# eth subscribe

Creates a new subscription for particular events. The node returns a subscription ID. For each event that matches the subscription, a notification with relevant data is sent together with the subscription

### **Parameters**

Specify the subscription event parameters, including the following:

- : Subscribing to this returns a notification each time a new header is appended to the chain, including chain reorganizations. In a chain reorganization, the subscription emits all new headers for the new chain. Therefore the subscription can emit multiple headers at the same height
- : Returns logs that are included in new imported blocks and match the given filter criteria. In case of a chain reorganization, previously sent logs that are on the old chain are resent with the
- removed property set totrue
  . Logs from transactions that ended up in the new chain are emitted. Therefore a subscription can emit logs for the same transaction multiple times. This parameter has the following fields:\* address
- · : (optional
- ) Either an address or an array of addresses. Only logs that are created from these addresses are returned.
- - · : (optional
    - ) Only logs that match these specified topics are returned.

Infura Recommendation We strongly recommend specifying a filter (address ortopics or both) when subscribing to thelogs event. \* newPendingTransactions \* : Returns the hash for all transactions that are added to the pending state and are signed with a key that's available in the node. When a transaction that was previously part of the canonical chain isn't part of the new canonical chain after reorganization, it's emitted again.

#### Returns

- subscription ID
- . : The ID of the newly created subscription on the node

### Example

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

WebSocket connections only Subscription methods are available follebSocket connections only

- newHeads
- logsnewPendingTransactions

wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '{"jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '{"jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '{"jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '("jsonrpc":"2.0", "id": 1, "method": "eth\_subscribe", "params": ["newHeads"]]' wscat -c wss://mainne "params": ["newPendingTransactions"]}

## Response

- New subscription
- newHeads
- logs subscription
- · New pending transaction subscription

"mineri": "0xf8b483dba2c3b7176a3da549ad41a48bb3121069", "noncei": "0x0814998194cc5f", "numberi": "0x13b48c9", "parentHash":
"0x736fab79e05dc611604d22470dadad26f56fe494421b5b333de816ce1f25701", "receiptRoot": "0x26ab35823ad00c7bb388595cb46652fe7886e00660a01e867824d3dceb1c8d36", "sha3Uncles":
"0x1dcc4de8dec75d7aab85b567b6ccd41ad312451b948a7413f0a142fd40d49347", "stateRoot": "0xb3346685172db67de536d8765c43c31009d0eb3bd9c501c9be3229203f15f378", "timestamp":
"0x56ffeff8", "transactionsRoot": "0x0167ffa60e3ebc0b080cdb95f7c0087dd6c0e61413140e39d94d3468d7c9689f" }, "subscription": "0x9ce59a13059e417087c02d3236a0b1cc" } } { "isonrpc": "2.0", "method": "eth\_subscription", "params": { "subscription": "0x4a8a4c0517381924f9838102c5a4dcb7", "result": { "address": "0x8320fe7702b96808f7bbc0d4a888ed1468216cfd", "blockHash": "0x61cdb2a03ab99abf791d474f20c2ea89bf8de2923a2d42bb49944c8c993cbf04",

["0xd78a0cb8bb633d06981248b816e7bd33c2a35a6089241d099fa519e361cab902"],"transactionHash":"0xe044554a0a55067caafd07f8020ab9f2af60bdfe337e395ecd84b4877a3d1ab4", "transactionIndex":"0x0" } } } { "jsonrpc":"2.0", "method":"eth\_subscription", "params":{ "subscription":"0xc3b33aa549fb9a60e95d21862596617c", "result":"0xd6fdc5cc41a9959e922f30cb772a9aef46f4daea279307bc5f7024edc4ccd7fa" } }

Last updatedonApr 19, 2024 Previous Subscription methods Next eth\_unsubscribe