

# Client

## Transactions

### submit-query-result

Submits query result:

neutrnd tx interchainqueries submit-query-result [ query-id ]

[ result-file ] Example Register an interchain query to get delegations of delegator on remote chain:neutrnd tx interchainqueries submit-query-result result.json --from demowallet1 --gas 10000000 --gas-adjustment 1.4 --gas-prices 0.5stake --broadcast-mode block --chain-id test-1 Example content ofresult.json file:

```
{ "kv_results" :  
[ { "storage_prefix" :  
"staking", "key" :  
"MRQE7KnWf7BcUyQTX/rb+q7XJL590xQE7KnWf7BcUyQTX/rb+q7XJL590w==", "value" :  
"Ci5uZXV0cm9uMXFuazJuNG5sa3B3OXhmcW50bGFkaDc0dzZ1anR1bHduNmR3cTh6EjVuZXV0cm9udmFsb3BlcjFxbmsybjRubGtwdzI4ZnFudGxhZGg3NHc2dWp0dWx3bnFzaGVweBocNzAwMDAw!  
", "Proof" :  
{ "ops" :  
[ { "type" :  
"ics23:iavl", "key" :  
"MRQE7KnWf7BcUyQTX/rb+q7XJL590xQE7KnWf7BcUyQTX/rb+q7XJL590w==", "data" :  
"CvWDCisxFATsqdZ/sFxTJBnF+tv6rtckvn3TFATsqdZ/sFxTJBnF+tv6rtckvn3TEoUBCi5uZXV0cm9uMXFuazJuNG5sa3B3OXhmcW50bGFkaDc0dzZ1anR1bHduNmR3cTh6EjVuZXV0cm9udmFsb3BlcjFxt  
} , { "type" :  
"ics23:simple", "key" :  
"c3Rha2luZw==" , "data" :  
"Cq8BCgdzdGFraW5nEiAX2lqGKZJW473lCfGb3Wa2lotPFt1cTLN+R9aZJjs2xBoJCAEYASABKgEAliclARIBARogOqsHULjzmZkig3Kxczq2JoCMuiq6iXWpKHea7ZB9gWAIJwgBEgEBGiBp76tKiIQVkrMii  
} } } } , { "storage_prefix" :  
"staking", "key" :  
"IRQE7KnWf7BcUyQTX/rb+q7XJL590w==", "value" :  
"CjVuZXV0cm9udmFsb3BlcjFxbmsybjRubGtwdzI4ZnFudGxhZGg3NHc2dWp0dWx3bnFzaGVweBJDCh0vY29zbW9zLmNyeXB0by5lZDI1NTE5LIB1YktleRliCiA/t9hdbTKV91SkxZmBgg39qOod/0vO76wK  
", "Proof" :  
{ "ops" :  
[ { "type" :  
"ics23:iavl", "key" :  
"IRQE7KnWf7BcUyQTX/rb+q7XJL590w==", "data" :  
"CuYEChYhFATsqdZ/sFxTJBnF+tv6rtckvn3TEoICCjVuZXV0cm9udmFsb3BlcjFxbmsybjRubGtwdzI4ZnFudGxhZGg3NHc2dWp0dWx3bnFzaGVweBJDCh0vY29zbW9zLmNyeXB0by5lZDI1NTE5LIB1Yktle  
} , { "type" :  
"ics23:simple", "key" :  
"c3Rha2luZw==" , "data" :  
"Cq8BCgdzdGFraW5nEiAX2lqGKZJW473lCfGb3Wa2lotPFt1cTLN+R9aZJjs2xBoJCAEYASABKgEAliclARIBARogOqsHULjzmZkig3Kxczq2JoCMuiq6iXWpKHea7ZB9gWAIJwgBEgEBGiBp76tKiIQVkrMii  
} } } } , "height" :  
77 , "revision" :  
2 }  
}
```

## Queries

In this section we describe the queries required on grpc server.

// Query defines the gRPC querier service. service

Query

{ // returns all the registered queries in the module with filtration by owner and/or connection id rpc

RegisteredQueries ( QueryRegisteredQueriesRequest ) returns

( QueryRegisteredQueriesResponse )

{ option

( google . api . http ) . get = "/neutron/interchainqueries/interchainqueries/registered\_queries" ; }

// returns registered query by id rpc

RegisteredQuery ( QueryRegisteredQueryRequest ) returns

( QueryRegisteredQueryResponse )

{ option

( google . api . http ) . get = "/neutron/interchainqueries/interchainqueries/registered\_query" ; }

// returns query result for a particular registered interchain query by id rpc

QueryResult ( QueryRegisteredQueryResultRequest )

returns

( QueryRegisteredQueryResultResponse )

{ option

( google . api . http ) . get =

"/neutron/interchainqueries/interchainqueries/query\_result" ; }

// returns last height about which Neutron knows for the particular remote chain rpc

```
LastRemoteHeight ( QueryLastRemoteHeight )

returns

( QueryLastRemoteHeightResponse )

{ option

( google . api . http ) . get =

"/neutron/interchainqueries/interchainqueries/remote_height" ; } }
```

**registered-query**

Returns registered query by id.

neutrnd query interchainqueries registered-query [ id ] Example Returns info about registered query with id 1:neutrnd query interchainqueries registered-query 1 Output:

```
registered_query: connection_id: connection-0 id: "1" owner: "neutron14hj2tavq8fpedswxcu44rty3hh90vhujrvcmstl4zr3txmfvw9s5c2epq" last_submitted_result_local_height: "0"
last_submitted_result_remote_height: "0" transactions_filter: "{}" keys: - path: "staking" key: "MRQE7KnWf7BcUyQTX/rb+q7XJL590xQE7KnWf7BcUyQTX/rb+q7XJL590w==" query_type: kv
update_period: "1"
```

**registered-queries**

Returns all the registered queries in the module with filtration by owner and/or connection id.

```
neutrnd query interchainqueries registered-queries Example Returns all registered interchain queries in the module with connection idconnection-0 and owner
neutron14hj2tavq8fpedswxcu44rty3hh90vhujrvcmstl4zr3txmfvw9s5c2epq:neutrnd query interchainqueries registered-queries --connection-id connection-0 --owners
neutron14hj2tavq8fpedswxcu44rty3hh90vhujrvcmstl4zr3txmfvw9s5c2epq Output:
```

```
registered_queries: - connection_id: connection-0 id: "1" owner: "neutron14hj2tavq8fpedswxcu44rty3hh90vhujrvcmstl4zr3txmfvw9s5c2epq" last_submitted_result_local_height: "206"
last_submitted_result_remote_height: "203" transactions_filter: "{}" keys: - path: "staking" key: "MRQE7KnWf7BcUyQTX/rb+q7XJL590xQE7KnWf7BcUyQTX/rb+q7XJL590w==" query_type: kv
update_period: "1" - connection_id: connection-0 id: "2" owner: "neutron14hj2tavq8fpedswxcu44rty3hh90vhujrvcmstl4zr3txmfvw9s5c2epq" last_submitted_result_local_height: "199"
last_submitted_result_remote_height: "188" transactions_filter: '{"message.module": "bank"}' query_type: tx update_period: "5"
```

**query-result**

Returns KV-storage result for particular registered interchain query by id.

neutrnd query interchainqueries query-result [ query-id ] Example Returns KV-storage result for registered interchain query with id 1:neutrnd query interchainqueries query-result 1 Output:

```
result: blocks: [ ] height: "203" kv_results: - Proof: null key: MRQE7KnWf7BcUyQTX/rb+q7XJL590xQE7KnWf7BcUyQTX/rb+q7XJL590w == storage_prefix: staking value:
Ci5uZXV0cm9uMXFuazJuNG5sa3B3OXhmcW50bGFkaDc0dzZ1anR1bHduNmR3cTh6EjVuZXV0cm9udmFsb3BlcjFxbmsyb jRubGtdwzI4ZnFudGxhZGg3NHc2dWp0dWx3bnFzaGVveBocNzAwMDAwMw/
== - Proof: null key: IRQE7KnWf7BcUyQTX/rb+q7XJL590w == storage_prefix: staking value:
CjVuZXV0cm9udmFsb3BlcjFxbmsyb jRubGtdwzI4ZnFudGxhZGg3NHc2dWp0dWx3bnFzaGVveBjDCh0vY29zbW9zLmNyeXB0by5lZDI1NTE5LiB1YktleRliCiCGVlQlI4Ok0ieJqHiQcBkW42FKCSKPv+3p
= revision: "0"
```

**query-last-remote-height**

Returns last height about which Neutron knows for the particular remote chain by connection id.

```
neutrnd query interchainqueries query-last-remote-height [ connection-id ] Example Returns last height remote chain by connection idconnection-0:neutrnd query interchainqueries query-last-remote-
height connection-0 Output:
```

```
height: "29" Previous Messages Next State
```