INFRAX

WHITEPAPER

A black and white approach to the facilitation of AI and GPU Resources.

Introduction
Welcome to Infrax

At InfraX we believe in the equal distribution of knowledge and power through the facilitation of GPU and AI resources. This is why we have designed a platform that allows $INFRA users the ability to participate, contribute and distribute technology derived from the evolving landscape of artificial intelligence. By leveraging blockchain technology, we can ensure the InfraX ecosystem upholds our core principles of transparency and security, allowing users the ability to indulge in InfraX's key features.

These include but are not limited to:

GPU Lending
Turn idle GPUs into passive income by lending them on the InfraX platform, earning $INFRA based on usage.

GPU Rental
Rent GPUs to overcome shortages, offering a cost-effective and transparent rental service.

AI Node Rental
Access high-performance AI servers on a monthly subscription, catering to both individuals and corporations.

Custom Applications
Developers can build and host custom apps and have them showcased on the InfraX platform. Developers earn rewards based on app usage.

Pay-As-You-Go Node Usage
Flexible hourly rates for short-term AI processing needs.

InfraX Native Applications
InfraX's own applications designed to democratize AI, offering advanced tools for content creation and more.

Staking
Stake $INFRA tokens to earn passive rewards and actively engage in the platform's ecosystem.

Problem & Solution
Addressing Key Challenges with Innovative Solutions
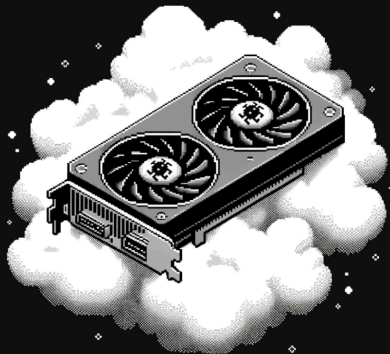
Problems
Challenges Facing the Current AI and GPU Landscape

Limited Access to Technology: High-performance computing resources like GPUs are often expensive and inaccessible to small businesses, startups, and individuals. This creates a barrier to innovation and limits who can develop and implement AI solutions.

Inequality in AI Development: Large corporations and well-funded institutions dominate the AI landscape, leading to a concentration of technological power. This inequality can stifle diversity in AI development and application, resulting in solutions that may not address the needs of all communities.

Innovation Bottleneck: The high cost and limited availability of GPUs can slow down research and development in AI. Smaller players who could potentially offer unique solutions or drive innovation are unable to compete or even participate.

Skill and Knowledge Gap: Without widespread access to the necessary resources, there is a gap in the skill development of individuals who could otherwise contribute to and benefit from advancements in AI technology.

Solution
Democratizing GPU and AI Access

Making GPU and AI resources widely accessible levels the playing field, reduces costs, and bridges the skill gap, fostering innovation and diversity in AI development.

Vision
Combining Values and Versatility

InfraX is dedicated to offering supreme innovation and exceedingly exceptional user experiences, with the facilitation of GPU and AI resources at the forefront of operational strategy. By leveraging blockchain technology, we can ensure the InfraX ecosystem upholds our core principles of transparency and security, allowing users the ability to indulge in InfraX's key features.

Through merging user experience, transparency, faultless technology and supreme security, one can arrive at the values which encapsulate InfraX. $INFRA aims to enrich the blockchain universe and offer opportunity for democratization, reducing barriers to entry and encouraging global AI and GPU participation.

The InfraX vision hinges on 4 main principles:

01 User Experience

We prioritize an intuitive and seamless user experience, ensuring accessibility and ease of use for all platform features.

02 Transparency

InfraX operates with full transparency, providing clear and open communication about processes, fees, and system operations.

03 Democratization

We aim to democratize access to AI and GPU resources, reducing barriers and enabling global participation.

04 Security

InfraX is committed to maintaining the highest security standards, protecting user data and ensuring safe operations.

Platform Overview
Core Components

Nodes
Powering Performance

InfraX nodes provide essential computational power for running applications and executing jobs. We have enhanced our network with more powerful GPU nodes to support intensive job tasks and complex AI Models, ensuring efficient and on-demand resource allocation.

Apps
Innovative Applications

The platform hosts both user and native applications. Developers can create, host, and monetize their custom apps, while InfraX offers advanced AI tools such as Text to Image and Text to Video generators to democratize access to AI resources.

Jobs
Efficient Task Processing

InfraX processes tasks using robust, custom infrastructure, supporting complex job requirements. This ensures efficient and effective job execution, leveraging our enhanced node capabilities to meet diverse user needs.

User-Owned Applications:

Developers can create and distribute their own applications, earning revenue based on usage. This promotes innovation and provides a platform for diverse solutions.

Native InfraX Applications:

InfraX develops applications to democratize AI assets, available on the InfraX App Page. These include tools for various high-compute tasks, supporting a range of users from artists to developers.

Apps
Innovative Applications

InfraX supports a diverse ecosystem of applications, both custom and native. Developers can build and host their own applications on the InfraX platform, featured on the InfraX App Page, and earn rewards based on usage. InfraX also offers native and heavy compute applications, providing advanced AI tools for tasks providing advanced tools for various AI models and tasks. These apps utilize powerful GPU nodes, delivering exceptional performance and making advanced AI tools accessible to a broader audience.
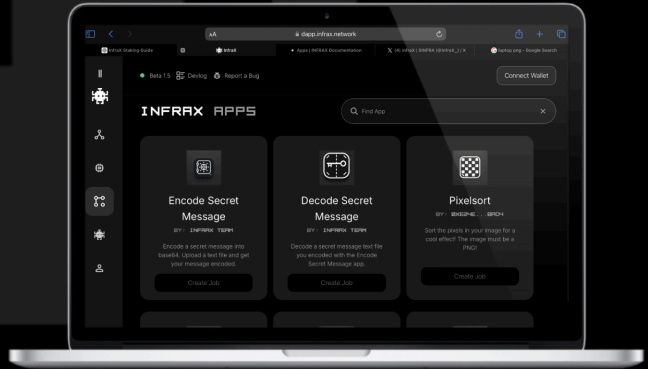
Key Points:

User Applications: Create, host, and monetize your apps.

InfraX App Page: Feature your apps and earn rewards based on usage.

Native Applications: Access InfraX's advanced AI tools.

Heavy Compute Applications: Tools like Text to Image and Text to Video generators and more.

Democratizing AI: Accessible advanced AI tools for all users.

Nodes
Powering Performance

InfraX nodes are the backbone of our platform, providing essential computational power for applications and jobs. We are continuously integrating more powerful GPU nodes to support intensive tasks and ensure efficient resource allocation. This approach enables infraX to operate at the bleeding edge of innovation, leveraging the latest resources and powering them through our platform.

Essential Computational Power: Backbone for running applications and jobs.

Enhanced GPU Nodes: Integrating powerful GPUs for intensive tasks.

Efficient Resource Allocation: Nodes are active only when needed.

Advanced AI Asset Sharing: Supports innovative AI applications.

Continuous Integration: Regular updates to maintain cutting-edge performance.

Pay-As-You-Go Nodes: Flexible hourly usage for short-term AI processing needs.

INFRAX NODES

Jobs
Efficient Task Processing

InfraX processes a wide range of tasks, leveraging robust infrastructure to handle complex AI computations and graphic rendering. Our enhanced GPU nodes ensure efficient and effective job execution, supporting various applications and user needs. By continuously updating our infrastructure, we maintain high performance and reliability for all job types.
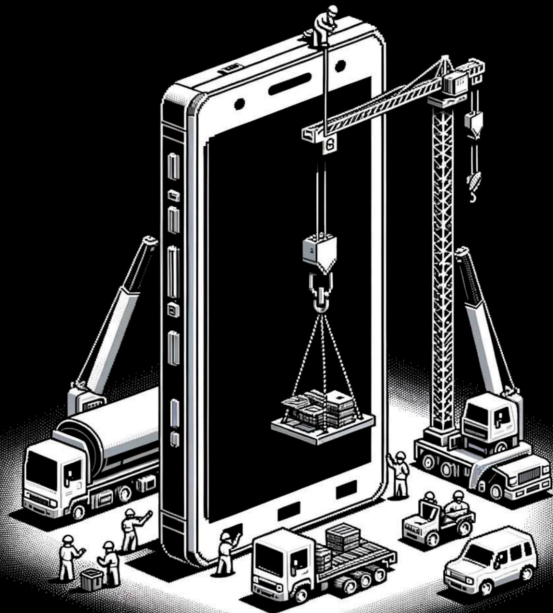
Key Points:

Wide Range of Tasks: Supports complex AI computations and graphic rendering.

Robust Infrastructure: Ensures high performance and reliability.

Enhanced GPU Nodes: Efficiently handle intensive job requirements.

Continuous Updates: Maintains cutting-edge capabilities and resource allocation.

User Needs: Adaptable to diverse applications and user demands.

Token

The $INFRA Token

$INFRA

$INFRA is the native token of InfraX, and is a multi-purposed token which provides all custodians access to the InfraX ecosystem. $INFRA acts as an integral medium connecting technology and user, encouraging and rewarding those who participate in InfraX's unique platform.

Use Cases

Payment

Upon monetization of the InfraX platform, users will be able to use $INFRA as a means of payment to use InfraX Native and User Apps. It will also be used as a payment method for users looking to rent GPUs and completing jobs through the InfraX GPU network.

Rewards

$INFRA will be used as part of the reward system for the creators of InfraX User Apps, and can also be earned by those who lend out GPU compute to the InfraX network.

Staking

Holders of $INFRA will also have the opportunity to stake their tokens in order to receive passive rewards, allowing users even more access to the features of the InfraX platform.

INFRAX

USECASE OVERVIEW

Through the facilitation of AI and GPU resources InfraX aims to decentralize the space, enabling diverse and flexible application across various industries within the space. InfraX's unique platform is soon to become an invaluable tool for all those wishing to maximize their impact within an emerging market. Below we will delve deeper into potential use-cases, exploring the ways in which AI will benefit different industry sectors.

Use Cases
Versatile and Diverse

Graphics & 3D Rendering

- 3D Rendering & Animation
- Video Processing & Editing

Gaming & VR

- Game Development
- Virtual Reality Rendering
- 3D Assets Generation

Content Creation & Media

- Augmented Reality Content
- Media Streaming

Algorithmic Trading & Risk Management

- Algorithmic Trading
- Risk analysis

Preconfigured or Custom VMs

- Optimized for Specific Workflows
- Flexible Resource Allocation

AI Models

- Text-To-Image
- Text-To-Video
- Image-To-Video (Coming Soon)
- Text-To-3D Asset (Coming Soon)
- Large Language Models (LLMs)

INFRAX STAKING

Enhance your $INFRA tokens with our secure and rewarding staking platform. Discover how staking works, its benefits, and how to maximize your rewards.
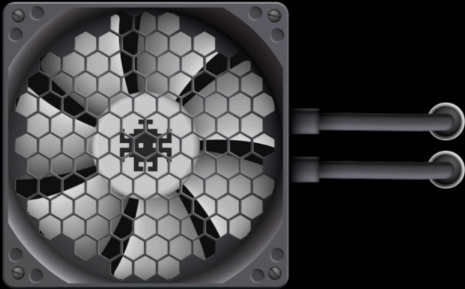
Introduction
To Infrax Staking

Welcome to the InfraX staking guide. InfraX is all about democratizing AI and GPU assets with our unique in-house applications and Peer-to-Peer GPU lending system. Everything runs smoothly on our decentralized platform.

The $INFRA token is at the heart of our ecosystem, serving as the native currency. To further enhance its value, we've introduced a staking mechanism, and this document will walk you through how it works.

How Staking Works
With Infrax

Staking $INFRA tokens is a straightforward process that lets you earn rewards while contributing to the stability of the InfraX network. Here's the process:

01 ▸ Stake your $INFRA tokens

Lock your tokens into our staking contract.

02 ▸ Earn rewards

Collect rewards based on the APY (Annual Percentage Yield) specified for each staking cycle.

03 ▸ Harvest rewards

Claim your earned rewards at the end of each cycle.

04 ▸ Withdraw stakes

Once the lock-in period ends, you can withdraw your staked tokens along with any additional rewards.

How to Stake

Step-by-Step Guide to Staking

https://dapp.infrax.network/staking

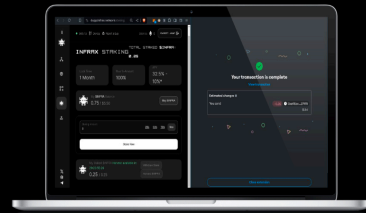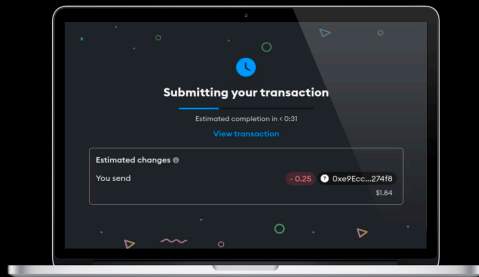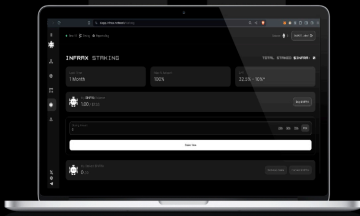**01** Go to site   **02** Connect wallet   **03** Input desired staking amount   **04** Click stake now   **05** Confirm both transactions

Logarithmic
Model for APY

We've chosen a logarithmic model for APY to encourage early and long-term staking. This means that the APY starts high and gradually decreases with each cycle. Essentially, the sooner you stake, the higher the rewards you earn initially.
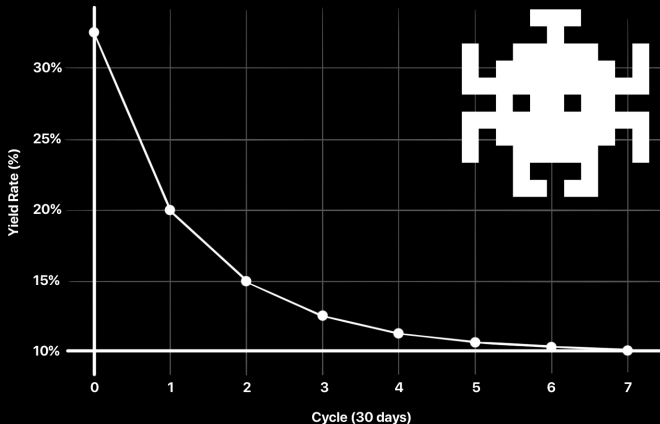
Why a Logarithmic Model?

Early Bird Incentives: Higher rewards for early participants.

Long-Term Benefits: Encourages users to keep their stakes longer.

Sustainable Rewards: Prevents the reward pool from being drained too quickly.

Staking yield rates per 30 day cycle

Note: This graph doesn't account for the addition of extra $INFRA into the pool.

Security Features
Ensuring Robustness and Safety

Custom Contract and Safety
Our staking contract is custom-built
with several safety features:

- **Minimized Attack Surface:** We conducted around 50 discrete tests, including market simulations with thousands of actors to ensure robustness.

- **Reentrancy Guard:** Utilizes OpenZeppelin's reentrancy guard to prevent reentrancy attacks.

- **Comprehensive Testing:** The contract underwent multiple iterations of rigorous testing to secure its integrity.

Testing Protocols
During development, we focused
heavily on security and reliability:

- **50 Discrete Tests:** Comprehensive evaluations to ensure contract reliability and performance.

- **Market Simulations:** Real-world conditions simulated with thousands of participants to assess contract behavior.

- **Security Checks:** Extensive testing for reentrancy attacks and additional security protocols to safeguard the contract.

Monthly Staking Cycles
Maximizing Rewards

Cycle-Based APY

Staking with InfraX is Organized into Monthly Cycles:

- **Cycle-Based APY:** Each 30-day cycle has a unique APY. Any stakes made within a cycle receive that cycle's APY.

- **Staking Additions:** Additional stakes within the same cycle get the same APY as the initial stake.

- **Intermediary Harvesting:** New stakes during an existing cycle trigger an intermediary harvest, combining the original stake and harvested rewards.

Harvesting and Withdrawals

Harvesting Rewards & Accessing Your Staked Funds

- **Harvest:** If you harvest within a current cycle, you cannot stake until the following cycle.

- **Re-stake:** Re-staking resets the lock-in timer, and you must wait a month before you can harvest or withdraw. However, you can stake/re-stake as many times as you want within a cycle.

- **Withdraw:** You can only withdraw your stake if you haven't harvested or re-staked in the current cycle.

INFRAX
PARTNERSHIPS

We believe in the power of strategic partnerships to drive innovation and expand the potential of our ecosystem.

Partners

Building Success Through Strategic Alliances

META ZERO

PAAL AI

CHAINSWAP

ZKML

COSMIC NETWORK

Partnerships
Our Ideology

Growth & Expansion

As the network and platform expand, so does the ability to provide more to our partners. We are dedicated to ongoing growth and delivering cutting-edge solutions, ensuring our partners have access to the most reliable and advanced resources to maintain a competitive edge in their respective industries.

Our Approach

We actively research and keep a strong pulse on the Web3 and Web2 sectors to discover new and emerging projects that resonate with our expertise and values. Through this, along with a strict criterion for quality, we gain an understanding of their challenges, objectives, and explore areas for authentic collaboration.

Synergetic Solutions

Our team seeks strategic partnerships that truly mean something, focusing on mutually beneficial collaborations that drive innovation and growth. By prioritizing genuine synergies over mere marketing exercises, we ensure that each partnership contributes meaningfully to both parties' success.

Developer Programs
High End Technology

Google Cloud

Utilizing the vast arsenal of tools and infrastructure of Google Cloud, InfraX speeds up innovation, builds infrastructure designed to meet industry needs, and gains access to a global community of developers; building a new way forward in an increasingly AI and cloud-driven world.

Intel Developer Zone (IDZ)

Leveraging cutting edge Intel technologies for network partners across various computing and AI workflows, InfraX increases scalability through the use of various products and services offered by the IDZ.

NVIDIA Developer Program

Having access to GPU-optimized software, NVIDIA toolkits and technology, a cutting edge developer community, and a diverse portfolio of state-of-the-art technical resources, InfraX ensures it's team has the best resources to tackle even the most ambitious technical challenges.

InfraVerse

An Immersive Exploration of InfraX

Overview

Welcome to the infraVerse, a dynamic and immersive space designed to showcase the InfraX ecosystem. It offers an engaging and interactive way to understand and explore the intricacies of our platform. Although still in the early stages, the infraVerse aims to provide an educational and enjoyable experience as we continue to develop and enhance its features.

Current Development

The infraVerse is in its initial phase, with many features and assets yet to be integrated. As development progresses, additional functionalities will be added to enhance the user experience and showcase the full potential of InfraX.

Features

- **Complex 3D Diagrams:** Gain unique insights into complex topics through detailed 3D visualizations.

- **INFRAX Rooms:** Explore specialized rooms that highlight various aspects of InfraX, including marketing, functionality, partnerships, and our team.

- **3D Motion Graphics:** Experience dynamic and visually striking graphics that bring InfraX's technology and concepts to life.

Team
The Innovators Driving Our Vision Forward

The InfraX team consists of a unified group of talent that feature members who share backgrounds in Fortune500 businesses, as well as other notable FAANG companies such as Apple. They are experienced industry vets that boast ample experience and capability in their respective fields.

Assure DeFi KYC Audit

The InfraX team has successfully completed their KYC audit with the verification gold standard and highly reputable Assure DeFi. This ensures transparency and trust is kept amongst our stakeholders, partners, and community.
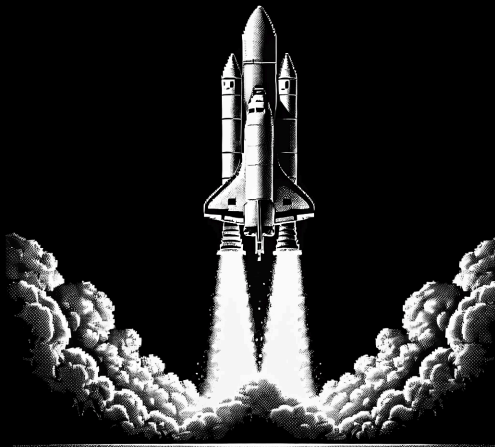
Why KYC?

A KYC audit is a strong statement of confidence. It provides clear accountability, ownership, and role responsibility for businesses across Web3. It provides unmatched company visibility through a 3rd party verified team that is a legally registered and accountable US company.

ASSURE DEFI
INTEGRITY ★ TRUST ★ CREDIBILITY

THE VERIFICATION
GOLD STANDARD

INFRAX
ROADMAP

Explore the strategic journey ahead with Infrax. Our roadmap outlines the milestones and innovations that will drive our future success and shape the industry.

Q3-Q4 2024

Complete DApp Design and Functionality Pivot

Finalize and implement the new design and functional updates for the InfraX decentralized application (DApp).

Develop & integrate a plethora of Heavy Compute Applications

Create and integrate a range of high-performance applications to enhance the InfraX platform's capabilities.

Integrate Balancing Contract, monetising the infraX Platform

Implement a balancing contract to start generating revenue and ensuring financial stability for the InfraX platform.

Integrate API's necessary for User Hosted Applications

Incorporate essential APIs to support the deployment and operation of applications created by users on the InfraX platform.

Launch first User Built Application

Introduce the first application developed by a user, showcasing the potential of the InfraX ecosystem.

Populate App Store with User Applications

Expand the InfraX App Store by adding a variety of user-generated applications.

Initiate Infrastructure deployment for GPU Lending Protocol

Begin the rollout of infrastructure to support a peer-to-peer protocol for GPU lending, enhancing network capabilities.

Introduce New AI Model Support and Integration

Expand capabilities by adding support for new AI models and enhancing integration features.

Q1-Q2 2025

Build out Infrastructure required to support Partnership integrations

Develop the necessary infrastructure to seamlessly integrate strategic partnerships, expanding collaboration opportunities.

Begin outsourcing infraX GPU's

Initiate the process of outsourcing infraX GPUs to broaden resource availability and leverage external computing power.

Begin Corporate Focus with emphasis placed on small business owners

Shift focus towards corporate clients, particularly small business owners, to tailor solutions that meet their specific needs.

Increase User base through Web2/3 Marketing Campaigns

Launch targeted marketing campaigns across Web2 and Web3 platforms to boost user acquisition and engagement.

Further Populate GPU network with focus on Corporate compatibility

Expand and focus on ensuring compatibility with corporate requirements, enhancing its utility for business applications.

Focus GPU Network Expansion in preparation for GPU orientated Protocols

Prioritize GPU network expansion to support new GPU-oriented protocols, preparing for future technological advancements.

Successfully complete first Peer-to-Peer transaction within the infraX Platform

Execute the first Peer-to-Peer transaction on the infraX platform, demonstrating the functionality and reliability of the system.

Implement Advanced Analytics for GPU Usage

Deploy advanced analytics tools to monitor and optimize GPU usage, providing insights that drive efficiency.

INFRAX

WHITEPAPER

InfraX is set to transform access to AI and GPU resources, fostering innovation and reducing entry barriers. We invite all users, developers, and partners to join us on this transformative journey, leveraging our platform's unique offerings to explore new technological frontiers.