



AMB Query API Reference

# Amazon Managed Blockchain



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# Amazon Managed Blockchain: AMB Query API Reference

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# Welcome

Amazon Managed Blockchain (AMB) Query provides you with convenient access to multi-blockchain network data, which makes it easier for you to extract contextual data related to blockchain activity. You can use AMB Query to read data from public blockchain networks, such as Bitcoin Mainnet and Ethereum Mainnet. You can also get information such as the current and historical balances of addresses, or you can get a list of blockchain transactions for a given time period. Additionally, you can get details of a given transaction, such as transaction events, which you can further analyze or use in business logic for your applications.

This document was last published on July 2, 2024.



# Actions

The following actions are supported:

- [BatchGetTokenBalance](#)
- [GetAssetContract](#)
- [GetTokenBalance](#)
- [GetTransaction](#)
- [ListAssetContracts](#)
- [ListFilteredTransactionEvents](#)
- [ListTokenBalances](#)
- [ListTransactionEvents](#)
- [ListTransactions](#)

# BatchGetTokenBalance

Gets the token balance for a batch of tokens by using the BatchGetTokenBalance action for every token in the request.

## Note

Only the native tokens BTC and ETH, and the ERC-20, ERC-721, and ERC 1155 token standards are supported.

## Request Syntax

```
POST /batch-get-token-balance HTTP/1.1
Content-type: application/json

{
  "getTokenBalanceInputs": [
    {
      "atBlockchainInstant": {
        "time": number
      },
      "ownerIdentifier": {
        "address": "string"
      },
      "tokenIdentifier": {
        "contractAddress": "string",
        "network": "string",
        "tokenId": "string"
      }
    }
  ]
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

## getTokenBalanceInputs

An array of BatchGetTokenBalanceInputItem objects whose balance is being requested.

Type: Array of [BatchGetTokenBalanceInputItem](#) objects

Array Members: Minimum number of 1 item. Maximum number of 10 items.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "errors": [
    {
      "atBlockchainInstant": {
        "time": number
      },
      "errorCode": "string",
      "errorMessage": "string",
      "errorType": "string",
      "ownerIdentifier": {
        "address": "string"
      },
      "tokenIdentifier": {
        "contractAddress": "string",
        "network": "string",
        "tokenId": "string"
      }
    }
  ],
  "tokenBalances": [
    {
      "atBlockchainInstant": {
        "time": number
      },
      "balance": "string",
      "lastUpdatedTime": {
        "time": number
      },
    }
  ]
}
```

```
    "ownerIdentifier": {
      "address": "string"
    },
    "tokenIdentifier": {
      "contractAddress": "string",
      "network": "string",
      "tokenId": "string"
    }
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### errors

An array of `BatchGetTokenBalanceErrorItem` objects returned from the request.

Type: Array of [BatchGetTokenBalanceErrorItem](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

### tokenBalances

An array of `BatchGetTokenBalanceOutputItem` objects returned by the response.

Type: Array of [BatchGetTokenBalanceOutputItem](#) objects

Array Members: Minimum number of 0 items. Maximum number of 10 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### [InternalServerErrorException](#)

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### [ResourceNotFoundException](#)

The resource was not found.

HTTP Status Code: 404

### [ServiceQuotaExceededException](#)

The service quota has been exceeded for this resource.

HTTP Status Code: 402

### [ThrottlingException](#)

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

### [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetAssetContract

Gets the information about a specific contract deployed on the blockchain.

## Note

- The Bitcoin blockchain networks do not support this operation.
- Metadata is currently only available for some ERC-20 contracts. Metadata will be available for additional contracts in the future.

## Request Syntax

```
POST /get-asset-contract HTTP/1.1
Content-type: application/json
```

```
{
  "contractIdentifier": {
    "contractAddress": "string",
    "network": "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### contractIdentifier

Contains the blockchain address and network information about the contract.

Type: [ContractIdentifier](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "contractIdentifier": {
    "contractAddress": "string",
    "network": "string"
  },
  "deployerAddress": "string",
  "metadata": {
    "decimals": number,
    "name": "string",
    "symbol": "string"
  },
  "tokenStandard": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### [contractIdentifier](#)

Contains the blockchain address and network information about the contract.

Type: [ContractIdentifier](#) object

### [deployerAddress](#)

The address of the deployer of contract.

Type: String

Pattern: [-A-Za-z0-9]{13,74}

### [metadata](#)

The metadata of the contract.

Type: [ContractMetadata](#) object



## tokenStandard

The token standard of the contract requested.

Type: String

Valid Values: ERC20 | ERC721 | ERC1155

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### InternalServerError

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### ResourceNotFoundException

The resource was not found.

HTTP Status Code: 404

### ServiceQuotaExceededException

The service quota has been exceeded for this resource.

HTTP Status Code: 402

### ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

## [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTokenBalance

Gets the balance of a specific token, including native tokens, for a given address (wallet or contract) on the blockchain.

## Note

Only the native tokens BTC and ETH, and the ERC-20, ERC-721, and ERC 1155 token standards are supported.

## Request Syntax

```
POST /get-token-balance HTTP/1.1
Content-type: application/json
```

```
{
  "atBlockchainInstant": {
    "time": number
  },
  "ownerIdentifier": {
    "address": "string"
  },
  "tokenIdentifier": {
    "contractAddress": "string",
    "network": "string",
    "tokenId": "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

## atBlockchainInstant

The time for when the TokenBalance is requested or the current time if a time is not provided in the request.

### Note

This time will only be recorded up to the second.

Type: [BlockchainInstant](#) object

Required: No

## ownerIdentifier

The container for the identifier for the owner.

Type: [OwnerIdentifier](#) object

Required: Yes

## tokenIdentifier

The container for the identifier for the token, including the unique token ID and its blockchain network.

Type: [TokenIdentifier](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json
```

```
{
  "atBlockchainInstant": {
    "time": number
  },
  "balance": "string",
  "lastUpdatedTime": {
```

```
    "time": number
  },
  "ownerIdentifier": {
    "address": "string"
  },
  "tokenIdentifier": {
    "contractAddress": "string",
    "network": "string",
    "tokenId": "string"
  }
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### atBlockchainInstant

The container for time.

Type: [BlockchainInstant](#) object

### balance

The container for the token balance.

Type: String

### lastUpdatedTime

The container for time.

Type: [BlockchainInstant](#) object

### ownerIdentifier

The container for the owner identifier.

Type: [OwnerIdentifier](#) object

### tokenIdentifier

The container for the identifier for the token including the unique token ID and its blockchain network.

**Note**

Only the native tokens BTC and ETH, and the ERC-20, ERC-721, and ERC 1155 token standards are supported.

Type: [TokenIdentifier](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### [AccessDeniedException](#)

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### [InternalServerException](#)

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### [ResourceNotFoundException](#)

The resource was not found.

HTTP Status Code: 404

### [ServiceQuotaExceededException](#)

The service quota has been exceeded for this resource.

HTTP Status Code: 402

### [ThrottlingException](#)

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

## [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetTransaction

Gets the details of a transaction.

## Note

This action will return transaction details for all transactions that are *confirmed* on the blockchain, even if they have not reached [finality](#).

## Request Syntax

```
POST /get-transaction HTTP/1.1
Content-type: application/json

{
  "network": "string",
  "transactionHash": "string",
  "transactionId": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### network

The blockchain network where the transaction occurred.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes



## transactionHash

The hash of a transaction. It is generated when a transaction is created.

Type: String

Pattern: (0x[A-Fa-f0-9]{64}|[A-Fa-f0-9]{64})

Required: No

## transactionId

The identifier of a Bitcoin transaction. It is generated when a transaction is created.

### Note

transactionId is only supported on the Bitcoin networks.

Type: String

Pattern: (0x[A-Fa-f0-9]{64}|[A-Fa-f0-9]{64})

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "transaction": {
    "blockHash": "string",
    "blockNumber": "string",
    "confirmationStatus": "string",
    "contractAddress": "string",
    "cumulativeGasUsed": "string",
    "effectiveGasPrice": "string",
    "executionStatus": "string",
    "from": "string",
    "gasUsed": "string",
    "network": "string",
```

```
"numberOfTransactions": number,
"signatureR": "string",
"signatureS": "string",
"signatureV": number,
"to": "string",
"transactionFee": "string",
"transactionHash": "string",
"transactionId": "string",
"transactionIndex": number,
"transactionTimestamp": number
}
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### transaction

Contains the details of the transaction.

Type: [Transaction](#) object

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### InternalServerError

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### ResourceNotFoundException

The resource was not found.

HTTP Status Code: 404

### [ServiceQuotaExceededException](#)

The service quota has been exceeded for this resource.

HTTP Status Code: 402

### [ThrottlingException](#)

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

### [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListAssetContracts

Lists all the contracts for a given contract type deployed by an address (either a contract address or a wallet address).

The Bitcoin blockchain networks do not support this operation.

## Request Syntax

```
POST /list-asset-contracts HTTP/1.1
Content-type: application/json

{
  "contractFilter": {
    "deployerAddress": "string",
    "network": "string",
    "tokenStandard": "string"
  },
  "maxResults": number,
  "nextToken": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### contractFilter

Contains the filter parameter for the request.

Type: [ContractFilter](#) object

Required: Yes

### maxResults

The maximum number of contracts to list.

Default: 100

**Note**

Even if additional results can be retrieved, the request can return less results than `maxResults` or an empty array of results.

To retrieve the next set of results, make another request with the returned `nextToken` value. The value of `nextToken` is `null` when there are no more results to return

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 250.

Required: No

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "contracts": [
    {
      "contractIdentifier": {
        "contractAddress": "string",
        "network": "string"
      },
      "deployerAddress": "string",
      "tokenStandard": "string"
    }
  ],
}
```

```
"nextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### contracts

An array of contract objects that contain the properties for each contract.

Type: Array of [AssetContract](#) objects

Array Members: Minimum number of 0 items. Maximum number of 250 items.

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### InternalServerError

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### ServiceQuotaExceededException

The service quota has been exceeded for this resource.

HTTP Status Code: 402

### [ThrottlingException](#)

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

### [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListFilteredTransactionEvents

Lists all the transaction events for an address on the blockchain.

## Note

This operation is only supported on the Bitcoin networks.

## Request Syntax

```
POST /list-filtered-transaction-events HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "addressIdentifierFilter": {
    "transactionEventToAddress": [ "string" ]
  },
  "confirmationStatusFilter": {
    "include": [ "string" ]
  },
  "maxResults": number,
  "network": "string",
  "nextToken": "string",
  "sort": {
    "sortBy": "string",
    "sortOrder": "string"
  },
  "timeFilter": {
    "from": {
      "time": number
    },
    "to": {
      "time": number
    }
  },
  "voutFilter": {
    "voutSpent": boolean
  }
}
```



## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### addressIdentifierFilter

This is the unique public address on the blockchain for which the transaction events are being requested.

Type: [AddressIdentifierFilter](#) object

Required: Yes

### confirmationStatusFilter

The container for the `ConfirmationStatusFilter` that filters for the *finality* of the results.

Type: [ConfirmationStatusFilter](#) object

Required: No

### maxResults

The maximum number of transaction events to list.

Default: 100

#### Note

Even if additional results can be retrieved, the request can return less results than `maxResults` or an empty array of results.

To retrieve the next set of results, make another request with the returned `nextToken` value. The value of `nextToken` is `null` when there are no more results to return

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 250.

Required: No

### network

The blockchain network where the transaction occurred.

Valid Values: BITCOIN\_MAINNET | BITCOIN\_TESTNET

Type: String

Required: Yes

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

Required: No

### sort

The order by which the results will be sorted.

Type: [ListFilteredTransactionEventsSort](#) object

Required: No

### timeFilter

This container specifies the time frame for the transaction events returned in the response.

Type: [TimeFilter](#) object

Required: No

### voutFilter

This container specifies filtering attributes related to BITCOIN\_VOUT event types

Type: [VoutFilter](#) object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "events": [
    {
      "blockchainInstant": {
        "time": number
      },
      "confirmationStatus": "string",
      "contractAddress": "string",
      "eventType": "string",
      "from": "string",
      "network": "string",
      "spentVoutIndex": number,
      "spentVoutTransactionHash": "string",
      "spentVoutTransactionId": "string",
      "to": "string",
      "tokenId": "string",
      "transactionHash": "string",
      "transactionId": "string",
      "value": "string",
      "voutIndex": number,
      "voutSpent": boolean
    }
  ],
  "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### events

The transaction events returned by the request.

Type: Array of [TransactionEvent](#) objects

Array Members: Minimum number of 0 items. Maximum number of 250 items.

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### InternalServerErrorException

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### ServiceQuotaExceededException

The service quota has been exceeded for this resource.

HTTP Status Code: 402

### ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

### ValidationException

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTokenBalances

This action returns the following for a given blockchain network:

- Lists all token balances owned by an address (either a contract address or a wallet address).
- Lists all token balances for all tokens created by a contract.
- Lists all token balances for a given token.

## Note

You must always specify the network property of the `tokenFilter` when using this operation.

## Request Syntax

```
POST /list-token-balances HTTP/1.1
```

```
Content-type: application/json
```

```
{
  "maxResults": number,
  "nextToken": "string",
  "ownerFilter": {
    "address": "string"
  },
  "tokenFilter": {
    "contractAddress": "string",
    "network": "string",
    "tokenId": "string"
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

## maxResults

The maximum number of token balances to return.

Default: 100

### Note

Even if additional results can be retrieved, the request can return less results than `maxResults` or an empty array of results.

To retrieve the next set of results, make another request with the returned `nextToken` value. The value of `nextToken` is `null` when there are no more results to return

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 250.

Required: No

## nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

Required: No

## ownerFilter

The contract or wallet address on the blockchain network by which to filter the request. You must specify the `address` property of the `ownerFilter` when listing balances of tokens owned by the address.

Type: [OwnerFilter](#) object

Required: No

## tokenFilter

The contract address or a token identifier on the blockchain network by which to filter the request. You must specify the `contractAddress` property of this container when listing tokens minted by a contract.

**Note**

You must always specify the network property of this container when using this operation.

Type: [TokenFilter](#) object

Required: Yes

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "tokenBalances": [
    {
      "atBlockchainInstant": {
        "time": number
      },
      "balance": "string",
      "lastUpdatedTime": {
        "time": number
      },
      "ownerIdentifier": {
        "address": "string"
      },
      "tokenIdentifier": {
        "contractAddress": "string",
        "network": "string",
        "tokenId": "string"
      }
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.



The following data is returned in JSON format by the service.

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

### tokenBalances

An array of TokenBalance objects. Each object contains details about the token balance.

Type: Array of [TokenBalance](#) objects

Array Members: Minimum number of 0 items. Maximum number of 250 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### InternalServerError

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### ServiceQuotaExceededException

The service quota has been exceeded for this resource.

HTTP Status Code: 402

### ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

### [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTransactionEvents

Lists all the transaction events for a transaction

## Note

This action will return transaction details for all transactions that are *confirmed* on the blockchain, even if they have not reached [finality](#).

## Request Syntax

```
POST /list-transaction-events HTTP/1.1
Content-type: application/json
```

```
{
  "maxResults": number,
  "network": "string",
  "nextToken": "string",
  "transactionHash": "string",
  "transactionId": "string"
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### [maxResults](#)

The maximum number of transaction events to list.

Default: 100

## Note

Even if additional results can be retrieved, the request can return less results than `maxResults` or an empty array of results.

To retrieve the next set of results, make another request with the returned `nextToken` value. The value of `nextToken` is `null` when there are no more results to return

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 250.

Required: No

### network

The blockchain network where the transaction events occurred.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

Required: No

### transactionHash

The hash of a transaction. It is generated when a transaction is created.

Type: String

Pattern: (0x[A-Fa-f0-9]{64} | [A-Fa-f0-9]{64})

Required: No

### transactionId

The identifier of a Bitcoin transaction. It is generated when a transaction is created.

**Note**

transactionId is only supported on the Bitcoin networks.

Type: String

Pattern: (0x[A-Fa-f0-9]{64}|[A-Fa-f0-9]{64})

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "events": [
    {
      "blockchainInstant": {
        "time": number
      },
      "confirmationStatus": "string",
      "contractAddress": "string",
      "eventType": "string",
      "from": "string",
      "network": "string",
      "spentVoutIndex": number,
      "spentVoutTransactionHash": "string",
      "spentVoutTransactionId": "string",
      "to": "string",
      "tokenId": "string",
      "transactionHash": "string",
      "transactionId": "string",
      "value": "string",
      "voutIndex": number,
      "voutSpent": boolean
    }
  ],
  "nextToken": "string"
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### events

An array of `TransactionEvent` objects. Each object contains details about the transaction events.

Type: Array of [TransactionEvent](#) objects

Array Members: Minimum number of 0 items. Maximum number of 250 items.

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### InternalServerErrorException

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

### ServiceQuotaExceededException

The service quota has been exceeded for this resource.

HTTP Status Code: 402

## [ThrottlingException](#)

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

## [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTransactions

Lists all the transaction events for a transaction.

## Request Syntax

```
POST /list-transactions HTTP/1.1
Content-type: application/json
```

```
{
  "address": "string",
  "confirmationStatusFilter": {
    "include": [ "string" ]
  },
  "fromBlockchainInstant": {
    "time": number
  },
  "maxResults": number,
  "network": "string",
  "nextToken": "string",
  "sort": {
    "sortBy": "string",
    "sortOrder": "string"
  },
  "toBlockchainInstant": {
    "time": number
  }
}
```

## URI Request Parameters

The request does not use any URI parameters.

## Request Body

The request accepts the following data in JSON format.

### address

The address (either a contract or wallet), whose transactions are being requested.

Type: String



Pattern: [-A-Za-z0-9]{13,74}

Required: Yes

### confirmationStatusFilter

This filter is used to include transactions in the response that haven't reached [finality](#). Transactions that have reached finality are always part of the response.

Type: [ConfirmationStatusFilter](#) object

Required: No

### fromBlockchainInstant

The container for time.

Type: [BlockchainInstant](#) object

Required: No

### maxResults

The maximum number of transactions to list.

Default: 100

#### Note

Even if additional results can be retrieved, the request can return less results than `maxResults` or an empty array of results.

To retrieve the next set of results, make another request with the returned `nextToken` value. The value of `nextToken` is `null` when there are no more results to return

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 250.

Required: No

### network

The blockchain network where the transactions occurred.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

Required: No

### sort

The order by which the results will be sorted.

Type: [ListTransactionsSort](#) object

Required: No

### toBlockchainInstant

The container for time.

Type: [BlockchainInstant](#) object

Required: No

## Response Syntax

```
HTTP/1.1 200
Content-type: application/json

{
  "nextToken": "string",
  "transactions": [
    {
      "confirmationStatus": "string",
      "network": "string",
```

```
    "transactionHash": "string",
    "transactionId": "string",
    "transactionTimestamp": number
  }
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### nextToken

The pagination token that indicates the next set of results to retrieve.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 131070.

### transactions

The array of transactions returned by the request.

Type: Array of [TransactionOutputItem](#) objects

Array Members: Minimum number of 0 items. Maximum number of 250 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code: 403

### InternalServerError

The request processing has failed because of an internal error in the service.

HTTP Status Code: 500

## [ServiceQuotaExceededException](#)

The service quota has been exceeded for this resource.

HTTP Status Code: 402

## [ThrottlingException](#)

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code: 429

## [ValidationException](#)

The resource passed is invalid.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# Data Types

The Amazon Managed Blockchain Query API contains several data types that various actions use. This section describes each data type in detail.

## Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [AddressIdentifierFilter](#)
- [AssetContract](#)
- [BatchGetTokenBalanceErrorItem](#)
- [BatchGetTokenBalanceInputItem](#)
- [BatchGetTokenBalanceOutputItem](#)
- [BlockchainInstant](#)
- [ConfirmationStatusFilter](#)
- [ContractFilter](#)
- [ContractIdentifier](#)
- [ContractMetadata](#)
- [ListFilteredTransactionEventsSort](#)
- [ListTransactionsSort](#)
- [OwnerFilter](#)
- [OwnerIdentifier](#)
- [TimeFilter](#)
- [TokenBalance](#)
- [TokenFilter](#)
- [TokenIdentifier](#)
- [Transaction](#)
- [TransactionEvent](#)

- [TransactionOutputItem](#)
- [ValidationExceptionField](#)
- [VoutFilter](#)

# AddressIdentifierFilter

This is the container for the unique public address on the blockchain.

## Contents

### transactionEventToAddress

The container for the recipient address of the transaction.

Type: Array of strings

Array Members: Fixed number of 1 item.

Pattern: [-A-Za-z0-9]{13,74}

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# AssetContract

This container contains information about an contract.

## Contents

### **contractIdentifier**

The container for the contract identifier containing its blockchain network and address.

Type: [ContractIdentifier](#) object

Required: Yes

### **deployerAddress**

The address of the contract deployer.

Type: String

Pattern: [-A-Za-z0-9]{13,74}

Required: Yes

### **tokenStandard**

The token standard of the contract.

Type: String

Valid Values: ERC20 | ERC721 | ERC1155

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)





# BatchGetTokenBalanceErrorItem

Error generated from a failed BatchGetTokenBalance request.

## Contents

### errorCode

The error code associated with the error.

Type: String

Required: Yes

### errorMessage

The message associated with the error.

Type: String

Required: Yes

### errorType

The type of error.

Type: String

Valid Values: VALIDATION\_EXCEPTION | RESOURCE\_NOT\_FOUND\_EXCEPTION

Required: Yes

### atBlockchainInstant

The container for time.

Type: [BlockchainInstant](#) object

Required: No

### ownerIdentifier

The container for the owner identifier.

Type: [OwnerIdentifier](#) object

Required: No

## **tokenIdentifier**

The container for the identifier for the token including the unique token ID and its blockchain network.

### **Note**

Only the native tokens BTC and ETH, and the ERC-20, ERC-721, and ERC 1155 token standards are supported.

Type: [TokenIdentifier](#) object

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchGetTokenBalanceInputItem

The container for the input for getting a token balance.

## Contents

### ownerIdentifier

The container for the owner identifier.

Type: [OwnerIdentifier](#) object

Required: Yes

### tokenIdentifier

The container for the identifier for the token including the unique token ID and its blockchain network.

#### Note

Only the native tokens BTC and ETH, and the ERC-20, ERC-721, and ERC 1155 token standards are supported.

Type: [TokenIdentifier](#) object

Required: Yes

### atBlockchainInstant

The container for time.

Type: [BlockchainInstant](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BatchGetTokenBalanceOutputItem

The container for the properties of a token balance output.

## Contents

### atBlockchainInstant

The container for time.

Type: [BlockchainInstant](#) object

Required: Yes

### balance

The container for the token balance.

Type: String

Required: Yes

### lastUpdatedTime

The container for time.

Type: [BlockchainInstant](#) object

Required: No

### ownerIdentifier

The container for the owner identifier.

Type: [OwnerIdentifier](#) object

Required: No

### tokenIdentifier

The container for the identifier for the token including the unique token ID and its blockchain network.

**Note**

Only the native tokens BTC and ETH, and the ERC-20, ERC-721, and ERC 1155 token standards are supported.

Type: [TokenIdentifier](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# BlockchainInstant

The container for time.

## Contents

### time

The container of the Timestamp of the blockchain instant.

#### Note

This timestamp will only be recorded up to the second.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# ConfirmationStatusFilter

The container for the `ConfirmationStatusFilter` that filters for the [finality](#) of the results.

## Contents

### include

The container to determine whether to list results that have only reached [finality](#). Transactions that have reached finality are always part of the response.

Type: Array of strings

Array Members: Minimum number of 1 item.

Valid Values: FINAL | NONFINAL

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContractFilter

The contract or wallet address by which to filter the request.

## Contents

### deployerAddress

The network address of the deployer.

Type: String

Pattern: [-A-Za-z0-9]{13,74}

Required: Yes

### network

The blockchain network of the contract.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes

### tokenStandard

The container for the token standard.

Type: String

Valid Values: ERC20 | ERC721 | ERC1155

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContractIdentifier

Container for the blockchain address and network information about a contract.

## Contents

### contractAddress

Container for the blockchain address about a contract.

Type: String

Pattern: `[-A-Za-z0-9]{13,74}`

Required: Yes

### network

The blockchain network of the contract.

Type: String

Valid Values: `ETHEREUM_MAINNET | ETHEREUM_SEPOLIA_TESTNET | BITCOIN_MAINNET | BITCOIN_TESTNET`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ContractMetadata

The metadata of the contract.

## Contents

### decimals

The decimals used by the token contract.

Type: Integer

Required: No

### name

The name of the token contract.

Type: String

Required: No

### symbol

The symbol of the token contract.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ListFilteredTransactionEventsSort

Lists all the transaction events for an address on the blockchain.

## Note

This operation is only supported on the Bitcoin blockchain networks.

## Contents

### sortBy

The container for determining how the results will be sorted.

Type: String

Valid Values: blockchainInstant

Required: No

### sortOrder

The container for the *sort order* for ListFilteredTransactionEvents. The SortOrder field only accepts the values ASCENDING and DESCENDING. Not providing SortOrder will default to ASCENDING.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# ListTransactionsSort

The container for determining how the list transaction result will be sorted.

## Contents

### sortBy

Defaults to the value TRANSACTION\_TIMESTAMP.

Type: String

Valid Values: TRANSACTION\_TIMESTAMP

Required: No

### sortOrder

The container for the *sort order* for ListTransactions. The sortOrder field only accepts the values ASCENDING and DESCENDING. Not providing sortOrder will default to ASCENDING.

Type: String

Valid Values: ASCENDING | DESCENDING

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)



# OwnerFilter

The container for the owner information to filter by.

## Contents

### address

The contract or wallet address.

Type: String

Pattern: `[-A-Za-z0-9]{13,74}`

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# OwnerIdentifier

The container for the owner identifier.

## Contents

### address

The contract or wallet address for the owner.

Type: String

Pattern: [-A-Za-z0-9]{13,74}

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TimeFilter

This container is used to specify a time frame.

## Contents

### from

The container for time.

Type: [BlockchainInstant](#) object

Required: No

### to

The container for time.

Type: [BlockchainInstant](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)


# TokenBalance

The balance of the token.

## Contents

### atBlockchainInstant

The time for when the TokenBalance is requested or the current time if a time is not provided in the request.

 **Note**

This time will only be recorded up to the second.

Type: [BlockchainInstant](#) object

Required: Yes

### balance

The container of the token balance.

Type: String

Required: Yes

### lastUpdatedTime

The Timestamp of the last transaction at which the balance for the token in the wallet was updated.

Type: [BlockchainInstant](#) object

Required: No

### ownerIdentifier

The container for the identifier of the owner.

Type: [OwnerIdentifier](#) object

Required: No

## tokenIdentifier

The identifier for the token, including the unique token ID and its blockchain network.

Type: [TokenIdentifier](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TokenFilter

The container of the token filter like the contract address on a given blockchain network or a unique token identifier on a given blockchain network.

## Note

You must always specify the network property of this container when using this operation.

## Contents

### network

The blockchain network of the token.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes

### contractAddress

This is the address of the contract.

Type: String

Pattern: `[-A-Za-z0-9]{13,74}`

Required: No

### tokenId

The unique identifier of the token.

Type: String

Pattern: `[a-zA-Z0-9]{1,66}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TokenIdentifier

The container for the identifier for the token including the unique token ID and its blockchain network.

## Note

Only the native tokens BTC and ETH, and the ERC-20, ERC-721, and ERC 1155 token standards are supported.

## Contents

### network

The blockchain network of the token.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes

### contractAddress

This is the token's contract address.

Type: String

Pattern: [-A-Za-z0-9]{13,74}

Required: No

### tokenId

The unique identifier of the token.

## Note

For native tokens, use the 3 character abbreviation that best matches your token. For example, btc for Bitcoin, eth for Ether, etc. For all other token types you must specify the tokenId in the 64 character hexadecimal tokenId format.



Type: String

Pattern: [a-zA-Z0-9]{1,66}

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Transaction

There are two possible types of transactions used for this data type:

- A Bitcoin transaction is a movement of BTC from one address to another.
- An Ethereum transaction refers to an action initiated by an externally owned account, which is an account managed by a human, not a contract. For example, if Bob sends Alice 1 ETH, Bob's account must be debited and Alice's must be credited. This state-changing action occurs within a transaction.

## Contents

### network

The blockchain network where the transaction occurred.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes

### numberOfTransactions

The number of transactions in the block.

Type: Long

Required: Yes

### to

The identifier of the transaction. It is generated whenever a transaction is verified and added to the blockchain.

Type: String

Pattern: `[-A-Za-z0-9]{13,74}`

Required: Yes

## transactionHash

The hash of a transaction. It is generated when a transaction is created.

Type: String

Pattern: (0x[A-Fa-f0-9]{64} | [A-Fa-f0-9]{64})

Required: Yes

## transactionIndex

The index of the transaction within a blockchain.

Type: Long

Required: Yes

## transactionTimestamp

The Timestamp of the transaction.

Type: Timestamp

Required: Yes

## blockHash

The block hash is a unique identifier for a block. It is a fixed-size string that is calculated by using the information in the block. The block hash is used to verify the integrity of the data in the block.

Type: String

Pattern: (0x[A-Fa-f0-9]{64} | [A-Fa-f0-9]{64})

Required: No

## blockNumber

The block number in which the transaction is recorded.

Type: String

Required: No

**confirmationStatus**

Specifies whether the transaction has reached Finality.

Type: String

Valid Values: FINAL | NONFINAL

Required: No

**contractAddress**

The blockchain address for the contract.

Type: String

Pattern: [-A-Za-z0-9]{13,74}

Required: No

**cumulativeGasUsed**

The amount of gas used up to the specified point in the block.

Type: String

Required: No

**effectiveGasPrice**

The effective gas price.

Type: String

Required: No

**executionStatus**

Identifies whether the transaction has succeeded or failed.

Type: String

Valid Values: FAILED | SUCCEEDED

Required: No

**from**

The initiator of the transaction. It is either in the form a public key or a contract address.

Type: String

Pattern: `[-A-Za-z0-9]{13,74}`

Required: No

**gasUsed**

The amount of gas used for the transaction.

Type: String

Required: No

**signatureR**

The signature of the transaction. The X coordinate of a point R.

Type: String

Required: No

**signatureS**

The signature of the transaction. The Y coordinate of a point S.

Type: String

Required: No

**signatureV**

The signature of the transaction. The Z coordinate of a point V.

Type: Integer

Required: No

**transactionFee**

The transaction fee.

Type: String

Required: No

### **transactionId**

The identifier of a Bitcoin transaction. It is generated when a transaction is created.

Type: String

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransactionEvent

The container for the properties of a transaction event.

## Contents

### eventType

The type of transaction event.

Type: String

Valid Values: ERC20\_TRANSFER | ERC20\_MINT | ERC20\_BURN | ERC20\_DEPOSIT | ERC20\_WITHDRAWAL | ERC721\_TRANSFER | ERC1155\_TRANSFER | BITCOIN\_VIN | BITCOIN\_VOUT | INTERNAL\_ETH\_TRANSFER | ETH\_TRANSFER

Required: Yes

### network

The blockchain network where the transaction occurred.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET | BITCOIN\_TESTNET

Required: Yes

### transactionHash

The hash of a transaction. It is generated when a transaction is created.

Type: String

Pattern: (0x[A-Fa-f0-9]{64}|[A-Fa-f0-9]{64})

Required: Yes

### blockchainInstant

The container for time.

Type: [BlockchainInstant](#) object

Required: No

### **confirmationStatus**

This container specifies whether the transaction has reached Finality.

Type: String

Valid Values: FINAL | NONFINAL

Required: No

### **contractAddress**

The blockchain address for the contract

Type: String

Pattern: [-A-Za-z0-9]{13,74}

Required: No

### **from**

The wallet address initiating the transaction. It can either be a public key or a contract.

Type: String

Pattern: [-A-Za-z0-9]{13,74}

Required: No

### **spentVoutIndex**

The position of the spent transaction output in the output list of the *creating transaction*.

#### **Note**

This is only returned for BITCOIN\_VIN event types.

Type: Integer

Required: No



## spentVoutTransactionHash

The transactionHash that *created* the spent transaction output.

 **Note**


This is only returned for BITCOIN\_VIN event types.

Type: String

Required: No

## spentVoutTransactionId

The transactionId that *created* the spent transaction output.

 **Note**

This is only returned for BITCOIN\_VIN event types.

Type: String

Required: No

## to

The wallet address receiving the transaction. It can either be a public key or a contract.

Type: String

Pattern: `[-A-Za-z0-9]{13,74}`

Required: No

## tokenId

The unique identifier for the token involved in the transaction.

Type: String

Pattern: `[a-zA-Z0-9]{1,66}`

Required: No

### **transactionId**

The identifier of a Bitcoin transaction. It is generated when a transaction is created.

Type: String

Required: No

### **value**

The value that was transacted.

Type: String

Required: No

### **voutIndex**

The position of the transaction output in the transaction output list.

Type: Integer

Required: No

### **voutSpent**

Specifies if the transaction output is spent or unspent. This is only returned for BITCOIN\_VOUT event types.

#### **Note**

This is only returned for BITCOIN\_VOUT event types.

Type: Boolean

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TransactionOutputItem

The container of the transaction output.

## Contents

### **network**

The blockchain network where the transaction occurred.

Type: String

Valid Values: ETHEREUM\_MAINNET | ETHEREUM\_SEPOLIA\_TESTNET | BITCOIN\_MAINNET  
| BITCOIN\_TESTNET

Required: Yes

### **transactionHash**

The hash of a transaction. It is generated when a transaction is created.

Type: String

Pattern: (0x[A-Fa-f0-9]{64} | [A-Fa-f0-9]{64})

Required: Yes

### **transactionTimestamp**

The time when the transaction occurred.

Type: Timestamp

Required: Yes

### **confirmationStatus**

Specifies whether to list transactions that have not reached Finality.

Type: String

Valid Values: FINAL | NONFINAL

Required: No

## transactionId

The identifier of a Bitcoin transaction. It is generated when a transaction is created.

Type: String

Pattern:  $(0x[A-Fa-f0-9]{64} | [A-Fa-f0-9]{64})$

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ValidationExceptionField

The resource passed is invalid.

## Contents

### message

The ValidationException message.

Type: String

Required: Yes

### name

The name of the field that triggered the ValidationException.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# VoutFilter

This container specifies filtering attributes related to BITCOIN\_VOUT event types

## Contents

### voutSpent

Specifies if the transaction output is spent or unspent.

Type: Boolean

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Service-specific Errors

The Amazon Managed Blockchain Query API contains service-specific exceptions that various actions return. This section describes each exception in detail.

The following service-specific exceptions are returned:

- [AccessDeniedException](#)
- [InternalServerException](#)
- [ResourceNotFoundException](#)
- [ServiceQuotaExceededException](#)
- [ThrottlingException](#)
- [ValidationException](#)



# AccessDeniedException

The AWS account doesn't have access to this resource.

HTTP Status Code returned: 403

## Contents

### message

The container for the exception message.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for Ruby V3](#)

# InternalServerErrorException

The request processing has failed because of an internal error in the service.

HTTP Status Code returned: 500

## Contents

### message

The container for the exception message.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### Retry-After

Specifies the `retryAfterSeconds` value.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for Ruby V3](#)

# ResourceNotFoundException

The resource was not found.

HTTP Status Code returned: 404

## Contents

### message

The container for the exception message.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### resourceId

The resourceId of the resource that caused the exception.

Type: String

Required: Yes

### resourceType

The resourceType of the resource that caused the exception.

Type: String

Valid Values: collection

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for Ruby V3](#)



# ServiceQuotaExceededException

The service quota has been exceeded for this resource.

HTTP Status Code returned: 402

## Contents

### message

The container for the exception message.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### quotaCode

The container for the quotaCode.

Type: String

Required: Yes

### resourceId

The resourceId of the resource that caused the exception.

Type: String

Required: Yes

### resourceType

The resourceType of the resource that caused the exception.

Type: String

Valid Values: `collection`

Required: Yes

## **serviceCode**

The container for the `serviceCode`.

Type: String

Required: Yes

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for Ruby V3](#)

# ThrottlingException

The request or operation couldn't be performed because a service is throttling requests. The most common source of throttling errors is when you create resources that exceed your service limit for this resource type. Request a limit increase or delete unused resources, if possible.

HTTP Status Code returned: 429

## Contents

### message

The container for the exception message.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### quotaCode

The container for the quotaCode.

Type: String

Required: Yes

### serviceCode

The container for the serviceCode.

Type: String

Required: Yes

### Retry-After

The container of the retryAfterSeconds value.

Type: Integer

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for Ruby V3](#)



# ValidationException

The resource passed is invalid.

HTTP Status Code returned: 400

## Contents

### message

The container for the exception message.

Type: String

Length Constraints: Minimum length of 1.

Required: Yes

### reason

The container for the reason for the exception

Type: String

Valid Values: `unknownOperation` | `cannotParse` | `fieldValidationFailed` | `other`

Required: Yes

### fieldList

The container for the `fieldList` of the exception.

Type: Array of [ValidationExceptionField](#) objects

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for Ruby V3](#)

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

## Action

The action to be performed.

Type: string

Required: Yes

## Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

## X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

## X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4\_request"). The value is expressed in the following format: *access\_key/YYYYMMDD/region/service/aws4\_request*.

For more information, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

### **X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see [AWS services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

### **X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

# Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

## **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 403

## **ExpiredTokenException**

The security token included in the request is expired

HTTP Status Code: 403

## **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 403

## **InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **MalformedHttpRequestException**

Problems with the request at the HTTP level, e.g. we can't decompress the body according to the decompression algorithm specified by the content-encoding.

HTTP Status Code: 400

## **NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 401

## **OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

### **RequestAbortedException**

Convenient exception that can be used when a request is aborted before a reply is sent back (e.g. client closed connection).

HTTP Status Code: 400

### **RequestEntityTooLargeException**

Problems with the request at the HTTP level. The request entity is too large.

HTTP Status Code: 413

### **RequestExpired**

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

### **RequestTimeoutException**

Problems with the request at the HTTP level. Reading the Request timed out.

HTTP Status Code: 408

### **ServiceUnavailable**

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

### **ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 400

### **UnrecognizedClientException**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

**UnknownOperationException**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 404

**ValidationError**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400