**Developer API Documentation: Synergy Network**

**1. Introduction**

This document provides developers with API endpoints and guidelines for interacting with the Synergy Network. It includes instructions on using RPC calls, SDK integration, and sample requests.

**2. API Endpoints**

**2.1 JSON-RPC Endpoints**

* **Main RPC Endpoint:** https://rpc.testnet.synergy-network.io
* **WebSocket Endpoint:** wss://ws.testnet.synergy-network.io

**2.2 Common JSON-RPC Methods**

| **Method** | **Description** | **Example** |
| --- | --- | --- |
| eth\_blockNumber | Returns the latest block number | {"jsonrpc":"2.0","method":"eth\_blockNumber","params":[],"id":1} |
| eth\_getBalance | Returns the balance of an address | {"jsonrpc":"2.0","method":"eth\_getBalance","params":["0xAddress", "latest"],"id":1} |
| eth\_sendTransaction | Sends a signed transaction | {"jsonrpc":"2.0","method":"eth\_sendTransaction","params":[{...}],"id":1} |

**3. SDK Integration**

Developers can interact with Synergy Network using the Web3 SDK.

**3.1 Installing Web3 SDK**

npm install web3

**3.2 Connecting to Synergy Network**

const Web3 = require('web3');

const web3 = new Web3('https://rpc.testnet.synergy-network.io');

**4. Smart Contract Interaction**

**4.1 Deploying a Smart Contract**

const fs = require('fs');

const contractABI = JSON.parse(fs.readFileSync('contractABI.json', 'utf8'));

const contractAddress = "0xYourContractAddress";

const contract = new web3.eth.Contract(contractABI, contractAddress);

**4.2 Calling a Smart Contract Method**

async function getValue() {

const value = await contract.methods.getValue().call();

console.log(value);

}

getValue();

**5. Example API Requests**

**5.1 Fetch Latest Block Number (cURL Example)**

curl -X POST --data '{"jsonrpc":"2.0","method":"eth\_blockNumber","params":[],"id":1}' https://rpc.testnet.synergy-network.io

**5.2 Fetch Account Balance**

curl -X POST --data '{"jsonrpc":"2.0","method":"eth\_getBalance","params":["0xYourAddress", "latest"],"id":1}' https://rpc.testnet.synergy-network.io

**6. Conclusion**

The Synergy Network Developer API provides a robust framework for interacting with the blockchain via JSON-RPC and Web3 SDK. Developers can deploy smart contracts, fetch blockchain data, and execute transactions seamlessly.