

Exo (Currency, Token, Fund, Neo-Economy based upon OASIS and COMEET principles)

Fourfold components:

Exo as koin (node, unit) and KOIN (network, collective) that grows in value synergetically

OASIS (Terra) as social communication and trading environment for an Exo-centric economy

ExoBank as private information banking within OASIS

XMOS as gaming/trading within OASIS

v 1.0 mjd 18.mar.21

All aspects of Exo

Initial Draft --- ideas for us to develop together

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Preface

Exo is a decentralized digital monetary exchange medium. It is non-fiat, non-commodity, non-representative, but it shares elements of commodity and representative bases for its backing, setting it apart from currently-in-vogue cryptocurrencies. It is intended to function as a currency that operates with other digital and sovereign (“fiat”) currencies as well as with the securities world of stocks, bonds, futures, options, commodities, real estate and other forms of investment securities including those of a purely digital basis. Exo is significantly, substantively different in several fundamental respects from contemporary (2020-era and earlier) cryptocurrencies, non-fungal tokens (NFT), bonds, stocks, and other forms of financial media.

Exo is strongly linked with social communications and collaborative activities, and with a purpose to develop, conduct and sustain certain activities deemed to be of critical very-long-term value and importance for human civilization. This sets Exo far apart from conventional currencies of all historical types to date. The economic space for Exo includes an internet environment (“OASIS”) designed to advance an exo-based economy within both the physical “real-world” and the digital “virtual world”. Exo is a currency that supports all types of individual, social-group and corporate economic goals and also, particularly, first and foremost in the minds of its developers, Space-centric endeavors that require a unified and sustained major capital mechanism to succeed.

Exo is highly purposive and directed toward empowering and sustaining activities, projects, economies, and social developments that are linked with solution-sets, including STEM-based programs) that address major, critical challenges of both natural and socioeconomic natures to present-day life on Earth. Exo’s origins are in the development of innovative long-term solutions to such challenges as climate and environment change, instabilities in agriculture, water and energy, and space-based challenges such as asteroid impacts with Earth.

The origins of Exo lie in the purposive, directed intent to create a long-term, open-ended economy of integrated capital that can serve many purposes of its owner-users but particularly inclusive and encompassing is the goal of providing a capital engine that will support massive and very-long-term objectives in the expansion and development of human civilization in space, beyond the limits of Earth. Exo objectives include the sustained economic development of realistic, achievable, sustainable futures for humanity that include interplanetary and exoplanetary exploration, expansion, and colonization by humans beyond planet Earth.

Thus, Exo originates and evolves from the Triad of The Exoplanetary Corporation, EXO Capital Fund, and EXO Foundation. It is also linked and supported by prior work conducted by and through TETRAD Institute of Complex Dynamic Systems and also Intelligence Renaissance Industries.

Introduction

Exo is a unit of currency and is known as a koin or knowledge object intelligence node. Each unit of exo has “content” that is part of its collective network-based, usage-based, community-asserted value. All Exo, all koins, collectively form the KOIN, the Knowledge Object Intelligence Network. Exo is the first currency based strongly upon securities that incorporate information, knowledge and futures of socioeconomic content. However, exo have backing that derives from other potential sources including those that are more historically, traditionally, associated with exchangeable value.

Exo is a security that is backed by multiple types of assets and not only one type. Exo as a currency-base is backed by the Collective KOIN, the sum and synergy of all Exo. These backings include:

- Commodities of both commonly recognized and unique value, including precious metals and other minerals and elements, real estate, objects d’art
- Information assets and tradable information securities existing in any digital-transformable form
- Shares, stocks, options, warrants, bonds and other conventional-form securities in corporations and other types of institutions
- Works of art, literature, music, dance, cinema and other fine arts and humanities
- NFT assets (non-fungal tokens, digital objects)
- Futures including long-term and off-planet (interplanetary and exoplanetary) assets of different types. These include: water, energy, food, elements of all types, chemical compounds of all types
- Intellectual properties, ranging from conceptual to fully-developed, including pre-patent, patent, trademark types, and intellectual/STEM discoveries, inventions and achievements ranging from “technical readiness levels” (TRL) of 1 to 10 on conventional TRL scales
- Personalities (individuals) and groups and their valued knowledge, achievement, performance, within STEM and the arts and humanities

Four major roots and functional components

Exo is a social and collective, cooperative, collaborative economy. Value is based upon and enhanced by activity among owner-users (buyers, sellers, traders, those who engage in exo activities). Exo roots lie in all of those things mentioned already, above, plus in technologies like Kerberos (also known as I-Bank, Kyberos, Cerebus), and especially KOIN as designed and developed during 2011-2015 by TetraDyn and others, and OASIS with its XMOS gaming, as developed in 2018-2020. These four major roots, described within this document and others, are:

- KOIN (digital objects (and representative physical objects) such that the asset-content is information and knowledge)
- OASIS (social communication environment emphasizing the integration of physical (real-world) and digital (virtual) realities in a cohesive manner)
- XMOS (gaming that provides a bridge between “real-world” and “virtual world” activities and opportunities for trading, contests, prizes, and other forms of competition and cooperation (“coopertition”) among players)
- ExoBank (form of private, anonymous banking and trading of information securities - a distributed, decentralized data haven and brokerage)

Transactions

Exo provides a secure tracking history of transactions involving Exo. It employs directed acyclic graphs (DAG) and not blockchain. All exo units (koins) operate within a global DAG (known as the Prime DAG or PDAG), but also, each exo maintains a DAG (known as the koin-DAG or KDAG) that provides a verified and confirmed history of every

informational and value-related component to the individual exo, thereby providing an assurance-stream for those elements of value contributing to the overall valuation of individual exo and the Exo KOIN (collective network) of all exo.

Exo may be traded and exchanged in whatever manner that forms a mutual-agreed and recordable (thus verifiable, provable) transaction between two parties – seller and buyer.

Transaction Types (nodes within the Prime DAG)

Create (exo are never annihilated, but theoretically the value can go to 0 (Null))

Assign (attributes – a virtual credit to someone)

Release (attributes – a virtual debit to someone)

Convert (exchange, trade, spend exo (or portions of exo) into fiat or crypto currencies)

Transactions may be in whole units of exo or in portions:

- Stella – a large, > 50% portion of one exo
- Planeta – a smaller, < 50%, portion of one exo
- Astera – the smallest portion-unit of one exo (@ 0.01 exo)

Ownership

Any individual (person, corporate entity, other identifiable and distinguishable agent-actor) may be an owner and thus a trader with exo.

Secure Identification and Proofing System

Each exo has a koin ID (“KID”) which is a unique random number generated by an OTP (one-time pad) algorithm . There is also an assigned cardinal-number identifier (1, 2, 3...) pertaining to issuance, and this is known as the “KIN”.

The owner of an exo has a unique random-generated number (also via an OTP method). This is known as the koin control ID (“KIC”). The KIC associated with any given exo and its KID will change when that exo is exchanged among owners.

Interactions (Exchanges) with other Currencies

Exo can be exchanged for other currencies, both digital and fiat types. There are no restrictions on what can be done with an exo as long as there is another party willing to make a trade. Conventional internet-based exchange methods can be employed and third-party “smart contract” systems can be used for recording transactions that ultimately involve other currencies or similar transaction processes (e.g., using exo to purchase land, other real estate, vehicles, capital equipment, other goods).

Motivation and Purpose for Exo as a Capital Engine for a New Economy

Exo specifically addresses the present and future situations of human civilization and its economy in all forms on planet Earth and in the future, beyond Earth, in interplanetary and exoplanetary civilization. The “Exo Challenges” are those which have given specific and powerful impetus and force to the Exo Triad, consisting of The Exoplanetary Corporation, Exo Capital, and Exo Foundation.

Three broad challenges that approach and permeate our society, today and in our future, concern the well-being and survival of the human species as a whole. These involve

Space

Environment (Agriculture, Energy, Water)

Health

These challenges involve both positive (life-enhancing potential) and negative (catastrophic implication) possibilities that can affect the lives of millions and billions and for which there are clear needs for appropriate STEM solutions and for significant education and leadership among people working in these areas.

Space

- Long-term development of human presence, activity and life beyond planet Earth
- Short-term, immediate needs for reliable technology to avert and mitigate catastrophic asteroid impact with Earth, which can then be applied to industrial applications such as mining of metals and other compounds present within asteroids

Environment (Agriculture, Energy, Water)

- Management of water, fertilizer and pest control resources for all types and scales of farming, focused upon the non-linear impacts of climate change and significant ecosystem transformations
- Management of energy resources within diverse rural and economically disadvantaged regions, focused upon creation and integration of multiple, parallel and mutually supportive types of energy generation, storage and distribution

Health

- Community Infrastructures for Public Health and Safety, focused upon pandemic-type infectious disease outbreaks
- Community-focused methods for personal healthcare and wellness, focused upon home-bound disabled persons and families

Primary Roots

Some of the prior-work things that can go into the understanding and the next stages of development for Exo include:

ASTRIC – explore <http://astra.tdyn.org/astra-astric-project-index.php> and various papers, abstracts, presentations, and other digital material from Martin.

Environment (Agriculture, especially) – explore the IntelAgros material from Martin.

Health – explore www.intelrenaissance.com and www.oasis.tdyn.org and other papers and presentations from Martin.

OASIS (Terra) – explore www.oasis.tdyn.org and the OASIS and XMOS documents from Martin.

Furthermore, there is this repository containing several documents, mostly from 2012 onward, some older, and all relevant in different ways to the current evolution of Exo – this resource contains several documents that really provide the foundations for all the exo philosophy and technical foundations, but much of this is “historical” and everything has been significantly changing since especially 2020: <http://tdyn.org/exo-docs-reserve/>

More Technology Thoughts

For now, best to read the materials contained in <http://tdyn.org/exo-docs-reserve/>.

These are additional remarks, not in any specific order:

Each exo is perfectly Unique, and there are and can be different assets that go “into” the backing of an exo, but these do not change the intrinsic or explicit exchange-value of any given exo.

The value of all exo goes Up, as the asset composition and value of assets within many exo are grown and increased.

Cooperation

Part of the underlying idea is that there is a collective strength in exo – the more that owner/users put into exo and do with exo, especially in the domains of new STEM and new useful socioeconomic ventures (like ASTRIC, like IntelAgros, like OASIS, like many other things not mentioned here in this document and not originating only from Exo Triad of companies, TI, IRI, etc.), the greater is the value of the whole economy.

Perceived (Prescient, Projected, Expected) Valuation

The market value of exo goes up or down based upon:

local factors – what is linked as or owned by that particular exo and what that asset is projected to do in the future global economy

global factors – the values held together by all exo as a whole

Geld

Geld is something that can be a value-attribute for a koin and thus for an exo. There are inherently no restrictions on what can constitute geld, so long as there is suitable consensus agreement about such. As such agreement grows, the value-meaning of the geld increases in substance and also in value with respect to what can be “worth something” within an exo.

Geldwork = “Work” of Value = doing things that push up the value of the different geld within any one, multiple, or the totality of all exo.

Examples: specific real estate, other properties, or making rooms and fashionable things within TERRA, or notable and definable advances in STEM contributing to geld in different exo, or asteroid studies for future capture or mining, or notable artistic and other non-STEM humanitarian creations

Internal koin-to-koin messaging

Exo, being koins, can put out messages including offers and requests to be combined with other exo that have unique and perhaps especially desirable geld components. In a way, exo are communicative and “intelligent”; they inherently seek to socialize, combine, join, do things synergetically, constructively, with one another. Exo form a virtual community with real-world power to accomplish things economically.

Initial Exo Release

GOALS

Announcements that are previews for growing a global market of interest:

- 5.April.2021 (alt = 21.Mar or 4.April (Easter-W) or 2.May (Easter-E))
- Exo initial valuation ---- 1 exo = €24,000
- Exo initial release ---- 4,000,000 exo (current valuation = €96,000,000,000)

Social and Educational Framework

Goals

Within the framework of OASIS and the use and proliferation of exo as a digital currency, we want to include what can best be summarized here as:

§ critical-thinking education for people using these social communication environments including all aspects of gaming and trading

§ ethics and respect which overcomes all extremism including rampant unconscious and undisciplined “cancel culture” behaviors

§ “hands-on” and direct involvement by select internship and apprenticeship participants in some of the R&D activities for Exo overall. The component objectives that will be achieved include:

- ❖ Preparation for higher education, training and employment in one or more areas of specialization.
- ❖ Understanding of critical concepts such as fault tolerance, fail-safe, and commercialization potential.
- ❖ Direct experience working with team members who have strikingly different personal and social backgrounds, belief systems, and cultural environments.
- ❖ Skill development for coping with rapid changes introduced by changes in STEM and also in the natural and social environments.
- ❖ Specific practical outcomes in the R&D that will be useful within the mainstream society.
- ❖ Implementation of a team-oriented communication and control environment that provides the next-step-forward in the evolution of internet-empowered social networking and tele-operations for use by groups working cooperatively on projects such that diversity and variability in locations, personnel, resources and operating conditions can be easily accommodated and sustained.

Philosophical Perspectives

The critical state of our society, our planet, because of the Convergence of Multiple Big Challenges simultaneously, all at once in our present evolution as a civilization, demands Urgent Action.

Quotes from Stephen Hawking, for instance, and maybe a few others.

“Although the chance of a disaster to planet Earth in a given year may be quite low, it adds up over time, and becomes a near certainty... One of the major threats to intelligent life in our universe is a high probability of an asteroid colliding with an inhabited planet.” (Stephen Hawking, 2016)

"Either we spread Earth to other planets, or we risk going extinct. An extinction event is inevitable and we're increasingly doing ourselves in." (Elon Musk, 2013)

[Noam Chomsky – remarks on Survival of Human Species]

[David Attenborough – remarks on future survival of humanity and much of animal life due to climate change]

Exo Triad (Members, Participants)

[This is in regard to persons and corporate entities. Everything needs to be re-examined and revised. It will be addressed in the near future as we define who is really engaged and involved and responsible for what things.]

Technical Plan (re-use and edit)

Summary

- Refine requirements for creation and manipulation of exo objects.
- Define how various assets can be incorporated into the securitization schema for exo and how exo can be collectively supportive on the basis of what are the information security assets (contents) of each exo.
- Revising the DAG to serve Exo purposes and to resist current criticisms of DAG in others within cryptocurrency world (e.g., Iota).
- Create secure engine suitable for performing different smart contracts involved in exchanges with exo.
- Revise OASIS architecture and how it will be built on framework of OSM (Open Street Maps) and related GeoSpatial packages.
- Define fees and pricing terms for all user/client activities.

[much much more!]

Project Management

STEM

[who does what in specific scientific areas as required – mostly this will be related to customizing DAG algorithms, causal and pattern recognition, encryption and decryption]

IT Applications and Systems

[who does what in the different software and network tasks]

Administration and Operations (including Finance)

[who does what]

Internal Exo Project Budget

[a simple spreadsheet in Excel with a concise summation in both alphanumeric and graphic forms]

People

Equipment

Marketing

References

[bibliography of papers and presentations – this is voluminous and can be done later – ask Martin for info]

Glossary of Special Names and Terms

Exo-specific

OASIS = Open Autopoietic Social Intelligence Synthesis

TERRA = initial implementation of an OASIS world environment

koin = knowledge-object intelligence node

KOIN = Knowledge-Object Intelligence Network

XMOS = eXtreme Multiplayer Online Simulation

Dynamic Reality (DR) = bidirectional-flow integration of physical-reality world(s) and virtual-reality world(s) in one digital framework (akin to combination of “AR” and “XR”, where AR = “augmented reality” and XR = “extended reality” in @ 2020 vernacular terminology)

Physical Reality (PR) = digital representation of classical “real-world” objects and events

Virtual Reality (VR) = digital representation of synthetic objects and events

Programs, Projects

ASTRIC = Astro-Terrestrial Robotic (Remote, Reconnaissance) Interaction and Control

HALO = High-Altitude Lift-Launch-Land Operations

MOSES = Modular Organic-assembly Space-based Engineering System
(nPods of different geometries employed for modular construction of larger structures)

ECCOS = Exploration, Colonization, and Commercialization of Outer Space
(multi-nPod structures assembled using MOSES principles of construction)

Metatron = Cygnus-theory basis of topological vacuum energy extraction to create power via lepton/anti-lepton principles

Hanak = propulsion system for ROAM-type vessels based upon Metatron energy sources

Teranod = compact RTD-theory basis for controlled hydrogen fusion employing neutron solitons in compressed toroidal reactor

ROAM = Reconfigurable Organic-architecture Adaptive Mega-Machine
(starship)

Organizations

Exo Triad = term for the combination of The Exoplanetary Corporation, EXO Capital Fund and EXO Foundation

TI = TETRAD Institute of Complex Dynamic Systems (“TETRAD”)

IRI = Intelligence Renaissance Industries

Tetradyn (aka TETRAD Technologies Group) = predecessor company of MJD, absorbed into IRI

Internal Editing Notes

[If you modify this document then please do the following:

Change the version, add the new author/editor’s initials, change the date – at the top of this document and in the filename.

For instance:

astric-erasmus_v1_mjd_13mar21 →→→ astric-erasmus_v1-1_mjd-tt_15mar21