Infra Token Whitepaper

Version 0.3

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Introduction

Over the past years, the cloud computing industry has witnessed strong growth as business users benefit from better data storage and security as well as the optimized workflows offered by cloud solutions.

However, this exponential growth has also seen challenges arise: a key issue with public clouds at a global level today is the lack of trust, transparency, and vendor lock-in.

Enter Infra Token ("InfraT"). InfraT helps tackle these key issues by facilitating the shift to federated and automated cloud services. These services are in opposition to centralized cloud providers that have to operate under certain regulations (such as the US's cloud act, Chinese cybersecurity law, or UK's OPA)

Infra tokens were founded in 2021 by acknowledged cloud entrepreneurs and technologists mainly as a basis for the economics of the Nephele foundation.

Nephele foundation is a federated cloud platform that combines the power of smaller cloud providers all across the world, these providers are constantly monitored and are vetted as suitable partners to the ecosystem.

Ecosystem

The Nephele foundation is an autonomous organization that creates a federation of cloud providers united under a single foundation to address the market's requirements.

Key Advantages:

Open Cloud Platform

A single point of receiving services from pre-vetted cloud providers and providing cloud resources to end-users.

Cost Optimization

The price of resources is set by a rapidly growing market that -unlike the scenario with Superscalers- users are not locked in, so providers will compete against each other without relying on getting their users locked into their platform.

Interoperability

Unlike typical cloud providers you are not locked in with a single provider, Nephele ensures that you can migrate to/from a provider with ease.

Scalable Economy

Nephele ecosystem is designed to scale as a marketplace for cloud services, regulated by the market.

Token-based Economy

Infra Tokens are at the heart of the Nephele platform, allowing for a shared p2p economy and ease of payment and micro-investment opportunity in the platform.
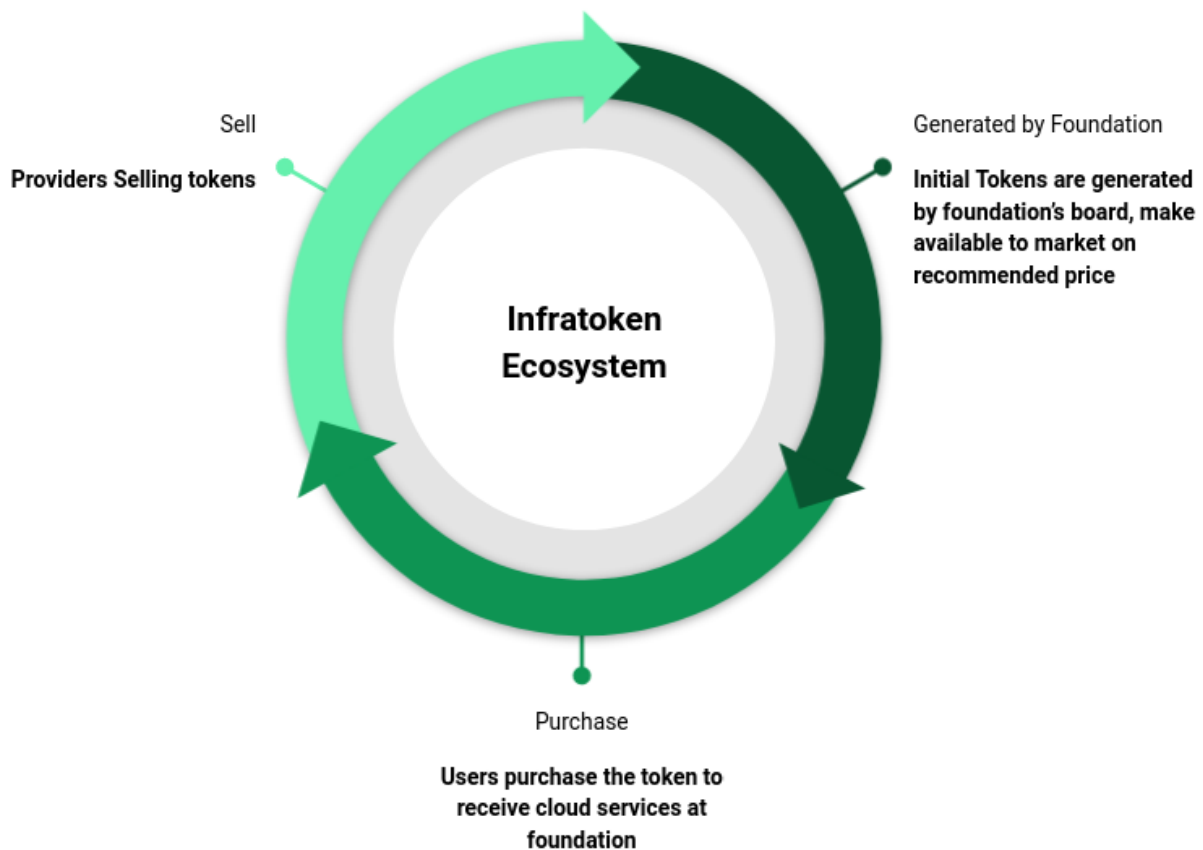
Cloud Tokenization

Infra tokens are the basis of the economics for the Nephele foundation. Customers looking to use cloud services through the Nephele foundation will use Infra Tokens to pay for these services. Conversely, cloud providers who are members of the foundation will receive payment in Infra Tokens (via Nephele escrow) through the foundation's systems.

The use of Infra Tokens allows users to gain access to the Nephele foundation's highly optimized price formation mechanism. The Nepehele foundation will always provide the market with a "Recommended price" for infrastructure tokens, which is equivalent to the cost of running small servers (t2.small) for an hour, the recommended price is based on the average cost of providers that are running their platform fully or partially via Nephele.

Users can purchase/exchange tokens via standard swap systems (e.g. Uniswap, etc) and spend them on the platform, all of the services defined under Nephele are pay as you go.

Sell
Providers Selling tokens

Generated by Foundation

Initial Tokens are generated by foundation's board, make available to market on recommended price

Infratoken
Ecosystem

Purchase
Users purchase the token to receive cloud services at foundation

Token Model

The value of infra tokens comes from the underlying resources that are available under the Nephele foundation as well as other future partners that are providing the services.

As tokens (even initial ones) are sold by the cloud providers and bought by potential users for the same services this creates a stable token pricing mechanism across the ecosystem.

Infra tokens are generated automatically based on the resources available on the ecosystem's infrastructure.

Governance

1 Token distribution, Vendor selection and assuring the performance of provider is the responsibility of the Nephele foundation

Market Value

2 While foundation provides a recommend price for token, the ultimate value of tokens is based on the market value: the price users willing to pay for cloud services and what makes sense for providers to sell at.
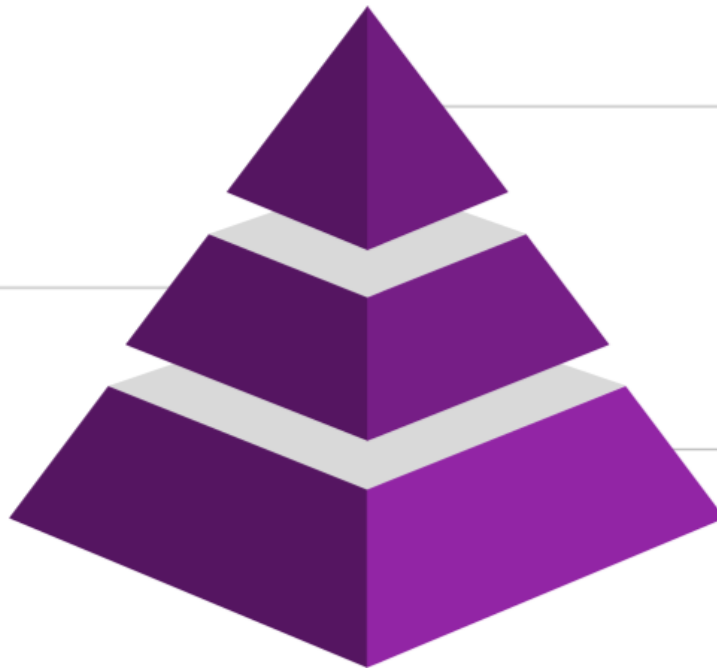
Federated Infrastructure

3 At the core, Infra tokens provide the basis for the foundation and means to runs it's economy via a shared currency across all providers.

Summary

Organizations join Nephele because they want to take an active role in supporting the growth and evolution of enterprise cloud federation:

- Reach newly found customers, access a whole new ecosystem where they can utilize their already existing resources.

- Have predictable cash flow.

- Compete against other providers on the ecosystem in a fair manner to gain a larger market share.

- Network with other members of Nephele.

- Raise awareness of the Nephele project so it can quickly reach critical mass.

- Vote and govern the project.

If you are a Cloud Provider who wants to expand your business and become part of the Nephele ecosystem:

- The only requirement is to have a recent version of OpenStack running on your infrastructure.

- Joining the foundation as well as the platform is free, and will always remain free.

The Advantage for end-users is that the Nephele platform will allow them to:

- Easily migrate to/from different providers.

- The Escrow system ensures that the provider is going to provide top-notch services, continuously.

- Join a highly competitive environment where they can save 80% of their cloud costs compared to Hyperscalers.