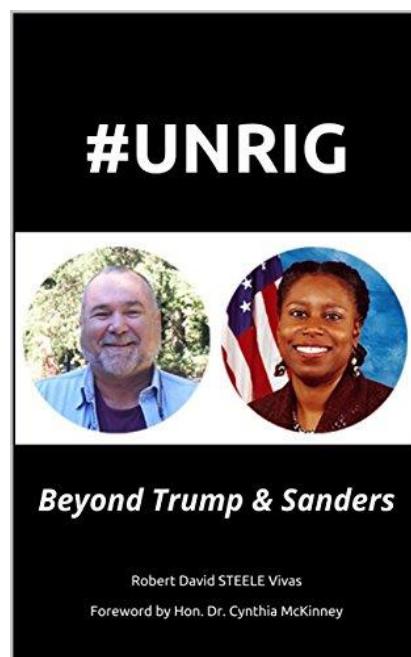


RIG #UNRIG Earth Intelligence Network with a neural network emulation algorithm



The Earth Intelligence Network is an accredited 501c3 chartered in the Commonwealth of Virginia. EIN has no employees. Its original and long-term focus is on teaching citizens the urgency of demanding holistic analytics, true cost economics, and Open Source Everything Engineering (OSEE) as the foundation for enlightened self-governance. **#UNRIG** seeks to communicate to all citizens the possibility of an ethical, legal, non-violent restoration of integrity to the US Government. [LINK https://phibetaiota.net/unrig/](https://phibetaiota.net/unrig/)





IDEA: RIG #UNRIG's Earth Intelligence Network by supporting it with improved DARPA / NATO derived system of systems signaling, telemetry engineering research and NATO best practice a.k.a. The HEART BEACON CYCLE HBC TIME—SPACE METER. A main HBC building block is using an algorithm that emulates a global brain neural network activity.

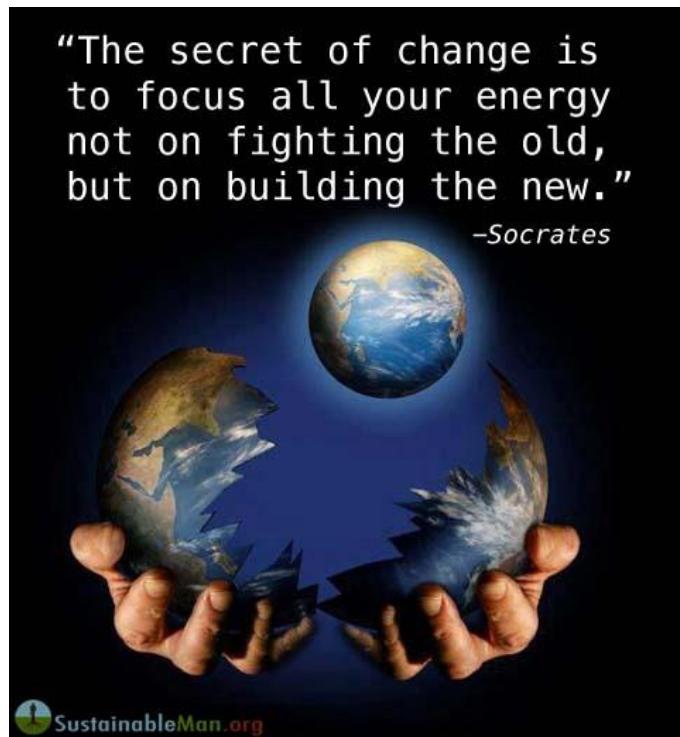
The Earth Intelligence Network will initially be comprised from many nations telecommunications. Eventually, it will be formed from all nation states as a system of systems situational understanding type project that will arguably need a universal method and means to receive event and alert messages independent of protocol or programming language within the matrix if you will. Therefore, we propose a neural network emulation based on nature - fireflies - using an algorithm conceived by University of Hungary / Bologna Italy. [LINK](#)

Ecologically responsible economics—either we demonstrate responsibility towards the planet we live on or we don't—it's that simple. The Heart Beacon Cycle is a swords to plowshare reuse of tax subsidized research into optimal use of individuals joining groups synchronized in time-space to accomplish common goals e.g., optimal geo-spatial, temporal econometrics, vectors to reduce for example, CO₂ carbon footprint due to inefficient transport, resource vectors through a novel, improved use of an algorithm based on nature and NATO best operational practice, and Incentives for ecologically sound economics. The German Military cited Battlefield

Digitization / NEO Net Enabled Operations OOTW in 2003, why postpone the inevitable?
<http://sawconcepts.com/index/id20.html>

Let's Rig #UNRIG with an algorithm inspired by fireflies that emulates neural network activity for #UNRIG's Earth Intelligence Network reusing tax payer paid for research and best practice into system of systems engineering Battlefield Digitization / Network Enabled Operations NEO swords to plowshares. The Earth Intelligence Network will benefit from a universal algorithm that includes flash heartbeat messages reporting changes to the system of systems such as events / alerts. We propose an algorithm based on nature to form a neural network emulation conceived by the University of Hungary and Bologna Italy whose alumni includes the Borgia Pope so what's not to like? see LINK <http://sawconcepts.com/index/id22.html>

Earth Day Every Day on the Bitcoin Blockchain. Use Bitcoin, Ethereum etc. based apps micro-payments in concert with TERRA TRC Trade Reference Currency & add Pentagon system of systems best practice then shake, system integrate well... <http://sawconcepts.com/index>



**"The secret of change is
to focus all your energy
not on fighting the old,
but on building the new."**

-Socrates

Earth Day every day on the Bitcoin Blockchain leveraging Bitcoin / Ethereum's micro-payments to subsidize TERRA TRC Trade Reference Currency demurrage fees. If a one world anything is going to happen any time soon, NATO will provide the template system of systems in my opinion: [LINK http://sawconcepts.com/index/id42.html](http://sawconcepts.com/index/id42.html)

Ecologically sound econometrics - The Heart Beacon Cycle Time — Space Meter USPTO 13/573,002 is a Signals, Telemetry annex for Buckminster Fuller's Operations Manual for Spaceship Earth. Our proposal is based on a proven system of systems building blocks and best practice framework leveraging a signaling, telemetry heartbeat flash message universal event,

alert message bus. Our proposal standardizes metrics, measurements within the Bitcoin Blockchain internet of value / money forming intra-city blockchain arbitrage. it is a system of systems standardization project based on NATO's proven best practice.



The Heart Beacon Cycle HBC is an adaptive procedural template checklist of things, processes, tools, building blocks useful to form, maintain Eco-responsible trade federations. Each item in the procedural template checklist links to a detailed treatise. We can synchronize ourselves and our cities in time - space for a common purpose: ecologically sound econometrics.

The Heart Beacon Cycle Time - Space Meter, Applique' Overlay.. a procedural template checklist supporting ecologic, economic sustainable best practice among trade federations / DAO's Distributed Autonomous Organizations by establishing a universal event, alert flash heartbeat message bus enabling time - space stochastic harmonization for example, among Telco mesh fabrics. The Heart Beacon Cycle Time - Space Meter main use case: synchronizing geo-spatial temporal Eco - Econometrics among Trade Federations / DAO Distributed Autonomous Organizations. Members of (trade federations agree to use standards, processes, shared components / building blocks and conventions. The checklist is agreed upon as items as minimum requirements to join a (trade) federation (cloud computing term). Entries to the procedural template checklist -- a clipboard of things needed to accomplish a goal (establish a trade federation) refer to detailed treatises.

A process defines “what” needs to be done and which roles are involved.

A procedure defines “how” to do the task. Example:

- Roles and responsibilities of the people (roles) assigned to do the work
- Tools and equipment to support individuals do their jobs
- Procedures and methods defining how to do the tasks and relationships, work flows connecting steps between the tasks.

The Heart Beacon Cycle is simply a checklist.. adaptive, procedural template checklist for forming trade federations supporting ecologically friendly business transactions and Eco-friendly geo-spatial econometrics where closer is cheaper, closer is faster and most importantly, uses less environmentally polluting fuel. This strategy will significantly reduce the CO2 carbon footprint,



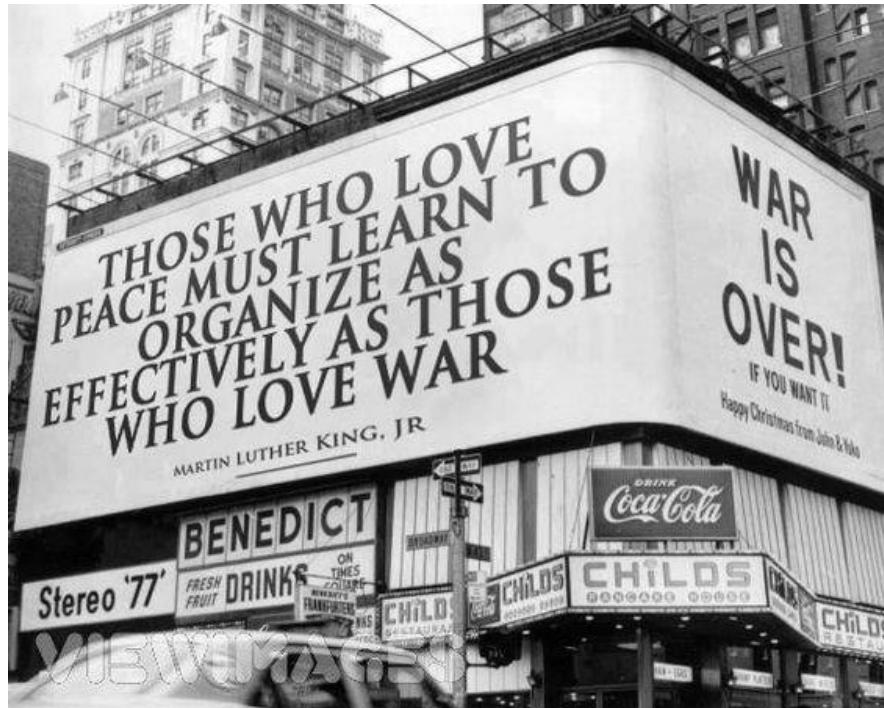
FIGURE 1: Firefly Inspired Heart Beacon Algorithm conceived for Telco mesh fabrics

"The shortest path to the knowledge of truth is through nature" Luxor Temple

Inscription: LINK <http://sawconcepts.com/index/id22.html>

The main template system of the system of systems is Blue Force Tracker, now referred to as Joint Blue Forces Situation Awareness JBFSA. JBFSA originally was referred to as Battlefield Digitization. Code reuse is not the primary objective. Re-use of the military's signaling and telemetry best practice used since the time of Alexander The Great to keep people in groups organized across space and time in terms of the who, what, where, how much, how often is the premise. The Heart Beacon Cycle is a swords to plowshare project that is technology neutral.

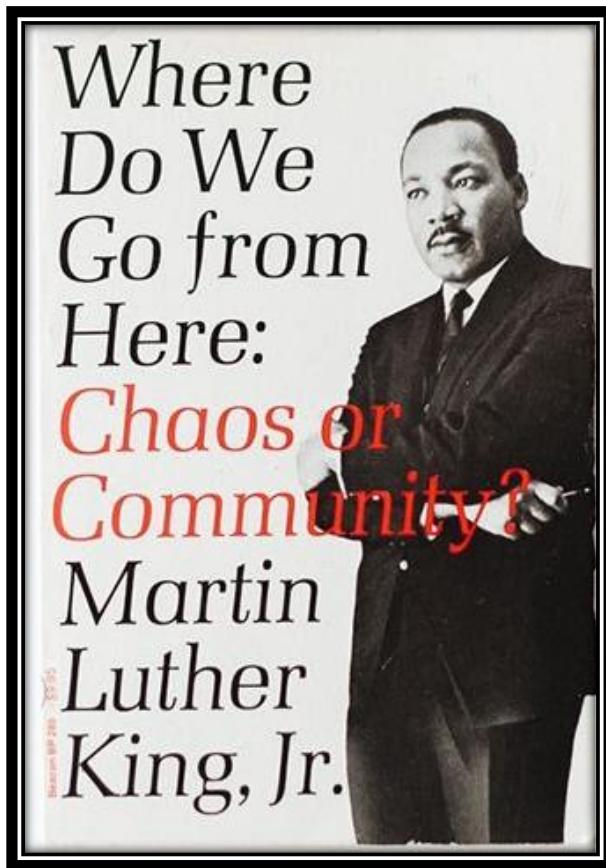
Source URL: <http://www.sawconcepts.com/index/id84.html> [LINK](#)



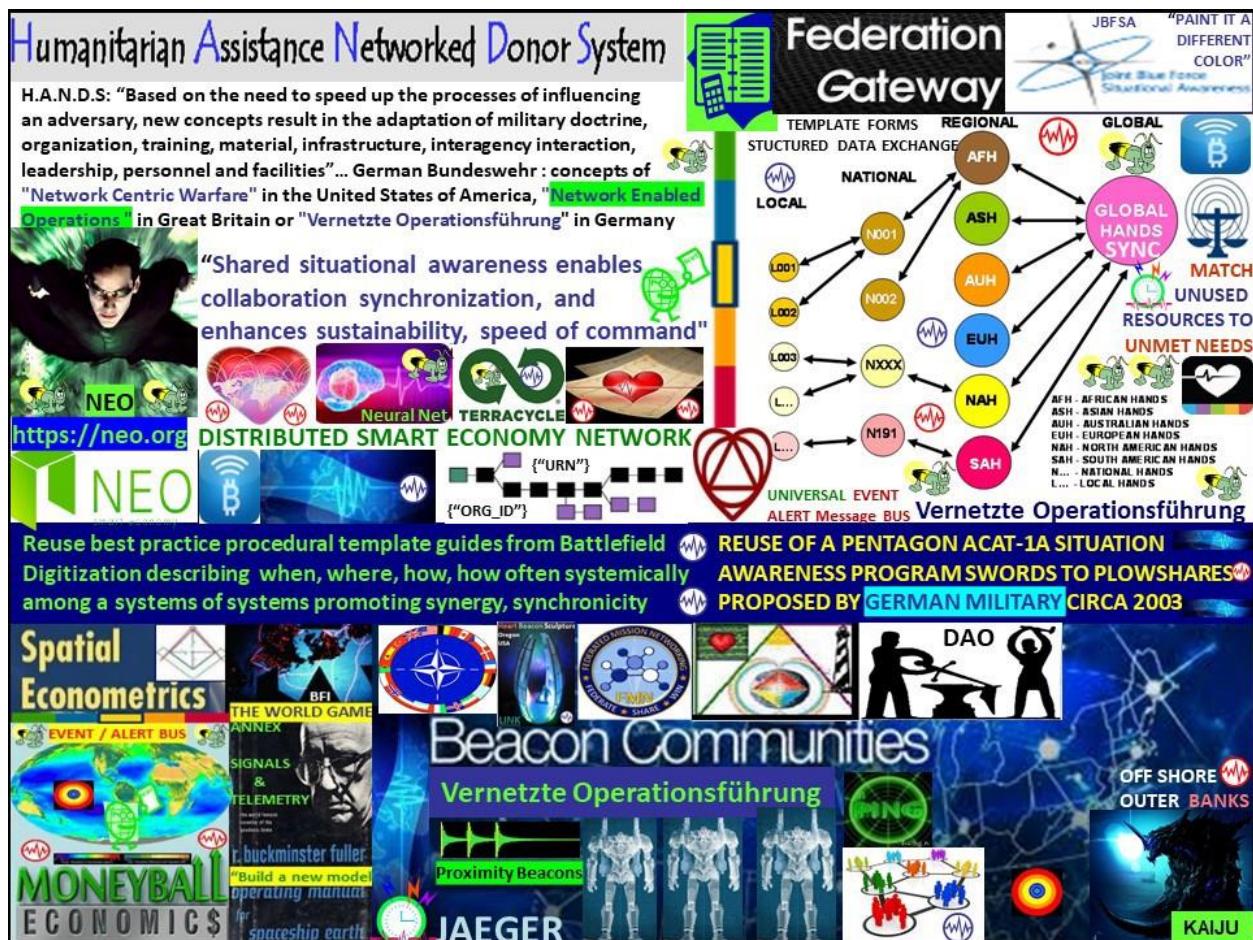
The Heart Beacon Cycle (HBC): Swords to plowshare re-use of tax subsidized best practice. Military's do one thing very well: individuals join groups (units) synchronized in time-space to accomplish common goals. Adaptive use case: geo-spatial, temporal econometrics, vectors to reduce CO₂ carbon footprint due to inefficient transport, resource, logistic vectors. The HBC applies a novel use of an algorithm based on nature and NATO best system of systems engineering practice. It includes geo-spatial, temporal metrics, measures, and Incentives for ecologically sound geo-spatial, temporal econometrics. It is an adaptive procedural template checklist of things, processes, tools, building blocks useful to form, maintain Eco-responsible trade federations. Each item in the procedural template checklist links to a treatise. <http://sawconcepts.com/index/id79.html>

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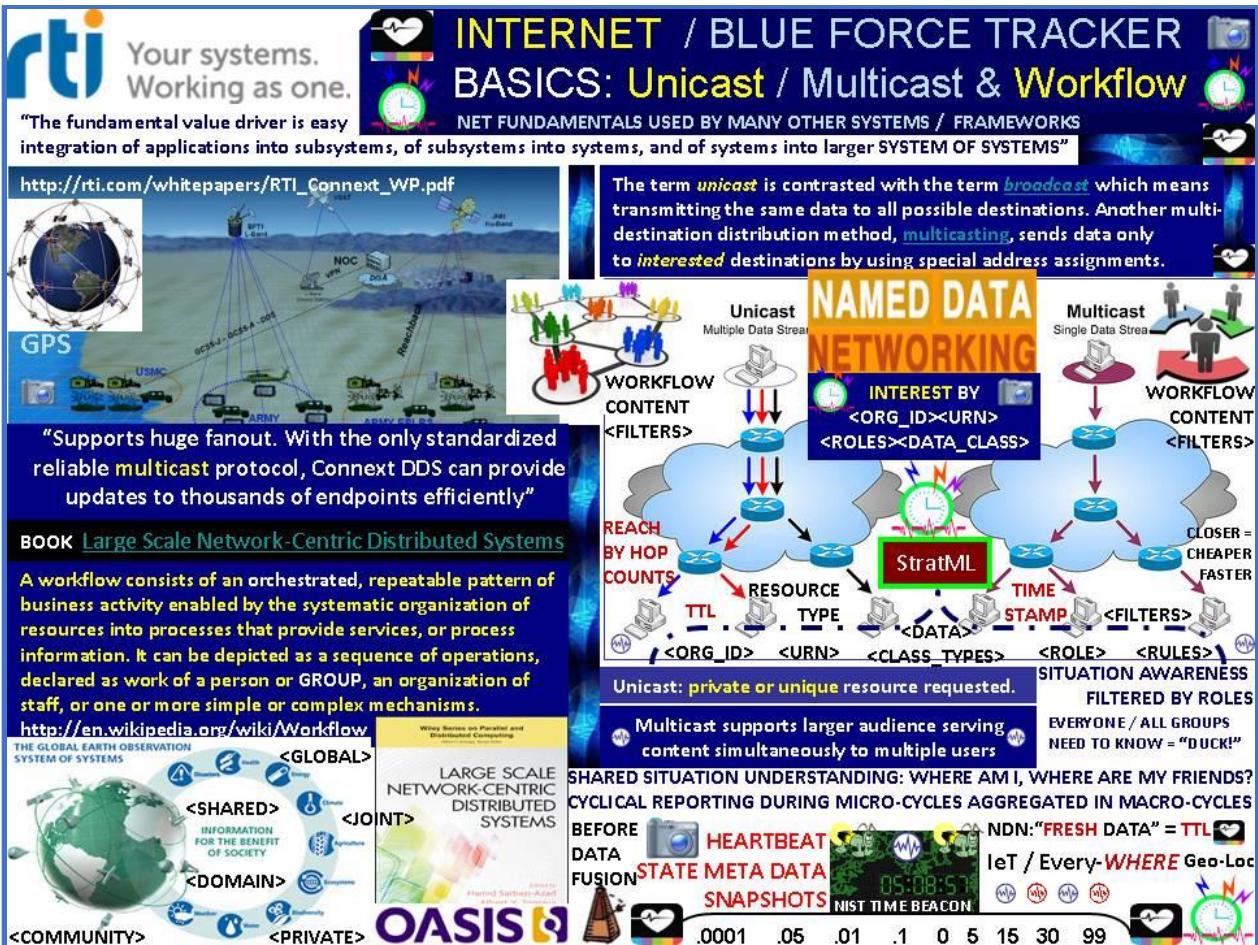
Scientists marching is awesome. So is sustained, systemic action instead of protesting whoever is selected to read teleprompters. In addition to protesting the lack of ecological protective actions, why not also focus on forming local and regional equitable, sustainable trade federations where closer is cheaper (geo-spatial econometrics) re-using NATO procedures that maintain host nation agreements for food, water, energy.. swords to plowshare style? Swords to plowshares: Battlefield digitization Distributed Autonomous Organization process to form Trade Federations.
<http://sawconcepts.com/index/id22.html> <http://sawconcepts.com/index/id39.html>



Every day can be Earth Day on the Bitcoin Blockchain - ecologically responsible economics

The Heart Beacon Cycle—by whatever description or naming meme is not a new idea. Re-use of Battlefield Digitization / Network Centric Operations research for First Response was conceived by the German Military early last decade. The main theme is re-use of the military's skill at taking individuals and forming them into groups working towards common goals, projects, purposes e.g., participating in a Ecologically responsible Trade Federation supported by system of systems signaling, telemetry—an Annex K Signals and Telemetry Annex for Bucky Fuller's Operating Manual for Spaceship Earth a.k.a. our BIG BLUE MARBLE.

The military has always done one thing very well—form individuals into groups working synchronized in time towards accomplishing a myriad of missions such as transacting in food, water, fuel services in host nation agreements already established in most countries. This is what is of value, what should be referenced and reused in OOTW Operations Other than War proposed by the German military circa 2004.



The model template framework is the United States Army / Marine Corps Joint Battle Command JBC also known as Joint Blue Force Situation Awareness. The template system is part of a system of systems. Its interaction with many other intelligence, logistics, maneuver etc. systems participating in a system of systems. To achieve consensus, selecting the most widely implemented Situation Awareness System -- Joint Blue Force Situation Awareness or JBFSA US Army Communication Electronic Command CECOM's greatest invention – Blue Force Tracker. co-developed Marine Corps is the path of least resistance. Deriving common building blocks from JBFSA which are the common building blocks of Wall Street and First Response Systems (heartbeat / heartbeat messages) is the premise behind this plan.

The US Army was experimenting with using networks and router / router subnets to emulate orders and schemes of maneuver. To determine if a squad or platoon was mission capable or where it was supposed to be and equipped with the requisite resources: food, water, fuel, ammo etc., data had to be sampled and forwarded using a minimum of network resources -- in other words TIME. The Internet Protocol was examined closely and it was re-discovered that time interval frame assignments were unassigned / available to transport additional state meta data. These heretofore unassigned time intervals set aside for future use would be used to carry data about the organization -- it's unit designation or Organizational Identifier <Org_ID>, its geo-location and its resources <URN> Uniform Resource Name. TCP/IP heartbeat's simplicity, lowest possible network overhead, local data heartbeat get - puts was the solution that the Army was seeking -- retrieving data from data fusion center's after the fact is problematic.



The Heart Beacon Cycle is a procedural template framework that includes citations of required standards, processes, shared components / building blocks and conventions that are agreed upon as criteria required as a minimum to join federations (cloud computing term). Procedural template checklist items form a clipboard of things, processes, procedures, products, enterprise tools... necessary to form, maintain sustainable trade. Items are entries that link to detailed treatises.

The Heart Beacon Cycle (HBC): Swords to plowshare re-use of tax subsidized best practice. Military's do one thing very well: individuals join groups (units) synchronized in time-space to accomplish common goals. Adaptive use case: geo-spatial, temporal econometrics, vectors to reduce CO2 carbon footprint due to inefficient transport, resource, logistic vectors. The HBC applies a novel use of an algorithm based on nature and NATO best system of systems engineering practice. It includes geo-spatial, temporal metrics, measures, and Incentives for ecologically sound geo-spatial, temporal econometrics. It is an adaptive procedural template checklist of things, processes, tools, building blocks useful to form, maintain Eco-responsible trade federations. Each item in the procedural template checklist links to a treatise.

<http://sawconcepts.com/index/id79.html>

Project: form trade federations of autonomous communities, states / sovereign nations following a procedural template checklist promoting synchronization among geo-spatially dispersed groups. Federated groups follow a procedural template guiding group activities across time - space to achieve synergy, synchronicity and inter community cooperation where activities are orchestrated from grassroots to capitals, from micro to macro economic cycles. Satoshi Nakamoto: "#Bitcoin is intended to be paired with a market place" "the blockchain stores

references to market indexes" Example, the Blockchain Particl system combines a Bit-message style network with anonymous payment schemes to create a privacy-centric marketplace.

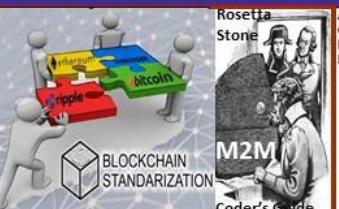
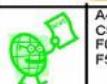
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We can synchronize ourselves and our cities in time—space for a common purpose: ecologically sound econometrics i.e., through use of a Signals and Telemetry annex for Buckminster Fuller's Operations Manual for Spaceship Earth.

Globalization involves multi-national corporate entities vying for control of regional resources. A proven strategy to identify, track, and monitor resources regionally within the global economic matrix is needed. The Heart Beacon Cycle: a procedural template listing tools, syntax, processes useful in forming, maintaining a system of services providing consistent scheduling of micro-services reporting to macro-cycle updates to decision support overlays and scheduling signaling, telemetry exchanges among a collective, distributed system of (economic) systems.

The HBC provides a firefly inspired heartbeat flash message universal event, alert message bus. Pentagon ACAT 1A C3 ISR systems have 300+ structured data exchange templates that are operationally, iteratively scheduled, synchronized from micro to macro cycle that we believe are key to supporting Buckminster Fuller's Operating Manual for Spaceship Earth's with a Signals, Telemetry Annex. I.e., internet of money Bitcoin Blockchain micro-payments supporting TERRA TRC Trade Reference Currency demurrage charges, parking fees supporting handling, movement of lead economic indicators, commodities

FROM		ALPHA-NUMERIC BREVITY CODES						CODE GUIDE									
ASAS 	GCCS-A		C002 C203		C002 C203		ATDS MCS										
	C002	C203	F002	F014	F015	F541	C002	C203	C002 C203								
	F002	F014	F015	F541	S201	S309	F002	F014	E400 F002								
	F015	F541	S201	S309			F014	F541	F014 F015								
	S201	S309					S201	S309	S201 S309								
							F002	C400	F002 C400								
							F015	D630	F015 D630								
							S201	F014	S201 F014								
USMFT / XML MTF FORMATTED MESSAGE CATALOG = 300 + messages info exchange sets using common, CONSENSUS Message Text Formats MTFs. MTFs specify </CONTENT> / info agreed by group consensus presenting information in a logical, well specified unambiguous layout resulting in a highly efficient info payload to overhead ratio																	
 Blockchain Standardization		Rosetta Stone		A423 C203 C505 F002 F014 F015 F541 S201		A423 C203 C505 F002 F014 F015 F541 S201		INFOCON 4 3 2 1 INFORMATION CONDITION									
 MCS		SIOP		Blockchain Standardization		C400 E400 F002 E500 F015 F541 S201 S309		"SYMBOLS RULE THE WORLD"									
 NATO FMN		Bitcoin		M2M		Coder's Guide		HEARTBEAT									
MESSAGE CATALOG 300 + Use Cases		Data Elements: entity, attribute, relationship equivalents		MESSAGE = K00.99		PROCESS MESSAGE BY PRECEDENCE UNIVERSAL EVENT / ALERT MESSAGE BUS											
Information Categories and Examples																	
Object Categories	Examples	Location	Movement	Identify	Status	Activity	Intent										
OOB	SYNTAX LEXICON	STRUCTURED DATA lat/long	EXCHANGE spd/hdg	Message country / alliance, type/class	Sets readiness	COAs targeting, remonitoring	Java JS	11.4 - Classification									
Infrastructure	Comm, power, transportation, water/sewer	Machine Trust Language MTL network, grid	Machine Trust Language MTL throughput, flow rates,	Contract name, part-of relationships	CDL BDA, op levels	Description repair, breakdowns	YAML expansion plans	11.4.1 - Category									
Sociological	Culture, religion, economic, ethnic, government, history, languages	ER Model temples, historic structures	Relational Database Table	Object DBMS Class	XML DTD / Schema Element	TADILs Message	11.4.1.1 - Confidence Level	11.8 - Kinematics									
Geophysical	Terrain, weather, climatology, oceanography, astrometry	feature lat/long, alt/dpth	Attribute Field / Column	Attribute Object / Element Attribute	Child Element Attribute	FFIRN / FFN FUDN	11.4.1.2 - Estimate Type	11.8.1 - Pos / Vel / Acc (PVA)									
		Domain Value PURCHASE CODES	Instance, Value			DUI	11.4.1.2.1 - Alternative	11.8.1.1 - Acceleration									
						FUD	11.4.1.2.2 - Evaluated D	11.8.1.1.1 - Angular									
							11.4.1.3 - Value	11.8.1.2 - Linear									
								11.4.1.4 - Estimated									
								11.8.1.2.1 - Alternative									
								11.8.1.2.2 - Observed									
								11.8.1.2.3 - Predicted									
								11.8.1.2.4 - Smoothed Data									
SYMBOL	Friend	Neutral	Hostile														
2525C	Partner																
Information Elements Roles																	
• COI Determination Org Interaction																	
• Search and Discovery																	
• Ontologies STANDARDS																	
• Taxonomies REFERENCE																	
• Metadata Attributes / Filters ('Org_ID') { "URN" }																	
																	
FILTERS																	
FFUDN: Field Format Unit Designator #																	
FFIRN Field Format Index Reference #																	
Structured military messaging ID's messages, message sets, data element, symbol fields																	
BY Form Field Position & NUMBER																	
 Firefly-Heartbeat Flash Messages																	
PROCESS MESSAGE BY PRECEDENCE UNIVERSAL EVENT / ALERT MESSAGE BUS																	
OPERATIONAL NODES / ACTIVITIES																	
DATA		SYSTEM FUNCTIONS				PERFORMANCE											
11.4 - Classification		11.8 - Kinematics				11.8.1 - Pos / Vel / Acc (PVA)											
11.4.1 - Category		11.8.1.1 - Acceleration				11.8.1.1.1 - Angular											
11.4.1.1 - Confidence Level		11.8.1.2 - Linear				11.8.1.2 - Alternative											
11.4.1.2 - Estimate Type		11.8.1.2.1 - Estimated				11.8.1.2.2 - Observed											
11.4.1.2.1 - Alternative		11.8.1.2.3 - Predicted				11.8.1.2.4 - Smoothed Data											
11.4.1.2.2 - Evaluated D																	
11.4.1.3 - Value																	
11.4.1.4 - Estimated																	
11.4.1.4.1 - Category																	
11.4.1.4.2 - Estimate Type																	
11.4.1.4.3 - Specific Type																	
11.4.1.4.4 - Type Modifier																	
11.4.1.4.5 - Unit																	

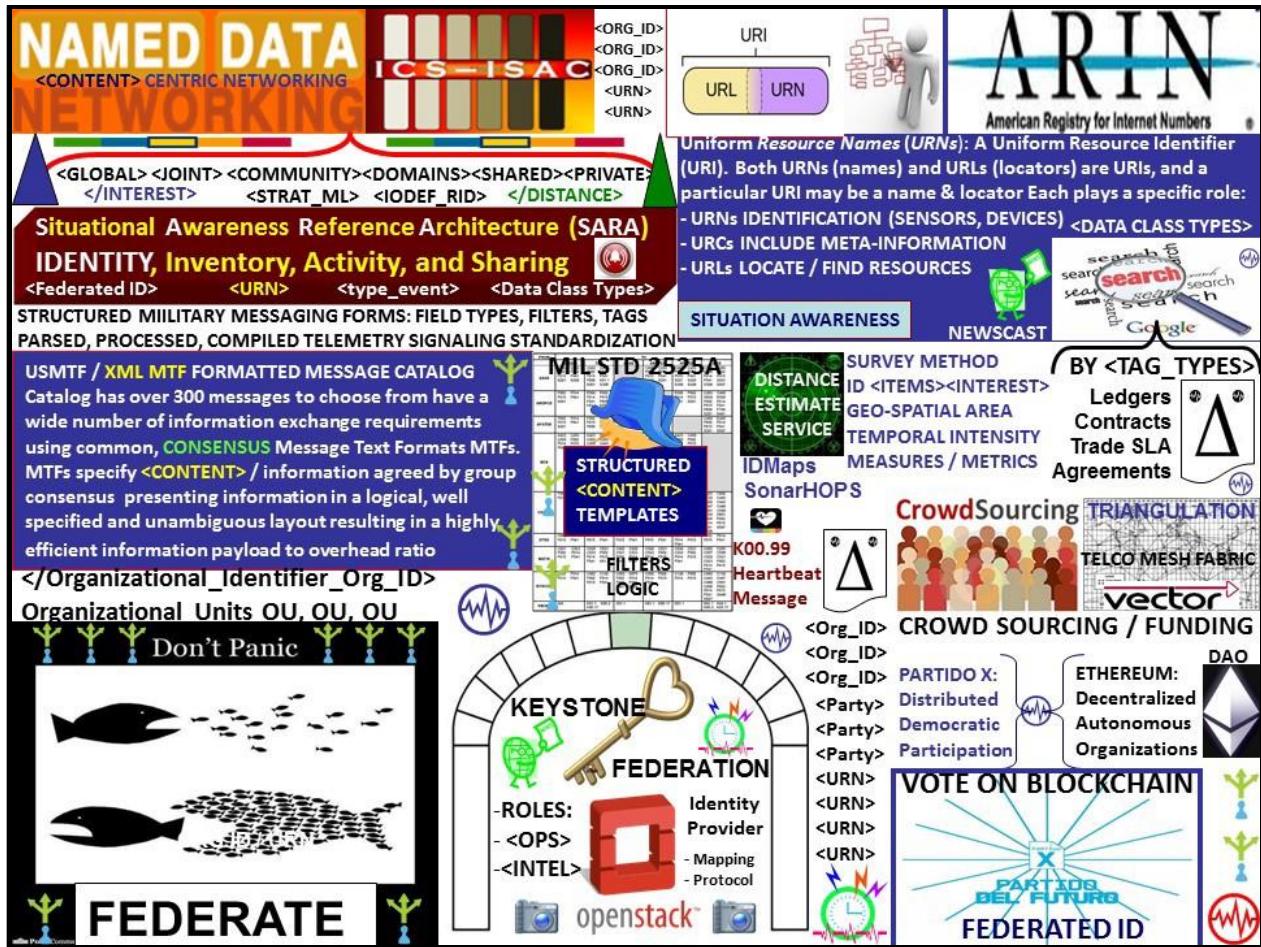
We can synchronize ourselves and our cities in time - space for a common purpose: ecologically sound econometrics i.e., through use of a Signals and Telemetry annex for Buckminster Fuller's Operations Manual for Spaceship Earth. The HBC involves a heartbeat flash message universal event, alert message bus. It is based on NATO's best practice, 300 + structured data exchange templates, micro-macro (economic) situational awareness sync delta data exchange schedule. The Heart Beacon cycle includes a universal metrics measurements physical meme (see Supreme Court Alice Corp Vs CLS Bank) for use among myriad Bitcoin Blockchain internet of money Blocktime arbitrage memes to support standardization of a one world economic system of systems

<http://sawconcepts.com/index/id56.html>



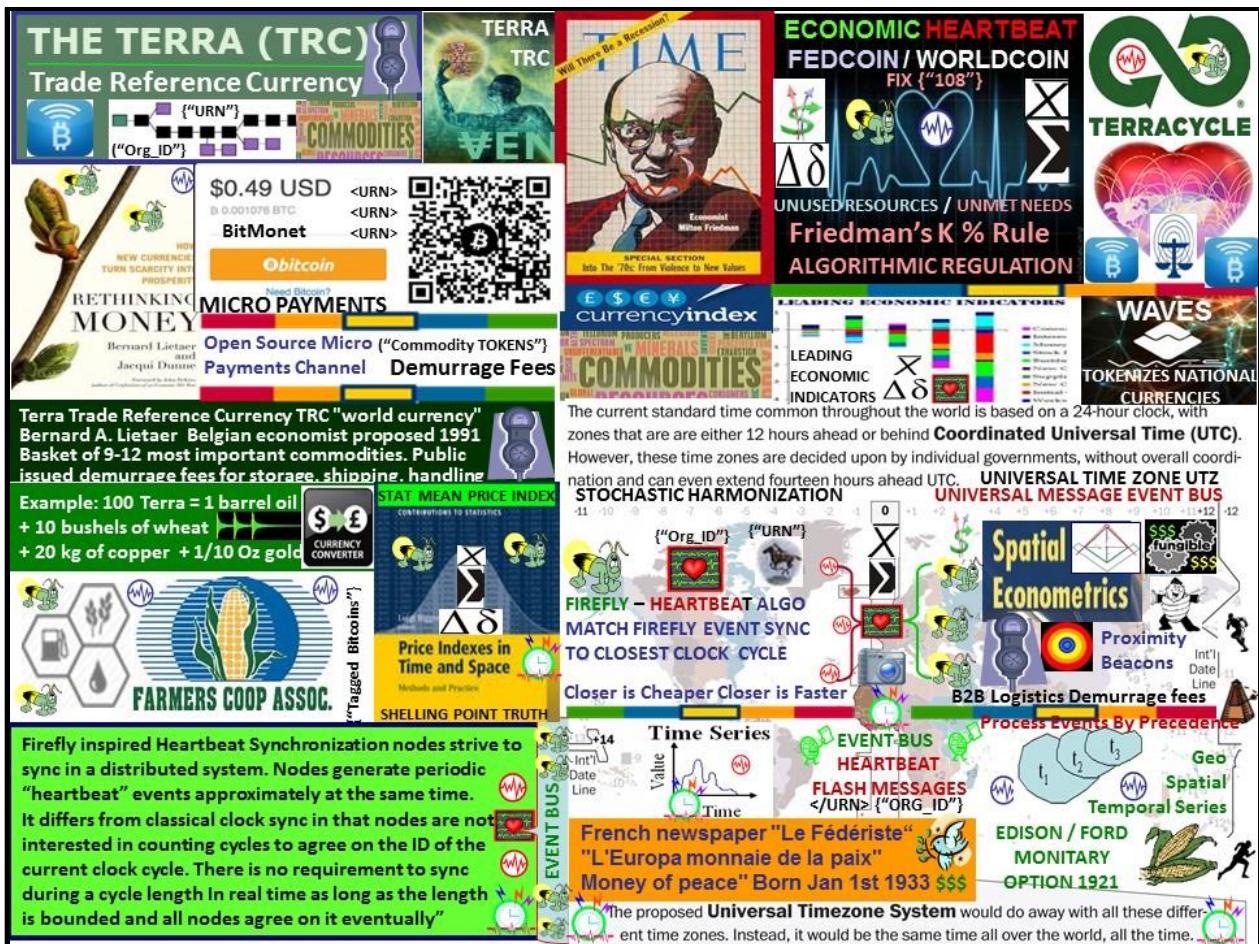
All things internet are formed by code formed by time cycles used / not used to process, parse {"syntax"}. Therefore, time cycles and a Rosetta Stone syntax lexicon library are the two main building blocks to reshape our world and provide the building blocks for Governance 2.0.

The HBC is based on NATO's best practice, 300 + structured data exchange templates, micro-macro (economic) situational awareness sync delta data exchange schedule. The Heart Beacon cycle includes a universal metrics measurements physical meme (see Supreme Court Alice Corp Vs CLS Bank) for use among myriad Bitcoin Blockchain internet of money Block-time arbitrage memes to standardize, sync a one world economic system of systems



Project: form trade federations of autonomous communities, states / sovereign nations following a procedural template checklist promoting synchronization among geo-spatially dispersed groups. Federated groups follow a procedural template guiding group activities across time - space to achieve synergy, synchronicity and inter community cooperation where activities are orchestrated from grassroots to capitals, from micro to macro economic cycles. Satoshi Nakamoto: "#Bitcoin is intended to be paired with a market place" "the blockchain stores references to market indexes"

The Heart Beacon Cycle Time – Space Meter and Applique' Overlay is an adaptive procedural template (checklist) derived from a Pentagon situation understanding system of systems as a swords to plowshare project with novel metric, meter memes describing geo-spatial temporal intensity. Global Distributed Autonomous Organization / Corporations DAO - DAC federated trade organizations. Synchronous, reliable, predictable cyclical update of state meta data snapshots across a systems of systems is flexible, powerful and adaptable across many use cases. improve systemic, sustainable solutions through cyclic, reliable, predictable signaling, telemetry, news-casting of sync delta updates across systems of systems, network of networks defining equitable metrics, meters for trade arbitrage among federated, autonomous trade groups using Bitcoin blockchain. US Patent Application #13,573,002:



Thomas Edison and Henry Ford proposed a currency based on a commodity basket index circa 1921. A coin pegged to a commodity basket index would follow in Thomas Edison's 1921 footsteps. Now there is Bitcoin programmable money and the internet's heartbeat, heartbeat messages. Edison's Monetary Option: [LINK https://www.supermoney.com/2014/06/thomas-edisons-view-money/](https://www.supermoney.com/2014/06/thomas-edisons-view-money/)

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What if we formed economic trade federations incentivizing environment friendly business practices leveraging Bitcoin's micro-payment capabilities supporting the TERRA Trade Reference Currency TRC demurrage resource handling charges and pledged our fealty to Spaceship Earth ? [LINK http://sawconcepts.com/index/id42.html](http://sawconcepts.com/index/id42.html)



A statistical mean commodity / currency price index derived from firefly algorithm / closest heartbeat is needed to adjust for the myriad Bitcoin variations i.e., fork splits, coin counts, proof of work Vs proof of stake age, velocity, voting assignment methods, coins pegged to precious metals, or to a currency index of 22 other currencies (VEN) that pose an issue to Bitcoin's fungibility 1 to 1 substitution among coins. A composite Bitcoin price is published by many different sources daily. A service based on a method to valuate Bitcoin types among a variety of metaphors / memes is needed. A worldcoin would be facilitated if a universal meme / metaphor were selected to describe Bitcoin blockchain functionality and guide coders -- one that is Alice Corp Vs CLS Bank compliant "claims may not direct towards abstract ideas". Physical is the opposite of abstract hence the Heart Beacon Cycle's Little League Baseball tournament meme.

<http://sawconcepts.com/index/id46.html>



FIGURE N: ALGORITHMIC REGULATION

A use case of the firefly inspired heartbeat synchronization algorithm in stock and currency exchanges is algorithmic regulation. For example, improving temporal trade parity between Bitcoin Blockchain & conventional stock exchanges by using the firefly-heartbeat algorithm to take trade speed samples among trade populations across time zones to determine an optimal trade speed / frequency as a statistical mean. Trading velocity far exceeds Bitcoin's current transaction rates estimated to be between 3 - 7 transactions per second and far exceed non-HFT trading capacity. A method is needed to establish temporal trade parity and account for on floor / off floor trading disparity -- enter STAAS Space - Time As A Service using a novel stochastic harmonization algorithm based on the mating behavior of certain species of fireflies that strive to sync during mating activity matched to the closest Operational Tempo OPTEMO heartbeat cycle.

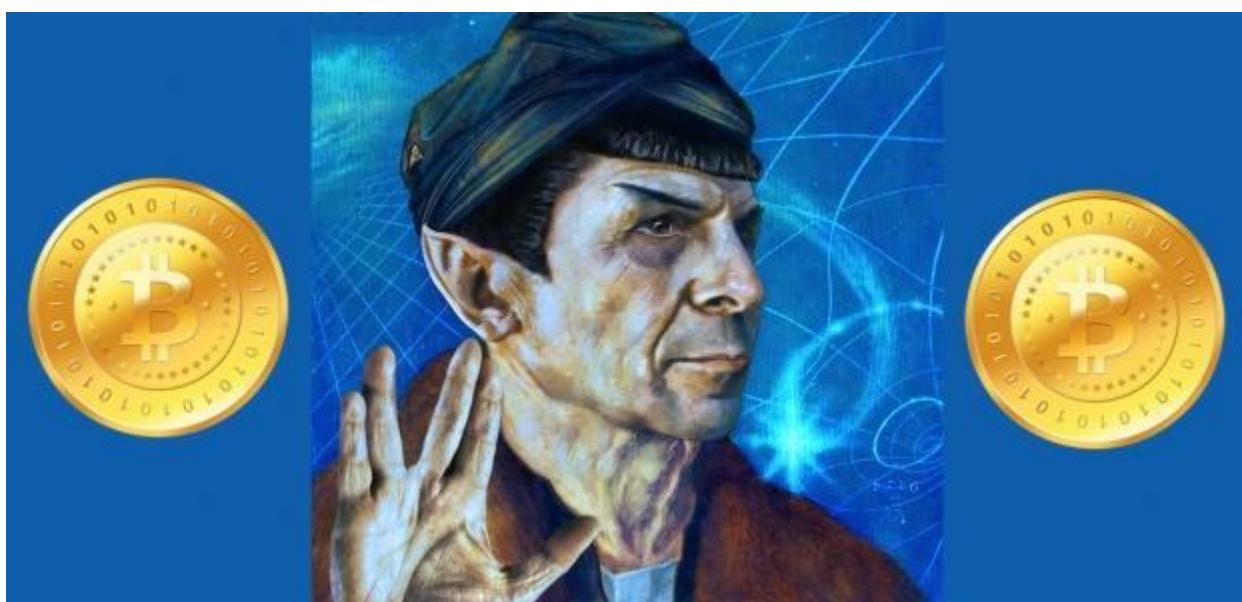
Wall Street Stock Exchanges must solve the problem where High Frequency Trade transactions far exceed the ability of a regulatory, monitoring 3rd party's (DCCC) ability to record, verify and validate transactions -- a computational job that the Bitcoin Blockchain is being used to solve. Project Medici intends to create a blockchain based securities exchange. "Medici," the project aims to democratize Wall Street in much the same way bitcoin seeks to democratize currency and payments. By operating separate from traditional stock exchanges and the big corporate banks, it could eliminate loopholes in the system and reduce the costs associated with issuing stock.

All sophisticated algorithms, bots, mots, scripts, agents make use of the heartbeat -- opportunities, intervals, windows in time. High frequency flash trade algorithms are sophisticated and distributed -- however, all algorithms report to a single master controller. The heartbeat = start bit / stop bit, Time To Live = algorithm on / algorithm off / algorithm duration. Heartbeat </108> messages and the heartbeat time cycle can be used to limit trade sessions by trading session or trade time cycle e.g., one trade per cycle and / or n trades per session. Geo-spatial temporal techniques like IDMaps and SonarHop and the firefly heartbeat stochastic harmonization method can be used to account for trades distributed across time zones and trading on the stock exchange floor and off where the length of the fiber optic cable makes a difference in High Frequency Trade volume. Time cycles match Bitcoin blockchain transaction rates currently estimated to be 3 – 7 per second with High Frequency Flash trade rates. Project Lightning's sync delta approach -- sending only the changes to ledgers from one (heartbeat) time cycle to the next instead of refreshing the entire ledger is one solution for trade speed parity.

Economist Milton Friedman's K \$ Rule advocates establish an economic periodic pulse representing a countries real GDP. The firefly-heartbeat algorithm could sample time - series databases to arrive at a statistical mean value index comprised of leading economic indicators that would determine currency levels released by the Federal Reserve. A countries currency or FEDCOIN or the World's standard currency Worldcoin could be based on actual values of commodities -- ex: Bitcoin has been deemed a commodity..

Math genius John Nash of Princeton's equilibrium theorem may be used for stock, currency market equilibrium through use of algorithms to control cartel behavior through sanctions and penalties. The increasing reliance on game theory as a foundation for auctions and electronic commerce, efficient algorithms for computing equilibria in multiplayer general-sum games are of practical interest for example, in finding a Nash equilibrium for an average-payoff repeated bi-matrix game polynomial-time algorithm. Finite-state equilibrium strategies can be found efficiently and expressed succinctly. Paper: A Polynomial-time Nash Equilibrium Algorithm for Repeated Games: [LINK http://bit.ly/1NWeLLu](http://bit.ly/1NWeLLu)

STORM / TRIDENT with real time distributed computation of events at speeds of a million tuples per node per second using worker / task heartbeats to get put instructions for example, to Wall Street high frequency flash trade describing trade window Time To Live TTL and start, stop commands e.g., stop commands to runaway trading sessions.



Energy Token Economy

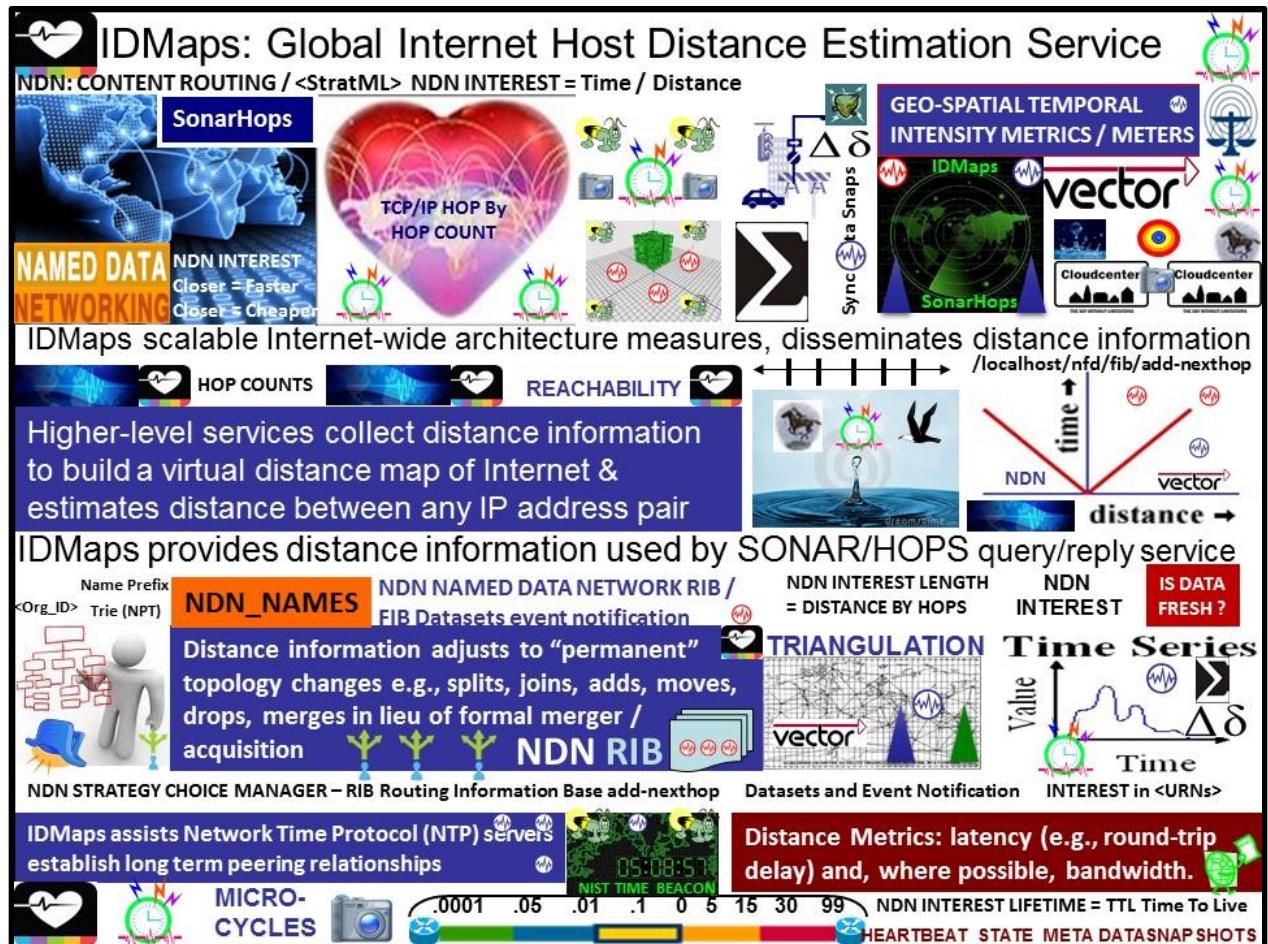
Tesla: "everywhere there is energy spinning" / Einstein "everything is energy and that's all there is to it" Ergo, it's time to adopt an energy token economy

Bitcoin, Ethereum and other token based blockchain strategies are ideal to remunerate, compensate logistic demurrage parking, commodity handling fees supporting the 1991 Belgian Economist Bernard Litaer's TERRA TRC Trade Reference Currency proposal that was partially articulated by Thomas Edison and Henry Ford in 1921 and by economists in the minority during the late 1800's. Edison felt that crops held their value best over time. Given energy is everywhere as Tesla and Einstein said, and given our climate change challenges, it's time to move to an energy token based economy where tokens are traded for other commodities. For example, a region that excels in food production could federate to trade its excess or surplus production with another region with excess production in another area. As micro-cycle sync delta reports are aggregated by processing them at regional, off site collection gateways, unused resources in macro-economic strategic stores can be matched with unmet need at the regional, local, micro-economic level cross levelling resources improving regional sharing where closer is cheaper and closer uses less fuel thus reducing the carbon footprint



Heartbeat Messages used in power, internet systems: shows energy grid protocols that use a heartbeat, heartbeat messages. IEC C37.118 Harmonization and Synchronization is used across smart grid applications and specifies a heartbeat update interval in milliseconds -- depending on the time sync source. Micro-grid use is set to increase dramatically in both military and commercial applications. The ability to accurately, reliably and consistently meter changes in power consumption between a community specializing in micro-grid energy production and a community specializing in a ecology module purifying water or producing bio-mass can monitor usage in terms of surpluses or shortages based on the last sync delta update across a consortium as a basis for exchange based on group concurrence such as Service Level Agreements SLA performance measures.

Why the "water drop in pond" / sonar and "Paul Revere" metaphors, memes? Because Supreme Court Alice Corp Vs CLS Bank states "claims may not direct towards abstract ideas" Internet TCP/IP "hops", "pings" are abstractions -- they do not physically exist whereas the Navy's use of sonar under water is a well known physical meme example as is Paul Revere's "hops" or rides from town to town. Physical is the opposite of abstract. Actually, there were many riders out the night of Paul Revere's ride. Revere's name was used because it rhymed with the words listen and you will hear..



Imagine if #Cloud, #IoT, #Blockchain Service Level Agreements SLA incentivized Eco friendly transactions leveraging bitcoin's micro payment function supporting the TERRA Trade Reference

Currency TRC by economist Lietaer? For example, closer = cheaper, closer = less fuel ? Globalization involves multi-national corporate entities vying for control of regional resources. It follows that a proven strategy to identify, track, and monitor resources regionally within the global economic matrix is needed. The Heart Beacon Cycle Time - Space meter describes universal geo-spatial econometrics and meters and includes distance location services such as IDMaps - SonarHops.



Every day can be Earth Day on the Bitcoin Blockchain - ecologically responsible economics

We can synchronize ourselves and our cities in time - space for a common purpose: ecologically sound econometrics i.e., through use of a Signals and Telemetry annex for Buckminster Fuller's Operations Manual for Spaceship Earth. The HBC involves a heartbeat flash message universal event, alert message bus. It is based on NATO's best practice, 300 + structured data exchange templates, micro-macro (economic) situational awareness sync delta data exchange schedule. The Heart Beacon cycle includes a universal metrics measurements physical meme (see Supreme Court Alice Corp Vs CLS Bank) for use among myriad Bitcoin Blockchain internet of money Blocktime arbitrage memes to support standardization of a one world economic system of systems

<http://sawconcepts.com/index/id56.html>

RBF "the secret to change is build a new model that makes the old model obsolete" / RBF "Earth is a spaceship that cannot be resupplied" WHAT IF EVERYDAY IS SPACESHIP EARTH DAY ? What if

we formed economic trade federations incentivizing environment friendly business practices leveraging Bitcoin's micro-payment capabilities supporting the TERRA Trade Reference Currency TRC demurrage resource handling charges and pledged our fealty to Spaceship Earth ?

<http://sawconcepts.com/index/id42.html>



EVERYDAY SHOULD BE SPACESHIP EARTH DAY see article on Medium dot com [LINK](http://bit.ly/2ong9G) <http://bit.ly/2ong9G>

"The Secret to change is to build a new model making the old model obsolete" Buckminster Fuller

The Heart Beacon Cycle = Signaling and Coordinating Instructions Annex for Buckminster Fuller's Operating Manual for Spaceship Earth

Adaptive use case: geo-spatial, temporal econometrics, vectors to reduce CO₂ carbon footprint due to inefficient transport, resource, logistic vectors.



KEY WORDS: system of systems algorithmic regulation reinventing money federation Systemic Thinking Econometrics Sharing Economy Ecological Intelligence urban ecology



How will this be accomplished? David Vs Goliath? No, by standing on the shoulders of giants