

# Week 6 Slide

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# What I did this week

1. Inquired Iroha community about Iroha docker health check + Iroha JS library response
2. Switched to Iroha's TS library, got output from all commands/queries
3. Rewrote Cactus's connector to manipulate Iroha's TS library  
(able to pass commands and queries and get back response)
4. Tried almost all Iroha's commands+queries. (Tracking the progress with a shared Google Sheet document)
5. Redesigned test cases, pushed to Github.

```
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-trans  
action-endpoint-v1.test.ts 43 OK 1m
```



```
Suites: 1 passed, 1 of 1 completed  
Asserts: 43 passed, of 43  
Time: 1m
```

# Technical Questions

1. “The set of possible commands are fixed or is it somehow extendible”?
2. Using an interface for IrohaTransactionConfig?
3. Response definition in openjson
4. Outputs that are hard to test (See next slide)

```
28 | */
29 | export interface IrohaTransactionConfig {
30 |     [key: string]: object | any;
31 |
32 |     /**
33 |      *
34 |      * @type {string}
35 |      * @memberof IrohaTransactionConfig
36 |      */
37 |     accountName?: string;
38 |     /**
39 |      *
40 |      * @type {string}
41 |      * @memberof IrohaTransactionConfig
42 |      */
43 |     domainId?: string;
44 |     /**
45 |      *
46 |      * @type {string}
47 |      * @memberof IrohaTransactionConfig
48 |      */
49 |     publicKey?: string;
50 |     /**
```

```
endpoint-v1.test.ts 1> }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> { commandName: 'revokePermission', params: [ 'user1@test', [ 1 ] ] }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> START:: TX RESPONSE
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Error Code::: 0
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Cmd/Err Name:::
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Cmd Index::: 0
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Tx Hash::: c3f62e37e2e7609cf9b2361246dca56d782586848b2a16d3
8d997524474fcbeff
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Tx Status Name::: REJECTED
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Object::: {
```

```
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> { commandName: 'revokePermission', params: [ 'user1@test', [ 6 ] ] }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> START:: TX RESPONSE
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Error Code::: 0
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Cmd/Err Name::: Transaction deserialization failed: hash Ha
sh: [c3f23c66c55e830bf5f3e4313bd02d245eae86253c672ffa233a7973297f77e2], Protobuf Transaction:
[Child errors=[RevokePermission: [Errors=[Invalid grantable permission.]]]
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Cmd Index::: 0
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Tx Hash::: c3f23c66c55e830bf5f3e4313bd02d245eae86253c672ffa
233a7973297f77e2
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Tx Status Name::: STATELESS VALIDATION FAILED
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txResponse Object::: {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txStatus: 0,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> txHash: 'c3f23c66c55e830bf5f3e4313bd02d245eae86253c672ffa233a7973297f
77e2',
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> errOrCmdName: 'Transaction deserialization failed: hash Hash: [c3f23c
```

# Technical Questions

Output for

getAccountTransactions

```
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   commandName: 'getAccountTransactions',
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   params: [
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     'admin@test',
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     100,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     'f8a25575dbb117e392b8bc6497d2f5500904b91e3d49232ede2b429bdc6171a0'
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   ]
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   transactionReceipt: {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     transactionsList: [ [Object] ],
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     allTransactionsSize: 5,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     nextTxHash: ''
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> }
```

# Technical Questions

output

getAccount

AssetTransactions

```
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>   commandName: 'getAccountAssetTransactions',  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>   params: [  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>     'admin@test',  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>     'coolcoin#test',  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>     100,  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>     'f8a25575dbb117e392b8bc6497d2f5500904b91e3d49232ede2b429bdc6171a0'  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>   ]  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1> }  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1> {  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>   transactionReceipt: {  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>     transactionsList: [ [Object] ],  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>     allTransactionsSize: 1,  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>     nextTxHash: ''  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1>   }  
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-  
endpoint-v1.test.ts 1> }
```

# Technical Questions

output for

getTransactions

```
endpoint-v1.test.ts 1>   commandName: 'getTransactions',
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   params: [
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     [
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>       'd3f5a6af779887f2dae677ea2eeefc3f73b5a730d33dda1814f00f3e75a0e3e8
',
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     ]
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   ]
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   transactionReceipt: {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     wrappers_: { '1': [Array] },
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     messageId_: undefined,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     arrayIndexOffset_: -1,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     array: [ [Array] ],
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     pivot_: 1.7976931348623157e+308,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     convertedPrimitiveFields : {}
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> }
```

# Technical Questions

output for getRawAccount

```
endpoint-v1.test.ts 1> }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> { commandName: 'getRawAccount', params: [ 'user1@test' ] }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   transactionReceipt: {
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     wrappers_: { '1': [Object] },
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     messageId_: undefined,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     arrayIndexOffset_: -1,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     array: [ [Array], [Array] ],
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     pivot_: 1.7976931348623157e+308,
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>     convertedPrimitiveFields_: {}
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1>   }
packages/cactus-plugin-ledger-connector-iroha/src/test/typescript/integration/run-transaction-
endpoint-v1.test.ts 1> }
```



# General Question

## 1. Define what to be included/ not included in the integration?

Category	Commands (18)	In test case?	Remark	Queries		Remark
Account	createAccount	✓		getAccount	✓	
				getRawAccount	✓?	hard to test output
	setAccountDetail	?		getAccountDetail	?	how to use
	setAccountQuorum	?	always rejected			
	compareAndSetAccountDetail	?				
Asset/TX	createAsset	✓		getAssetInfo	✓	
	addAssetQuantity	✓		getAccountAssets	✓	
	subtractAssetQuantity	?	always rejected	getTransactions	✓?	hard to test output
	transferAsset	✓		getPendingTransactions	?	
				getRawPendingTransactions	?	
				getAccountTransactions	✓?	hard to test output
			getAccountAssetTransactions	✓?	hard to test output	
Domain	createDomain	✓				
Role	createRole	?	always rejected	getRoles	✓	
	detachRole	?	always rejected			
	appendRole	?	always rejected			
Signature	addSignatory	?	always rejected	getSignatories	✓	
	removeSignatory	?	always rejected			
Permission	grantPermission	?	how to use	getRolePermissions	✓	array of mappings
	revokePermission	?	how to use	getBlock	?	
				getEngineReceipts	?	
			fetchCommits	?		
<b>Ignore</b>						
Peer	addPeer	x		getPeers	x	
	removePeer	x				

# Questions for me

Critique is welcomed!

# Expectation of Coming Week (Week 7)

Thank you!