST-20 | PRST-21 | PRST-22 | PRST-23 | PRST-24 | PRST-25 |         |
| MCR    | PRST-1  | PRST-2  | PRST-3  | PRST-4  | PRST-5  | PRST-6  | PRST-7  | PRST-8  | PRST-9  | PRST-10 | PRST-11 | PRST-12 | PRST-13 | PRST-14 | PRST-15 | PRST-16 | PRST-17 | PRST-18 | PRST-19 | PRST-20 | PRST-21 | PRST-22 | PRST-23 | PRST-24 | PRST-25 |         |
| CIRCH  | PRST-1  | PRST-2  | PRST-3  | PRST-4  | PRST-5  | PRST-6  | PRST-7  | PRST-8  | PRST-9  | PRST-10 | PRST-11 | PRST-12 | PRST-13 | PRST-14 | PRST-15 | PRST-16 | PRST-17 | PRST-18 | PRST-19 | PRST-20 | PRST-21 | PRST-22 | PRST-23 | PRST-24 | PRST-25 |         |

SYNTAX / SYMBOL

LEXICON LIBRARY

STRUCTURED

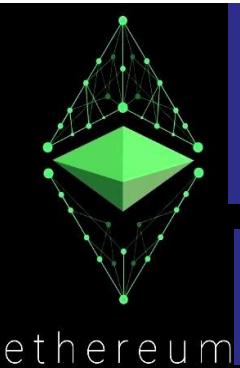
DATA EXCHANGE

300 + TEMPLATE FORMS

LOGIC / FILTERS

ALPHA-NUMERIC BREVITY CODES





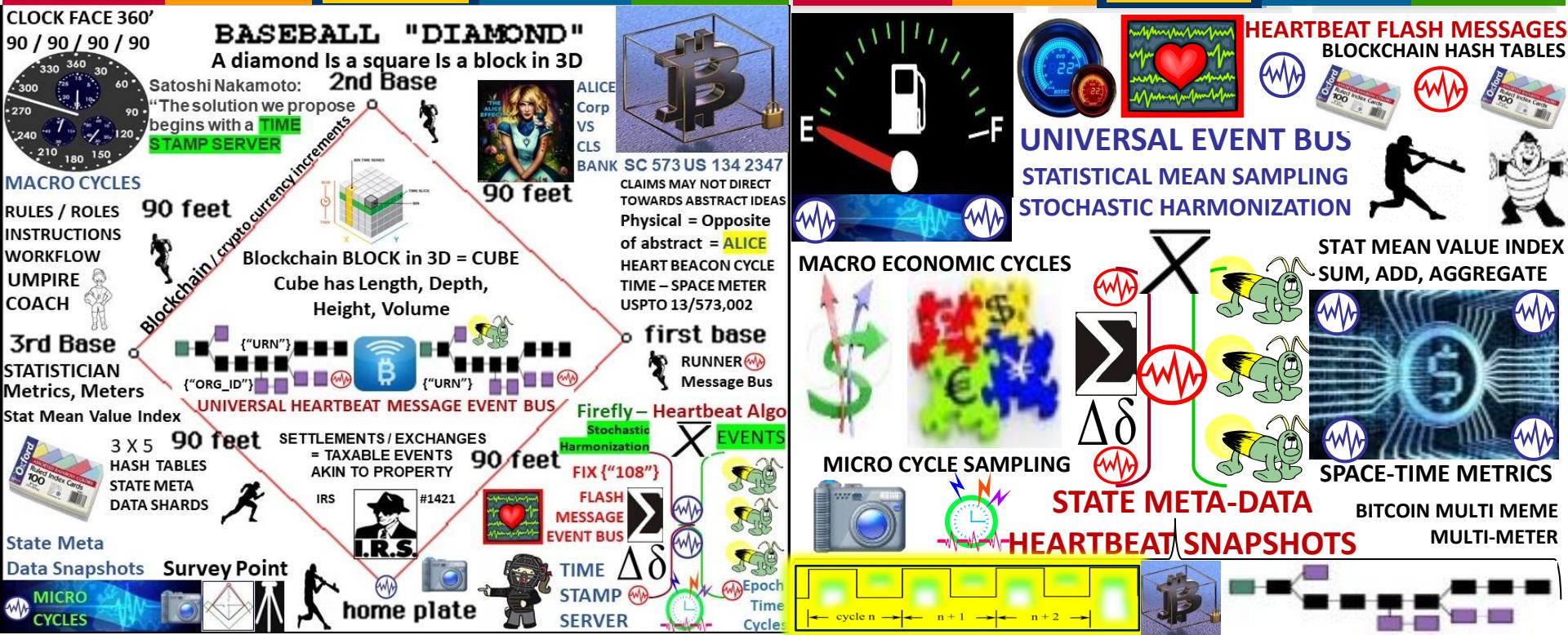
## ETHER: Compensate Resource Contribution

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**



**DFINITY**

**RANDOM # BEACON**

**NIST Beacon**  
A Public Randomness Service

**QUANTUM RANDOM #**

**BLOCKCHAIN NERVOUS SYSTEM**

HEARTBEAT {"108"} State Meta Data Snapshot Msgs

**STATEFUL DECENTRALIZED NET PROTOCOL:**  
Decentralized process workflows instead of Centralized Server farms

**GROUP Signature is random number**

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

**HYPER GEOMETRIC PROBABILITY CALCULATOR**

**CONSENSUS / RANDOM BEACON**

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

**Each process has mining identity**

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

**UTZ TIME ZONE SYNC**

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

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

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

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

**ALICE Corp VS CLS BANK SC 573 US 134 2347**

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

**first base**  
RUNNER Message Bus

**EVENTS**

**Fix {"108"}**  
FLASH MESSAGE EVENT BUS

**TIME STAMP SERVER**  
 $\Delta\delta$   
Epoch Time Cycles

**SETTLEMENTS / EXCHANGES = TAXABLE EVENTS AKIN TO PROPERTY**

**IRS #1421**

**home plate**

**State Meta Data Snapshots Survey Point**

**MICRO CYCLES**

**3 X 5 HASH TABLES STATE META DATA SHARDS**

**QUANTUM RANDOM #**

**STATISTICIAN Metrics, Meters**

**Stat Mean Value Index**

**3 X 5 HASH TABLES STATE META DATA SHARDS**

**SETTLEMENTS / EXCHANGES = TAXABLE EVENTS AKIN TO PROPERTY**

**IRS #1421**

**home plate**

**TIME STAMP SERVER**  
 $\Delta\delta$   
Epoch Time Cycles



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.

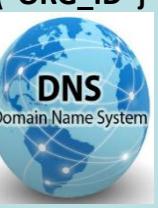
**ACCOUNTS & IDENTITY:** æternity's accounts are permission-less, but allow customization via schema.org's semantic web scheme. Create & own (**federated group**) / individual identities on the æternity network



("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

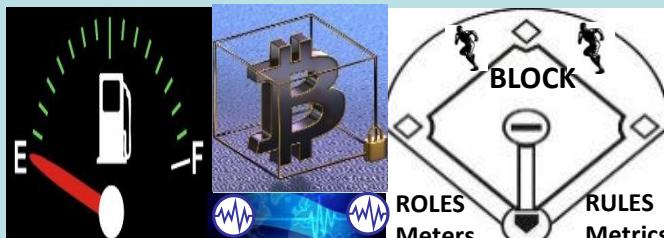
**AETERNITY CROSS-CHAIN ATOMIC SWAPS CORRESPOND TO HEART BEACON CYCLE'S USE OF BATTLEFIELD DIGITIZATION DERIVED HEARTBEAT SYNC DELTAS**



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



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



**ARIN**  
American Registry for Internet Numbers

# 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.

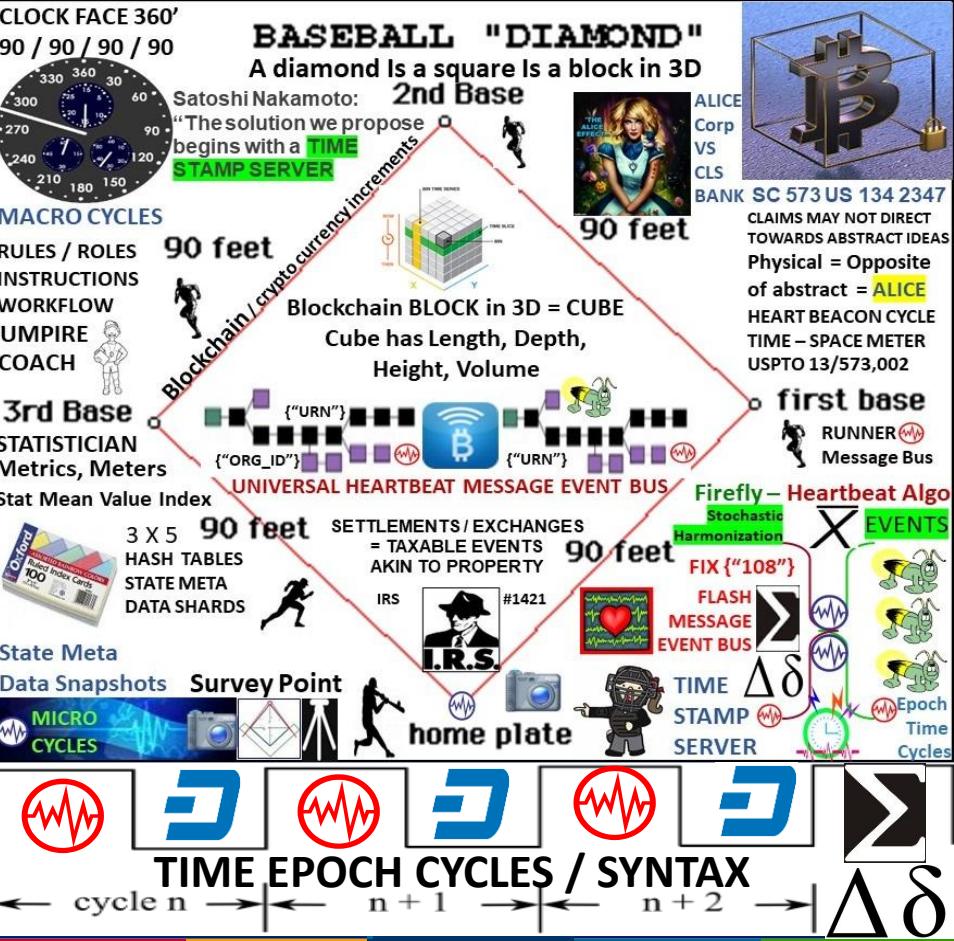
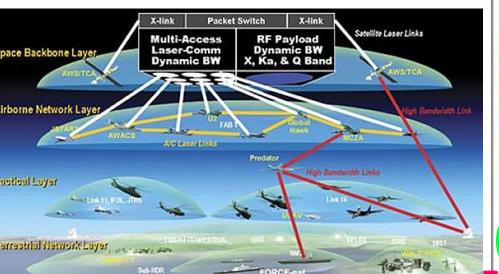
"the block reward is divvied up in three parts. The first 45 percent goes to [Dash's miners](#). Another 45 percent goes to its Masternodes. And 10 percent is set aside to fund whatever other jobs or expenditures the Dash network deems necessary"

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



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.



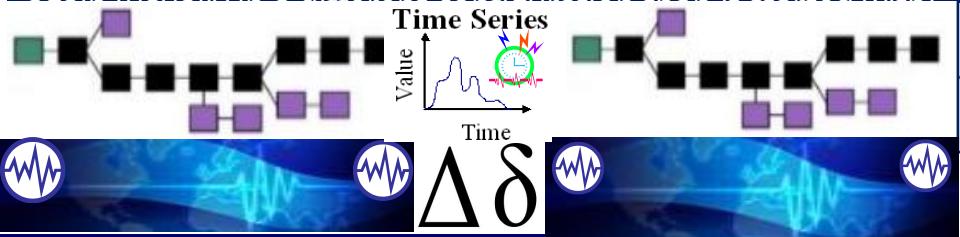
1. Part of the blockchain state is locked via multisignature or smart contract convention, so that a specific set of participants must completely agree with each other to update it.



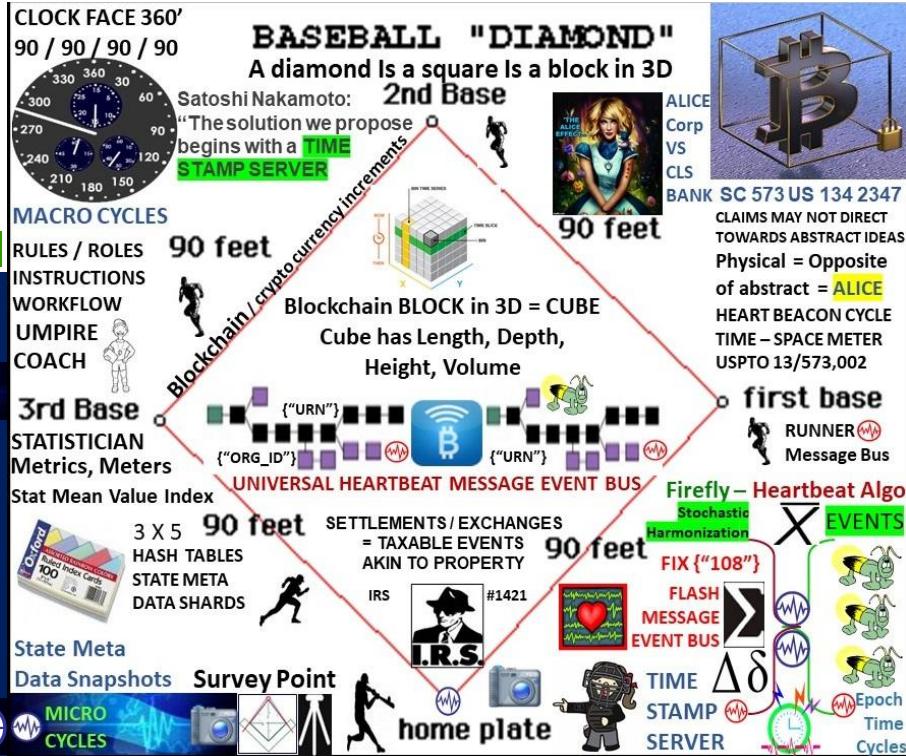
2. Participants update the state amongst themselves by constructing and signing transactions that could be submitted to the blockchain, but instead are made available for a new update "trumps" previous update.



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



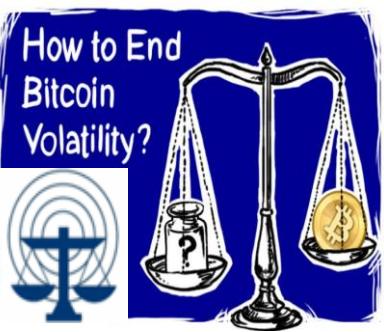
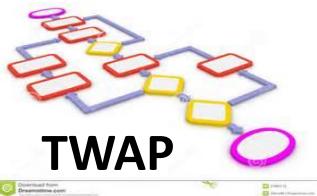
**NEW UPDATES OVERWRITE THE PREVIOUS:** simplest way is to have any unlocking attempt start a timer, during which any *newer* update can replace the old update (restarting the timer). When the timer completes, the channel is closed and the state adjusted to reflect the last update received. The length 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



# TWAP Algorithm Manages Bitcoin Price Volatility Algorithm



## TWAP GOAL: provide a Time Weighted Average Price Benchmark

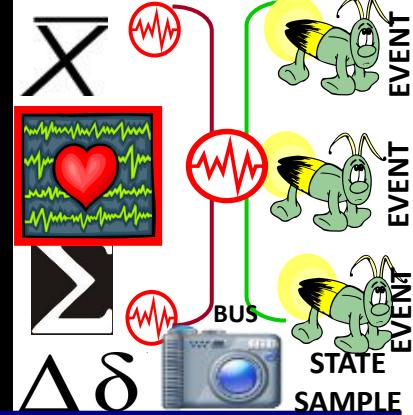


FIREFLY HEARTBEAT ALGO  
STAT MEAN VALUE INDEX

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



STATE META  
DATA SNAPSHOTS



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

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

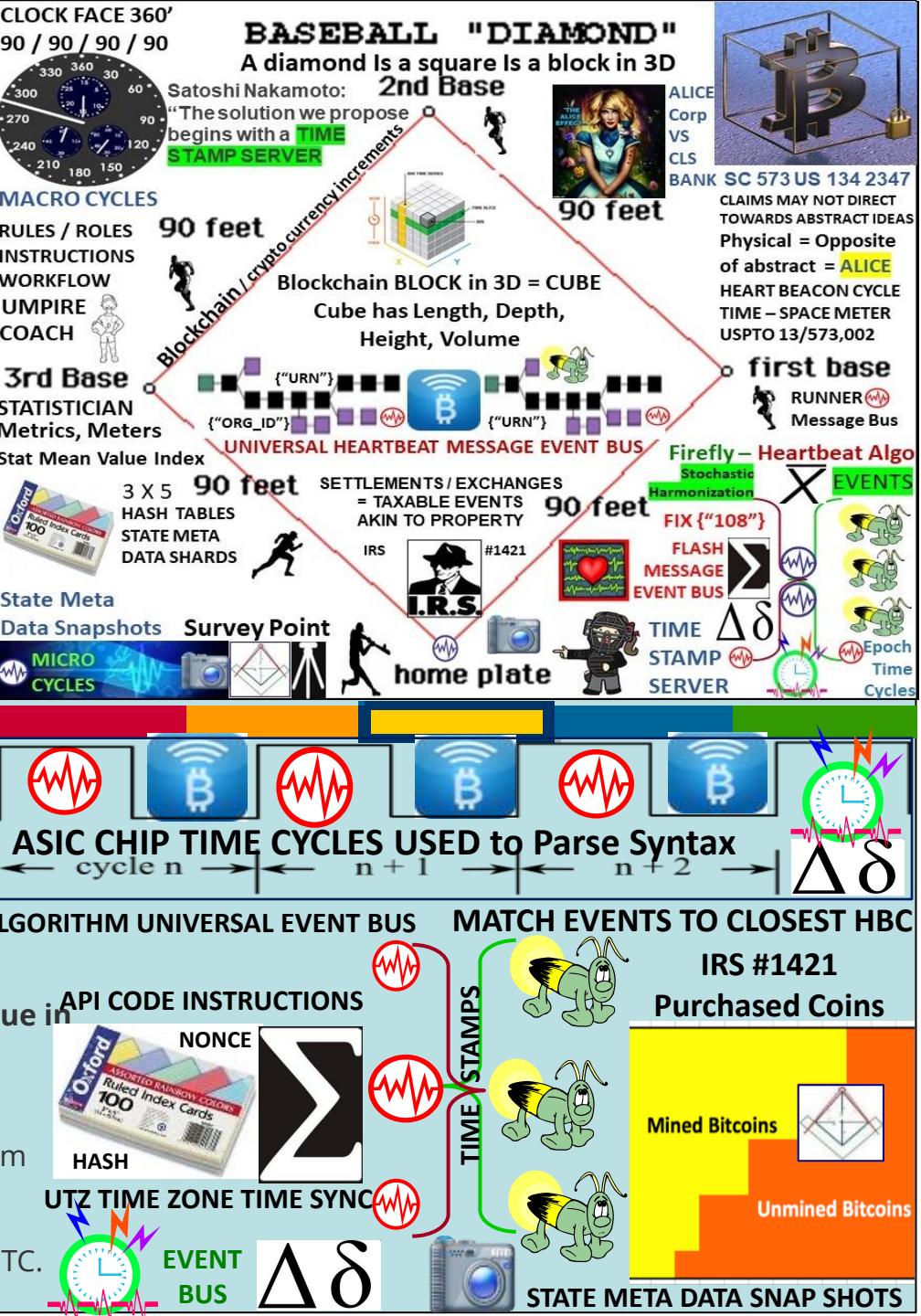
Get by: Block-height, Time-stamp or Transaction

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.

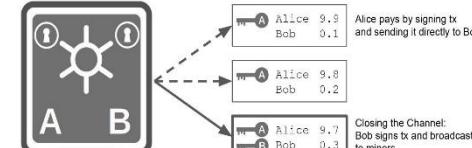




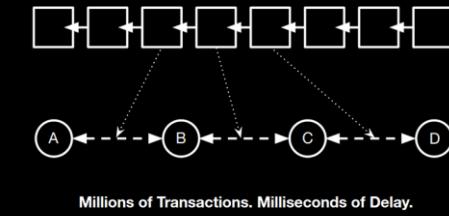
**transactions sent over / off chain  
micropayment channels**

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**



## 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

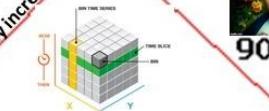
Blockchain / cryptocurrency increments

90 feet

Blockchain BLOCK in 3D = CUBE

Cube has Length, Depth,

Height, Volume



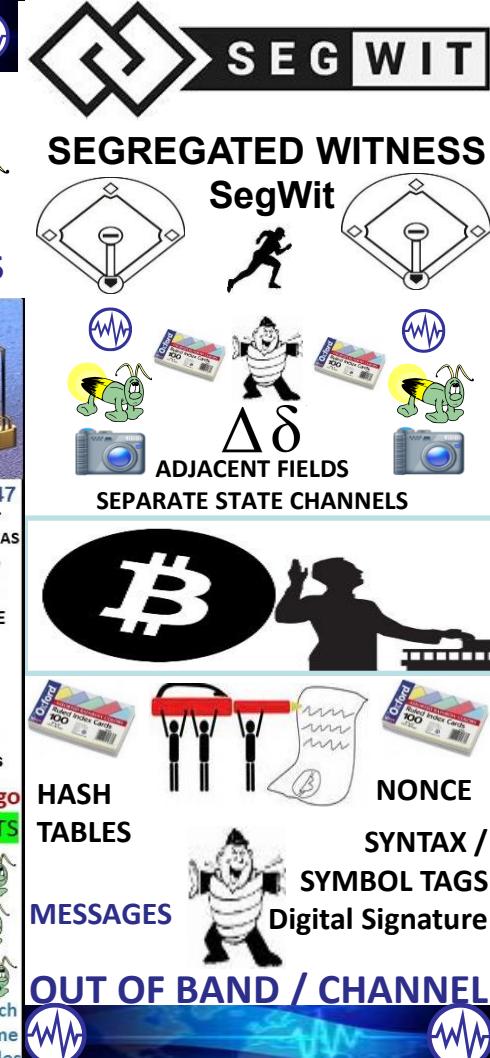
Time Block

Time Times

Time Block



**MESSAGE EVENT BUS**



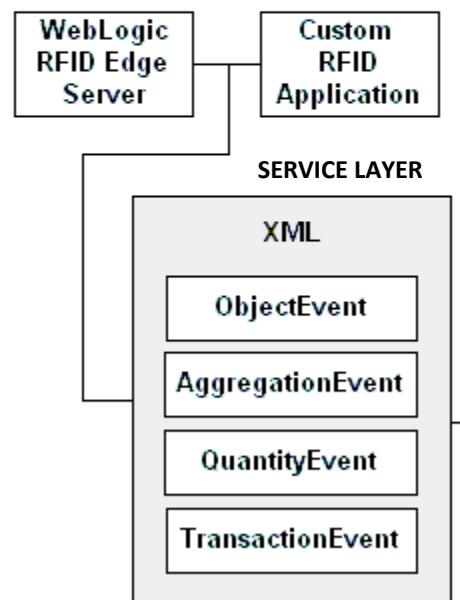
**Segregated witness = Separated signatures**

- signatures are cryptographic proofs also known as witnesses
  - moving signatures out of transactions
  - keeping a separate repository of the signatures
  - making them optional in propagation and storage
  - signature are the biggest part of transactions
  - can be implemented as a **soft-fork** vs a **hard-fork**

**Electronic Product Code Information Services (EPCIS)  
GS1 Standard for creating, sharing visibility event data**



epcis



## Core Business Vocabulary (CBV)

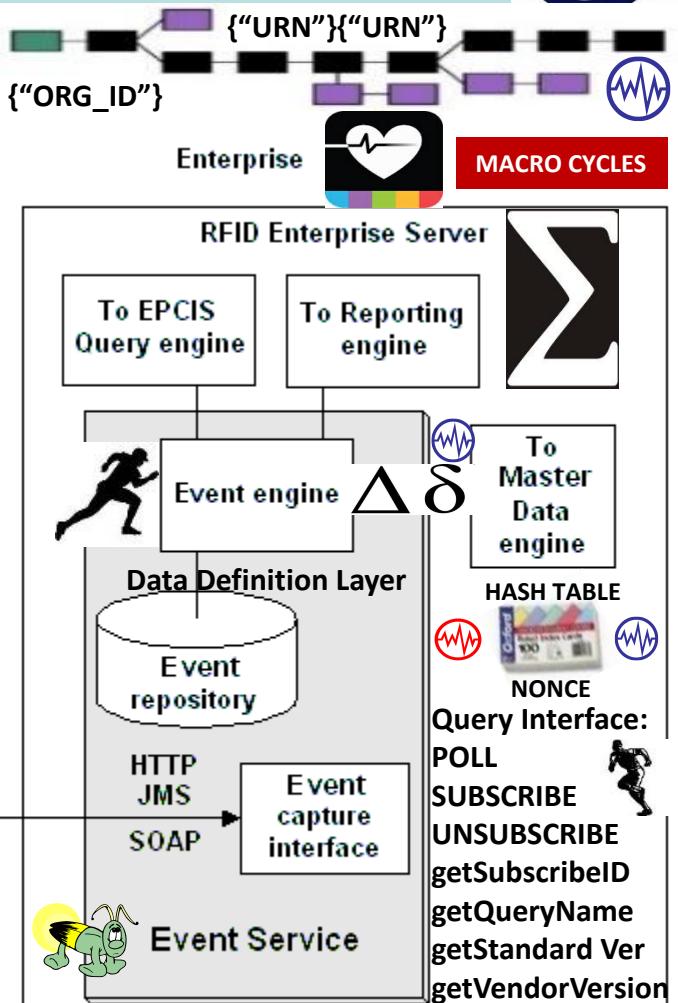
**What identifiers of object(s) or entities / subject of the event**

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

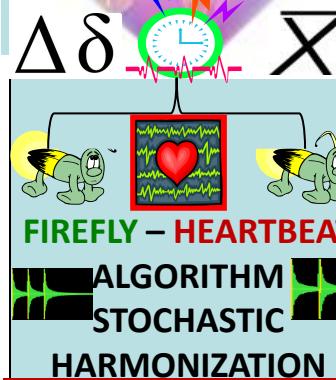
**Where location identifier where event occurred, identifier of**

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

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



**CLOSER IS CHEAPER  
CLOSER IS FASTER**



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

RFID Configuration TCP/IP heartbeat message

## **STRUCTURED DATA EXCHANGE / STRUCTURED MILITARY MESSAGES**



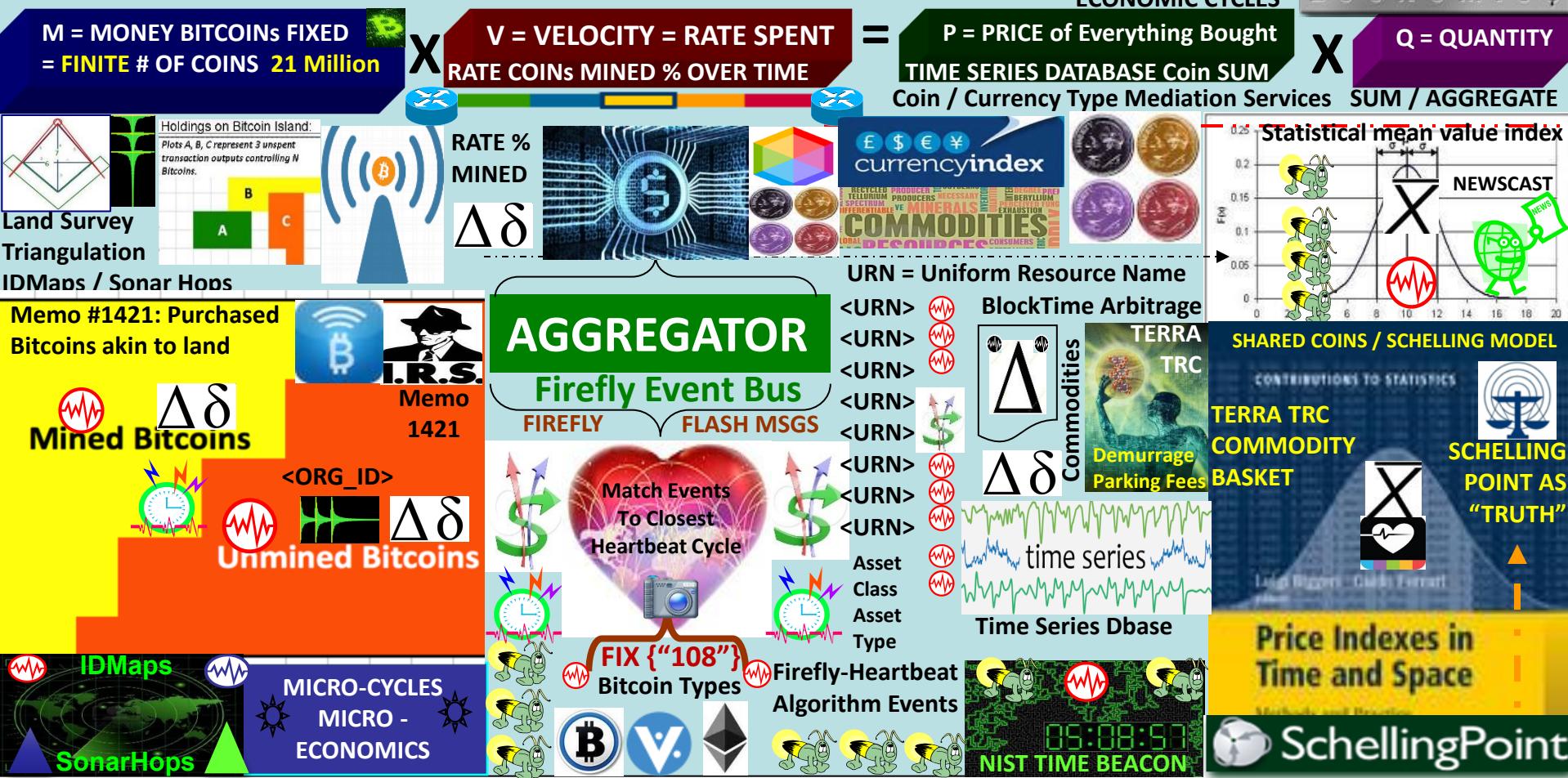
# !st Compiler DESIGN Still the **BEST**



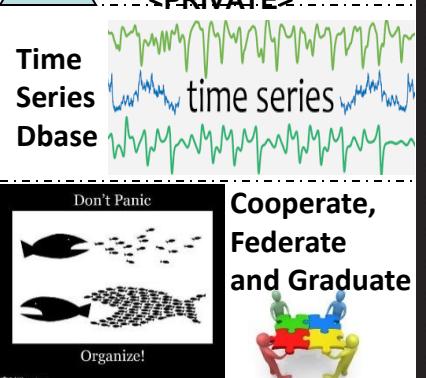
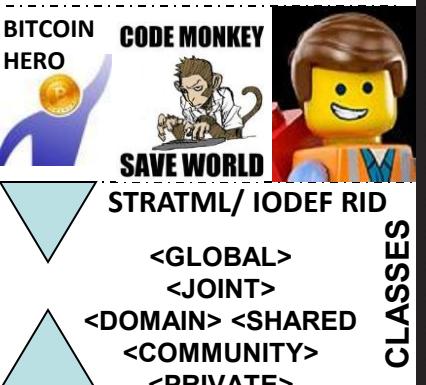
# How 'Bitbanks' Could Solve Bitcoin's Volatility Problem

$$MV=PQ \text{ Money} \times \text{Velocity} = \text{Price} \times \text{Quantity}$$

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



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



## HOW GAMIFICATION WORKS:

### 5 COMMON MECHANICS

#### POINTS

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

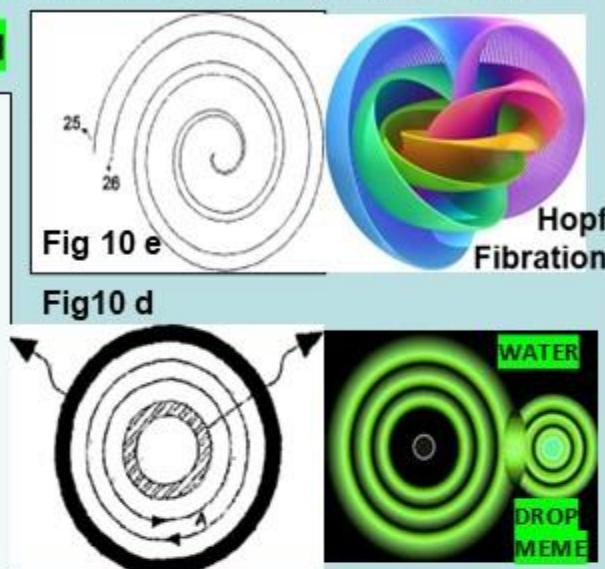
#### CHALLENGING BUT ACHIEVABLE TASKS





## 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





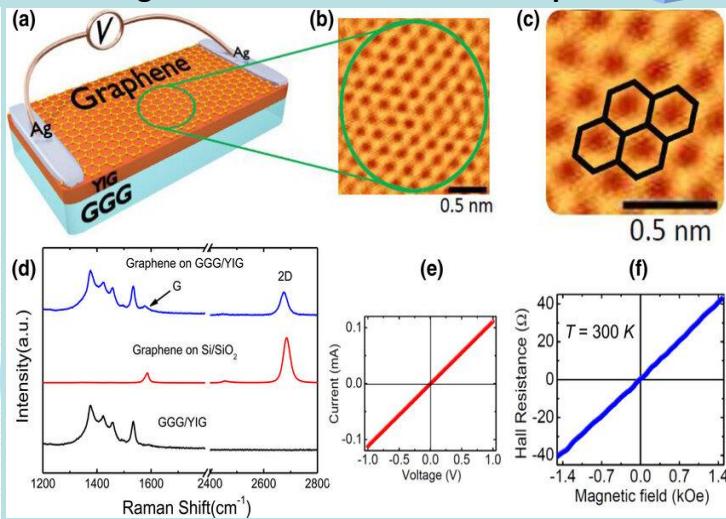
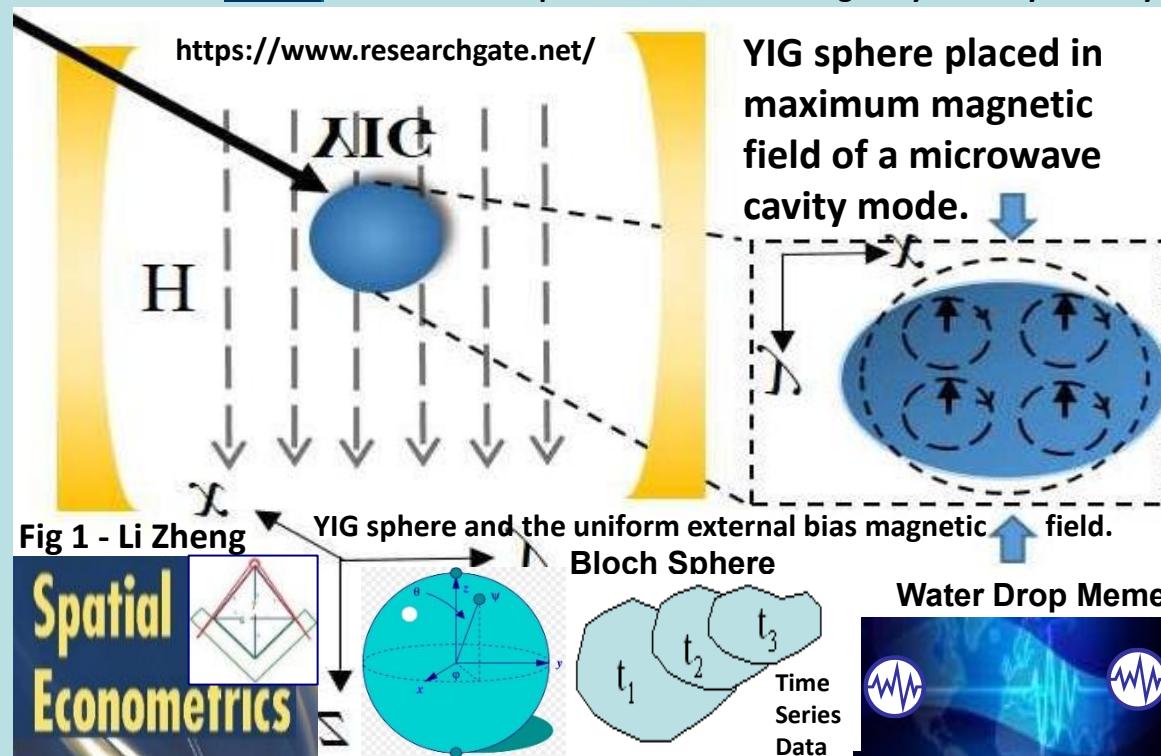
# TESLA Harmonic Sphere Flux Resonator

**"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

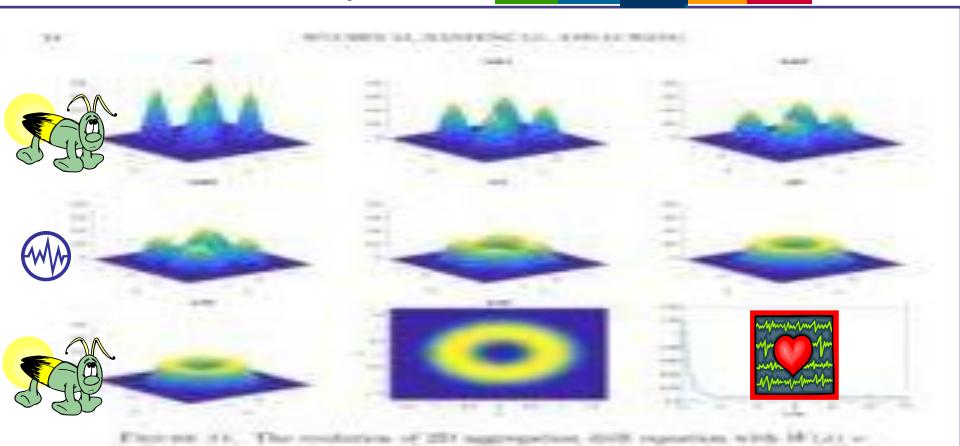
The creation of spinlogic devices, which allow the control and transport of the spin current over long distances, is one of the major research challenges in spintronics. In this regard, graphene-a single atomic layer of carbon atoms in a honeycomb lattice [see Fig. 1(c)]-has attracted great attention 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



USPTO 13/573,002 Time – Space Meter



The Variance of...

$\Delta\delta$

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

the partial derivative w.r.t.  $\boldsymbol{\theta}$  of...

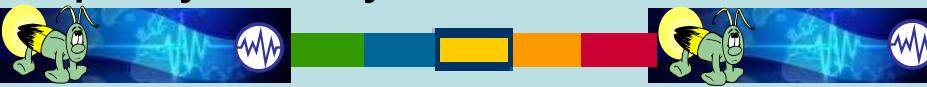
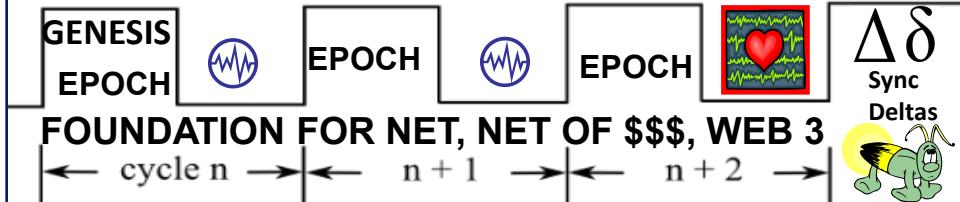
the log-likelihood function of  $\boldsymbol{\theta}$  given observed value of  $\mathbf{X}$



## 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.



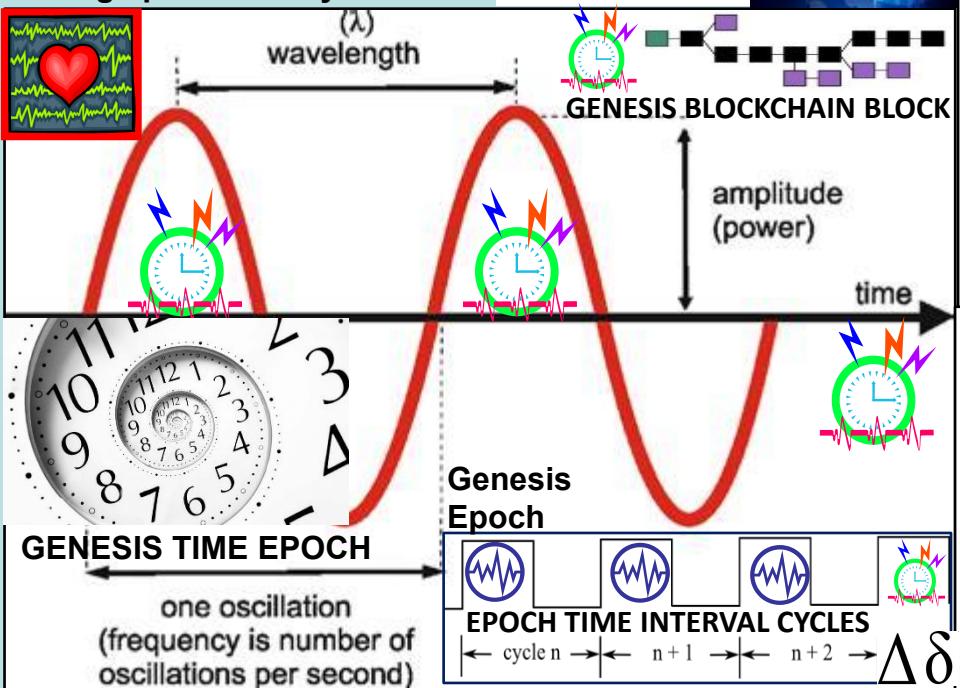
THESIS: All things net, net of programmable \$\$\$ are formed using:

## ENERGY / DATA WAVE METRICS / METERS

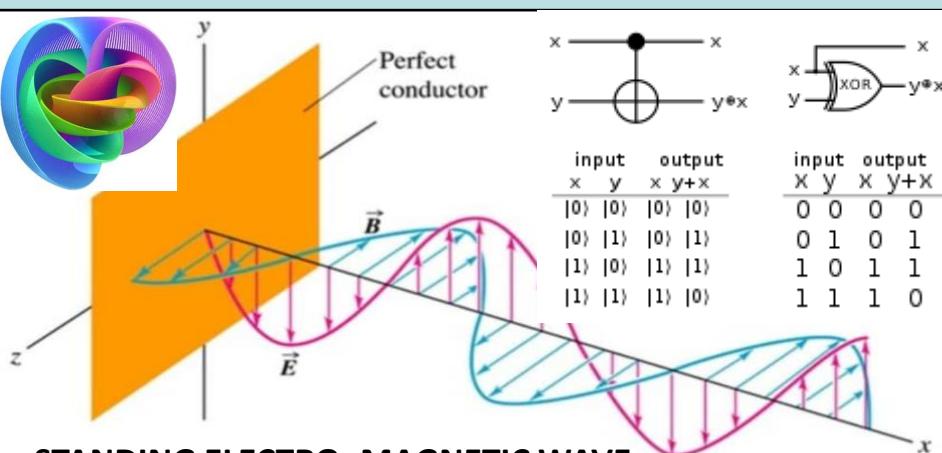
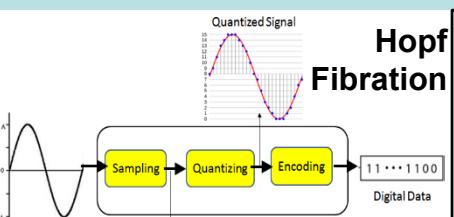
## BELL STATE QUANTUM COMPUTING

1) Time epochs created by quartz crystal silicon chips

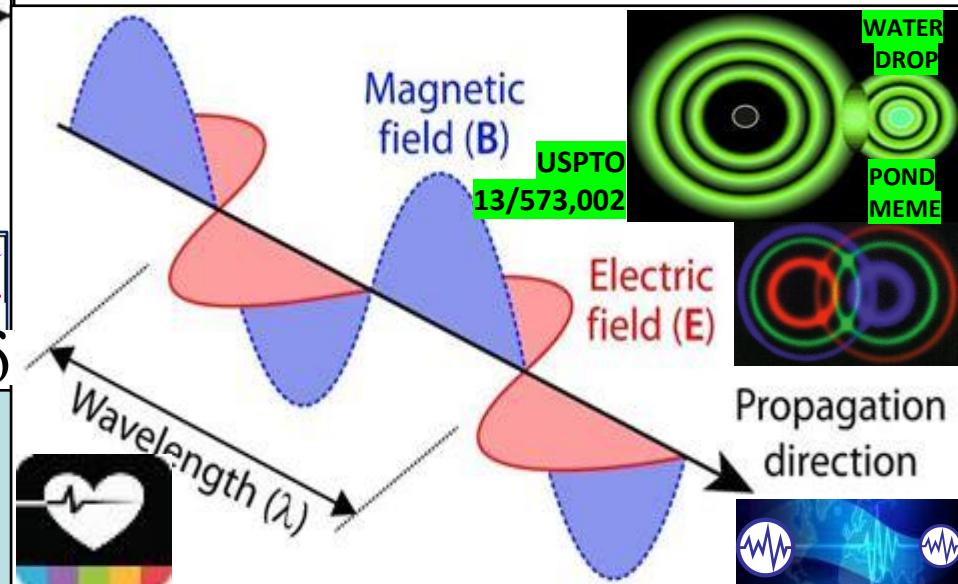
2) Syntax used / not used as programming instructions during epoch time cycles



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](https://phys.org/news/2018-06-quantum_1.html)

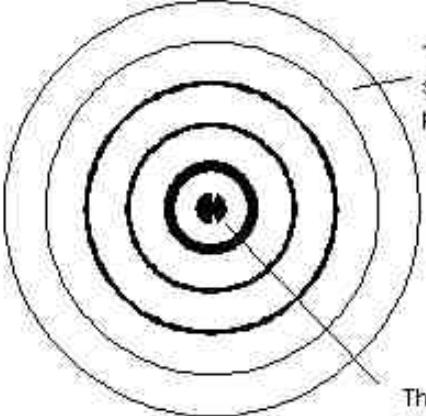


A **standing** electromagnetic wave does not propagate along the x-axis; instead, at every point on the x-axis the  $E$  and  $B$  fields simply oscillate.



"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/>



The IN and OUT waves form standing waves about the central point

### On Truth & Reality The Wave Structure of Matter (WSM) in Space

The pointlike Particle effect at the Wave Center

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.  $x^2 + y^2 + z^2 = r^2$

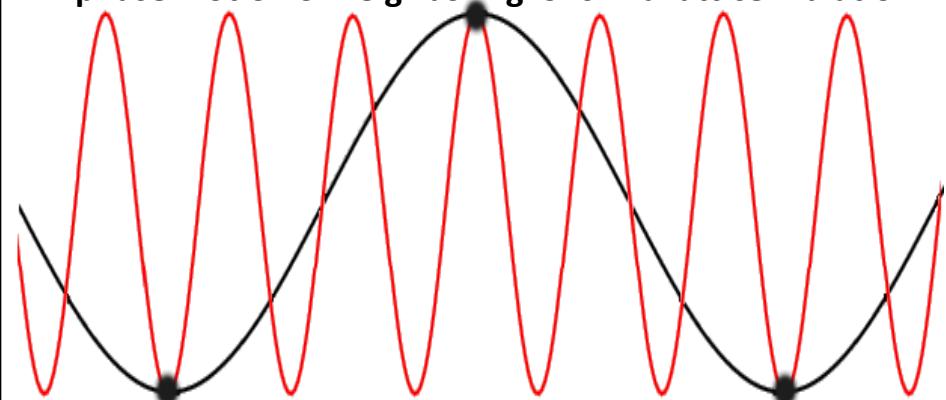


"Simplicity is the ultimate sophistication".  
(Leonardo da Vinci)

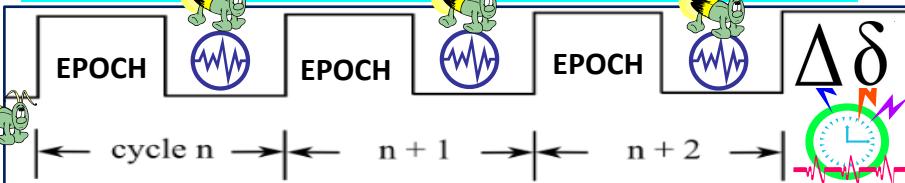
# ACOUSTIC PHONON

USPTO 13/573,002

in-phase motion of neighboring ions in a lattice vibration

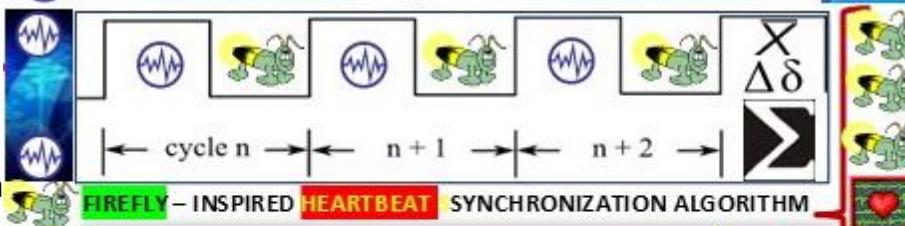
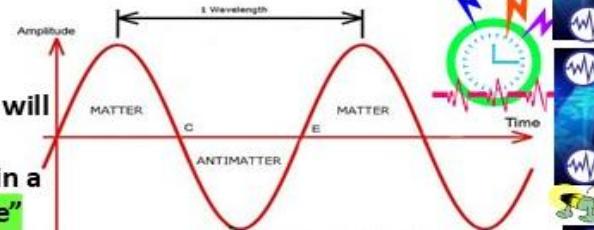


**Phonons:** A phonon is a quantum of the lattice vibration, the collective motion of atoms constituting a crystal. There are two types of phonons: optical and acoustic. The optical phonon has high-frequency oscillation in the THz range and the unit cell center of mass does not move. It undergoes a dipole interaction with light. The acoustic phonon propagates at sound velocity, which is the first derivative of the phonon dispersion curve at the  $\Gamma$ -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"



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



$\Delta\delta$

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

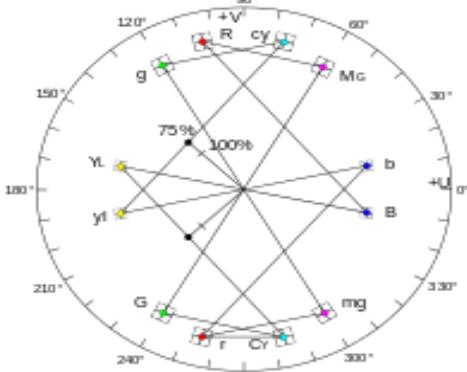
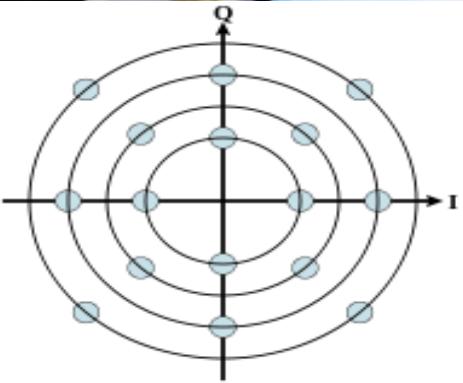


SOUND WAVES enable Different types of quantum tech to "talk"





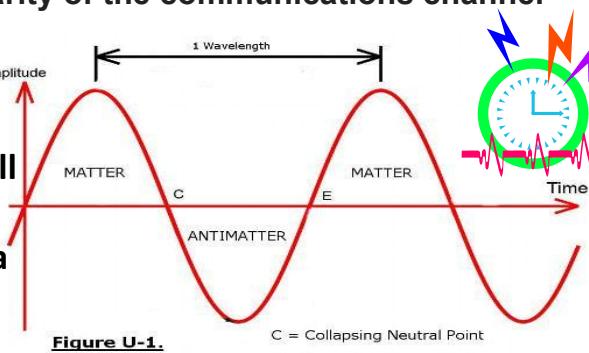
[www.RLighthouse.com](http://www.RLighthouse.com)



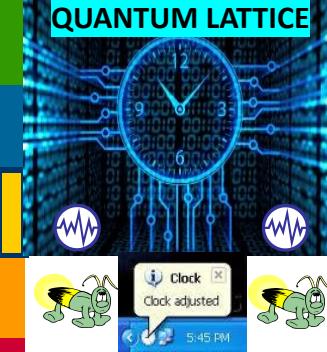
### Quadrature amplitude modulation

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**”

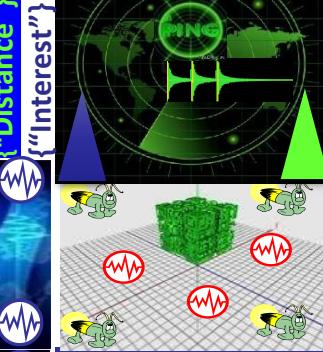


Sine wave of our blinking universe. The 4 fundamental forces will all be found to vary continuously when sampled at 2x the blinking frequency, per Nyquist-Shannon theory

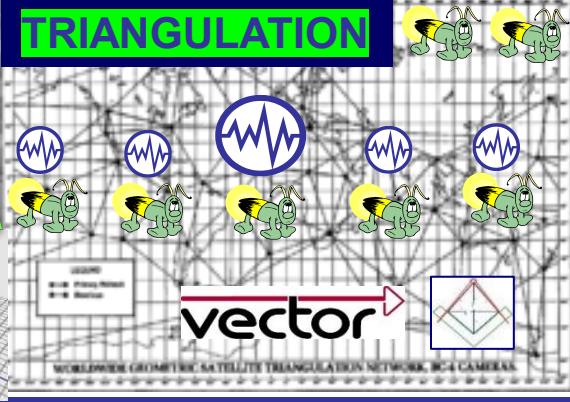


USPTO 13/573,002  
[sawconcepts.com/index](http://sawconcepts.com/index)

NDN {“Distance”} {“Interest”}  
IDMaps SonarHops

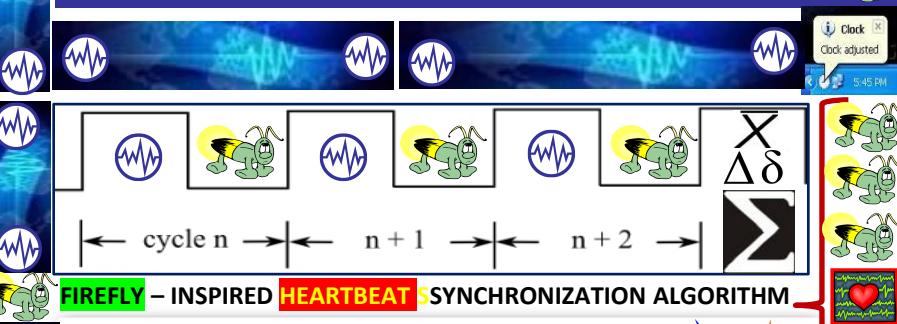


Heart Beacon Cycle Time – Space Meter  
Geo-Spatial Temporal Intensity Metrics



vector

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



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



## 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.<br>Consensus on known facts. | Outcomes of <i>future</i> events.<br><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<br>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 <sup>th</sup> 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)...                            |

| 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



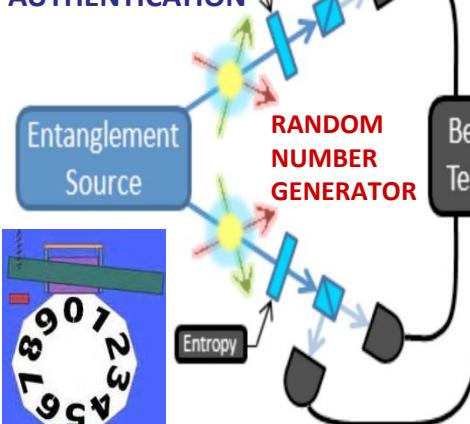
## NIST QUANTUM ENCRYPTION RANDOMIZATION BEACON

UNPREDICTABLE SAMPLING

SECURE AUTHENTICATION

SECURE MULTI

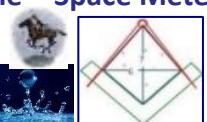
PARTY /  
AUTHENTICATION



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

Metrics and Time - Space Meter uses PHYSICAL Memes / Metaphors

**NAMED DATA NETWORKING**



NDN  
</Interest>  
</Distance>

SURVEY METHODS  
+ TRIANGULATION  
Euclidian Geometry

Geodesic System Routing Info Base RIB

ACCOUNT BELONGS TO </Org\_ID>

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

DEVICE / SENSORS <UUID><UUID>

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

State Snap Shots

Time / Distance Metrics



PROXIMITY

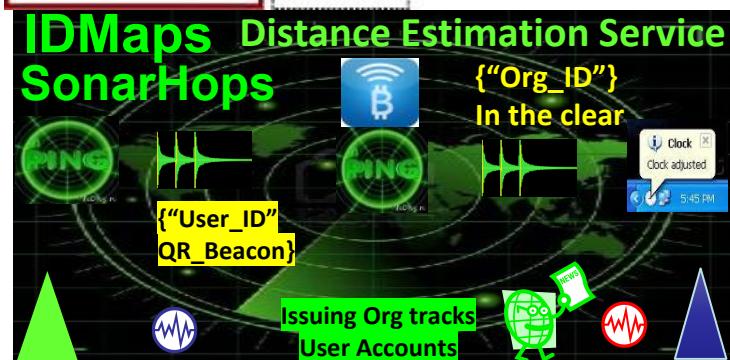
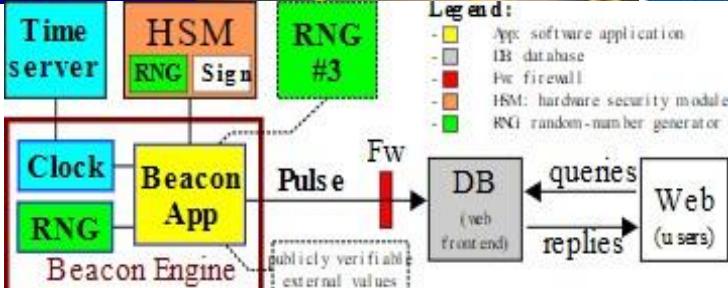
OFFSHORE BEACONS ONSHORE

NDN

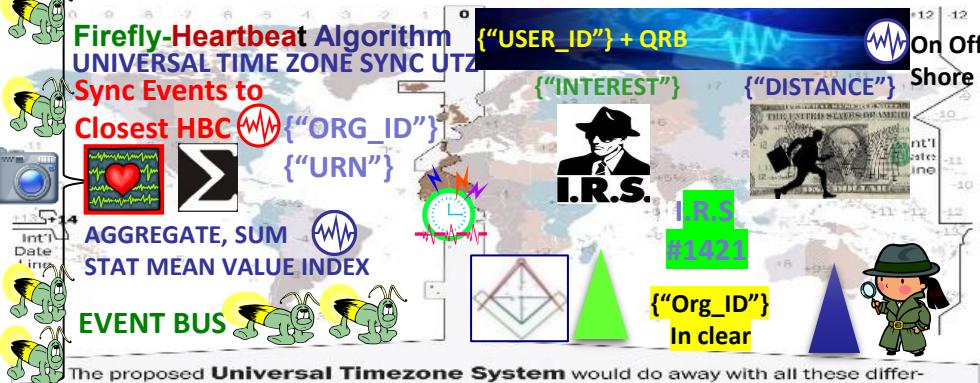
</interest></distance>

**NIST**  
**NON  
REPUDIATION**

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

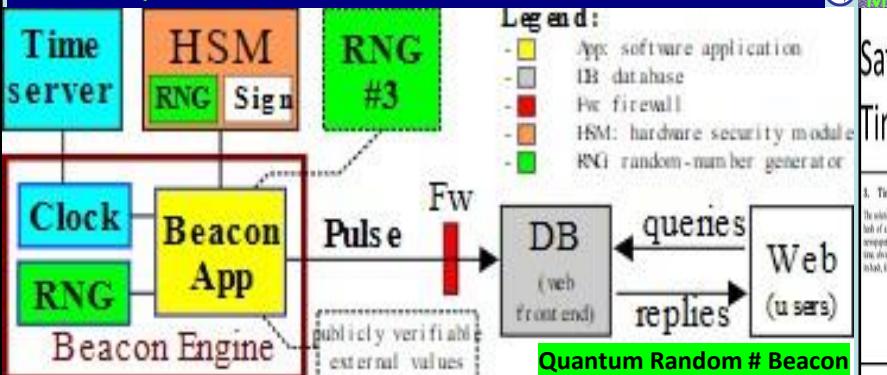


The current standard time common throughout the world is based on a 24-hour clock, with zones that are either 12 hours ahead or behind **Coordinated Universal Time (UTC)**. However, these time zones are decided upon by individual governments, without overall coordination and can even extend fourteen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



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

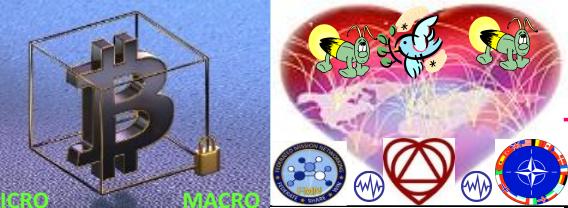
## NIST Quantum Random Number Beacon



"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

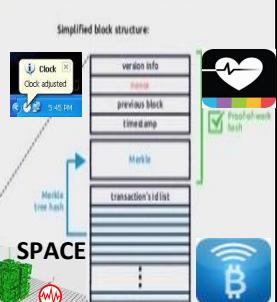
### 3. Timestamp Server

The solution we propose begins with a timestamp server. A timestamp server works by taking a batch of items 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 some time, obviously, in order to get into the hash. This timestamp includes the previous timestamp in its hash, forming a chain, with each additional timestamp confirming the previous one.



Epoch N  
Epoch N+1

Block chain  
What does a block look like?



WORLD ECONOMIC Heartbeat  
ALGORITHMIC REGULATION HEARTBEAT SYNC DELTAS



PROOF of SPACE-TIME  
Firefly - Heartbeat Sync Algorithm  
Heartbeat Event Message Bus  
UTZ stochastic harmonization

## Epoch Time Cycles

E0 E1 E2 E3...

Genesis

Epoch  
**E0**

**E1**

**E...n**



## Structured Data Exchange

ROSETTA

STONE

BREVITY

CODES

Attribute Series

Time Series

Value

Time

t<sub>1</sub>  
t<sub>2</sub>  
t<sub>3</sub>

Geo

Spatial

300 +

Message

Sets

Work

flow

Filters

Workflow

Filters

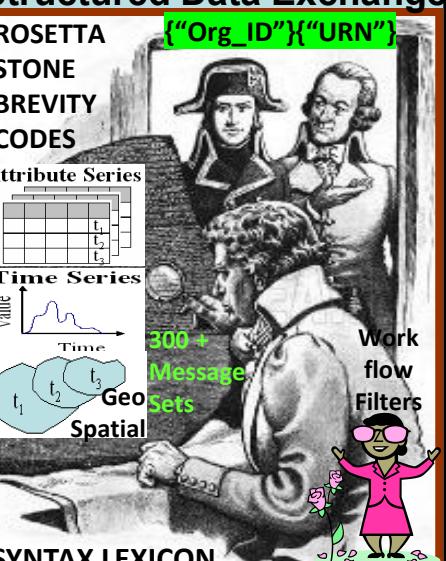
SYNTAX LEXICON

## QubitCoin Interval: Every 30 Seconds

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



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.

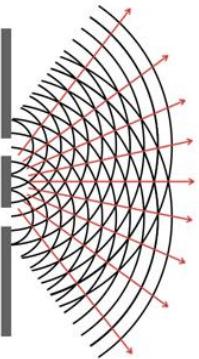


# Double-Slit Experiment

Screen with two slits

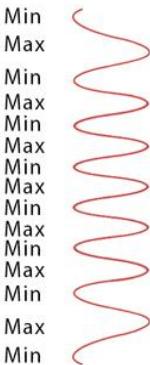
**PARTICLE ?**

Sodium lamp



Screen

**WAVE ?**



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

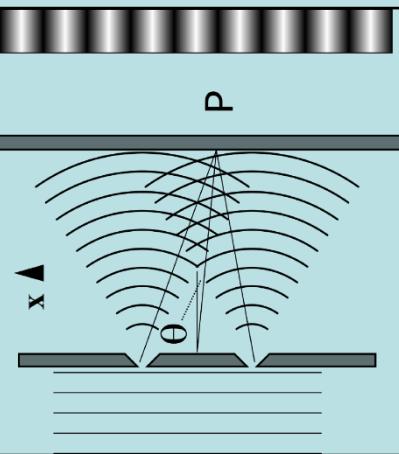
Interference of light waves due to two tiny slits and arrows indicate direction of wave propagation

Alternating bright and dark fringes due to interference of light waves

Intensity of the fringes shows the maxima and minima

Science Facts

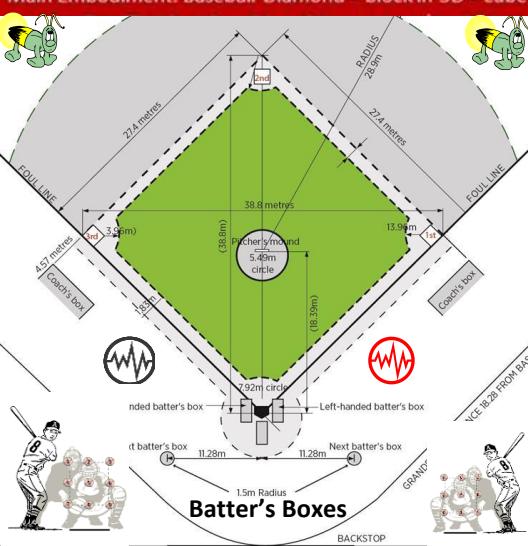
**QUANTUM COMPUTING - RESISTANT ? - BASED ? THROUGH LENS OF SCOTUS ALICE LOOKING GLASS RULING**



USPTO APPLICATION 13/573 002

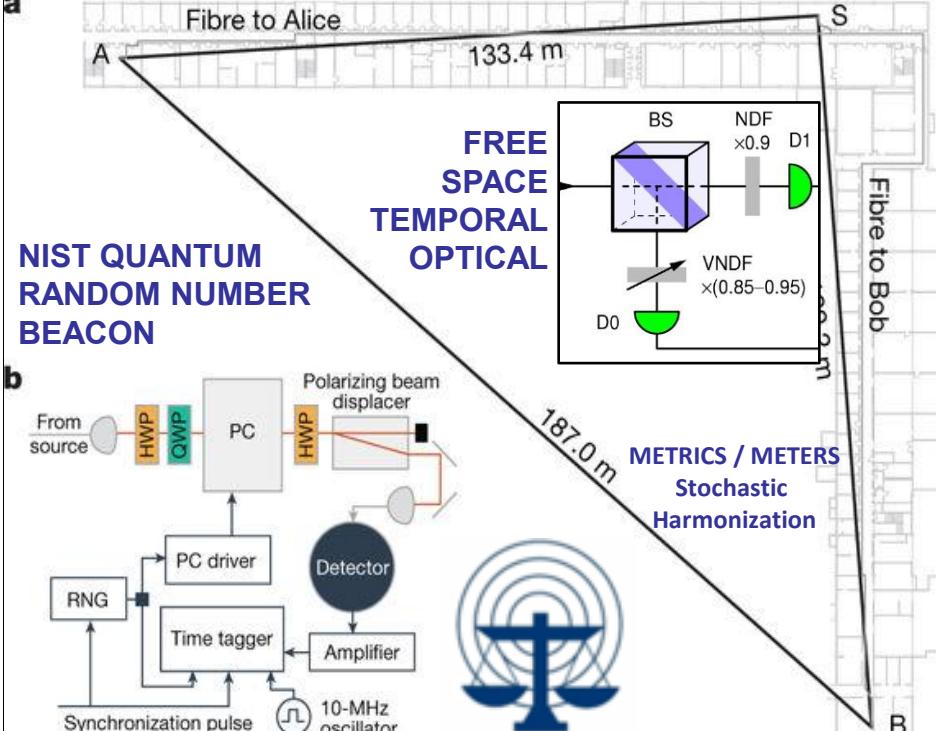
The Heart Beacon Cycle Time-Space Meter

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



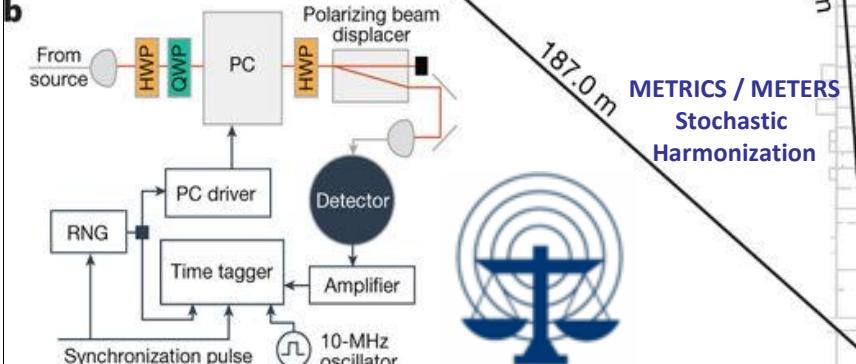
**SCOTUS ALICE RULING:** "Claims may not direct towards abstract ideas" / Physical = opposite of abstract

a



**NIST QUANTUM RANDOM NUMBER BEACON**

b



CLOCK FACE 360°  
90 / 90 / 90 / 90



MACRO CYCLES

RULES / ROLES

INSTRUCTIONS

WORKFLOW

UMPIRE

COACH

**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"

Blockchain BLOCK in 3D = CUBE

Cube has Length, Depth, Height, Volume

first base RUNNER Message Bus

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

third base FIX {"108"} FLASH MESSAGE EVENT BUS

home plate TIME STAMP SERVER

Survey Point Epoch Time Cycles

MICRO CYCLES

State Meta Data Snapshots

Fix {"108"} FLASH MESSAGE EVENT BUS

TIME STAMP SERVER

Epoch Time Cycles

# The Hopf Fibration

Edmund Harriss

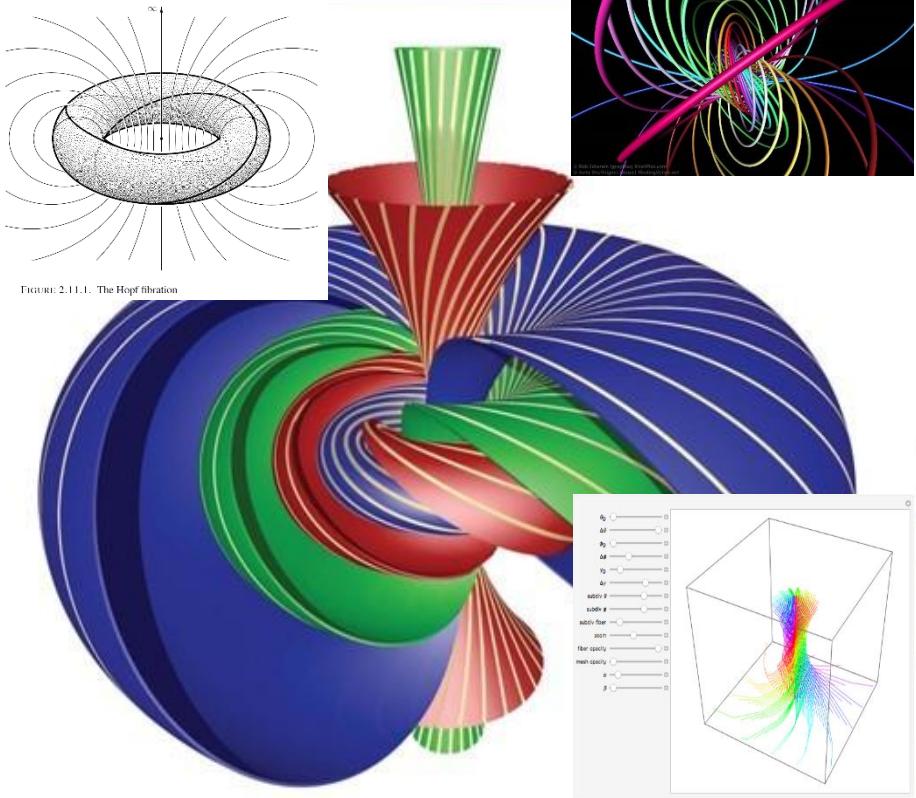
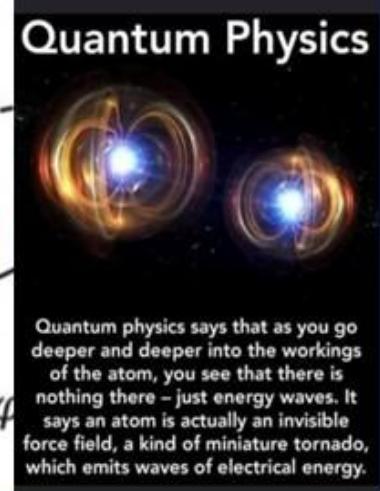
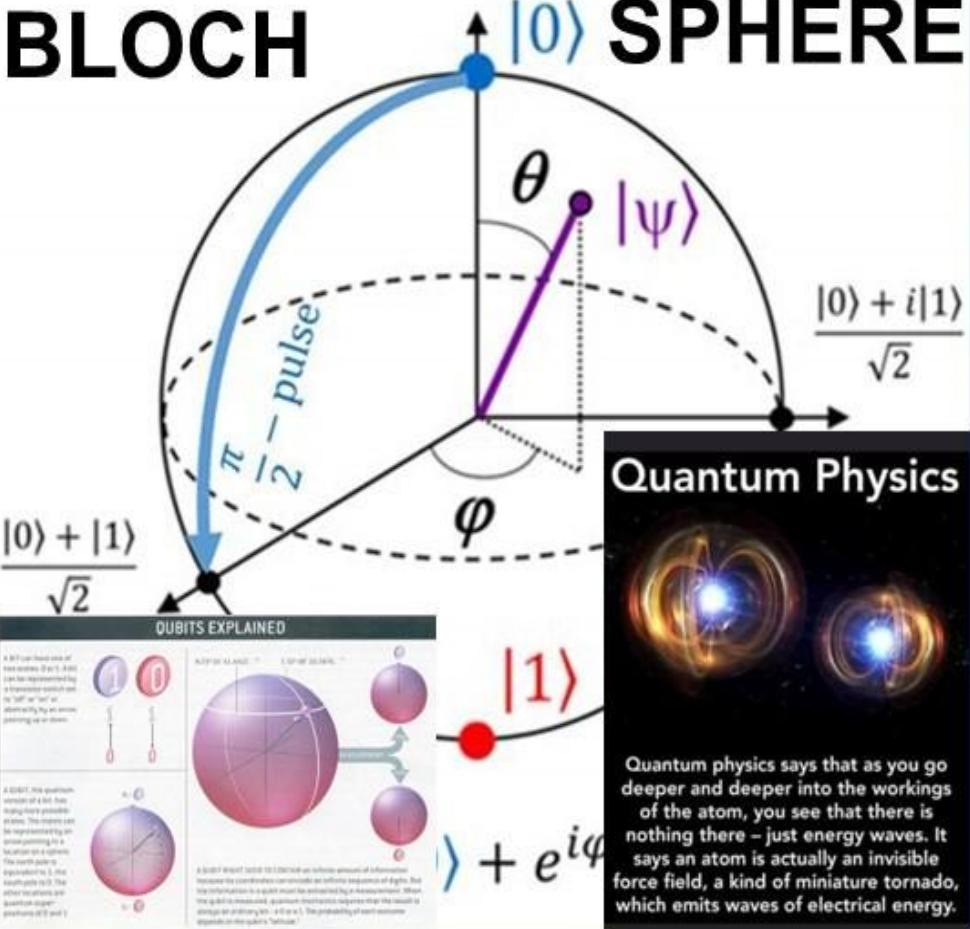


FIGURE 2.11.1. The Hopf fibration

# BLOCH SPHERE



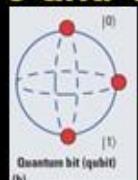
## Hopf Fibration / #Bloch sphere

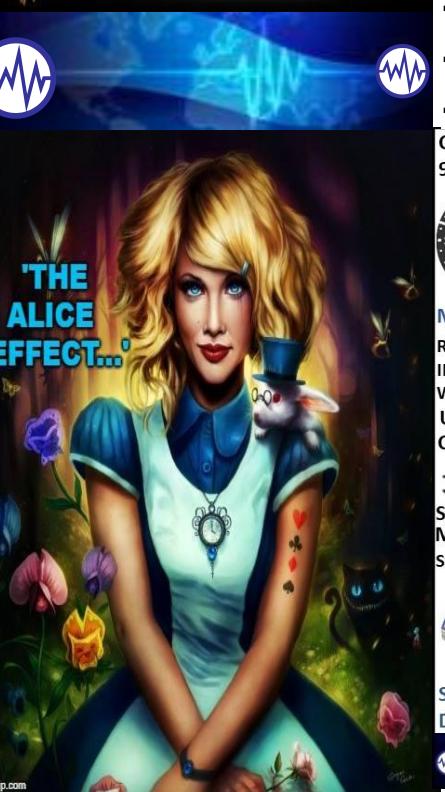
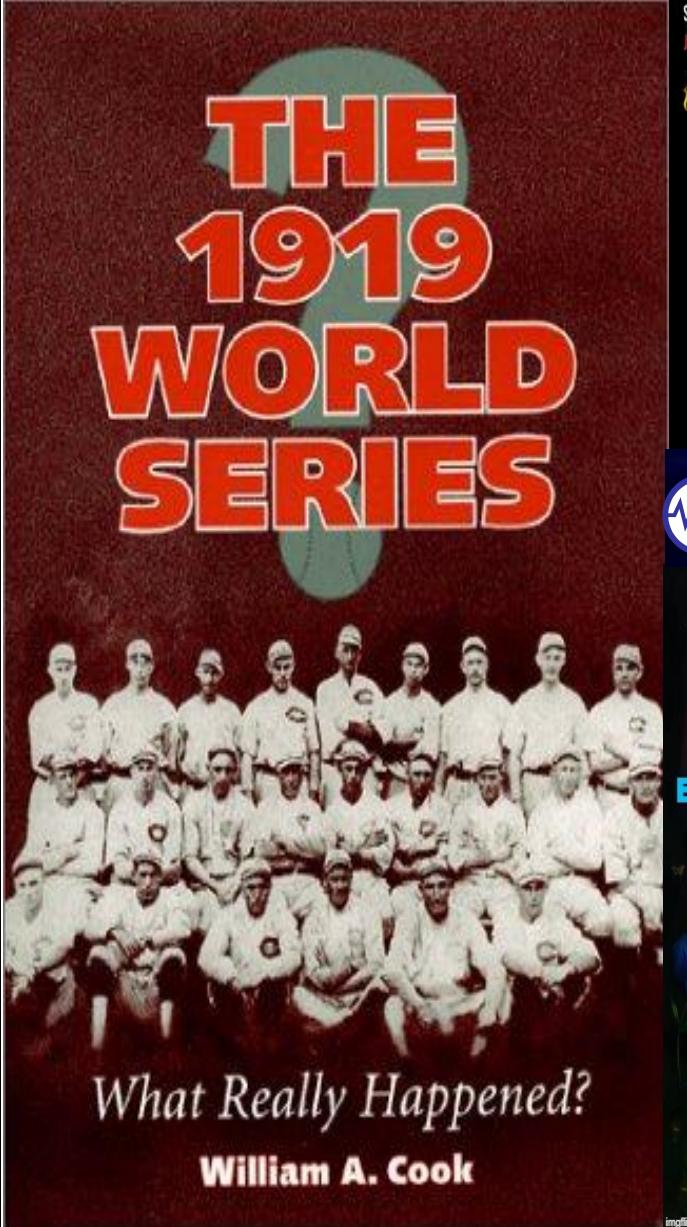
"the most important object in the universe"

"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.







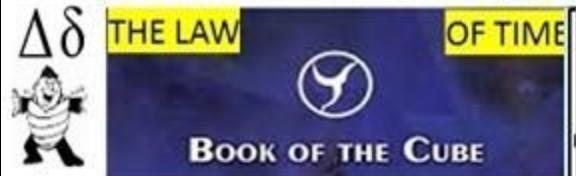
USPTO APPLICATION 13/573 002

## The Heart Beacon Cycle Time-Space Meter

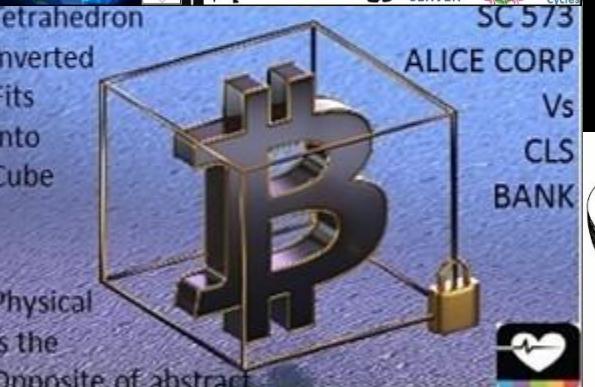
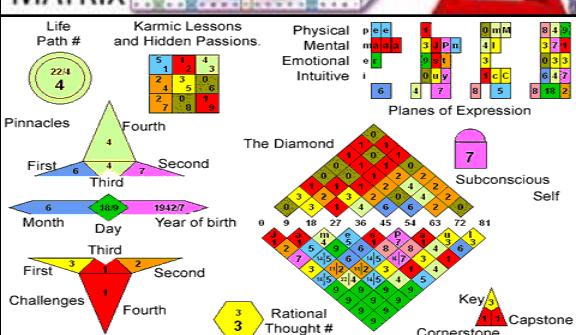
Main Embodiment: Baseball Diamond = block in 3D = cube

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

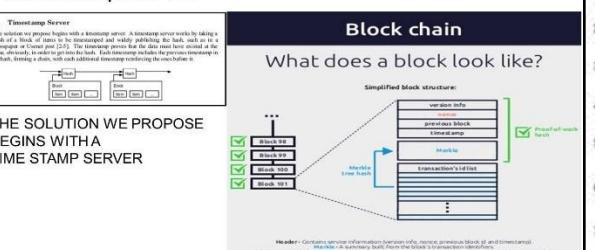
"We can synchronize ourselves in time for a common purpose" Universal Blockchain Meme



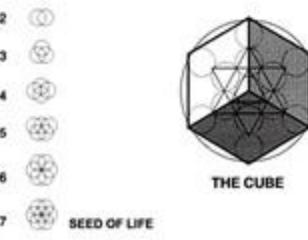
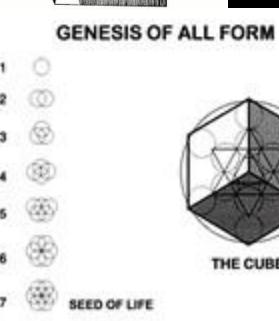
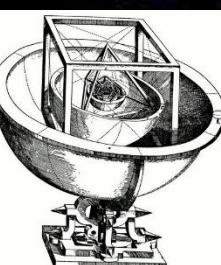
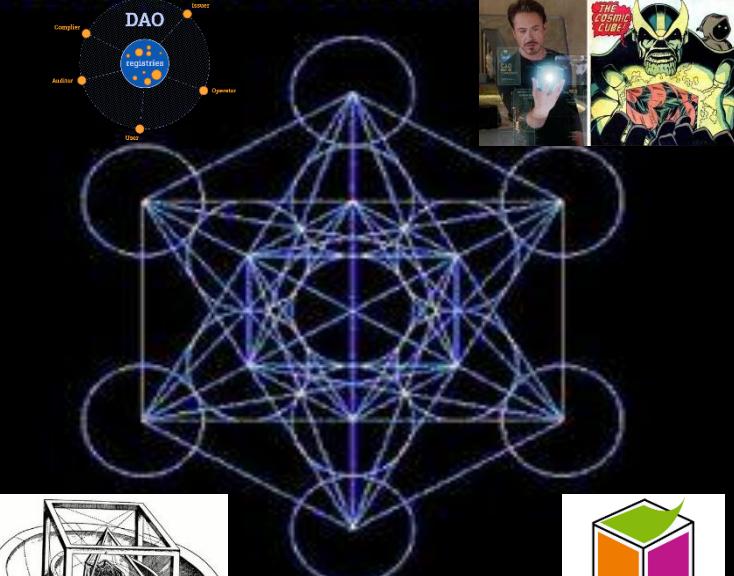
First  
Baseball  
Players  
Union  
Formed  
1870



Satoshi Bitcoin Blockchain  
Time Stamp Server



## Metatron's Cube and the Platonic Solids

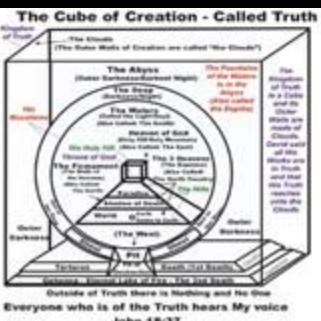


SEED OF LIFE



by: Tom Rimbault

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





"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.

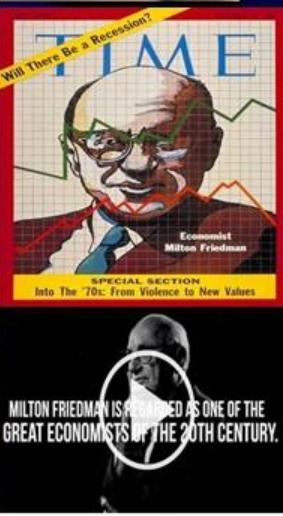
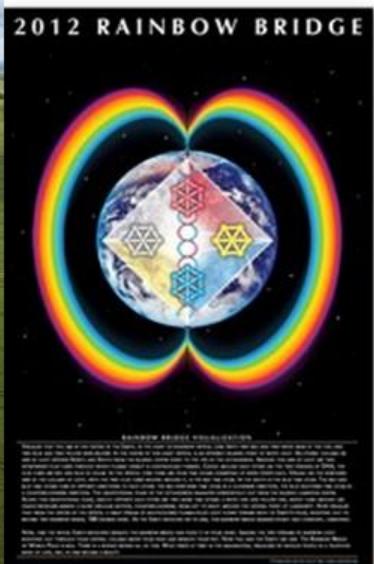
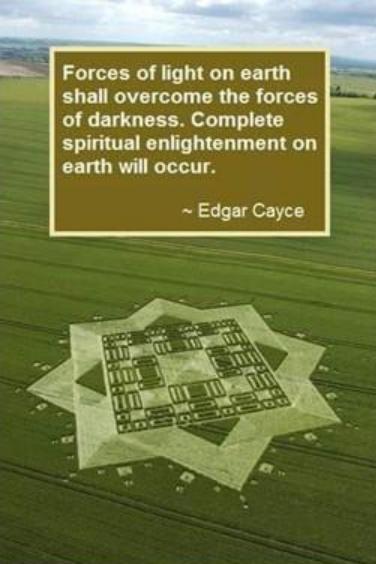
Over the next ten years, we are going to see our world innovate unlike never before, particularly in the fields of AI, technology, science, space travel, UFOs, networks, and the Internet. Major Universal truths will also be revealed as we welcome the New Age of Aquarius. The old world will soon come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

photo by werner du plessis



Forces of light on earth shall overcome the forces of darkness. Complete spiritual enlightenment on earth will occur.

~ Edgar Cayce



**"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.

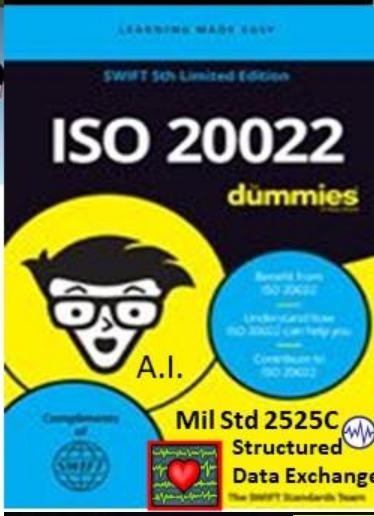
**Milton Friedman**

- 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, Price Theory, etc.
- Nobel Prize in Economics, 1976
- Considered as conservative, in reality liberal economist
- Advisor to President Nixon



CAPITALISM AND FREEDOM  
MILTON FRIEDMAN  
WITH THE ASSISTANCE OF ROBERT FRIEDMAN

*For Jim [unclear]  
With love from  
Robert Friedman  
Feb 1, 1970*



**The Age of Aquarius: Aquarius, Aquarius Rising @ 6:44 A.M. Feb 10<sup>th</sup> 1960**

**Buckminster Fuller "build a new model that makes the old model obsolete"**

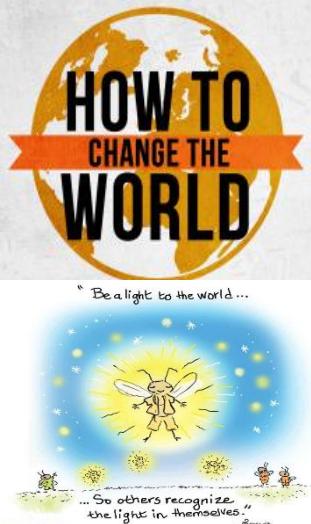
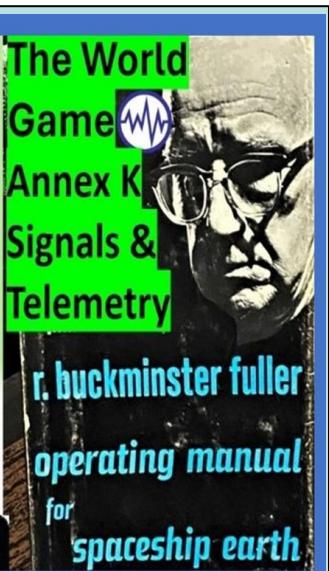
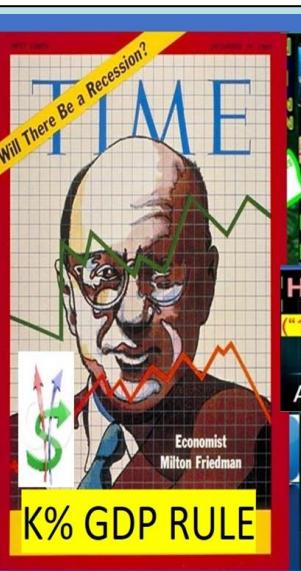
**Socrates: focus all your energy on building the new, not fighting the old"**

#algorithmic #stablecoin #buckminster #fuller #cryptocurrency #Milton #Friedman

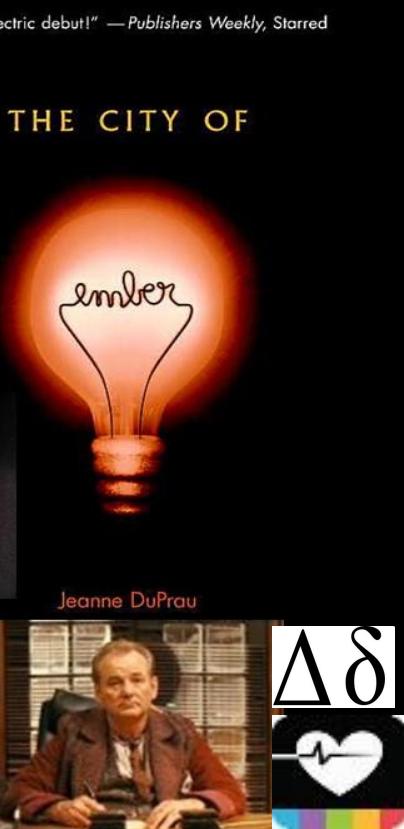
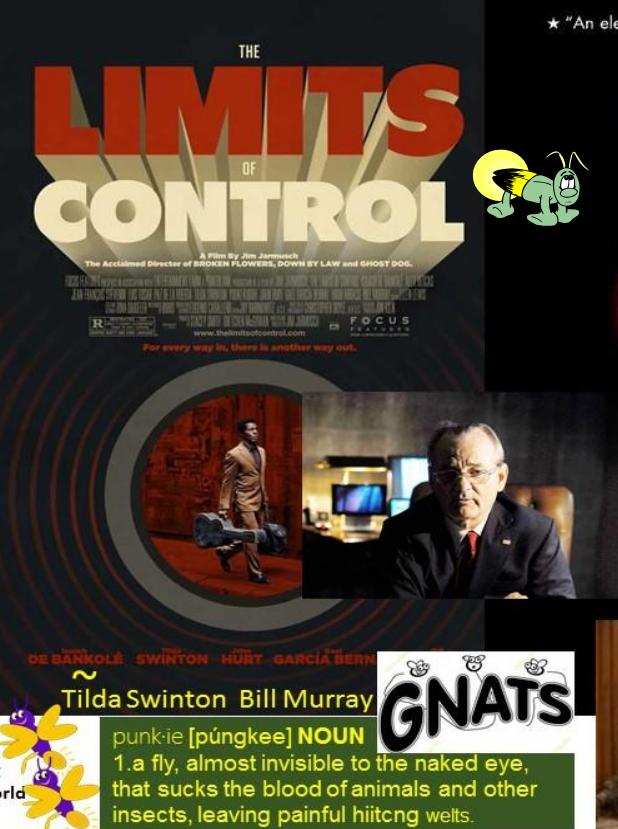
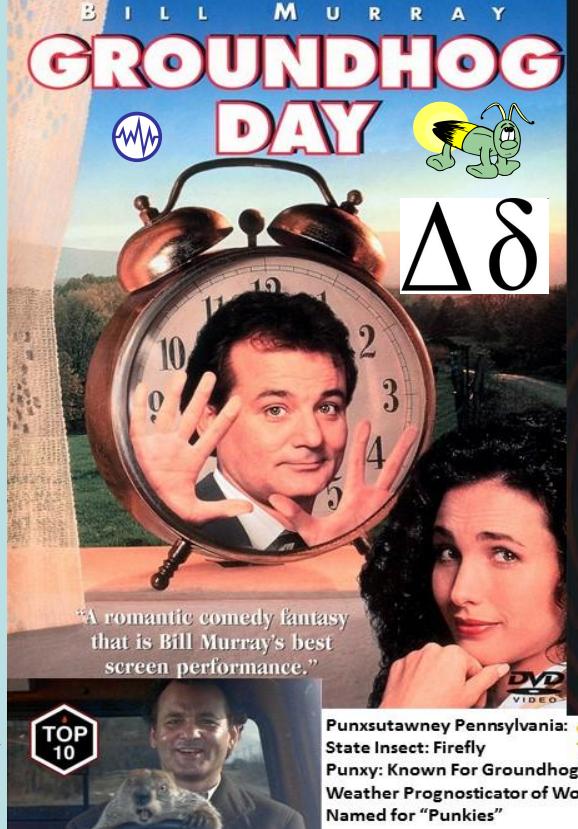




**DISNEY'S FANTASIA**



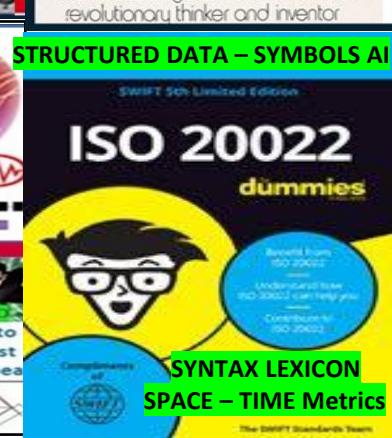
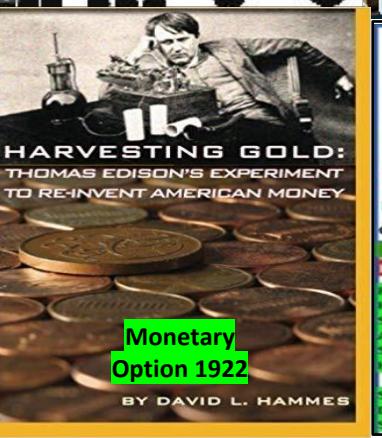
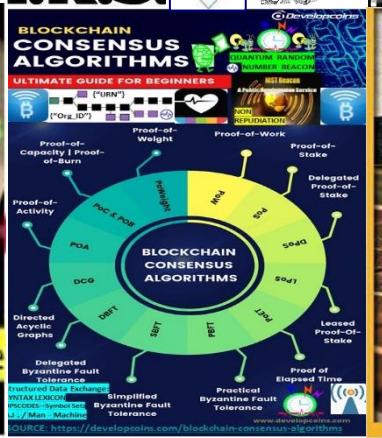
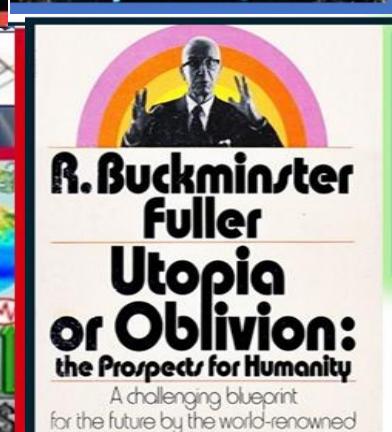
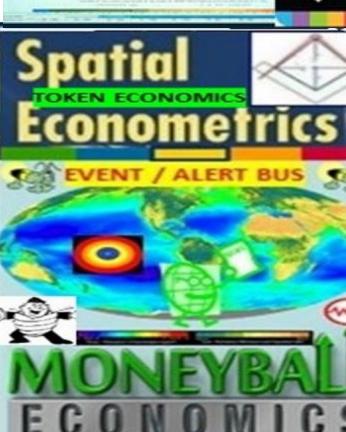
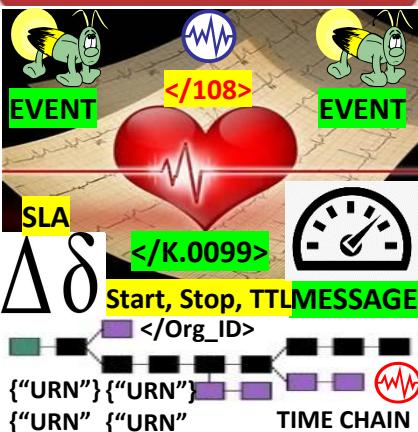
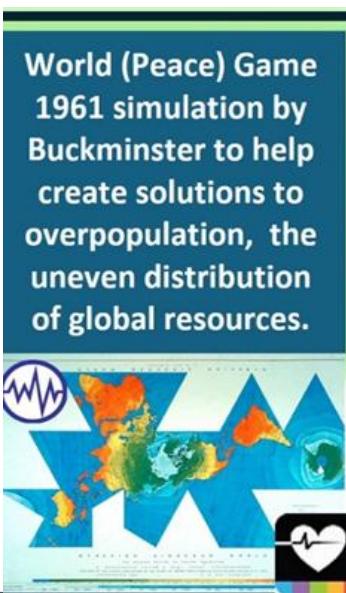
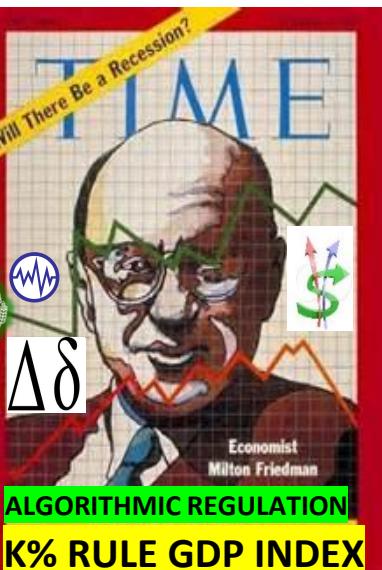
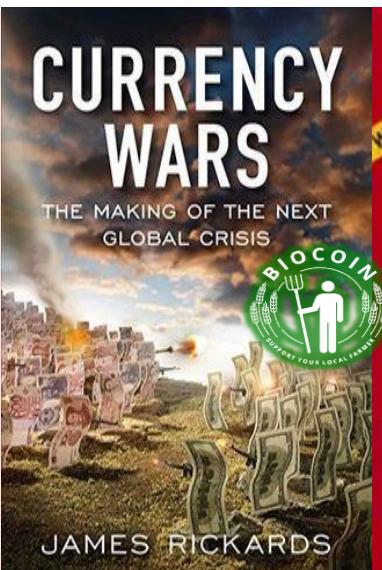
**UNIVERSAL LAW**  
**CAUSE / EFFECT**  
**ACTION /**  
**INACTION**  
**IF / Then /**  
**or.. ELSE**



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.

**The World Game**  
Annex K  
Signals & Telemetry  
**r. buckminster fuller operating manual for spaceship earth**



**Spatial Econometrics**  
TOKEN ECONOMICS  
EVENT / ALERT BUS  
**MONEYBALL ECONOMICS**



What does your name mean?

Steven + McGee  
Intellectual Revolutionary

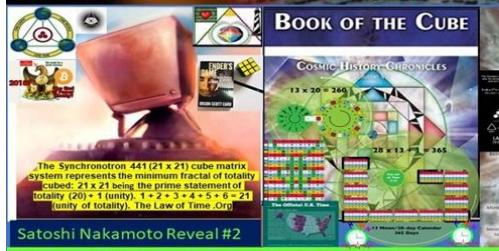
You have a sharp spirit paired with a strong will. You have the power to change the world with your intelligence!

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



121  
**Wayward Son**

