



# ProtocolGenesis

— BLOCKCHAIN —

Version 1.0.0

# INTRODUCCIÓN A PROTOCOLGENESIS

Bienvenido al whitepaper de ProtocolGenesis, un ecosistema innovador en el mundo de la tecnología blockchain. Nuestra misión es construir una plataforma descentralizada que empodere a individuos y comunidades para que se involucren activamente en la creación de valor y la innovación tecnológica.

Con un enfoque en la transparencia, la seguridad y la sostenibilidad, ProtocolGenesis desarrolla una variedad de aplicaciones y startups que abordan desafíos modernos con soluciones avanzadas. En este whitepaper, encontrará una visión general de nuestros productos, modelo de negocio y planes para el futuro.

La preventa del token GENS es el punto de partida para quienes desean unirse a nosotros en este viaje, financiando nuestros proyectos y participando activamente en la construcción de un futuro descentralizado y seguro. Explore nuestro whitepaper para comprender nuestra visión y descubra cómo puede ser parte de este movimiento.

## RESUMEN EJECUTIVO

ProtocolGenesis es un ecosistema innovador que busca revolucionar la tecnología blockchain, integrando 13 aplicaciones y 4 startups en una plataforma descentralizada. Con un enfoque en la seguridad, la sostenibilidad y la gobernanza comunitaria, ProtocolGenesis permite que desarrolladores, inversores y usuarios colaboren y crezcan juntos.

### Aspectos Clave:

**Descentralización y Gobernanza:** A través de GENSVOTA, la comunidad participa activamente en la toma de decisiones, garantizando transparencia y responsabilidad.

**Innovación y Diversificación:** Ofrecemos una variedad de productos y servicios que satisfacen diferentes necesidades, desde soluciones financieras hasta aplicaciones medioambientales.

**Crecimiento Sostenible:** Startups como AlgassLab y BiohackingPharma promueven un impacto positivo en el medio ambiente y la sociedad.

**Modelo de Negocio:** Los ingresos generados por la venta de tokens GENS, suscripciones y asociaciones se reinvierten para expandir el ecosistema.

**Proyecciones de Crecimiento:** Se espera un crecimiento robusto basado en la diversificación de productos y la innovación continua.

La preventa de tokens GENS ofrece una oportunidad para unirse a un proyecto prometedor desde el principio. Únase a ProtocolGenesis y ayude a moldear el futuro de la tecnología descentralizada.

**Conclusión:** ProtocolGenesis está bien posicionada para liderar la innovación en el espacio blockchain, ofreciendo una plataforma que combina seguridad, innovación, sostenibilidad e inclusión comunitaria. La preventa de tokens GENS representa una oportunidad única para que inversores y entusiastas se involucren desde el principio en un proyecto con gran potencial de crecimiento e impacto positivo. Únase a ProtocolGenesis y sea parte de la revolución tecnológica que está moldeando el futuro de la descentralización.

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# WHITE PAPER

# SWOT ANALYSIS OF PROTOCOLGENESIS

## Strengths

### 1 - Diversification of Products and Services:

ProtocolGenesis offers a wide range of applications and startups, including voting solutions, digital wallets, social networks, biotechnology, and more. This diversification allows the ecosystem to cater to various market needs, increasing its relevance and appeal to different types of users.

### 2 - Decentralized Community Governance:

The use of GENSVOTA for decentralized voting ensures that the community has an active voice in ecosystem decisions, promoting transparency, inclusion, and trust among users.

### 3 - Focus on Innovation and Sustainability:

ProtocolGenesis is committed to continuous innovation, as evidenced by the launch of startups like AlgassLab and GrafenoLabs, which focus on sustainability and cutting-edge technologies. This commitment attracts investors and users who value environmental and social responsibility.

### 4 - Advanced Security and Privacy:

With applications like GENSWallet and GENSChat offering end-to-end encryption and other security measures, ProtocolGenesis prioritizes user security, which is a major differentiator in the blockchain space.

### 5 - Diversified Revenue Model:

ProtocolGenesis employs a combination of token sales, app subscriptions, strategic partnerships, and product sales (such as the GENSChip), which helps diversify its revenue streams and reduce financial risk.

## Weaknesses

### 1 - Competition in the Blockchain Market:

The blockchain market is highly competitive, with many similar projects vying for attention and investment. Differentiating in this space can be an ongoing challenge, especially in terms of technology and innovation.

### 2 - Regulatory Risks:

Like any blockchain project, ProtocolGenesis faces regulatory risks in various jurisdictions. Changes in laws and regulations can impact the operation and acceptance of the ecosystem globally.

### 3 - Dependence on Community Adoption:

The success of the ecosystem heavily depends on community participation and engagement, particularly for governance and funding of new projects. If community engagement is low, this could hinder the growth and sustainability of the ecosystem.

## Opportunities

### 1 - Growth of Blockchain Adoption:

With the increasing adoption of blockchain technologies across various industries, ProtocolGenesis is well-positioned to capitalize on this trend, especially with its diversified approach that caters to different market needs.

### 2 - International Expansion:

ProtocolGenesis has the opportunity to expand its presence in emerging international markets where there is a growing demand for decentralized and innovative technology solutions.

### 3 - Development of New Strategic Partnerships:

Partnerships with technology companies, universities, startup incubators, and other blockchain platforms can strengthen the ecosystem, increase adoption, and provide new revenue streams.

### 4 - Focus on Sustainability and Social Impact:

The growing global concern for sustainability and social impact offers ProtocolGenesis an opportunity to position itself as a leader in technological solutions that are not only profitable but also beneficial for the environment and society.

### 5 - Technological Evolution and Innovation:

Continuing to invest in research and development could enable ProtocolGenesis to explore new technologies, such as artificial intelligence and machine learning, to enhance its products and services.

## Threats

### Intense Competition:

The blockchain space is highly competitive, with new projects regularly emerging. ProtocolGenesis faces the threat of being outpaced by competitors who may offer more advanced technologies or more attractive business models.

### Global Regulatory Changes:

Regulatory uncertainty and changes in cryptocurrency and blockchain laws in different countries can create operational and financial challenges for ProtocolGenesis.

### Market Fluctuations and Digital Asset Volatility:

The volatility of cryptocurrency prices and market cycles can impact the financial stability of the ecosystem and the willingness of investors to engage with ProtocolGenesis.

### Lack of User Adoption:

If the adoption of ProtocolGenesis's applications and services does not reach critical levels, it may limit the growth and long-term viability of the ecosystem.



# OVERVIEW OF BLOCKCHAIN

ProtocolGenesis is an innovative blockchain that aims to transform the way people interact with decentralized technology by offering solutions that overcome the limitations of traditional blockchains. Our vision is to create an inclusive, scalable, and secure ecosystem that drives the global adoption of cryptocurrencies and applications.

## 1. Mission

Our mission is to democratize access to blockchain technology by providing tools and infrastructure that allow anyone to participate in and benefit from the decentralized digital economy. We aim to empower individuals and businesses to innovate and grow in a sustainable and secure manner.

## 2. Strategic Objectives

**Financial Inclusion:** Facilitate access to blockchain technology and cryptocurrencies for people worldwide, especially those without access to traditional financial services.

**Scalability and Efficiency:** Develop an infrastructure that supports a high volume of transactions quickly and at low cost, without compromising security.

**Advanced Security:** Implement robust security measures to protect users' assets and data against fraud and attacks.

**Usability:** Create intuitive interfaces and provide educational resources to help users understand and use blockchain effectively.

**Sustainability:** Ensure that the ProtocolGenesis ecosystem is sustainable in the long term, with incentive mechanisms that promote network growth and stability.

## 3. Differentiators

**Collateral Injection:** ProtocolGenesis is one of the few blockchains capable of injecting collateral into its ecosystem, increasing trust and currency value.

**Revenue Diversification** Part of the revenue generated by projects such as applications, software, paid plans, courses, and digital marketing is reinvested in the ecosystem, promoting its continuous appreciation.

## 4. Impact and Potential for Appreciation

ProtocolGenesis has significant potential for appreciation due to its innovative approach and the strength of its ecosystem. Investing in our blockchain is an investment in a future of infinite possibilities, where decentralized technology becomes accessible and useful to everyone.

The architecture of the ProtocolGenesis blockchain is designed to ensure high performance, security, and scalability. The main components are highlighted below:

### Network Layer:

**Nodes:** Network nodes are responsible for validating and propagating transactions and blocks.

**P2P Communication:** We use a peer-to-peer (P2P) communication protocol that allows for complete decentralization and data redundancy.



# OVERVIEW OF BLOCKCHAIN

## ProtocolGenesis Architecture

### Proof of Work (PoW) Consensus:

ProtocolGenesis uses a consensus mechanism based on Proof of Work (PoW). This model, similar to Bitcoin's, is known for its security and robustness. In ProtocolGenesis, the mining algorithm used is Scrypt, which is efficient and less hardware-intensive, allowing for more accessible mining for a wide user base.

### Mining via Scrypt:

Mining on ProtocolGenesis is conducted through the Scrypt algorithm, which is more user-friendly for miners using CPUs and GPUs, compared to Bitcoin's SHA-256, which requires ASICs. This promotes a more equitable distribution of mining, reducing centralization and allowing for more inclusive participation.

### Advanced Security:

Security is a fundamental priority at ProtocolGenesis. We use advanced cryptography and a decentralized network to protect users' transactions and data. Our network architecture includes multiple layers of security, including integrity checks, user authentication, and audited smart contracts.

### Ease of Use and Accessibility:

ProtocolGenesis was developed with ease of use in mind. We offer a user-friendly interface and a variety of development tools, such as software development kits (SDKs) and application programming interfaces (APIs). These tools enable developers to easily create and integrate decentralized applications (dApps) on our platform.

## MAIN OBJECTIVES

ProtocolGenesis was designed with a clear and ambitious vision to become a leader in the block-chain space. To achieve this vision, we have established key objectives that guide our development and implementation strategies. These objectives focus on uniting applications, projects, software, startups, and ideas into a cohesive and vibrant ecosystem.

### Unite Applications and Projects into a Cohesive Ecosystem

**Daily Applications:** We will offer applications on the platform that accept the GENS cryptocurrency as payment for their subscriptions. These include shopping, delivery, restaurant, surf, gym, rental, and social media apps. All these apps will only accept cryptocurrencies as a form of payment, ensuring user anonymity and privacy.

**Freedom and Anonymity:** We allow users to enjoy the entire ecosystem anonymously if they choose, bringing back the true essence and purpose of the crypto market: freedom.

### Create Powerful and Accessible Tools

**Comprehensive Documentation:** Our documentation resources are detailed and easily accessible, providing step-by-step guidance for developers of all skill levels.

**Testing Environment:** We offer robust testing environments so developers can validate and optimize their applications before launching them on the main network.

### New Support and Community Channels

**Forums and Technical Support:** We maintain an active community and support forums where developers can exchange ideas, troubleshoot problems, and collaborate on projects. **Training Programs:** We organize courses and tutorials to educate and empower developers on best practices and new technologies in ProtocolGenesis.

### Facilitate Blockchain Access and Use

**User-Friendly Interface:** Our platform is designed with an intuitive interface that facilitates navigation and use for users of all experience levels.

**Digital Payment Solutions:** We offer fast, secure, and low-cost payment solutions that facilitate instant transactions globally.

### Efficient and Sustainable Mining

**Scrypt Algorithm:** We use the Scrypt algorithm for mining, which is less intensive in terms of hardware and energy consumption, promoting a more sustainable approach to cryptocurrency mining.

**Reducing Environmental Impact:** We are committed to reducing environmental impact through more efficient mining practices and carbon neutrality initiatives.

### Liquidity Injection

**Ensuring Fast and Stable Transactions:** By injecting 30% of resources directly into liquidity, we strengthen user and investor confidence in the value of our assets.

## MAIN OBJECTIVES

### **Education and Training**

Invest 3% of resources in education and training programs to empower our community, fostering innovation and continuous growth within ProtocolGenesis.

### **Research and Development (R&D)**

Allocate 3% of resources to R&D to maintain our position at the technological forefront, enabling the creation of new features and functionalities.

### **Decentralized Governance**

Dedicate 3% of resources to decentralized governance mechanisms, allowing the community to have an active voice in crucial decisions, promoting transparency and trust.

### **Sustainable Development**

Allocate 1% of resources to support ecological initiatives and sustainable practices, positively contributing to the planet.

### **Investment in Projects**

Invest 20% of resources directly into innovative ideas, acting as an accelerator ecosystem for startups to drive the growth and diversification of our ecosystem.

### **Rewards for Project Producers**

Dedicate 14% of resources to reward project producers, encouraging the continuous creation of content and innovations that enrich ProtocolGenesis.

### **Server Infrastructure**

Allocate 4.5% of resources to invest in robust and high-performance servers, ensuring a solid and efficient infrastructure.

### **Marketing and Expansion**

Invest 6.5% of resources in marketing to expand awareness and adoption of our protocol globally, highlighting the benefits of ProtocolGenesis and attracting new users and investors.

### **Support Startups and Small to Large Ideas**

**Support for Startups:** Part of the ecosystem's resources will be directed to help small ideas and early-stage startups. We want to support those who have an idea or a project, even if it's just a sketch on paper, helping to turn it into something big.

**Resources and Mentorship:** We offer financial resources, mentorship, and support so that startups and innovators can develop and scale their ideas within the ProtocolGenesis ecosystem.

## Research and Development

**Regular Updates** We keep the ProtocolGenesis blockchain updated with the latest technological innovations and security enhancements.

**Innovation Lab:** We have created an innovation lab dedicated to exploring new technologies and developing pioneering solutions for emerging challenges in the blockchain space.

## Community Feedback

**Community Engagement:** We encourage active community participation in the development process by soliciting feedback and suggestions for continuous improvements.

**Decentralized Governance:** We have implemented a decentralized governance model that allows the community to participate in decision-making, ensuring that the evolution of ProtocolGenesis reflects the interests of its users.

## Strengthening Network Infrastructure

**Scalability:** We have implemented scalability solutions that allow the network to grow and support a large number of transactions per second (TPS), ensuring a smooth user experience.

**Resilience:** Our infrastructure is designed to be resilient, ensuring service continuity even in the face of failures or cyberattacks.

## Robust Security

**Protection Against Attacks:** We use cutting-edge technologies to protect the network against cyberattacks, such as 51% attacks, DDoS attacks, and other vulnerabilities.

**Regular Audits:** We conduct regular security audits to identify and correct potential vulnerabilities, maintaining the integrity and security of the network.

## Educational Initiatives

**Workshops and Webinars:** We organize regular workshops and webinars to educate the community about blockchain technology and its practical applications.

**Educational Content:** We provide a wide range of educational resources, including tutorials, articles, and explanatory videos to help users understand and use ProtocolGenesis.

## Awareness Campaigns

**Strategic Marketing:** We implement marketing campaigns to raise awareness about ProtocolGenesis and its benefits, attracting new users and investors.

**Educational Partnerships:** We establish partnerships with educational institutions and organizations to promote education in blockchain and decentralized technologies.

## Conclusion

The main objectives of ProtocolGenesis are essential to ensure its long-term success and its leadership position in the blockchain market. By empowering developers, driving mass adoption, promoting sustainability, supporting startups and small ideas, strengthening network infrastructure, continuously innovating, and promoting education and awareness, we are creating a platform that not only meets current needs but is also prepared for future challenges.

# BLOCKCHAIN MARKET FOR APPLICATIONS AND STARTUPS

ProtocolGenesis is positioned in a rapidly growing blockchain market, with projections indicating substantial growth in the coming years. According to various industry analyses, the global blockchain market is expected to grow significantly, driven by the increasing adoption of decentralized technologies and the growing demand for secure and transparent solutions.

## Blockchain Market Projections

The global blockchain market was valued at approximately **USD 11.54 billion in 2022** and is expected to reach around USD 162.84 billion by 2027, with a compound annual growth rate (CAGR) of 66.2%. This expansion is fueled by the growing adoption of blockchain technologies across various sectors, including finance, healthcare, logistics, and government.

In 2024, the global blockchain market is expected to reach a valuation of around USD 31.17 billion, showing notable growth driven by the implementation of smart contracts, DeFi (decentralized finance), and NFTs (non-fungible tokens). Additionally, the demand for blockchain solutions is rapidly expanding, with more companies and governments recognizing the benefits of this technology.

## Opportunities in the Applications and Startups Market

The mobile applications and startups market is also experiencing rapid growth. In 2022, the global mobile applications market was valued at USD 206.85 billion and is projected to reach USD 407.31 billion by 2026, with a CAGR of 18.4%. This growth is driven by the demand for innovative solutions and the integration of new technologies, such as artificial intelligence and blockchain, into applications.

The ProtocolGenesis ecosystem is ideal for startups and application developers, offering a secure and efficient infrastructure for developing decentralized solutions. ProtocolGenesis blockchain facilitates the creation and implementation of smart contracts, enabling startups to innovate and scale their operations more easily.

## Appreciation Potential and Collateral Injection

A ProtocolGenesis está bem posicionada para capitalizar essas tendências de mercado. Com seu ecossistema robusto, que inclui uma ampla gama de aplicativos, softwares, planos pagos, cursos e serviços de marketing digital, a ProtocolGenesis tem o potencial de gerar receitas substanciais que serão reinvestidas no próprio ecossistema. Isso cria um ciclo virtuoso de crescimento e valorização.

ProtocolGenesis is one of the few blockchains capable of injecting real collateral into its ecosystem, enhancing trust and stability for investors and users. Additionally, the mining of GENS, the native currency of ProtocolGenesis, is designed to last over 100 years, ensuring controlled and sustainable distribution over time.

We believe that understanding the unique features of ProtocolGenesis is essential for investing in this promising ecosystem. With significant appreciation potential, the GENS currency stands out as a unique opportunity in the blockchain and applications market.

Invest in ProtocolGenesis and be part of this promising digital future!

## GROWTH PROJECTION

ProtocolGenesis is an innovative blockchain launched in 2025, designed to drive the development of applications and startups while providing lucrative opportunities for investors. With a total of 23,784,000 GENS coins available and a block interval of 15 minutes, ProtocolGenesis is structured to ensure efficient mining and fair distribution of coins.

Our ecosystem encompasses a range of applications and startups that are integral to the economic growth of ProtocolGenesis. Each application and startup within the ecosystem contributes significantly to the annual revenue, generating value and driving demand for the GENS coin..

### **Applications in the Ecosystem**

The applications developed within the ProtocolGenesis ecosystem are designed to meet various market needs, offering innovative and efficient solutions. Each application charges a subscription fee that varies according to the service offered. Additionally, the applications retain a percentage of the transactions made on the platform, ranging from 1% to 5%, depending on the type of service.

### **Startups in the Ecosystem**

The startups within the ecosystem are emerging companies that use ProtocolGenesis technology to develop new products and services, contributing to the platform's continuous growth. Startups also pay a participation fee that may vary depending on the company's success and size.

### **Revenue and Growth**

The ProtocolGenesis ecosystem is prepared to add at least 10 new applications and 3 new startups each year, contributing to significant annual revenue growth. Additionally, the production of graphene and the sale of encapsulated products within the ecosystem also generate additional revenue, creating a constant flow of financial input.

Let us now analyze the adjusted annual revenue projections considering these growth factors.



# ProtocolGenesis

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## Introduction to the ProtocolGenesis Roadmap

The ProtocolGenesis roadmap is an essential tool for guiding the growth and development of our innovative ecosystem. It provides a clear and structured plan for the launch of our 13 applications, 3 startups, and the revolutionary GENSChip. Each phase has been carefully planned to ensure that our community has access to a wide range of tools and services that promote security, digital freedom, and technological innovation.

A well-defined roadmap is crucial for the success of any ambitious project. At ProtocolGenesis, the roadmap is not just a timeline; it is a strategic vision that guides every decision and every launch. It ensures that each application and startup is introduced at the right time, maximizes impact, and ensures that the community always benefits. With the ProtocolGenesis roadmap, our members have a clear view of our commitment to transparency, innovation, and sustainable growth.

**GENSVOTA** - A blockchain-based voting application that puts decision-making power in the hands of the community.

**GENSWallet** - A digital wallet for managing cryptocurrencies, offering advanced security and compatibility with BTC and GENS.

**GENSNetwork** - An innovative social network to connect friends, family, and colleagues within the ProtocolGenesis ecosystem.

**GENSChat** - A secure messaging application with end-to-end encryption, ensuring complete privacy in communications.

**GENSMarkeティング** - A streaming platform with courses and content on digital marketing, designed to empower the community with valuable knowledge.

**GENSNotes** - A calendar and notes application for personal organization, with advanced encryption for maximum security.

**GENSFitness** - An application for managing and tracking workouts in gyms, encouraging a healthy lifestyle.

**GENSRent** - A vehicle rental application, offering an easy and secure way to find the perfect car for any occasion.

**GENSHome** - A platform for residential property rentals, making it easy to find quality accommodations.



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GENSService - An application for hiring maintenance and home repair services, connecting clients with trusted professionals.

MyBeach - An app for exploring and finding beaches around the world, with detailed information about the best beaches to visit.

GENSCurriculum - A tool for creating and sharing professional resumes, helping users stand out in the job market.

GENSDelivery - A delivery app that connects users with local restaurants, providing a personalized dining experience.

GrafenoLabs - A startup dedicated to the production of graphene, an innovative material with numerous technological applications.

AlgassLab - A startup focused on algae cultivation for the production of biofuels, food, and CO2 capture, contributing to a more sustainable future.

BiohackingPharma - A startup producing multivitamin capsules, promoting health and well-being with high-quality products.

GENSChip - An implantable chip for the hand, offering secure storage of personal data and the ability to function as a hard wallet with high-level encryption.

## Why Invest in the Pre-Sale?

The ProtocolGenesis ecosystem is more than just a collection of applications and startups. It is a vision of a future where technology empowers people, offering freedom, security, and innovation. By investing in the pre-sale of GENS coins, you become part of this technological revolution, helping to build a world where decentralization and transparency are the norm.

The pre-sale is your opportunity to enter the ProtocolGenesis ecosystem from the beginning, benefiting from initial pricing and securing an advantageous position in a project with enormous growth potential. Each application, startup, and the GENSChip has been developed to offer unique solutions that meet modern needs, with a clear focus on security, privacy, and digital freedom.

By participating in the pre-sale, you are not just buying coins; you are investing in a future where technology is used for good, where people have control over their data, and where innovation is encouraged. Join us at ProtocolGenesis and be part of the revolution that is shaping the future of digital technology.



# ROADMAP

## Phase 1: Preparation and Pre-Sale

### **Objective:**

Establish a solid foundation for the ProtocolGenesis ecosystem, starting with public awareness, infrastructure development, and the launch of the GENS coin pre-sale.

### **Marketing:**

Establish a presence on major social media platforms (Twitter, Instagram, Facebook, LinkedIn, Telegram, among others) to raise awareness and engage the community.

Develop digital marketing campaigns, including paid advertisements, influencer marketing, and informative content.

### **Official Website Launch:**

Create and launch the official ProtocolGenesis website, which will serve as the central hub for all information about the ecosystem, project updates, and access to applications.

### **Smart Contracts and Audits:**

Develop and deploy smart contracts for all transactions within the ecosystem, ensuring transparency and security.

Conduct independent smart contract audits to ensure code robustness and integrity.

### **Start of the GENS Coin Pre-Sale:**

Launch the pre-sale phase to allow early supporters to purchase the official GENS coin. This phase is crucial for funding future developments and engaging the community from the outset. The pre-sale begins on September 25, 2024, with the goal of selling 500,000 GENS coins in three pricing stages.

## PHASE 2: COMMUNITY GROWTH AND MARKETING EXPANSION

**Objective:** Strengthen the ProtocolGenesis community and increase public awareness while introducing new applications to the ecosystem, maintaining a consistent launch schedule.

### **Community Growth:**

**Active Engagement:** Promote community participation through events, AMA (Ask Me Anything) sessions, and other interactive activities to build a loyal and engaged user base.

**Events and Conferences:** Organize and participate in industry events to connect directly with the community and other blockchain projects.

**Strategic Partnerships:** Collaborate with influencers, media platforms, and other blockchain projects to expand the reach of ProtocolGenesis and attract a broader audience.

# ROADMAP

## Expansion on Social Media:

**Increase Social Media Presence:** Expand presence on major social media platforms to engage new users and improve communication with the community.

**Engaging Content:** Create educational content, tutorials, and regular updates to keep the community informed and engaged.

## Continuous Application Launches:

Starting from Phase 2, each phase will include the launch of a new application, following the planned schedule to ensure sustainable and continuous growth of the ecosystem.

### Launch of the 1st Application:

- Expected Launch Date: June 25, 2025 (90 days after the end of the pre-sale)

**Application: GENSVOTA**

Short Description: A blockchain-based voting application for the ProtocolGenesis community.

Boosted Marketing Campaign: Launch an intensive marketing campaign to promote the application launch and engage new users.

## PHASE 3: CONTINUOUS EXPANSION AND LAUNCH OF NEW APPLICATIONS AND STARTUPS

### Objective:

Continue to expand the ecosystem with regular launches of new applications and startups, strengthening ProtocolGenesis's market presence.

### Launch of the 2nd Application:

Data de Lançamento Prevista: 25 de setembro de 2025 (90 dias após o primeiro aplicativo)

**Aplicativo: GENSWallet**

Carteira digital para gerenciamento de criptomoedas, oferecendo segurança avançada e compatibilidade com BTC e GENS.

### Launch of the 1st Startup:

Expected Launch Date: November 25, 2025 (60 days after the second application)

**Startup: GrafenoLabs**

Description: A startup focused on graphene production, based in Houston, Texas.

Boosted Marketing Campaign: Conduct a targeted marketing campaign to attract investors and those interested in the advanced materials market.

### Launch of the 3rd Application:

Expected Launch Date: December 25, 2025 (90 days after the second application)

**Application: GENSNetwork**

Description: A social network to connect friends, family, and colleagues within the ecosystem.

Boosted Marketing Campaign: Focus on marketing campaigns to increase community engagement and highlight the application's benefits.

# ROADMAP

## PHASE 4: EXPANSION AND STRENGTHENING OF THE ECOSYSTEM

**Objective:** Continue expanding the ProtocolGenesis ecosystem with the launch of new applications and startups while strengthening our user base and optimizing our operations to ensure sustainable growth and continuous innovation.

### Launch of the 4th Application:

Expected Launch Date: March 25, 2026 (90 days after the third application)

#### **Application: GENSChat**

Description: A secure messaging application with end-to-end encryption, ensuring complete privacy in communications.

Boosted Marketing Campaign: Increase marketing efforts to highlight the application's functionality and attract users interested in digital security.

### Launch of the 2nd Startup:

Expected Launch Date: May 25, 2026 (60 days after the fourth application)

#### **Startup: AlgassLab**

Description: A startup focused on algae cultivation for the production of biofuels, food, and CO<sub>2</sub> capture.

Boosted Marketing Campaign: Focus on sustainability and environmental innovation, highlighting the ecological and economic benefits of algae cultivation.

### Launch of the 5th Application:

Expected Launch Date: June 25, 2026 (90 days after the fourth application)

#### **Application: GENSMarKeting**

Description: A streaming platform with courses and content on digital marketing, empowering users with valuable knowledge.

Promotions and Partnerships: Collaborate with digital marketing influencers to attract content creators and users interested in enhancing their marketing skills.

# ROADMAP

## PHASE 5: EXPANSION AND STRENGTHENING OF THE ECOSYSTEM

### Objective:

Consolidate ProtocolGenesis's position in the market by expanding the ecosystem with additional application and startup launches, while focusing on user retention and increasing global adoption.

### Launch of the 6th Application:

Expected Launch Date: September 25, 2026 (90 days after the fifth application)

#### Application: GENSNotes

A calendar and note-taking application for personal organization, with advanced security.

Boosted Marketing Campaign: Highlight the security and privacy of personal data, attracting users who value the protection of their information.

### Launch of the 3rd Startup:

Expected Launch Date: November 25, 2026 (60 days after the sixth application)

#### Startup: BiohackingPharma

A startup focused on multivitamin capsules, based in Utah.

Boosted Marketing Campaign: Promote a healthy lifestyle and well-being, highlighting innovation in supplements and the science behind the products.

### Launch of the 7th Application:

Expected Launch Date: December 25, 2026 (90 days after the sixth application)

#### Application: GENSFitness

Description: An application for managing and tracking gym workouts, encouraging a healthy lifestyle.

Boosted Marketing Campaign: Engage fitness influencers and partner with gyms to promote the application as the ultimate solution for workout management.

### Market Expansion and New Partnerships:

Commercial Partnerships: Form strategic partnerships with technology, health, and wellness companies to expand the reach and utility of the ProtocolGenesis ecosystem.

Global Adoption: Focus on growing international markets, adjusting marketing strategies and products to meet local needs.

### Final Considerations for Phase 5

Phase 5 is crucial for consolidating ProtocolGenesis's position as a market leader and ensuring sustainable long-term growth. With continuous application and startup launches, along with a focus on user retention and global expansion, ProtocolGenesis positions itself as a robust and innovative ecosystem in the blockchain world. Through a combination of strategic marketing, partnerships, and continuous innovation, we are prepared to capture new market opportunities and drive global adoption, ensuring a promising future for the entire ProtocolGenesis community.

# ROADMAP

## PHASE 6: DIVERSIFICATION AND GLOBAL SCALE

### Objective:

- Further expand the ProtocolGenesis ecosystem through the diversification of applications and startups, increasing global scale, and strengthening its impact in the blockchain and decentralized technology market.

### Launch of the 8th Application:

- Expected Launch Date: March 25, 2027 (90 days after the seventh application)

#### Application: GENSRent

Description: An application for renting vehicles of various categories.

Boosted Marketing Campaign: Partner with car rental companies and conduct targeted campaigns for travelers and tourists, highlighting convenience and a variety of options.

### Launch of the 9th Application:

- Expected Launch Date: June 25, 2027 (90 days after the eighth application)

#### Application: GENSHome

Description: A platform for residential property rentals.

Boosted Marketing Campaign: Partner with property rental platforms and run marketing campaigns to highlight the security and transparency of the platform.

### Launch of the 10th Application:

- Expected Launch Date: September 25, 2027 (90 days after the ninth application)

#### Application: GENSService

Description: A platform for hiring maintenance and home repair services.

Boosted Marketing Campaign: Launch marketing campaigns that emphasize the ease of finding reliable professionals and the security of transactions on the platform.

### Accelerated Global Expansion:

- Strategic Locations: Identify new global markets for expansion, focusing on areas with high demand for decentralized services.

Local Partnerships: Establish partnerships with local companies and governments to facilitate entry into new markets and ensure regulatory compliance.

### Diversification of Products and Services:

- New Market Segments: Explore new market segments and develop additional products and services to cater to a broader user base.

Technological Innovations: Continue investing in technological innovations to keep the ecosystem ahead of the competition and meet emerging user needs.

### Final Considerations for Phase 6

Phase 6 is a significant milestone in the evolution of ProtocolGenesis, focusing on ecosystem diversification and global expansion. With continuous application launches, including rental platforms and home services, ProtocolGenesis is positioned to capture new markets and serve a diverse user base. Through strategic partnerships, continuous innovation, and infrastructure strengthening, we are prepared to scale globally and consolidate our position as a market leader in blockchain and decentralized technology.

# ROADMAP

## PHASE 7: CONTINUOUS INNOVATION AND EXPANSION OF CAPABILITIES

**Objective:** Continue the evolution of the ProtocolGenesis ecosystem with the launch of new applications and the enhancement of technological capabilities, promoting innovation and ensuring sustainable long-term growth.

### Launch of the 11th Application:

Expected Launch Date: December 25, 2027 (90 days after the tenth application)

#### **Application: MyBeach**

Description: An app for exploring and finding beaches around the world, with detailed information about beach conditions and local activities.

Boosted Marketing Campaign: Partner with travel agencies and travel influencers to promote the app as an essential tool for travelers.

### Launch of the 12th Application:

Expected Launch Date: March 25, 2028 (90 days after the eleventh application)

#### **Application: GENSCurriculum**

Description: An application for creating and sharing professional resumes, helping users stand out in the job market.

Boosted Marketing Campaign: Collaborate with job platforms and universities to promote the app as an essential tool for job seekers.

### Launch of the 13th Application:

Expected Launch Date: June 25, 2028 (90 days after the twelfth application)

#### **Application: GENSDelivery**

Description: A delivery app that connects users with local restaurants, providing a personalized dining experience.

Boosted Marketing Campaign: Partner with restaurants and launch marketing campaigns to highlight the ease and customization offered by the app.

### Launch of Chip Sales:

Expected Launch Date: September 25, 2028 (90 days after the thirteenth application)

#### **Product: GENSChip**

Description: An implantable chip for the hand, offering secure storage of personal data and the ability to function as a hard wallet with high-level encryption.

Boosted Marketing Campaign: Focus on security, convenience, and innovation, promoting the chip as a revolution in digital freedom.

### Enhancement of Technology and Innovation:

Research and Development: Continue investing in research and development to explore new technologies and expand the capabilities of the ecosystem.

Integration of AI and Machine Learning: Implement artificial intelligence and machine learning to improve the efficiency, personalization, and security of applications and services.

# ROADMAP

## Expansion of User Base and Engagement:

Community Engagement: Continue promoting events, challenges, and competitions to keep the community engaged and motivated.

Reward Programs: Introduce new reward programs to encourage active use and user loyalty.

## Improvement of Infrastructure and Scalability:

Scalable Infrastructure: Expand the infrastructure to support a growing global user base, ensuring high availability and performance.

Process Optimization: Continue to optimize operational processes to improve efficiency and reduce costs.

## Final Considerations for Phase 7:

Phase 7 is crucial for the consolidation and expansion of ProtocolGenesis as an innovative and technologically advanced market leader. With the continuous launch of new applications, including tools for travel, resumes, and delivery, as well as the launch of the GENSChip, ProtocolGenesis is well-positioned to capture new market opportunities and expand its global user base.

By focusing on continuous innovation, infrastructure enhancement, and expansion of capabilities, ProtocolGenesis ensures it is prepared to face future challenges and capitalize on emerging opportunities in the blockchain and decentralized technology market. This phase represents ProtocolGenesis's commitment to leading with innovation and maintaining its position at the forefront of technology.

## PHASE 8: INITIATION OF NEW PROJECTS AND ECOSYSTEM EXPANSION

### Objective:

Expand the ProtocolGenesis ecosystem by opening opportunities for new applications, startups, and projects, encouraging innovation and community growth through a submission and voting platform.

### Launch of New Applications and Startups:

Propagation of New Projects: Start the submission process for new courses, applications, startups, and other projects within the ProtocolGenesis platform.

Community Participation: Allow community members to submit their innovative ideas and projects, competing for ecosystem investments.

### Community Voting System:

Transparent Voting: All ecosystem users will have the opportunity to vote on the submitted projects using the GENSVOTA application. The voting process will be transparent and open, ensuring that the community has an active role in deciding which projects receive investments.

Participation Incentives: Offer rewards or incentives to users who actively participate in the voting process, promoting greater engagement and community support.

# ROADMAP

## Marketing and Promotion Campaign:

Promotion of Submitted Projects: Conduct marketing campaigns focused on highlighting submitted projects and encouraging community participation in voting.

Partnerships and Collaborations: Expand partnerships with startup incubators, universities, and technology companies to attract high-quality projects to the ecosystem.

## Support for Selected Projects:

Strategic Investments: Offer investments and technical support to the projects selected by the community, helping them grow and integrate into the ProtocolGenesis ecosystem.

Mentorship and Consultancy: Provide specialized mentorship and consultancy to ensure that selected projects receive the best possible support to achieve their goals.

## PHASE 9: CELEBRATION AND STRENGTHENING OF THE COMMUNITY

### Objective:

Celebrate the growth and achievements of the ProtocolGenesis ecosystem, strengthening community bonds and highlighting collective success through a special celebration event.

### ProtocolGenesis Celebration Event:

Event Date: Planned for the end of Phase 9, bringing together all community members.

Event Participants: Ambassadors, consultants, developers, partners, Adão and Evas (founding members and early supporters), and other influential community members.

### Event Agenda:

Discussion Panels and Lectures: Featuring industry experts and thought leaders to discuss innovations in the blockchain ecosystem and the achievements of ProtocolGenesis.

Live Demonstrations: Presentations of launched applications and startups, showcasing progress and real impact on the community.

Networking Sessions: Opportunities for community members to interact, exchange ideas, and establish new connections.

### Launch of New Applications and Startups:

Continuous Propagation of New Projects: Continue encouraging the submission of new projects to the platform, increasing the flow of innovation and ensuring the ongoing relevance of the ecosystem.

Voting and Investment: Reinforce the community voting system to allow the community to continue deciding on projects that deserve future investments.

### Strengthening Community Engagement:

Recognition of Contributions: Reward active community members and highlight significant contributions to the ecosystem's growth.

Global Expansion: Use the event to announce new global initiatives and expansion strategies, demonstrating ProtocolGenesis's commitment to reaching and impacting a global audience.

# GENSCHIP

The GENsChip is a transformative innovation that offers unprecedented freedom and security in managing personal information. It features NFC/RFID implant technology.

## GENSCHIP

In an increasingly digital world, the need for security, convenience, and control over personal data has never been greater. Introducing the GENSChip, an innovation that combines cutting-edge technology and user freedom to redefine how we interact with our information. This implantable chip, designed for hand implantation, securely stores personal data and offers a variety of functionalities, including use as a high-level encrypted hard wallet and integration with other applications in the ProtocolGenesis ecosystem.

The GENSChip is a revolutionary device for hand implantation, designed to securely and accessibly store personal data. Equipped with two frequencies—13.56 MHz and 125 kHz—the GENSChip incorporates two emulator chips: a Mifare S50 Classic 1k compatible with ISO14443-A at 13.56 MHz and a T5577 emulator at 125 kHz. These chips are encapsulated in a cylindrical bioglass tube measuring 3x15 mm, safe for the human body, laser-sealed, and sterilized with ethylene oxide gas (EtO).

With a durability of up to 20 years, the GENSChip allows users to store personal information, clone IDs from various RFID and NFC chips, and even use the device as a hard wallet with advanced encryption to securely store cryptocurrencies. The chip offers total freedom, enabling users to program the device for various functionalities through comprehensive tutorials. Additionally, the GENSChip communicates with other applications in the ProtocolGenesis ecosystem, providing an integrated and expanded experience.

### Moderation System

**Security Verification:** Each GENSChip is rigorously tested for functionality and security before being shipped to customers.

**Technical Support:** A dedicated team is available to provide continuous support to users, ensuring the chip functions correctly and any issues are quickly resolved.

**Feedback and Reviews:** Users are encouraged to provide feedback on their experience with the GENSChip and the support offered, helping in the continuous improvement of the product and service.

### Key Features

**Personal Data Storage:** Securely store important information directly on the chip implanted in the hand.

**Transformation into a Hard Wallet:** Convert the GENSChip into a hard wallet with high-level encryption, allowing secure storage of cryptocurrencies.

**RFID and NFC Chip Emulation:** Emulate a variety of common RFID and NFC chips, including access badges, key fobs, and gym cards.

**Multi-Frequency Compatibility:** Operates at 13.56 MHz and 125 kHz frequencies, covering a wide range of devices and systems.

# GENSCHIP

**Ease of Use:** Pre-tested and pre-loaded chips in a sterile injection set for easy implantation.

**Biological Safety:** Encapsulated in secure cylindrical bioglass, sterilized, and laser-sealed.

**Programming Tutorials:** Access to comprehensive tutorials for programming the chip for different functionalities, promoting personalization and full control by users.

**Integration with the ProtocolGenesis Ecosystem:** The GENsChip is compatible with other applications in the ecosystem, allowing for a unified and expanded experience.

## Distribution Channels

**Online Store:** Official ProtocolGenesis e-commerce platform for selling the GENsChip.

**Partnerships with Clinics and Health Professionals:** Distribution through certified clinics and health professionals specialized in implants.

**Digital Marketing:** Campaigns on social media, SEO, email marketing, and online ads to promote the GENsChip.

## Growth Projections

### Pessimistic Projection:

Year 1: 1,000 chips sold

Annual Revenue: \$200,000 from chip sales + \$60,000 from subscriptions

Annual Profit: \$208,000 (considering operational costs of \$52,000)

### Median Projection:

Year 1: 5,000 chips sold

Annual Revenue: \$1,000,000 from chip sales + \$300,000 from subscriptions

Annual Profit: \$1,040,000 (considering operational costs of \$260,000)

### Optimistic Projection:

Year 1: 10,000 chips sold

Annual Revenue: \$2,000,000 from chip sales + \$600,000 from subscriptions

Annual Profit: \$2,080,000 (considering operational costs of \$520,000)

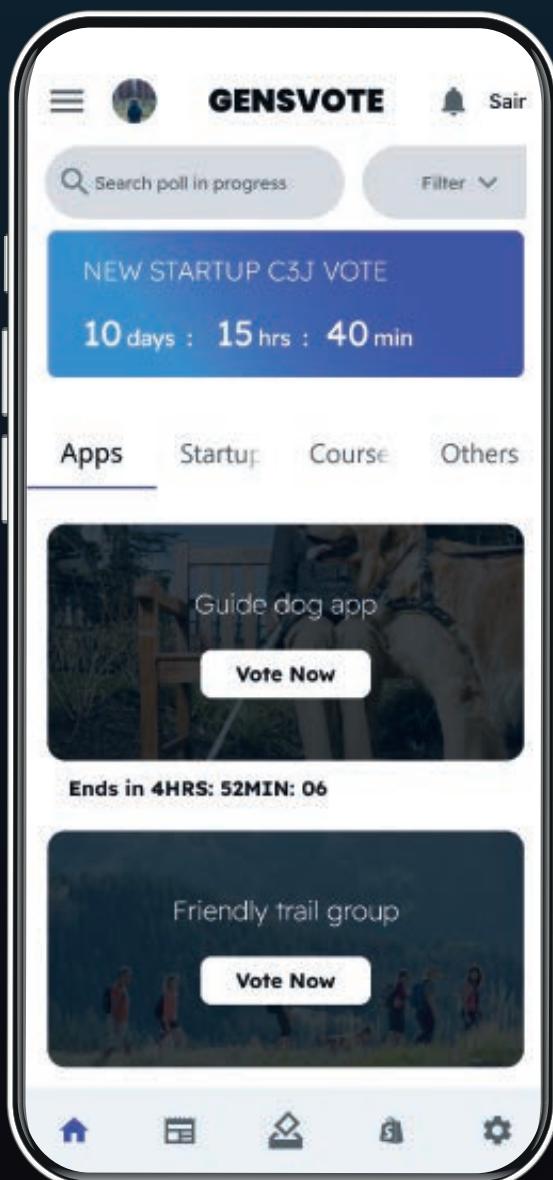
The GENsChip is a transformative innovation that offers unprecedented freedom and security in managing personal information. With the ability to function as a hard wallet with high-level encryption and the flexibility to emulate various types of RFID and NFC chips, the GENsChip provides users with full control over their data. Its 20-year durability and integration with other applications in the ProtocolGenesis ecosystem make this chip an essential tool for those seeking a modern, secure, and versatile solution in an ever-evolving digital world.

ProtocolGenesis is committed to supporting innovation and digital freedom, providing GENsChip users with all the necessary resources and tutorials to customize the chip according to their needs, fostering an open and accessible technology environment for everyone.

Note: The profits from this chip will not be included in growth calculations, as these profits will be directly allocated to donations.

# GENSVOTA

To promote transparency and active community participation, the GENSVOTA app was developed as the official voting platform for ProtocolGenesis. This application uses blockchain technology to ensure that all votes are 100% transparent and accessible to all community members. In addition to being a voting tool, GENSVOTA also keeps its users updated on all news and projects within the ProtocolGenesis ecosystem.



GENSVOTA is a blockchain-based voting app exclusive to the ProtocolGenesis community. It allows all members to actively participate in decisions regarding new applications, startups, and projects seeking to join the ecosystem. With a transparent and secure voting system, users have the opportunity to directly influence the future of ProtocolGenesis, ensuring that only the most relevant and innovative projects become part of the community.

# GENSVOTA

## Business Model for GENSVOTA App with Subscription Fee

Transparency and community participation are fundamental to the success of any decentralized ecosystem. GENSVOTA ensures that all ProtocolGenesis members have a voice in important decisions, aligning the ecosystem's growth with the interests of the community. Additionally, by providing exclusive and up-to-date information on projects and developments, the app keeps users engaged and informed, strengthening their commitment to the future of ProtocolGenesis.

### Key Features:

**Blockchain Voting:** A unique and transparent voting system using a dedicated blockchain to record all votes.

**Updates and News:** Early access to news and updates about ProtocolGenesis before they are publicly released.

**Total Transparency:** Track all votes and results through the integrated block explorer in the app.

**Project Management:** View the progress of projects under development, roadmaps, whitepapers, and other important documents.

**Real-Time Notifications:** Receive alerts about new votes, project updates, and ecosystem news.

### Distribution Channels:

Security is an absolute priority for GENSVOTA. This app is developed with a robust and secure infrastructure to ensure that all user votes and information are protected against any type of fraud or manipulation. Below are the key security aspects implemented in GENSVOTA:

### Moderation System:

**Identity Verification:** Each user is verified during registration to ensure the integrity of the community and the voting process.

**Voting Monitoring:** The blockchain system allows for a full audit of all votes, ensuring no manipulation or fraud.

**Total Transparency:** All votes are publicly recorded on the block explorer, allowing anyone to verify the results.

### Security System:

Security is an absolute priority for GENSVOTA. This app is developed with a robust and secure infrastructure to ensure that all user votes and information are protected against any type of fraud or manipulation. Below are the key security aspects implemented in GENSVOTA:

**End-to-End Encryption:** All data transmitted between the app and the server is encrypted to prevent unauthorized access.

**Two-Factor Authentication (2FA):** Users can enable 2FA for additional security when logging in and voting.

## GENSVOTA

**Smart Contract Audits:** Regular audits of the blockchain and smart contracts are conducted to ensure the integrity of the voting process.

**Decentralized Data Storage:** Votes and user data are stored on a decentralized network, reducing the risk of centralized breaches.

**Continuous Monitoring:** The system continuously monitors for any suspicious activities or anomalies in voting patterns, ensuring prompt response to potential threats.

With these security measures, GENSVOTA ensures a safe, transparent, and reliable platform for all ProtocolGenesis community members.

### Business Model for GENSVOTA App with Subscription Fee

**Dedicated Blockchain for Voting:** The GENSVOTA voting system uses a dedicated blockchain exclusively designed to record all votes transparently and securely. Each vote is recorded as a unique transaction on the blockchain, ensuring that results cannot be altered or corrupted.

**Generation of Individual Wallets:** When a user registers on the app, a unique voting wallet is automatically generated. This wallet is used to receive and store "gensvote," the currency of the voting blockchain. Wallet generation is done with advanced cryptographic algorithms, ensuring the protection of each user's data.

**Total Transparency:** All votes are publicly recorded on the block explorer integrated into the app. This allows any community member to verify the votes and the results of each poll, promoting complete transparency and trust in the process.

**Identity Verification:** To prevent fraud and ensure that each user is unique, GENSVOTA implements a rigorous identity verification system during registration. This process prevents the creation of multiple accounts and ensures the integrity of the voting process.

**Secure Storage:** All user information and voting data are securely stored using end-to-end encryption. The data is protected against unauthorized access and kept safe on secure servers.

**Continuous Monitoring:** The platform's security is continuously monitored to identify and mitigate potential threats. Dedicated security teams are always working to ensure that GENSVOTA remains a safe environment for all users. With these robust security features, GENSVOTA not only ensures that all votes are conducted fairly and transparently but also guarantees that user data is always protected. Security and trust are fundamental to the success of ProtocolGenesis, and GENSVOTA is designed with this in mind.

### Revenue Model:

The revenue model for GENSVOTA is based on monthly subscriptions. Each user pays \$10 per month to access the app and participate in the exclusive voting and updates of the ProtocolGenesis ecosystem.

Monthly Subscription: \$10 per user

Accepted Payments: BTC and GENS

# GENSVOTA

## Business Model for GENSVOTA App with Subscription Fee

### Revenue Structure

**Subscription Revenue:** \$10 per user per month, generating recurring revenue.

**Community Growth:** The more users subscribe, the higher the total revenue, encouraging the expansion of the app and the adoption of the ProtocolGenesis ecosystem.

### Cost Structure

**Fixed Costs:** Development and maintenance of the app, blockchain security and servers, marketing, and customer support.

**Variable Costs:** System updates, integration of new features, and management of voting events.

**Monthly Operating Costs:** Include server hosting, blockchain maintenance, and technical support operations.

### Growth Projections

#### Pessimistic Projection:

Year 1: 5,000 users

Annual Revenue: \$600,000

Annual Profit: \$480,000 (considering operational costs of \$120,000)



#### Median Projection:

Year 1: 10,000 users

Annual Revenue: \$1,200,000

Annual Profit: \$960,000 (considering operational costs of \$240,000)

#### Optimistic Projection:

Year 1: 20,000 users

Annual Revenue: \$2,400,000

Annual Profit: \$1,920,000 (considering operational costs of \$480,000)

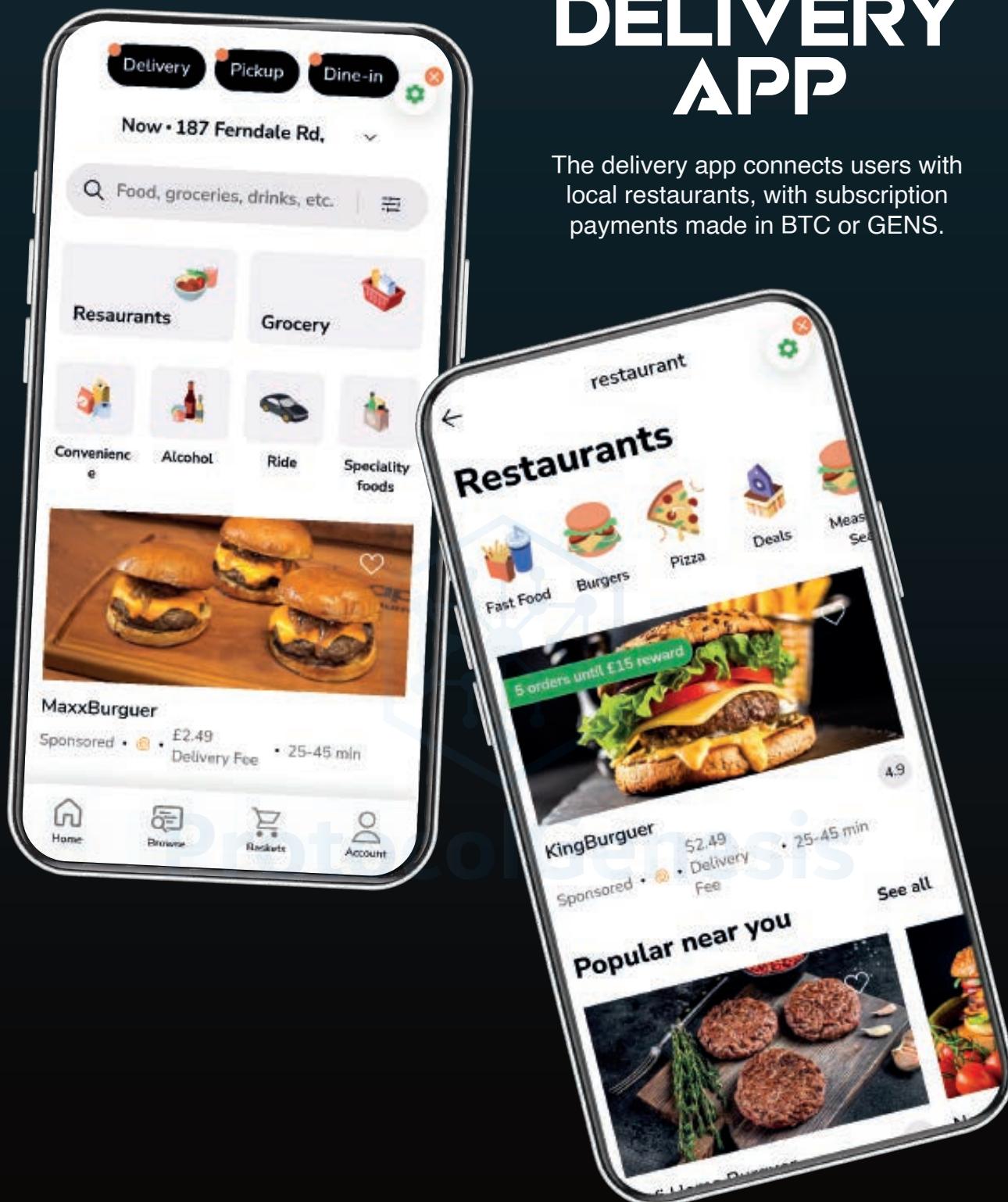
### Final Considerations

GENSVOTA is more than just a voting app; it is a community engagement tool that empowers members of ProtocolGenesis. By promoting an environment of complete transparency and active participation, GENSVOTA helps strengthen the ecosystem, ensuring that decisions are made collectively and that all members are informed and engaged. With a subscription-based revenue model and solid growth projections, the app has the potential to become a central pillar in the governance structure of ProtocolGenesis.

Note: The profits from this app will not be included in growth calculations, as these profits will be directly allocated to donations.

# DELIVERY APP

The delivery app connects users with local restaurants, with subscription payments made in BTC or GENS.



The delivery app connects users with local restaurants, offering real-time ordering and tracking.

The monthly subscription can be paid in BTC or GENS, and orders can be paid with BTC, GENS, and credit cards.

# DELIVERY APP

## Business Model for Subscription-Based Delivery App

The delivery app connects users with local restaurants, offering a quick, convenient, and transparent ordering experience. The app allows users to easily find nearby restaurants, view menus with photos, place orders online, and track the order status in real-time.

### Revenue Model

#### **Subscription Plans:**

Basic Plan: \$29.99/month per restaurant, providing access to the platform and basic features such as restaurant display, order receipt, and access to sales reports.

Premium Plan: \$79.99/month per restaurant, including all the benefits of the basic plan, plus highlighted listing in the restaurant directory, special promotions, advanced performance reports, and priority support.

Enterprise Plan: Pricing upon request for large restaurant chains, with customized features, dedicated support, and integration with internal systems.

#### **Subscription Payment Options:**

Cryptocurrencies: Subscription fees can only be paid in GENS (ProtocolGenesis) or BTC (Bitcoin), integrating with the cryptocurrency ecosystem.

### Payment Options for Orders

#### **User Payment Options:**

**GENS (ProtocolGenesis)**

**BTC (Bitcoin)**

**Credit Card: Traditional credit card payment.**

**These payment options are accepted for purchases and orders made by users at partner restaurants, ensuring flexibility and convenience.**



### Cost Structure:

#### **Development and Maintenance:**

Development Team: Costs associated with the creation and maintenance of the app.

Infrastructure and Hosting: Costs for servers and hosting.

#### **Marketing and User Acquisition:**

Digital Advertising: Investments in online campaigns.

Promotions and Discounts: Incentives to attract users and restaurants.

### Value Proposition

#### **For Users:**

Convenience and Variety: Easy access to a variety of restaurants with multiple payment options.

Real-Time Tracking: Monitor orders from preparation to delivery.

#### **For Restaurants:**

Visibility: Highlighted placement on the platform to increase visibility.

# DELIVERY APP

## Business Model for Subscription-Based Delivery App

### Cryptocurrency Payments:

The ability to use GENS and BTC for subscription payments, while orders can be paid using GENS, BTC, and credit cards.

### Distribution Channels:

**App Store (iOS) and Google Play (Android):** Available for download on major app stores to reach a vast global audience.

**Direct Access via Browser:** The app will be available for direct use through the official website, offering a fully integrated web experience.

### Distribution via Decentralized Networks:

Arweave, IPFS: Decentralized hosting on networks like Arweave or IPFS to ensure the app is always accessible, even in scenarios of censorship or downtime.

### Customer Relationship:

#### **Customer Support:**

Support via chat, email, and phone.

Feedback system for continuous improvement.

#### **Loyalty Programs:**

Incentives for frequent customers, including discounts and rewards.

### Market Segments:

**Urban Consumers:** Users in urban areas seeking convenience.

**Local Restaurants:** Small and medium-sized establishments looking to increase order volume.

### Key Resources:

#### **Technology Platform:**

User-friendly interface, secure payments, and tracking technology.

#### **Partnerships with Restaurants:**

Establishment of a broad and diverse network of restaurants.

### Partner Structure:

**Local Restaurants:** Primary partners offering their services on the platform.

**Online Payment Services:** Integration with cryptocurrencies and credit cards to provide flexible transactions.

### Revenue Sources:

Recurring Revenue from Subscriptions: Paid in GENS or BTC.

Additional Revenue through Advertising and Premium Services.

### Success Indicators:

Growth in Subscriptions: Increase in the number of partner restaurants.

Customer Satisfaction: Positive feedback and high renewal rates.

# DELIVERY APP

## Business Model for Subscription-Based Delivery App

### User and Profit Growth Projections for One Year

#### Assumptions:

Subscription Plans:

Basic Plan: \$29.99/month

Premium Plan: \$79.99/month

Enterprise Plan: Price upon request (not included in basic projections)

Plan Distribution (for calculation purposes):

Basic Plan: 70% of restaurants

Premium Plan: 30% of restaurants

Average Operating Cost per Restaurant: \$5/month (includes servers, maintenance, and support)

Net Revenue: Total revenue minus operating costs

#### Growth Scenarios:

##### 1. Pessimistic Scenario

In the pessimistic scenario, it is estimated that by the end of one year, the app will have about 600 registered restaurants. With 70% of these restaurants on the Basic Plan and 30% on the Premium Plan, the annual revenue would be approximately \$323,928. After deducting the annual operating costs of \$36,000, the projected annual profit would be \$287,928.

##### 2. Moderate Scenario

In the moderate scenario, the app could reach 1,200 restaurants in one year. The distribution of subscription plans would follow the same proportion, resulting in an annual revenue of \$647,856. With operating costs of \$72,000, the projected annual profit would be \$575,856.

##### 3. Optimistic Scenario

In the optimistic scenario, accelerated growth could lead to 2,400 registered restaurants by the end of the year. This scenario would generate annual revenue of \$1,295,712, and after considering operating costs of \$144,000, the projected annual profit would be \$1,151,712.

#### Summary of Profit Scenarios:

Pessimistic Scenario: Annual Profit of \$287,928 with 600 restaurants.

Moderate Scenario: Annual Profit of \$575,856 with 1,200 restaurants.

Optimistic Scenario: Annual Profit of \$1,151,712 with 2,400 restaurants.

These projections show different growth trajectories, providing a basis for strategic adjustments that can maximize the app's profits over the year.

# SOCIAL NETWORK APP

It is a social network platform that allows connections between friends, family, and colleagues. Designed to provide a safe and private environment.



The platform is focused on meaningful interaction and ease of use, with features that cater to both personal and professional needs. The platform's differentiator is the adoption of cryptocurrencies for payments, specifically Bitcoin (BTC) and GENs, the cryptocurrency of the Protocol-Genesis blockchain.

# SOCIAL NETWORK APP

## Business Model for Subscription-Based Social Network App

The Social Network is a platform that allows connections between friends, family, and colleagues. Designed to provide a secure and private environment, the platform focuses on meaningful interaction and ease of use, with features that cater to both personal and professional needs. The platform's key differentiator is the adoption of cryptocurrencies for payments, specifically Bitcoin (BTC) and GENs, the cryptocurrency of the ProtocolGenesis blockchain.

### Diferencial do Aplicativo de Rede Social

One of the main differentiators of our social network is the freedom of expression guaranteed to users. Unlike other platforms, accounts will not be banned or suspended for anything users say.

### Revenue Model

#### Subscription Fee:

Monthly subscription of \$21.00 paid exclusively in Bitcoin (BTC) or GENs.

Currency Conversion: The equivalent amount in BTC or GENs will be calculated based on the current exchange rate at the time of payment.

Frequency: Monthly recurring subscription, with the possibility of cancellation at any time.

### Cost Structure

#### Development and Maintenance:

- Development Team: Costs associated with the creation and maintenance of the app.

#### Infrastructure and Hosting:

#### Marketing and User Acquisition:

- Digital Advertising: Investments in online campaigns.

#### Promotions and Discounts:

### Moderation System

**Protection Against Censorship:** Accounts will only be removed if there is a significant mobilization of reports. For an account to be suspended, the number of reports must exceed the number of followers that account has.

**Active Community:** This promotes an environment where the community plays an active role in moderation, ensuring that users' voices are respected while preventing abusive behavior.

This model ensures that users have a platform where they can freely express their opinions without fear of censorship, creating a truly democratic social network aligned with the decentralization principles that the ProtocolGenesis Blockchain represents.

# SOCIAL NETWORK APP

## Business Model for Subscription-Based Social Network App

### Key Features:

**Profile Creation:** Users can create personalized profiles to share information, interests, and photos.

**Status Updates:** Share status updates, photos, videos, and other content.

**Private Messaging:** Instant messaging system for private conversations between users.

**Interest Groups:** Creation of groups based on specific interests, allowing for discussions and sharing relevant content.

**Events and Shared Calendars:** Tools to create, manage, and share events with friends and colleagues.

### Distribution Channels:

**Available on the Official Website.**

**Available on decentralized app systems and decentralized distribution platforms.**

### Growth and Profit Projection for One Year

#### Assumptions:

Monthly Subscription: \$21/month

Average Operating Cost per User: \$2/month (includes servers, maintenance, and support)



#### Pessimistic Scenario

**Users by the end of the year: 10,000**

**Annual Revenue: \$2,520,000**

**Annual Operating Cost: \$240,000**

**Annual Profit: \$2,280,000**

#### Moderate Scenario

**Users by the end of the year: 50,000**

**Annual Revenue: \$12,600,000**

**Annual Operating Cost: \$1,200,000**

**Annual Profit: \$11,400,000**

#### Optimistic Scenario

**Users by the end of the year: 100,000**

**Annual Revenue: \$25,200,000**

**Annual Operating Cost: \$2,400,000**

**Annual Profit: \$22,800,000**

# MESSAGING PEER-TO-PEER

A secure messaging app with end-to-end encryption, no server storage, screenshot blocking, and sharing restrictions, available via a monthly subscription in BTC or GENS.



This secure messaging app offers direct communication between users, ensuring complete privacy and security. The name will be revealed at the end of the pre-sale. Messages sent through the app are protected by end-to-end encryption, are not stored on servers, and cannot be shared or captured via screenshot. This makes it a robust solution for those who value privacy in digital communications.

# PEER MESSAGING APP

## Business Model for Peer-to-Peer Messaging App with Subscription Fee

This secure messaging app is designed for users who value privacy and security in their digital communications. With end-to-end encryption and a design that prevents messages from being stored on servers, the app provides an environment where conversations are completely confidential. Additionally, it blocks features such as screenshots and conversation sharing, ensuring that exchanged content remains private.

### Key Features:

**Text, Voice, and Video Messaging:** Direct and secure communication between users, with no server storage.

*End-to-End Encryption:* Ensures that only the sender and receiver have access to the communication content.

**File and Media Sharing:** Secure sending of documents, images, and videos without the risk of interception.

**Protection Against Screenshots and Sharing:** Blocks features that allow sharing or capturing conversations, preserving total privacy.

### Unique Selling Proposition:

The main differentiator of this app is its unwavering commitment to privacy. Messages are not stored on servers, and conversations cannot be shared or captured via screenshot, creating a truly secure communication environment. Exclusive payment via cryptocurrencies (BTC or GENS) also reflects the commitment to security and privacy.

### Revenue Model:

Revenue is generated through a monthly subscription fee of \$21, paid exclusively in BTC or GENS, the cryptocurrency of the ProtocolGenesis Blockchain.

### Revenue Structure:

**Monthly Subscription:**

**Amount:** \$21/month

**Payment Method:** Exclusively in BTC or GENS.

**Requirement:** A subscription is necessary to use the app.

### Cost Structure:

Average Operating Cost per User: \$0.5/month (includes servers, maintenance, and support).

Other Costs: Continuous development, marketing, and customer support.

### Key Features:

**Text, Voice, and Video Messaging:** Direct and secure communication between users.

*End-to-End Encryption:* Only the sender and receiver have access to the content.

## PEER MESSAGING APP

### Business Model for Peer-to-Peer Messaging App with Subscription Fee

**File and Media Sharing:** Secure sending of documents, images, and videos.

**Protection Against Screenshots and Sharing:** Blocks features to ensure privacy.

#### Distribution Channels:

Available on the Official Website.

Available on decentralized app systems and decentralized distribution platforms.

#### Growth and Profit Projection for One Year

##### Assumptions:

Monthly Subscription: \$21/month

Average Operating Cost per User: \$2/month (includes servers, maintenance, and support)

##### Pessimistic Scenario:

Users by the end of the year: 5,000

Annual Revenue: \$1,260,000

Annual Operating Cost: \$180,000

Annual Profit: \$1,080,000



##### Moderate Scenario:

Users by the end of the year: 20,000

Annual Revenue: \$5,040,000

Annual Operating Cost: \$720,000

Annual Profit: \$4,320,000

##### Optimistic Scenario:

Users by the end of the year: 50,000

Annual Revenue: \$12,600,000

Annual Operating Cost: \$1,800,000

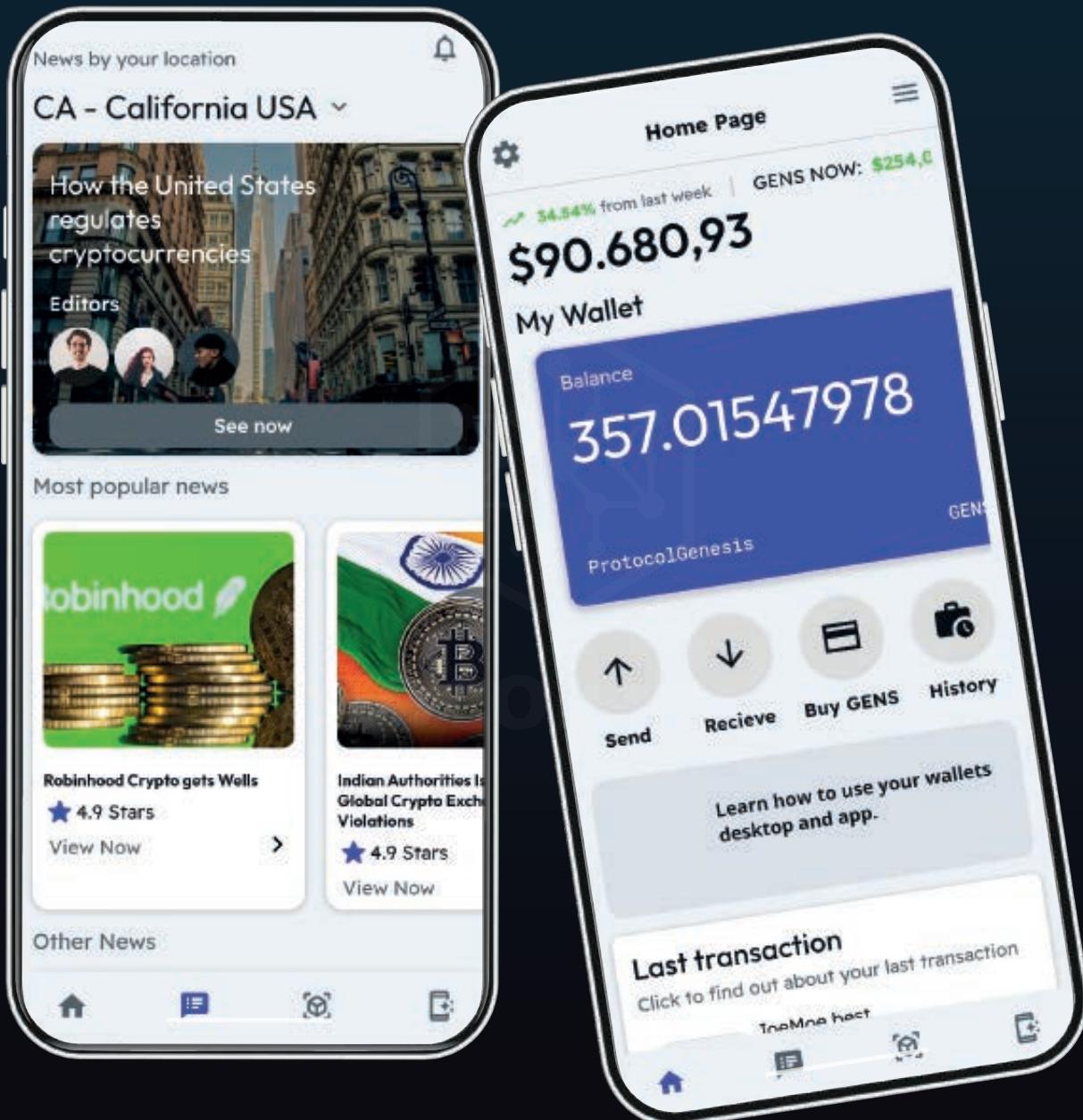
Annual Profit: \$10,800,000

#### Final Considerations:

The monthly subscription model paid exclusively in BTC or GENS and the focus on security and privacy make the app a distinctive choice in the market, with great potential for growth and profitability.

# WALLET GENS

Advanced digital wallet for managing and protecting your cryptocurrencies, with a focus on security and privacy, available for a monthly subscription of \$7, paid exclusively in BTC or GENS.



This digital wallet app, which will be revealed at the end of the pre-sale, is designed for users who want to manage their cryptocurrencies securely and conveniently. With advanced protection and encryption features, the wallet ensures that your GENS and other cryptocurrencies are always secure, while also allowing for fast transactions without storing data on servers.

# WALLET GENS

## Business Model for Wallet GENS App with Subscription Fee

Wallet GENS redefines security standards in cryptocurrency storage and management with an innovative and highly secure approach. Our commitment is to provide a reliable solution for users who need robust protection for their private keys, transactions, and personal data. By utilizing advanced cryptographic algorithms and industry best security practices, Wallet GENS ensures the integrity and privacy of your financial information.

### Key Features:

#### Secure Storage of GENS:

Keeps your cryptocurrencies protected with the highest level of security.

#### Fast and Secure Transactions:

Efficient transaction processing with multiple layers of protection.

#### Transaction History and Tracking:

Allows you to view and track all your operations in an organized manner.

#### 24-Word Key Generation:

Extra protection with keys generated in compliance with the BIP 39 standard.

#### Three Access Passwords:

Ensures that only authorized users can access the wallet.

#### Advanced Architecture:

Protects operations and user authentication with cutting-edge technology.

#### App Disguise:

Option to change the app's appearance and icon, allowing it to disguise itself as other apps, providing greater privacy for users who do not wish to reveal their presence.

### Distribution Channels:

*Available on the Official Website.*

*Distribution on Decentralized Platforms and Decentralized System Apps.*

### Wallet Security:

Our wallet adopts a state-of-the-art security architecture, combining advanced cryptographic algorithms and security practices to protect private keys, transactions, and user data. Below is a breakdown of the security measures implemented:

#### Private Key Generation:

We use the BIP 39 standard to generate a 24-word mnemonic seed, from which we derive a 512-bit private key using the SHA-512 algorithm. This process ensures a highly secure private key that is easy to store memorably.

#### Public Key Derivation:

The public key is derived from the private key using the ECDSA (Elliptic Curve Digital Signature Algorithm) in combination with the Curve25519 elliptic curve. This curve is known for its high security and efficiency, being widely used in modern cryptographic systems.

# WALLET GENS

## Business Model for Wallet GENS App with Subscription Fee

### Geração do Endereço da Carteira

To ensure unique and secure wallet addresses, we apply a double hash function: SHA-256 followed by RIPEMD-160. Additionally, we use SHA-3 (Keccak-256) to add a checksum to the address, ensuring data integrity.

### Transaction Signing

Transactions are signed using the EdDSA algorithm based on the Ed25519 curve, which provides fast and secure digital signatures. The use of SHA-512 during the signing process ensures that transaction data is protected against any form of tampering.

### Secure Private Key Storage

The user's private key is stored locally using AES-256 encryption. The encryption key is derived through PBKDF2, with thousands of iterations to protect against brute-force attacks.

### Multi-Factor Authentication (MFA)

Wallet access security is enhanced with multi-factor authentication (MFA), combining TOTP (Time-Based One-Time Password), which generates time-based one-time codes, and biometric authentication, such as facial recognition or fingerprint.

### Multiple Password System

To access the wallet, three different passwords are required:

- Primary Access Password: Protects initial access to the app and is required every time the user opens the wallet.
- Encryption Password: Used to decrypt and access stored private keys, ensuring that only the authorized user can access sensitive information.
- Transaction Password: Required to authorize and confirm transactions, adding an extra layer of security for financial operations.

### Protection Against Side-Channel Attacks

Sensitive cryptographic operations, such as transaction signing, are performed in a Hardware Security Module (HSM) or Secure Enclave. These modules provide a secure environment that protects against physical attacks and attempts to compromise private keys.

### Secure Communication

All communications between the wallet and the blockchain network are protected by TLS 1.3 with Perfect Forward Secrecy (PFS), ensuring that communications remain secure even if encryption keys are compromised.

# WALLET GENS

## Business Model for Wallet GENS App with Subscription Fee

### Growth Projections:

#### Assumptions:

Monthly Subscription: \$7/month

Average Operating Cost per User: \$0.3/month (includes servers, maintenance, and support)

#### Pessimistic Scenario

**Users by the end of the year: 10,000**

**Annual Revenue: \$840,000**

**Annual Operating Cost: \$36,000**

**Annual Profit: \$804,000**

#### Moderate Scenario

**Users by the end of the year: 30,000**

**Annual Revenue: \$2,520,000**

**Annual Operating Cost: \$108,000**

**Annual Profit: \$2,412,000**

#### Optimistic Scenario

**Users by the end of the year: 100,000**

**Annual Revenue: \$8,400,000**

**Annual Operating Cost: \$360,000**

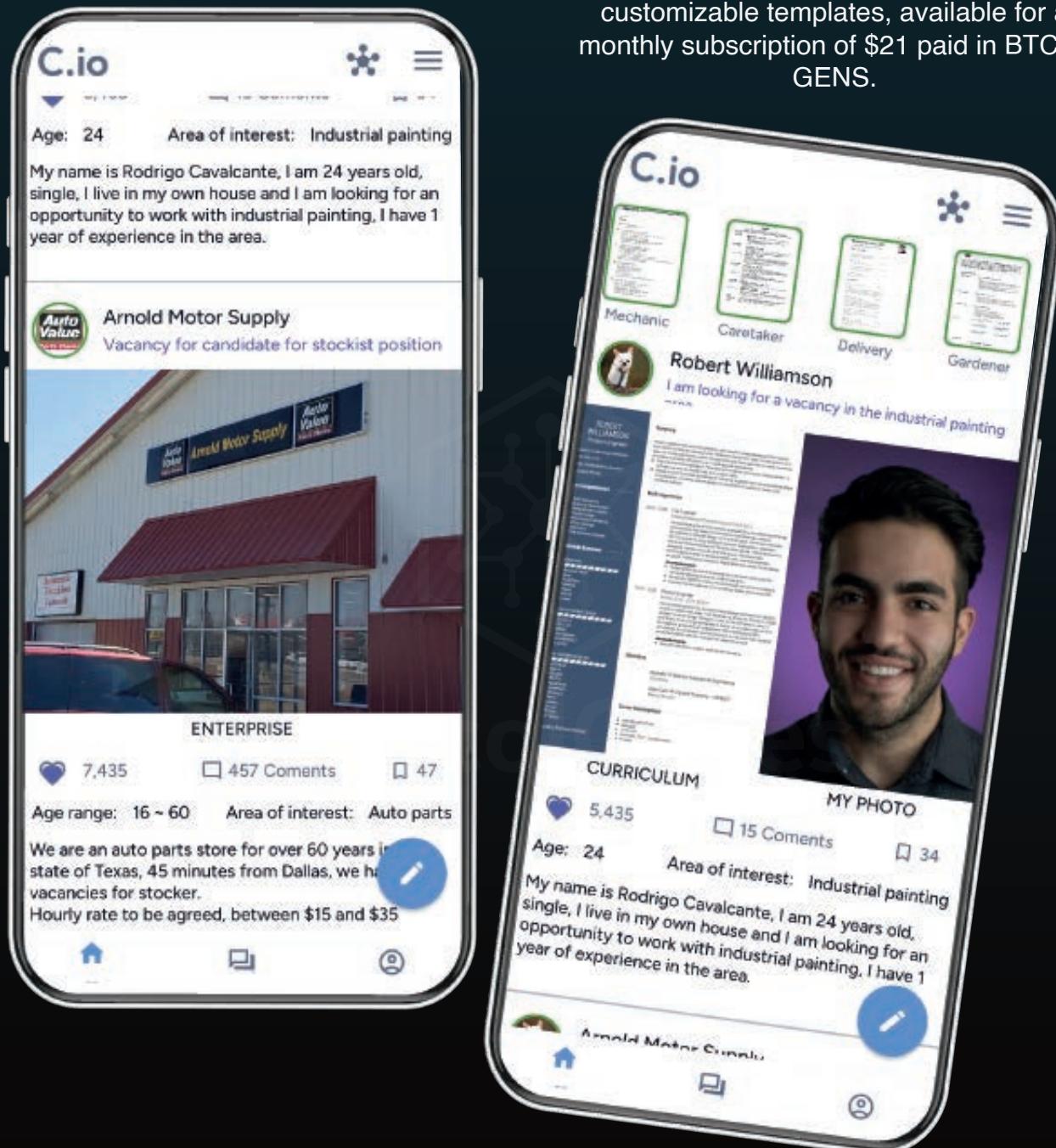
**Annual Profit: \$8,040,000**

### Final Considerations:

With a sustainable revenue model and a focus on security, Wallet GENS offers a robust solution for users who want to manage their cryptocurrencies with total confidence. The disguise functionality enhances privacy, and the support for the ecosystem promises significant growth, with the potential to become one of the leading digital wallets in the crypto market.

# CURRICULUM

An app for creating and sharing professional resumes, featuring intuitive tools and customizable templates, available for a monthly subscription of \$21 paid in BTC or GENS.



This resume creation and sharing app is a powerful tool for professionals who want to stand out in the job market. With an intuitive interface and customizable templates, the app makes it easy to create professional resumes that can be easily shared with potential employers.

# CURRICULUM APP

## Business Model for Subscription-Based Curriculum App

The app is an innovative platform for creating and sharing professional resumes, offering customizable templates, intuitive editing tools, and easy sharing with employers, all for a monthly subscription fee of \$21 paid in BTC or GENS.

### Key Features:

**Customizable Resume Templates:** Offers a variety of templates that can be tailored to the user's style and needs.

**Intuitive Editing Tools:** Easily and quickly edit resumes with features to add sections, rearrange information, and format the design.

**Easy Sharing with Employers:** Facilitates sending resumes directly to employers or job platforms via email or shareable links.

### Revenue Model:

#### Subscription Fee:

- Monthly Subscription: \$21, paid exclusively in Bitcoin (BTC) or GENS.
- Currency Conversion: The equivalent amount in BTC or GENs will be calculated based on the current exchange rate at the time of payment.
- Frequency: Monthly recurring subscription with the possibility of cancellation at any time.

#### Cost Structure:

Average Operating Cost per User: \$5/month (includes server maintenance, updates, and support).

Additional Costs: Continuous development of features, marketing, and security.

#### Moderation System:

**Quality Control:** *Automated monitoring of resumes to prevent inappropriate content or false information. Manual moderation for cases reported by other users.*

#### Distribution Channels:

Available on the Official Website.

Distribution on Decentralized Platforms and Decentralized System Apps.

This model ensures that users have a platform where they can freely express their opinions without fear of censorship, creating a truly democratic social network aligned with the decentralization principles that the ProtocolGenesis Blockchain represents.

# APLICATIVO CURRICULUM

## Business Model for Subscription-Based Curriculum App

### Growth and Profit Projection for One Year

#### Assumptions:

Monthly Subscription: \$21/month

Average Operating Cost per User: \$5/month (includes servers, maintenance, and support)

#### Pessimistic Scenario

**Users by the end of the year: 5,000**

**Annual Revenue: \$1,260,000**

**Annual Operating Cost: \$300,000**

**Annual Profit: \$960,000**

#### Moderate Scenario

**Users by the end of the year: 20,000**

**Annual Revenue: \$5,040,000**

**Annual Operating Cost: \$1,200,000**

**Annual Profit: \$3,840,000**

#### Optimistic Scenario

**Users by the end of the year: 50,000**

**Annual Revenue: \$12,600,000**

**Annual Operating Cost: \$3,000,000**

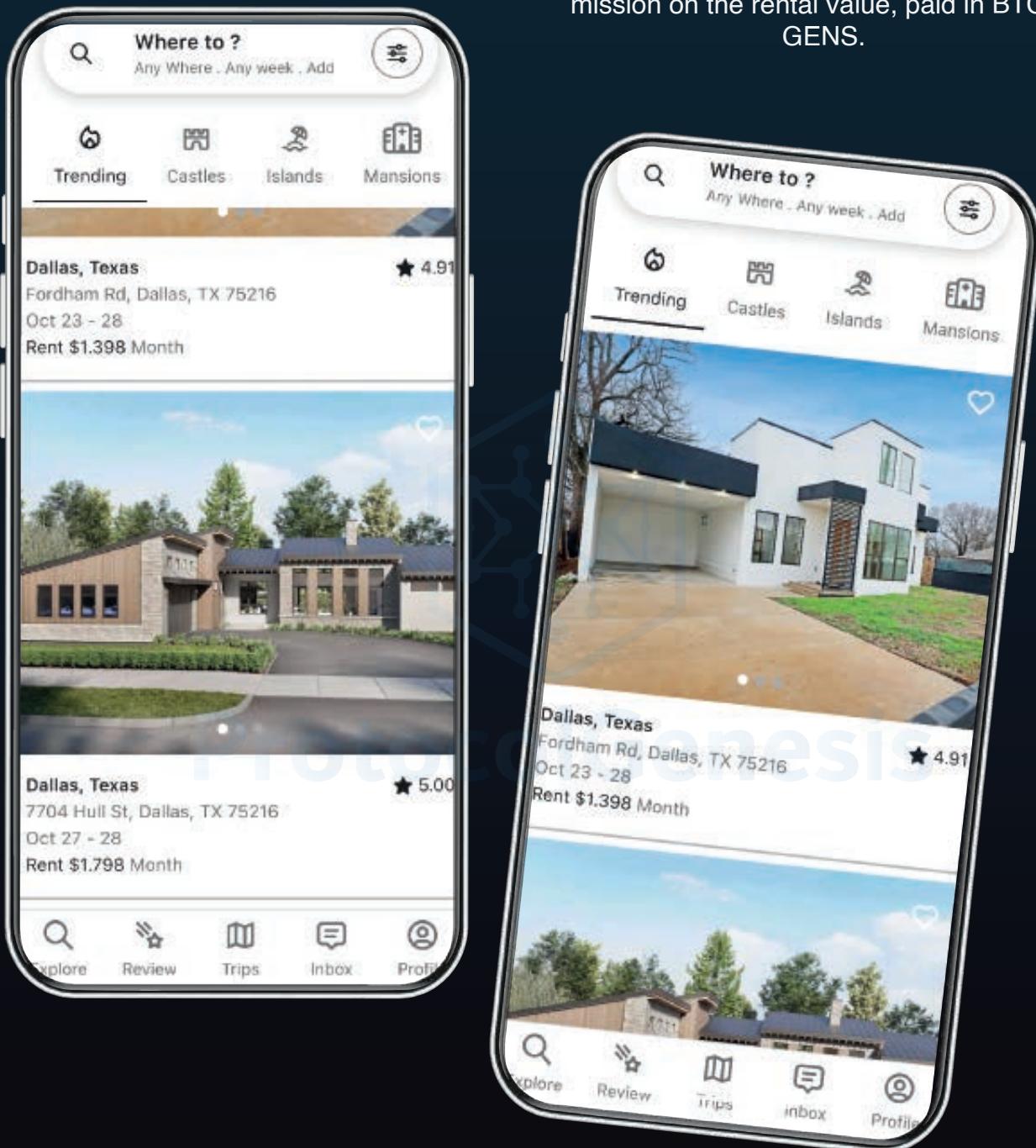
**Annual Profit: \$9,600,000**

#### Final Considerations

The resume creation and sharing app combines robust features with a user-friendly interface, attracting professionals who want to stand out in the job market. The payment structure in BTC and GENS cryptocurrencies strengthens the ProtocolGenesis ecosystem, while the growth strategy based on monthly subscriptions allows for a consistent revenue stream. With a focus on quality and usability, the app has the potential to grow significantly, reaching a loyal user base and generating substantial profit.

# HOUSEIO

A residential property rental platform with a monthly subscription fee of \$21 and a 3% commission on the rental value, paid in BTC or GENS.



This residential property rental app is designed to facilitate connections between landlords and tenants, simplifying the process of searching, booking, and managing properties. With robust features and a focus on security, the app offers a smooth and reliable experience for both those looking to rent a property and those wanting to list one.

# HOUSE RENTAL APP

## Business Model for House Rental App with Subscription Fee

The app is a dedicated platform for residential property rentals, offering an intuitive interface for both landlords and tenants. Users can list properties, explore options with detailed descriptions and photos, schedule viewings, and manage payments and contracts directly through the app. Additionally, the app ensures secure transactions and flexibility in payment methods, accepting cryptocurrencies like BTC and GENS. With a monthly subscription fee of \$21, the app provides a comprehensive solution for the rental market, simplifying processes and maximizing rental opportunities.

### Key Features:

Property Listings: Listings with photos, detailed descriptions, and location information.

Availability Calendar: Tool to check availability and schedule viewings.

Payment Processing: Secure payments with support for BTC and GENS cryptocurrencies.

Contract Management: Creation, signing, and storage of digital contracts.

### Revenue Model:

The unique selling point of the rental app is its integration with cryptocurrencies, allowing users to pay the subscription fee and service charges with BTC or GENS, a native cryptocurrency of the ProtocolGenesis blockchain. In addition, the app offers a unique combination of security and privacy, with features that include identity verification, rigorous content moderation, and digital contract management. This focus on innovation and security, coupled with ease of use, places the app ahead of traditional competitors who operate exclusively in fiat currencies and do not offer the same level of digital protection.

### Modelo de Receita:

The app's revenue model is based on a combination of a monthly subscription fee and a service fee:

- Monthly Subscription: \$21 per month, paid exclusively in BTC or GENS.
- Service Fee: 3% of the rental value of each property, applied to every transaction.

### Revenue Structure:

Revenues will be generated through the following streams:

- Monthly Subscriptions: The primary source of revenue is the monthly subscription paid by users. This subscription grants access to all features of the app.
- Service Fee: A 3% fee on each rental conducted through the platform, ensuring continuous revenue growth as rentals increase.

### Cost Structure:

Average Operating Cost per User: \$0.5/month (includes servers, maintenance, and support).

Other Costs: Continuous development, marketing, and customer support.

# HOUSE RENTAL APP

## Business Model for House Rental App with Subscription Fee

### Cost Structure:

The main costs associated with the operation of the app include:

- Software Development and Maintenance: Ongoing costs for updates, improvements, and technical support.
- Servers and Infrastructure: Data hosting and security, including encryption and protection against cyber attacks.
- Marketing and User Acquisition: Investments in digital marketing campaigns and advertising to attract new users.
- Customer Support: Dedicated team for platform user service and support.

### Moderation System:

The app will have a moderation system to ensure the quality of listings and the safety of users:

- Identity Verification: All users and listed properties undergo a verification process.
- Ratings and Feedback: Renters can rate properties and landlords after the rental period ends.
- Content Moderation: Listings and communications are monitored to prevent fraud and inappropriate content.

### Distribution Channels:

- Decentralized Platforms: Distribution on decentralized networks, ensuring global accessibility.
- Traditional and Decentralized App Stores: Available on all major app stores, both centralized and decentralized.

### Growth and Profit Projection for One Year

#### Assumptions:

Monthly Subscription: \$21/month.

Service Fee: 3%.

- Average Operating Cost per User: \$2/month (includes servers, maintenance, and support).

#### Growth Projection:

- Pessimistic Scenario:

Users by the End of the Year: 10,000

Annual Revenue: \$2,520,000 (Subscriptions) + \$3,000,000 (Service Fee)

Annual Operating Cost: \$3,000,000

Annual Profit: \$2,520,000

# HOUSE RENTAL AP

## Business Model for House Rental App with Subscription Fee

### ***Moderate Scenario:***

Users by the End of the Year: 50,000

Annual Revenue: \$12,600,000 (Subscriptions) + \$15,000,000 (Service Fee)

Annual Operating Cost: \$5,000,000

Annual Profit: \$22,600,000

### ***Optimistic Scenario:***

Users by the End of the Year: 100,000

Annual Revenue: \$25,200,000 (Subscriptions) + \$30,000,000 (Service Fee)

Annual Operating Cost: \$8,000,000

Annual Profit: \$47,200,000

### **Final Considerations:**

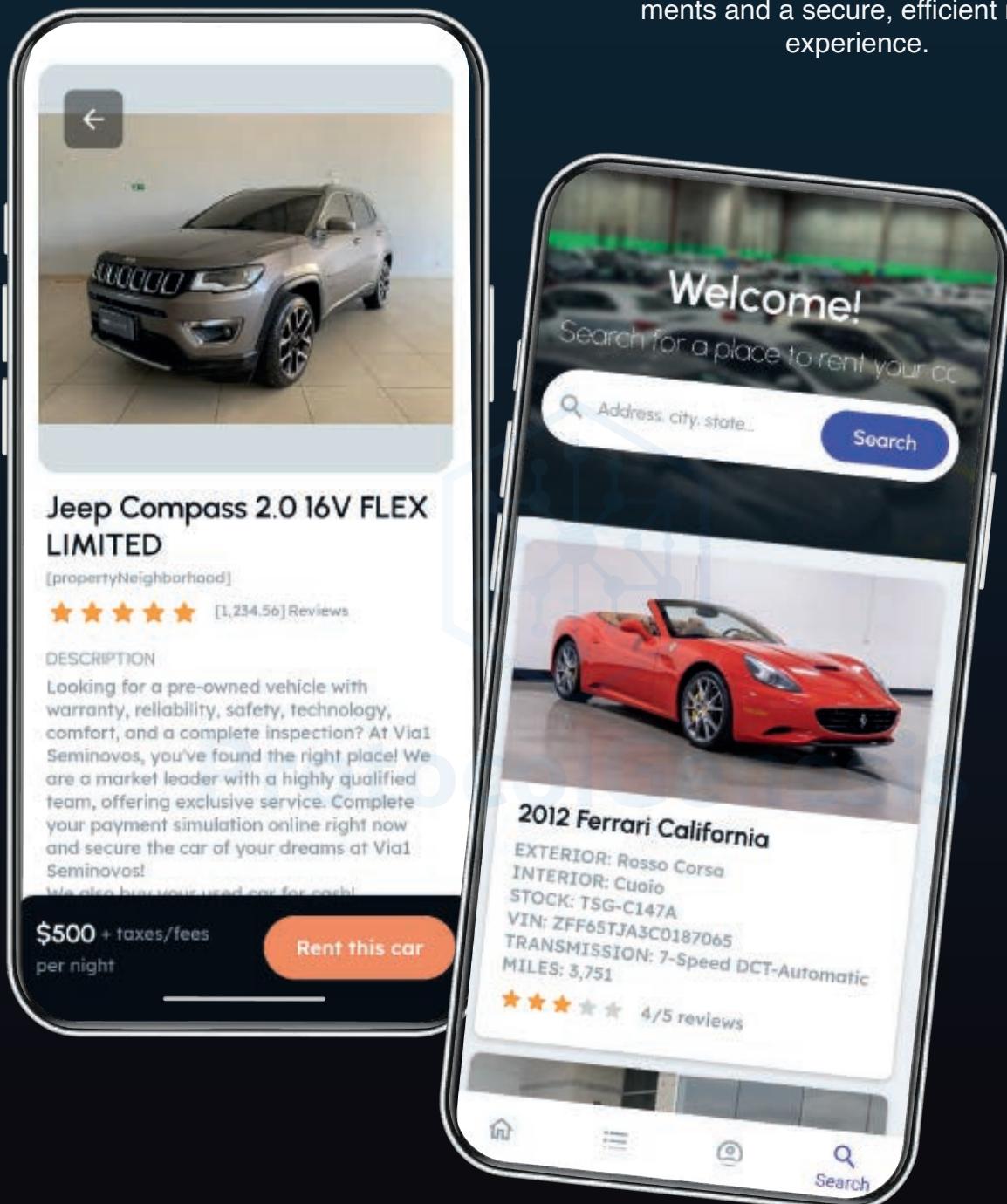
This house rental app aims to transform how landlords and tenants connect by providing a secure, efficient, and profitable platform. With a revenue model based on subscriptions and service fees and strong growth projections, the app is positioned to become a leading player in the property rental market. The acceptance of BTC and GENS as payment methods reinforces the platform's commitment to innovation and financial flexibility.



ProtocolGenesis

# FASTCAR

An innovative platform for vehicle rentals, offering cryptocurrency payments and a secure, efficient rental experience.



The Car Rental app emerges as an innovative solution in the vehicle rental market, offering users a secure and efficient platform to find, compare, and rent cars from various categories. By integrating cryptocurrency payments, such as BTC and GENS from the ProtocolGenesis blockchain, the app stands out by providing financial flexibility and advanced security for all its users.

# FESTCAR

## Business Model for Car Rental App with Subscription Fee

The Car Rental app is a digital platform that connects users to a vast network of vehicle rental companies, allowing them to rent cars of various categories, from economical to luxury models. With features that facilitate searching, price comparison, booking, and payment processing, the app stands out by offering the option to pay with cryptocurrencies like BTC and GENS, providing a modern and secure experience. Additionally, the platform offers integrated insurance, ensuring users can rent vehicles with complete peace of mind.

### Revenue Model

The app adopts a hybrid revenue model, consisting of:

- Monthly Subscription: \$21, paid exclusively in BTC or GENS.
- Service Fee: 3% of the value of each rental transaction, charged to vehicle rental companies.

### Revenue Structure

- Subscription Revenue: Generated from users who list their cars and pay the monthly fee in cryptocurrencies.
- Service Fee Revenue: Calculated as 3% of the value of each rental transaction made through the platform.

### Cost Structure

- Development and Maintenance: Costs related to the creation, updates, and maintenance of the app.
- Servers and Infrastructure: Hosting, security, and technical support.
- Marketing and User Acquisition: Campaigns to attract new users and expand the network of rental companies.
- Compliance and Regulation: Costs related to legal compliance and specific regulations of the vehicle rental sector.

### Moderation System

The app's moderation system is designed to ensure the quality and safety of interactions between users and rental companies. Moderation is conducted through:

Identity Verification: All users and rental companies undergo an identity verification process.

Rating System: User feedback is monitored to ensure rental companies maintain high-quality standards.

Reports and Reviews: Accounts with multiple reports are reviewed and may be temporarily or permanently suspended.

### Final Considerations:

The monthly subscription model paid exclusively in BTC or GENS, along with a focus on security and privacy, makes the app a distinctive choice in the market, with significant potential for growth and profitability.

# FESTCAR

## Business Model for Car Rental App with Subscription Fee

### Key Features

**Car Search and Booking:** Users can search for available vehicles, compare features and prices, and make reservations directly through the app.

**Price Comparison:** A comparison tool that allows users to find the best deals based on their preferences.

**Integrated Payment and Insurance:** Direct payment within the app, with an option to add insurance for the vehicle rental.

**Cryptocurrency Payments:** Ability to pay the subscription and other services with BTC or GENS.

### Distribution Channels

- Official Website: The app will be available for download and subscription directly on the official website.
- Decentralized Apps: Distribution on decentralized app platforms to reach a wider and more engaged audience.

### Growth Projection

#### Assumptions:

- Monthly Subscription: \$21/month + 3% service fee
- Average Operating Cost per User: \$0.3/month (includes servers, maintenance, and support)

### Pessimistic Scenario

**Users by the End of the Year:** 10,000

**Annual Revenue:** \$2,520,000

**Annual Operating Cost:** \$1,500,000

**Annual Profit:** \$1,020,000

### Moderate Scenario

**Users by the End of the Year:** 25,000

**Annual Revenue:** \$6,300,000

**Annual Operating Cost:** \$2,500,000

**Annual Profit:** \$3,800,000

### Optimistic Scenario

**Users by the End of the Year:** 50,000

**Annual Revenue:** \$12,600,000

**Annual Operating Cost:** \$4,000,000

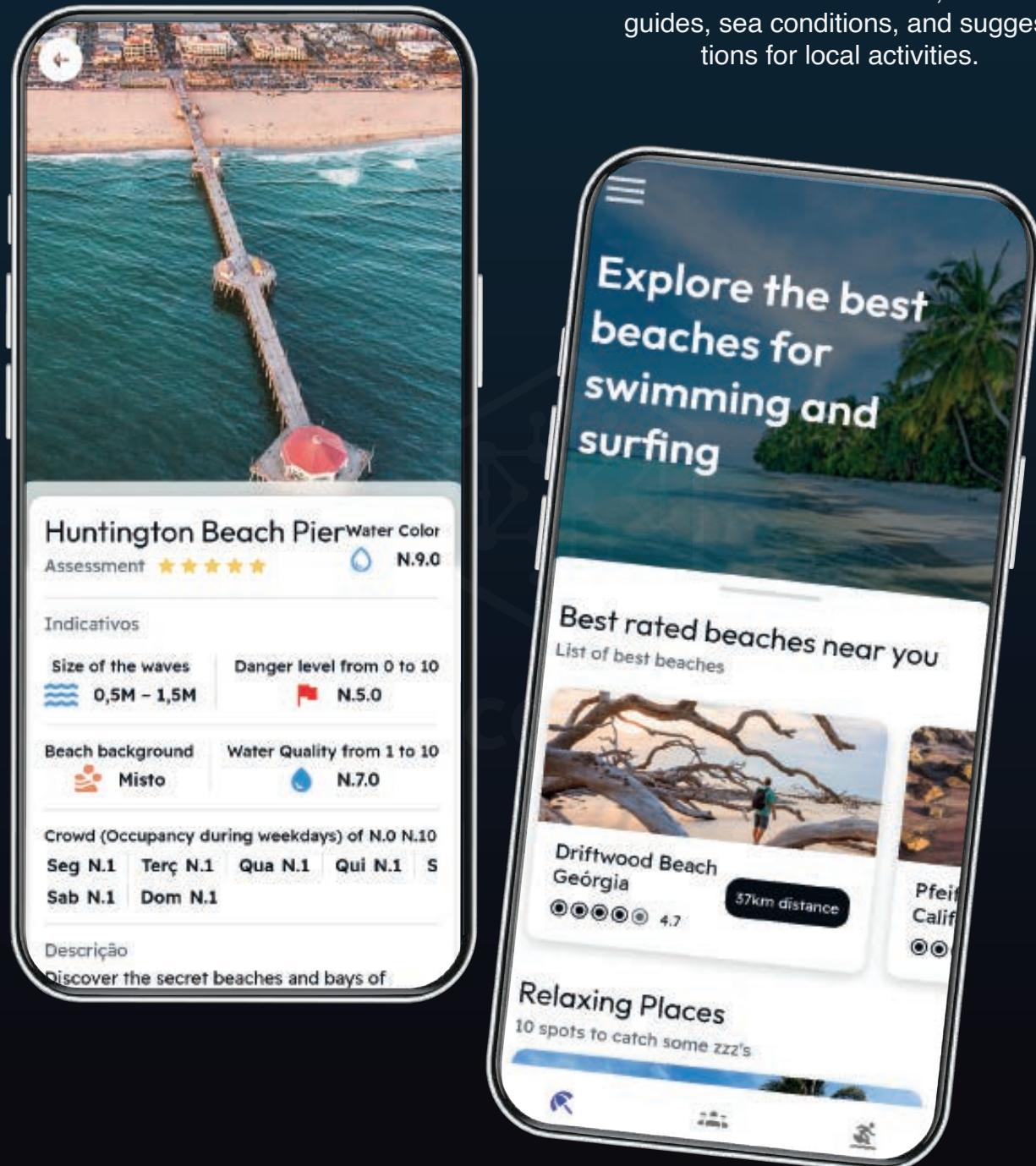
**Annual Profit:** \$8,600,000

### Distribution Channels

The Car Rental app combines innovation, security, and financial flexibility by integrating cryptocurrencies into its revenue model. With a robust cost structure and an effective moderation system, the app is positioned to stand out in the vehicle rental market, offering users a unique and secure experience.

# MYBEACH

An app to explore, find, and review beaches around the world, featuring guides, sea conditions, and suggestions for local activities.



The "Beaches" app is an innovative platform designed for beach enthusiasts, travelers, and nature lovers who want to explore and discover the best beaches around the world. With an intuitive interface rich in detailed information, the app offers a complete experience, from choosing the ideal beach to suggestions for activities and local services. Additionally, the monthly subscription can be paid in BTC or GENS, the cryptocurrency of the ProtocolGenesis blockchain, providing a modern and secure experience for its users.

# BEST BEACHES APP

## Business Model for Best Beaches App with Subscription Fee

"Beaches" is a digital platform that offers a comprehensive experience for those looking to explore and discover beaches around the world. The app allows users to find the perfect beaches for their preferences, using a variety of filters such as location, sea conditions, crowd levels, water color, and more. With detailed reviews, local guides, and suggestions for activities and services, "Beaches" makes every trip to the coast an unforgettable experience. The app's unique selling point is the ability to pay the monthly subscription in cryptocurrencies like BTC and GENS, providing users with enhanced security and financial flexibility.

### Unique Selling Points:

#### 1. Payment in Cryptocurrencies (BTC and GENS):

Innovation and Security: By allowing users to pay the monthly subscription using cryptocurrencies like BTC and GENS, the app offers a modern, secure, and global payment method. This attracts a younger, tech-savvy audience and provides greater privacy and financial flexibility.

#### 2. Detailed and Updated Information:

- Real-Time Sea and Weather Conditions: The app provides updated data on tide levels, wave size, water color, and weather conditions, far beyond what typical travel apps offer.
- Reviews and Feedback: User reviews are verified and moderated to ensure that information about the beaches is accurate and useful.

#### 3. Suggestions for Activities and Local Services:

- Personalized Experience: The app not only helps users find beaches but also suggests activities like surfing, diving, or even places to eat and relax, creating a complete experience for the visitor.

#### 4. Customizable Filters:

- Find the Perfect Beach: With filters that allow users to search for beaches by specific criteria such as crowd levels, safety, sand type, or even water color, the app offers unique personalization, helping users find exactly what they are looking for.

These unique features make "Beaches" an essential tool for anyone interested in exploring the coastline, transforming the simple act of going to the beach into a planned and personalized experience, with the convenience and security that only an innovative app can offer.

### Revenue Model:

- The app's revenue model is based on a monthly subscription:

Monthly Subscription: \$21, paid in BTC or GENS, providing full access to the app's features.

# BEST BEACHES APP

## Business Model for Best Beaches App with Subscription Fee

### Revenue Structure:

**Subscription Revenue:** Generated from monthly subscriptions paid by users, offering full access to all app features.

### Cost Structure:

**Development and Maintenance:** Costs related to the continuous development, updates, and maintenance of the app.

**Servers and Infrastructure:** Expenses for hosting, security, and technical support.

**Marketing and User Acquisition:** Investments in marketing campaigns to attract new users.

**Customer Support:** Costs associated with user service and support.

### Key Features:

**Beach Guides and Reviews:** Detailed information and reviews of various beaches around the world.

**Sea and Weather Conditions:** Updated data on tide levels, wave size, danger levels, and water color.

**Suggestions for Activities and Local Services:** Recommendations for activities like surfing, diving, and services like bars, restaurants, and equipment rentals.

**Customizable Filtering:** Tool to find beaches based on specific criteria, such as crowd levels during weekdays, safety, and sand type.

**Cryptocurrency Payments:** Option to pay the subscription fee in BTC and GENS.

### Distribution Channels:

**Official Website:** Available for download and subscription directly on the official site.

**Partnerships with Travel Agencies:** Promotion of the app through travel agencies and tourism websites.

### Growth and Profit Projection for One Year

#### Assumptions:

- Monthly Subscription: \$21/month
- Average Operating Cost per User: \$6/month (includes servers, maintenance, and support)

### Growth Projection

#### Pessimistic Scenario:

Users by the End of the Year: 10,000

Annual Revenue: \$2,520,000

Annual Operating Cost: \$1,500,000

Annual Profit: \$1,020,000

# BEST BEACHES APP

## Business Model for Best Beaches App with Subscription Fee

### Moderate Scenario:

Users by the End of the Year: 25,000  
Annual Revenue: \$6,300,000  
Annual Operating Cost: \$2,500,000  
Annual Profit: \$3,800,000

### Optimistic Scenario:

Users by the End of the Year: 50,000  
Annual Revenue: \$12,600,000  
Annual Operating Cost: \$4,000,000  
Annual Profit: \$8,600,000

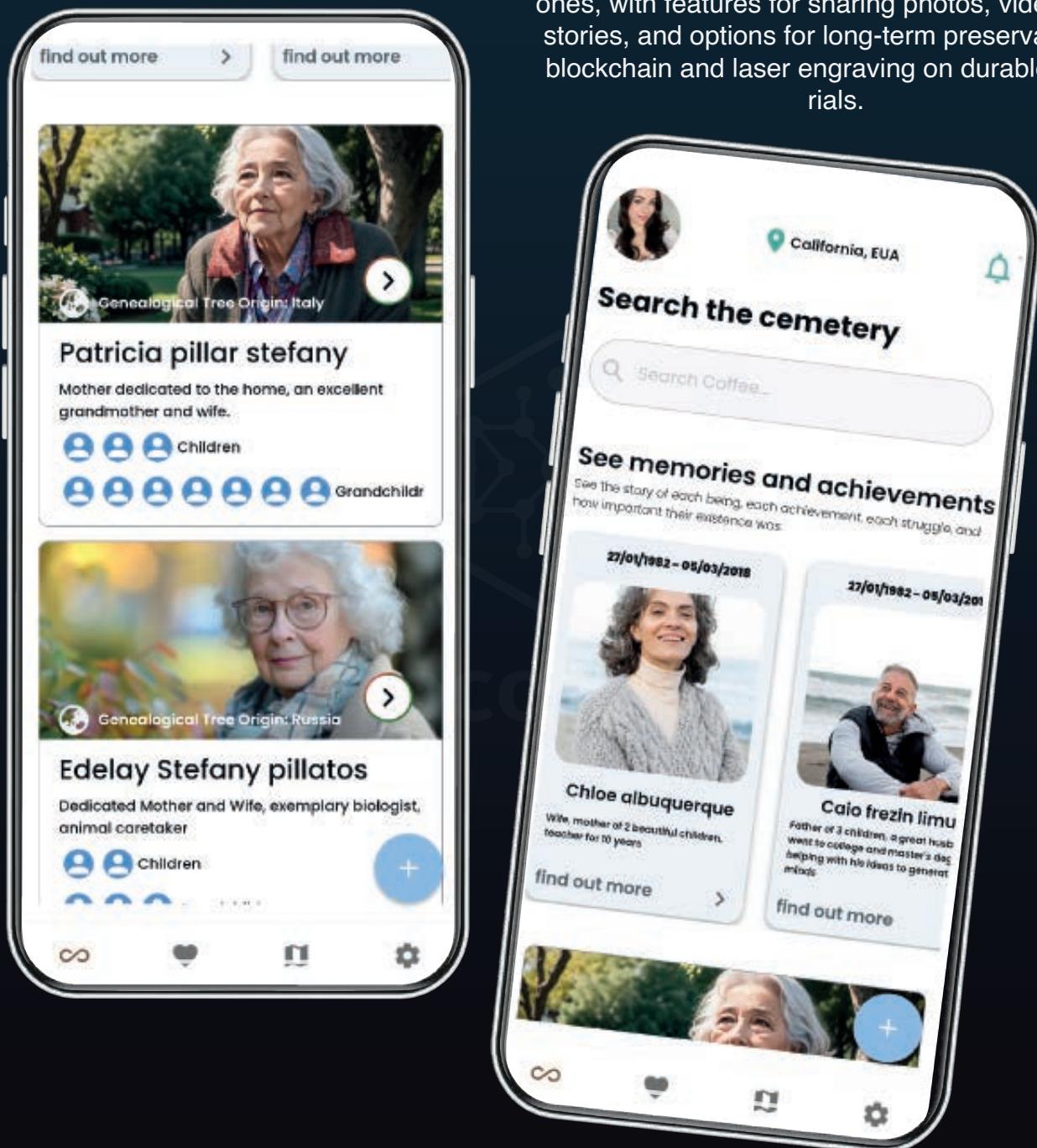
### Final Considerations:

The "Beaches" app offers a unique solution for beach lovers, providing a practical and detailed way to explore beaches around the world. With features that go beyond the basics, such as detailed information on sea conditions and suggestions for local activities, the app has significant growth potential. The integration with cryptocurrencies like BTC and GENS, combined with a strong moderation system, ensures a safe and reliable experience for users. The growth projections indicate a high profit potential, with the app well-positioned to become a leader in the beach tourism market.

ProtocolGenesis

# ETERNITY

Eternity is a platform that allows the creation and management of memory profiles to honor loved ones, with features for sharing photos, videos, and stories, and options for long-term preservation on blockchain and laser engraving on durable materials.



Eternity was developed to provide people with a secure and meaningful space to preserve and celebrate the memories of their loved ones. Combining cutting-edge technology, such as blockchain and laser engraving on durable materials, Eternity ensures that these memories can be passed down and accessed by future generations, becoming a true digital legacy.

# ETERNITY APP

## Business Model for Eternity App with Subscription Fee

Eternity is an innovative digital solution designed for those who want to keep the memories of their loved ones ever-present. In addition to offering a secure digital space for creating memory profiles, the app utilizes blockchain technology to ensure the immutability and security of information. For long-term plans, Eternity goes further by offering laser engraving of memories on titanium, nickel, or copper-based stainless steel plates, depending on the chosen plan. These engravings can last from 250 to 10,000 years, preserving memories for centuries or even millennia, both physically and digitally.

### Moderation System

Eternity sets itself apart by offering a unique solution for memory preservation, using a combination of advanced technologies and durable materials. In addition to storing data on secure servers and blockchain, the app allows memories to be physically laser-engraved on plates made of materials such as stainless steel, nickel, and titanium. These engravings ensure that memories can last from 250 to 10,000 years, guaranteeing that family legacies are preserved both tangibly and digitally for millennia.

### Unique Selling Proposition

Eternity distinguishes itself by providing a unique solution for memory preservation, utilizing a combination of advanced technologies and durable materials. In addition to data storage on secure servers and blockchain, the app enables memories to be physically laser-engraved on plates made of stainless steel, nickel, and titanium. These engravings allow memories to last from 250 to 10,000 years, ensuring that family legacies are preserved in both tangible and digital forms for millennia.

### Key Features

**Memory Profile Creation:** Users can create personalized profiles for loved ones, with photos, videos, and stories.

**Content Sharing:** Share memories with friends and family, keeping memories alive.

**Commemorative Dates Calendar:** A tool that reminds users of important dates, such as birthdays and other significant dates, to pay tribute.

**Security and Privacy:** Advanced encryption and blockchain recording to protect stored and shared data.

**Laser Engraving on Durable Materials:** Available in long-term plans, with engraving on stainless steel, nickel, or titanium plates, ensuring memories are physically preserved for up to 10,000 years.

# ETERNITY APP

## Business Model for Eternity App with Subscription Fee

### Distribution Channels

**Decentralized Platforms:** Distribution on decentralized networks, ensuring global accessibility.

**Traditional and Decentralized App Stores:** Available on all major app stores, both centralized and decentralized.

### Revenue Model

Eternity's revenue model is based on annual and long-term subscription plans, which can be paid in Bitcoin (BTC) or GENS, the cryptocurrency of the ProtocolGenesis blockchain.

### Revenue Structure

**Annual Revenue:** Generated from the sale of plans ranging from 1 to 1,000 years, with prices varying from \$200 to \$145,000 depending on the duration and chosen preservation materials.

#### Annual and Long-Term Plans:

1 year: \$200

2 years: \$380 (equivalent to \$190 per year, with discount)

5 years: \$920

10 years: \$1,800

20 years: \$3,500

40 years: \$6,900

50 years: \$7,820

100 years: \$15,500

200 years: \$31,000

400 years: \$60,000

500 years: \$75,000 (includes engraving on nickel lasting up to 5,000 years)

1,000 years: \$145,000 (includes engraving on titanium lasting up to 10,000 years)



### Cost Structure

**Development and Maintenance:** Ongoing costs to improve the app, perform software updates, and add new features.

**Servers and Cloud Storage:** Secure data hosting, including photos, videos, and stories, using advanced encryption and blockchain to ensure the integrity of memories.

**Production and Laser Engraving:** Costs of producing and engraving titanium, nickel, and copper-based stainless steel plates for long-term plans.

**Marketing and User Acquisition:** Investments in digital marketing campaigns to promote the app and attract new users.

**Customer Support:** Dedicated team to assist and resolve user questions and issues.

# ETERNITY APP

## Business Model for Eternity App with Subscription Fee

### Scenarios for the Eternity App

#### Pessimistic Scenario

Users by the End of the Year: 10,000

Annual Revenue: \$720,000

Annual Operating Cost: \$216,000 (30% of revenue)

Annual Profit: \$504,000

#### Median Scenario

Users by the End of the Year: 50,000

Annual Revenue: \$3,600,000

Annual Operating Cost: \$1,080,000 (30% of revenue)

Annual Profit: \$2,520,000

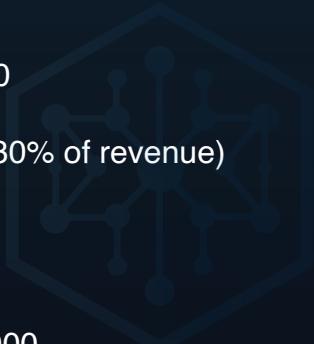
#### Optimistic Scenario

Users by the End of the Year: 100,000

Annual Revenue: \$7,200,000

Annual Operating Cost: \$2,160,000 (30% of revenue)

Annual Profit: \$5,040,000



### Growth Projection

**Users by the End of the Year:** 100,000

**Annual Revenue:** \$7,200,000 (assuming 100,000 paying users, plus sales of annual and long-term plans)

**Annual Operating Cost:** \$2,000,000 (including development, servers, laser engraving, marketing, and support)

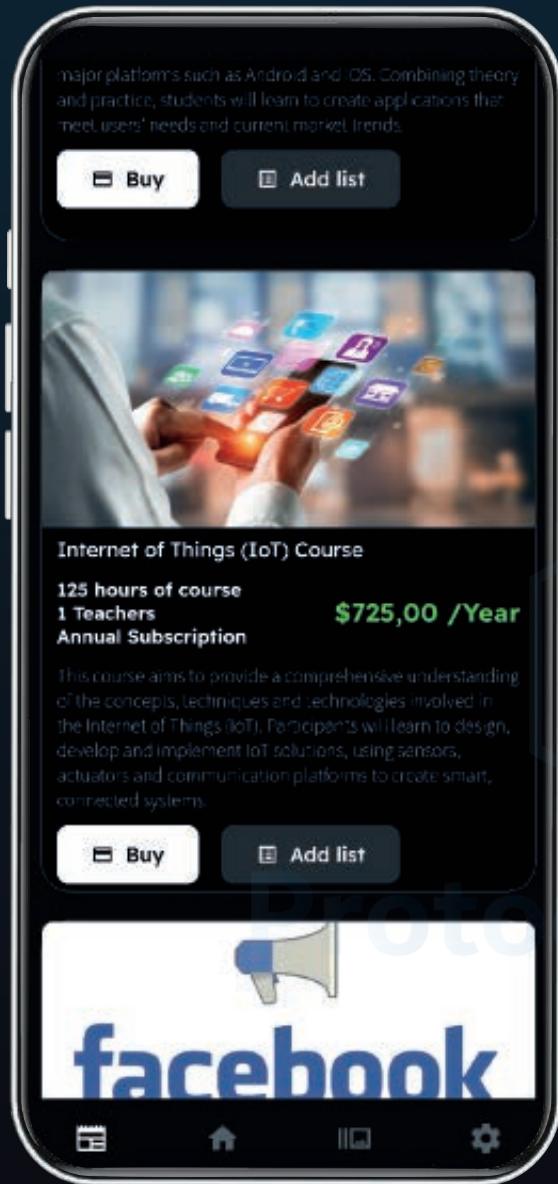
**Annual Profit:** \$5,200,000

### Final Considerations

Eternity is more than just an app; it is a digital and physical legacy that allows people to celebrate and preserve the memories of their loved ones over time. With an accessible and flexible pricing structure, high-level security, and a comprehensive set of features, Eternity is positioned to become the leading global platform for memory management, ensuring that the most precious memories last for generations.

# STRMINGNET

The Digital Marketing Platform offers courses and digital marketing content via streaming, providing access to videos, tutorials, and certifications. Producers pay \$100 per month, while users pay for the courses they want. Payments are accepted in BTC and GENS.



The Digital Marketing Platform is an innovative streaming app dedicated to courses and content on digital marketing. It offers a wide range of resources for content producers and users interested in enhancing their skills and knowledge in the field of digital marketing. With an interactive approach and an extensive library, the platform aims to connect experts and learners in a dynamic learning environment.

# STRMINGMET

## Business Model for Digital Marketing Platform App with Subscription Fee

Digital Marketing Platform is a specialized streaming platform for digital marketing, offering courses and tutorials created by experts. The app facilitates access to a vast library of videos, provides interactive tools, and promotes certification in digital marketing. Content producers can offer courses and set their own prices, while users pay for the subscriptions to the courses they want.

### Revenue Model

**Monthly Subscription for Content Producers: \$100.**

**Additional Revenue:** Payments from users for course subscriptions, with prices set by the producers.

### Revenue Structure

**Assinaturas dos Produtores de Conteúdo:** Receita fixa mensal de \$100 por produtor.

**Comissões sobre Vendas de Cursos:** Percentual da receita gerada pelas assinaturas de cursos, dependendo do valor estabelecido pelos produtores.

### Cost Structure

**Operating Costs:** Approximately 30% of the revenue generated.

**Development and Maintenance:** Ongoing investments in technology and platform updates.

**Marketing and User Acquisition:** Expenses for advertising campaigns and strategies to attract new producers and users.

**Support and Customer Service:** Costs associated with technical support and account management.

### Moderation System

**Ratings and Feedback:** Mechanisms for evaluating courses and content.

**Code of Conduct:** Guidelines to maintain the quality and integrity of the content.

**Quality Monitoring:** Regular inspection of courses and interactions on the platform to ensure compliance with standards.

### Key Features

**Library of Videos and Tutorials:** Access to an extensive range of content on digital marketing.

**Courses and Certifications:** Training and certification in various areas of digital marketing.

**Interactive Tools and Discussion Forums:** Resources for interaction between users and producers, including forums and live chats.

### Distribution Channels

**Official Website:** The app will be available for download and subscription directly on the official site.

**Decentralized Apps:** Distribution on decentralized app platforms to reach a wider and more engaged audience.

# STRMINGMET

## Business Model for Course Platform App with Subscription Fee

### Growth Projection:

#### Assumptions:

Monthly Subscription: \$100/month + 3% commission

Average Operating Cost per User: \$20/month (includes servers, maintenance, and support)

#### Pessimistic Scenario:

*Users by the End of the Year: 5,000*

*Annual Revenue: \$600,000*

*Annual Operating Cost: \$180,000*

*Annual Profit: \$420,000*

#### Moderate Scenario:

*Users by the End of the Year: 20,000*

*Annual Revenue: \$2,400,000*

*Annual Operating Cost: \$720,000*

*Annual Profit: \$1,680,000*

#### Optimistic Scenario:

*Users by the End of the Year: 50,000*

*Annual Revenue: \$6,000,000*

*Annual Operating Cost: \$1,800,000*

*Annual Profit: \$4,200,000*



### Unique Selling Proposition:

The platform stands out for its flexible monetization model, allowing content producers to set their own prices, along with a rich library of educational resources and interactive tools. The use of cryptocurrencies like BTC and GENS for payments offers a modern and secure approach to financial transactions, aligning with market trends and user preferences in the digital era.

### Final Considerations:

The Digital Marketing Platform represents a significant opportunity in the education and training market for digital marketing. With diversified revenue streams and a flexible subscription model, the platform is well-positioned to serve a wide range of users and content producers. It is crucial to focus on effective marketing strategies and support to ensure the platform's success and continuous growth.

# BLOCKNOTE

The Notes and Calendar App is an innovative solution for personal organization, combining calendar and note-taking features with advanced security. Designed for users who want to keep their information private and well-organized, the app offers a secure and intuitive experience.



The Notes and Calendar App allows you to manage your calendar and personal notes with maximum security. With double SHA-256 encryption and screenshot protection, the app ensures that your information remains private and accessible only to you.

# BLOCKNOTE APP

## Business Model for Notes App with Subscription Fee

The Notes and Calendar App is an innovative solution for personal organization, combining calendar and note-taking features with advanced security. Designed for users who want to keep their information private and organized, the app offers a secure and intuitive experience.

The app allows you to manage your calendar and personal notes with maximum security. With double SHA-256 encryption and screenshot protection, the app ensures that your information remains private and accessible only to you.

### Revenue Model:

Monthly Subscription: \$10.

Accepted Payments: BTC, GENS (the cryptocurrency of the ProtocolGenesis Blockchain).

### Revenue Structure:

Estimated Monthly Revenue: Based on the number of active subscribers.

### Cost Structure:

**Operating Cost:** 30% of generated revenue.

**Technology Infrastructure:** Includes servers and security maintenance.

**Marketing and User Acquisition:** Investments in advertising campaigns and promotions.

### Security System:

**Security:** Double SHA-256 encryption.

**Data Protection:** No cloud storage, auto-deletion of data after 10 incorrect password attempts, and screenshot prevention.

**Icon Camouflage:** The app can disguise itself as other apps for greater privacy.

### Key Features:

**Calendar and Reminders:** Manage appointments and deadlines.

**Notes Organized by Categories:** Keep your notes structured.

**Synchronization with Other Devices:** Continuous access from different devices.

**Advanced Security:** Double encryption, screenshot protection, and icon camouflage.

### Distribution Channels:

Available on: App stores and decentralized platforms.

# BLOCKNOTE APP

## Business Model for Notes App with Subscription Fee

### Growth and Profit Projection for One Year

#### **Assumptions:**

Monthly Subscription: \$10/month

Average Operating Cost per User: \$6/month (includes servers, maintenance, and support).

#### **Pessimistic Scenario:**

Users by the End of the Year: 10,000

Annual Revenue: \$1,200,000

Annual Operating Cost: \$360,000

Annual Profit: \$840,000

#### **Moderate Scenario:**

Users by the End of the Year: 25,000

Annual Revenue: \$3,000,000

Annual Operating Cost: \$900,000

Annual Profit: \$2,100,000

#### **Optimistic Scenario:**

Users by the End of the Year: 50,000

Annual Revenue: \$6,000,000

Annual Operating Cost: \$1,800,000

Annual Profit: \$4,200,000



#### **Final Considerations:**

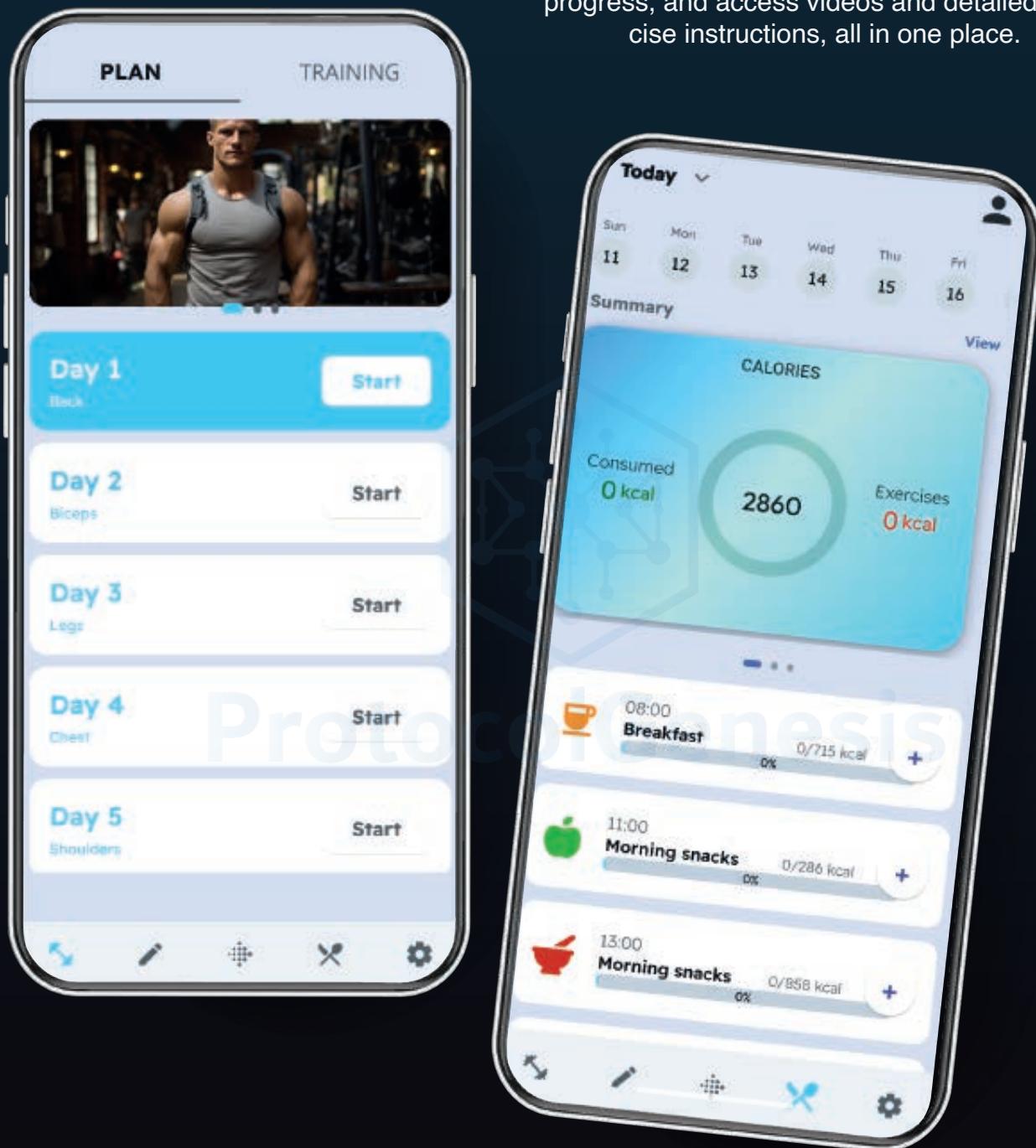
The Notes and Calendar App offers a unique combination of functionality and security for users seeking privacy and personal organization. With an affordable subscription model and robust protection measures, the app is positioned to meet the needs of a growing audience that values the security of their personal information.

#### **Unique Selling Proposition:**

The main advantage of the Notes and Calendar App is its uncompromising security, including double encryption, screenshot protection, and icon camouflage, ensuring that your notes and appointments remain completely private and protected.

# GYMIO

The Gym App is a dedicated platform for personalized workout management in gyms. It allows users to create workout plans, track their progress, and access videos and detailed exercise instructions, all in one place.



The Gym App is a comprehensive tool for managing and tracking workouts, designed for both fitness enthusiasts and professionals. With an intuitive interface and a wide range of features, the app helps users efficiently and safely achieve their workout goals.

## GYMIO APP

### Business Model for Gymio App with Subscription Fee

#### Unique Selling Proposition:

The standout feature of the Gymio App is its ability to provide highly personalized workout planning, combined with a simple and intuitive interface and secure data management through the ProtocolGenesis blockchain. The flexibility of payment via cryptocurrencies and continuous support make the app an ideal choice for those seeking efficient results and rigorous monitoring of their fitness journey.

#### Revenue Model:

**Monthly Subscription:** \$35.

**Accepted Payments:** BTC, GENS (cryptocurrency of the ProtocolGenesis Blockchain).

#### Revenue Structure:

**Monthly Revenue:** Generated through user subscriptions, with expected growth as the subscriber base increases.

**Annual Revenue:** Based on user retention and occasional promotions to encourage new subscribers.

#### Cost Structure:

**Operating Cost:** Estimated at 30% of generated revenue, including:

**Development and Maintenance:** Technical team for updates and continuous support.

**Technology Infrastructure:** Hosting, servers, and data security.

**Marketing and User Acquisition:** Advertising campaigns, promotions, and partnerships.

#### Security System:

**Personalized Workout Planning:** Creation and management of workout plans tailored to individual user goals.

**Progress and Goal Tracking:** Continuous monitoring of progress against set goals, with detailed graphs and reports.

**Exercise Videos and Instructions:** Access to a library of videos demonstrating the correct execution of each exercise.

#### Distribution Channels:

**Available on:** App stores, fitness platforms, and partnerships with gyms.

**Promotions and Partnerships:** Partnerships with gyms to offer the app as an exclusive benefit to their members.

# APLICATIVO GYMIO

## Business Model for Gymio App with Subscription Fee

### Growth and Profit Projection for One Year

#### **Assumptions:**

Monthly Subscription: \$35/month

Average Operating Cost per User: \$6/month (includes servers, maintenance, and support)

#### **Pessimistic Scenario:**

Users by the End of the Year: 5,000

Annual Revenue: \$2,100,000

Annual Operating Cost: \$630,000

Annual Profit: \$1,470,000

#### **Moderate Scenario:**

Users by the End of the Year: 15,000

Annual Revenue: \$6,300,000

Annual Operating Cost: \$1,890,000

Annual Profit: \$4,410,000

#### **Optimistic Scenario:**

Users by the End of the Year: 30,000

Annual Revenue: \$12,600,000

Annual Operating Cost: \$3,780,000

Annual Profit: \$8,820,000

#### **Final Considerations:**

The Gymio App offers a robust and practical solution for workout management, ensuring that users achieve their goals with continuous support and secure guidance. The flexibility of payments in cryptocurrencies reinforces the platform's modernity and accessibility.

# PROJECTION APPS

The ProtocolGenesis ecosystem, consisting of a series of innovative applications, presents a significant potential for financial growth in the coming years. Based on detailed projections for different scenarios—pessimistic, moderate, and optimistic—it is possible to visualize the economic impact and financial returns that each of these applications could generate over time.

This document provides a comprehensive analysis of the projected annual profits for each application, considering various levels of market adoption and success. At the end, it is possible to see how the sum of these results contributes to a clear vision of the ecosystem's promising future. These projections underscore the potential for continuous growth and enhance the attractiveness of investing in the GENS coin, especially with a long-term perspective.

## APP PROJECTIONS

Financial projections for each app and the overall sum within the ProtocolGenesis ecosystem, based on pessimistic, moderate, and optimistic scenarios.

### App Delivery

**Pessimistic:** Annual Profit: \$287,928  
**Moderate:** Annual Profit: \$575,856  
**Optimistic:** Annual Profit: \$1,151,712

### App Social Network

**Pessimistic:** Annual Profit: \$2,280,000  
**Moderate:** Annual Profit: \$11,400,000  
**Optimistic:** Annual Profit: \$22,800,000

### App Peer-to-Peer Messaging

**Pessimistic:** Annual Profit: \$1,080,000  
**Moderate:** Annual Profit: \$4,320,000  
**Optimistic:** Annual Profit: \$10,800,000

### App WalletGens

**Pessimistic:** Annual Profit: \$600,000  
**Moderate:** Annual Profit: \$1,800,000  
**Optimistic:** Annual Profit: \$6,000,000

### App Curriculum

**Pessimistic:** Annual Profit: \$960,000  
**Moderate:** Annual Profit: \$3,840,000  
**Optimistic:** Annual Profit: \$9,600,000

### App Houseio

**Pessimistic:** Annual Profit: \$2,520,000  
**Moderate:** Annual Profit: \$22,600,000  
**Optimistic:** Annual Profit: \$47,200,000

### App FastCar

**Pessimistic:** Annual Profit: \$1,020,000  
**Moderate:** Annual Profit: \$3,800,000  
**Optimistic:** Annual Profit: \$8,600,000

### App MyBeach

**Pessimistic:** Annual Profit: \$1,020,000  
**Moderate:** Annual Profit: \$3,800,000  
**Optimistic:** Annual Profit: \$8,600,000

### App Eternity

**Pessimistic:** Annual Profit: \$504,000  
**Moderate:** Annual Profit: \$2,520,000  
**Optimistic:** Annual Profit: \$5,040,000

### App StreamingNet

**Pessimistic:** Annual Profit: \$420,000  
**Moderate:** Annual Profit: \$1,680,000  
**Optimistic:** Annual Profit: \$4,200,000

### App BlockNote

**Pessimistic:** Annual Profit: \$840,000  
**Moderate:** Annual Profit: \$2,100,000  
**Optimistic:** Annual Profit: \$4,200,000

### App Gymio

**Pessimistic:** Annual Profit: \$1,470,000  
**Moderate:** Annual Profit: \$4,410,000  
**Optimistic:** Annual Profit: \$8,820,000

## Total Annual Profit Summation by Scenario for ProtocolGenesis Apps

**Pessimistic:** \$13,001,928

**Moderate:** \$62,845,856

**Optimistic:** \$137,011,712



# STARTUPS

Get ready to understand how ProtocolGenesis is shaping the future by investing in startups that share our vision of a more secure, efficient, and decentralized digital world.

# STARTUPS

The ProtocolGenesis Ecosystem is much more than a blockchain platform; it is a true engine of innovation, designed to drive the growth and success of promising startups around the world. With a strong commitment to supporting entrepreneurs and their groundbreaking ideas, ProtocolGenesis positions itself as a strategic partner for startups that seek not only to survive but to thrive in an increasingly competitive and dynamic market.

Investing in startups is not just about providing capital. At ProtocolGenesis, we believe the true value lies in offering comprehensive support that includes funding, access to a vast network of investors, specialized mentorship, and an advanced technological infrastructure. This unique combination allows startups to fully capitalize on the opportunities offered by the global market, scaling their businesses securely and efficiently.

The participation model is clear: all the investment required for the laboratory, company setup, supplies, and training will be provided by ProtocolGenesis. The ownership division will be as follows: ProtocolGenesis will hold 70% of the company, while the selected candidate will hold the remaining 30%. Seventy percent of the profits from this company will be reinvested into the ProtocolGenesis ecosystem and distributed according to the resource distribution model described on the other pages of this whitepaper.

In the following pages, we will discuss the startup projects that are ready to launch after the pre-sale ends. For further clarity on the next steps, please see the roadmap.

ProtocolGenesis is committed to creating a future where the brightest ideas have the resources and support needed to change the world. By investing in startups and offering exclusive opportunities to participate in projects like graphene production, we are not just funding companies but building the future of digital, where security, efficiency, and decentralization are the pillars of a new economic paradigm.



# STARTUPS

# GRAFENO

GrafenoLabs is a graphene oxide producer that begins its journey with a production capacity of 1 kg per month, with a goal to double this capacity every six months.



# STARTUP GRAFENOLABS

## Business Model for GrafenoLabs Startup

GrafenoLabs is a graphene oxide producer that begins its journey with a production capacity of 1 kg per month, aiming to double this capacity every six months. We accept payments in GENS, the cryptocurrency of the ProtocolGenesis blockchain, or BTC, providing our customers with an innovative and secure solution to acquire this highly valued material.

GrafenoLabs was created with the goal of leading the production of graphene oxide, a revolutionary material with vast and growing applications in various industries, including electronics, biomedicine, energy, and composite materials. Starting with an initial production of 1 kg per month, our goal is to double this capacity every six months, reaching 10 kg per month within two years. Our production technology uses advanced chemical and physical exfoliation methods, ensuring a product of the highest quality.

Graphene is widely recognized for its exceptional properties, such as high electrical conductivity, strength, and flexibility, making it an essential material for the future of cutting-edge technologies. [Startup Name] is positioned to meet the growing global demand for graphene, offering a high-purity product at a competitive price. In addition, we accept payments in GENS, the cryptocurrency of the ProtocolGenesis blockchain, and BTC, facilitating secure and decentralized transactions for our customers.

### The Importance of Graphene

O grafeno é um dos materiais mais promissores do século XXI. Suas propriedades excepcionais, como alta condutividade elétrica, resistência mecânica e flexibilidade, o tornam essencial para uma ampla gama de aplicações, desde eletrônicos avançados até biomedicina. Com a crescente demanda por tecnologias mais eficientes e sustentáveis, o grafeno está posicionado para desempenhar um papel crucial no desenvolvimento de novas soluções tecnológicas.

### Market Potential

The graphene market has shown accelerated growth in recent years. According to industry data, the global demand for graphene is expected to grow at a compound rate of over 40% per year, with predictions that the global market will reach billions of dollars in the coming years. This growth is driven by the adoption of graphene in sectors such as electronics, energy, composite materials, and biotechnology.

### Data on the Growth in Graphene Demand

The demand for graphene has increased significantly, driven by its application in high-performance batteries, biomedical sensors, lightweight composite materials, and more. According to market reports, the number of scientific publications and patents related to graphene continues to grow exponentially, reflecting the intense academic and industrial interest in this material. Companies investing in graphene production are well-positioned to capture a considerable share of this expanding market.

# STARTUP GRAFENOLABS

## Modelo de Negócio para a Startup GrafenoLabs

GrafenoLabs is well-positioned to capitalize on the growing demand for graphene by offering high-quality graphene oxide at competitive prices, supported by a scalable production structure that can quickly adapt to increasing demand. With a solid business model and an aggressive growth strategy, we are prepared to lead the graphene market in the coming years.

### What is Graphene and What Can It Be Used For?

Graphene is a revolutionary material that has attracted significant attention across various fields of science and technology. It is composed of a single layer of carbon atoms arranged in a honeycomb pattern, forming a flat structure. This atomic arrangement gives graphene its extraordinary properties. The chemical formula of graphene is C (carbon), but the way these atoms are organized makes all the difference.

### Chemical Formula and Structure

The chemical formula of graphene is simply C, indicating that it is entirely composed of carbon atoms. These atoms are bonded in a hexagonal structure, resembling a honeycomb, where each carbon atom is bonded to three other carbon atoms around it. This bonding occurs through covalent bonds, which are extremely strong and contribute to the material's remarkable properties.

### Structure of Graphene:

Each carbon atom has 4 valence electrons.

In graphene, 3 of these electrons form covalent bonds with 3 adjacent carbon atoms.

The fourth electron forms a "cloud" of free electrons above and below the layer, responsible for graphene's high electrical conductivity.

This configuration is represented by a "sheet" of carbon atoms that is only one atom thick, making graphene the thinnest material known to date.

### - Applications of Graphene

Graphene's unique properties, including its high electrical conductivity, mechanical strength, and flexibility, make it ideal for a wide range of applications. It is used in electronics for faster, more efficient semiconductors, in energy storage for better batteries and capacitors, in biomedical devices for sensors and drug delivery, and in composite materials for enhanced strength and lightness. As the market for these applications continues to expand, so does the potential for graphene to revolutionize various industries.

GrafenoLabs aims to be at the forefront of this revolution, leveraging its production capabilities and innovative business strategies to meet the needs of an evolving market.

# STARTUP GRAFENOLABS

## Business Model for the Startup GrafenoLabs

### PROPERTIES AND ADVANTAGES OF GRAPHENE

#### **Superconductivity:**

Graphene is one of the best conductors of electricity we know. Due to the structure of the "cloud" of free electrons, electric current can flow through graphene with very little resistance. This makes it ideal for use in electronic devices such as transistors, batteries, and supercapacitors.

#### **Mechanical Strength:**

Graphene is about 200 times stronger than steel, yet it is extremely lightweight. This mechanical strength makes it a promising material for manufacturing composite materials used in aerospace, automotive, and construction industries, where weight reduction while maintaining strength is crucial.

#### **Flexibility:**

Despite its strength, graphene is incredibly flexible, capable of being bent and stretched without breaking. This allows its use in flexible electronics such as mobile device screens, smart wearables, and even electronic paper.

#### **Transparency:**

Graphene is nearly completely transparent, absorbing only about 2% of the light that passes through it. This makes it ideal for use in touchscreens, smart windows, and solar cells, where the combination of transparency and electrical conductivity is extremely valuable.

#### **Thermal Conductivity:**

Graphene is also an excellent thermal conductor, dissipating heat extremely efficiently. This is useful in electronic devices where heat management is essential for performance and durability.

#### **Impermeability:**

Graphene is impermeable, even to the smallest atoms like helium. This makes it a promising material for creating impermeable barriers in various applications such as packaging, coatings, and corrosion protection.

#### **Electronics and Computing:**

Graphene can be used to create transistors that are faster and smaller than those possible with silicon, leading to faster processors and more efficient electronic devices. Its conductive properties are also useful for long-lasting batteries and supercapacitors, which could charge in seconds and last much longer than current lithium-ion batteries.

# STARTUP GRAFENOLABS

## Business Model for GrafenoLabs Startup

### APPLICATIONS OF GRAPHENE

#### Medicine:

In biomedicine, graphene can be used in sensors to detect biomolecules, aiding in early disease diagnosis. It is also being researched for drug delivery due to its ability to interact with cells in a controlled manner.

#### Composite Materials:

Adding graphene to materials such as plastics can create incredibly strong and lightweight composites, which can be used in airplanes, cars, and even construction.

#### Energy:

Graphene has the potential to revolutionize solar energy, being used in more efficient and cost-effective solar cells. It can also improve batteries in terms of both capacity and charging speed.

#### Water Filtration:

Due to its impermeability and structure, graphene can be used to create highly efficient water filters, potentially even desalinating seawater.

#### Importance of Graphene and Market Potential:

Graphene is often called the "material of the future," and for good reason. Its properties place it at the forefront of the next technological revolution. Industries worldwide are investing heavily in research and development to explore the full potential of graphene. Since its discovery, academic and commercial interest in graphene has grown exponentially, and the global graphene market is expected to grow rapidly in the coming years. GrafenoLabs is positioned to capitalize on this growing trend, offering high-quality graphene oxide and playing a crucial role in the development of the next big technological innovations. With operations starting in Houston, Texas, and a focus on quality and innovation, GrafenoLabs is prepared to lead the graphene market and contribute to the future of technology.

#### Differentiation:

Our differentiation lies in the combination of high production quality with the flexibility and security of cryptocurrency payments. Additionally, our commitment to doubling production every six months reflects our ambition to lead the graphene market, providing customers with excellent products at competitive prices.

#### Revenue Model:

Nosso modelo de receita é baseado na venda de óxido de grafeno de alta pureza a um preço médio de \$15 por grama. Com uma produção inicial de 1 kg por mês, geramos uma receita

# STARTUP GRAFENOLABS

## Business Model for GrafenoLabs Startup

### Monthly Revenue:

Initial Revenue:  $1000g \times \$15 = \$15,000$  per month.

Future Revenue:  $10,000g \times \$15 = \$150,000$  per month.

The acceptance of payments in GENS and BTC positions us as an innovative player in the graphene market, offering flexibility and security to our customers.

### Revenue Structure:

Initial Revenue: \$15,000 per month.

Future Revenue: \$150,000 per month.

Payment Methods: GENS (ProtocolGenesis blockchain cryptocurrency), BTC.

### Cost Structure:

Fixed Costs: Rent, salaries, equipment maintenance.

Variable Costs: Raw materials, energy, consumables.

Profit Margin: 75% Profit / 25% Cost.

### Key Features:

Graphene Oxide Production: Utilizing advanced chemical and physical exfoliation methods.

Quality Control: State-of-the-art measurement equipment to ensure graphene purity.

Payment Flexibility: Acceptance of GENS and BTC for secure transactions.

Scalability: Goal to double production every six months.

### Distribution Channels:

Direct Sales: Through our website and e-commerce platform, accepting GENS and BTC.

Industrial Partnerships: Contracts with electronics, biotechnology, and energy companies.

International Distribution: Expansion into global markets with a focus on Asia, Europe, and North America.

### Growth Projection:

In the first six months, GrafenoLabs aims to stabilize its initial production of 1 kg per month. Let's calculate the growth scenarios:

#### Pessimistic Projection:

Year 1:

- Production: 2 kg/month

Annual Revenue: \$204,000

Annual Profit: \$183,600

Year 2:

- Production: 3 kg/month

Annual Revenue: \$228,000

Annual Profit: \$205,200

- Year 3:

Production: 4 kg/month

Annual Revenue: \$288,000

Annual Profit: \$259,200

#### Pessimistic Projection:

Year 4:

- Production: 5 kg/month

Annual Revenue: \$300,000

Annual Profit: \$270,000

Year 5:

- Production: 5 kg/month

Annual Revenue: \$300,000

Annual Profit: \$270,000

#### Average Projection:

Year 1:

- Production: 2 kg/month

Annual Revenue: \$204,000

Annual Profit: \$183,600

Year 2:

- Production: 4 kg/month

Annual Revenue: \$288,000

Annual Profit: \$259,200

Year 3:

- Production: 6 kg/month

Annual Revenue: \$432,000

Annual Profit: \$388,800

# STARTUP GRAFENOLABS

## Business Model for GrafenoLabs Startup

Average Projection:

Year 4:

- Production: 8 kg/month

Annual Revenue: \$576,000

Annual Profit: \$518,400

Year 5:

- Production: 10 kg/month

Annual Revenue: \$720,000

Annual Profit: \$648,000

### ***Optimistic Projection:***

Year 1:

- Production: 2 kg/month

Annual Revenue: \$204,000

Annual Profit: \$183,600

- Year 2:

Production: 6 kg/month

Annual Revenue: \$432,000

Annual Profit: \$388,800

- Year 3:

Production: 9 kg/month

Annual Revenue: \$648,000

Annual Profit: \$583,200

### ***Optimistic Projection:***

Year 4:

- Production: 12 kg/month

Annual Revenue: \$864,000

Annual Profit: \$777,600

Year 5:

- Production: 15 kg/month

Annual Revenue: \$1,080,000

Annual Profit: \$972,000

## Final Considerations

GrafenoLabs is strategically positioned to become a leader in the production of graphene oxide. With a strong technological foundation and a clear focus on sustainable growth, we are ready to meet the increasing global demand for graphene. The acceptance of GENS and BTC as payment methods underscores our commitment to innovation and financial security.

At the end of the pre-sale, as outlined in our roadmap, GrafenoLabs will begin its operations in Houston, Texas. This strategic location was chosen for its unparalleled advantages, including competitive energy rates, world-class infrastructure, and a favorable environment for technological development. Houston will become the home of GrafenoLabs, where our mission to lead innovation in graphene oxide production will be realized. We are excited to embark on this journey and contribute to the future of global technology from this dynamic and innovative base.

Houston offers a unique combination of strategic advantages for GrafenoLabs. The city boasts some of the lowest energy rates in the country, a crucial factor for energy-intensive production like ours. Additionally, Houston is a global hub for science and technology, with easy access to a network of renowned universities, research centers, and a highly skilled workforce. This location allows us to attract top talent and maintain maximum production efficiency.

Houston's infrastructure is another strong point, providing world-class logistics with access to ports, highways, and air transport, facilitating the distribution of our graphene products to global markets. Moreover, the city is known for its business-friendly environment, offering tax incentives and a robust ecosystem for startups and technology companies.

## STARTUP GRAFENOLABS

### Business Model for GrafenoLabs



**Dr. Vikram Sharma**

We are excited to announce that the head of the team responsible for GrafenoLabs' first graphene production startup has been carefully selected by the Sumerians of the ProtocolGenesis ecosystem. This rigorous process ensured that the chosen leader, Vikram Sharma, possesses not only extensive experience in chemistry and advanced materials but also an innovative vision aligned with the values and goals of our ecosystem.

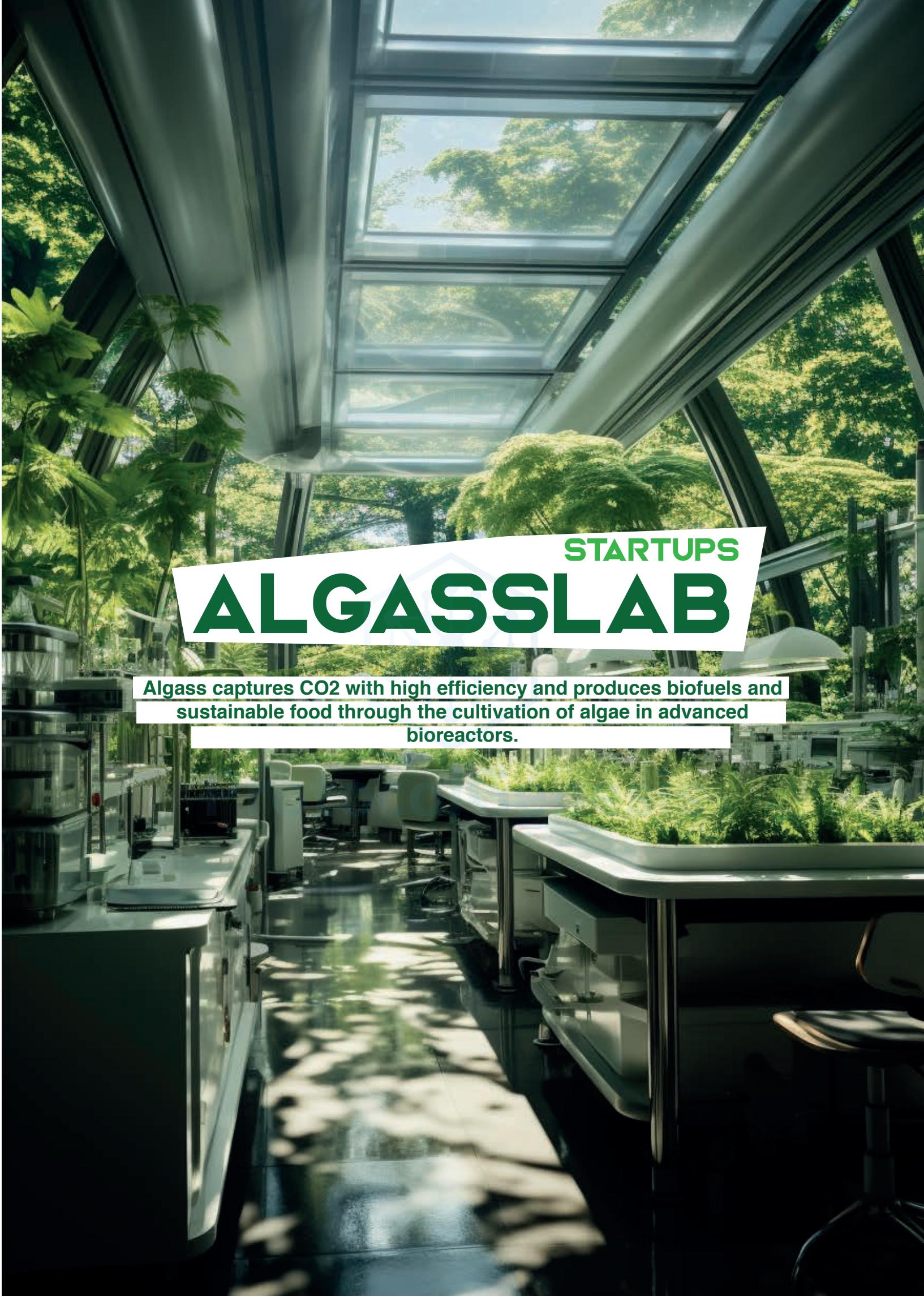
GrafenoLabs is not just a startup; it is the first step in our ambitious journey to lead global graphene production. And the best part: you can also be part of this revolution. If you have expertise in chemistry, laboratory experience, and meet the other specifications described in our roadmap, the ProtocolGenesis ecosystem offers the opportunity to fund your own graphene production laboratory.

ProtocolGenesis is committed to supporting visionaries like you, providing not only financial resources but also the technical and strategic support necessary to turn your expertise into a successful business. Join us and contribute to the future of advanced materials alongside the best in the world.

***Vikram Sharma was born in Mumbai, India, and from an early age showed an insatiable curiosity for science. Fascinated by how things worked, he excelled in chemistry classes during high school, which led him to pursue a career in Chemical Engineering. He studied at the prestigious Indian Institute of Technology Bombay (IIT Bombay), where he quickly became one of the most promising students in his class.***

During his master's program at IIT Bombay, Vikram became passionate about studying advanced materials, especially graphene. His research on graphene production in the laboratory was widely recognized and opened doors for international collaborations. After graduating, Vikram continued to deepen his knowledge by working at various R&D companies in India, where he led innovative projects that resulted in new methods for producing graphene and super-strong materials.

When introduced to the ProtocolGenesis project, Vikram immediately identified with the company's vision. His libertarian bias, aligned with the decentralized and innovative philosophy of the ecosystem, led him to enter into a strategic partnership to lead GrafenoLabs, the first graphene production startup within ProtocolGenesis.



**STARTUPS**

# ALGASSLAB

**Algass captures CO<sub>2</sub> with high efficiency and produces biofuels and sustainable food through the cultivation of algae in advanced bioreactors.**

# STARTUP ALGASSLAB

## Business Model for Algasslab Startup

Algass is an innovative company dedicated to algae cultivation for the production of biofuels, food, CO<sub>2</sub> capture, and oxygen production. Our operations will be based in Houston, Texas, and the startup will accept payments in GENS, the cryptocurrency from the ProtocolGenesis blockchain, and BTC. Our mission is to provide sustainable solutions to global environmental and energy challenges.

Algass was established to tackle major environmental challenges of our time. Focused on cultivating the algae Chlorella vulgaris, our startup uses state-of-the-art bioreactors that capture carbon dioxide (CO<sub>2</sub>) from the atmosphere with up to 400 times more efficiency per square meter than trees. These bioreactors, designed for installation in urban environments, not only reduce the carbon footprint of buildings but also produce clean biofuels and nutrient-rich foods.

The bioreactor uses Chlorella vulgaris, a microalga known for its high photosynthetic efficiency and ability to absorb large amounts of CO<sub>2</sub>. Cultivated in a system of tubes filled with water and exposed to artificial light, the algae are optimized by machine learning software that controls internal conditions such as light, temperature, and pH levels to maximize carbon capture and biofuel production.

These bioreactors are designed to be installed in strategic locations such as bus stops, gyms, shopping centers, and areas with good sunlight exposure. Besides helping to combat climate change, they also generate biofuels and food inputs, offering a practical and sustainable solution to today's environmental challenges.

### Revenue Model

The revenue model for Algass is based on the monthly rental of algae cultivation machines, costing \$5,000 per month. The startup retains all carbon credits generated, as well as the biofuels and food inputs produced, which are sold to generate additional revenue.

Monthly Machine Rental: \$5,000

Operational Cost per Machine: \$500

Profit Margin per Machine: \$4,500

Additional Revenue: Sale of carbon credits, biofuels, and food inputs.

### Revenue Structure

Machine Rentals: Primary revenue source, \$5,000 per machine per month.

Sale of Carbon Credits: Calculated based on the amount of CO<sub>2</sub> captured by the machines.

Sale of Biofuels and Food Inputs: Products derived from algae cultivation.

# STARTUP ALGASSLAB

## Business Model for Algass

### Core Features

CO2 Capture: Bioreactors capture carbon dioxide from the atmosphere, up to 400 times more effective than trees, contributing to global emission reductions.

Biofuel Production: Cultivated algae are converted into clean, sustainable biofuels.

Food Generation: Production of nutrient-rich food inputs using Chlorella vulgaris, suitable for various applications.

Oxygen Production: The machines also produce oxygen, improving local air quality.

AI Optimization: Machine learning software controls internal conditions to maximize bioreactor efficiency.

Machine Customization: Companies can customize the machines to promote their brand and environmental commitment.

### About Chlorella vulgaris

This algae is a highly efficient microalga, ideal for CO2 capture and nutrient-rich food and biofuel production. With its rapid growth and high photosynthetic capacity, it is crucial for our bioreactors, allowing for much more efficient CO2 capture compared to trees while generating valuable, sustainable products.

### Differentiator

Algasslab's main differentiator is the integration of advanced algae cultivation technologies with an accessible and customizable business model. The machines not only help combat climate change but also offer a significant return on investment, enabling companies to showcase their commitment to sustainability.

### Importance of the Startup

With growing concerns about climate change and the urgent need to reduce carbon emissions, Algass is at the forefront of green innovation. CO2 capture, biofuel production, and food generation are critical for building a sustainable future. Our machines provide a practical and effective solution that can be implemented in urban and industrial environments worldwide.

### Market Potential

The global carbon credits market is rapidly growing, estimated to reach \$272 billion by 2027. Additionally, demand for biofuels and sustainable foods continues to rise, driven by government policies and shifting consumer preferences. With capabilities in CO2 capture, oxygen generation, and the production of biofuels and food, Algass is well-positioned to capture a significant share of this market.

# STARTUP ALGASSLAB

## Business Model for AlgassLab

### Cost Structure

Fixed Costs: Development, manufacturing, and maintenance of machines.

Variable Costs: Energy, algae cultivation materials, transportation, and technical support.

Monthly Operating Cost per Machine: \$500

### Distribution Channels

Rental to Businesses: Installation of machines in strategic locations such as bus stops, gyms, shopping malls, and public areas.

Partnerships with Governments and NGOs: Promote installation in urban and rural areas to maximize environmental impact.

Sale of Biofuels and Food Inputs: Partnerships with industries and distributors in the food and energy sectors.

### Launch and Location

A Algasslab será oficialmente lançada quando a pré-venda atingir 60% de sua meta, com suas operações baseadas em Houston, Texas, aproximadamente 40 minutos de Dallas. A escolha de Houston foi estratégica, levando em consideração o custo elétrico competitivo, que é crucial para a operação eficiente dos bioreatores, além de ser um polo atraente para a migração de empresas inovadoras. Estudos estratégicos adicionais confirmaram que Houston oferece a melhor infraestrutura e ambiente de negócios para o sucesso de nossa startup.

With a focus on sustainability and innovation, AlgassLab is poised to lead the green technology market, offering solutions that not only benefit the environment but also create significant value for our partners and customers.

### Introdução às Projeções de Crescimento da AlgassLab

AlgassLab's growth projections provide a detailed view of potential development scenarios over the next five years. As an innovative startup in algae cultivation for biofuel production, food, CO<sub>2</sub> capture, and oxygen production, AlgassLab is positioned to make a significant impact on the sustainable technology market.

These projections consider three distinct scenarios—pessimistic, moderate, and optimistic—each reflecting different rates of adoption and expansion of our technologies. From the initial installation of machines to the scalability of our business model, each scenario demonstrates AlgassLab's growth potential and profitability as we advance in our mission to turn environmental challenges into sustainable business opportunities.

# STARTUP ALGASSLAB

## Business Model for AlgassLab

**Estimates and Expansion Strategy** These estimates provide a solid foundation for evaluating the financial and environmental impact of AlgassLab and guide our expansion strategy, aligning with global trends in sustainability and technological innovation. With the commitment of ProtocolGenesis and the leadership of Arjun Patel, AlgassLab is poised to become a market leader, promoting a greener and more profitable future.

### 5-Year Growth and Annual Profit Projection for AlgassLab

#### **Pessimistic Projection:**

Year 1:

- Installation: 50 machines
- Annual Revenue: \$3,000,000
- Annual Profit: \$2,700,000

Year 2:

- Installation: 75 machines
- Annual Revenue: \$4,500,000
- Annual Profit: \$4,050,000

Year 3:

- Installation: 100 machines
- Annual Revenue: \$6,000,000
- Annual Profit: \$5,400,000

Year 4:

- Installation: 125 machines
- Annual Revenue: \$7,500,000
- Annual Profit: \$6,750,000

Year 5:

- Installation: 150 machines
- Annual Revenue: \$9,000,000
- Annual Profit: \$8,100,000

#### Median Projection:

Year 1:

- Installation: 150 machines
- Annual Revenue: \$9,000,000
- Annual Profit: \$8,100,000

Year 2:

- Installation: 200 machines
- Annual Revenue: \$12,000,000
- Annual Profit: \$10,800,000

Year 3:

- Installation: 250 machines
- Annual Revenue: \$15,000,000
- Annual Profit: \$13,500,000

Year 4:

- Installation: 300 machines
- Annual Revenue: \$18,000,000
- Annual Profit: \$16,200,000

Year 5:

- Installation: 350 machines
- Annual Revenue: \$21,000,000
- Annual Profit: \$18,900,000

#### Optimistic Projection:

Year 1:

- Installation: 300 machines
- Annual Revenue: \$18,000,000
- Annual Profit: \$16,200,000

Year 2:

- Installation: 400 machines
- Annual Revenue: \$24,000,000
- Annual Profit: \$21,600,000

Year 3:

- Installation: 500 machines
- Annual Revenue: \$30,000,000
- Annual Profit: \$27,000,000

Year 4:

- Installation: 600 machines
- Annual Revenue: \$36,000,000
- Annual Profit: \$32,400,000

Year 5:

- Installation: 750 machines
- Annual Revenue: \$45,000,000
- Annual Profit: \$40,500,000

# STARTUP ALGASSLAB

## Business Model for AlgassLab



**Dr. Arjun Patel**

ProtocolGenesis is proud to introduce Arjun Patel, 35, as the lead chemical engineer for Algass-Lab, our new initiative focused on algae cultivation for the production of biofuels, food, CO<sub>2</sub> capture, and oxygen production. Arjun was carefully selected by ProtocolGenesis for his extensive knowledge and experience in biotechnology, his passion for sustainability, and his commitment to transforming environmental challenges into innovative opportunities.

Arjun Patel has over 12 years of experience in research and development in the biotechnology sector, with a special focus on algae cultivation for biofuel production and CO<sub>2</sub> capture. He holds degrees in Chemical Engineering from the University of California, Berkeley and the Indian Institute of Technology Delhi (IIT Delhi), prestigious institutions that have shaped his career in innovation and sustainable technology.

Throughout his career, Arjun has led several successful projects, including the implementation of advanced bioreactors that optimize CO<sub>2</sub> capture using Chlorella vulgaris, a highly efficient microalga. His pioneering work in integrating machine learning algorithms to optimize cultivation conditions has resulted in significant improvements in productivity and efficiency of biotechnological processes.

His efforts have been recognized with awards such as the Renewable Energy Innovation Award and the Best Research in Environmental Biotechnology.

With a proven track record of leadership in large-scale projects and a clear vision for the future, Arjun Patel is poised to lead AlgassLab to success, aligning with the values and mission of ProtocolGenesis to create sustainable solutions that positively impact the world.

ProtocolGenesis is open to anyone with expertise in the field who wishes to join the ecosystem to seek investment for their own lab or project. This project will be decentralized, aiming to expand to each state, selecting teams to operate and manage local labs, with full investment from the ecosystem.



STARTUPS

# BIOHACKING PHARMA

**BiohackingPharma is a capsule-based company focused on the production and distribution of premium multivitamins.**

# STARTUP BIOHACKINGPHARMA

## Business Model for BiohackingPharma Startup

### Introduction

With the growing demand for health and wellness, the multivitamin supplement market has become increasingly relevant, offering practical solutions for maintaining a healthy lifestyle. BiohackingPharma, to be established in Utah due to tax benefits and strategic partnerships in the region, is an innovative company focused on the production and distribution of high-quality encapsulated multivitamins. Through a monthly subscription model, consumers will have access to essential supplements with the convenience of paying via BTC or GENS, the cryptocurrency of the ProtocolGenesis blockchain.

BiohackingPharma is a capsule-based company focused on the production and distribution of premium multivitamins. The company offers consumers an innovative platform to acquire their supplements through a monthly subscription, with payments made in BTC or GENS. Utah was chosen as the headquarters due to tax benefits and the presence of partner companies that strengthen our supply chain and operations.

In addition to multivitamins, subscribers will have access to an exclusive app for diet management and wellness care. The app not only helps users monitor their nutritional needs but also offers support for workouts, outdoor exercises, stretching, yoga practices, and meditation, promoting a healthy and balanced lifestyle.

### Revenue Model

The revenue model of BiohackingPharma is based on the sale of multivitamins through a monthly subscription system. Each multivitamin unit is sold for \$27, with a shipping cost of \$12, resulting in a profit of \$15 per unit sold.

Selling Price per Unit: \$27

Shipping Cost per Unit: \$12

Profit per Unit: \$15

Monthly Subscription: Users pay via BTC or GENS

### Revenue Structure

Primary Revenue: Sale of multivitamins through monthly subscriptions.

Cryptocurrency Payments: Acceptance of BTC and GENS to maximize user accessibility and convenience.

Recurring Revenue: The subscription model generates a stable and predictable revenue stream, facilitating financial planning for the company.

### Cost Structure

Production and Shipping Cost: \$12 per unit

Fixed Costs: Platform development and maintenance, marketing, customer support.

Variable Costs: Materials, logistics, packaging, and costs associated with cryptocurrency payment acceptance.

# STARTUP BIOHACKINGPHARMA

## Business Model for BiohackingPharma Startup

### Moderation System

Quality Control: Ensuring all products meet the highest standards of quality and safety.

Customer Support: Dedicated team to address any issues or questions from subscribers.

Reviews and Feedback: System for users to rate products, contributing to continuous improvement.

### Key Features

Monthly Subscription: Facilitates regular delivery of multivitamins directly to subscribers' homes.

Payments via BTC or GENS: Innovation in the payment process, aligned with blockchain technology.

Wellness App: Access to a diet and wellness management app, assisting with workouts, outdoor exercises, stretching, yoga, and meditation.

Health Management: Tools for users to monitor their supplementation needs and adjust their subscriptions as necessary.

Personalized Recommendations: Product suggestions based on individual user needs.

### Distribution Channels

Online Platform: Website and mobile app where users can manage their subscriptions and place orders.

Partnerships with Health and Fitness Influencers: Promote the app and products to a targeted audience.

Digital Marketing: Campaigns on social media, SEO, email marketing, and online ads to attract new subscribers.

### Importance of Multivitamins

Multivitamins are essential for supplementing the modern diet, which often lacks fundamental nutrients. They help fill nutritional gaps, support the immune system, and improve overall health. The global multivitamin market is continuously growing, reflecting the increasing demand for preventive health solutions.

### Growing Market

The dietary supplement market, specifically multivitamins, is projected to reach over \$300 billion globally in the coming years, with an annual growth rate of 8-10%. This growth is driven by increased health awareness, an aging population, and a greater interest in preventive wellness. BiohackingPharma is well-positioned to capitalize on these trends by offering high-quality products with convenience and accessibility, along with integrated tools to promote a healthy and balanced lifestyle.

# STARTUP BIOHACKINGPHARMA

## Business Model for BiohackingPharma Startup

BiohackingPharma is an innovative startup dedicated to revolutionizing the way people manage their health through intelligent supplementation. Our mission is to optimize well-being and physical and mental performance by offering carefully developed vitamin formulas tailored to meet the specific needs of each area of the body.

Based on a deep understanding of human biochemistry, BiohackingPharma creates precise combinations of vitamins and nutrients, formulated to enhance crucial functions such as memory, concentration, energy, hair health, nails, and more. Each formula is designed to maximize specific benefits, promoting not only overall health but also the improvement of fundamental aspects that directly impact quality of life.

At BiohackingPharma, we believe that the future of health lies in personalization and advanced science, and we are committed to helping people achieve their maximum potential through effective, evidence-based supplementation.

Below is a list of key components and their benefits:

### **Vitamin A (Retinol)**

How it works: Essential for vision, especially night vision, and for maintaining the health of skin and mucous membranes. It also plays a role in immune function and reproduction.

Benefits: Enhances vision, strengthens the immune system, promotes skin health, and supports cellular development.

### **Vitamin B1 (Thiamine)**

How it works: Helps the body convert carbohydrates into energy and is essential for the functioning of the nervous system.

Benefits: Improves energy production, supports brain and cardiovascular function.

### **Vitamin B2 (Riboflavin)**

How it works: Plays a crucial role in energy metabolism and the maintenance of skin, eye, and nervous system health.

Benefits: Supports energy production, protects against oxidative damage, and improves skin health.

### **Vitamin B3 (Niacin)**

How it works: Assists in converting food into energy and is important for skin health and the functioning of the digestive system.

Benefits: Enhances energy production, supports digestive health, and promotes skin health.

# STARTUP BIOHACKINGPHARMA

## Business Model for BiohackingPharma Startup

### **Vitamin B5 (Pantothenic Acid)**

How it works: Participates in the synthesis of coenzyme A, essential for energy metabolism and hormone synthesis.

Benefits: Enhances energy production, supports adrenal function, and hormone synthesis.

### **Vitamin B6 (Pyridoxine)**

How it works: Involved in protein and glucose metabolism, and in the production of neurotransmitters like serotonin.

Benefits: Improves mood, supports brain function, and helps regulate homocysteine levels, protecting the heart.

### **Vitamin B7 (Biotin)**

How it works: Important for the metabolism of fats, carbohydrates, and proteins, and crucial for skin, hair, and nail health.

Benefits: Promotes healthy hair and nail growth, improves skin health, and supports energy metabolism.

### **Vitamin B9 (Folic Acid)**

How it works: Essential for DNA and RNA synthesis, and for proper development of the fetal nervous system.

Benefits: Prevents congenital defects, supports cardiovascular health, and improves brain function.

### **Vitamin B12 (Cobalamin)**

How it works: Necessary for red blood cell production, DNA synthesis, and nervous system function.

Benefits: Prevents anemia, improves neurological health, and supports energy production.

### **Vitamin C (Ascorbic Acid)**

How it works: A potent antioxidant, protecting cells from oxidative damage and supporting collagen production.

Benefits: Enhances skin health, supports wound healing, strengthens the immune system, and protects against cardiovascular diseases.

### **Vitamin D**

How it works: Facilitates the absorption of calcium and phosphorus in the intestine, essential for bone health. It also modulates immune function.

Benefits: Strengthens bones, supports the immune system, improves mood, and cardiovascular health.

# STARTUP BIOHACKINGPHARMA

## Business Model for BiohackingPharma Startup

### **Vitamin E (Tocopherol)**

How it works: A fat-soluble antioxidant that protects cells from damage caused by free radicals.  
Benefits: Protects skin health, improves immune function, and may reduce the risk of chronic diseases.

### **Vitamin K**

How it works: Essential for blood clotting and bone health, as it participates in the regulation of calcification.  
Benefits: Prevents bleeding, strengthens bones, and supports cardiovascular health.

### **Vitamin H (Biotin)**

How it works: Affects the metabolism of fats, carbohydrates, and proteins, and is essential for skin, hair, and nail health.  
Benefits: Promotes healthy hair and nail growth and improves skin health.

### **Choline**

How it works: Involved in the synthesis of phospholipids, important for cellular membrane structure, and in the production of acetylcholine, a neurotransmitter.  
Benefits: Enhances brain function, supports liver health, and muscle function.

### **Coenzyme Q10 (Ubiquinone)**

How it works: Participates in ATP (cellular energy) production and acts as an antioxidant, protecting cells from oxidative damage.  
Benefits: Improves cellular energy production, supports heart health, and has anti-aging effects.

### **Resveratrol**

How it works: A polyphenol with antioxidant and anti-inflammatory properties that protects cells from damage and stress.  
Benefits: Enhances cardiovascular health, supports cellular longevity, and brain function.

### **Ácido Alfa-Lipóico (ALA)**

How it works: A water- and fat-soluble antioxidant that regenerates other antioxidants and supports energy metabolism.  
Benefits: Protects cells from oxidative damage, improves insulin sensitivity, and supports

### **Astaxanthin**

How it works: A carotenoid with strong antioxidant action, protecting against damage caused by free radicals and inflammation.  
Benefits: Supports skin and eye health and improves physical performance.

# STARTUP BIOHACKINGPHARMA

## Business Model for Biohackingpharma Startup

### **Lutein and Zeaxanthin**

How they work: Carotenoids that accumulate in the retina and protect against damage caused by blue light and oxidative stress.

Benefits: Protect vision, reduce the risk of macular degeneration and cataracts.

### **Carnitine (L-Carnitine)**

How it works: Helps transport fatty acids to the mitochondria, where they are converted into energy.

Benefits: Improves energy production, supports cardiovascular health, and physical performance.

### **Glutathione**

How it works: An antioxidant produced by the body that protects against oxidative damage and supports detoxification.

Benefits: Supports liver detoxification, strengthens the immune system, and combats premature aging.

### **Curcumin**

How it works: The primary active compound in turmeric, with anti-inflammatory and antioxidant properties.

Benefits: Reduces inflammation, improves brain function, and protects against chronic diseases.

### **Coenzyme NADH (Nicotinamide Adenine Dinucleotide)**

How it works: Essential for cellular energy production and antioxidant regeneration.

Benefits: Increases energy, improves cognitive function, and supports cardiovascular health.

### **Quercetin**

How it works: A flavonoid with antioxidant and anti-inflammatory properties.

Benefits: Strengthens the immune system, protects against cardiovascular diseases, and relieves allergies.

### **Vitamin K2 (Menaquinone)**

How it works: Helps with calcium distribution, preventing arterial calcification and directing calcium to the bones.

Benefits: Strengthens bones, reduces the risk of arterial calcification, and supports cardiovascular health.

### **Probiotics**

How they work: Live microorganisms that promote gut flora balance and digestive health.

Benefits: Improve digestion, strengthen the immune system, and may positively influence mental health.

# STARTUP BIOHACKINGPHARMA

## Business Model for Biohackingpharma Startup

### **Prebiotics**

How they work: Fibers that feed beneficial bacteria in the gut, promoting a healthy microbiome.  
Benefits: Support digestive health, improve nutrient absorption, and strengthen the immune system.

### **Coenzyme PQQ (Pyrroloquinoline Quinone)**

How it works: Stimulates the growth of new mitochondria and improves mitochondrial function.  
Benefits: Increases energy production, protects cells against oxidative damage, and enhances cognitive function.

### **Magnesium**

How it works: Involved in over 300 enzymatic reactions, including energy metabolism and muscle and nerve function.  
Benefits: Prevents cramps, improves muscle function, and supports bone health.

### **Zinc**

How it works: Important for immune function, protein and DNA synthesis, and wound healing.  
Benefits: Strengthens the immune system, improves wound healing, and supports reproductive health.

### **Selenium**

How it works: An antioxidant that protects cells against oxidative stress and supports thyroid function.  
Benefits: Supports thyroid health, strengthens the immune system, and protects against cardiovascular diseases.

### **Calcium**

How it works: Essential for the formation and maintenance of bones and teeth, and important for muscle function and blood clotting.  
Benefits: Strengthens bones, supports muscle contraction, and aids in blood clotting.

### **Phosphorus**

How it works: Essential for the structure of DNA, RNA, and cell membranes, and crucial for cellular energy production.  
Benefits: Supports bone and dental health, improves energy production, and enhances renal function.

### **Iodine**

How it works: Essential for the production of thyroid hormones that regulate metabolism.  
Benefits: Supports thyroid function, improves metabolism, and enhances cognitive development.

# STARTUP BIOHACKINGPHARMA

## Business Model for Biohackingpharma Startup

### Potassium

How it works: An electrolyte that regulates fluid balance, muscle function, and blood pressure.  
Benefits: Maintains blood pressure, supports muscle function, and balances fluids in the body.

### Copper

How it works: Involved in the formation of hemoglobin, collagen, and elastin, and is a cofactor in various antioxidant enzymes.  
Benefits: Supports energy production, collagen formation, and immune function.

### Manganese

How it works: Essential for the metabolism of amino acids, cholesterol, and carbohydrates, and protects against oxidative damage.  
Benefits: Supports bone health, metabolism, and antioxidant function.

### Molybdenum

How it works: A cofactor for enzymes involved in protein and DNA metabolism.  
Benefits: Supports detoxification, cellular health, and enzymatic function.

### Chromium

How it works: Enhances insulin action and is essential for the metabolism of carbohydrates, lipids, and proteins.  
Benefits: Helps maintain healthy blood glucose levels and supports metabolism.

### Other Compounds and Supplements

#### Hyaluronic Acid

How it works: Retains moisture and keeps the skin hydrated and firm.  
Benefits: Improves skin elasticity, lubricates joints, and reduces joint pain.

#### Inositol

How it works: Involved in cellular signaling and nerve function.  
Benefits: Improves mood, reduces anxiety, and supports reproductive health.

#### L-Cysteine

How it works: Assists in the production of glutathione, an important antioxidant in the body.  
Benefits: Supports detoxification, improves hair and respiratory health.

#### L-Theanine

How it works: Promotes relaxation without causing drowsiness.  
Benefits: Reduces stress, improves concentration, and enhances focus.

# STARTUP BIOHACKINGPHARMA

## Business Model for Biohackingpharma Startup

### **Beta-Glucan**

How it works: A soluble fiber that modulates the immune system.

Benefits: Strengthens the immune system and supports cardiovascular health.

### **Ginseng**

How it works: An adaptogenic herb that enhances energy and helps the body cope with stress.

Benefits: Increases energy, improves cognitive function, and reduces stress.

### **Melatonin**

How it works: A hormone that regulates the sleep-wake cycle.

Benefits: Improves sleep, alleviates jet lag, and supports mental health.

### **Iron**

How it works: Essential for the production of hemoglobin, which carries oxygen in the blood.

Benefits: Prevents anemia, improves energy levels, and supports cognitive function.

### **Collagen**

How it works: A structural protein that maintains the elasticity and firmness of tissues.

Benefits: Enhances skin firmness, supports joint and bone health.

### **Lycopene**

Como age: Um carotenoide antioxidante que protege as células contra danos oxidativos.

Benefícios: Apoia a saúde cardiovascular, reduz o risco de câncer e melhora a saúde da pele.

### **Glucosamine Sulfate**

How it works: Helps in the formation and repair of joints.

Benefits: Reduces joint pain and supports cartilage health.

### **Chondroitin**

How it works: Maintains the integrity and elasticity of joints.

Benefits: Reduces joint pain and improves joint function.

### **MSM (Methylsulfonylmethane)**

How it works: A sulfur compound with anti-inflammatory action that supports collagen production.

Benefits: Reduces joint inflammation, improves skin health, and supports detoxification.

The list provided contains a comprehensive selection of vitamins, minerals, and bioactive compounds, each playing a crucial role in maintaining and enhancing human health. These nutrients range from essential vitamins,

# STARTUP BIOHACKINGPHARMA

## Business Model for Biohackingpharma Startup

From essential vitamins like C and D, which are crucial for immunity and bone health, to advanced compounds such as Coenzyme Q10 and Resveratrol, which offer antioxidant and cellular rejuvenation benefits.

At BiohackingPharma, these substances are meticulously selected and combined to create customized formulas designed to address specific bodily needs, such as improving memory, increasing energy, strengthening hair and nails, enhancing concentration, and much more. By manipulating these substances in optimal proportions, we ensure that each supplement provides maximum efficacy, delivering real and measurable benefits to the health and well-being of our clients.

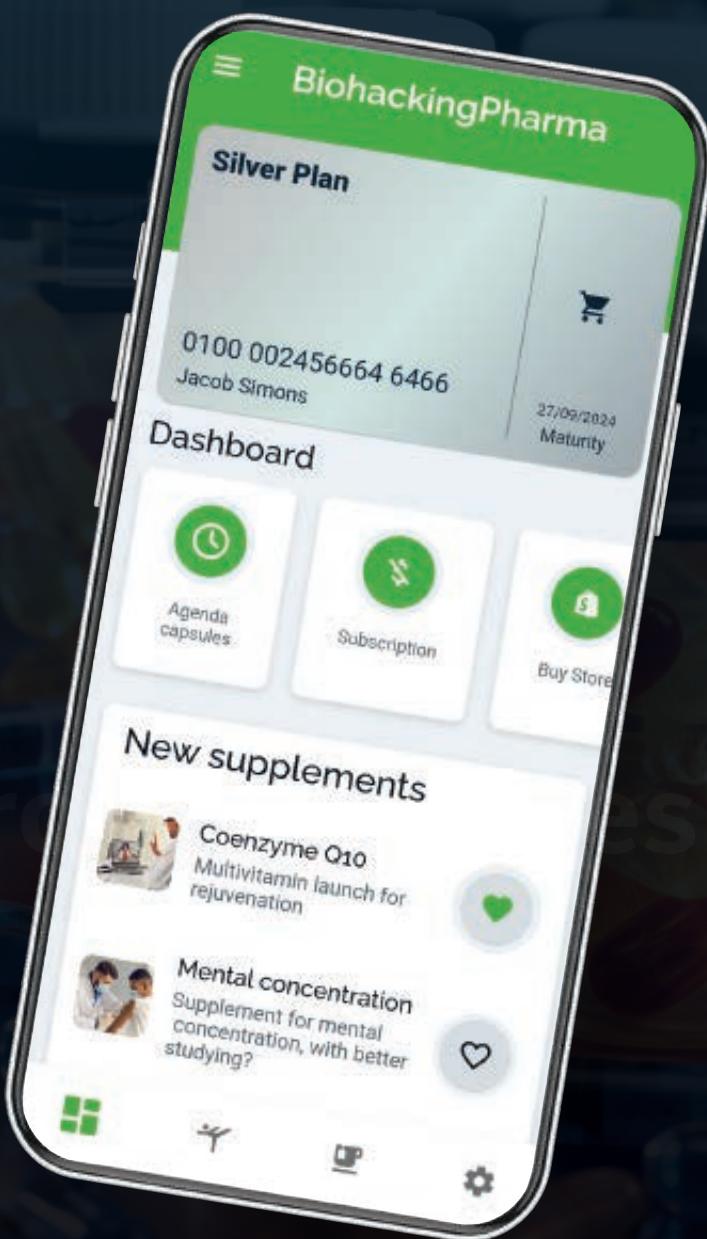
Our scientific and biohacking-focused approach allows us to develop supplements that not only meet but exceed expectations, contributing to a healthier and more balanced lifestyle.

At BiohackingPharma, our approach goes beyond creating personalized supplements. We understand that the journey to optimized health requires continuous monitoring and precise adjustments, ensuring that each individual receives exactly what they need at every stage of their life. That's why, in addition to our advanced formulations, we offer an exclusive app that complements and enhances the benefits of our supplements.

This app, available to all BiohackingPharma subscribers, is the key to effective and personalized tracking, enabling you to maximize the results of the supplements and maintain precise control over your health and well-being.

# BIOHACKING PHARMA

The BiohackingPharma app allows you to track and personalize supplement use, offering real-time health monitoring, dosage reminders, and automatic adjustments to formulas to optimize results, ensuring a personalized and effective health experience.



The BiohackingPharma app is included with the subscription to our supplementation plan. It allows you to monitor your progress, receive dosage reminders, and personalize your formulas in real time. With the app, you ensure that your supplements are always aligned with your health needs, providing a complete and personalized wellness experience.

# STARTUP BIOHACKINGPHARMA

## Business Model for the Startup Algass

### Growth Projection

BiohackingPharma is a startup fully integrated into the ProtocolGenesis ecosystem, created to revolutionize the dietary supplement market with a focus on high-quality encapsulated multivitamins. Completely integrated with the ProtocolGenesis ecosystem, BiohackingPharma leverages blockchain technology to accept payments via BTC and GENS, ensuring innovation and security in its transactions.

The Sumerians, key members of ProtocolGenesis, will lead and drive the growth of BiohackingPharma. Alongside a dedicated marketing team, they will promote the startup, build strategic partnerships, and expand the company's presence in the global market. With their direct involvement, BiohackingPharma is well-positioned to generate significant profits and contribute to the strengthening and expansion of the ProtocolGenesis ecosystem.

The collaboration between the Sumerians and the marketing team will enable BiohackingPharma to reach its full potential, utilizing best practices in digital growth, community engagement, and innovative strategies to maximize impact in the health and wellness market.

### Growth Projection

**Pessimistic Projection:**  
Year 1: 10,000 subscribers  
Annual Profit: \$1,800,000  
Year 2: 15,000 subscribers  
Annual Profit: \$2,700,000  
Year 3: 20,000 subscribers  
Annual Profit: \$3,600,000  
Year 4: 25,000 subscribers  
Annual Profit: \$4,500,000  
Year 5: 30,000 subscribers  
Annual Profit: \$5,400,000

**Median Projection:**  
Year 1: 20,000 subscribers  
Annual Profit: \$3,600,000  
Year 2: 30,000 subscribers  
Annual Profit: \$5,400,000  
Year 3: 40,000 subscribers  
Annual Profit: \$7,200,000  
Year 4: 50,000 subscribers  
Annual Profit: \$9,000,000  
Year 5: 60,000 subscribers  
Annual Profit: \$10,800,000

**Optimistic Projection:**  
Year 1: 50,000 subscribers  
Annual Profit: \$9,000,000  
Year 2: 70,000 subscribers  
Annual Profit: \$12,600,000  
Year 3: 100,000 subscribers  
Annual Profit: \$18,000,000  
Year 4: 150,000 subscribers  
Annual Profit: \$27,000,000  
Year 5: 200,000 subscribers  
Annual Profit: \$36,000,000

### Final Considerations

The multivitamin market is expanding, driven by increased awareness of health and wellness. With projected annual revenue potentially reaching up to \$36 million in an optimistic scenario, BiohackingPharma is positioned to become a leader in the dietary supplement industry. The monthly subscription model, combined with innovative cryptocurrency payments and access to a wellness app, offers a unique value proposition that is attractive to a growing market.

# APPLICATION PROJECTION

## Cumulative Projection of Applications over 10 Years in Three Scenarios

### Growth Projection

The 10-year financial projection for the ProtocolGenesis ecosystem's applications reveals significant growth potential across all analyzed scenarios—pessimistic, moderate, and optimistic. These calculations, based on an annual growth rate of 5%, provide a clear view of how the ecosystem may evolve over the next decade.

In the pessimistic scenario, growth is more cautious, with the cumulative annual profits of the applications starting at approximately \$13 million in the first year and reaching just over \$20 million in the tenth year. This scenario reflects a challenging economic environment but still highlights the resilience of the ecosystem.

In the moderate scenario, representing a more stable and predictable growth trajectory, the combined profits of the applications grow from around \$62.8 million in the first year to nearly \$97.5 million by the end of the tenth year. This scenario indicates solid adoption and continuous expansion of the services and products offered by the applications.

Finally, the optimistic scenario projects robust and accelerated growth, with the combined annual profits of the applications starting at \$137 million in the first year and exceeding \$212 million in the tenth year. This scenario reflects broad adoption of the ecosystem and significant success of the applications in capturing and expanding their user base and market.

These projections provide a solid foundation for evaluating the financial future of the ProtocolGenesis ecosystem and assist in strategic decision-making, including investments, development of new products, and expansion into new markets. The positive evolution of annual profits reinforces the importance of continuing to innovate and adapt to market changes to maximize the ecosystem's success in the coming years.

#### Pessimistic Projection:

Year 1: \$13,001,928  
Year 2: \$13,652,024.40  
Year 3: \$14,334,625.62  
Year 4: \$15,051,356.90  
Year 5: \$15,803,924.75  
Year 6: \$16,594,120.99  
Year 7: \$17,423,827.02  
Year 8: \$18,295,018.39  
Year 9: \$19,209,769.30  
Year 10: \$20,170,257.76

#### Median Projection:

Year 1: \$62,845,856  
Year 2: \$65,988,148.80  
Year 3: \$69,287,556.24  
Year 4: \$72,751,934.05  
Year 5: \$76,389,530.75  
Year 6: \$80,209,007.29  
Year 7: \$84,219,457.66  
Year 8: \$88,430,430.55  
Year 9: \$92,851,952.08  
Year 10: \$97,494,549.65

#### Optimistic Projection:

Year 1: \$137,011,712  
Year 2: \$143,862,297.60  
Year 3: \$151,055,412.48  
Year 4: \$158,608,183.10  
Year 5: \$166,538,592.25  
Year 6: \$174,865,521.88  
Year 7: \$183,608,797.97  
Year 8: \$192,789,237.87  
Year 9: \$202,428,699.75  
Year 10: \$212,550,134.74

# STARTUP PROJECTION

## Cumulative Projection of Startups over 10 Years in All Three Scenarios

### Growth Projection

The 10-year financial projection for the startups BioHackPharma, AlgasLab, and GrafenoLabs within the ProtocolGenesis ecosystem provides a detailed view of the growth potential for these companies under different scenarios: pessimistic, moderate, and optimistic. These calculations consider a 5% annual growth rate for years 6 to 10, based on the data provided for the first five years.

#### **BioHackPharma**

In the pessimistic scenario, BioHackPharma, starting with 10,000 subscribers and a profit of \$1,800,000 in the first year, shows steady growth, reaching an annual profit of approximately \$6,891,920 in the tenth year. In the moderate scenario, the initial profit of \$3,600,000 doubles to \$13,783,840 in the tenth year, reflecting a solid increase in the subscriber base. In the optimistic scenario, where the company begins with 50,000 subscribers and a profit of \$9,000,000, the growth is impressive, with the annual profit projected to reach around \$45,946,136 after a decade.

#### **AlgasLab**

AlgasLab, specializing in installing algae cultivation machines, shows robust growth across all scenarios. In the pessimistic scenario, the annual profit starts at \$2,700,000 and reaches \$10,337,880 in the tenth year. In the moderate scenario, where the number of installed machines grows consistently, the annual profit increases from \$8,100,000 in the first year to over \$24,121,721 by the end of 10 years. In the optimistic scenario, the annual profit of \$16,200,000 in the first year grows significantly, reaching \$51,689,403 in the tenth year, reflecting aggressive expansion of the installed capacity.

#### **GrafenoLabs**

GrafenoLabs, focused on graphene production, also presents varied growth projections. In the pessimistic scenario, the modest initial production results in an annual profit that grows from \$183,600 to \$344,596 over 10 years. In the moderate scenario, the company sees its profit grow from \$183,600 in the first year to \$827,030 in the tenth year, as production increases gradually. In the optimistic scenario, where production grows rapidly, the annual profit of \$183,600 in the first year jumps to \$1,240,545 by the end of a decade, highlighting the market potential for this innovative material.

### **Conclusion**

These projections highlight the significant potential of the startups within the ProtocolGenesis ecosystem, with each company demonstrating the capacity for substantial growth, even in conservative scenarios. BioHackPharma, AlgasLab, and GrafenoLabs are well-positioned to capitalize on market opportunities, expand their operations, and significantly increase their profits over the next decade. These analyses not only provide a solid foundation for strategic decision-making but also illustrate the crucial role these companies will play in the future success of the ecosystem as a whole.

## COMBINED PROFIT ANALYSIS

### 10-Year Financial Projection for Startups

The 10-year financial projection for the startups BioHackPharma, AlgasLab, and GrafenoLabs, when combined, provides a comprehensive view of their growth potential within the ProtocolGenesis ecosystem. The calculations were made for three distinct scenarios—pessimistic, moderate, and optimistic—considering a 5% annual growth rate from the sixth year onward.

#### **Pessimistic Scenario**

In the pessimistic scenario, growth is more conservative, reflecting a more challenging market environment. The combined profit of the three startups begins at \$4,683,600 in the first year and steadily grows to \$17,574,397 by the tenth year. This scenario suggests that, even when facing obstacles, the startups are still able to maintain positive and consistent growth.

#### **Moderate Scenario**

The moderate scenario represents a stable and predictable growth trajectory, where the three startups start with a combined profit of \$11,883,600 in the first year and increase to \$38,732,592 by the end of the tenth year. This scenario reflects solid adoption of their solutions and continuous business expansion, indicating that the startups are well-positioned to capture a significant market share.

#### **Optimistic Scenario**

In the optimistic scenario, growth is pronounced, with the startups reaching an impressive combined profit of \$25,383,600 in the first year, expanding to \$98,876,085 over 10 years. This scenario suggests that the startups exceed expectations, leveraging market opportunities, innovation, and global expansion to their advantage.

#### **Conclusion**

These projections illustrate how the three startups can evolve together, providing robust growth for the ProtocolGenesis ecosystem. Even in the most conservative scenario, growth is significant, while the moderate and optimistic scenarios offer a glimpse into a future where these companies not only thrive but become market leaders in their respective sectors. These analyses are crucial for guiding long-term strategies, investments, and expansion decisions within the ecosystem.

#### **Pessimistic Projection:**

Year 1: \$4,683,600  
 Year 2: \$6,955,200  
 Year 3: \$9,259,200  
 Year 4: \$11,520,000  
 Year 5: \$13,770,000  
 Year 6: \$14,458,500  
 Year 7: \$15,181,425  
 Year 8: \$15,940,496.25  
 Year 9: \$16,737,521.06  
 Year 10: \$17,574,397.11

#### **Median Projection:**

Year 1: \$11,883,600  
 Year 2: \$16,459,200  
 Year 3: \$21,088,800  
 Year 4: \$25,718,400  
 Year 5: \$30,348,000  
 Year 6: \$31,865,400  
 Year 7: \$33,458,670  
 Year 8: \$35,131,603.50  
 Year 9: \$36,888,183.67  
 Year 10: \$38,732,592.86

#### **Optimistic Projection:**

Year 1: \$25,383,600  
 Year 2: \$34,588,800  
 Year 3: \$45,583,200  
 Year 4: \$60,177,600  
 Year 5: \$77,472,000  
 Year 6: \$81,345,600  
 Year 7: \$85,412,880  
 Year 8: \$89,683,524  
 Year 9: \$94,167,700.19  
 Year 10: \$98,876,085.20

Combined Scenarios for the Three Startups

*Lorem ipsum*

## COMBINED PROFIT ANALYSIS

The combined financial analysis of the startups and applications within the ProtocolGenesis ecosystem over 10 years reveals substantial growth across all projections—pessimistic, moderate, and optimistic. This aggregate provides a comprehensive view of the ecosystem's potential for expansion and profitability, reflecting both technological adoption and commercial success.

### **Pessimistic Scenario**

In the pessimistic scenario, despite economic and market challenges, projections indicate steady growth. The combined profits of applications and startups start at \$17,685,528 in the first year and reach \$37,744,654 by the tenth year. This nearly doubles the initial value, demonstrating the ecosystem's resilience, where even in a challenging environment, the companies manage to remain profitable and expand.

### **Moderate Scenario**

The moderate scenario provides a view of stable and predictable growth. The combined profits start at \$74,729,456 in the first year and reach \$136,227,142 by the tenth year. This scenario reflects healthy growth, with the ecosystem expanding its operations, capturing new market opportunities, and consistently increasing its user and client base. This growth represents the companies' ability to innovate and adapt to market changes.

### **Optimistic Scenario**

In the optimistic scenario, projections show accelerated and significant growth. The combined profits of applications and startups start at \$162,395,312 in the first year and reach an impressive \$311,426,219 by the tenth year. This scenario suggests that the ecosystem not only thrives but becomes a market leader, leveraging disruptive innovations, global expansion, and a rapidly growing customer base. The substantial increase over the years reflects strategic success in capturing value across multiple sectors.

### **Conclusion**

The combined projections for applications and startups over 10 years highlight the robust potential of the ProtocolGenesis ecosystem. Regardless of the scenario, companies within this ecosystem demonstrate a strong capacity for growth, resilience, and market adaptation. This cumulative performance is crucial for assessing the long-term impact of the ecosystem in the global market and its future prospects as a conglomerate of innovative technology.

#### **Pessimistic Projection:**

Year 1: \$17,685,528  
Year 5: \$29,573,924.75  
Year 10: \$37,744,654

#### **Median Projection:**

Year 1: \$74,729,456  
Year 5: \$106,737,530  
Year 10: \$136,227,142

#### **Optimistic Projection:**

Year 1: \$162,395,312  
Year 5: \$244,010,592  
Year 10: \$311,426,219

Combined Scenarios of Apps and Startups



# CURRENCY VALUE PROJECTION IN 10 YEARS

## Growth Projection of GENS Currency in 6 Scenarios

Below is a detailed description of all the GENS currency growth scenarios over 10 years, considering different market conditions and impact variables.

### ***Extremely Worst Case Scenario***

In the most unfavorable scenario, where GENS currency grows extremely slowly, reflecting a market with low demand and almost no wallet expansion. The currency reaches \$359.30 after 10 years, representing a growth of 11,876.67% from the pre-sale price of \$3, showing that despite adverse conditions, the currency still has significant growth potential.

Year 1: \$287.19 (Growth of 9,473.00%)  
Year 2: \$301.31 (Growth of 9,943.67%)  
Year 3: \$314.89 (Growth of 10,396.33%)  
Year 4: \$327.85 (Growth of 10,828.33%)  
Year 5: \$340.32 (Growth of 11,244.00%)  
Year 6: \$342.93 (Growth of 11,331.00%)  
Year 7: \$346.17 (Growth of 11,439.00%)  
Year 8: \$349.98 (Growth of 11,566.00%)  
Year 9: \$354.37 (Growth of 11,712.33%)  
Year 10: \$359.30 (Growth of 11,876.67%)

### ***Extremely Pessimistic Scenario***

This scenario reflects a very adverse market environment but with slight annual growth. GENS currency starts at \$443.28 and reaches \$552.93 after 10 years, resulting in a growth of 18,331.00% from the initial price. Although the market is extremely unfavorable, the growth is still considerable due to speculation in the cryptocurrency market.

Year 1: \$443.28 (Growth of 14,676.00%)  
Year 2: \$464.50 (Growth of 15,383.33%)  
Year 3: \$484.98 (Growth of 16,066.00%)  
Year 4: \$504.62 (Growth of 16,720.67%)  
Year 5: \$523.58 (Growth of 17,352.67%)  
Year 6: \$527.44 (Growth of 17,481.33%)  
Year 7: \$532.36 (Growth of 17,645.33%)  
Year 8: \$538.27 (Growth of 17,842.33%)  
Year 9: \$545.14 (Growth of 18,071.33%)  
Year 10: \$552.93 (Growth of 18,331.00%)

# CURRENCY VALUE PROJECTION IN 10 YEARS

## Projection of Currency Growth in 6 Scenarios

### **Very Pessimistic Scenario**

In the very pessimistic scenario, the GENS currency grows moderately over 10 years, despite selling pressures and a challenging market. Starting at \$677.90 in the first year, the currency manages to reach \$834.51 by the end of 10 years, representing a growth of 27,717.00% from the pre-sale price.

Year 1: \$677.90 (Growth of 22,496.67%)  
Year 2: \$708.31 (Growth of 23,510.33%)  
Year 3: \$737.76 (Growth of 24,492.00%)  
Year 4: \$766.09 (Growth of 25,436.33%)  
Year 5: \$793.56 (Growth of 26,352.00%)  
Year 6: \$798.31 (Growth of 26,510.33%)  
Year 7: \$804.88 (Growth of 26,729.33%)  
Year 8: \$813.16 (Growth of 27,005.33%)  
Year 9: \$823.05 (Growth of 27,335.00%)  
Year 10: \$834.51 (Growth of 27,717.00%)

### **Pessimistic Scenario**

In this scenario, the GENS currency shows a more robust growth but still with some caution. Starting at \$1201.79, the currency reaches \$1482.44 by the end of 10 years, representing a growth of 49,314.67% from the initial price. The market is moderately favorable, allowing for consistent growth.

Year 1: \$1201.79 (Growth of 39,959.67%)  
Year 2: \$1254.91 (Growth of 41,730.33%)  
Year 3: \$1306.64 (Growth of 43,454.67%)  
Year 4: \$1356.68 (Growth of 45,122.67%)  
Year 5: \$1405.51 (Growth of 46,750.33%)  
Year 6: \$1414.31 (Growth of 47,043.67%)  
Year 7: \$1426.59 (Growth of 47,453.00%)  
Year 8: \$1442.14 (Growth of 47,971.33%)  
Year 9: \$1460.80 (Growth of 48,593.33%)  
Year 10: \$1482.44 (Growth of 49,314.67%)

# CURRENCY VALUE PROJECTION IN 10 YEARS

## Projection of Currency Growth in 6 Scenarios

### **Moderate Scenario**

O cenário moderado reflete um crescimento constante e significativo, sugerindo um mercado estável e favorável. O preço da moeda GENS aumenta de \$3171.22 no primeiro ano para \$3723.19 ao final de 10 anos, com um crescimento de 124006.33% em relação ao preço de pré-venda de \$3.

Year 1: \$3171.22 (Growth of 105,607.33%)  
Year 2: \$3289.95 (Growth of 109,565.00%)  
Year 3: \$3404.39 (Growth of 113,379.67%)  
Year 4: \$3513.89 (Growth of 117,029.67%)  
Year 5: \$3619.77 (Growth of 120,559.00%)  
Year 6: \$3622.59 (Growth of 120,653.00%)  
Year 7: \$3634.99 (Growth of 121,066.33%)  
Year 8: \$3656.25 (Growth of 121,775.00%)  
Year 9: \$3685.80 (Growth of 122,760.00%)  
Year 10: \$3723.19 (Growth of 124,006.33%)

### **Optimistic Scenario**

The optimistic scenario projects explosive growth for the GENS currency, driven by high demand and substantial value retention. The currency reaches \$23,773.91 by the end of 10 years, representing an impressive growth of 792,363.67% compared to the pre-sale price of \$3. This scenario reflects an extremely favorable market environment with significant appreciation potential.

Year 1: \$20,927.25 (Growth of 697,475.00%)  
Year 2: \$21,638.94 (Growth of 721,198.00%)  
Year 3: \$22,314.92 (Growth of 743,730.67%)  
Year 4: \$22,951.49 (Growth of 764,949.67%)  
Year 5: \$23,557.73 (Growth of 785,157.67%)  
Year 6: \$23,488.81 (Growth of 782,860.33%)  
Year 7: \$23,480.60 (Growth of 782,586.67%)  
Year 8: \$23,528.00 (Growth of 784,166.67%)  
Year 9: \$23,626.88 (Growth of 787,462.67%)  
Year 10: \$23,773.91 (Growth of 792,363.67%)

These scenarios provide a comprehensive view of the potential growth trajectories for the GENS currency, ranging from the most unfavorable market conditions to the most optimistic, helping to understand the risks and opportunities involved in the currency's appreciation over time.

## PROJECTION WARNINGS

The growth projections and potential returns for the GENS currency have been carefully calculated using a robust combination of metrics from cryptocurrencies with similar ideologies and business models, as well as profit projections from the startups and applications within the GENS ecosystem. These metrics include detailed analyses of wallet growth, market impact, value retention, and price behavior in comparable cryptocurrencies.

### Multiple Sources of Growth Comparable Cryptocurrency Metrics:

We analyzed the behavior of cryptocurrencies with ideologies similar to GENS, particularly those focused on integrated and multifaceted ecosystems, like GENS. Price behavior, adoption, value retention, and market response were fundamental to these projections.

### Startup and Application Profit Projections:

The startups and applications that are part of the GENS ecosystem play a crucial role in the projections. Each startup and application was modeled based on realistic profit projections, considering the target market, growth trends, and full integration into the ecosystem.

**Startups:** The startups within the ecosystem are designed to reach their operational peaks within the first few years after launch, with their profits reinvested into the growth and strengthening of the GENS currency.

**Applications:** All planned applications in the ecosystem were considered fully operational. The increasing demand for the services offered by these applications was incorporated into the currency's value projections.

### Growing Ecosystem Acceptance:

The GENS ecosystem, composed of a set of integrated startups and applications, has demonstrated growing acceptance in target communities. This acceptance is a key driver of the GENS currency's growth, reflected in the currency's appreciation as more users adopt the services and products offered by the ecosystem.

The growth projection also considered the network effect, where the currency's value increases exponentially as more users and businesses engage with and adopt GENS as part of their daily operations.

### Scenarios Based on Full Operation

These projections were calculated with the assumption that all applications and startups will be fully operational. This factor is critical, as the complete operational status of the GENS ecosystem ensures that projected revenue streams are achieved, the user base continues to grow, and the GENS currency is widely used and valued.

## PROJECTION WARNINGS

### Extremely Pessimistic:

This scenario considers very unfavorable market conditions, but with some traction due to the stable operation of startups and applications. Growth is more robust, reflecting the positive, though limited, impact of the ecosystem.

### Pessimistic:

In this scenario, the full operation of the ecosystem starts to show results, with moderate value growth. The GENS currency benefits from increasing adoption and trust in the ecosystem, resulting in significant returns even under less ideal conditions.

### Moderate:

Represents a scenario where the GENS ecosystem is fully operational and accepted, with startups and applications generating solid and consistent profits. The GENS coin experiences a constant and significant growth, offering very favorable returns to investors.

### Conclusion

These projections provide a detailed and realistic view of how the GENS currency might appreciate over the years, considering all relevant variables, from metrics of similar cryptocurrencies to the full operation of startups and applications within the ecosystem. With the growing acceptance and adoption of GENS in communities, the currency is positioned to offer significant returns to investors, even in the most pessimistic scenarios. The projections are based on careful and meticulous analysis, ensuring that all relevant factors are considered to provide a comprehensive outlook on the growth possibilities of the GENS currency.

## Important Notice

### Disclaimer and Philosophy of ProtocolGenesis

All projections presented are based on careful analysis and the best available estimates to date.

However, it is essential to recognize that these projections may vary, both upwards and downwards, influenced by various factors such as market conditions, ecosystem adoption, regulatory changes, and other unforeseen events.

At ProtocolGenesis, we deeply believe in individual freedom and each person's ability to make informed decisions without excessive state interference. Just as we believed in the transformative potential of Bitcoin in its early days, we believe that the ProtocolGenesis Blockchain ecosystem has the same potential to forge a path of success, offering unique opportunities for growth and innovation.

We understand that investing in blockchain is a choice that involves risks, and the ultimate responsibility for this decision rests entirely with the individual. While we present an opportunity that could be transformative, it is crucial that you conduct thorough research and study all available options. The opportunity is here, knocking at your door — and it is up to you to decide whether to seize it and explore the full potential that the ProtocolGenesis ecosystem has to offer.

Additionally, it is important to highlight that we do not take responsibility for any losses, market fluctuations, or discrepancies in the calculations presented. Investing in blockchain is a risky decision and solely yours. However, for those who are dedicated to understanding the market and the underlying technologies, the rewards can be substantial. We are committed to continuing to innovate and create an ecosystem that not only follows in Bitcoin's footsteps but also offers new and exciting opportunities for all involved.

We understand the importance of making an informed decision and support your freedom of choice. We are here to provide the tools and knowledge needed, but the final decision is yours.

We believe that those who prepare and study the opportunities carefully will find a promising path within the ProtocolGenesis Blockchain.

We appreciate your interest in ProtocolGenesis and encourage careful and informed analysis before any investment. If you have any questions or need further information, please contact our support team.

# THE MAJOR ISSUE

## OF MONEY PRINTING AND CENTRAL BANK CONTROL OVER INTEREST RATES

Unrestricted money printing by governments and the stringent control of central banks over interest rates have had a significant impact on the global economy and citizens' daily lives. When governments print more money, it leads to currency devaluation, causing inflation to rise. This means that citizens' purchasing power diminishes, and the cost of goods and services increases, directly affecting household budgets.

Moreover, central banks, by controlling interest rates, can influence the economy in ways that often do not benefit the general population. High interest rates make financing housing, education, and businesses more expensive, restricting economic growth and creating barriers to personal and business development.

### The Emergence of ProtocolGenesis and the GENS Coin

It was in this context that the ProtocolGenesis blockchain and its native currency, GENS, emerged. Inspired by Bitcoin's principles, ProtocolGenesis was created to combat the centralization of financial power and provide a solid and secure alternative to the traditional financial system.

### Finite and Decentralized Currency

Like Bitcoin, GENS is a finite currency, meaning there is a limited number of coins that will be created. This prevents uncontrolled inflation caused by excessive money printing, protecting the value of the currency and the purchasing power of its holders. ProtocolGenesis promotes decentralization by removing control from the hands of a few institutions and returning financial power to the individual.

### A New Opportunity

For many, Bitcoin represented a financial revolution, but many also missed the opportunity to invest in its early stages. ProtocolGenesis offers a new chance for those who were unable to purchase Bitcoin when it first started. With GENS, there is a new opportunity to participate in a network aimed at transforming the global financial system and democratizing access to wealth.

### The Unique Capability of ProtocolGenesis

In addition to the traditional benefits of cryptocurrencies, ProtocolGenesis has a capability that few blockchains can offer: direct liquidity injection through applications, software, courses, and other services present on the platform. This means that part of the resources generated by these activities are reinvested into the ecosystem, further strengthening the network and increasing the value of GENS.

# THE MAJOR ISSUE OF MONEY PRINTING AND CENTRAL BANK CONTROL OVER INTEREST RATES

## Liquidity Injection Through Apps and Services

Daily applications, such as shopping apps, delivery services, restaurants, gyms, rentals, and social networks, accept GENS as a form of payment. This not only promotes the use of the currency but also ensures a constant and healthy circulation of liquidity within the ecosystem. Additionally, courses, software, and other offerings on the platform also accept GENS, further encouraging adoption and continuous use of the currency.

## Conclusion

ProtocolGenesis is not just a response to excessive bank control and inflation caused by money printing. It is a vision for a future where financial power is truly decentralized and accessible to everyone. With the limited and secure GENS currency and the unique ability to inject liquidity directly through a wide range of apps and services, ProtocolGenesis is poised to lead the next era of financial revolution.



# ProtocolGenesis

## TECHNICAL ARCHITECTURE

### PROTOCOLGENESIS ECOSYSTEM AND ALGORITHMS USED

ProtocolGenesis is designed to provide a robust and secure infrastructure, ensuring the integrity and efficiency of transactions within its ecosystem. Based on proven and enhanced technologies, ProtocolGenesis utilizes a consensus algorithm that ensures decentralization and security—key features for user and investor trust.

#### 1. Consensus Algorithm: Proof of Work (PoW) with Scrypt

ProtocolGenesis uses the Proof of Work (PoW) consensus algorithm, similar to that used by Bitcoin, but with an important difference: the Scrypt hashing algorithm.

##### What is Scrypt?

Scrypt is a hashing algorithm designed to be more memory-intensive than SHA-256, used by Bitcoin. This feature makes Scrypt less susceptible to mining centralization through ASICs (Application-Specific Integrated Circuits), which are specialized hardware. Instead, Scrypt allows mining to be efficiently performed with CPUs and GPUs, promoting a more equitable distribution of mining and preventing power concentration in large mining pools.

##### Advantages of Scrypt

**Robust Security:** Scrypt provides a high level of security, making it difficult for attacks and maintaining network integrity.

**Energy Efficiency:** Although still a PoW algorithm, Scrypt is designed to be more energy-efficient compared to other hashing algorithms.

##### Block and Transaction Structure

Blocks in the ProtocolGenesis blockchain contain a set of validated transactions. Each block has a header that includes a hash of the previous block, ensuring chain integrity. The block structure includes:

**Block Header:** Contains the hash of the previous block, the hash of the transactions in the block, the timestamp, and the nonce used in the mining process.

**Block Body:** Includes a list of validated transactions that have been verified and added to the blockchain.

## TECHNICAL ARCHITECTURE

### PROTOCOLGENESIS ECOSYSTEM AND ALGORITHMS USED

#### Transactions

Each transaction in ProtocolGenesis follows a standardized format that includes:

**Input:** References to an unspent output from a previous transaction.

**Output:** Defines the recipient and the amount of GENS to be transferred.

**Digital Signatures:** Used to verify the authenticity of the transaction and ensure that only the owner of the funds can authorize the transfer.

#### Digital Signatures

ProtocolGenesis uses digital signatures based on robust cryptographic algorithms to ensure the authenticity and integrity of transactions. Public and private keys are used to create and verify signatures, ensuring that only the holder of the corresponding private key can spend the funds.

#### Transaction Verification and Validation

Each node in the ProtocolGenesis network verifies and validates transactions and blocks, ensuring that all participants agree on the current state of the blockchain. This process involves:

**Signature Verification:** Each transaction is checked to ensure that the digital signature is valid and corresponds to the sender's public key.

**Block Validation:** Each mined block is verified to ensure it follows consensus rules and that all transactions contained within it are valid.

#### Block Optimization

ProtocolGenesis employs optimization techniques to ensure that blocks are processed efficiently. This includes transaction compression and the use of efficient data storage methods, allowing for a higher transaction capacity per block.

#### Transaction Fees and Incentives

To encourage participation in the network, ProtocolGenesis implements a transaction fee system that rewards miners for validating and including transactions in blocks. These fees are dynamically adjusted based on network demand, ensuring a balance between cost and efficiency.

#### Liquidity Injection and Integrated Applications

A significant feature of ProtocolGenesis is the direct injection of liquidity through applications, software, courses, and other services on the platform. This not only strengthens the internal economy of the blockchain but also provides multiple opportunities for users to utilize the GENS currency in various everyday contexts, such as:

**Shopping Apps:** E-commerce platforms that accept GENS as payment.

## TECHNICAL ARCHITECTURE

### PROTOCOLGENESIS ECOSYSTEM AND ALGORITHMS USED

Delivery Services: Food and goods delivery apps that use GENS. Restaurants and Gyms: Establishments that accept GENS for payment of bills and memberships. Courses and Software: Educational platforms and software tools that use GENS as a payment method.

#### Conclusion

The technical architecture of ProtocolGenesis is meticulously designed to ensure security, decentralization, and efficiency. By utilizing the Scrypt algorithm in its PoW consensus mechanism, ProtocolGenesis promotes more accessible mining and a fair distribution of mining power. Additionally, the direct injection of liquidity through a wide range of integrated applications and services strengthens the blockchain's economy and provides tangible value to its users.



ProtocolGenesis

## GENS CURRENCY

### CRYPTOCURRENCY OF THE PROTOCOLGENESIS ECOSYSTEM

**GENS** is the native currency of the ProtocolGenesis blockchain, playing a crucial role in all transactions and operations within the ecosystem. Designed with features that ensure security, efficiency, and appreciation potential, GENS is a cryptocurrency that offers numerous advantages to its holders and users.

#### **Key Features**

##### **Finite Currency**

**Limited Supply:** GENS has a finite maximum supply of 23,784,000 coins. This means there will be a limited number of coins in circulation, protecting against uncontrolled inflation and ensuring appreciation over time.

##### **Mining Algorithm: Scrypt**

**Proof of Work (PoW):** GENS is mined using the Proof of Work algorithm with Scrypt. This algorithm is known for being more memory-efficient, making mining more accessible for individuals with less specialized hardware, such as CPUs and GPUs.

**Security and Decentralization:** The use of Scrypt as the hashing algorithm promotes greater decentralization of mining and ensures the network's security against cyberattacks.

##### **Fast and Low-Cost Transactions**

**Efficiency:** Transactions with GENS are processed quickly, ensuring that users can transfer funds efficiently with minimal fees.

**Scalability:** The ProtocolGenesis infrastructure supports a high volume of transactions per second (TPS), guaranteeing a smooth user experience even under high demand.

##### **Uso Versátil**

**Wide Acceptance:** GENS is accepted across a broad range of applications and services within the ProtocolGenesis ecosystem, including shopping, delivery, restaurants, gyms, rentals, social networks, courses, and software. This promotes currency adoption and enhances its utility in everyday life.

**Anonymous Payments:** Users can choose to perform transactions anonymously, maintaining their privacy and security.

##### **Mining**

**Block Rewards:** GENS is issued as a reward to miners who validate transactions and add new blocks to the blockchain. This process incentivizes participation in the network and ensures the maintenance of the blockchain's security and integrity.

## GENS CURRENCY

### CRYPTOCURRENCY OF THE PROTOCOLGENESIS ECOSYSTEM

#### Mining

**Halving:** Every 7 years, the block reward is halved. This event, known as "halving," controls inflation and ensures that the total supply of GENS is distributed over time.

**Mining Duration:** The mining of GENS is designed to last more than 100 years, ensuring a gradual and sustainable distribution of coins. This provides a long window for new participants to enter the mining process and benefit from the rewards.

#### Security and Transparency

**Security Audits:** We conduct frequent security audits to identify and fix vulnerabilities, ensuring the integrity of the network.

**Transparency:** All transactions and activities on the ProtocolGenesis blockchain are publicly recorded, promoting transparency and user trust.

#### Decentralized Governance

**Community Participation:** We have implemented a decentralized governance model that allows the community to participate in important decision-making, ensuring that the evolution of ProtocolGenesis reflects the interests of its users.

#### Conclusion

**Community Participation:** We have implemented a decentralized governance model that allows the community to participate in important decision-making, ensuring that the evolution of ProtocolGenesis reflects the interests of its users.

## RESOURCE DISTRIBUTION

### DISTRIBUTION OF RESOURCES IN THE PROTOCOLGENESIS ECOSYSTEM

#### 40% for the Ecosystem, including:

**Liquidity (30%):** To ensure smooth and reliable operation of the ecosystem, we allocate 30% of the resources directly to liquidity. This ensures fast and stable transactions, enhancing user and investor confidence in the value of our assets.

**Education and Training (3%):** We invest in education and training programs to empower our community. Through courses, workshops, and educational materials, we train more informed and capable users and developers, fostering innovation and continuous growth within ProtocolGenesis.

**Research and Development (3%):** Innovation is the driving force behind ProtocolGenesis. We allocate significant resources to R&D to maintain our position at the forefront of technology. This investment enables the creation of new features and functionalities, ensuring the continuous evolution of the ecosystem.

**Decentralized Governance (3%):** We believe in the importance of community participation. We allocate 3% of the resources to decentralized governance mechanisms, allowing our community to have a voice in crucial decisions, promoting transparency and trust.

**Sustainable Development (1%):** Our commitment to sustainability is reflected in supporting ecological initiatives. We invest in projects that promote sustainable practices and environmental preservation, contributing positively to the planet.

#### 20% for Investment in Projects:

ProtocolGenesis acts as an accelerator for startups. Think of it as a helping hand or an angel investor supporting promising projects to materialize. We allocate 20% of the resources to directly invest in innovative ideas, driving growth and diversification within our ecosystem.

#### 14% for Project Producers:

We value the creativity and work of project producers. We allocate 14% of the resources to reward these individuals, encouraging the ongoing creation of content and innovations that enrich ProtocolGenesis.

## RESOURCE DISTRIBUTION

### DISTRIBUTION OF RESOURCES IN THE PROTOCOLGENESIS ECOSYSTEM

#### 4.5% for Servers:

As we grow, the need for processing power increases. We allocate 4.5% of the resources to invest in robust and high-performance servers, ensuring a solid and efficient infrastructure.

#### 6.5% for Marketing:

To expand awareness and adoption of our protocol, we invest 6.5% of the resources in marketing. We promote ProtocolGenesis globally, highlighting our benefits and attracting new users and investors.

#### 6.5% for Development Team and Founders:

Our development team and founders are the backbone of the ecosystem. This percentage ensures they are fairly rewarded for their hard work and dedication, encouraging continued development and innovation.

#### 2.5% for Adam and Eve:

The first 20 investors who contribute more than \$5,000 enter the exclusive Adam and Eve distribution. These investors will receive 2% of all ecosystem revenue perpetually, in addition to retaining their assets acquired during the pre-sale. This initiative appreciates and values those who believed in the potential of ProtocolGenesis from the beginning.

#### 1.5% for Ambassadors:

Ambassadors play a crucial role in promoting and educating about our ecosystem. This fund rewards these individuals for their commitment to expanding ProtocolGenesis and teaching others about our benefits.

#### 1% for Events and Conferences:

We organize and sponsor events and conferences to foster networking and knowledge exchange within the ecosystem. These events are vital for the growth and continuous development of ProtocolGenesis.

#### 1% for Partners:

We recognize the importance of strategic partnerships. This percentage is allocated to reward our partners who help expand and strengthen the ProtocolGenesis ecosystem, creating a collaborative and supportive network.

## RESOURCE DISTRIBUTION

### DISTRIBUTION OF RESOURCES IN THE PROTOCOLGENESIS ECOSYSTEM

#### **0.5% for Sports Sponsorships:**

Through sports sponsorships, we increase the visibility of our brand and associate ProtocolGenesis with positive and high-impact events. This strategy promotes our ecosystem to a broader and more diverse audience.

#### **0.5% for Reforestation and Nature Protection:**

Our commitment to social responsibility includes supporting projects aimed at environmental preservation and recovery. This initiative demonstrates our dedication to sustainable practices and the protection of the planet.

#### **0.5% for Accessibility and Inclusion:**

We invest to ensure that ProtocolGenesis is accessible to everyone, promoting diversity and inclusion. Resources dedicated to accessibility ensure that people of all abilities can fully participate in our ecosystem.

#### **0.5% for Loyalty and Rewards Programs:**

We encourage user loyalty and ongoing participation through loyalty and rewards programs. This initiative keeps users engaged and motivates continued use of ProtocolGenesis.

#### **0.5% for Decentralized Support:**

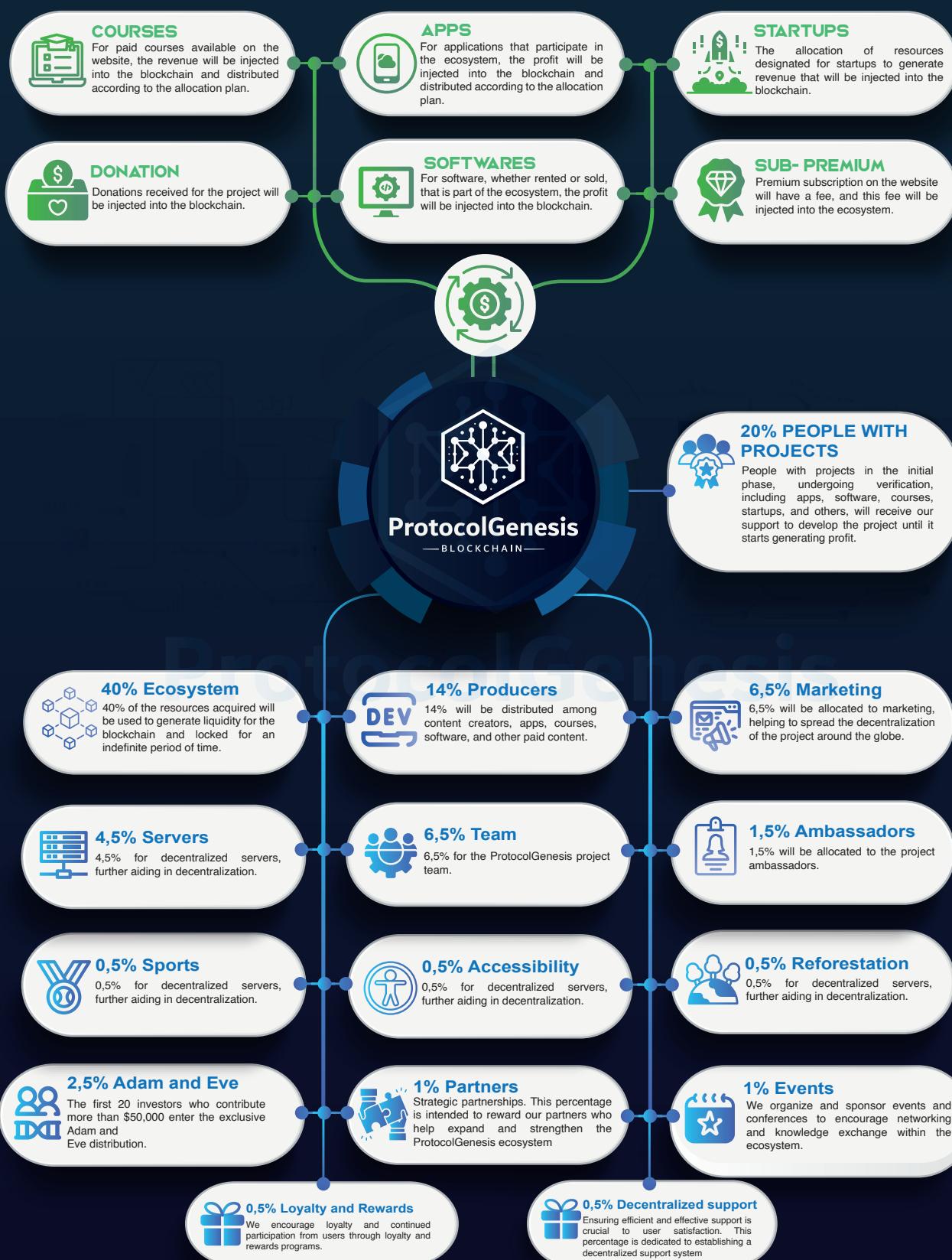
Ensuring efficient and effective support is crucial for user satisfaction. This percentage is dedicated to establishing a decentralized support system, ensuring that everyone receives the necessary assistance quickly and efficiently.



# RESOURCE DISTRIBUTION

## FLOW

ProtocolGenesis is a robust blockchain ecosystem aimed at ensuring sustainable and balanced growth through a strategic distribution of resources. The revenue generated from our applications, software, courses, donations, and startups is reinvested directly into the ecosystem, fostering innovation, education, and sustainable development as outlined in the flowchart below.



# GENS WALLET PROTOCOLGENESIS CORE

## PROTOCOLGENESIS CORE WALLET

The GENS ProtocolGenesis Core wallet is an essential tool for all users of the ProtocolGenesis ecosystem. Designed with a focus on security, efficiency, and ease of use, the GENS wallet allows users to securely and conveniently store, send, and receive GENS currency. Similar to Bitcoin Core, the GENS ProtocolGenesis Core wallet also acts as a node on the network, contributing to the security and decentralization of the ProtocolGenesis blockchain.

### Key Features

**Advanced Encryption:** The GENS ProtocolGenesis Core wallet uses state-of-the-art encryption algorithms to ensure that your private keys and transactions are always protected from unauthorized access.

**Two-Factor Authentication (2FA):** For an additional layer of security, the wallet supports two-factor authentication, ensuring that only the wallet owner can access it.

**Backup and Recovery:** The wallet allows for secure backups, ensuring that users can recover their funds in case of loss or damage to the device.

### Ease of Use

**Intuitive Interface:** Designed with a user-friendly interface, the wallet is easy to navigate, even for beginners. All major functions are accessible in a simple and straightforward manner.

**Transaction Management:** With features that allow users to view transaction history, confirm balances, and send/receive GENS quickly and efficiently.

### Advanced Features

**Support for Multiple Addresses:** Users can create and manage multiple addresses within the same wallet, allowing for better organization of their funds and transactions.

**Customizable Transaction Fees:** The wallet allows users to adjust transaction fees according to their needs, balancing cost and confirmation speed.

### Node on the ProtocolGenesis Network

**Network Contribution:** Like Bitcoin Core, the GENS ProtocolGenesis Core wallet also acts as a full node on the ProtocolGenesis network. This means that the wallet helps verify and propagate transactions, contributing to the decentralization and security of the entire ProtocolGenesis network ecosystem.

**Block Validation:** Users running the GENS Core wallet actively participate in block validation and maintaining the integrity of the blockchain.

# GENS PROTOCOLGENESIS CORE WALLET

## PROTOCOLGENESIS CORE WALLET

The ProtocolGenesis Core wallet goes beyond just basic functionality, offering an in-depth suite of tools and security measures to ensure the best experience for users in the ProtocolGenesis ecosystem.

### Password and Seed Phrase Security

When setting up the wallet, users are required to create a strong password to ensure the highest level of security for their funds. This password protects the wallet and should be stored in a safe place. Additionally, the wallet generates a seed phrase—a series of words that can be used to recover your wallet if the device is lost or damaged.

The seed phrase is a critical component of the wallet's security, acting as the master key to all the funds. It's important to:

Write it down physically (not store it digitally) to avoid theft from online attacks.

Keep it in multiple secure locations so that your wallet can be recovered in case of disaster or device failure.

### Additional Layers of Security

In addition to the seed phrase and password, the wallet offers:

Multi-signature options, which means multiple keys are required to authorize transactions, adding a layer of protection, especially for larger transactions or shared accounts.

Cold storage support: Users can also opt to store their wallet offline for long-term security. This minimizes exposure to online threats, ensuring that GENS funds are protected against hacking attempts.

### Address Management and Customization

For power users, the ProtocolGenesis Core wallet allows you to create multiple addresses. This feature lets you separate different transactions and funds within a single wallet, which is especially useful for individuals or businesses that handle multiple clients or projects. You can:

Label each address for easy management.

Track which address receives or sends funds, making it simpler to audit or manage different transactions.

# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

### Updates and Support

**Regular Updates:** The ProtocolGenesis development team ensures that the GENS Core wallet receives regular updates to enhance security, add new features, and optimize performance.

**Customer Support:** We offer dedicated support to assist users with any issues or questions, ensuring that all concerns are resolved quickly and efficiently.

## HOW TO GET STARTED?

### Download the Wallet:

Visit the official ProtocolGenesis website ([www.protocolgenesis.org](http://www.protocolgenesis.org)) or the official Telegram group and look for the pinned messages to find the wallet. Download the latest version of the GENS ProtocolGenesis Core wallet for your device.

### Installation and Setup:

Follow the installation instructions provided in the Telegram group or on the website, or on the pages following this paper. After installation, set up your wallet by creating a secure password and backing up your private key.

### Send and Receive GENS:

Use the wallet's intuitive interface to send and receive GENS. Enter the destination address and the amount of GENS to be sent, or share your address to receive funds.

### Conclusion

The GENS ProtocolGenesis Core wallet is a powerful and essential tool for any participant in the ProtocolGenesis ecosystem. With a focus on security, ease of use, and advanced features, it provides users with the confidence and convenience needed to manage their funds efficiently while contributing to the security and decentralization of the network.

### Installation and Usage Tutorial for GENS ProtocolGenesis Core Wallet

The following is a step-by-step tutorial on how to download, unzip, and install the GENS ProtocolGenesis Core wallet on your desktop. Additionally, you will learn how to send and receive your GENS securely and efficiently.

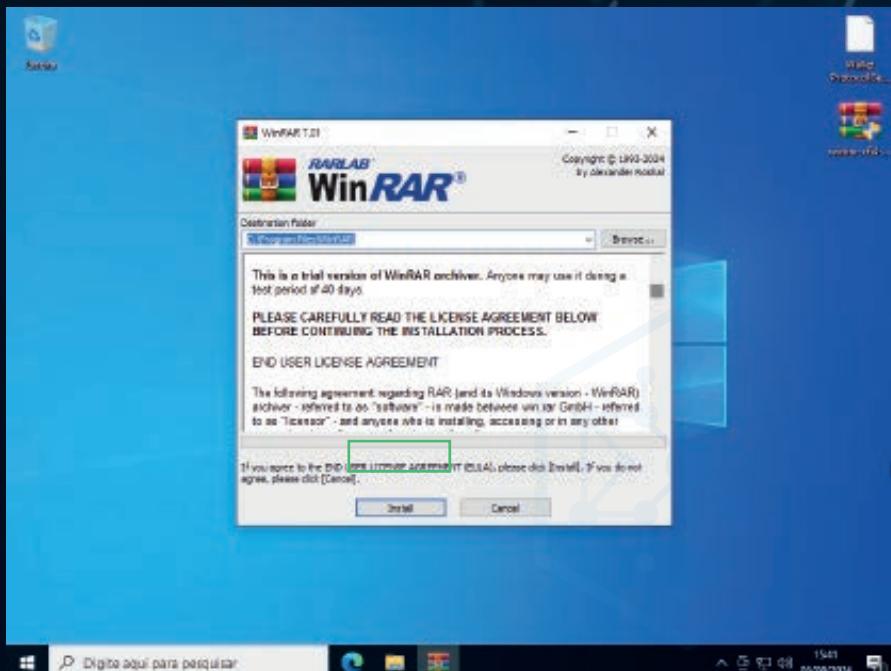


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

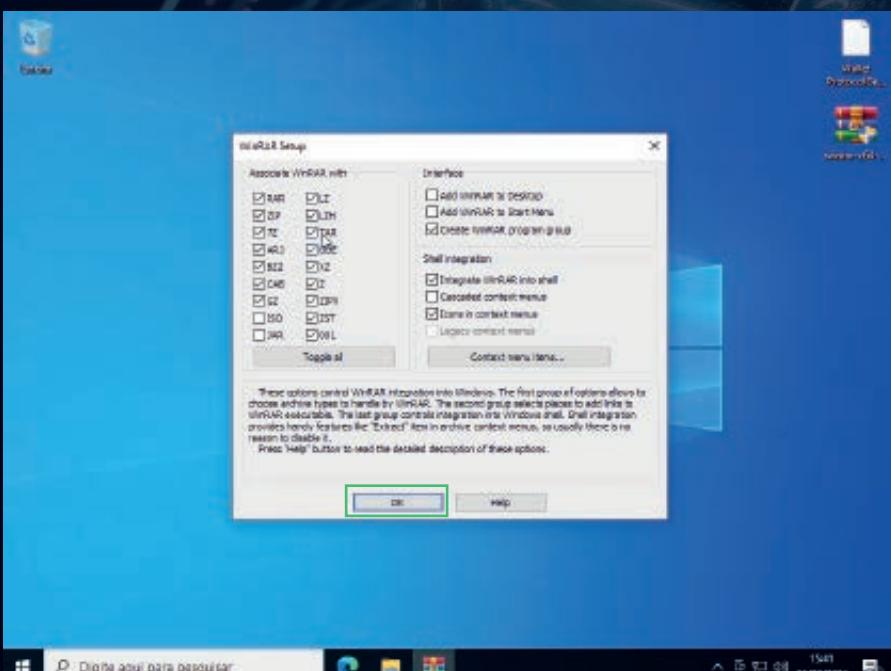
### Step 1: Download WinRAR (If Not Already Installed)

Download the WinRAR installer from the official website.  
Run the installer. On the installation screen, click "Install."



### Step 2: Configure WinRAR

On the WinRAR configuration screen, select the file types you wish to associate with WinRAR.  
Click "OK" to complete the configuration process.

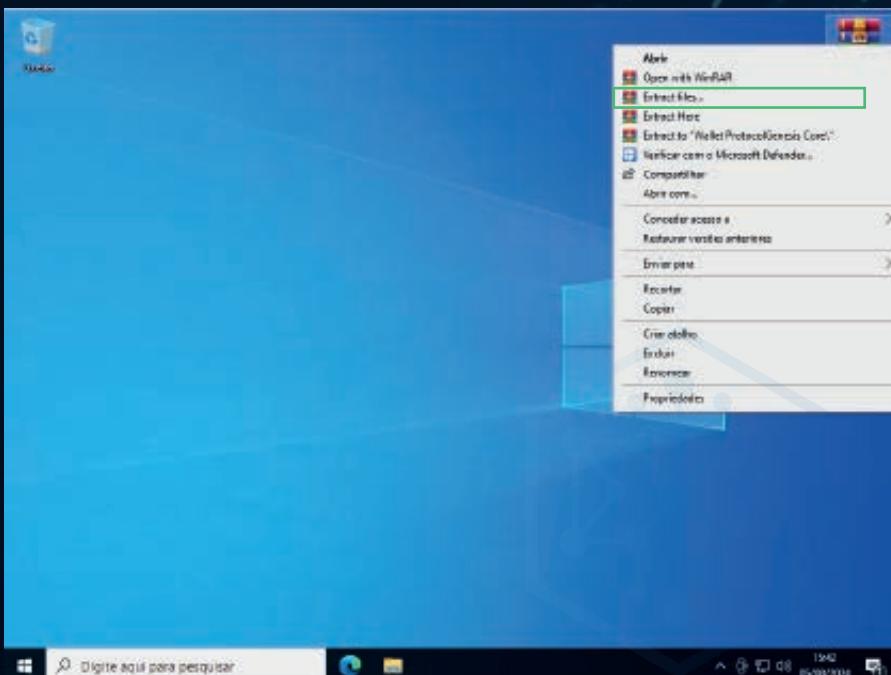


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

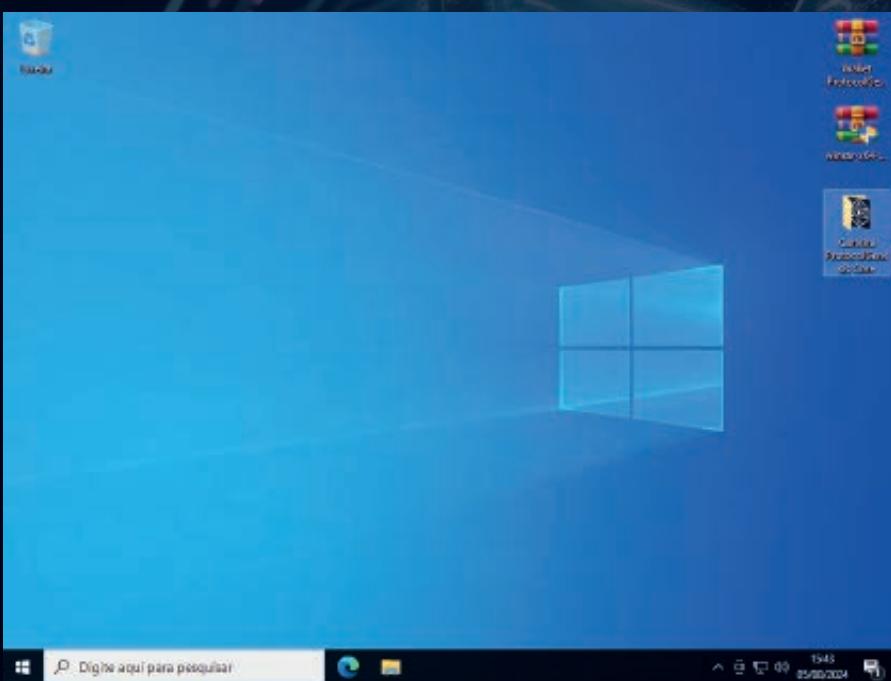
### Step 3: Extract the Wallet

Right-click on the wallet file (zipped) and select "Extract to 'Wallet ProtocolGenesis Core'" to extract the files.



### Step 4: Verify the Extracted Files

Check if the extracted folder contains the wallet files.

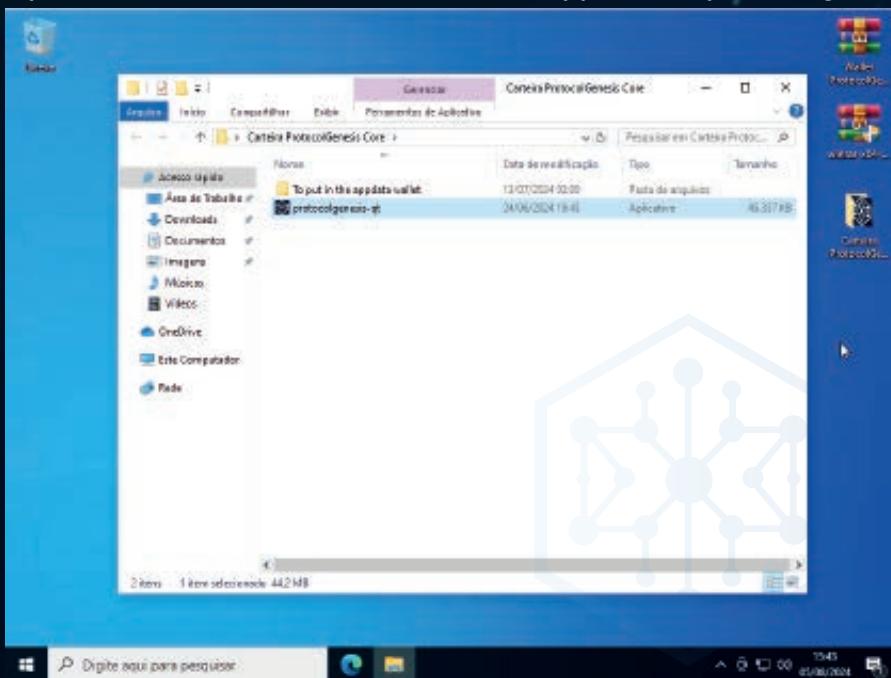


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

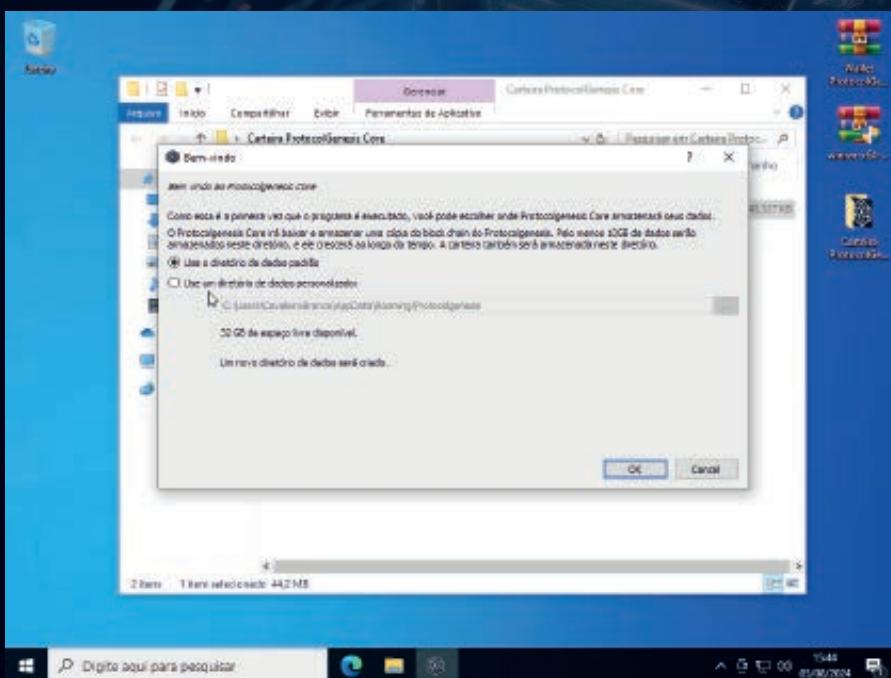
### Step 5: Run the Wallet

Open the extracted folder and run the application protocolgenesis-qt.



### Step 6: Choose Data Directory

On the first launch of the wallet software, select the directory where the data will be stored. Click "OK" to proceed.

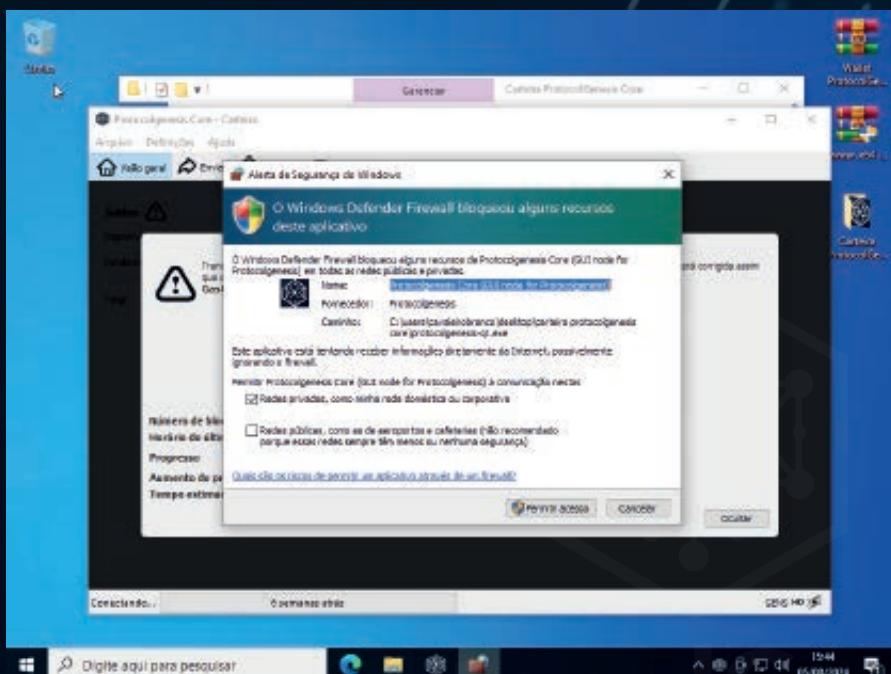


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

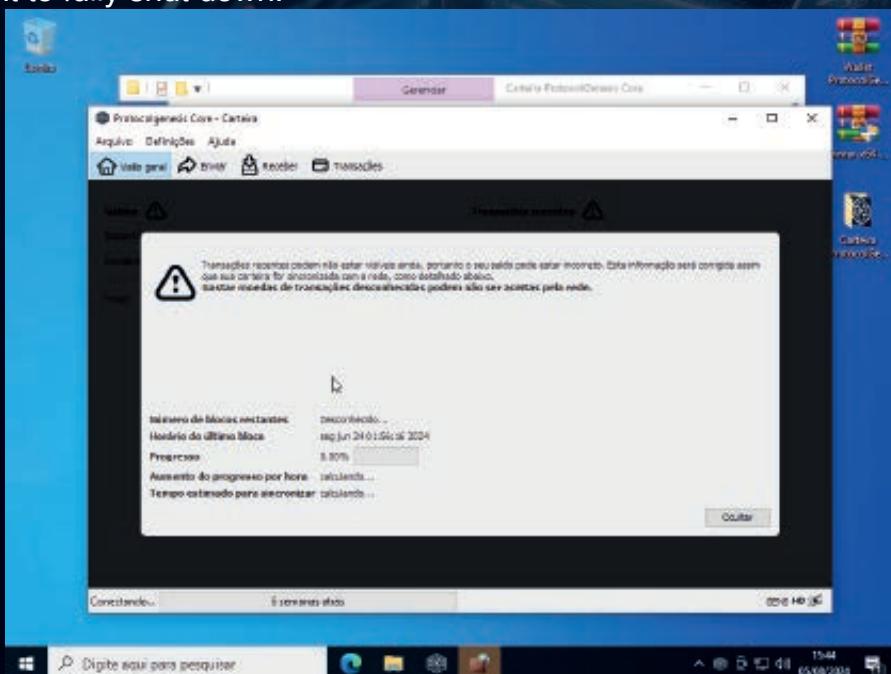
### Step 7: Allow Access in Firewall

If a Windows Defender Firewall prompt appears, allow access so that the wallet can connect to the network.



### Step 8: Initial Synchronization

The wallet will begin syncing with the network. Do not expect it to sync completely now; you will close the wallet and wait for it to fully shut down.



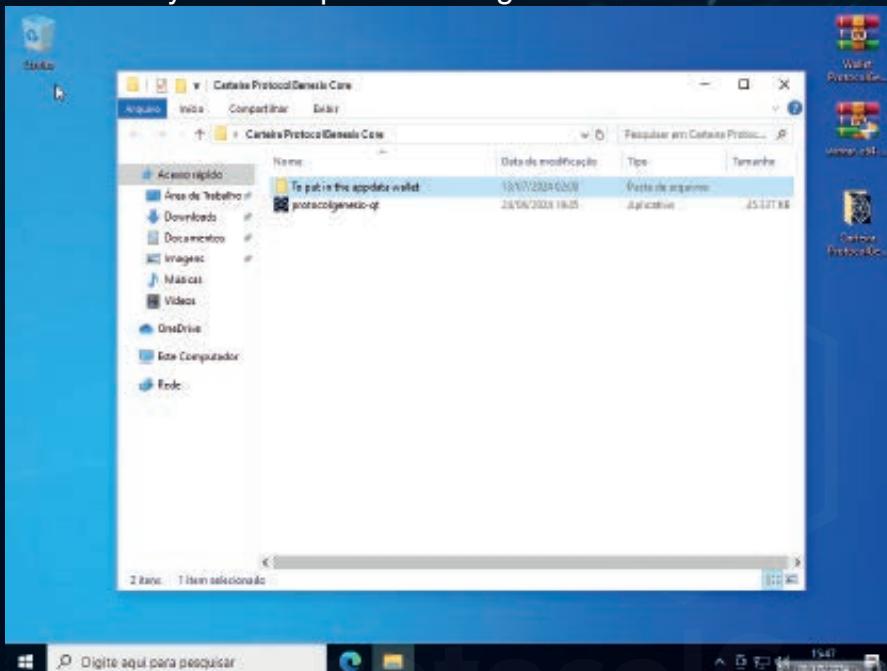
# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

### Step 9: Verify Configuration File

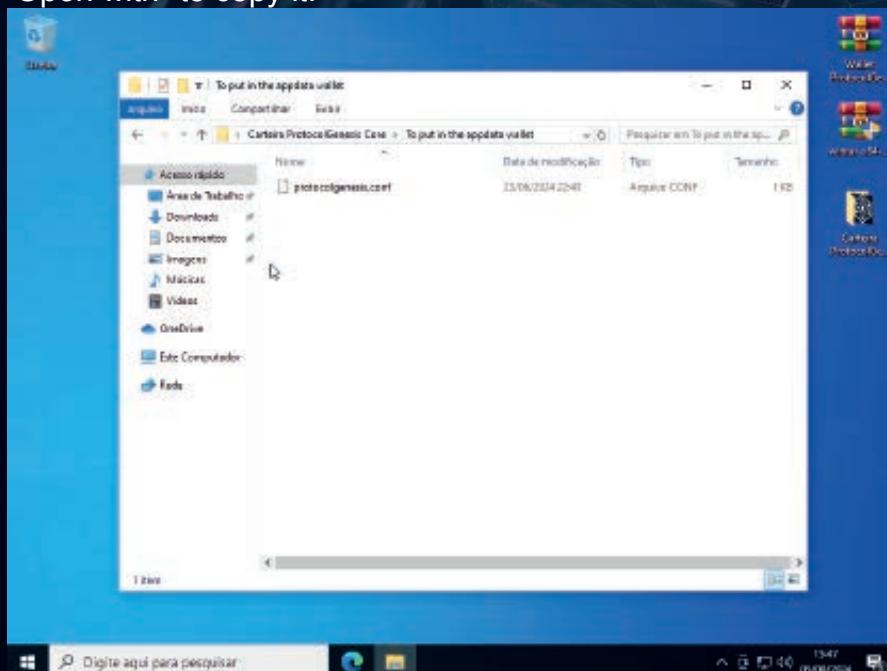
Open the folder specified in the appdata for the wallet and check if the configuration file protocolgenesis.conf is present.

This file may contain specific settings for the wallet.



### Step 10: Copy the Configuration File

In the folder "To put in the appdata wallet," right-click on the protocolgenesis.conf file and select "Open with" to copy it.

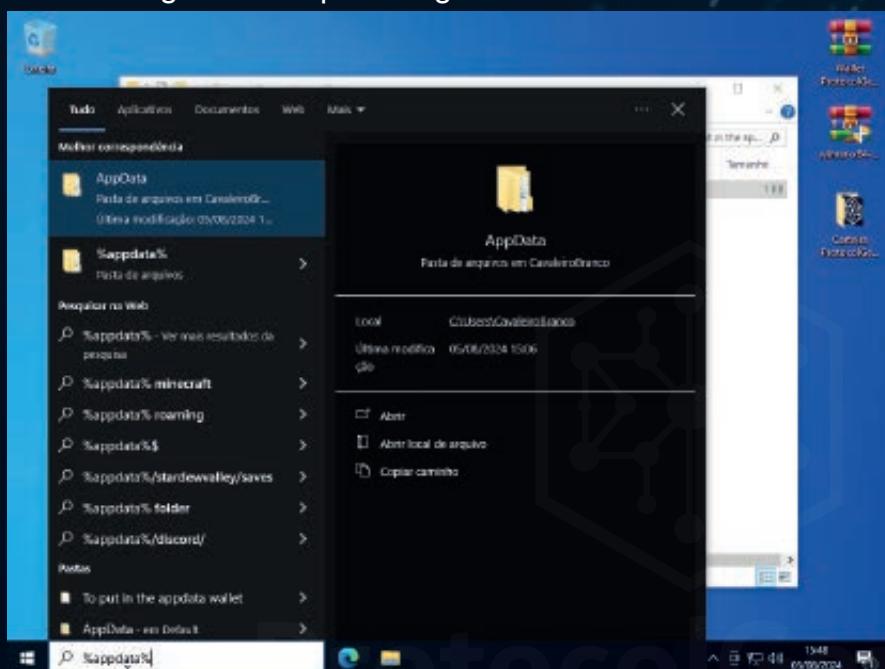


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

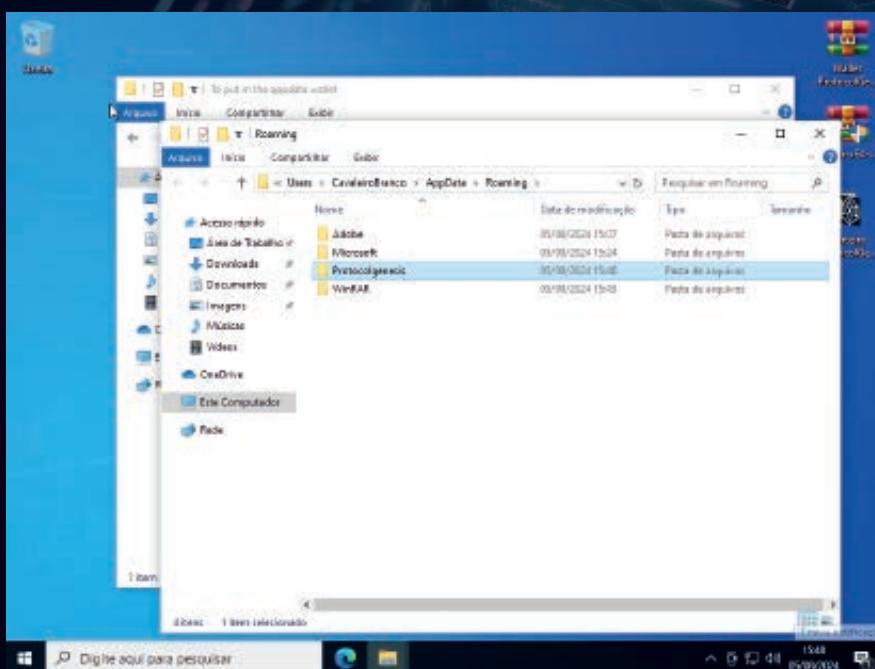
### Step 11: %Appdata%

Go to the Start menu, type %appdata%, and press Enter. Navigate to the protocolgenesis folder.



### Step 12: Protocolgenesis Folder

Enter the protocolgenesis folder; your wallet is installed here.

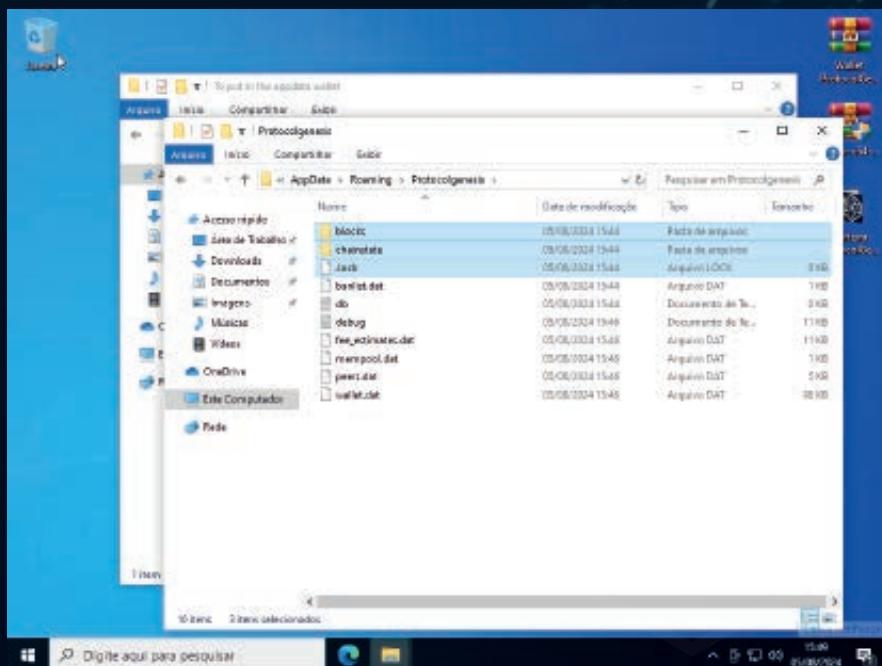


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

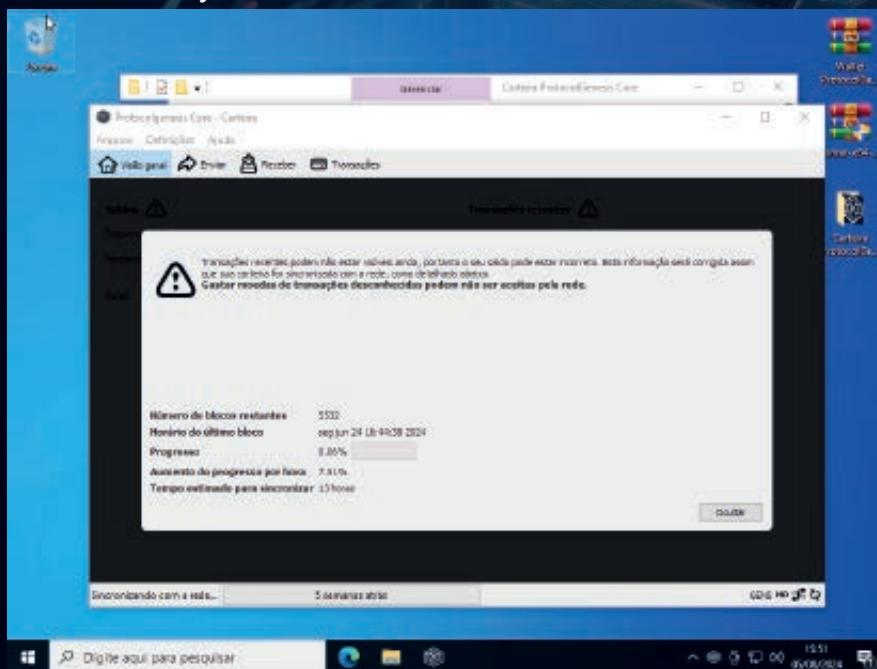
### Step 13: Delete Files

You will now delete the blocks and chainstate folders and the .lock file.



### Step 14: Start the ProtocolGenesis Core Wallet

After deleting the files, simply start your wallet again and wait for it to synchronize.

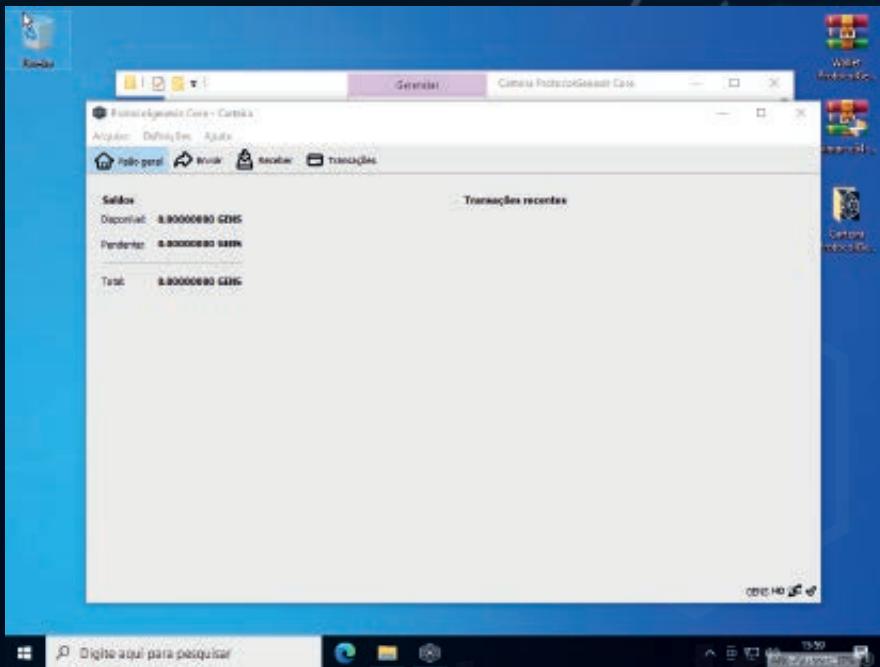


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

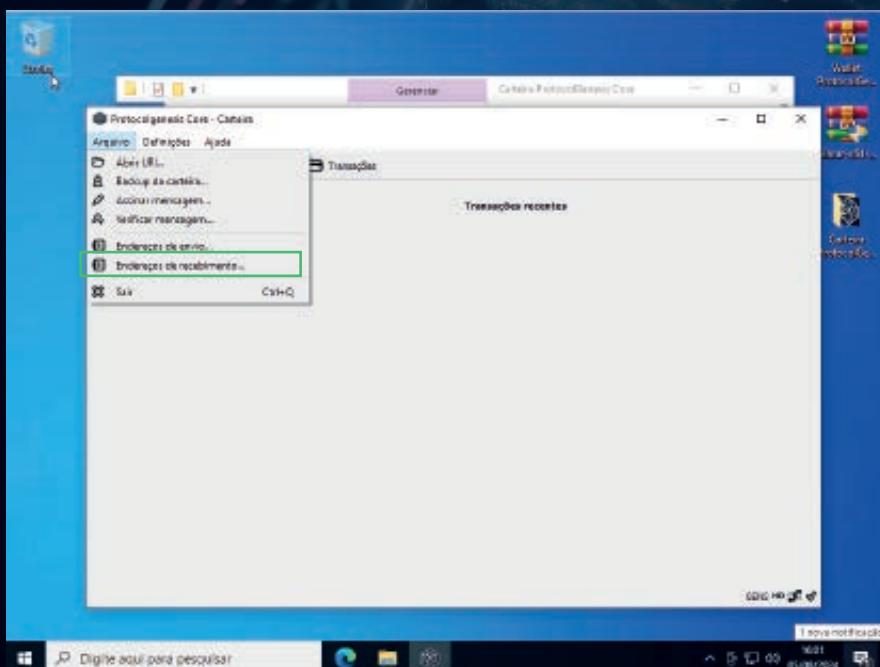
### Step 15: Wallet Installed and Ready for Use

You can now use your wallet to send and receive your GENS.



### Step 16: Receiving GENS, Receiving Address

With the wallet installed, to create a new address or use your address to receive your GENS, simply go to File > Receiving Address.

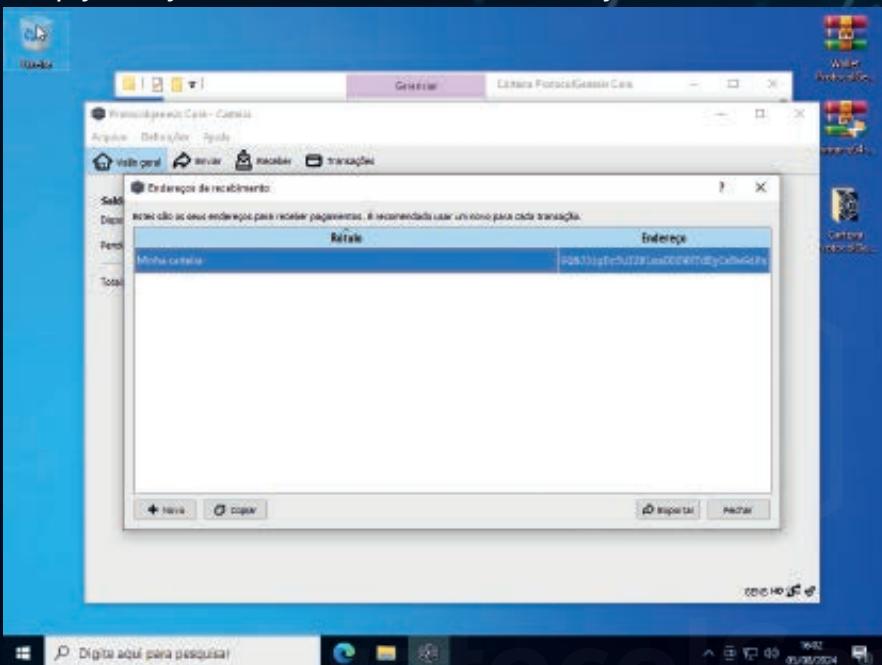


# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

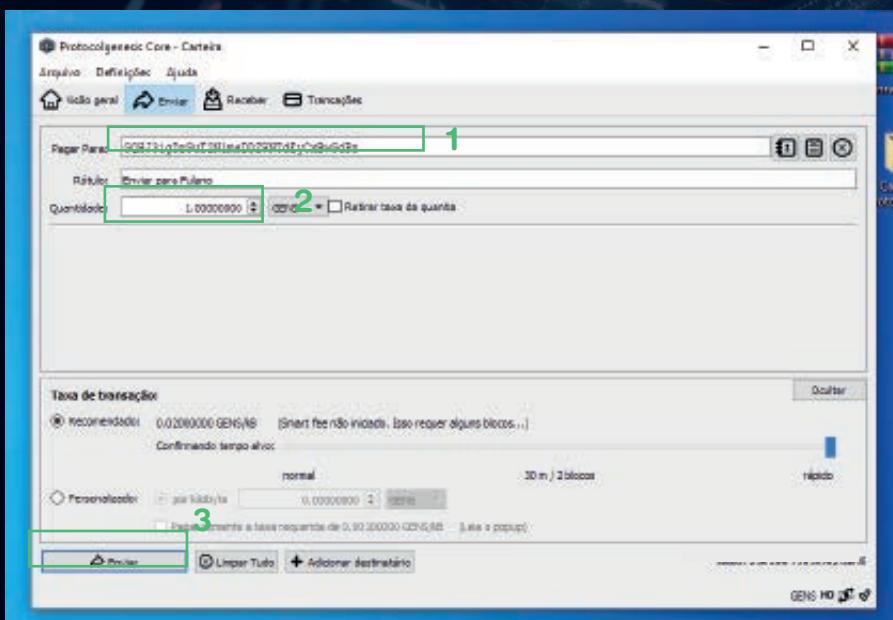
### Step 17: Wallet Address

In the receiving addresses section, you will see your addresses. The wallet comes with a default address, and you can create new addresses if you prefer. To receive GENS, simply use your address and share it with your contacts or add it to the pre-sale site.



### Step 18: Sending GENS

In another wallet, we will show you how to send GENS. Simply go to "Send," enter the recipient's wallet address (1) and the amount (2), then click "Send" (3).



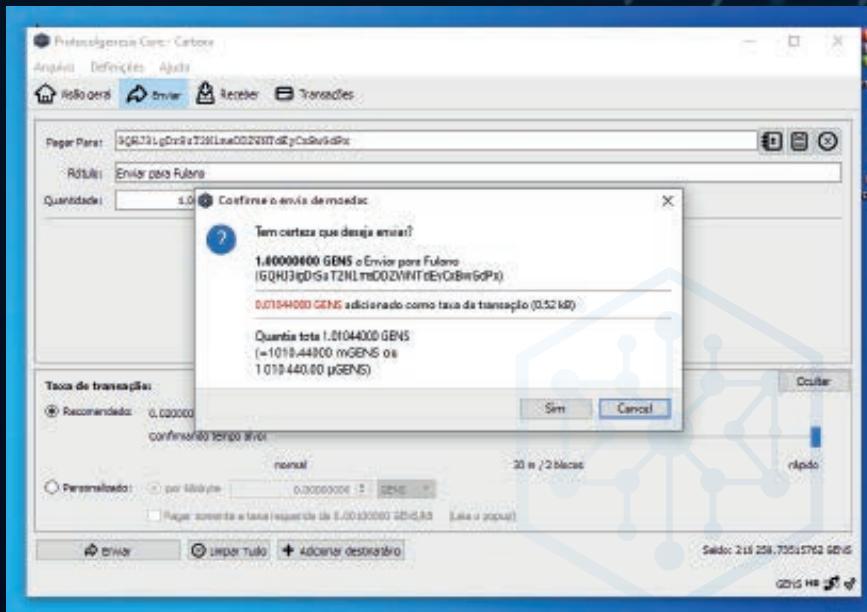
# TUTORIAL: GENS PROTOCOLGENESIS CORE WALLET

## HOW TO INSTALL AND USE THE WALLET

### Step 19: Sending Confirmation

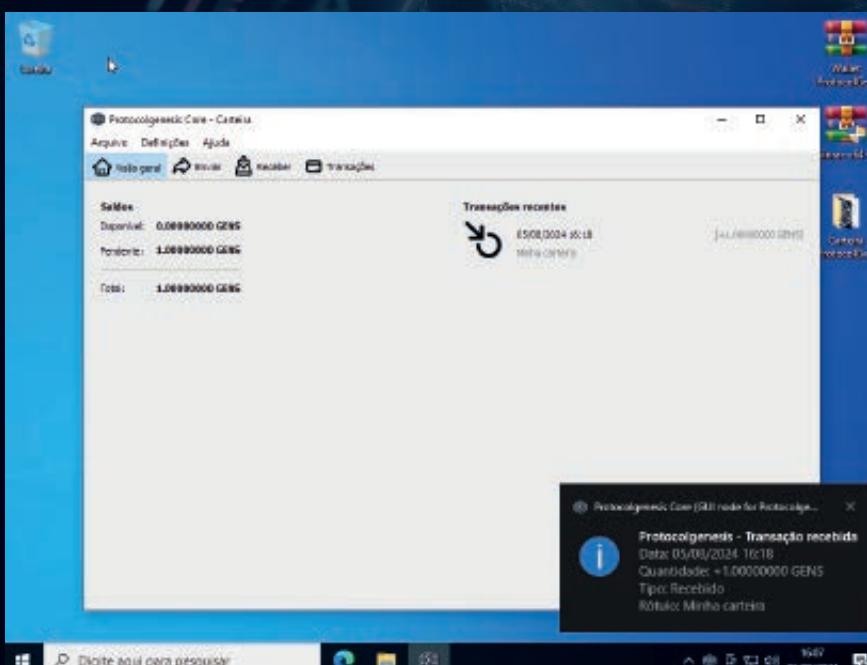
Wait a few seconds and confirm the transaction. You have successfully sent your GENS.

Now, let's check the other wallet we created to verify that the GENS was received successfully.



### Step 20: Receiving GENS

In a few seconds, you should see a notification indicating that your GENS has arrived in your wallet. It will initially appear as pending. This means that the transaction has been sent and is awaiting confirmation from miners (or validators, depending on the blockchain).



# PROTOCOLGENESIS CORE WALLET TUTORIAL

## HOW DOES A TRANSACTION BETWEEN WALLETS WORK?

### Pending

When a transaction is made and broadcast to the network, it initially appears as "pending" in your wallet. This means that the transaction has been sent and is waiting for confirmation from miners (or validators, depending on the blockchain).

During the pending state, the transaction has not yet been included in a blockchain block. It may take some time for the transaction to be confirmed, depending on the network and the transaction fees paid.

### Available

Once the transaction is included in a block and receives a sufficient number of confirmations, it becomes "available" in your wallet.

The number of confirmations required for a transaction to be considered secure can vary. On many blockchains, six confirmations are generally considered enough to ensure the transaction's irreversibility.

### Transaction Process

**Initiation:** A transaction is created and signed by the sender.

**Broadcast:** The transaction is sent to the network and broadcast to nodes.

**Mempool:** The transaction enters the mempool, where it awaits selection by a miner (or validator).

**Mining:** A miner includes the transaction in a block being mined.

**First Confirmation:** When the block containing the transaction is mined and added to the blockchain, the transaction receives its first confirmation.

**Additional Confirmations:** Each subsequent block added to the blockchain adds one more confirmation to the transaction.

**Available State:** After receiving enough confirmations, the transaction is marked as available, indicating that the funds are safe for use.

### Importance of Confirmations

**Security:** Each additional confirmation reduces the likelihood that the transaction can be reversed or replaced by a conflicting transaction.

**Time:** The time required for a transaction to become "available" depends on how quickly new blocks are mined and the network's load.

If your GENS transaction remains pending for an extended period, it may be due to a low transaction fee, network congestion, or other blockchain-specific issues. Generally, once the transaction receives enough confirmations, it should appear as available, and the funds will be ready for use.

## TUTORIAL NODE UBUNTU SERVER

**TRANSFORM YOURSELF INTO A CENTRAL HUB OF THE BLOCKCHAIN REVOLUTION WITH PROTOCOLGENESIS: INSTALL YOUR FULL NODE ON UBUNTU 18.04**

The ProtocolGenesis blockchain is not just a technology; it's the foundation of a growing ecosystem that is shaping the future of decentralized finance, blockchain applications, and more. By installing and operating a full node of ProtocolGenesis, you are not just participating—you are becoming a cornerstone of the network, helping to ensure its security, resilience, and decentralization.

Being a full node operator means being at the forefront of this revolution, actively contributing to strengthening the network. But the benefits don't stop there. Once you complete the setup of your node, you'll have the opportunity to fill out a form on the official ProtocolGenesis website, where you can apply for exclusive benefits within the ecosystem and participate in giveaways that could further boost your journey in this blockchain universe.

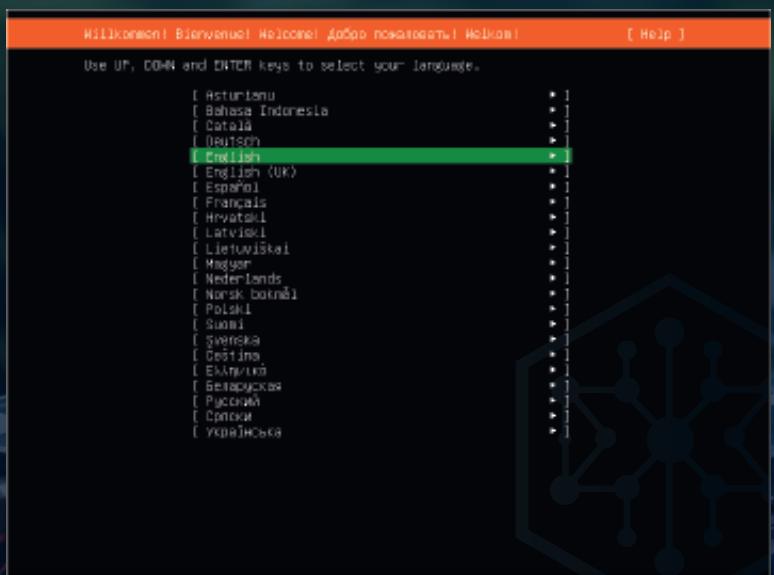
Don't miss the chance to be an integral part of this innovative ecosystem. By operating a node, you not only support the network but also position yourself uniquely to seize the opportunities that lie ahead. Let's transform the future of blockchain together!



# TUTORIAL NODE UBUNTU SERVER NODE UBUNTU 18.04 FULL

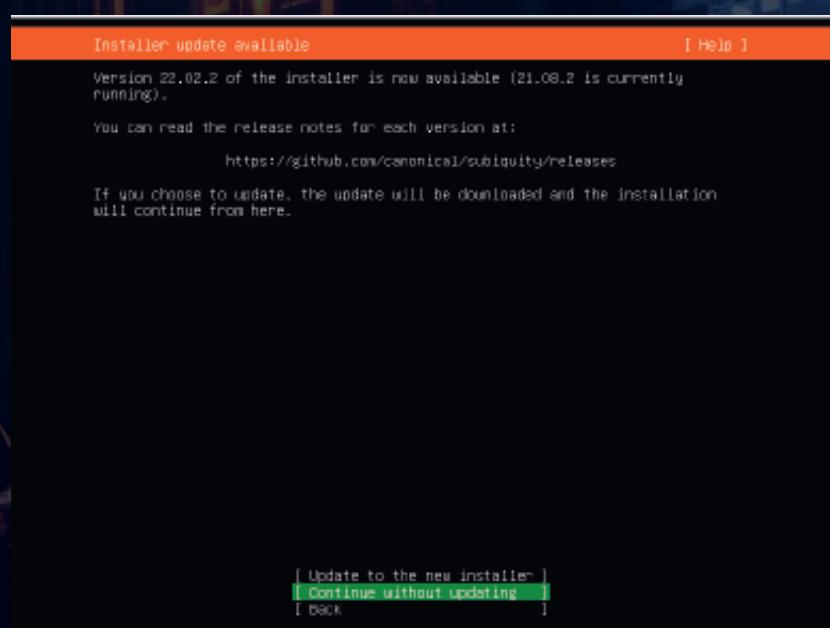
## Step 1: Initialize the Installer

After starting the installation from the USB or installation media, the first screen will allow you to select the installer language. Use the up/down arrows to choose the language and press ENTER to confirm. In this example, we selected "English".



## Step 2: Update the Installer (Optional)

You will be informed that a newer version of the installer is available. Here, you can choose to update to the latest version or continue without updating. In this example, we selected "Continue without updating" to proceed with the current version. Use Ubuntu Server 18.04.

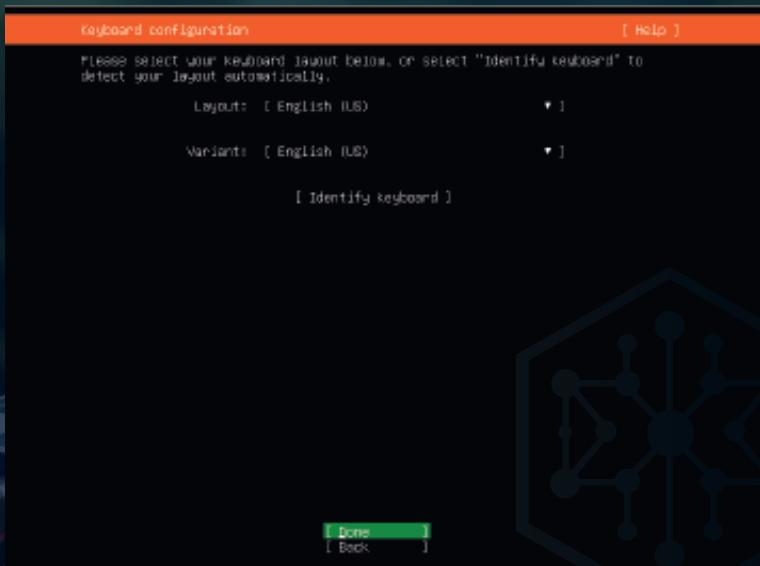


# TUTORIAL NODE UBUNTU SERVER

## NODE UBUNTU 18.04 FULL

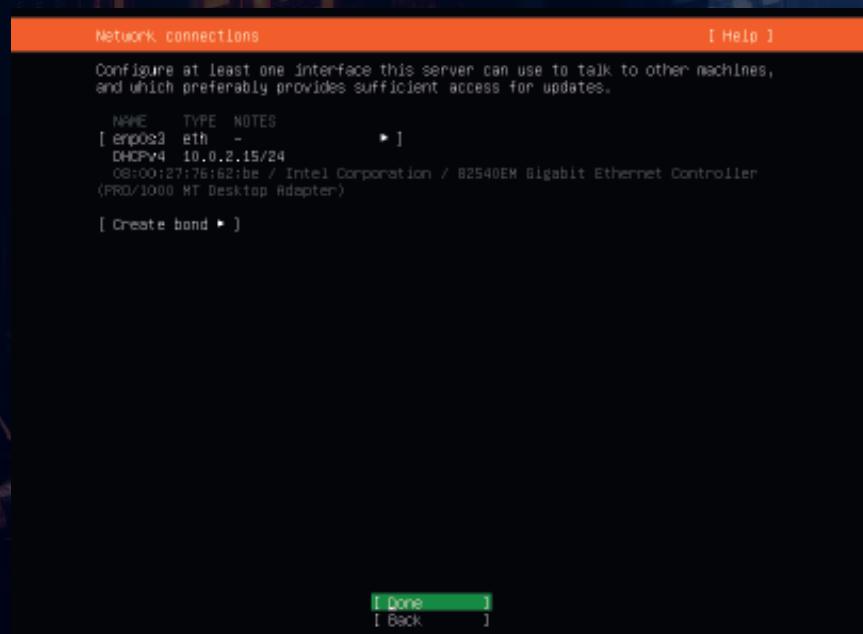
### Step 3: Keyboard Configuration

The next step is to configure the keyboard layout. Select the correct layout that matches your keyboard. In this case, we selected "English (US)" and confirmed with "Done".



### Step 4: Network Connection Configuration

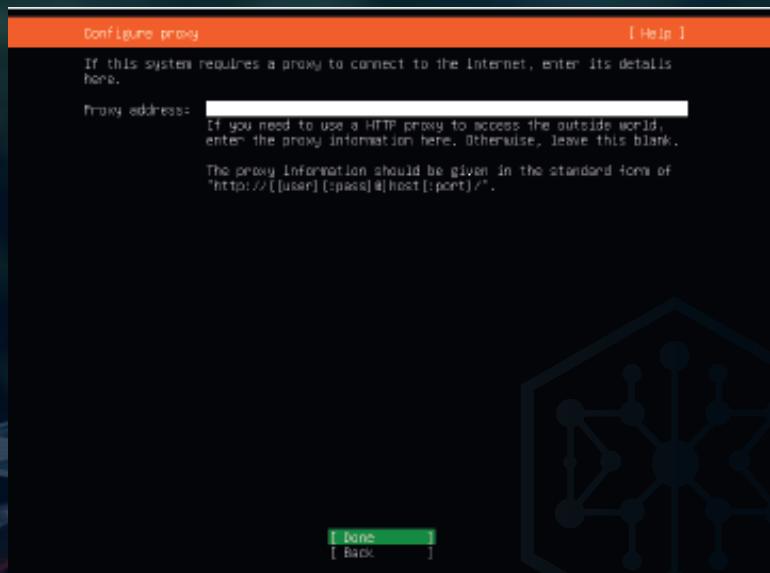
The installer will detect the available network interfaces. Ensure that the correct network interface is selected so that the server has internet access. After reviewing, select "Done" to proceed.



# TUTORIAL NODE UBUNTU SERVER NODE UBUNTU 18.04 FULL

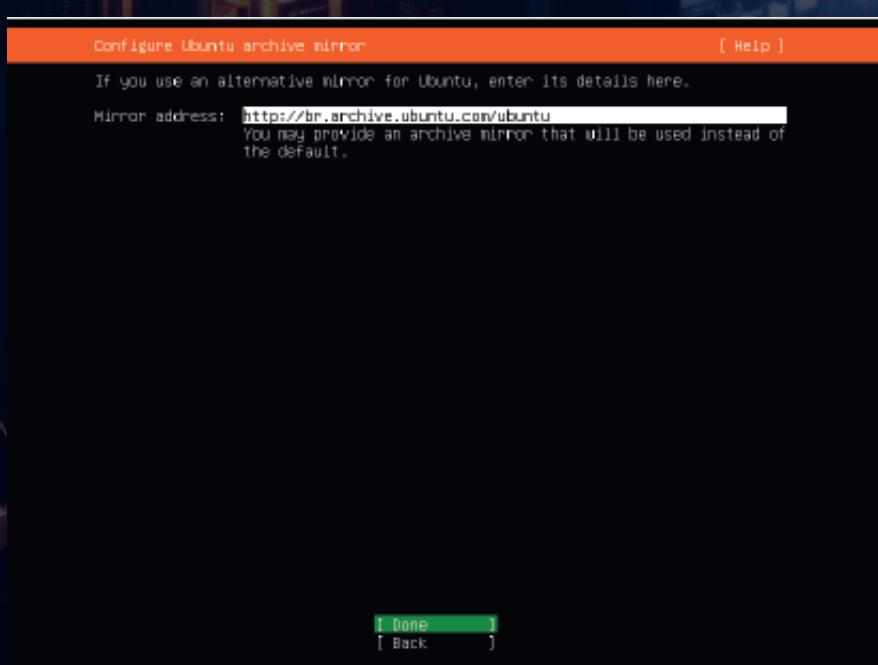
## Step 5: Proxy Configuration (Optional)

If your network requires the use of an HTTP proxy to access the internet, enter the proxy information. If you do not need a proxy, leave it blank and select "Done" to continue.



## Step 6: Mirror Configuration

Choose the file mirror from which Ubuntu will download packages during the installation. The default mirror is usually suitable, but you can provide another mirror if preferred. After making your choice, select "Done".

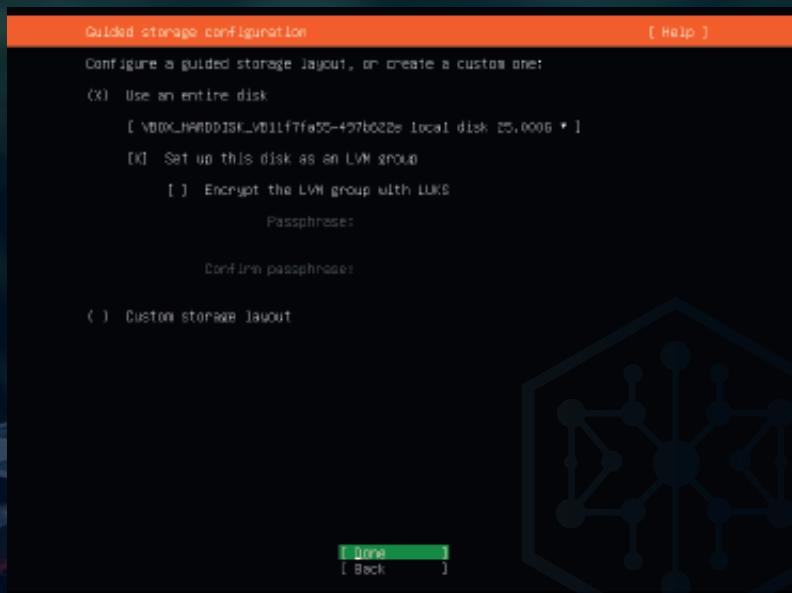


# TUTORIAL NODE UBUNTU SERVER

## NODE UBUNTU 18.04 FULL

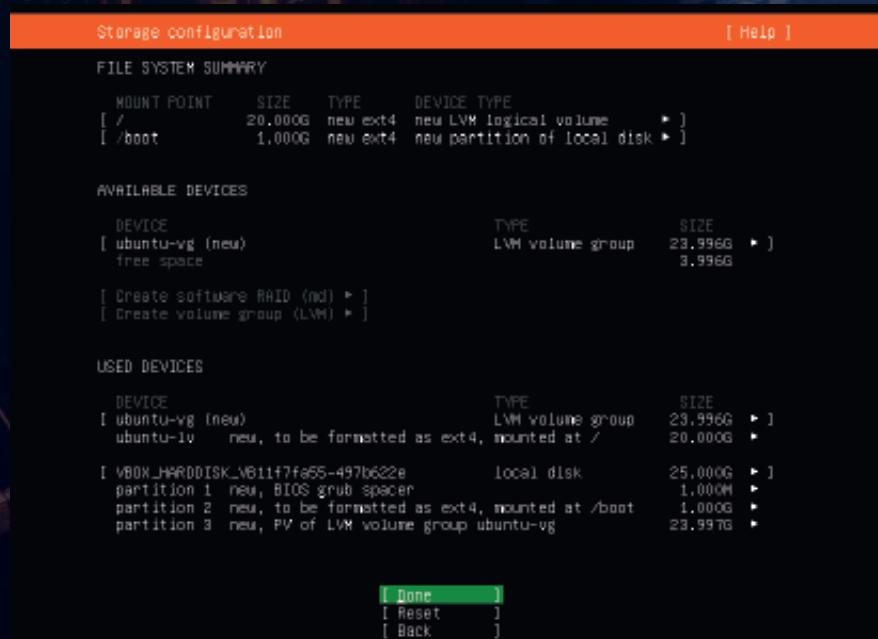
### Step 7: Storage Configuration

Choose how you want to partition your disk. The simplest option is "Use an entire disk", which will use all available space on the disk. Select "Done" to continue.



### Step 8: Review Storage Configuration

Review the storage configuration. Ensure everything is correct and that the right disk has been selected. When you are ready, select "Done".

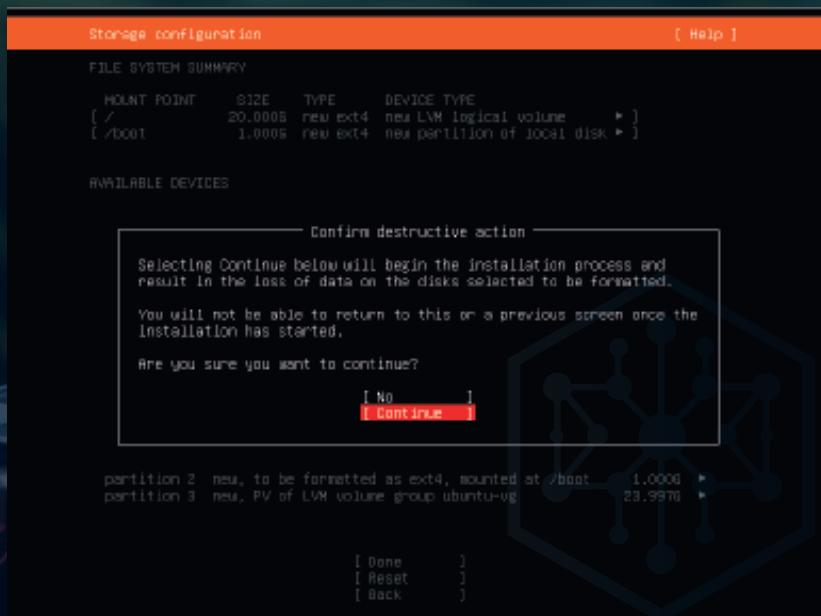


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### Step 9: Confirm Settings

The installer will ask for confirmation to start the installation and format the selected disk. This action is irreversible. If you are sure, select "Continue" to proceed with the installation.



### Step 10: User Profile Configuration

Enter the user information for the system, such as name, server name, username, and password. After filling in all the details, select "Done" to finish.

The screenshot shows the 'Profile setup' screen with the following instructions:

Enter the username and password you will use to log in to the system. You can configure SSH access on the next screen but a password is still needed for sudo.

Fields filled with sample data:

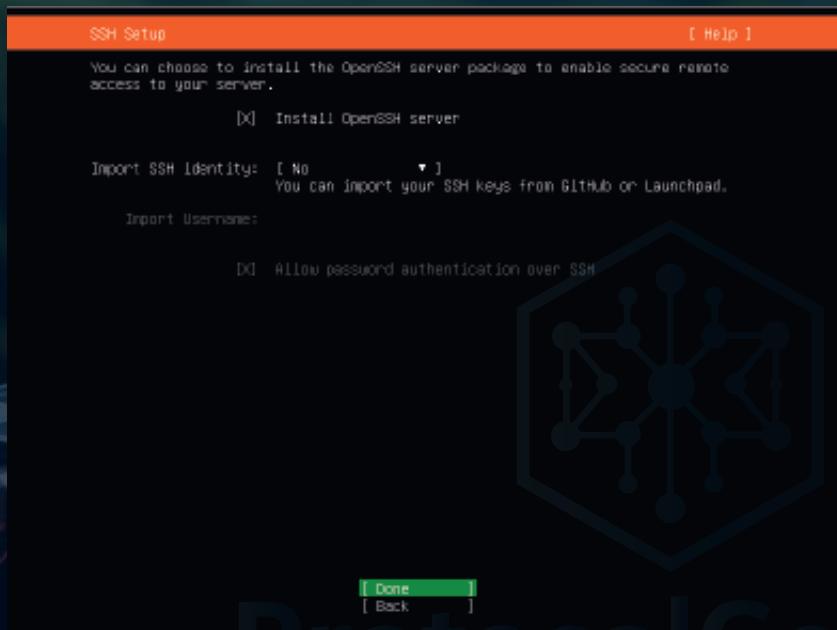
- Your name: nodegenesis
- Your server's name: nodegenesis
- Pick a username: genesis86
- Choose a password: \*\*\*\*\*
- Confirm your password: \*\*\*\*\*

At the bottom of the screen is a green button labeled [ Done ].

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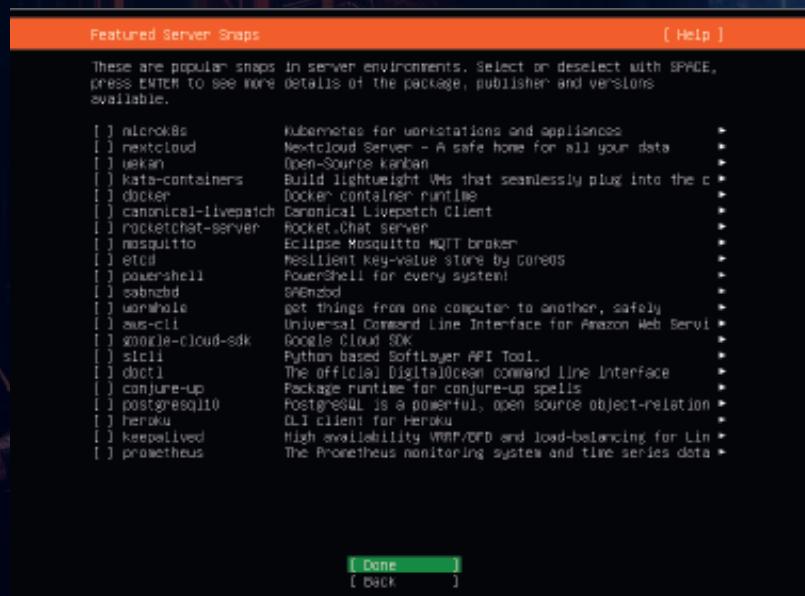
## Step 11: SSH Configuration

At this stage, you can choose to install the OpenSSH server, which will allow you to access your server remotely. Check the option "Install OpenSSH server" and, if desired, import an existing SSH identity. After configuring, select "Done" to continue.



## Step 12: Server Snaps Selection

The installer offers a selection of snaps, which are software packages commonly used on servers. Select the ones you want to install using the space bar and press "Done" when finished. At this stage, you can choose to install packages like Docker, Nextcloud, PostgreSQL, among others, depending on your server's needs.

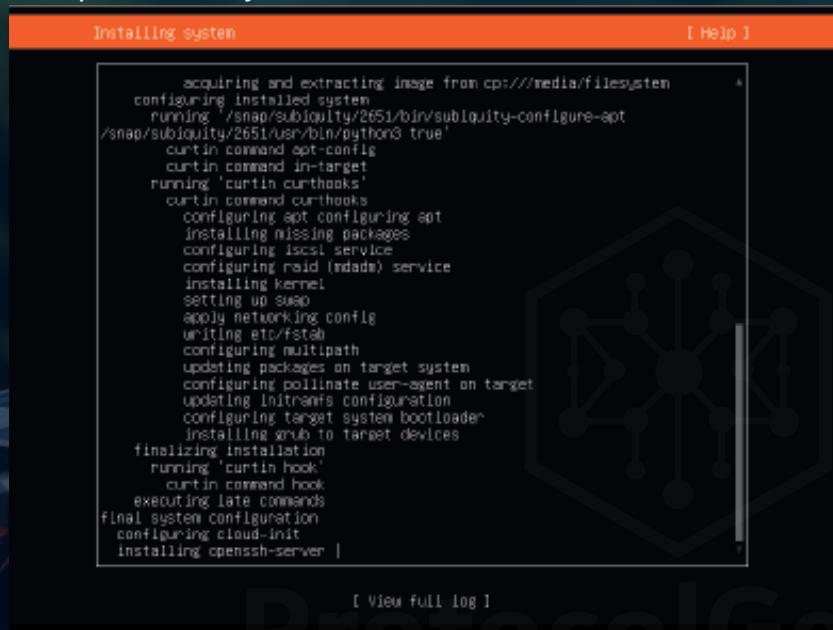


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### Step 13: System Installation

The system is now installing the selected packages, configuring the network, partitioning the disks, and preparing the environment. You can monitor the progress on the screen. This process may take a few minutes.



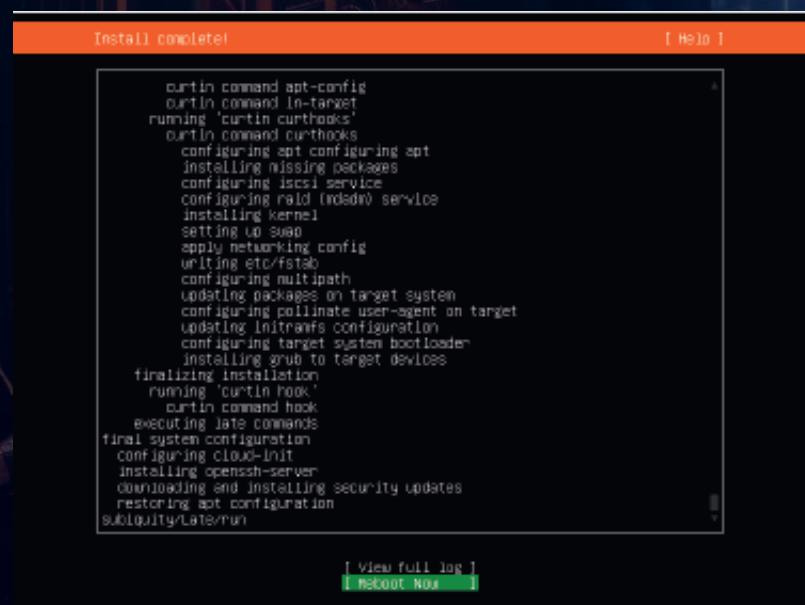
Installing system [ Help ]

```
acquiring and extracting image from cps://media/filesystem
configuring installed system
running '/snap/subiquity/2651/usr/bin/subiquity-configure-apt'
/snap/subiquity/2651/usr/bin/python3 true'
curtin command apt-config
curtin command in-target
running 'curtin curthooks'
curtin command curthooks
configuring apt configuring apt
installing missing packages
configuring iscsi service
configuring raid (mdadm) service
installing kernel
setting up swap
apply networking config
writing etc/fstab
configuring multipath
updating packages on target system
configuring pollinate user-agent on target
updating Initramfs configuration
configuring target system bootloader
installing grub to target devices
finalizing installation
running 'curtin hook'
curtin command hook
executing late commands
final system configuration
configuring cloud-init
installing openssh-server |
```

[ View full log ]

### Step 14: Installation Completion

After the installation is complete, you will see a screen confirming that the process has finished. To complete, select "Reboot Now" to restart the server and begin using Ubuntu Server 18.04.



Install complete [ Help ]

```
curtin command apt-config
curtin command in-target
running 'curtin curthooks'
curtin command curthooks
configuring apt configuring apt
installing missing packages
configuring iscsi service
configuring raid (mdadm) service
installing kernel
setting up swap
apply networking config
writing etc/fstab
configuring multipath
updating packages on target system
configuring pollinate user-agent on target
updating Initramfs configuration
configuring target system bootloader
installing grub to target devices
finalizing installation
running 'curtin hook'
curtin command hook
executing late commands
final system configuration
configuring cloud-init
installing openssh-server
downloading and installing security updates
restoring apt configuration
subiquity/catevrun
```

[ View full log ] [ REBOOT NOW ]

# TUTORIAL NODE UBUNTU SERVER

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### Step 13: First Login

After the reboot, you will be prompted to log in to the system. Use the username and password you set up earlier to access the server terminal.

```
Ubuntu 18.04.6 LTS nodegenesis tty1
nodegenesis login: gensgens
```



### Step 14: Installation Completion

Once logged in, you will have access to the Ubuntu Server 18.04 terminal, where you can execute commands, install new packages, and configure your server environment according to your needs.

```
Ubuntu 18.04.6 LTS nodegenesis tty1
ctrl: Num Lock on
nodegenesis login: gensgens
Password:
Last login: Wed Aug 21 22:38:48 UTC 2024 on ttys1
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 4.15.0-213-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Wed Aug 21 23:42:32 UTC 2024

System load: 0.1              Processes:           121
Usage of /: 28.8% of 19.5GB   Users logged in:      0
Memory usage: 4%               IP address for ens3: 192.168.1.44
Swap usage: 0%

42 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

New release '20.04.6 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

To run a command as administrator (user "root"), use "sudo command".
See "man sudo_root" for details.

gensgens@nodegenesis:~$ _
```

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### Step 15: WinSCP Installation Guide

WinSCP is a popular SFTP, FTP, WebDAV, and SCP client for Windows, used to securely transfer files between a local computer and a remote server. This guide will walk you through the process of downloading and installing WinSCP on Windows.

#### ***Start the Installation and Run the Installer***

Navigate to the folder where the installer was downloaded and double-click the file to start the installation process.

#### ***Allow Changes***

If prompted, allow the installer to make changes to your device by clicking "Yes" in the User Account Control (UAC) window.

#### ***Installation Process: Choose Installation Type***

The installer will offer two installation types: "Typical Installation" and "Custom Installation." For most users, the typical installation is recommended. Select it and click "Next."

#### ***Choose Additional Components (Optional)***

If desired, you can select additional components such as desktop shortcuts, Windows Explorer integration, etc. Select the desired options and click "Next."

#### ***Choose Interface Style***

The installer will ask if you prefer to use the "Commander" or "Explorer" interface. The "Commander" interface is more powerful and resembles a file manager with two panels, while the "Explorer" interface is simpler and similar to Windows Explorer. Choose according to your preference and click "Next."

#### ***Start the Installation***

Click "Install" to begin the installation process. WinSCP will be installed on your computer in a few minutes.

#### ***Step 4: Finalize the Installation***

After the installation is complete, you will see the option to run WinSCP immediately. Select this option if you want to start the program right after installation and click "Finish."

#### ***Initial Setup (Optional): Configure Connection to a Server***

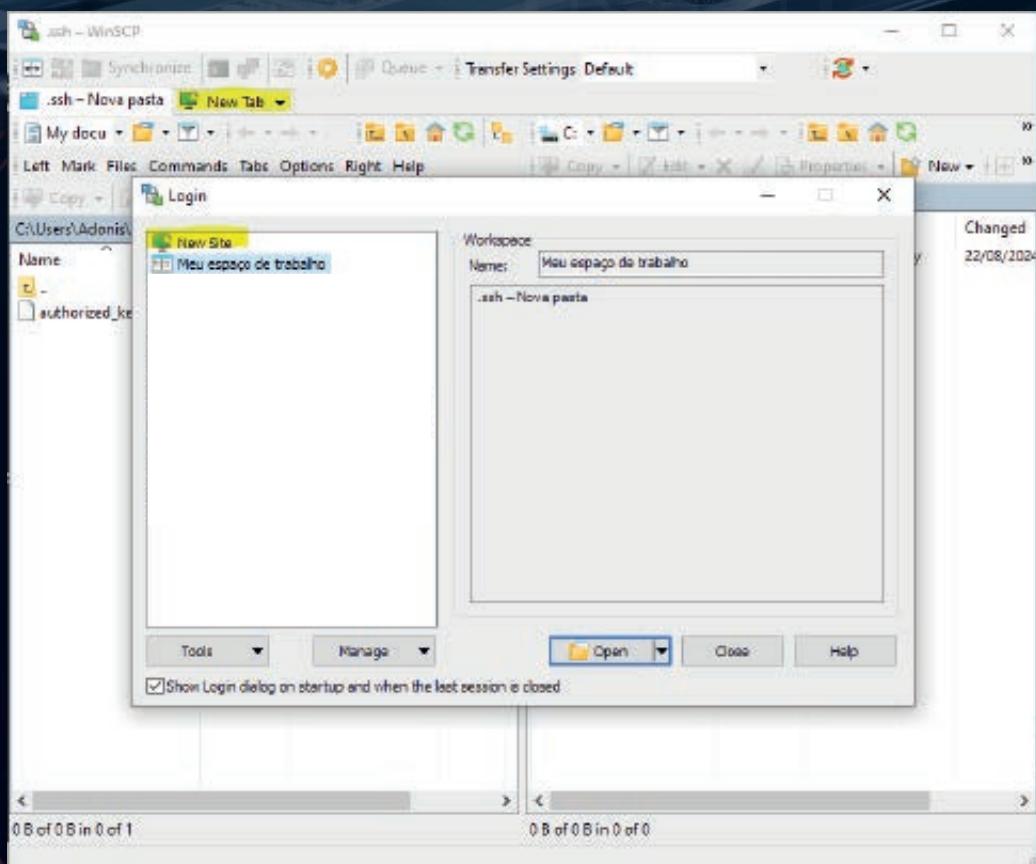
When you open WinSCP for the first time, you will be taken to the login screen where you can configure your connection to a remote server. Enter the server's IP address, username, password, and select the desired protocol (SFTP, SCP, FTP, or WebDAV). Click "Login" to connect to the server.

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With WinSCP installed, you will be ready to manage files between your local computer and remote servers securely and efficiently. This software is an essential tool for system administrators and developers who need to transfer files reliably.

### Step 16: Connecting to a Remote Server using WinSCP

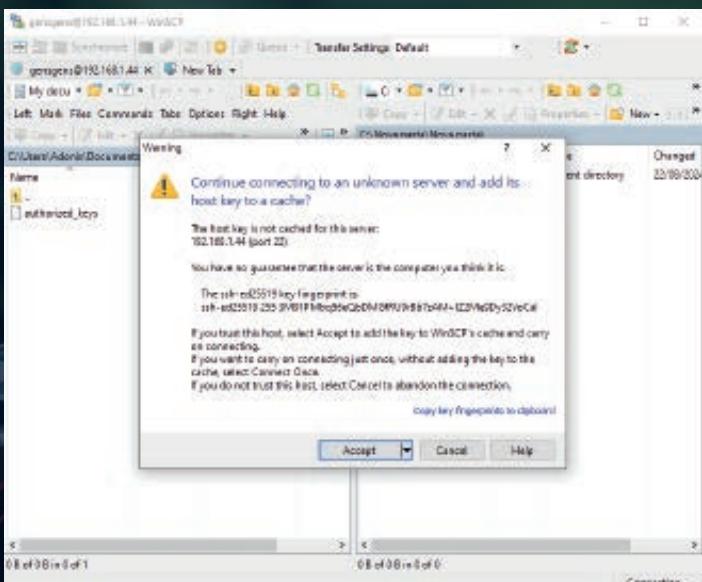
After installing WinSCP, you can use it to connect to a remote server via SFTP, FTP, SCP, or other supported protocols. The images provided demonstrate three important steps of this process. At this stage, you are in the main WinSCP window, where you can select a pre-configured site or add a new connection. In the example, a "New Site" was created within the "My Workspace" section. Here, you define the IP address, username, connection protocol, and other specific settings to access the desired server. After filling in the required information, click "Open" to start the connection.



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## Step 17: Host Key Verification

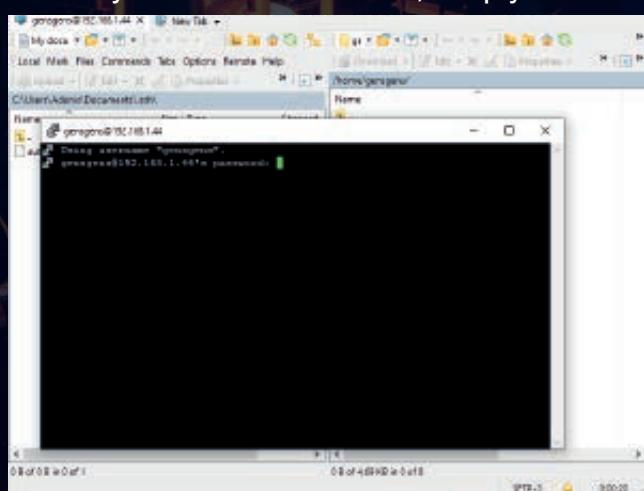
When you attempt to connect to a server for the first time, WinSCP displays a security warning indicating that the server's host key is not cached. This message is important to ensure you are connecting to the correct server and not an imposter. The server's SSH key is displayed for verification. If you trust the server, click "Accept" to add the key to WinSCP's cache and proceed with the connection.



## Step 18: SSH Authentication

After accepting the host key, WinSCP prompts for authentication. A terminal window appears, asking you to enter the password associated with the username you configured for the SSH connection. Type the password and press ENTER to authenticate to the server. Once successfully authenticated, you will have access to the server's file system through WinSCP's graphical interface, allowing you to securely and conveniently transfer files.

These steps cover the basic process of setting up and connecting to a remote server using WinSCP. After successfully configuring the connection, you can begin transferring files, managing permissions, and performing other administrative tasks directly within the WinSCP interface. To access your server's terminal, simply click on "Open session PuTTY."





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## Step 19: ProtocolGenesis Blockchain Setup and Installation on the Server

Now that you have established the server connection using WinSCP, let's proceed with the installation and configuration of the ProtocolGenesis blockchain. Follow the steps below to ensure that the environment is properly set up to run the blockchain node.

### Update the system packages

```
sudo apt update  
sudo apt-get update
```

If any installation confirmation appears regarding the updates, confirm it.

### Install Necessary Dependencies

```
sudo apt-get install build-essential  
  
sudo apt-get install autoconf libtool pkg-config libboost-all-dev libssl-dev libprotobuf-dev  
protobuf-compiler libevent-dev libqt4-dev libcanberra-gtk-module libdb++-dev
```

Install the essential packages to compile the code.

### Download and install Berkeley DB.

```
wget http://download.oracle.com/berkeley-db/db-4.8.30.NC.tar.gz  
  
tar -xvf db-4.8.30.NC.tar.gz  
  
sudo chmod -R 775 /home/gensgens/db-4.8.30.NC (Digite o caminho correto da pasta)  
cd db-4.8.30.NC/build_unix  
mkdir -p build  
BDB_PREFIX=$(pwd)/build  
./dist/configure --disable-shared --enable-cxx --with-pic --prefix=$BDB_PREFIX  
sudo make install
```

Type the commands in sequence and wait for the installation.

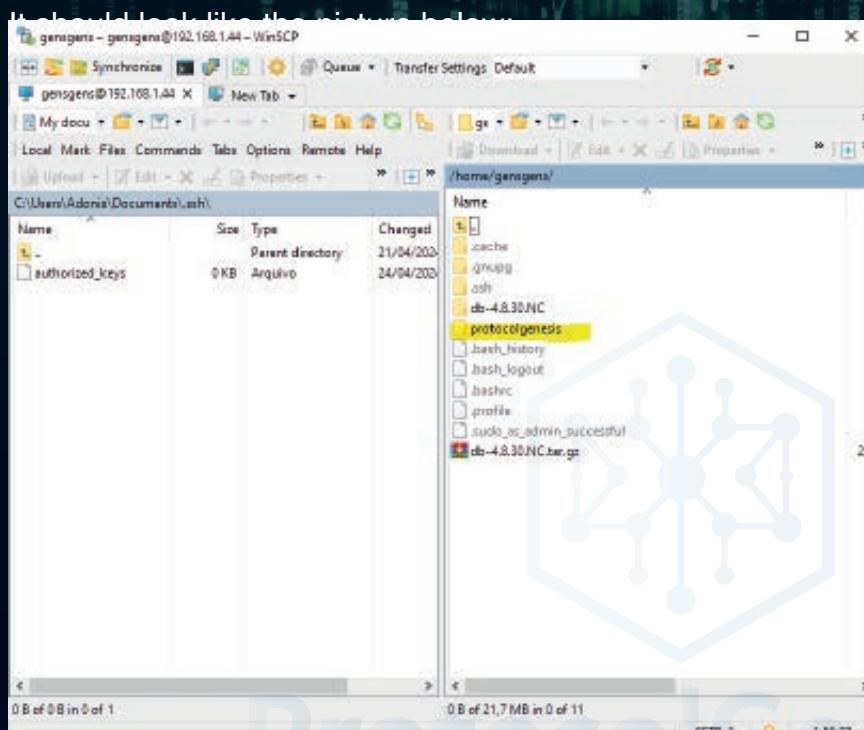
The command sudo chmod is used to give access permission to the db folder.  
Check the correct paths and replace them in the chmod command.



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## Step 20: Copy the ProtocolGenesis Blockchain Folder into the Server

You will download the blockchain from the official website [www.protocolgenesis.org](http://www.protocolgenesis.org). After downloading the folder, open WinSCP and navigate to the directory where you installed Berkeley. Paste the folder there.



## Step 21: Let's Start the Blockchain Installation

Follow the commands below to install the blockchain.

Compile and Configure the ProtocolGenesis Node.

```
Cd~  
tar -xvf db-4.8.30.NC.tar.gz  
sudo chmod -R 775 /home/mining1/protocolgenesis  
cd protocolgenesis
```

Set the permissions and enter the blockchain directory.

The command sudo chmod is used to grant access to the folder you copied from the blockchain. Check the correct paths and replace them in the chmod command.



# TUTORIAL NODE UBUNTU SERVER NODE UBUNTU 18.04 FULL

Install Necessary Dependencies.

```
./autogen.sh  
  
.configure CPPFLAGS="-I${BDB_PREFIX}/include/ -O2" LDFLAGS="-L${BDB_PREFIX}/lib/"  
  
make
```

Install the essential packages to compile the code.

Update the dependencies.

```
sudo apt-get update
```

After updating, create a folder in the same directory as the blockchain folder, named .protocolgenesis, and copy and paste the file you downloaded from the website, called protocolgenesis.conf.

(In our example, the file path looks like this: /home/gensgens/.protocolgenesis)

In the protocolgenesis.conf file you will see:

```
rpcuser=DecentralizedWhiteKnightTheorderThefuture36377  
rpcpassword=232423Aky04021994A453648452Aky  
txindex=1  
rpcallowip=127.0.0.1  
daemon=1  
rpcport=6332  
port=6333  
maxconnections=125  
listen=1  
discover=1  
dnsseed=1  
upnp=1  
addnode=185.101.104.97  
addnode=51.222.69.144  
addnode=185.101.104.223  
addnode=185.101.104.223  
addnode=109.110.184.26
```

These configurations are crucial for the operation and connection of the nodes. To increase your node's connections, visit the website [www.protocolgenesis.org](http://www.protocolgenesis.org), copy all the listed 'addnodes', and paste them into your node's configuration. This will speed up the synchronization process.



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## Step 22: Firewall Configuration

To ensure that the ProtocolGenesis blockchain node functions correctly and is protected, it is crucial to configure the server firewall. The UFW (Uncomplicated Firewall) in Ubuntu 18.04 is a simple and effective tool for managing inbound and outbound network traffic rules. Below, I explain how to configure the firewall to allow the necessary ports for the operation of the ProtocolGenesis node.

Check the status of the firewall:

```
sudo ufw status
```

If it shows as "inactive," there's no problem, let's continue.

Add inbound rules to open the necessary ports:

```
sudo ufw allow 22,80,443,8080,6333,16335,16444,8333,6667,8545,3001,9333,3008/tcp
```

```
sudo ufw allow out 22,80,443,8080,6333,16335,16444,8333,6667,8545,3001,9333,3008/tcp
```

To ensure the ProtocolGenesis node communicates properly, we need to open several TCP ports on the firewall. These include both specific blockchain ports and common ports necessary for server management.

Command to enable the firewall:

```
sudo ufw enable
```

After executing this command, the firewall will be activated and will start applying all the rules you have configured.



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### Step 23: Finalize the Configuration and Restart the Server

After setting up the ProtocolGenesis blockchain node and adjusting the firewall rules, the next step is to ensure all changes are applied correctly and the system is ready to operate smoothly. To do this, we'll perform a final system package update and restart the server. By following these steps, you will be confident that the environment is fully configured and that the node is ready to run.

#### Update System Packages:

```
sudo apt-get update  
sudo apt update
```

sudo apt-get update and sudo apt update will fetch the latest available package lists for your system.

#### Restart the Server:

```
sudo reboot
```

The reboot command restarts the server immediately. During the reboot, the operating system loads all the new configurations, including the firewall rules that were set earlier and any changes to software packages.

### Step 24: Starting and Checking the Status of the ProtocolGenesis Node

After configuring and rebooting the server, the next step is to start the ProtocolGenesis blockchain daemon and check the status of the node to ensure it is operating correctly. Below, I will describe how to run these commands and interpret the results.

#### Starting the ProtocolGenesis Blockchain Daemon:

```
/home/gensgens/protocolgenesis/src/protocolgenesisd
```

/home/gensgens/protocolgenesis/src/protocolgenesisd: This command runs the blockchain daemon (background process) from the directory where the blockchain software was compiled and installed. protocolgenesisd: This binary is responsible for starting the node, connecting it to the ProtocolGenesis network, downloading blocks, validating transactions, and maintaining synchronization with the rest of the blockchain. After executing this command, the daemon will start running in the background, allowing the node to begin participating in the network.

There won't be much visible output in the terminal since the process runs silently, but the node will begin connecting to peers, downloading blockchain data, and processing transactions.

## TUTORIAL NODE UBUNTU SERVER NODE UBUNTU 18.04 FULL

After executing the command `/home/gensgens/protocolgenesis/src/protocolgenesisd`, the block-chain daemon will be launched, and the ProtocolGenesis node will begin operating in the background. This command triggers the core functions of the blockchain node, which include connecting to the ProtocolGenesis network, downloading blocks, validating ongoing transactions, and ensuring that the node stays synchronized with the entire blockchain ecosystem.

At this point, the blockchain node is becoming an active participant in the decentralized network. It will start reaching out to other nodes, establishing peer-to-peer connections to exchange block-chain data, and confirming its place in the network. These connections enable the node to download the latest blocks and historical data, allowing it to gradually synchronize with the entire block-chain ledger. The synchronization process can take some time, depending on the size of the blockchain and the speed of your server's internet connection, but it is crucial for the node to be fully operational and in sync with the network.

Although this process happens in the background, without much visible output on the terminal, rest assured that the node is working continuously. It is downloading block headers, validating transactions against the consensus rules, and ensuring that all data aligns with the blockchain's historical record. The node will also begin to verify blocks as it catches up to the latest state of the blockchain, ensuring the integrity of the data being processed.

As more blocks are downloaded and validated, the node will progress through the blockchain's history until it reaches the most recent block. During this time, the server's CPU and network resources may be more heavily utilized, reflecting the intensive process of catching up to the current state of the network. Once the node is fully synchronized, it will start real-time participation in the ProtocolGenesis blockchain, meaning it will process and validate new transactions and blocks as they are created.

This synchronization process is critical for the node's ability to function as an integral part of the ProtocolGenesis network, and it ensures that your node can contribute to the network's overall security and functionality. From this point on, the node will remain in sync with the network, continuously updating its local copy of the blockchain and maintaining its connection to other peers to ensure the accuracy and reliability of the data it holds.

In summary, after running the daemon, your node will seamlessly integrate into the ProtocolGenesis network, download and validate blocks, synchronize with the latest transactions, and maintain a secure connection with other nodes. This step ensures that your node is ready to actively participate in the decentralized operation of the blockchain, handling transaction verification and block validation as part of the global network.



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## Verifying the Status of the ProtocolGenesis Node

Once the daemon is running, you can check the status of the node to ensure that it is working correctly and synchronized with the network:

### Status of the ProtocolGenesis Node

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getinfo
```

#### Command Description:

/home/gensgens/protocolgenesis/src/protocolgenesis-cli: This command runs the blockchain's command-line client, allowing interaction with the running node.  
getinfo: This function requests detailed information about the current status of the node, including data such as the number of synchronized blocks, blockchain height, network connections, and other important parameters.

#### What to Expect:

Running this command will provide an output in the terminal with information such as the number of currently synchronized blocks, software version, the number of active connections with other nodes, and other crucial details. This allows you to monitor synchronization progress and confirm that the node is operating as expected.

When you execute getinfo, you will see a result similar to the image below:

```
"keypoolsize": 100,
"paytxfee": 0.00000000,
"relayfee": 0.00100000,
"errord": ""

}
gensagens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getinfo
{
  "version": 140200,
  "protocolversion": 70015,
  "walletversion": 130000,
  "balance": 0.00000000,
  "blocks": 7261,
  "timedoffset": 0,
  "connections": 4,
  "proxy": "",
  "difficulty": 0.3931054389545681,
  "testnet": false,
  "keypoololdest": 1724305509,
  "keypoolsize": 100,
  "paytxfee": 0.00000000,
  "relayfee": 0.00100000,
  "errord": ""
}
gensagens@nodegenesis:~$
```

#### version": 140200

This line shows the version of the node software that is being run. The number indicates the specific version of the blockchain implementation in use.

#### protocolversion": 70015

The protocol version number that the node is using to communicate with other nodes on the network. This version defines how data is transmitted and interpreted between nodes.



# TUTORIAL NODE UBUNTU SERVER NODE UBUNTU 18.04 FULL

## "walletversion": 130000

Indicates the version of the wallet being used by the node. Different versions may have distinct functionalities or security features.

## "balance": 0.00000000

Shows the current total balance of the wallet associated with the node. In this case, the balance is zero, meaning no cryptocurrency is currently stored in the wallet.

## "blocks": 7264

Displays the number of blocks the node has synchronized so far. This value indicates the blockchain height the node has reached in its synchronization process.

## "timeoffset": 0

Represents the time difference between the local system clock and the blockchain network's average time. A value of zero indicates that the node's clock is synchronized with the network's.

## "connections": 4

This number indicates how many active connections the node has with other nodes on the blockchain network. More connections may result in better connectivity and faster synchronization.

## "proxy": ""

If the node is using a proxy to connect to the network, this line would show the proxy details. In this case, it's empty, indicating no proxy is configured.

## "difficulty": 0.3931054339545681

The current mining difficulty on the blockchain network. This value reflects how hard it is to find the next block, dynamically adjusted by the network to maintain a constant block time.

## "testnet": false

Indicates whether the node is connected to the test network (testnet) or the main network (mainnet). A value of "false" means the node is operating on the mainnet.

## "keypoololdest": 1724305509

Shows the timestamp of the oldest key pair in the wallet's "keypool." The keypool is a reserve of pre-generated addresses the wallet uses for new transactions.

## "keypoolsiz": 100

Indicates the size of the keypool, meaning the number of keys the wallet has pre-generated and is holding in reserve.



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## "paytxfee": 0.00000000

This line shows the transaction fee that will be paid by default when sending transactions. Currently, it is set to zero, meaning no additional fee will be added to transactions unless otherwise configured.

## "relayfee": 0.00100000

Defines the minimum fee per kilobyte that the node will accept to relay transactions to other nodes. This is done to prevent spam transactions from being sent on the network.

## "errors": ""

If any errors are detected on the node, they will be listed here. Since it's empty, this means no errors are currently detected.

## Summary

The getinfo command is a useful tool for quickly monitoring the status of your ProtocolGenesis blockchain node. It provides an overview of the node's performance, network synchronization, wallet balance, and other critical information to ensure everything is working properly. The output shown suggests that the node is operating normally, with no errors, and is synchronizing blocks with the network.



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## Step 25: Using Your ProtocolGenesis Node as a Wallet

Using your ProtocolGenesis node, you can manage your cryptocurrency funds securely and efficiently. Below, we will explore how to generate a new address, check the balance, and perform transactions using specific commands with the correct path to the command-line client.

### Command to Generate a New Address

To generate a new receiving address in your wallet, use the following command:

#### Generate a New Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getnewaddress
```

**getnewaddress:** This command creates a new address associated with your wallet on the node. You can use this address to receive ProtocolGenesis or other compatible cryptocurrencies.

After executing the command, a new address will be displayed in the terminal as shown in the image below. This address can be shared with others so they can send cryptocurrencies to your wallet.

```
"errors": "",  
}  
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getinfo  
{  
    "version": 140200,  
    "protocolversion": 70015,  
    "walletversion": 130000,  
    "balance": 0.00000000,  
    "blocks": 7264,  
    "timeoffset": 0,  
    "connections": 4,  
    "proxy": "",  
    "difficulty": 0.3931054339545681,  
    "testnet": false,  
    "keypoololdest": 1724305509,  
    "keypoolsize": 100,  
    "paytxfee": 0.00000000,  
    "relayfee": 0.00100000,  
    "errors": ""  
}  
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getnewaddress  
GSvrHDxnChwkRWTqlMQMvkanKS9NPgDRiT  
gensgens@nodegenesis:~$
```



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## Checking the Balance of Your Node

To check the total balance across all addresses in your wallet, execute the following command:

Saldo da Carteira

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance
```

getbalance: This command returns the total accumulated balance of all cryptocurrencies stored in the addresses associated with your wallet on the node.

The displayed balance will represent the sum of all funds present across the different addresses in your wallet. Initially, the balance may show as 0.0000000, which is normal if you haven't received any funds yet.

### Understanding Confirmations:

After a transaction is made, it needs to be confirmed by miners on the network. Transactions with at least 3 confirmations will appear in the balance. For mining rewards, 100 confirmations are required before they appear in the total balance.

As shown in the image below, the balance is 0.00000000, as no transactions have been received yet.

```
"protocolversion": 70015,
"walletversion": 130000,
"balance": 0.00000000,
"blocks": 7264,
"timeoffset": 0,
"connections": 4,
"proxy": "",
"difficulty": 0.3931054339545681,
"testnet": false,
"keypoololdest": 1724305509,
"keypoolsize": 100,
"paytxfee": 0.00000000,
"relayfee": 0.00100000,
"errors": ""}
```

```
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getnewaddress
GSvrHDxnChwkRWTqlMQMvkanKS9NPgDRiT
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance
0.00000000
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance
0.00000000
gensgens@nodegenesis:~$
```

# TUTORIAL NODE UBUNTU SERVER NODE UBUNTU 18.04 FULL

## Sending Funds from Your Node

To send cryptocurrencies from your wallet to another address, use the following command, replacing (endereço\_de\_envio) with the destination address and (valor) with the amount you want to send:

### Send Funds

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli sendtoaddress  
(endereço_de_envio) (valor)
```

We sent 1 GENS to the address of our newly created wallet on the node, and now we will show how you can send GENS from your node to any wallet.

sendtoaddress: This command allows you to send a specific amount of cryptocurrency from your wallet to the indicated address.

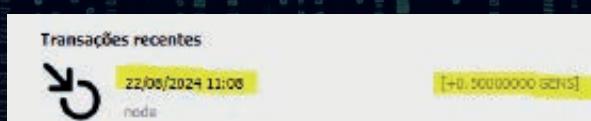
After executing the command, the node will broadcast the transaction to the network. The transaction will be queued for confirmation, and you can track its status using the transaction listing command.

```
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getnewaddress  
GSvrHDxnChwkRWTqlMQMvkanKS9NPgDRit  
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance  
0.00000000  
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance  
0.00000000  
gensgens@nodegenesis:~$ ^C  
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance  
0.00000000  
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli sendtoaddress  
GbBkjSYTXz626DHFXLUNmM4hbFJAaK9pu1 0.5  
8ad442b52d2257fc658ea25d88dd400fc9b2772afbldde61950576dbbc02a017  
gensgens@nodegenesis:~$
```

In this transaction, as you can see, we sent the amount of "0.5" GENS to our desktop wallet (Protocolgenesis Core) using the sendtoaddress command, and we received the transaction hash number.

```
gensgens@nodegenesis:~$ /home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance  
0.49548000  
gensgens@nodegenesis:~$
```

Now we used the getbalance command to check our balance on the node, and it showed: 0.49548000, which is the remaining balance after sending 0.5 GENS plus the network fee.



In our wallet, we can now confirm the receipt of our GENS.

# TUTORIAL NODE UBUNTU SERVER NODE UBUNTU 18.04 FULL

## Verifying Transactions on Your Node

When using your ProtocolGenesis node as a wallet, it is important to have the ability to view and monitor your transactions. This includes checking the history of received, sent, and other cryptocurrency-related activities in your wallet. The `listtransactions` command allows you to do exactly that, providing a detailed list of the most recent transactions associated with your wallet.

### List of Transactions

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listtransactions
```

`protocolgenesis-cli`: Este é o cliente de linha de comando usado para interagir com o node da blockchain ProtocolGenesis.

`listtransactions`: Esta função dentro do cliente de linha de comando retorna uma lista das transações mais recentes realizadas pela sua carteira. Por padrão, o comando exibe as últimas 10 transações, mas pode ser ajustado para mostrar mais ou menos, conforme necessário.

```
{
  "account": "",
  "address": "GSvrHDxnChwkRWTqlMQMvkanKS9NPgDRiT",
  "category": "receive",
  "amount": 1.00000000,
  "label": "",
  "vout": 0,
  "confirmations": 34,
  "blockhash": "fae0e461eb90c58885ffb6c8cdce1631a7a17d38d7b302dedf31c9eeb8f53031",
  "blockindex": 2,
  "blocktime": 1724309522,
  "txid": "99536fda5868f06c291dd7d21c985704bbbe8240f0977e8d49537c3e352ealdf",
  "walletconflicts": [
  ],
  "time": 1724308914,
  "timereceived": 1724308914,
  "bip125-replaceable": "no"
},
{
  "account": "",
  "address": "GbBkjSYTXz626DHFXLUNmM4hbFJAaK9pui",
  "category": "send",
  "amount": -0.50000000,
  "vout": 1,
  "fee": -0.00452000,
  "confirmations": 1,
  "blockhash": "a6dc5c8a6ce1e60457445cb869f22838ela259d81171e2abc6423e97b072f51b",
  "blockindex": 2,
  "blocktime": 1724337348,
  "txid": "8ad442b52d2257fc658ea25d88dd400fc9b2772afbldde61950576dbbc02a017",
  "walletconflicts": [
  ],
  "time": 1724335737,
  "timereceived": 1724335737,
  "bip125-replaceable": "no",
  "abandoned": false
}
```

# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Introduction to ProtocolGenesis Client Commands and Their Possibilities

The ProtocolGenesis client commands, like those provided in the following pages, are essential for directly interacting with the ProtocolGenesis blockchain and wallet. They are crucial for anyone looking to explore the technical and functional depths of the network, going beyond the simple use of GENS cryptocurrency.

### What You Can Do with These Commands

**Address Creation and Management:** You can create new GENS addresses to receive payments, manage your balances, and set up wallets with multiple addresses for different purposes.

**Sending and Receiving GENS:** Commands like sendtoaddress allow you to send GENS to any address on the network, while commands like getreceivedbyaddress let you monitor the funds received at your addresses.

### Blockchain Exploration and Verification:

Block and Transaction Queries: You can use commands like getblock and getrawtransaction to explore the details of specific blocks and transactions on the ProtocolGenesis blockchain. This is crucial for developers who want to build solutions that need to monitor and verify data on the blockchain.

**Consistency and Security Verification:** Commands like verifychain and validateaddress allow you to check the integrity of the blockchain and the validity of addresses, ensuring the network and its transactions are secure and reliable.

**Mining Configuration and Control:** You can enable or disable mining using commands like setgenerate, configure your node to contribute to the network's security, and obtain detailed mining information with getmininginfo.

**Connectivity and Performance Management:** With commands like getconnectioncount and getnetworkhashps, you can monitor your node's network connections and measure the available computational power, which is essential for optimizing your node's performance on the network.

**Integration with Custom Applications:** These commands can be integrated into scripts and applications to create custom solutions that interact with the blockchain, such as custom wallets, payment platforms, or blockchain analysis tools.

**Task and Process Automation:** Using these commands in automated scripts, you can build systems that perform regular checks on the blockchain, process payments automatically, or monitor the network's status in real-time.

### Innovative Possibilities with the ProtocolGenesis API

The listed commands not only empower users and developers to interact with the ProtocolGenesis network on a deep level but also open doors for the creation of innovative solutions. Imagine developing an application that monitors transactions in real-time or creating a tool that automatically manages balances across multiple wallets to optimize fees.

## TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

These commands are the key to unlocking the full potential of the ProtocolGenesis blockchain, enabling you to perform everything from basic operations to developing complex solutions that can transform how we interact with cryptocurrencies and blockchain technology in general. For those looking to develop applications, these commands offer the flexibility and control needed to create robust and secure platforms.

By mastering these commands, you will be equipped to explore the entire ProtocolGenesis ecosystem, build custom solutions, and contribute significantly to the advancement of blockchain technology.

Now that we understand the importance and potential of the ProtocolGenesis client commands, let's dive deeper into each command and its functions. This next step is crucial for fully mastering the tools at your disposal, allowing you to perform everything from basic tasks to developing advanced solutions within the ProtocolGenesis ecosystem. By understanding how each command works, you will be able to manage your wallet, monitor transactions, mine efficiently, and even develop applications that interact directly with the blockchain.

Let's begin this journey by expanding our knowledge of the commands and their essential functionalities.

### Add a Node

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli addnode <node> <add|remove|onetry>
```

Adds, removes, or attempts to connect to a specific node on the network.

### Backup the Wallet

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli backupwallet <destination>
```

Creates a backup of the wallet to the specified path.

### Create a Raw Transaction

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli createrawtransaction  
'[{"txid":"id","vout":n},...]' '{"address":amount,...}'
```

Creates a raw transaction with specified inputs and outputs, without signing it.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Decode a Raw Transaction

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli decoderawtransaction <hex string>
```

Decodes a raw transaction from hexadecimal format into a readable structure.

## Decode a Script

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli decodescript <hex>
```

Decodes a script from hexadecimal format into a readable form.

## Get the Private Key of an Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli dumpprivatekey <gensaddress>
```

Returns the private key associated with the given Bitcoin address.

## Export the Wallet to a File

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli dumpwallet <filename>
```

Exports all private keys from the wallet to a file.

## Encrypt the Wallet

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli encryptwallet <passphrase>
```

Encrypts the wallet with a password, requiring the password for future transactions.

## Get the Account Associated with an Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getaccount <gensaddress>
```

Returns the account name associated with the given GENS address.



## TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

### Get the Address of an Account

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getaccountaddress <account>
```

Returns the Bitcoin address associated with an account.

### Get Information About Manually Added Nodes

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getaddednodeinfo <dns> [node]
```

Returns information about manually added nodes.

### Get All Addresses of an Account

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getaddressesbyaccount <account>
```

Returns a list of GENS addresses associated with the given account.

### Check Account Balance

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getbalance [account] [minconf=1]
```

Returns the total balance of the account, considering the minimum number of confirmations.

### Get the Hash of the Latest Block

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getbestblockhash
```

Returns the hash of the most recent block known to the blockchain.

### Get Information About a Block

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getblock <hash> [verbose=1]
```

Returns detailed information about the block with the provided hash.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Get General Blockchain Information

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getblockchaininfo
```

Displays general information about the state of the blockchain, such as height, difficulty, etc.

## Get the Number of Blocks on the Blockchain

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getblockcount
```

Returns the number of blocks in the local blockchain.

## Get the Hash of a Block

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getblockhash <index>
```

Returns the hash of the block in the blockchain based on the provided index.

## Get the Header of a Block

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getblockheader <hash> [verbose=true]
```

Returns the header of a specific block using the hash.

## Get Information to Mine a Block

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getblocktemplate [params]
```

Returns the necessary data to mine a new block.

## Count the Number of Network Connections

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getconnectioncount
```

Returns the number of connections the node has with other nodes on the network.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Verify Network Difficulty

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getdifficulty
```

Returns the current proof-of-work difficulty.

## Check if the Node is Mining

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getgenerate
```

Indicates whether the node is generating hashes for mining (true or false).

## Get the Node's Hash Rate

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli gethashespersec
```

Returns the number of hashes per second generated by the node.

## Get General Information About the Node

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getinfo
```

Returns various information about the node's status, such as the number of blocks, difficulty, balance, etc.

## Check Mempool Information

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getmempoolinfo
```

Displays information about the mempool transaction set.

## Get Mining Information

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getmininginfo
```

Returns mining-related information, such as the number of blocks, difficulty, etc.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Display Total Network Data

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getnettotals
```

Returns the total bytes received and sent on the network.

## Get Network Information

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getnetworkinfo
```

Displays details about the network configuration and status.

## Get Network Hash Rate

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getnetworkhashps [blocks] [height]
```

Returns the estimated network hash rate.

## Display Information About Connected Peers

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getpeerinfo
```

Displays detailed information about each node connected to the local node.

## Get a Change Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getrawchangeaddress
```

Generates a new change address.

## Display Transactions in the Mempool

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getrawmempool [verbose]
```

Returns a list of transactions in the mempool.

# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Get a Raw Transaction

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getrawtransaction <txid> [verbose=0]
```

Returns a specific transaction in raw format, based on the transaction ID (txid). If verbose is set to 1, detailed information about the transaction is displayed.

## Get the Amount Received by an Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getreceivedbyaddress <bitcoinaddress> [minconf=1]
```

Returns the total amount received by a Bitcoin address, considering the minimum number of confirmations.

## Get Transaction Details

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli gettransaction <txid>
```

Returns details about a specific transaction, including amounts, confirmations, and transaction ID.

## Get Details About a Transaction Output

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli gettxout <txid> <n> [includemempool=true]
```

Returns detailed information about a specific output of a transaction.

## Get Transaction Proof (Merkle Proof)

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli gettxoutproof '["txid","..."]' ( blockhash )
```

Returns a Merkle transaction proof, useful for verifying the inclusion of a transaction in a block.

## Get Information on the Set of Unspent Outputs

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli gettxoutsetinfo
```

Returns information about the set of unspent outputs in the blockchain.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Get Unconfirmed Balance in the Wallet

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getunconfirmedbalance
```

Returns the unconfirmed balance of the wallet.

## Display Wallet Information

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli getwalletinfo
```

Displays details about the current state of the wallet, including balance, private keys, and other information.

## Import an Address into the Wallet

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli importaddress <address> [label] [rescan=true]
```

Imports an address into the wallet and adds it to the monitoring set.

## Import a Private Key

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli importprivkey <bitcoinprivkey>  
[label] [rescan=true]
```

Imports a private key into the local wallet.

## Import a Wallet from a File

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli importwallet <filename>
```

Imports a wallet from a file.

## Refill the Wallet Keypool

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli keypoolrefill [newsize]
```

Refills the wallet's keypool with new keys.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## List Accounts and Their Balances

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listaccounts [minconf=1]
```

Displays a list of accounts and their respective balances.

## List Address Groups

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listaddressgroupings
```

Shows all addresses in the wallet and their associated balances.

## Display Locked Transactions

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listlockunspent
```

Lists transactions that are locked to prevent them from being spent.

## List Amounts Received by Each Account

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listreceivedbyaccount [minconf=1]  
[includeempty=false]
```

Lists the amounts received by each account, considering the minimum number of confirmations.

## List Amounts Received by Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listreceivedbyaddress [minconf=1]  
[includeempty=false]
```

Lists amounts received by each address, considering the minimum number of confirmations.

## Display Transactions from a Specific Block

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listsinceblock [blockhash] [target-confirmations]
```

Displays transactions performed from a specific block up to the present.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## List Recent Transactions

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listtransactions "*" [count=10] [from=0]
```

Displays the most recent transactions from the account, by default showing the last 10.

## List Unspent Outputs

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli listunspent [minconf=1] [maxconf=9999999] ['"address",...']
```

Displays unspent balances for addresses in the wallet.

## Lock or Unlock Transactions

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli lockunspent unlock? '[{"txid":"txid","vout":n},...']
```

Locks or unlocks specific transactions to prevent them from being spent.

## Move an Amount Between Accounts

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli move <fromaccount> <toaccount> <amount> [minconf=1] [comment]
```

Moves an amount from one account to another within the same wallet.

## Send an Amount from an Account to an Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli sendfrom <fromaccount> <tobitcoinaddress> <amount> [minconf=1] [comment] [comment-to]
```

Sends an amount from a specific account to a GENS address.

## Send Amounts to Multiple Addresses

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli sendmany <fromaccount> '{"address":amount,...}' [minconf=1] [comment]
```

Sends amounts to multiple addresses at the same time.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Broadcast a Raw Transaction

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli sendrawtransaction <hex string>
```

Broadcasts a manually created transaction in raw format to the network.

## Send an Amount to an Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli sendtoaddress <bitcoinaddress> <amount>  
[comment] [comment-to]
```

Sends a specific amount of Bitcoin to the provided address.

## Assign an Address to an Account

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli setaccount <bitcoinaddress> <account>
```

Assigns an address to a specific account in the wallet.

## Enable or Disable Mining

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli setgenerate generate ( genproclimit )
```

Enables or disables mining on the node, with an optional limit on the number of threads used.

## Set the Default Transaction Fee

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli settxfee <amount>
```

Sets the default transaction fee to be used for all transactions.

## Sign a Message

/home/gAqui está a continuação dos comandos no formato solicitado:

63. \*\*Assinar uma mensagem\*\*

```bash

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli signmessage <bitcoinaddress> <message>
```

Signs a message with the private key of the provided address. Useful for proving ownership of a Bitcoin address.



# TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

## Sign a Raw Transaction

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli signrawtransaction <hex string>
```

Signs a transaction in raw format. This is necessary before broadcasting the transaction to the network, ensuring it is authorized by the private key owner.

## Stop the ProtocolGenesis Client

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli stop
```

Safely shuts down the ProtocolGenesis node, ensuring all data is saved correctly.

## Submit a Block to the Network

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli submitblock <hex data>
```

Submits a manually mined block to the network for validation and inclusion in the blockchain.

## Validate a ProtocolGenesis Address

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli validateaddress <bitcoinaddress>
```

Returns information about the provided Bitcoin address, such as whether it is valid, belongs to the local wallet, etc.

## Verify the Blockchain Integrity

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli verifychain [checklevel=3] [numblocks=288]
```

Checks the integrity of the local blockchain, ensuring no data corruption has occurred.

## Verify a Message Signature

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli verifymessage <bitcoinaddress> <signature> <message>
```

Verifies the signature of a message to ensure it was signed with the private key of the provided Bitcoin address.

## TUTORIAL COMANDOS NODE NODE UBUNTU 18.04 FULL

### Lock the Wallet

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli walletlock
```

Locks the wallet, requiring the password to be entered again to access the wallet or perform transactions.

### Unlock the Wallet

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli walletpassphrase <passphrase> <timeout>
```

Unlocks the wallet for a specified period of time (timeout), allowing transactions during that time.

### Change Wallet Password

```
/home/gensgens/protocolgenesis/src/protocolgenesis-cli walletpassphrasetchange <oldpassphrase> <newpassphrase>
```

Changes the wallet password from an old one to a new one.

The available commands in the ProtocolGenesis client are powerful tools that allow users to interact directly and efficiently with the blockchain. They offer a comprehensive set of functionalities ranging from basic operations to advanced configurations, empowering you to manage every aspect of your node and wallet. These commands are essential for exploring the full potential of the ProtocolGenesis network, whether for performing transactions, monitoring the blockchain, mining, or developing custom solutions.

These commands provide a wide range of functionalities that enable deep and versatile interaction with the ProtocolGenesis blockchain and wallet. From basic management tasks, like creating addresses and sending GENS, to advanced operations such as mining, digital message signing, and transaction validation, these commands give you near-total control over your node's operations. With them, you can monitor the network's status, manage your participation in the consensus process, automate transactions, and even develop innovative solutions that integrate directly with the ProtocolGenesis blockchain. In short, mastering these commands is essential for anyone looking to explore and maximize the potential of the ProtocolGenesis ecosystem.

# PROTOCOLGENESIS SMARTPHONE NODE

For true blockchain enthusiasts, we have exciting news: you will soon be able to run a ProtocolGenesis node directly on your smartphone. Just imagine—with only a phone in hand, you will be able to actively participate in the network, helping to strengthen decentralization, one of the most important pillars of any robust blockchain.



## Why Create a Node on Your Smartphone?

By turning your smartphone into a ProtocolGenesis node, you're not only strengthening the network but also ensuring your financial autonomy. With your own node, you'll have an integrated wallet, allowing you to make transfers, receive payments, and execute any blockchain-supported command directly from your mobile device. This flexibility literally puts the power of the blockchain in the palm of your hand.



## TUTORIAL NODE SMARTPHONE

### FULL NODE UBUNTU 18.04 SMART

In addition, by operating a node, you contribute to the security and resilience of the network, ensuring it remains distributed and less vulnerable to centralized attacks. Every additional node makes the ProtocolGenesis network stronger, and you can be a part of this in a simple and accessible way.

#### *Incentivizing Decentralization*

By encouraging the creation of nodes on mobile devices, we are democratizing access to participation in the network. No powerful computer or dedicated server is needed—just a smartphone, and you can become a pillar of ProtocolGenesis. This not only helps decentralize the network but also promotes financial inclusion, allowing more people around the world to actively participate in the blockchain ecosystem.

#### The Best is Yet to Come

After the pre-sale ends, we will release detailed tutorials on how to set up mining on your node. This will allow you to fully harness the potential of your node, directly participating in the creation of new blocks and receiving rewards for doing so.

#### Join This Revolution

Don't miss the chance to be part of something big. Turn your smartphone into a ProtocolGenesis node, contribute to the decentralization of the network, and further strengthen the ecosystem. Join us on this journey toward a fairer and more accessible financial future for all.

Once the pre-sale ends, stay tuned for our mining tutorials to start maximizing the benefits of your node. ProtocolGenesis is here to empower you and transform the way you interact with the digital world. Be part of this revolution!

#### Setting Up Your Smartphone Node Using Tutorial Commands

In this tutorial, we will guide you through setting up a ProtocolGenesis node directly on your smartphone. We'll use a combination of commands that we have already explored in the node command tutorial and the node installation on the Ubuntu Server 18.04. These commands will be essential to ensure that your node functions properly and that you can operate your wallet securely and efficiently.

#### Integration with the Server Node

The commands you will use on your smartphone are very similar to those used when setting up the node on an Ubuntu server. This means that if you already have experience with server installation, you'll be familiar with the process and can easily adapt the commands to the mobile environment.



## TUTORIAL NODE SMARTPHONE

### FULL NODE UBUNTU 18.04 SMART

Additionally, running a node plays a critical role in maintaining the strength and security of the network. By doing so, you're helping keep the system decentralized and more resistant to potential threats from centralized points of failure. Each new node reinforces the ProtocolGenesis infrastructure, and participating in this process is both straightforward and rewarding.

Além disso, ao operar um node, você desempenha um papel crucial na manutenção da força e segurança da rede. Ao fazer isso, você ajuda a manter o sistema descentralizado e mais resistente a potenciais ameaças provenientes de pontos centrais de falha. Cada novo node reforça a infraestrutura da ProtocolGenesis, e participar desse processo é tanto simples quanto recompensador.

#### Promovendo a Descentralização

Ao permitir a criação de nodes em dispositivos móveis, estamos abrindo caminho para uma participação mais ampla na rede. Não é necessário ter hardware avançado ou servidores dedicados para contribuir — com apenas um smartphone, você pode se tornar um membro ativo da comunidade ProtocolGenesis. Essa mudança não apenas fortalece a descentralização da rede, mas também promove a inclusão financeira global, tornando a participação no blockchain acessível para mais pessoas. Desbloqueando Novas Possibilidades

Após o término da pré-venda, lançaremos guias completos sobre como ativar a mineração no seu node. Esses tutoriais ajudarão você a liberar todo o potencial do seu node, permitindo que você participe da criação de blocos e ganhe recompensas por meio da mineração.

#### Faça Parte do Futuro

Aproveite essa oportunidade para se tornar parte de um movimento significativo. Transforme seu smartphone em um node da ProtocolGenesis e contribua para a descentralização da rede, tornando o ecossistema ainda mais forte. Juntos, podemos trabalhar por um sistema financeiro mais justo e acessível para todos.

Fique de olho nos nossos tutoriais de mineração que serão lançados após o fim da pré-venda. Eles ajudarão você a maximizar as capacidades do seu node. A ProtocolGenesis está comprometida em empoderar os usuários e transformar a forma como você interage com a economia digital. Não perca a chance de se juntar a essa revolução!

#### Configurando Seu Node no Smartphone com os Comandos do Tutorial

Este guia o conduzirá pelo processo de configuração de um node da ProtocolGenesis no seu smartphone. Vamos utilizar uma série de comandos, muitos dos quais já foram introduzidos no tutorial de comandos de node e no guia de instalação do node no Ubuntu Server 18.04. Esses comandos são essenciais para garantir que seu node funcione de forma suave e segura, permitindo que você gerencie sua wallet e transações com eficiência.

#### Transição Fácil do Servidor para o Mobile

Os comandos que você utilizará no seu dispositivo móvel são muito semelhantes aos usados na configuração do node em um servidor. Se você já instalou um node em um servidor Ubuntu anteriormente, o processo será familiar e fácil de adaptar para o ambiente móvel. Essa continuidade garante uma transição tranquila, seja você gerenciando seu node em um servidor ou em um smartphone.



# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART



## Setting Up the ProtocolGenesis Node on Your Smartphone Using Termux

In this tutorial, we will guide you through the process of turning your smartphone into an active ProtocolGenesis node using the Termux app. This method allows you to run a blockchain node directly on your mobile device, helping to decentralize the network while maintaining full control over your wallet and blockchain operations. Below are the necessary commands to configure everything. Download and start the Termux app.



### Essential Tools Installation

```
pkg install tsu  
apt-get update  
apt update  
pkg update && pkg upgrade
```

Start by installing tsu (to obtain root permissions) and updating Termux packages.

### Essential Tools Installation

```
pkg install net-tools  
pkg install openssh
```

Install networking tools and the SSH server.

### Create a Root Password

```
passwd
```

Set your password and confirm the password.

### Find the Current Username

```
whoami
```

Find out the username.



# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART

```
15:46 ◊ 88 ≡ ...
Preparing to unpack .../runit_2.1.2-3_amd64.deb ...
Unpacking runit (2.1.2-3) ...
Selecting previously unselected package termux-services.
Preparing to unpack .../termux-services_0.13-1_all.deb ...
Unpacking termux-services (0.13-1) ...
Setting up runit (2.1.2-3) ...
Setting up busybox (1.36.1-1) ...
Setting up termux-services (0.13-1) ...
- $ source ${PREFIX}/etc/profile.d/start-services.sh
- $ sv-enable ftpd
- $ sv up ftpd
$ pkg update && pkg upgrade
Http://https://termux.net stable InRelease
All packages are up to date.
Http://https://termux.net stable InRelease
All packages are up to date.
Summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading
g: 0
- $ pkg install wget proot tar
proot is already the newest version (5.1.107-66).
tar is already the newest version (1.35-1).
Installing:
wget

Installing dependencies:
libuid

Summary:
Upgrading: 0, Installing: 0 ≡ ...
Download size: 39 kB
Space needed: 92 kB
Continue? [Y/n] y
Get:1 https://termux.net stable/main amd64 wget 2.39.3-4 [14.4 kB]
Get:2 https://termux.net stable/main amd64 libuid 1.24.5 [287 kB]
Fetched 301 kB in 0s (301 kB/s)
Selecting previous version
(Reading database
  (. . .
Prepared to unpack ...
Unpacking libuid
Selecting previous version
Preparing to unpack ...
Unpacking wget (1.35-1) ...
Setting up libuid
Setting up wget (1.35-1) ...
- $ pkg install nano
nano is already the newest version
Summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading
g: 0
- $

15:46 ◊ 88 ≡ ...
Selecting previously unselected package proot.
Preparing to unpack .../proot_5.1.107-66_amd64.deb ...
Unpacking proot (5.1.107-66) ...
Setting up liballoc (2.4.2) ...
Setting up proot (5.1.107-66) ...
$ termux-chroot
$ ifconfig
warning: cannot open /proc/net/dev (Permission denied).
limited output.
: flags=73UP,BROADCAST,RUNNING mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
        unspec 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
00-00 txqueuelen 1000 (UNSPEC)
netdev: flags=65UP,BROADCAST mtu 1500
    inet 100.87.220.219 netmask 255.255.255.248
        unspec 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
00-00 txqueuelen 1000 (UNSPEC)
netdev: flags=65UP,BROADCAST mtu 1500
    inet 100.87.220.219 netmask 255.255.255.248
        unspec 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00
00-00 txqueuelen 1000 (UNSPEC)
$ pkg install busybox termux-services
Installing:
busybox termux-services

Installing dependencies:
runit

Summary:
Upgrading: 0, Installing: 3, Removing: 0, Not Upgrading
g: 0
Download size: 491 kB
Space needed: 1323 kB / 121 GB available
Continue? [Y/n] y
Get:1 https://termux.net stable/main amd64 busybox arm64 1.36.1-1 [435 kB]
Get:2 https://termux.net stable/main amd64 runit arm64 2.1.2-3 [59.3 kB]
Get:3 https://termux.net stable/main amd64 termux-services all 0.13-1 [1916 B]
Fetched 491 kB in 0s (474 kB/s)
Selecting previously unselected package busybox.
Reading database ... 4591 files and directories currently installed.
Preparing to unpack .../busybox_1.36.1-1_amd64.deb ...
Unpacking busybox (1.36.1-1) ...
Selecting previously unselected package runit.
Preparing to unpack .../runit_2.1.2-3_amd64.deb ...
Unpacking runit (2.1.2-3) ...
Selecting previously unselected package termux-services.
Preparing to unpack .../termux-services_0.13-1_all.deb ...
Unpacking termux-services (0.13-1) ...
Setting up runit (2.1.2-3) ...
Setting up busybox (1.36.1-1) ...
Setting up termux-services (0.13-1) ...
$ source ${PREFIX}/etc/profile.d/start-services.sh
$ sv-enable ftpd
```

## Linux Environment Preparation

```
pkg install proot
termux-chroot
```

Install proot and set up the chroot environment.

## ifconfig to Check Your Device's IP Address

```
ifconfig
```

Install networking tools and the SSH server.

## Installing BusyBox and Termux Services

```
pkg install busybox termux-services
source ${PREFIX}/etc/profile.d/start-services.sh
sv-enable ftpd
sv up ftpd
```

Install and configure BusyBox and Termux services.

## Installing a Linux Distribution on Termux

```
pkg update && pkg upgrade
```

Update the packages again to ensure everything is ready for installation.

## Installing the Linux Distribution Using Proot-Distro

```
pkg install wget proot tar
pkg install nano
```

Install proot-distro and other necessary tools.



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Download the Ubuntu Image for Termux

```
wget https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz -O ubuntu.tar.gz
```

Run the command to download Ubuntu on Termux.

```
5:46 ◊ [●] 100% └─
  electing previously unselected package proot.
  preparing to unpack .../proot_5.1.107-66_arm64.deb ...
  unpacking proot (5.1.107-66) ...
  setting up libtalloc (2.4.2) ...
  setting up proot (5.1.107-66) ...
  $ termux-chroot
  % ifconfig
  warning: cannot open /proc/net/dev (Permission denied).
  limited output.
  0: flags=73UP,BROADCAST,LOOPBACK,RUNNING mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
      unspec 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00 txqueuelen 1000 (UNSPEC)
        mmtu_data: #flags=65UP,RUNNING mtu 1500
          inet 100.87.220.219 netmask 255.255.255.248
            unspec 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00 txqueuelen 1000 (UNSPEC)
  $ pkg install busybox termux-services
  installing:
  busybox termux-services
  installing dependencies:
  runit
  summary:
  Upgrading: 0, Installing: 3, Removing: 0, Not Upgrading: 0
  Download size: 491 kB
  Space needed: 1323 kB / 121 GB available
  Continue? [Y/n] y
  get:1 https://termux.net stable/main arm64 busybox arm
  hexa 1.36.1-1 [435 kB]
  get:2 https://termux.net stable/main arm64 runit arm
  hexa 2.1.2-3 [53.8 kB]
  get:3 https://termux.net stable/main arm64 termux-serv
  ces all 0.13-1 [1916 kB]
  etched 491 kB in 1s (474 kB/s)
  selecting previously unselected package busybox.
  Reading database ... 4591 files and directories current
  ly installed.
  preparing to unpack .../busybox_1.36.1-1_arm64.deb ...
  unpacking busybox (1.36.1-1) ...
  selecting previously unselected package runit.
  preparing to unpack .../runit_2.1.2-3_arm64.deb ...
  unpacking runit (2.1.2-3) ...
  selecting previously unselected package termux-services.
  preparing to unpack .../termux-services_0.13-1_all.deb .
  .
  unpacking termux-services (0.13-1) ...
  setting up runit (2.1.2-3) ...
  setting up busybox (1.36.1-1) ...
  setting up termux-services (0.13-1) ...
  $ source $PREFIX/etc/profile.d/start-services.sh
  $ sv-enable ftpd
```

Extract the Downloaded Image

```
mkdir-p ubuntu-fs
proot --link2symlink tar -xzf ubuntu.tar.gz -C ubuntu-fs --exclude='dev'
```

Commands to extract the ISO image in Termux. Wait a few minutes for the image to finish extracting.

Ubuntu Startup Script Configuration

```
nano start-ubuntu.sh
```

Create a script to start Ubuntu in Termux.

Add the Following Content to the File

```
#!/bin/bash
cd $(dirname $0)
unset LD_PRELOAD
command="proot"
command+=" --link2symlink"
command+=" -0"
command+=" -r ubuntu-fs"
command+=" -b /dev"
command+=" -b /proc"
command+=" -b /sys"
command+=" -b /sdcard"
command+=" -b /storage"
command+=" -b /mnt"
command+=" -b /data/data/com.termux/files/home:/root"
command+=" -w /root"
exec $command /usr/bin/env -i HOME=/root TERM="$TERM" PATH=/bin:/usr/bin:/sbin:/usr/sbin /bin/bash --login
```

Save and close the file: Press Ctrl + O to save.  
Press Enter to confirm the file name.  
Press Ctrl + X to exit the nano editor.



# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART



## Making the Script Executable

```
chmod +x start-ubuntu.sh
```

Commands to extract the ISO image in Termux. Wait a few minutes for the image to finish extracting.

## Run the Script to Start Ubuntu in Termux

```
./start-ubuntu.sh
```

Now, with Ubuntu server running, we can start configuring it to run the ProtocolGenesis blockchain node.

```
et:1 https://termux.net stable/main aarch64 libubuid arm64 2.39.3-4 [14.6 kB]
et:2 https://termux.net stable/main aarch64 wget aarch64 1.24.5 [287 kB]
etched 301 kB in 0s (774 kB/s)
selecting previously unselected package libubuid.
Reading database ... 4644 files and directories currently installed.
repacking libubuid (2.39.3-4) ...
selecting previously unselected package wget.
repacking wget (1.24.5) ...
etching up libubuid (2.39.3-4) ...
etching up wget (1.24.5) ...
$ pkg install nano
nano is already the newest version (8.1).
summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 0
$ wget https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz
0 ubuntu.tar.gz
2024-08-23 15:51:42-- https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz
resolving partner-images.canonical.com (partner-images.canonical.com)... 105.125.108.67
connecting to partner-images.canonical.com (partner-images.canonical.com):105.125.108.67:443... connected.
HTTP request sent, awaiting response... 200 OK
length: 23110939 (22M) [application/x-gzip]
writing to: 'ubuntu.tar.gz'

ubuntu.tar.gz          100%[=====] 22.04M 3.09WB/s   in 7.1s
2024-08-23 15:51:51 (3.09 MB/s) - 'ubuntu.tar.gz' saved [23110939/23110939]

$ mkdir -p ubuntu-fs
$ proot --lrm2=syncfs tar -xzf ubuntu.tar.gz -C ubuntu
$ rm --exclude='dev'
$ nano start-ubuntu.sh
$ chmod +x start-ubuntu.sh
$ ./start-ubuntu.sh
root warning: can't sanitize binding "/sys": No such file or directory
root warning: can't sanitize binding "/sdcard": No such file or directory
root warning: can't sanitize binding "/mnt": No such file or directory
groups: cannot find name for group ID 3003
groups: cannot find name for group ID 9997
groups: cannot find name for group ID 20403
groups: cannot find name for group ID 50403
root@localhost:~$
```

Now that you have set up the Linux environment on your smartphone, you're ready to install and configure the ProtocolGenesis node using the same commands you would use on an Ubuntu server. After the pre-sale, we will provide detailed tutorials on how to set up mining on your node, allowing you to actively participate in block creation on the ProtocolGenesis blockchain, directly from your mobile device.

By following these steps, you'll be contributing to the decentralization of the network, strengthening it, and ensuring that the ProtocolGenesis blockchain continues to grow and expand.

## Update Dependencies

```
echo "nameserver 8.8.8.8" >/etc/resolv.conf
echo "nameserver 8.8.4.4" >> /etc/resolv.conf
apt update
apt-get update
apt install net-tools
```

## Returning to Termux and Checking Network Information:

After updating the dependencies, exit the Ubuntu environment in Termux using the exit command. You will return to the standard Termux prompt.



# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART



## Find the Username

```
whoami
```

This command shows the login of the current user.

## Find the IP Address

```
ifconfig
```

Use this command to discover your device's IP address. Remember that if you're using Wi-Fi, the IP will be different from when you're using mobile data.

Now that you've set up the Linux environment on your smartphone and obtained the IP address, open WinSCP on your computer. Add a new connection using your mobile device's IP address and the credentials you obtained earlier. For more details on how to configure WinSCP, refer to pages 131 to 133. Once successfully connected, navigate to the root directory (/home) in WinSCP. Copy the ProtocolGenesis blockchain folder into this directory, as shown in the reference image.

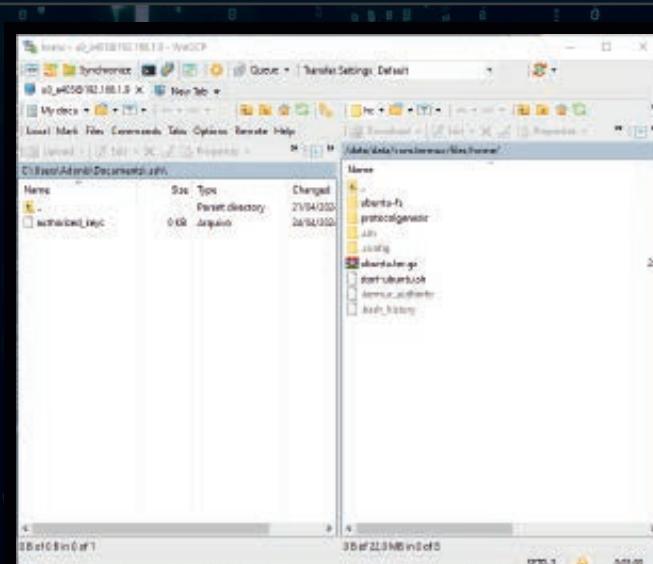
This folder is essential for configuring the node on your smartphone, as it contains all the necessary files for the node to function properly.

With these steps completed, you'll be ready to continue setting up the ProtocolGenesis node on your mobile device. Once the node is operational, you'll be able to contribute to the network's decentralization and even prepare your device for mining, which will be detailed in future tutorials.

```
6:22 ⓘ ④
et:1 https://termux.net stable/main arm64 libubuid arm64 2.39.3-4 [14.6 kB]
et:2 https://termux.net stable/main arm64 wget aarch64 1.24.5 [287 kB]
  007 301 kB in 0s (774 kB/s)
selecting previously unselected package libubuid.
Reading database ... 4644 files and directories currently installed.
Preparing to unpack .../libubuid_2.39.3-4_aarch64.deb ...
Unpacking libubuid (2.39.3-4) ...
Selecting previously unselected package wget.
Preparing to unpack .../wget_1.24.5_aarch64.deb ...
Unpacking wget (1.24.5) ...
Setting up libubuid (2.39.3-4) ...
Setting up wget (1.24.5) ...
$ pkg install nano
nano is already the newest version (8.1).
Summary:
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 0
$ wget https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz
0 ubuntu.tar.gz
2024-08-23 15:51:42-- https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz
Resolving partner-images.canonical.com (partner-images.canonical.com)... 185.125.188.67
Connecting to partner-images.canonical.com (partner-images.canonical.com)|185.125.188.67|:443... connected.
[HTTP request sent, awaiting response... 200 OK
Length: 23110939 (22M) [application/x-gzip]
Saving to: 'ubuntu.tar.gz'

ubuntu.tar.gz      100%[=====] 22.04M 3.09MB/s  in 7.1s
2024-08-23 15:51:51 (3.09 MB/s) - 'ubuntu.tar.gz' saved [23110939/23110939]

$ mkdir -p ubuntu-fs
$ proot --link2symlink tar -xzf ubuntu.tar.gz -C ubuntu-fs --exclude='dev'
$ nano start-ubuntu.sh
$ chmod +x start-ubuntu.sh
$ ./start-ubuntu.sh
proot warning: can't sanitize binding "/sys": No such file or directory
proot warning: can't sanitize binding "/sdcard": No such file or directory
proot warning: can't sanitize binding "/mnt": No such file or directory
groups: cannot find name for group ID 3003
groups: cannot find name for group ID 9997
groups: cannot find name for group ID 20403
groups: cannot find name for group ID 50403
root@localhost:~#
```





# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART



Return to the Ubuntu Environment

```
./start-ubuntu.sh
```

In the Termux terminal, enter the command to return to the Ubuntu environment we set up earlier.

If you prefer, you can continue the configuration using the WinSCP command prompt. To do this, open PuTTY from the WinSCP interface and follow the next installation and configuration steps directly from there.

If you start PuTTY and are not in the Ubuntu system, simply run the command mentioned above. If you use PuTTY, do not close the Termux app on your phone.

```
6:22 ~ [1] 0% https://termux.net/stable/main/march64/libubuid.aar
6:22 ~ [2] 0% https://termux.net/stable/main/march64/wget/aarch64.2.24.5 [287 kB]
6:22 ~ [3] 0% wget https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz
6:22 ~ [4] 0% ubuntu.tar.gz
6:22 ~ [5] 0% - 2024-08-23 15:51:42 -- https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz
6:22 ~ [6] 0% resolving partner-images.canonical.com (partner-images.canonical.com)... 185.125.188.67
6:22 ~ [7] 0% connecting to partner-images.canonical.com (partner-images.canonical.com)[185.125.188.67]:443... connected.
6:22 ~ [8] 0% HTTP request sent, awaiting response... 200 OK
6:22 ~ [9] 0% length: 23110939 (22M) [application/x-gzip]
6:22 ~ [10] 0% saving to: 'ubuntu.tar.gz'
6:22 ~ [11] 0% ubuntu.tar.gz          100%[=====] 22.04M 3.09MB/s   in 7.1s
6:22 ~ [12] 0% 2024-08-23 15:51:51 (3.09 MB/s) - 'ubuntu.tar.gz' saved
6:22 ~ [13] 0% 23110939/23110939
6:22 ~ [14] 0% mkdir -p ubuntu-fs
6:22 ~ [15] 0% proot --lrm2k symlink tar -xzf ubuntu.tar.gz -C ubuntu-fs --exclude='dev'
6:22 ~ [16] 0% nano start-ubuntu.sh
6:22 ~ [17] 0% chmod +x start-ubuntu.sh
6:22 ~ [18] 0% ./start-ubuntu.sh
6:22 ~ [19] 0% root warning: can't sanitize binding "/sys": No such file or directory
6:22 ~ [20] 0% root warning: can't sanitize binding "/sdcard": No such file or directory
6:22 ~ [21] 0% root warning: can't sanitize binding "/mnt": No such file or directory
6:22 ~ [22] 0% groups: cannot find name for group ID 3003
6:22 ~ [23] 0% groups: cannot find name for group ID 9997
6:22 ~ [24] 0% groups: cannot find name for group ID 20403
6:22 ~ [25] 0% groups: cannot find name for group ID 50403
6:22 ~ [26] 0% root@localhost:~#
```

## Install Essential Packages

```
apt-get install build-essential autoconf libtool pkg-config libboost-all-dev
libssl-dev libprotobuf-dev protobuf-compiler libevent-dev libqt4-dev
libcanberra-gtk-module libdb++-dev
```

Run the command to install the essential packages, which include build tools and necessary libraries.

Copy the code exactly as it is written, including spaces.

## Install wget to Download Files from the Internet

```
apt-get install wget
```

This command will be used to download files from the internet.

## Download and Install Berkeley DB

```
wget --no-check-certificate https://download.oracle.com/berkeley-db/db-4.8.30.NC.tar.gz
```

Download the required version of Berkeley DB, which is an important dependency for the blockchain.

## Extract the Downloaded File

```
tar -xvf db-4.8.30.NC.tar.gz
```

This command will extract the Berkeley DB file.



# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART



## Berkeley DB Configuration

```
cd db-4.8.30.NC/build_unix
```

Navigate to the build directory.

## Create a Build Directory

```
mkdir -p build
```

## Set the Installation Prefix for Berkeley DB

```
BDB_PREFIX=$(pwd)/build
```

These steps prepare your Ubuntu environment to compile and install the ProtocolGenesis node. Be sure to follow each step carefully to ensure all dependencies are installed and configured correctly.

## Remove Old Configuration Files

```
rm ./dist/config.sub  
rm ./dist/config.guess
```

## Download Updated Configuration Files

```
cd ./dist  
wget --no-check-certificate -O config.guess https://git.savannah.gnu.org/  
cgit/config.git/plain/config.guess  
wget --no-check-certificate -O config.sub https://git.savannah.gnu.org/  
cgit/config.git/plain/config.sub
```

## Verify the Configuration Files

```
head config.guess  
head config.sub
```

## Grant Execution Permissions to the Configuration Files

```
chmod +x config.guess config.sub
```

```
6:22 ~ ④  
ct:1 https://termux.net stable/main arm64 libuwind arm  
6:22 ~ ④  
ct:2 https://termux.net stable/main arm64 wget arm  
6:22 ~ ④  
ctched 301 KB in 0s (374 kB/s)  
selecting previously unselected package libuwind.  
Reading database ... 4644 files and directories currently installed.  
repacking to unpack .../libuwind_2.39.3-4_arm64.deb ...  
repacking libuwind (2.39.3-4) ...  
selecting previously unselected package wget.  
repacking to unpack .../wget_1.24.5_arm64.deb ...  
repacking wget (1.24.5) ...  
etting up libuwind (2.39.3-4) ...  
etting up wget (1.24.5) ...  
$ pkg install nano  
nano is already the newest version (8.1).  
Summary:  
Upgrading: 0, Installing: 0, Removing: 0, Not Upgrading: 0  
$ wget https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz  
0 ubuntu.tar.gz  
-2024-08-23 15:51:42-- https://partner-images.canonical.com/core/bionic/current/ubuntu-bionic-core-cloudimg-arm64-root.tar.gz  
Resolving partner-images.canonical.com (partner-images.canonical.com)... 185.125.188.67  
Connecting to partner-images.canonical.com (partner-images.canonical.com)|185.125.188.67|:443... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 23110939 (22M) [application/x-gzip]  
Saving to: 'ubuntu.tar.gz'  
  
ubuntu.tar.gz 100%[=====] 22.04M 3.09MB/s in 7.1s  
2024-08-23 15:51:51 (3.09 MB/s) - 'ubuntu.tar.gz' saved  
23110939/23110939  
$ mkdir -p ubuntu-fs  
$ proot --lrm2csymlink tar -xzf ubuntu.tar.gz -C ubuntu  
$ rm --exclude='udev'  
$ nano start-ubuntu.sh  
$ chmod +x start-ubuntu.sh  
$ ./start-ubuntu.sh  
root warning: can't sanitize binding "/sys": No such file or directory  
root warning: can't sanitize binding "/sdcard": No such file or directory  
root warning: can't sanitize binding "/mnt": No such file or directory  
groups: cannot find name for group ID 3003  
groups: cannot find name for group ID 9997  
groups: cannot find name for group ID 20403  
groups: cannot find name for group ID 50403  
root@localhost:~#
```



# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART



## System Update

```
apt-get update
```

Updates the list of available packages and their versions on the system. This command should be run before installing new packages or updating existing ones to ensure you are getting the latest versions.

## Berkeley DB Configuration

```
cd ..//build_unix  
..//dist/configure --disable-shared --enable-cxx --with-pic --prefix=$  
BDB_PREFIX
```

Description: These commands first navigate to the ..//build\_unix directory, where the compilation process will take place. The ..//dist/configure command is used to prepare the environment for compiling Berkeley DB. The options used here mean:

- disable-shared: Disables building shared libraries.
- enable-cxx: Enables C++ support.
- with-pic: Compiles the code with position-independent code, necessary for shared libraries.
- prefix=\$BDB\_PREFIX: Specifies the directory where Berkeley DB will be installed after compilation.

## Berkeley DB Compilation and Installation

```
make install
```

Description: This command compiles the Berkeley DB source code and installs the necessary binaries and files in the directory specified by the --prefix option during the configuration step. The make install command is a standard part of the compilation process in Unix/Linux, which installs the compiled software on the system.

These detailed steps are part of a common software configuration and compilation process in Unix/Linux environments, including Termux. Following these steps correctly is crucial to ensure that Berkeley DB is installed successfully and without issues. Once Berkeley DB is configured and installed, you can proceed with the installation and configuration of the ProtocolGenesis node.



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## Update Packages and Install ufw on the System

```
apt-get update  
apt-get install ufw
```

The apt-get update command updates the list of available packages and their versions in the Ubuntu repository, ensuring you are installing the latest version. Then, the apt-get install ufw command installs ufw, a simple firewall interface that allows for easier configuration of firewall rules.

## pkg install iptables

```
pkg install iptables
```

This command installs iptables, a command-line tool that enables users to configure, maintain, and inspect firewall rule tables within the Linux kernel.

## Verify Path and Grant Permissions

```
chmod -R 775 ~/protocolgenesis/
```

The chmod commands are used to set read, write, and execute permissions for the owner and group while granting only read and execute permissions for others on the specified directories. It's important to ensure the folder path is correct before applying permissions. You can use WinSCP to navigate to the directory and verify its existence. Alternatively, in the terminal, you can use the ls command to list the contents and confirm the folder is present. If the folder is visible in the listing, you can proceed with the chmod commands to adjust the permissions as needed.

## Switch to the protocolgenesis Directory and Grant Permissions

```
cd protocolgenesis  
chmod -R 775
```

Description: First, the cd protocolgenesis command switches to the protocolgenesis directory. Then, chmod -R 775 . grants the same permissions mentioned earlier to the current directory and all of its contents.

This ensures that the protocolgenesis folder and its files have the correct access permissions required for proper operation.



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## Run the autogen.sh Configuration Script

```
./autogen.sh
```

This script is typically used to prepare the build environment, creating the necessary configuration files and checking if all required dependencies are present.

## Install bsdmainutils

```
apt-get install bsdmainutils
```

This command installs the bsdmainutils package, which includes various utilities used in the BSD environment, such as hexdump, col, write, and others that may be required for certain configuration and build scripts.

## Set Up the Build Environment

```
./configure CPPFLAGS="-I${BDB_PREFIX}/include/ -O2" LDFLAGS="-L${BDB_PREFIX}/lib/"
```

This command configures the build environment for the protocolgenesis project. The CPPFLAGS and LDFLAGS specify the include and library directories for Berkeley DB, which were compiled earlier.

## Configure the Node with Berkeley DB

```
cd ~/protocolgenesis  
./configure --with-incompatible-bdb --with-bdb-prefix=$HOME/db-4.8.30.NC/build_unix/build
```

This command configures the protocolgenesis node to use a specific version of Berkeley DB. The --with-incompatible-bdb flag allows the use of an incompatible version of Berkeley DB, and the --with-bdb-prefix flag specifies the path where Berkeley DB 4.8 is installed.

## Compile the Software

```
make
```

This command compiles the protocolgenesis project source code using the previously specified settings. make reads the Makefile generated by the configure command and executes the necessary steps to compile the software.



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## Install the Vim Text Editor

```
apt install vim  
apt-get update
```

The command `apt install vim` installs the Vim text editor, which is useful for editing configuration files and scripts. Running `apt-get update` again ensures that all packages are up to date, synchronizing the list of available packages. After this, return to the main directory.

## Create the .protocolgenesis Folder and Copy the protocolgenesis.conf File

You need to create a new folder called `.protocolgenesis` in the home directory. The `protocolgenesis.conf` file must be copied into this folder. The configuration file can be found on the official website or the ProtocolGenesis Telegram channel. Alternatively, it is also available inside the `protocolgenesis` folder.

Note: Ensure that the `protocolgenesis.conf` file is in the same directory as the `ProtocolGenesis` blockchain folder.

## Install telnet

```
apt-get install telnet
```

Description: Installs the telnet package, a command-line tool used to test network connectivity.

## Configure the Node with Berkeley DB

```
apt-get update  
apt-get install build-essential libtool autotools-dev automake pkg-config bsdmainutils python3  
  
apt-get install libevent-dev libboost-system-dev libboost-filesystem-dev libboostchrono-dev libboost-test-dev libboost-thread-dev  
  
apt-get install libminiupnpc-dev  
apt-get install libzmq3-dev  
apt-get install libssl-dev  
apt-get install libdb-dev libdb++-dev
```

These commands ensure that all necessary dependencies for compiling and running the `protocolgenesis` node are installed. The packages include development tools like `build-essential`, libraries like `libboost` and `libssl`, and other libraries required for the node's functionality.

## Verify the Existence of the protocolgenesisd Binary

```
ls ~/protocolgenesis/src/protocolgenesisd
```

This command checks if the `protocolgenesisd` binary was successfully compiled and is present in the directory `~/protocolgenesis/src`.



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## Make the Binaries Executable

```
chmod +x ~/protocolgenesis/src/protocolgenesisd  
chmod +x ~/protocolgenesis/src/protocolgenesis-cli
```

These commands grant execution permissions to the protocolgenesisd and protocolgenesis-cli binaries, ensuring they can be executed without issues.

## Delete Files in the .protocolgenesis Folder, Except protocolgenesis.conf

Navigate to the .protocolgenesis folder and delete all files, leaving only the protocolgenesis.conf file.

## Exit the Terminal and Restart the Environment

```
exit  
exit
```

These commands exit the terminal, closing Termux. You will need to restart Termux and log back in to ensure that all changes and updates take effect.

## Update Dependencies Again

```
apt-get update  
apt update
```

Updates the package lists again after restarting Termux to ensure that all dependencies are at the latest version.

## Return to the Ubuntu Environment

```
cd ~/protocolgenesis/src  
./protocolgenesisd  
.protocolgenesis-cli getinfo
```

Switch to the directory where the protocolgenesisd binary is located and execute it. The command ./protocolgenesisd getinfo checks the current status of the node.

# TUTORIAL NODE SMARTPHONE FULL NODE UBUNTU 18.04 SMART



```

8:44 AM ① ⓘ
Welcome to Termux
Docs: https://doc.termux.com
Community: https://social.termux.com

Working with packages:
- Search: pkg search <query>
- Install: pkg install <package>
- Upgrade: pkg upgrade

Report issues at https://bugs-termux.com
root@localhost:~/protocolgenesis/src# ./protocolgenesis
:li getinfo
{
  "version": 140200,
  "protocollversion": 70015,
  "walletversion": 130000,
  "balance": 0.00000000,
  "blocks": 7463,
  "timeoffset": 0,
  "connections": 3,
  "proxy": "",
  "difficulty": 0.4125252576119046,
  "testnet": false,
  "keypoololdest": 1724497845,
  "keypoolsize": 100,
  "paytxfee": 0.00000000,
  "relayfee": 0.00100000,
  "errors": ""
}
root@localhost:~/protocolgenesis/src# ./protocolgenesis
:li getinfo
{
  "version": 140200,
  "protocollversion": 70015,
  "walletversion": 130000,
  "balance": 0.00000000,
  "blocks": 7463,
  "timeoffset": 0,
  "connections": 3,
  "proxy": "",
  "difficulty": 0.4125252576119046,
  "testnet": false,
  "keypoololdest": 1724497845,
  "keypoolsize": 100,
  "paytxfee": 0.00000000,
  "relayfee": 0.00100000,
  "errors": ""
}
root@localhost:~/protocolgenesis/src#

```

## If Errors Occur, Reindex the Chain State

```
/data/data/com.termux/files/home/ubuntu-fs/root/protocolgenesis/src/protocolgenesisd
-reindex-chainstate -daemon
```

If errors occur, this command restarts the ProtocolGenesis node with the `-reindex-chainstate` option to reindex the blockchain state, resolving data or state issues.

## Consult Commands and Functionalities:

To get a list of available commands and learn about specific functionalities, refer to pages 163 to 175 of the manual. For information on transfers and wallets, refer to pages 155 to 161.

By following these steps, you should be able to successfully set up and run the ProtocolGenesis node in your Ubuntu environment on Termux, ensuring all dependencies and configurations are correctly applied.

**Importance of Being a Node on the ProtocolGenesis Network**  
*Being a node on the ProtocolGenesis network is a fundamental contribution to the decentralization and security of the blockchain. Each node actively participates in the transaction validation process, ensuring that the network remains secure, resilient against attacks, and reliable for all users. Additionally, running a node gives you full control over your blockchain operations, from managing your wallet to directly participating in the network consensus.*

## Mobile Mining and Technical Support

We are committed to making the ProtocolGenesis network accessible to everyone. After the pre-sale ends, we will update our tutorials to include instructions on how to set up mining directly from your phone. This will allow you to further leverage your node, contributing not only to decentralization but also to the mining process, potentially earning rewards for your work on the network.

## Support and Contact

If you encounter any questions, errors, or bugs during the installation or operation of your node, don't hesitate to contact us. We are available via our official website and the Telegram channel. Additionally, you can use the ProtocolGenesis bot, which is always ready to provide assistance and answer your questions.

Join us on this journey and help strengthen the ProtocolGenesis network. Your participation is crucial to the success of the ecosystem!

# RISK DETAILING AND MITIGATION SOLUTIONS

The ProtocolGenesis ecosystem is committed to creating a secure, transparent, and efficient platform for all its users. However, as with any innovative and technological project, there are several associated risks that need to be carefully managed. Below, we detail the key risks and the mitigation measures that ProtocolGenesis will adopt to protect its users and ensure the ecosystem's success.

## **1 - Lack of Compatibility and Interoperability**

**Risk:** The absence of compatibility with other blockchains or systems may limit the functionality and adoption of ProtocolGenesis.

### **Mitigation Solutions:**

Development of Interoperability Protocols: Invest in developing protocols that enable communication and value exchange with other blockchains, facilitating broader integration and increasing the platform's utility.

Collaboration with Other Networks: Establish strategic partnerships with other blockchain platforms and networks to promote interoperability and create a more connected and functional ecosystem.

## **2 - Market Risks**

### **Cryptocurrency Market Volatility:**

**Risk:** High volatility in cryptocurrency markets could negatively affect the value of GENS tokens, impacting the ecosystem's funding and sustainability.

### **Soluções de Mitigação:**

- Creation of Reserve Funds: Maintain a reserve of funds in stablecoins and non-correlated assets to ensure financial stability during periods of high cryptocurrency market volatility.

Financial Hedging: Implement hedging strategies to protect the platform's assets from significant price fluctuations and minimize the impact of volatility on ecosystem resources.

- Intense Competition:

**Risk:** *ProtocolGenesis operates in a highly competitive market, where many blockchain projects vie for users' attention and resources.*

### **Mitigation Solutions:**

- Continuous Innovation: Maintain a constant focus on technological innovation and product/service updates, ensuring that the ecosystem remains relevant and competitive.

Community Engagement: Develop strong community engagement strategies to build a loyal and active user base that supports the ecosystem's continuous growth.

These steps aim to mitigate the potential risks, ensuring a stable and sustainable future for the ProtocolGenesis platform and its users.

# RISK DETAILING AND MITIGATION SOLUTIONS

## 3 - Regulatory Risks

### **Changes in Laws and Regulations:**

**Risk:** The regulatory environment for cryptocurrencies and blockchain is constantly evolving, and changes in laws may negatively impact the operation of ProtocolGenesis.

### **Mitigation Solutions:**

- Proactive Compliance: Maintain a dedicated legal team to monitor global regulatory changes and ensure that the ecosystem remains compliant with all applicable laws.
- Dialogue with Regulators: Establish an open communication channel with regulators to anticipate regulatory changes and adapt ProtocolGenesis operations accordingly.

## 4 - Operational Risks

### **Project Management and Execution:**

**Risk:** Failures in executing plans and delivering products on schedule may lead to delays and financial losses.

### **Mitigation Solutions:**

- Agile Project Management Methodologies: Adopt agile project management practices to facilitate quick adaptation to changes and improve product delivery efficiency.
- Continuous Performance Monitoring: Implement continuous monitoring processes to quickly identify and correct any deviations from the established plan.

### **Third-Party Dependence:**

**Risk:** Excessive reliance on external providers for critical services can present significant operational risks.

### **Mitigation Solutions:**

- Supplier Diversification: Work with multiple providers for essential services to avoid over-dependence on any single one.
- Establish Robust Contracts: Create detailed contracts with providers, including stringent SLA (Service Level Agreement) clauses and penalty mechanisms for non-compliance.

## 5 - Adoption and Community Engagement Risks

### **Low User Adoption:**

**Risk:** If users do not adopt ProtocolGenesis applications and services as expected, this may limit the ecosystem's growth and success.

### **Mitigation Solutions:**

- Marketing and Education Campaigns: Run targeted marketing campaigns and educational programs to raise awareness and understanding of the benefits of ProtocolGenesis products and services.

# RISK DETAILING AND MITIGATION SOLUTIONS

- Incentives for Early Adoption: Offer incentives such as rewards and bonuses to encourage early adoption and continued use of ProtocolGenesis applications and services.

## ***Limited Community Engagement***

Risk: Low levels of community engagement can affect decentralized governance and ecosystem development.

### ***Mitigation Solutions:***

- Active Engagement Platforms: Create platforms and tools to facilitate communication and community engagement, fostering a participatory and collaborative environment.
- Rewards for Active Participation: Implement a reward system to encourage active community participation in governance decisions and other relevant activities.

## Conclusion

ProtocolGenesis is committed to protecting its users and ensuring the ecosystem's success through proactive risk identification and effective mitigation strategies. By implementing these mitigation measures, the ecosystem is positioned to grow securely and sustainably, providing a robust and reliable platform for all participants.

ProtocolGenesis

# INTRODUCTION TO OUR TEAM, PARTNERS, AND AMBASSADORS

The success of any ecosystem depends on its ability to bring together diverse talents, strategic partners, and dedicated advocates. At ProtocolGenesis, we have the privilege of working with an exceptional team, innovative partners, and passionate ambassadors who share our vision of building a decentralized, secure, and sustainable future.

Our team is composed of experienced professionals in blockchain, technology, marketing, and business development, all committed to the mission of transforming the blockchain ecosystem. Our strategic partners provide specialized knowledge and valuable resources that enhance our capabilities and accelerate the growth of the ecosystem.

Our ambassadors, in turn, are community leaders and influencers who believe in our vision and work tirelessly to promote ProtocolGenesis, build an engaged community, and foster innovation.

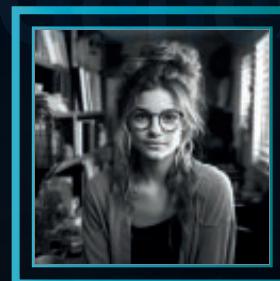
Below, we introduce our ambassadors, partners, and team members who are leading this revolution. They are the driving force behind ProtocolGenesis and the key figures shaping the future of our platform. We are proud to have these extraordinary individuals by our side, and we look forward to showing what we can achieve together.



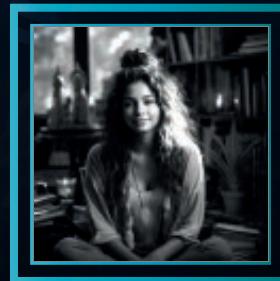
**SARA BYTE**  
**BACKEND DEVELOPER**



**RAFAEL SILVA**  
**BACKEND DEVELOPER**



**MIA TOLEN**  
**BLOCKCHAIN ANALYST**



**LILA SILVA**  
**FRONT-END DEVELOPER**



**ELLA BLOCK**  
**BLOCKCHAIN SECURITY  
ENGINEER**



**MEI CHEN**  
**AI RESEARCHER**



**NOME DO FULANO**  
**NOME DO FULANO**



**ANYA IVANOV**  
**GAME DEVELOPER**



**ETHAN ZHANG**  
FRONT-END DEVELOPER



**SOFIA MARTINEZ**  
FULL-STACK DEVELOPER



**DR. ISAAC BENNETT**  
BIOTECHNOLOGY



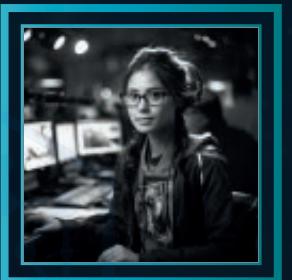
**DR. EMILY NOVAK**  
ANALYTICAL CHEMIST



**DR. OLIVIA REED**  
ORGANIC CHEMIST



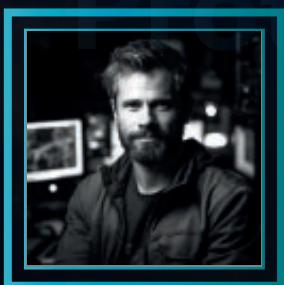
**LIAM O'CONNOR**  
DEVOPS ENGINEER



**PRIYA KAPOOR**  
DATA SCIENTIST



**DR. AMELIA FOSTER**  
ASTROPHYSICIST



**DANIEL PETERSON**  
CLOUD ARCHITECT



**MARCUS THOMPSON**  
CYBERSECURITY ANALYST



**HANA SUZUKI**  
MOBILE APP DEVELOPER

## FINAL CONSIDERATIONS

As we move forward in our journey to build an innovative and inclusive blockchain ecosystem, ProtocolGenesis remains committed to the principles of transparency, security, and decentralization. We believe that blockchain technology has the power to transform industries, empower communities, and promote a more equitable and efficient digital economy.

Throughout this whitepaper, we have presented our vision, the various applications and startups that make up the ProtocolGenesis ecosystem, and the path we plan to take to achieve our goals. We are proud of the innovative solutions we are developing and the unique opportunities we offer to our users, investors, and partners.

Our multifaceted approach, combining technological innovation, community governance, and a focus on sustainability, sets ProtocolGenesis apart in the competitive blockchain market. We are confident that with the support of our community, strategic partners, and a dedicated team, we can achieve significant positive impact and lead the way to a more decentralized future.

We invite you to join us on this transformative journey. The pre-sale of the GENS token is just the beginning of a series of exciting initiatives that will shape the future of ProtocolGenesis. With your participation, we can create a robust and resilient ecosystem that not only meets today's needs but also adapts and grows to face tomorrow's challenges.

We thank you for your continued interest and support. Together, we will build a future where innovation, security, and community are the fundamental pillars.

# CONNECT WITH PROTOCOLGENESIS ON SOCIAL MEDIA

At ProtocolGenesis, we believe that the community is the backbone of our ecosystem. That's why we are always connected with our users, investors, and partners through our social media channels. These platforms are where you can keep up with the latest updates, participate in important discussions, and engage directly with the team and other community members. We are present on major social media platforms to ensure you never miss an update:

Twitter: For quick updates, important news, and insights into the blockchain market.

LinkedIn: For corporate news, partnership announcements, and professional networking opportunities.

Telegram: For real-time discussions, Q&A with the team, and to be part of an active and engaged community.

Instagram: For a more visual look at our events, product developments, and the culture of our community.

Facebook: For general updates, community events, and more.

Don't Miss This Opportunity

The GENS token pre-sale is a unique chance to get involved with ProtocolGenesis from the start and be part of something truly innovative. Now is the time to invest in an ecosystem that combines innovation, sustainability, and decentralized governance to create impactful solutions in the block-chain space.

By investing in ProtocolGenesis, you're not just supporting a promising project — you're becoming part of a global community dedicated to building a more decentralized and transparent future. Don't miss this opportunity to be part of a technological revolution. Join us on our social media channels, participate in the conversation, and invest in the future of ProtocolGenesis!



**GENSProtocol**



**PROTOCOLGENESIS\_CANAL**



**PROTOCOLGENESIS**



**PROTOCOL GENESIS**



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# ProtocolGenesis



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— BLOCKCHAIN —