

eth_createAccessList

Creates an [EIP-2930](#) access list that you can include in a [transaction](#) .

Use this method to optimize your smart contract interactions. Access lists are a part of Ethereum's EIP-2930, which aims to improve the network's scalability and reduce gas costs by specifying an explicit list of addresses and storage keys that a transaction intends to access.

Optimizing Ethereum Transactions See the Infura article [Optimizing Ethereum Transactions with eth_createAccessList](#) that describes how `eth_createAccessList` can help optimize gas costs, reduce out-of-gas errors, and verify clients for infrastructure access.

Parameters

- Transaction call object
- `:[Required]`
- - `from`
 - `:[optional]`
 - 20 bytes. The address of the sender.
 - `to`
 - `: 20 bytes. Address the transaction is directed to.`
 - `gas`
 - `:[optional]`
 - Hexadecimal value of the gas provided for the transaction execution.
 - `gasPrice`
 - `:[optional]`
 - Hexadecimal value gas price, in Wei, provided by the sender. The default is 0
 - `. Used only in non-EIP-1559 transactions.`
 - `maxPriorityFeePerGas`
 - `:[optional]`
 - Maximum fee, in Wei, the sender is willing to pay per gas above the base fee. See [EIP-1559 transactions](#)
 - `. If used, must specify maxFeePerGas`
 - `.`
 - `maxFeePerGas`
 - `:[optional]`
 - Maximum total fee (base fee + priority fee), in Wei, the sender is willing to pay per gas. See [EIP-1559 transactions](#)
 - `. If used, must specify maxPriorityFeePerGas`
 - `.`
 - `value`
 - `:[optional]`
 - Hexadecimal of the value transferred, in Wei.

- data
- :[optional]
- Hash of the method signature and encoded parameters. See [Ethereum contract ABI specification](#)
- .
- block number
- orblock hash
- :[required]
- A string representing a block number, block hash, or one of the string tagslatest
- ,earliest
- ,pending
- ,safe
- , orfinalized
- . See the [default block parameter](#)
- .

Returns

Access list object with the following fields:

- `accessList`
- : A list of objects with the following fields:
 - `* address`
 - `* : Addresses to be accessed by the transaction.`
 - `storageKeys`
 - `* : Storage keys to be accessed by the transaction.`
- `gasUsed`
- : A hexadecimal string representing the approximate gas cost for the transaction if the access list is included.

Example

Replace YOUR-API-KEY with an API key from your [Infura dashboard](#).

Request

- cURL
- WSS

```
curl https://arbitrum-mainnet.infura.io/v3/YOUR-API-KEY \-X POST \-H "Content-Type: application/json" \-d
{'"method": "eth_createAccessList", "params": [{"from": "0xaeA8F8f781326bfE6A7683C2BD48Dd6AA4d3Ba63", "data":
"0x608060806080608155"}, {"pending"}, {"id": 1, "jsonrpc": "2.0"}] wscat -c wss://arbitrum-mainnet.infura.io/ws/v3/YOUR-API-
KEY -x {'"method": "eth_createAccessList", "params": [{"from": "0xaeA8F8f781326bfE6A7683C2BD48Dd6AA4d3Ba63",
"data": "0x608060806080608155"}, {"pending"}, {"id": 1, "jsonrpc": "2.0"}]}
```

Response

- JSON

[illegible]

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