$ZSTAKE Smart Contract Documentation

Introduction

This document aims at providing technical details pertaining to how interactions with the ZStake token smart contract can be made, clearly including methods, expected return types and values as well as explanations to how these components are intended to behave.

The token is written in complaince with the PSP22 standard developed by Supercolony and is composed of custom methods to add to its functionality.

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1.0 MetaData

1.1 `psp22Metadata::tokenName()` → `Option<Bytes>`

This method returns the name of the token as Option<Bytes>.

1.2 `psp22Metadata::tokenSymbol()` → `Option<Bytes>`

This method returns the symbol of the token as Option<Bytes>.

1.3 `psp22Metadata::tokenDecimals()` → `u8`

This method returns the symbol of the token as a u8 integer.

2.0 Transfers

2.1 `psp22::approve()` → `null`

This method takes two arguments, `spender` as AccountId and `value` as u8. Allows `spender` to withdraw from the caller's account multiple times, up to the permitted amount allocated for them.

2.2 `psp22::decreaseAllowance()` → `null`

This method takes two arguments, `spender` as AccountId and `value` as u8. Atomically decreases the allowance granted to `spender` by the caller.

2.3 `psp22::increaseAllowance()` → `null`

This method takes two arguments, `spender` as AccountId and `value` as u8. Atomically increases the allowance granted to `spender` by the caller.

2.4 `psp22::transfer()` → `null`

This method takes two arguments, `to` as AccountId and `value` as u8. Transfers `value` amount of tokens from the caller's account to account `to`.

2.5 `psp22::transferFrom()` → `null`

This method takes three arguments, `from` as AccountId, `to` as AccountId and `value` as u8. Transfers `value` tokens on the behalf of `from` to the account `to`.

2.6 `psp22::allowance()` → `u128`

This method takes two arguments, `owner` as AccountId and `spender` as AccountId. Returns the amount which `spender` is still allowed to withdraw from `owner` as u128.

2.7 `psp22::balanceOf()` → `u128`

This method takes one argument, `owner` as AccountId. Returns the account Balance for the specified `owner` as u128.

3.0 `psp22::totalSupply()` → `u128`

Returns the total token supply as u128 (Balance).

4.0 Rewards

4.1 `psp22::claimRewards()` → `null`

This method takes no argument. Allows caller to claim due token rewards (allocations) at due time as specified in psp22::claimable() and psp22::nextRewardTime() respectively.

4.2 `psp22::remitPool()` → `null`

This method takes `account` which is an Accountid type as the only suppliable argument. Allows the token creator to send out tokens allocated to the rewards pool to a designated account specified with `account`.

4.3 `psp22::availableRewards()` → `u128`

Returns the total available amount in the rewards pool as u128.

4.4 `psp22::claimable()` → `u128`

This method takes `account` which is an Accountid type as the only suppliable argument. Returns the claimable amount in rewards of `account` as u128.

4.5 `psp22::nextRewardTime()` → `u64`

This method takes `account` which is an Accountid type as the only suppliable argument. Returns the next timestamp for the rewards to be claimed by `account` as u64.

5.0 Summary

This document provides a high-level interaction approach to the ZStake token smart contract, showing the arguments, purpose of each method and the return values.

The source code contains internal helper methods utilized by the contract which contribute to its functioning, even though not enlisted in this documentation.