Cyberscope

Audit Report

Pepekashi Solanami

May 2024

Network	SOL
Type	SPL-Token
Address	H5pRbz9w36wG6yriaBsPWQPWSJPkohMq9Wneseft5nBi
Audited by	© cyberscope

Analysis

Critical Medium Minor / Informative Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit (Transfer Fee Authority)	Passed
●	MT	Mints Tokens (Mint Authority)	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses (Freeze Authority)	Passed

Diagnostics

Critical Medium Minor / Informative

Severity	Code	Description	Status
●	ITA	Initial Token Allocation	Unresolved

Table of Contents

Review

Network	SOL
Explorer	https://solscan.io/token/H5pRbz9w36wG6yriaBsPWQPWSJPkohMq9Wneseft5nBi
Fixed Supply	1,000,000,000
Token Address	H5pRbz9w36wG6yriaBsPWQPWSJPkohMq9Wneseft5nBi
Token name	Pepekashi Solanami (PepeKash)
Owner Program	Token Program
Decimals	9
Metadata File Type	JSON
Badge Eligibility	Yes

Audit Updates

Initial Audit	01 May 2024

Overview

The `Pepekashi Solanami` token symbolized as `PepeKash`, is a distinguished SPL (Solana Program Library) token initialized using the TokenkegQfeZyiNwAJbNbGKPFXCWuBvf9Ss623VQ5DA Token Program on the Solana blockchain, with a supply of `1,000,000,000` tokens. The token uses the URL https://ipfs.io/ipfs/QmcoXan9QeGkCNUsA5pfaNjneTeyvZDGJMofreWEcF5vTs, which points to a decentralized storage service, while the image https://ipfs.io/ipfs/Qmb72JAMMaywvzwZPzarRcg3Se9NvK7D7bjH8kzwk5vDVj is used for visual identification of the token across platforms and marketplaces. Overall, the solana token is a distinct entity within the Solana network, identifiable by its unique characteristics as outlined in its metadata.

Metadata

The Metaplex Metadata provides details of the characteristics of the `Pepekashi Solanami` token, a distinctive digital asset on the Solana blockchain tailored for utilizing the Metaplex Metadata. This metadata includes crucial information necessary for the asset's seamless integration and operation within the Solana ecosystem. Specifically, the metadata was initiated by declaring the `4i37eReh49LSqJq3uijsZQGcvjJqLeNRoDwThBLy8bDz` as the update authority attribute, which points to the account authorized to modify the metadata. The mint attribute specified the account `H5pRbz9w36wG6yriaBsPWQPWSJPkohMq9Wneseft5nBi` authorized for the initial token mint. The asset imposes `sellerFeeBasisPoints` of 0 basis points, indicating no transaction fee for trading is set. The metadata indicates that the asset has not yet undergone its primary sale as indicated by the `primarySaleHappened` value set to 0, and is marked as immutable since `isMutable` is 0, not allowing for future changes to the metadata. The `editionNonce` of 255 signifies a unique edition, while the `tokenStandard` of 2, aligns with a specified token standard within the Solana blockchain, ensuring its compatibility and standardization across the network. This detailed metadata structure offers a comprehensive overview of the token's key features and its operational framework within the Metaplex ecosystem on Solana.


```
{
  "key": 4,
  "updateAuthority": "4i37eReh49LSqJq3uijsZQGcvjJqLeNRoDwThBLy8bDz",
  "mint": "H5pRbz9w36wG6yriaBsPWQPWSJPkohMq9Wneseft5nBi",
  "data": {
    "name": "Pepekashi Solanami",
    "symbol": "PepeKash",
    "uri":
"https://ipfs.io/ipfs/QmcoXan9QeGkCNUsA5pfaNjneTeyvZDGJMofreWEcF5vTs",
    "sellerFeeBasisPoints": 0
  },
  "primarySaleHappened": 0,
  "isMutable": 0,
  "editionNonce": 255,
  "tokenStandard": 2
}
```

Field	Value	Description
key	4	Account discriminator that identifies the type of metadata account
updateAuthority	4i37eReh49LSqJq3uijsZQGcvjJqLeNRoDwThBLy8bDz	The public key that is allowed to update this account
mint	H5pRbz9w36wG6yriaBsPWQPWSJPkohMq9Wneseft5nBi	The public key of the Mint Account it derives from
name	Pepekashi Solanami	The on-chain name of the token
symbol	PepeKash	The on-chain symbol of the token
uri	https://ipfs.io/ipfs/QmcoXan9QeGkCNUsA5pfaNjneTeyvZDGJMofreWEcF5vTs	The URI to the external metadata. This URI points to an off-chain JSON file that contains additional data following a certain standard
sellerFeeBasisPoints	0	The royalties shared by the creators in basis points — This field is used by most NFT marketplaces, it is not enforced by the Token Metadata program itself
primarySaleHappened	0	A boolean indicating if the token has already been sold at least once. Once flipped to True, it cannot ever be False again. This field can affect the way royalties are distributed
isMutable	0	A boolean indicating if the metadata account can be updated. Once

		flipped to False, it cannot ever be True again
editionNonce	255	Unique identifier for this edition
tokenStandard	2	The standard of the token

Findings Breakdown

Critical	0
Medium	0
Minor / Informative	1

Severity	Unresolved	Acknowledged	Resolved	Other
Critical	0	0	0	0
Medium	0	0	0	0
Minor / Informative	1	0	0	0

ITA - Initial Token Allocation

Criticality	Minor / Informative
Status	Unresolved

Description

The account `CXuSUUYCVApJHr132W6F3uN23HcqVG2VWqTMpSUDnBgE` holds a large portion of total supply. Consequently, at the time of the report, this address owns 61.58% of the entire token supply, amounting to 615,840,000 `PepeKash`. This concentration of almost the entire token supply in some addresses raises significant concerns about centralization within the token's ecosystem. Such a scenario creates a risk of market manipulation and could lead to other adverse effects, potentially undermining the token's decentralized nature and the overall health of its ecosystem.

Token Account	Quantity	Percentage
CXuSUUYCVApJHr132W6F3uN23HcqVG2VWqTMpSUDnBgE	615,840,000	61.58%

Recommendation

It is recommended to distribute the tokens more broadly to achieve a more decentralized token holding structure. This can mitigate the risks associated with centralization and ensure a more stable and secure ecosystem for all participants. If the new addresses consist of a team's wallet address, then the team should carefully manage the private keys of that account. We strongly recommend implementing a robust security mechanism to prevent a single user from accessing the contract admin functions, such as a multi-sign wallet so that many addresses will confirm the action.

MT - Mint Tokens (Mint Authority)

Criticality	Passed
Status	Resolved

Description

The token has a fixed supply of tokens, as the mint authority has been revoked, ensuring a stable and unchangeable total supply. This key characteristic enhances its value proposition within the ecosystem by eliminating the possibility of future inflation of the token value through additional minting. This creates a predictable environment for investors and users, contributing to a perception of increased trustworthiness and security. This decision aligns with the best practices aiming to preserve the token's integrity and value, fostering a more sustainable and confident market presence.

The information regarding the revoke transaction of the mint authority can be accessed through the following link:
https://solscan.io/tx/5K2dEHtWzaLPVR3CUN6gh6z4DZXwzxAvvANTnwkqFGQvxMnbBJMNYrvF71Z3BbSpg5B6m8cBwxjDV4eEsdXhypwx

BC - Blacklists Addresses (Freeze Authority)

Criticality	Passed
Status	Resolved

Description

The freeze authority of the token has been revoked, permanently disabling the ability to freeze and thaw accounts. This action signals a definitive stance on account management within the token's ecosystem, emphasizing the permanence of account statuses. Removing the possibility of altering account states, establishes a more secure environment for token holders, reinforcing the network's commitment to stability and reliability. This decision reflects adherence to best security practices, aiming to solidify investor confidence and enhance the token's value by ensuring consistent operational integrity.

The information regarding the revoke transaction of the freeze authority can be accessed through the following link: https://solscan.io/tx/4uXxgEbWwkhmHmgMV8CmB8mc729FEThy7v1rXQRfW6J3f1f6ABaUonWjT2kn9zYEZay7j1Bg3zvcyyhd8JY5SGWM

Summary

The `Pepekashi Solanami` token, built on the Solana network, leverages a solid architecture initiated via the Token program. This audit rigorously evaluates its performance, security, and compliance with best practices. The investigation aims to identify and address any operational vulnerabilities, performance bottlenecks, and areas for optimization, ensuring the token's robustness and reliability in the Solana ecosystem. The token program analysis reported no compiler errors or critical issues.

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The Cyberscope team

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