

main

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SC-RCVD / Vulnerabilities / BTC2X.md



MRdoulestar Add btc2x

History

1 contributor

36 lines (25 sloc) | 943 Bytes

BTC2X

<https://etherscan.io/address/0x6e58b4c41cab75dc0239938bf5455ab8823ee4de#code>

The screenshot shows the Etherscan interface for the BTC2X token. At the top, there's a search bar and navigation links. The token's name 'BTC2X' is displayed with a small icon. Below this, the token's contract address is shown. The 'Overview' section provides key statistics: Max Total Supply (21,000,000 B2X), Holders (491), and Transfers (722). The 'Profile Summary' section shows the contract address, decimals (8), and social profiles. A table of recent transfers is visible, showing transaction hashes, methods, ages, and amounts.

Txn Hash	Method	Age	From	To	Quantity
0x868d3db1490b199aa...	Transfer	10 days 3 hrs ago	0x6b297988efc0607582...	0x34cc5413c65e6e6cfd1f...	50,000,000,000,000.92122217
0x276131b5a7ad730497...	Transfer	38 days 22 hrs ago	0xd582b16134c87f4480...	0x6b297988efc0607582...	50,000,000,000,000.92122217
0x0f5ccf39d22a5bb22d0...	Transfer	57 days 2 hrs ago	0x37834333483c803fd8...	0x34053222234ea33f85...	3,000,000
0x03155be4b95e478d1e...	Transfer	221 days 5 hrs ago	0x161ac31d3176a6965d...	0x08dd7ac9b97b8fb696...	5,600

Figure 1. BTC2X Token Information

Improper Access Control (Unprotected Ownership)

```
contract Owned {
    address public owner;

    function owned() public {
        owner = msg.sender;
    }

    modifier onlyOwner {
        require(msg.sender == owner);
        _;
    }

    function transferOwnership(address newOwner) onlyOwner public {
        owner = newOwner;
    }
}
```

The owned function of a smart contract implementation for BTC2X (B2X), a tradable Ethereum ERC20 token, has unprotected ownership, which allows the anyone to be the owner of this contract, including attackers. And attackers can modify the digital assets arbitrarily.

Exploit

The screenshot shows the Remix IDE interface. On the left, the Solidity code for the `B2X` contract is displayed. The code includes events for `Transfer` and `Approval`, a `contract Owned` with an `owner` address, and a `StandardToken` contract that inherits from `Token` and `Owned`. The `transferOwnership` function is highlighted. On the right, the 'B2X' contract is selected in the '已部署的合约' (Deployed Contracts) panel. The 'owner' field is highlighted with a red box, showing the address `0xC435b7d915458ef540ade6068dfe2f44e8fa733c`. The '已记录的交易' (Recorded Transactions) panel shows a transaction to `B2X.owned` pending.

*Figure 2. Any account can be the owner of this smart contract.

The screenshot shows the Remix IDE interface after changing the owner. The Solidity code is the same as in Figure 2. In the 'B2X' contract panel, the 'owner' field is highlighted with a red box, showing the new address `0x14723A09ACf6D2A60DcdF7a4AF308FDDC160C`. The '已记录的交易' (Recorded Transactions) panel shows a transaction to `B2X.owned` pending.

*Figure 3. Change the owner to 0x1472.