White Paper

Rewarding the community through connectivity

The next-generation decentralized information infrastructure

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Self-funded by the community.

Executive Summary

"Blockchain technology isn't just an efficient way to settle securities. It will fundamentally change market structures, and maybe even the architecture of the internet itself." – Abigail Johnson

XUEZ is a peer to peer digital asset, with the mission of building and providing an open platform where privacy and anonymity are prioritized and valued as they are a fundamental human right. These rights are recognized in the Universal Declaration of Human Rights, The International Convention on Civil and Political right and in many other international and regional treaties.

The XUEZ protocol is being specifically designed, not only to address the inherent problems plaguing Bitcoin and other cryptocurrencies, but also to build and disrupt central entities through our distribution phase, while building the next-generation decentralised information infrastructure.

Xuez has been developed by the community for the community, always seeking to empower individuals through the blockchain technology.

Contents

Introduction

"We must defend our own privacy if we expect to have any, we must come together and create systems which allow anonymous transaction to take place. People have been defending their own privacy for centuries with whispers, darkness, envelopes, closed doors, secret handshakes, and couriers. The technology of the past did not allow for strong privacy, but electronic technologies do.

We the Cypherpunk's are dedicated to building anonymous systems. We are defending our privacy with cryptography, with anonymous mail forwarding systems, with digital signatures and with electronic money."

– Eric Hughes, 1993. A Cypherpunk's Manifesto.

As the above statements from Eric Hughe's 1993 manifesto express, the philosophies of privacy, digital ownership, and disintermediated peer-to-peer trading, have a rich ancestry spanning from before the commercial internet up to the present day. Nevertheless, it was not until 2009 that they began to truly break into the public consciousness. This was when the creation of the Bitcoin network finally enabled the organization of large networks of peer-to-peer value exchange between pseudo-anonymous individuals. These distributed ledgers forecast the potential transcendence of unifying national boundaries and accelerating the shift to a truly global virtual economy.

By design, Bitcoin has one critical issue when it comes to large scale commercial use: merchants that accept bitcoin at point-of-sale are presented with time delays due to the network confirmation protocols which must validate the transaction. Alternatively, payment companies have created methods to allow vendors to take zero-confirmation transactions, but these solutions utilize a trusted third-party to facilitate transactions outside of the protocol.

Additionally, in many countries' regulation exists to protect investors, but the enforcements of these regulations require investors to completely relinquish anonymity in order to legally invest in various organization. The drive for privacy along with the mandated need for organisations to ensure investors are legally able to hold the issued digital assets, have manifested into substantial complexity within the cryptocurrency realm.

This Whitepaper presents XUEZ: A privacy-focused, internet-based, community project with an exceptionally fast payment confirmation protocol. Our efforts concentrate on not only re-establishing Satoshi Nakomoto's vision of public empowerment, but to also create a future-forward model, allowing other projects to build on our platform as a benchmark by building the next generation decentralized information infrastructure, aiming to result in a much stronger and anonymous decentralised global virtual economy.

Centralised corporate dependency

"*The blockchain symbolizes a shift in power from the centre to the edge of the networks.*" - William Mougayar

The current internet infrastructure, coupled with the most common business model adopted by major surrounding server farms, has produced one of the largest and most centralised systems in the world. Server farms are typically dominated by large, centralized corporation that provide the cloud service required to host certain commercial and non-commercial services.

One report, published by Steve Ranger, found that Amazon Web Services (AWS) dominates the cloud infrastructure services sector with a 33.8 percent global market share, while its three nearest competitors; Microsoft, Google, and IBM, together accounted for 30.8 percent of the market, according to calculations of the analyst-Canalys (Ranger, 2019).
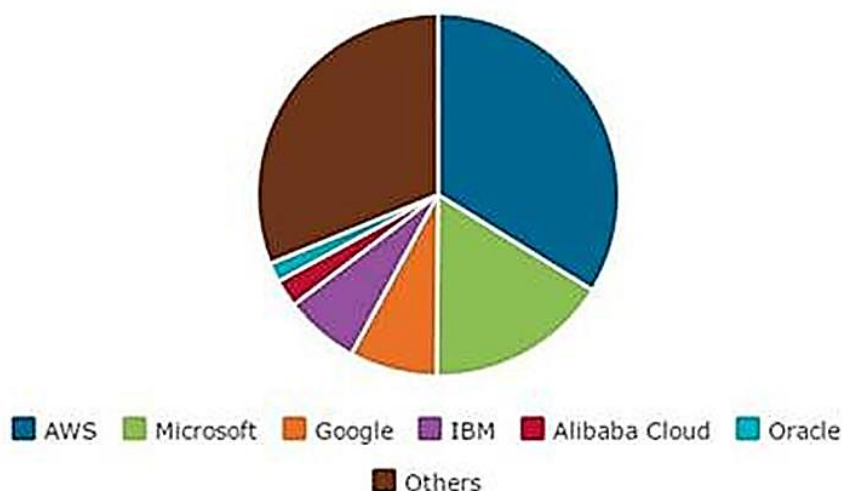
Figure 1 - Cloud infrastructure services by providers (Ranger, 2019)

Analysis of the current cloud model confirms that renting virtual hardware through online portals is much more cost effective than running and maintaining local machines. This is largely due to the benefits of centralised companies which ensure that all servers are up to date, utilise the most advanced technology, are easily accessible and are reliable long-term. A central company can also provide a great deal of customer support.

The current model, however, presents a major dis-congruency to the aims of the current advancement of decentralized technology.

All computer software that has been built at the platform level has required infrastructure. The current decentralised systems of cyptocurrency are being built primarily upon centralized cloud service entities, a decentralised system is being erected on centralised infrastructure. Consequently, this increasing dependency on centralised services and corporations runs counter to the aims of decentralised ledger technology.

This section presents the major issues present within the current Internet structure and how Xuez aims to disrupt the centralized service model by re-engineering the next generation internet infrastructure. By building this new infrastructure from the foundation up, Xuez will provide a decentralised suite of products and services available on a truly decentralised and distributed network.

Cost, knowledge and incentive issue

The first key issue which necessitates the increased dependency on corporate centralised servers is the expense of hardware investment and other initial cost which makes the procurement of centralised services more cost effective for the user. As well as, a serious lack of knowledge base that currently limits the ability of most users to establish a more decentralised model.

Research conducted by Statista, which aimed to understand the most common Internet use case, resulted with over 90% of respondents claiming to use the internet mostly for email and instant messaging, as well as over 70% using it for social media/networking (Statista, 2019).
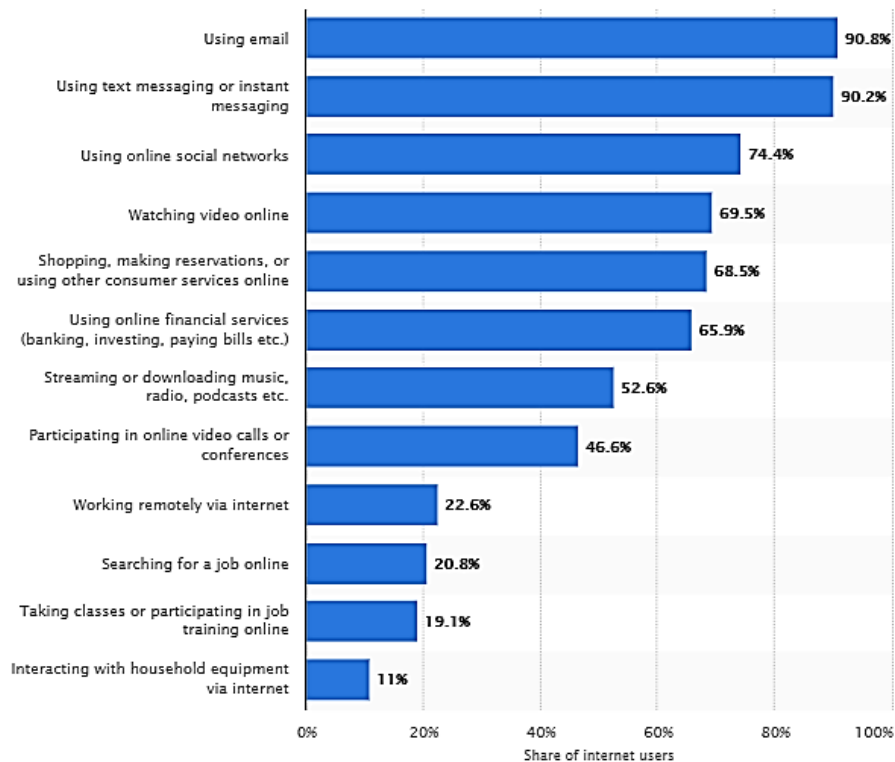
Figure 2 - Most popular online activities of adult internet users in the United States as of November 2017(Statista, 2019).

This research illustrates that the majority of internet users primarily use the internet for personal reasons, without the need for owning, understanding, or receiving incentives for the operation of their own server.

Recent technological developments, followed by the rise of Masternodes eco-systems that incentivized the user into running a Masternode, is gradually being adopted, leading to an increase in security and infrastructure vulnerability. The lack of user knowledge combined with advancing techniques requiring advanced coding skill and non-existent user-friendly interface to guide and supports users is quickly precipitating the increased likelihood of potential security weaknesses, which may allow future adversaries to manipulate and exploit centralised mass Masternode servers.

Decentralised hypocrisy infrastructure

All computer software that is built at the platform level requires infrastructure. The current cloud service infrastructure has been built upon 3 main layers (Apprenda, 2019):

Software as a Service (SaaS) is the framework where by most SaaS applications can be run directly from a web browser without any downloads or installations required, eliminating the need to install and run applications on individual computers. Popular SaaS uses include: email and collaboration, customer relationship management, and healthcare-related applications.

Platform as a Service (PaaS) is the framework where developers can build upon in order to develop or customize applications. PaaS makes the development, testing, and deployment of applications quick, simple, and cost-effective.

Infrastructure as a Service (IaaS) are self-service models for accessing, monitoring, and managing remote datacentre infrastructures. Rather than having to purchase hardware, users can purchase IaaS based on consumption, which is similar to electricity or other utility billing.

Figure 3 - Cloud services pyramid (Rubygarage.org, 2019).
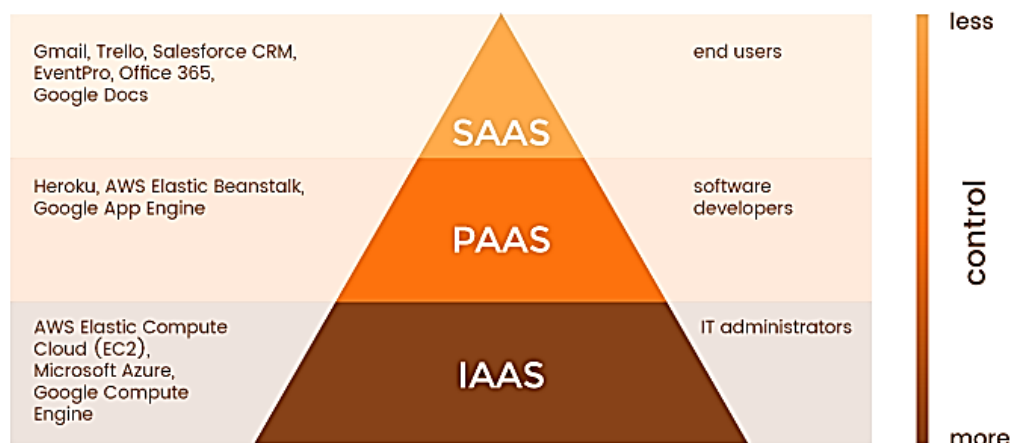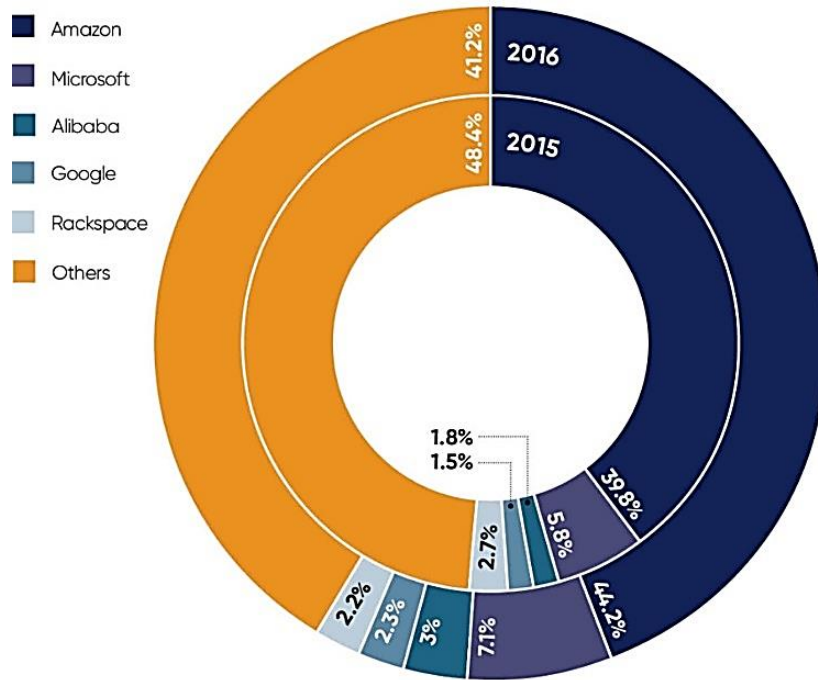
Research designed to analyse the distribution of market share among the leading providers of cloud services by Helen Beckett concluded that Amazon Web Services and Microsoft's Azure are the indisputable leaders, predicting that both Amazon and Google will capture 76 percent of all cloud revenue in 2018, and expand its share to 80 percent by 2020 (Beckett, H, 2019).

This causes a growingly restrictive paradox as a consequence of a decentralized platform being established on highly centralized infrastructure. This increasing reliance on centralised services overthrows the main objective of decentralization and turns the strength of decentralised.

Figure 4 - Cloud Infrastructure Market survey result (Beckett, H, 2019)

Cyber-Trust issue

Trust is fragile, and once lost it is exceptionally hard to rebuild. The fragility of trust is apparent across nations around the globe in the areas of politics, in our race relations, and in the interactions between nation states. However, as we become increasingly dependent on technology that continues to advance in both speed and influence within the private lives, cyber threats and vulnerabilities are also creating trust issues for businesses and other organizations.

Dr Michael McGuir, a Senior Lecturer in Criminology (University of Surrey, England) examined the "dynamics of cybercrime" in the context of revenue flow and profit distribution and he concluded that in 2018 the cybercrime economy had grown to $1.5 trillion dollars illicit profit (McGuir, M, 2019).
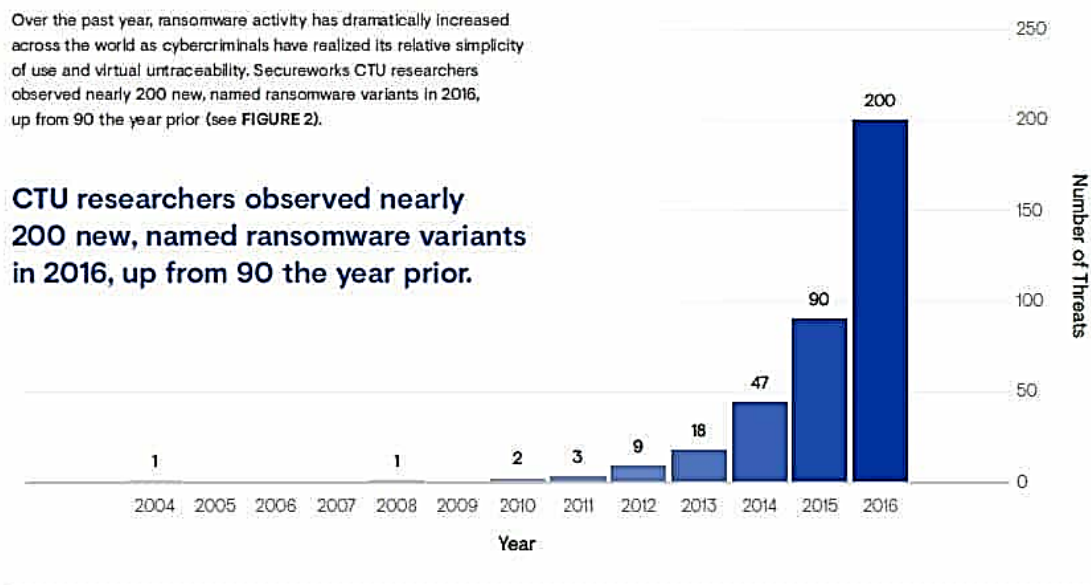

Over the past year, ransomware activity has dramatically increased across the world as cybercriminals have realized its relative simplicity of use and virtual untraceability. Secureworks CTU researchers observed nearly 200 new, named ransomware variants in 2016, up from 90 the year prior (see **FIGURE 2**).

CTU researchers observed nearly 200 new, named ransomware variants in 2016, up from 90 the year prior.

Figure 5 - Secureworks State of Cybercrime report 2017 (Comparitech, 2019).

Internationally, businesses are intimately familiar with the need for data protection. Yet, Statista has published that the number of data breaches and the number of exposed records in the U.S. reached the highest figures to date in 2017, Large businesses continued to hold some of the most sensitive consumer data are still vulnerable—and at times, poorly secured (Statista, 2019). For instance, in 2018 a significant Facebook data leak affected over 6.8 million users around the world.

It is reasonable to conclude that the increase in cyberattacks by hackers is likely to continue increasing at an exponential rate, targeting corporation, governments and small businesses such as hospitals.
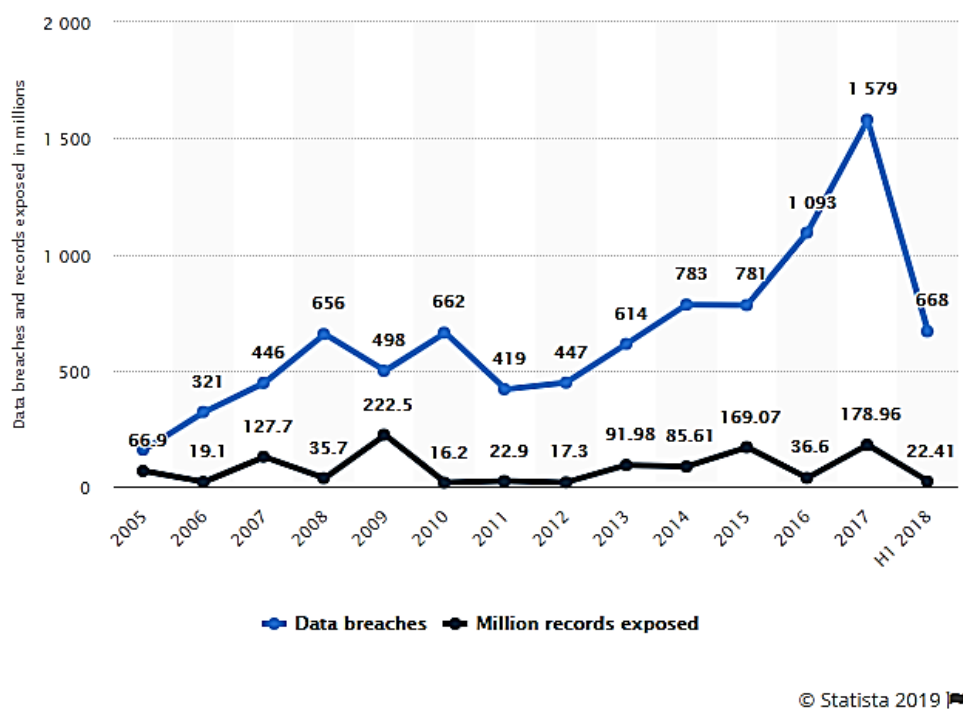

Figure 6 - Annual number of data breaches and exposed records in the United States from 2005 to 2018 in millions (Statista, 2019).

Regrettably, the risk of data leakage has intensified over the years. Stolen credentials, poor protection of sensitive data and fake digital certificates are some of the key flaws that have been exploited due to the structure of the current centralised infrastructure. The role and importance of trust should not be overestimated or undervalued. The rapidly increasing erosion of trust affects all society around the world as well as the systems and tools that we all depend on in our daily lives.

Disruption through Distribution

> *Meaningful innovation does not need to be based on outright invention. Rather, there is an exhilarating shortcut. It is based on bold, new combinations of already existing components that simultaneously unlock heightened levels of consumer value and reduce costs.*
> - Gabor George Burt

Xuez aims to simultaneously disrupt and rebuild the internet infrastructure through the democratization of control and by making the internet more affordable, accessible and incentivised.

The main function of a router is to forward data packets between computer networks by performing traffic directing functions on the internet. Xuez as a Service model aims to add tools and services to the network by utilizing unused router processing capacity to run services for Xuez Clients, which is supported by incentivizing users who supports the redistribution and decentralization of the current internet infrastructure.
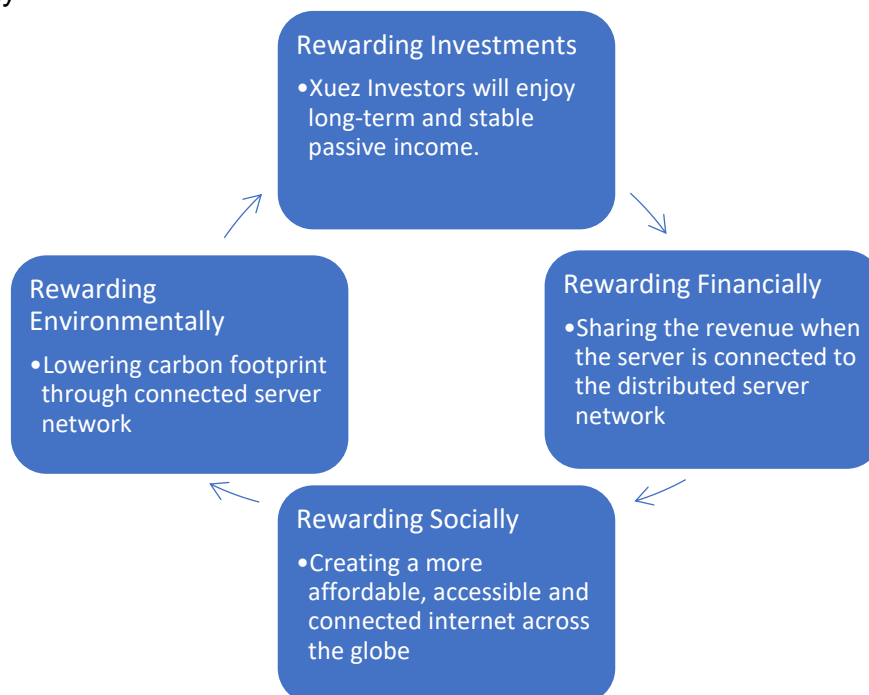
Xuez as a Service (XaaS)

All technological apparatus has been built upon an infrastructure. The Xuez Smart hub removes dependency from all the central entities by distributing and incentivising its users, as well as providing a method to securely store, stake and host multiple Masternodes.

Figure 7 - Xuez Smart hub Concept

Furthermore, the Xuez smart hub will provide users with global access to an innovative global economy by bridging the Infrastructure, Platform and Software as a service models together, by re-engineering and re-purposing an ideal house router to build and power a decentralised cloud. This cloud will form the next-generation distributed server network with unlimited potential; built by the community for the community.

Rewarding Investments
•Xuez Investors will enjoy long-term and stable passive income.

Rewarding Financially
•Sharing the revenue when the server is connected to the distributed server network

Rewarding Socially
•Creating a more affordable, accessible and connected internet across the globe

Rewarding Environmentally
•Lowering carbon footprint through connected server network

Figure 8 - Incentivised Virtual Economy

Distribution. Disruption. Innovation.

"When decentralized blockchain protocols start displacing the centralized web services that dominate the current internet, we'll start to see real internet-based sovereignty. The future internet will be decentralised."
– Olaf Carlson-Wee

Xuez smart routers will fully utilize our re-engineered, incentivised internet infrastructure, providing a decentralised alternative to the traditional centralised server model in which the server is owned and run by central entities.

This will enable smaller traditional disadvantage users, such as small businesses, to gain access to better and more affordable services by removing the need for costly infrastructure. Furthermore, it providing developers a scalable and open platform to develop upon through its next generation internet infrastructure, which is accomplished by the interconnecting of all individually operated Xuez Smart hub.

This results in the disruption of traditionally centralized Internet infrastructure and through the distribution of that infrastructure our model allows the community at large to come together to build the next generation of the internet upon which a decentralised, global virtual economy can finally emerge and thrive to its fullest potential.
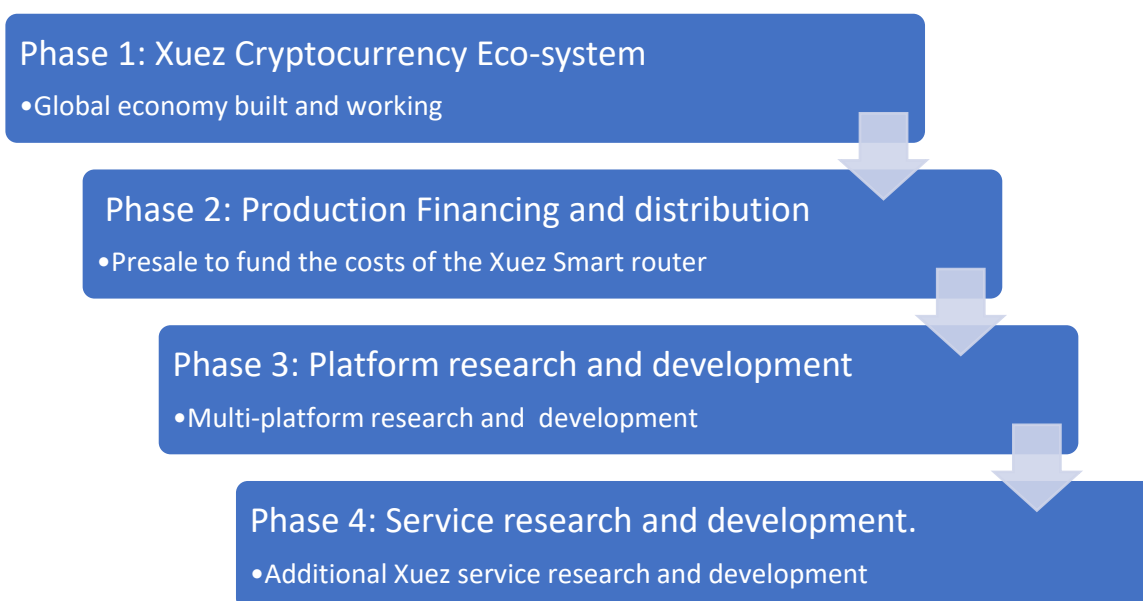
Phase 1: Xuez Cryptocurrency Eco-system
•Global economy built and working

Phase 2: Production Financing and distribution
•Presale to fund the costs of the Xuez Smart router

Phase 3: Platform research and development
•Multi-platform research and development

Phase 4: Service research and development.
•Additional Xuez service research and development

Figure 9 - Vison breakdown

Xuez global economy

"The future is already here, it's just not evenly distributed yet." – William Gibson

Xuez smart routers form a unique distributed server network that offers potentially unlimited processing power and storage. Clients are able to build and integrate their own solutions within our decentralised infrastructure by efficiently collecting, storing, processing, and analysing data upon a decentralised and encrypted network.

As our ecosystem grows, our products will grow with us and by working to support anonymous networks such as the TOR network, our project seeks to increase both privacy and security for all individuals that wish to utilize its functions.
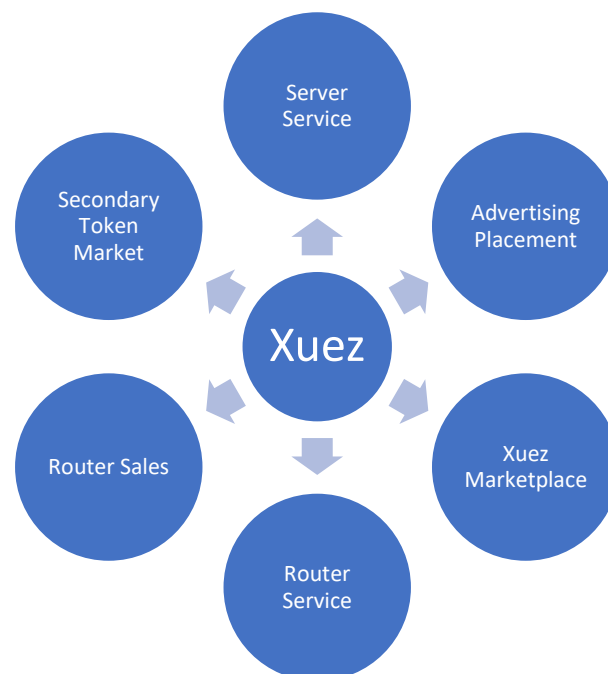
Figure 10 - Xuez Global Virtual Economy

Multiplatform Application

- Multiplatform application bounty is currently being drafted – This section will be updated once published.

Future Aims and Objectives Template

"Without written goals, we fail to plan and to run with single-minded purpose."
– Lailah Grifty Akita, Perls of Wisdom: Great mind

Phase 1 – Global Virtual Economy: Completed.

Phase 2 – Completion target 2019

- Market and technological based research
- Multiplatform development bounty
- Compliance research and application
- 1000 Initial Xuez Smart hub Presale
- Alpha stage Multiplatform application release
- Market/technological research and Product Development/evaluation
- Additional 5,000 Xuez Hub Presale (depending on the initial pre-sale outcome)
- Xuez Smart Hub Development Bounty release
- End of year Performance Evaluation

Phase 3 – Completion target 2020

- Decentralised file storage and secure file transfer system development bounty release
- Point of Sale infrastructure research and development
- Personal Xuez Card market research
- 8,000 Xuez Server Pre-sale
- Decentralised file storage and secure file transfer alpha launch
- Point of Sale devices presale
- Xuez Card distribution
- End of year Performance Evaluation

Phase 4 – Completion target 2022

- Research Development for decentralised cloud processing technology

- Decentralised cloud computing based on CPU-sharing cluster technology Alpha release.
- Multiplatform application "Point-of-sale and security updates" development
- 55,000,000 Xuez Server Online
- Market research, technological research and Product Development

Community

"*If we as a community don't step up to help each other, then who will?*" – Kathy Grimes

The XUEZ platform not only focuses on the long-term goals and objectives outlined within the roadmap, but also within the XUEZ community itself. The community, as seen through the history of the project, has been the primary catalyst for XUEZ to locate and reach for its primary goals. The community will continue to be the driving force that pushes Xuez to exceed its potential.

An open discussion where investors and interested individuals can ask questions, gain updates and assistance through the open community platform:

https://discord.gg/qdxsCxC

Conclusion

This white paper introduces various unique concepts being developed within the Xuez project, which integrate blockchain technology in new ways to create an enhanced platform that has been designed to provide a future-forward model upon which other project can use as a benchmark. The Xuez platform will provide a secure foundation for future projects to build upon. Moreover, by aiming to maintain privacy and functionality for each user by building the next generation decentralized information infrastructure, the result will be a much stronger and more truly anonymous, decentralised virtual economy.

This is all accomplished by utilizing an incentivized two-tier model, rather than the existing single-tier model currently used in other Cryptocurrencies such as Bitcoin. By utilizing this alternative network design, it becomes possible to deliver many types of services such as the building of a decentralised internet infrastructure like the developing Xuez network, along with instant transactions and various decentralised services that can be provided through the future utilization of Masternodes.

References, Attachments and Additional information

Apprenda. (2019). IaaS, PaaS, SaaS (Explained and Compared). Available at: https://apprenda.com/library/paas/iaas-paas-saas-explained-compared/.

Beckett, H. (2019). Who are the leading providers of cloud services? - Raconteur. Available at: https://www.raconteur.net/technology/leading-providers-cloud-services.

Comparitech. (2019). *100+ Terrifying Cybercrime and Cybersecurity Statistics & Trends [2018 EDITION] - Comparitech.* Available at: https://www.comparitech.com/vpn/cybersecurity-cyber-crime-statistics-facts-trends/.

McGuir, M. (2019). HYPER-CONNECTED WEB OF PROFIT EMERGES, AS GLOBAL CYBERCRIMINAL REVENUES HIT $1.5 TRILLION ANNUALLY - Bromium. Available at: https://www.bromium.com/press-release/hyper-connected-web-of-profit-emerges-as-global-cybercriminal-revenues-hit-1-5-trillion-annually/.

Ranger, S. (2019). AWS dominates cloud computing infrastructure market, bigger than IBM/Google/Microsoft combined | ZDNet. [online] ZDNet. Available at: https://www.zdnet.com/article/aws-dominates-cloud-computing-infrastructure-market-bigger-than-ibmgooglemicrosoft-combined/.

Rubygarage.org. (2019). *Choosing the Right Cloud Service: IaaS, PaaS, or SaaS*. Available at: https://rubygarage.org/blog/iaas-vs-paas-vs-saas.

Statista (2019). Leading U.S. internet activities 2017 | Statistic. Available at: https://www.statista.com/statistics/183910/internet-activities-of-us-users/.

Statista. (2019). U.S. data breaches and exposed records 2018 | Statistic. Available at: https://www.statista.com/statistics/273550/data-breaches-recorded-in-the-united-states-by-number-of-breaches-and-records-exposed/.

Statista. (2019). *U.S. data breaches and exposed records 2018 | Statistic*. Available at: https://www.statista.com/statistics/273550/data-breaches-recorded-in-the-united-states-by-number-of-breaches-and-records-exposed/.