Cyberscope

Audit Report

Grumpy Cat

October 2024

Network   SOL

Address   2JC3PBcLxAvFPEYbF9ebJPW1znnrdxJRQLBHSBFspump

Audited by   © cyberscope

Analysis

● Critical   ● Medium   ● Minor / Informative   ● Pass

Severity	Code	Description	Status
●	STMA	Mint Authority	Passed
●	STFA	Freeze Authority	Passed
●	STUA	Update Authority	Passed

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Risk Classification

The criticality of findings in Cyberscope's smart contract audits is determined by evaluating multiple variables. The two primary variables are:

1. **Likelihood of Exploitation**: This considers how easily an attack can be executed, including the economic feasibility for an attacker.
2. **Impact of Exploitation**: This assesses the potential consequences of an attack, particularly in terms of the loss of funds or disruption to the contract's functionality.

Based on these variables, findings are categorized into the following severity levels:

1. **Critical**: Indicates a vulnerability that is both highly likely to be exploited and can result in significant fund loss or severe disruption. Immediate action is required to address these issues.
2. **Medium**: Refers to vulnerabilities that are either less likely to be exploited or would have a moderate impact if exploited. These issues should be addressed in due course to ensure overall contract security.
3. **Minor**: Involves vulnerabilities that are unlikely to be exploited and would have a minor impact. These findings should still be considered for resolution to maintain best practices in security.
4. **Informative**: Points out potential improvements or informational notes that do not pose an immediate risk. Addressing these can enhance the overall quality and robustness of the contract.

Severity	Likelihood / Impact of Exploitation
● Critical	Highly Likely / High Impact
● Medium	Less Likely / High Impact or Highly Likely/ Lower Impact
● Minor / Informative	Unlikely / Low to no Impact

Review

Network	Solana
Address	2JC3PBcLxAvFPEYbF9ebJPW1znnrdxJRQLBHSBFspump
Explorer	https://solscan.io/address/2JC3PBcLxAvFPEYbF9ebJPW1znnrdxJRQLBHSBFspump
Name	Grumpy Cat
Symbol	GRUMPY
Decimals	6
Total Supply	979,814,827
Metadata File Type	JSON
Owner Program	https://solscan.io/address/TokenkegQfeZyiNwAJbNbGKPFXCWuBvf9Ss623VQ5DA
Badge Eligibility	Yes

Audit Updates

Initial Audit	01 Oct 2024

Overview

The Grumpy Cat token symbolized as GRUMPY, is a distinguished SPL (Solana Program Library) token initialized using the

`TokenkegQfeZyiNwAJbNbGKPFXCWuBvf9Ss623VQ5DA` Token Program on the Solana blockchain, with a supply of 979,814,827 tokens. The token uses the URL

https://ipfs.io/ipfs/QmaXxAHzLPc183J5HPqhYZjcAya8zJAdWLnTHiUgvKCmDJ, which points to a decentralized storage service, while the image

https://ipfs.io/ipfs/Qmcd5AKftXKexYgT3HVshiP7xtoGSjXja2AqfY7QPKnHLr 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.

Field	Value	Description
updateAuthority	TSLvdd1pWpHVjahSpsvCXUbgwsL3JAcvokwaKt1eokM	The public key that is allowed to update this account
mint	2JC3PBcLxAvFPEYbF9ebJPW1znnrdxJRQLBHSBFspump	The public key of the Mint Account it derives from
name	Grumpy Cat	The on-chain name of the token
symbol	GRUMPY	The on-chain symbol of the token
uri	https://ipfs.io/ipfs/QmaXxAHzLPc183J5HPqhYZjcAya8zJAdWLnTHiUgvKCmDJ	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	false	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	false	A boolean indicating if the metadata account can be updated. Once flipped to False, it cannot ever be True again
editionNonce	253	Unique identifier for this edition
tokenStandard	2	The standard of the token

Metadata

The Metaplex Metadata provides details of the characteristics of the `Grumpy Cat 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.

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 it is marked as immutable since `isMutable` is 0, not allowing for future changes to the metadata. The `editionNonce` of 253 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.

```json
{
  "name": "Grumpy Cat",
  "symbol": "GRUMPY",
  "description": "",
  "image":
"https://ipfs.io/ipfs/Qmcd5AKftXKexYgT3HVshiP7xtoGSjXja2AqfY7QPKnHLr",
  "showName": true,
  "createdOn": "https://pump.fun"
}
```

Findings Breakdown

Severity	Unresolved	Acknowledged	Resolved	Other
🔴 Critical	0	0	0	0
🟡 Medium	0	0	0	0
⚪ Minor / Informative	0	0	0	0

STMA - 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.

STFA - 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.

Summary

The Grumpy Cat 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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Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.

The Cyberscope team

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