ESS Token Utility and Functions

There are a number of key functions that ESS will enable, with additional functionality added in as the Essentia project is developed further. This will occur on an incremental basis, with the development team prioritizing the most important functions, including testing and bug fixing, before working on ancillary features. Once the Essentia Framework has been fully developed, it will encompass such provisions as masternodes, which require ESS tokens to be staked, as a means of decentralizing the network.

Once the Essentia Framework has been fully developed, the ESS token will enable the following:

- Masternodes with Resource Allocation
- Anti-spam/Anti-abuse/Security
- Compensation for internal and external services or resources
- Generic exchange
- Distributed governance
- Reputation
- Incentivization

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Masternodes with Resource Allocation

When someone offers dedicated resources to the Essentia network, such as a masternode to verify transactions and monitor network activity, they will be directly compensated with ESS tokens proportional to their stake and level of participation. These will be locked as a guarantee against any potential misbehavior. The amount of ESS that is staked and locked in this manner will be taken into account when it comes to calculating and proportionally distributing ESS tokens periodically. In addition, when the Essentia project reaches a more mature stage, contributions of additional resources to the network will be also incentivized by introducing the Fuel Recycle feature.

A light-daemon will check and report the online, quality, capacity, bandwidth and status of the shared resource to the Fuel Pool Manager component (a smart contract) that will periodically unload and distribute the pool reserves back to the entity. Whoever joins the Essentia network to share their resources will stake an amount of ESS tokens they own which will be locked as a guarantee for their reputation against potential misbehavior. This locked stake of ESS tokens will be taken into account by the Fuel Pool Manager component in order to proportionally distribute the collected tokens back periodically.

The two parameters that will be used to calculate the final reward due will be the amount of tokens locked by the entity and the resources shared (calculated per their activity and productive time in blocks). Fines for misbehavior will be collected back into the Fuel Manager Component and will be added to the next Fuel Recycle total reward. Thus, the Fuel Recycle feature represents the reward for contributing to the Essentia network by, for example, running a node, offering instances of virtualized resources, providing calculation power, securing the network and running specific decentralized services⊠ that can be interconnected with Essentia.

Anti-spam, Anti-abuse and Securing the Essentia Framework

One of the key roles of the ESS token will be to provide an anti-spam measure. This will prevent the network from being swamped with requests by bots or users who have no intention of using Essentia for its intended purpose. This is a common requirement for cryptocurrency blockchains and platforms, and one which a proprietary token is well-equipped to combat. The ESS token will also protect the Essentia Framework against a range of infrastructure abuses and possible attack vectors.

While we don't anticipate widespread abuse of the resources and services Essentia will provide, spam and general misuse impact upon the experience for the vast majority of users intent on interacting with Essentia for its intended purpose. Mitigating spam and abuse is thus of paramount importance for everyone's benefit. A fairly priced fee system will deter bad actors by providing an economic disincentive to misbehave whilst keeping the platform accessible and affordable for all.

Compensation for Internal and External Services or Resources

The ESS token is the fuel that makes the Essentia Framework go round. Just as a car requires periodic topping up with gas to keep it moving, ESS is the unit of exchange that enables users to access and maintain various components, features and services. It can be used to pay for a range of additional internal services or resources that exceed the limits provided by those which are granted for free by default.

For example, the token can be used to pay for additional storage over and above the minimum that is provided for free. Similarly, it can be used to purchase further configuration slots to complement the free allocation. The token can be also used to pay for renting additional decentralized third-party resources that are connected to Essentia. These might include, for instance, computational power or resources for running instances of components/modules, VMs, containers, nodes and so on.

Generic Exchange

The ESS token can be used to pay for a range of generic trusted third-party services that are connected to Essentia. Various goods/services/content/fees linked to the in-house dApp Centre plus integrated and trusted third party marketplaces and dApp stores will all available to ESS token holders. These tokens are also swappable instantly inside the Essentia Framework itself too. Users can then convert ESS for the purpose of paying recipients with other cryptocurrencies as outputs.

Distributed Governance

The ESS token enables a distributed governance layer built into the Essentia Framework. This will be open to all users of the platform, enabling them to have a say in project-related decisions. Users are able to make proposals or vote for them using the ESS token. In doing so, they are able to play a crucial role in the evolution of the platform. Because Essentia is a resource they actively use and appreciate, the community is primely positioned to have a say in how it should develop and evolve. Later, ESS will also enable holders who possess a certain amount of tokens to enjoy access to dedicated exclusive resources, details of which will be disclosed in due course.

Reputation

At a later date, there are plans to use the ESS token to manage a user reputation layer. This will discourage bad actors from misbehaving, as doing so will result in losing their reputation, but this feature is about more than simply disincentivizing bad behavior. It also incentivizes active and positive participation, by boosting the reputation of users who have done the most to help make Essentia more enjoyable for all.

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Incentivization

Part of the ESS tokens allocated to the Essentia Project will serve as a reserve and may be used for and dedicated to foster and promote the adoption of the Essentia Framework and reward the most active users for their involvement or development.

Conclusion

The ESS token will form a critical component of the Essentia Framework. It will incentivize active and positive participation, disincentivize bad behavior and create an equitable and transparent rewards system. Coupled with governance rights and other features that will be introduced as the network develops, ESS will play a crucial role.

This utility token, as the fuel of the Essentia ecosystem, will make the framework more accessible and enjoyable by all users, whilst providing a fair means of pricing for enhanced features and services. Finally, the resource allocation component of the token will help to create a truly decentralized network that is beyond the control of any one entity. This will ensure that Essentia remains fully operational and censorship-resistant at all times.

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