eth_getLogs

Returns an array of all the logs matching the given filter object. See also the below Constraints section.

For Growth and Custom service plans This JSON-RPC method allows a request to be forwarded to a partner service provider if Infura should experience a service issue or outage. See failover protection and Enable API request forwarding for complete details.

If you would like failover protection but don't qualify under your current plan, then either self-upgrade to the Growth plan or contact a sales representative to upgrade to a Custom plan.

Parameters

A filter object containing the following:

- address
- : [optional
-] Contract address (20 bytes) or a list of addresses from which logs should originate.
- fromBlock
- :[optional, default is "latest"]
- A hexadecimal block number, or one of the string tagslatest
- ,earliest
- ,pending
- ,safe
- , orfinalized
- . See thedefault block parameter
- .
- toBlock
- :[optional, default is "latest"]
- A hexadecimal block number, or one of the string tagslatest
- ,earliest
- ,pending
- ,safe
- , orfinalized
- . See thedefault block parameter
- .
- topics
- :[optional]
- Array of 32 bytes DATA topics. Topics are order-dependent.
- blockhash
- :[optional]
- Restricts the logs returned to the single block referenced in the 32-byte hashblockHash
- . UsingblockHash
- is equivalent to settingfromBlock
- andtoBlock
- to the block number referenced in theblockHash
- . IfblockHash
- is present in in the filter criteria, then neitherfromBlock
- nortoBlock
- are allowed.

Returns

log objects : An array of log objects, or an empty array if nothing has changed since last poll. Log objects contain the following keys and their values:

- removed
- : (boolean)true
- when the log was removed, due to a chain reorganization.false
- if it's a valid log.
- logIndex
- : Hexadecimal of the log index position in the block.Null
- when it is a pending log.
- transactionIndex
- : Hexadecimal of the transactions index position from which the log created.Null
- when it is a pending log.
- transactionHash
- : 32 bytes. Hash of the transactions from which this log was created.Null
- when it is a pending log.
- blockHash
- : 32 bytes. Hash of the block where this log was in.Null
- when it is a pending log.
- blockNumber
- : Block number where this log was in.Null
- when it is a pending log.
- address
- : 20 bytes. Address from which this log originated.
- data
- : Contains one or more 32-bytes non-indexed arguments of the log.
- topics
- : An array of 0 to 4 indexed log arguments, each 32 bytes. In solidity the first topic is the hash of the signature of the event (e.g. Deposit(address,bytes32,uint256)), except when you declared the event with the anonymous specifier.

Example

ReplaceYOUR-API-KEY with an API key from yourInfura dashboard .

Request

- cURL
- WSS

curl https://polygon-mainnet.infura.io/v3/YOUR-API-KEY \ -X POST \ -H "Content-Type: application/json" \ -d '{"jsonrpc":"2.0","method":"eth_getLogs","params":[{"blockHash": "0x7c5a35e9cb3e8ae0e221ab470abae9d446c3a5626ce6689fc777dcffcab52c70", "topics":["0x241ea03ca20251805084d27d4440371c34a0b85ff108f6bb5611248f73818b80"]}],"id":1}' wscat -c wss://polygon-mainnet.infura.io/ws/v3/YOUR-API-KEY -x '{"jsonrpc":"2.0","method":"eth_getLogs","params":[{"blockHash": "0x7c5a35e9cb3e8ae0e221ab470abae9d446c3a5626ce6689fc777dcffcab52c70", "topics":["0x241ea03ca20251805084d27d4440371c34a0b85ff108f6bb5611248f73818b80"]}],"id":1}'

Response

- JSON

{ "jsonrpc": "2.0", "id": 1, "result": [{ "address": "0x1a94fce7ef36bc90959e206ba569a12afbc91ca1", "blockHash": "0x7c5a35e9cb3e8ae0e221ab470abae9d446c3a5626ce6689fc777dcffcab52c70", "blockNumber": "0x5c29fb", "data": "0x00000000000000000000000003e3310720058c51f0de456e273c626cdd350657000000000000000000000000000000000000000000000000000000000000000000318500000000000000000000000000000000000000000000000000000000000... "logIndex": "0x1d", "removed": false, "topics": ["0x241ea03ca20251805084d27d4440371c34a0b85ff108f6bb5611248f73818b80"], "transactionHash": "0x3dc91b98249fa9f2c5c37486a2427a3a7825be240c1c84961dfb3063d9c04d50", "transactionIndex": "0x1d" }, { "address": "0x06012c8cf97bead5deae237070f9587f8e7a266d", "blockHash": "0x7c5a35e9cb3e8ae0e221ab470abae9d446c3a5626ce6689fc777dcffcab52c70", "blockNumber": "0x5c29fb", "data": "0x00000000000000000000000000000077ea137625739598666ded665953d26b3d8e37440000000000000000000000000000000000000000000000000749ff00000000000000000000000000000000000... "logIndex": "0x57", "removed": false, "topics": ["0x241ea03ca20251805084d27d4440371c34a0b85ff108f6bb5611248f73818b80"], "transactionHash": "0x788b1442414cb9c9a36dba2abe250763161a6f6395788a2e808f1b34e92beec1", "transactionIndex": "0x54" }] }

Constraints

The following constraints apply:

To prevent queries from consuming too many resources,eth_getLogs requests are currently limited by three constraints:

- A maximuim of 5,000 parameters in a single request
- A maximum of 10,000 results can be returned by a single query
- Query duration must not exceed 10 seconds

If a query returns too many results or exceeds the max query duration, one of the following errors is returned:

{ "jsonrpc": "2.0", "id": 1, "error": { "code": -32005, "message": "query returned more than 10000 results" } } or

{ "jsonrpc": "2.0", "id": 1, "error": { "code": -32005, "message": "query timeout exceeded" } } If this happens:

- Limit your query to a smaller number of blocks usingfromBlock
- andtoBlock
- .
- If querying for commonly usedtopics
- , consider limiting to a single smart contractaddress
- .