BLOCKCHAIN COMMONS

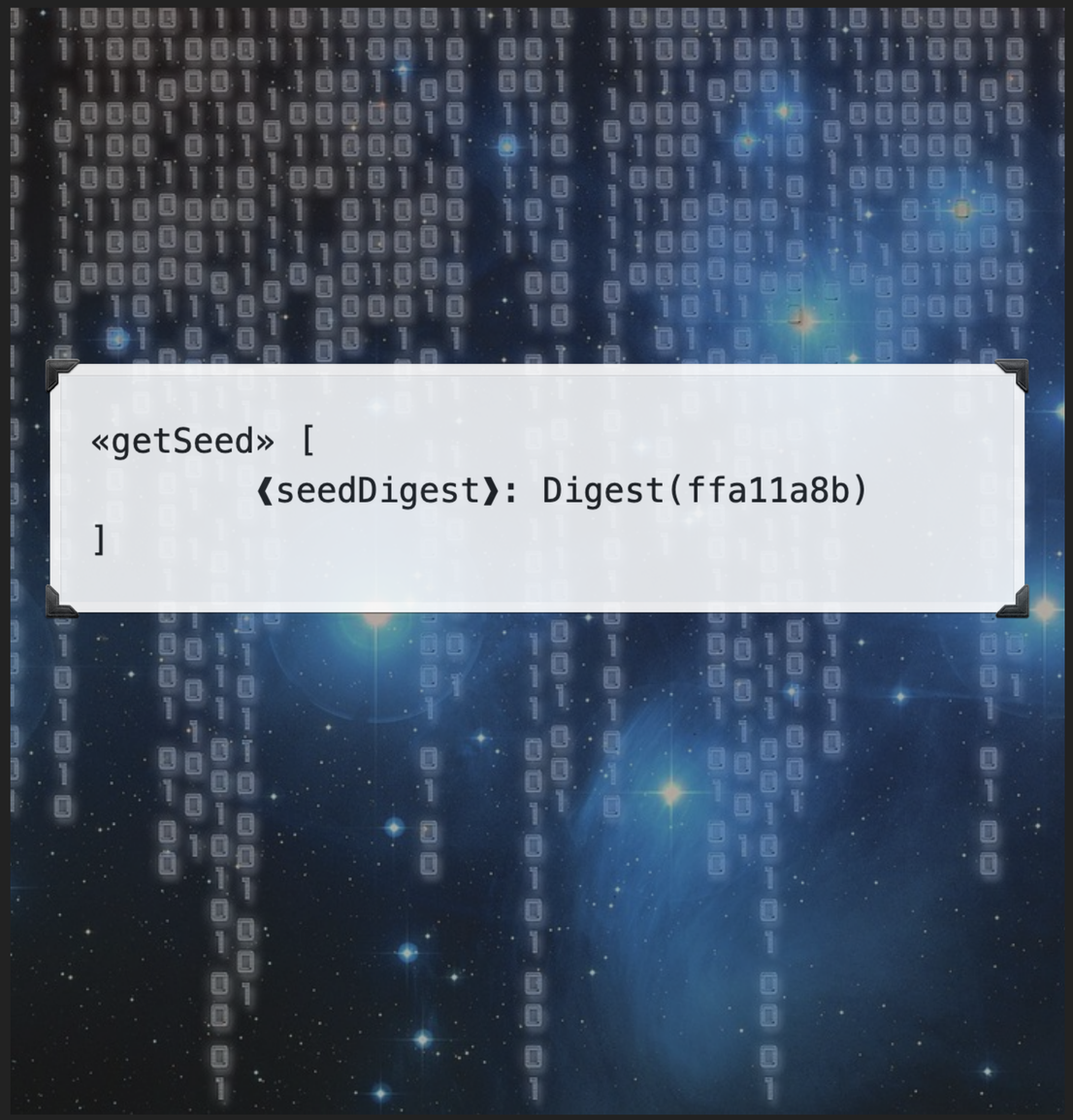
GORDIAN ENVELOPE REQUEST & RESPONSE

WHAT IS REQUEST & RESPONSE?

- Gordian Envelope Functionality
- One Device Can Request from Another
- See the Implementation Guide
  - BCR 2024-04
  - https://tinyurl.com/bcr-2024-004

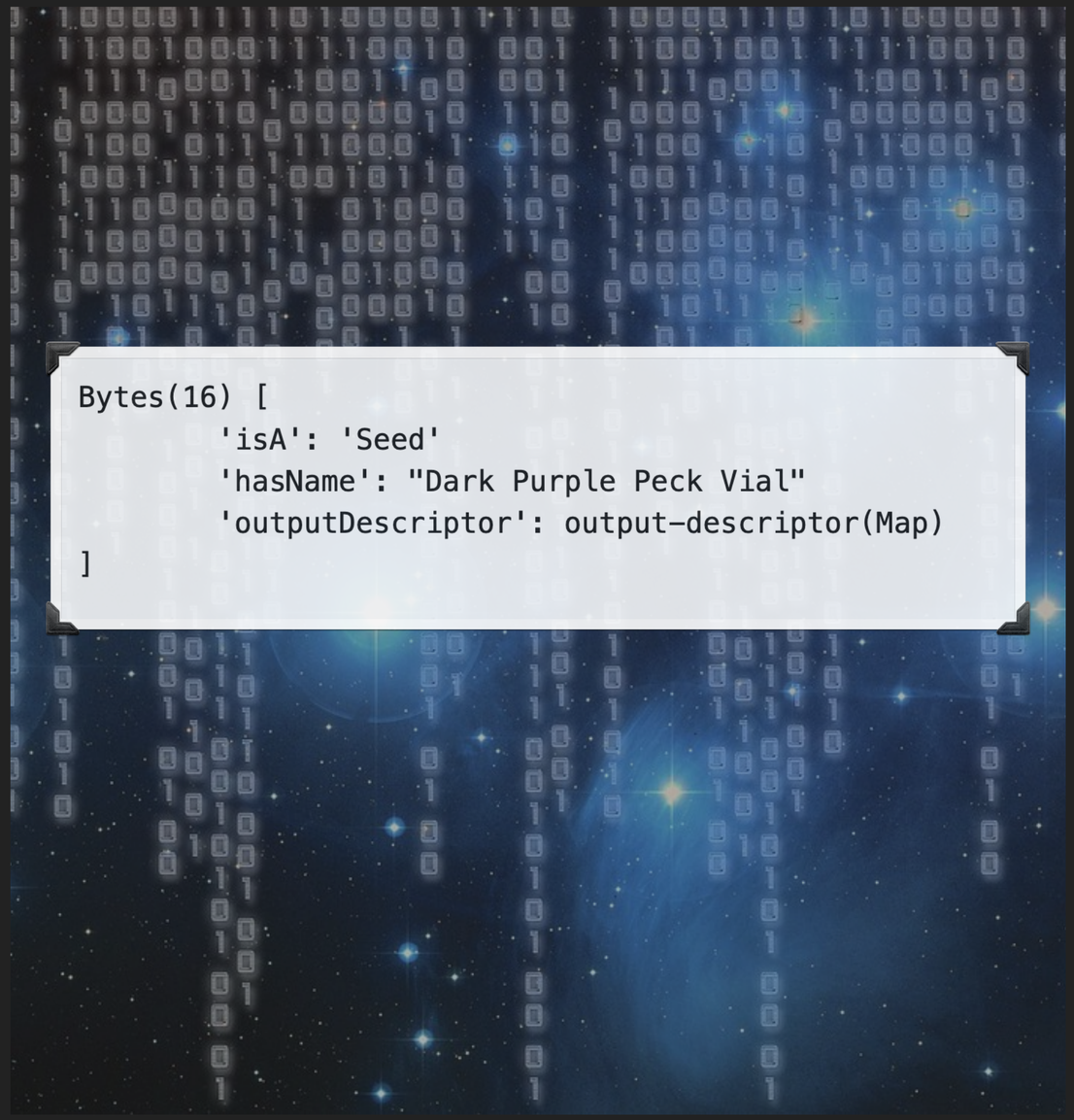
REQUESTS ARE EXPRESSIONS

- Requests are Built on Expressions
  - A Function
  - With Zero or More Parameters
  - Each of Which Has an Argument



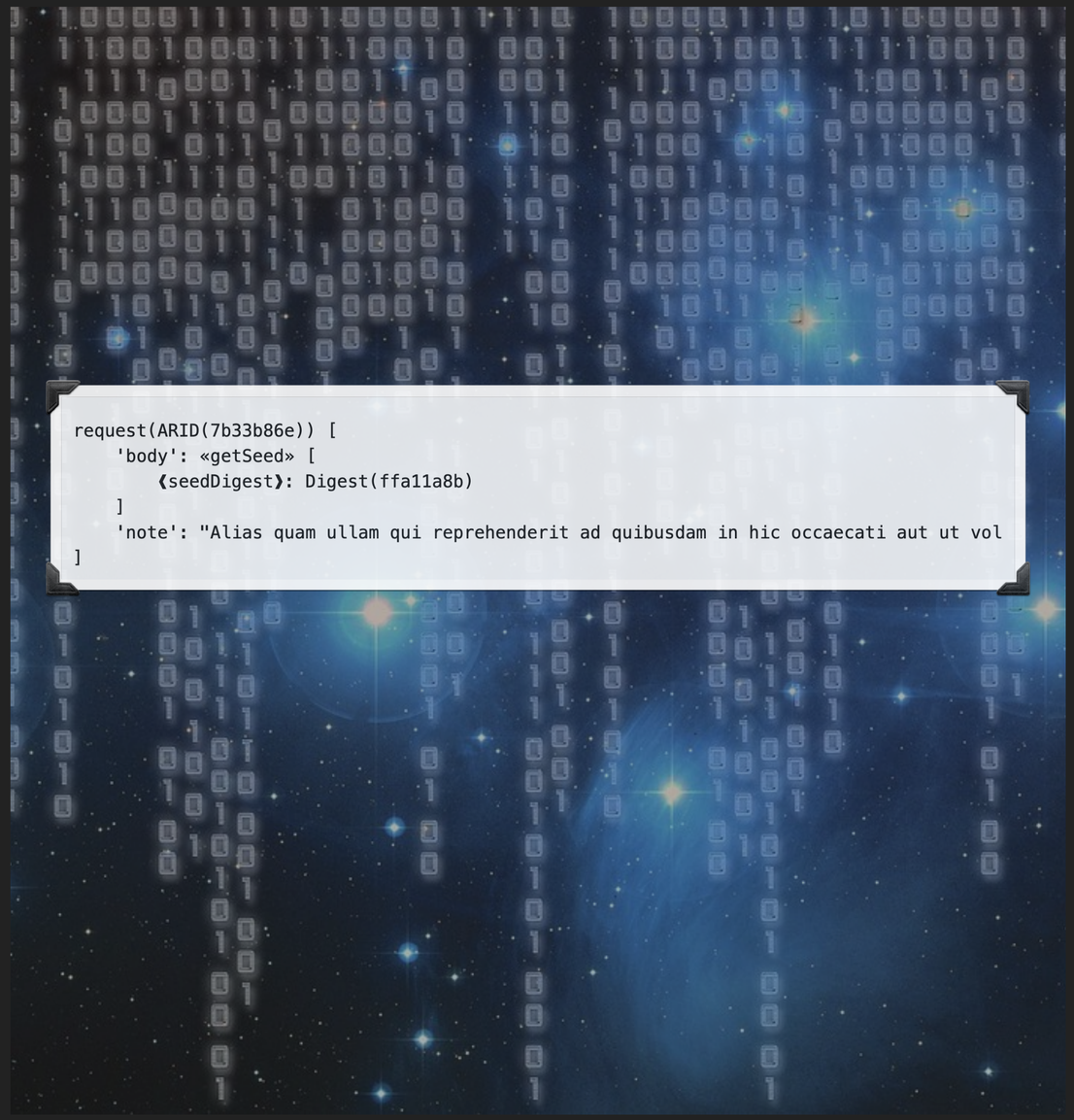
RESULTS ARE DATA

- Results Return the Requested Object
  - With a Defining `isA`
  - And Maybe Other Metadata



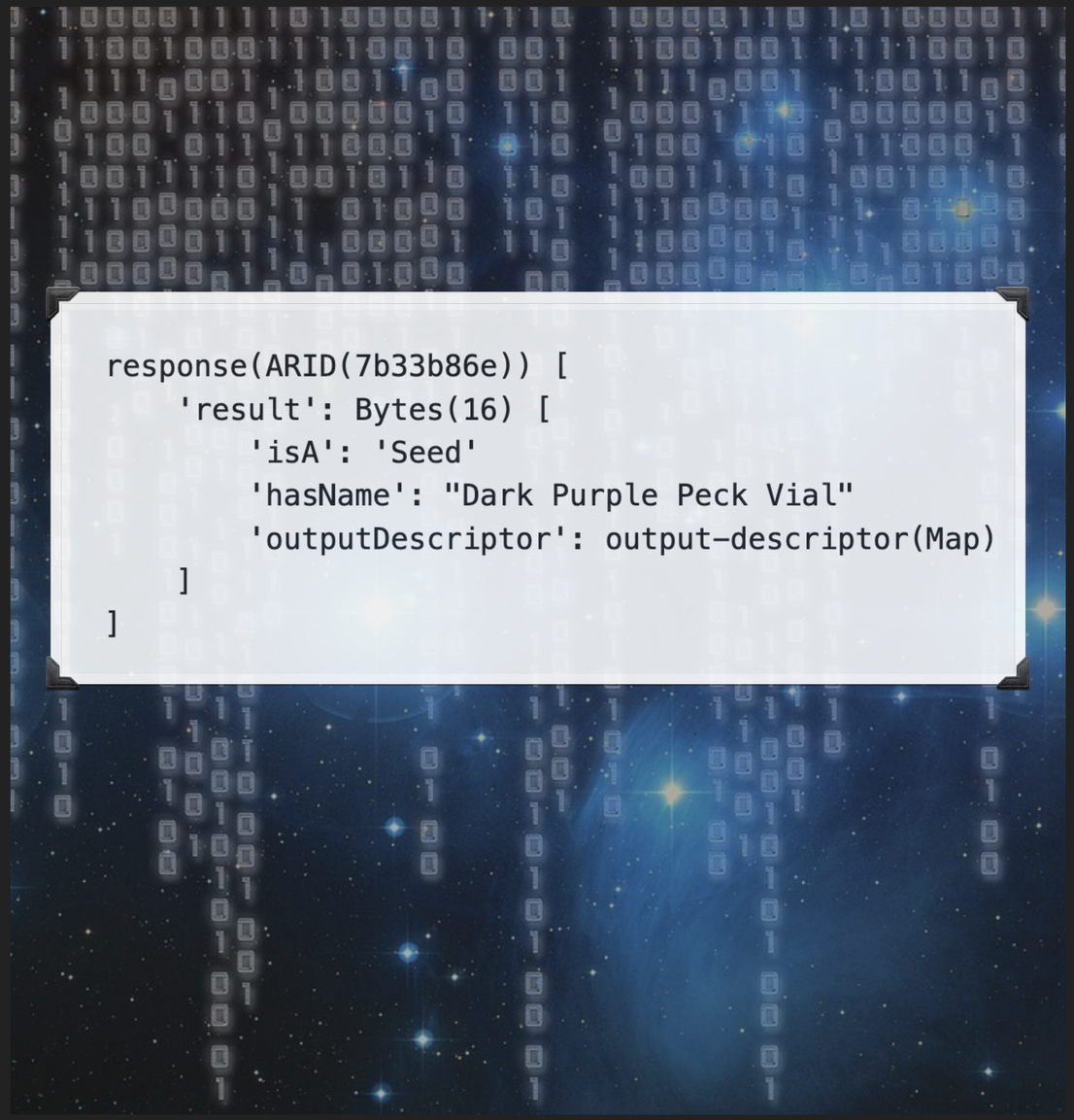
A WRAPPED REQUEST

- Expressions and Results are Wrapped
  - Marked with an ARID (Random ID)
  - Expression is `body`
  - Maybe Metadata Like a `note`
- This is How Expression & Data
  - Become a Request & Response



A WRAPPED RESPONSE

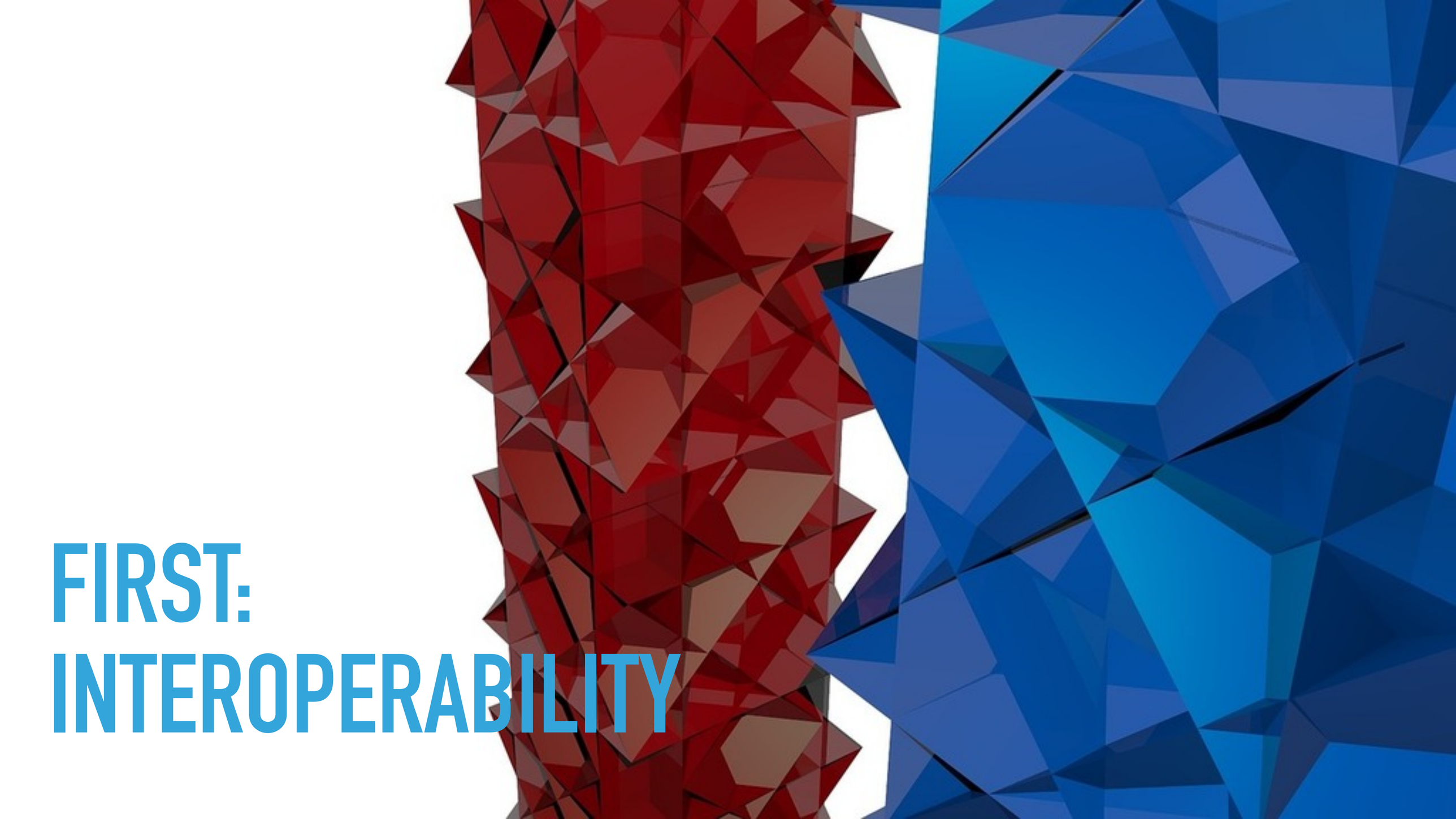
- Responses are Wrapped Too
  - The Same ARID is Used
  - Data is `result`



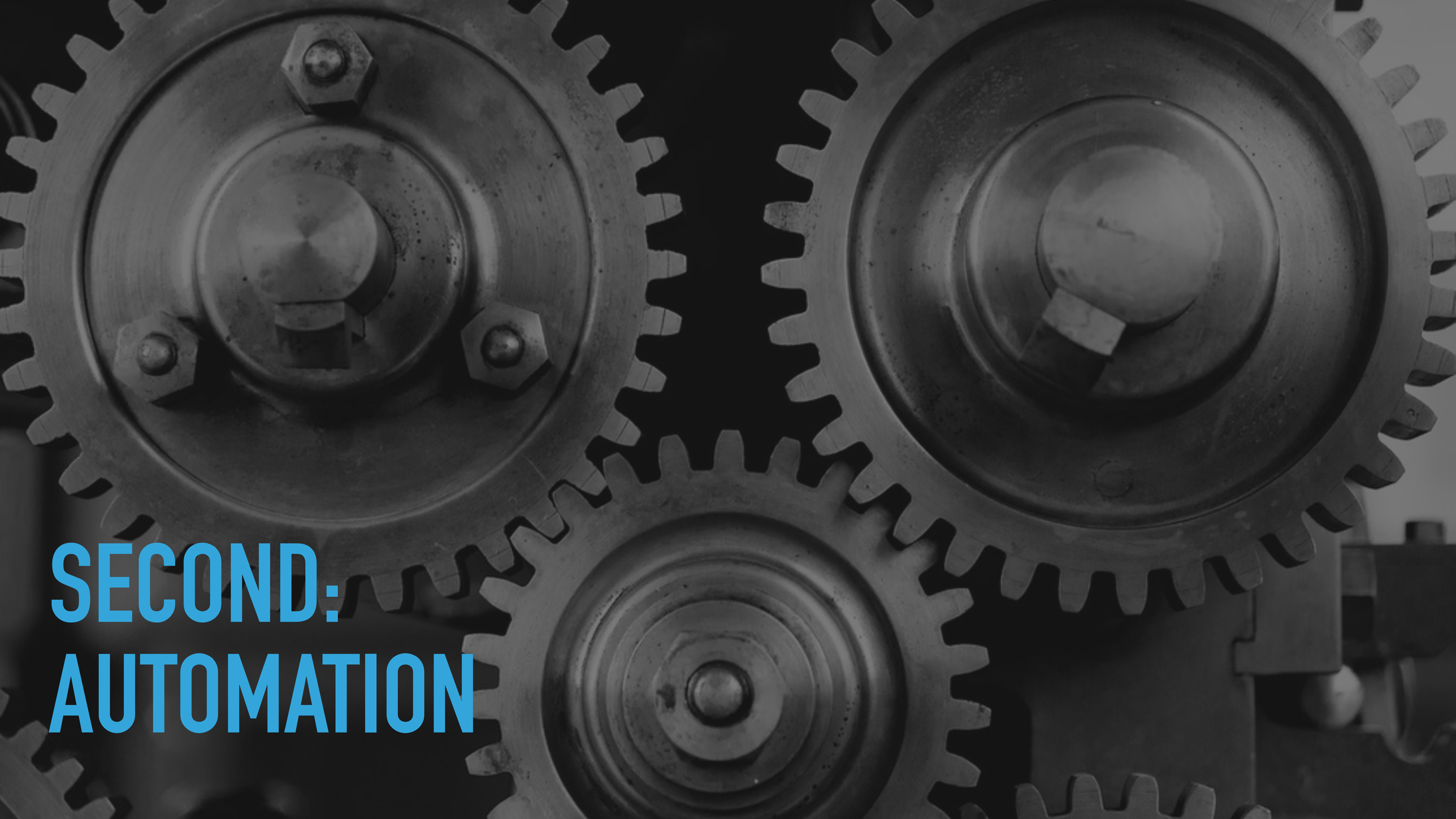
THERE ARE DETAILS

- Request/Response are Coded with CBOR tags
- `function`/`parameter` are Defined with Values
- Everything Uses Known Values
- It's All in the Implementation Guide!
  - https://tinyurl.com/bcr-2024-004


WHY WOULD YOU USE
REQUEST & RESPONSE?



FIRST: INTEROPERABILITY



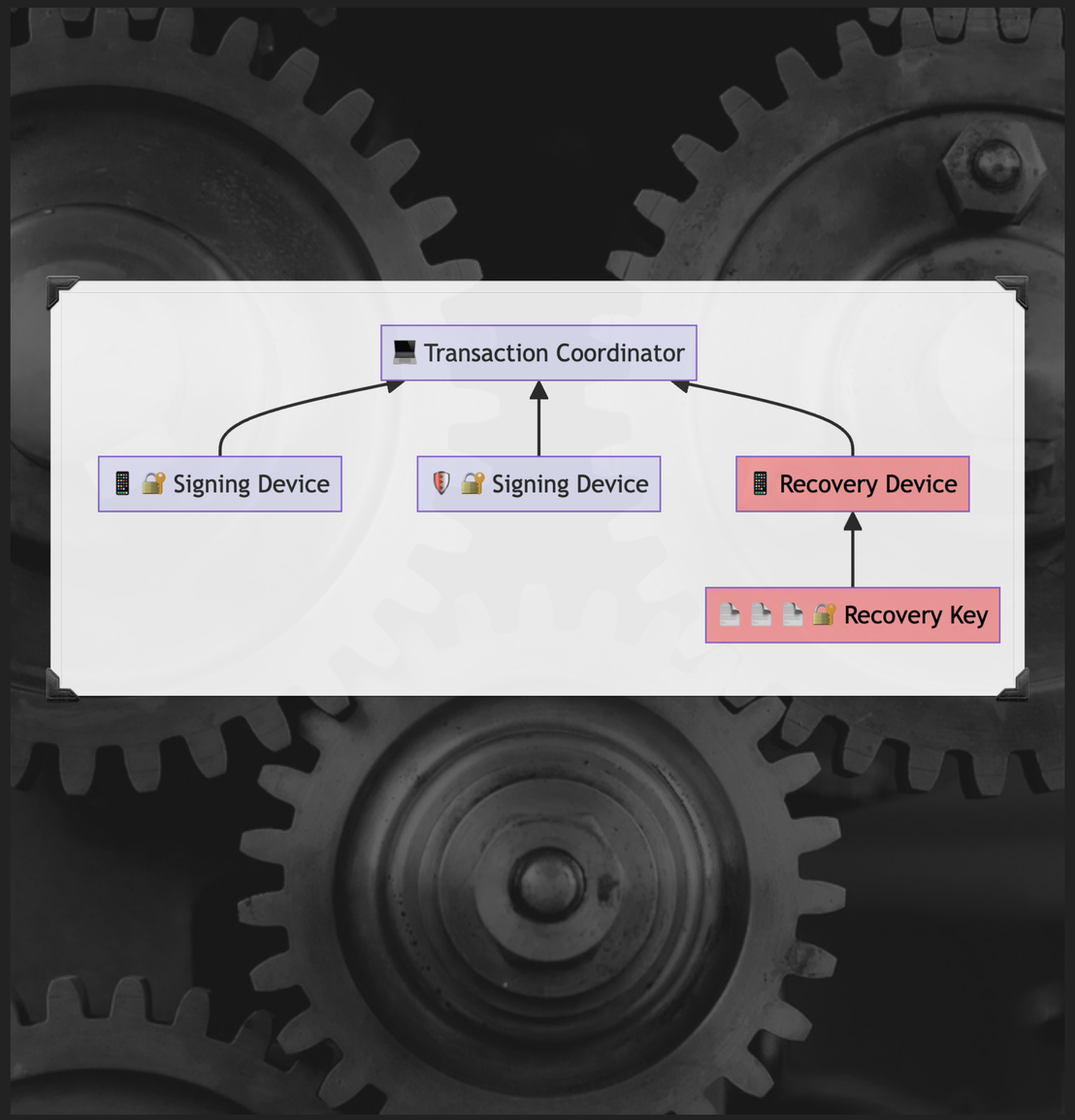
SECOND: AUTOMATION

NON-AUTOMATED COMPLEXITIES

1. Research Points (🧠)
   - User figures out how things work
2. Decision Points (💡)
   - User decides what to do
3. Human Actions (🤦🏽)
   - User pushes buttons

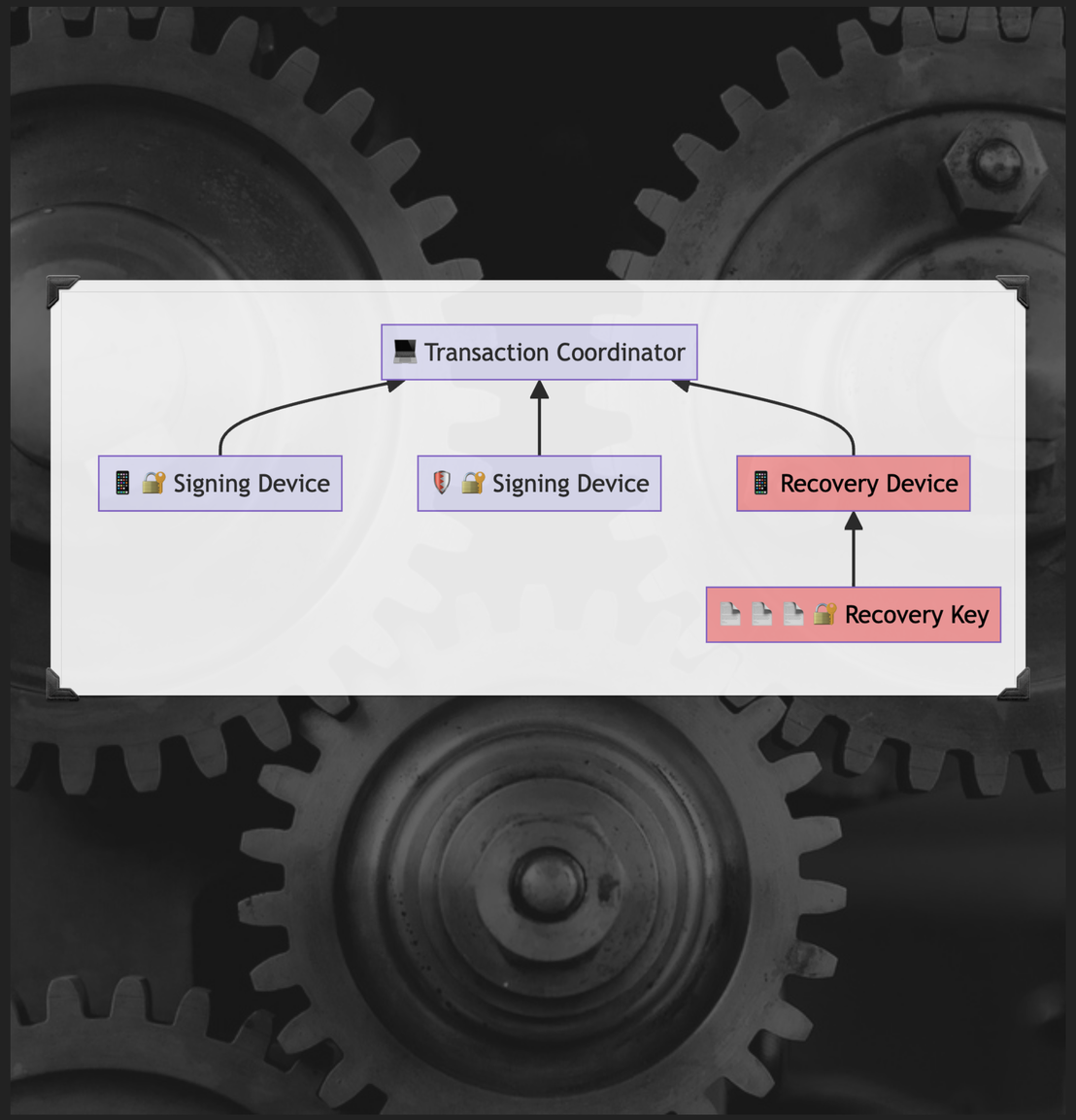
AUTOMATING TASKS

- Creating Multisigs is a Clear Use Case
  - We Want People to Use Multisigs
    - More Secure
    - No Single Points of Failure!
    - No Single Points of Compromise



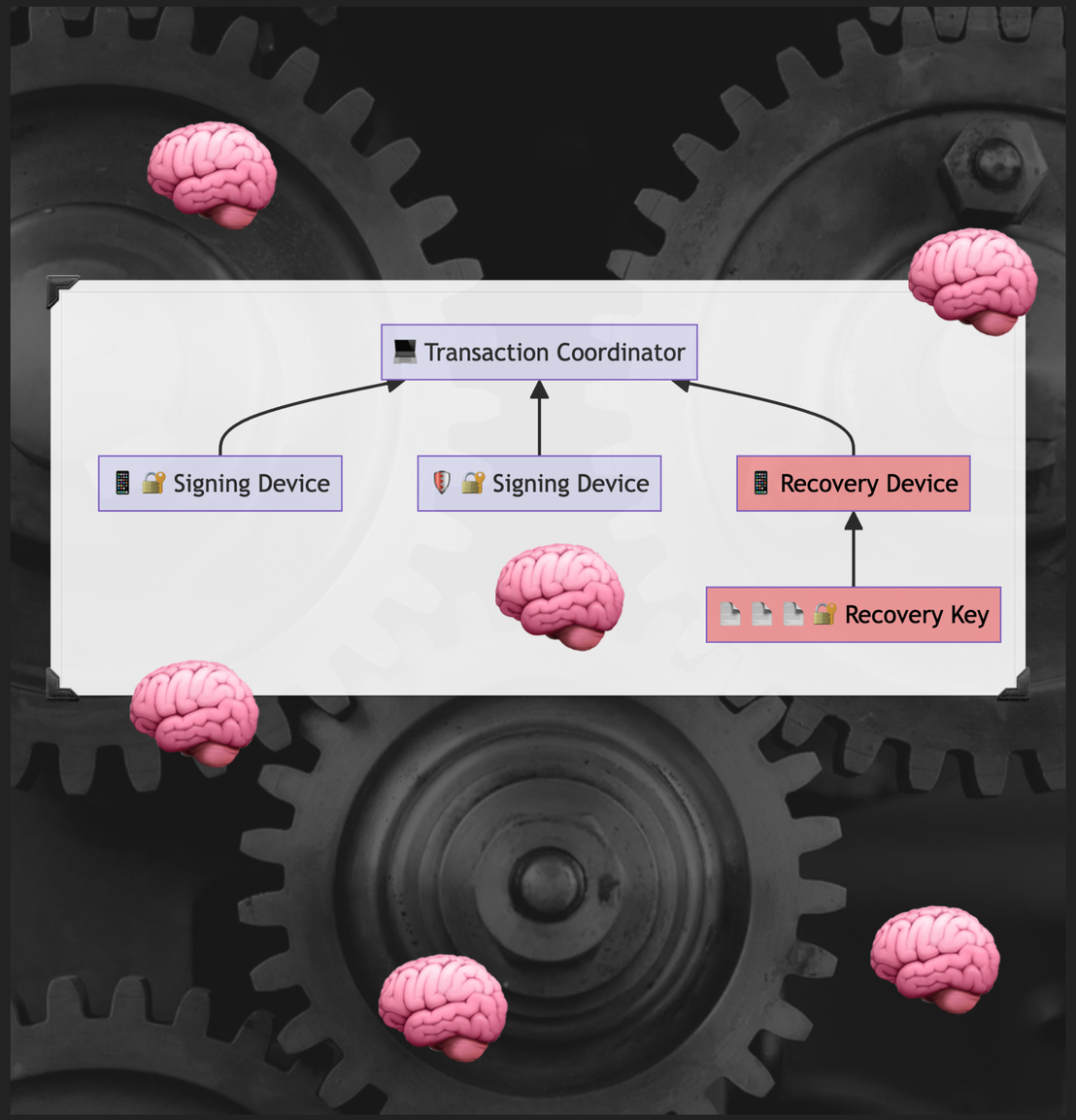
AUTOMATING MULTISIGS

- We Wrote a Whole Scenario on Creating Multisigs
  - https://tinyurl.com/multisigs
- But It's Too Complex!



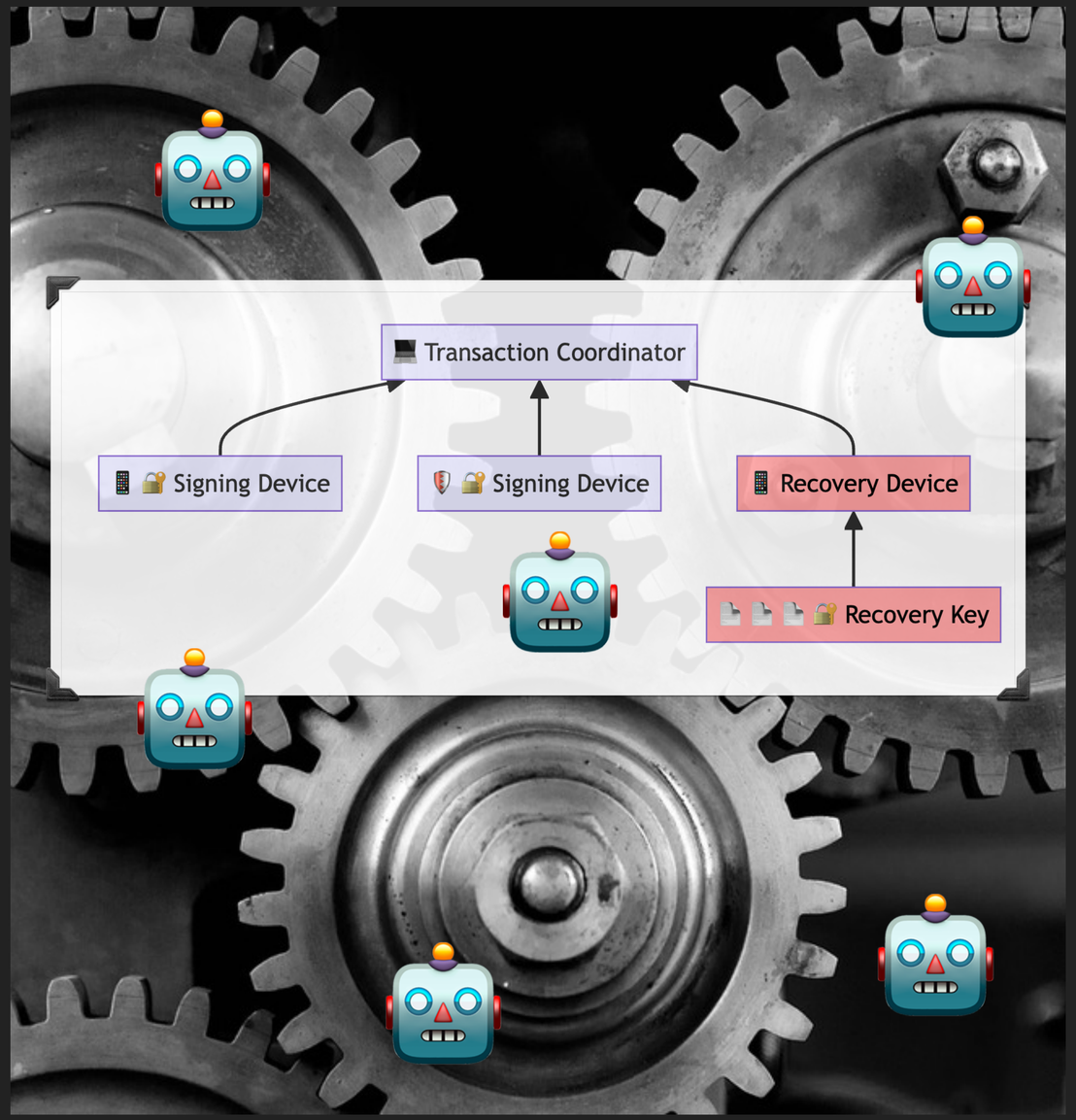
NON-AUTOMATED MULTISIG

- User Has to Know a Procedure
- User Has to Know How Devices Work
- User Is a Knowledgeable Conductor



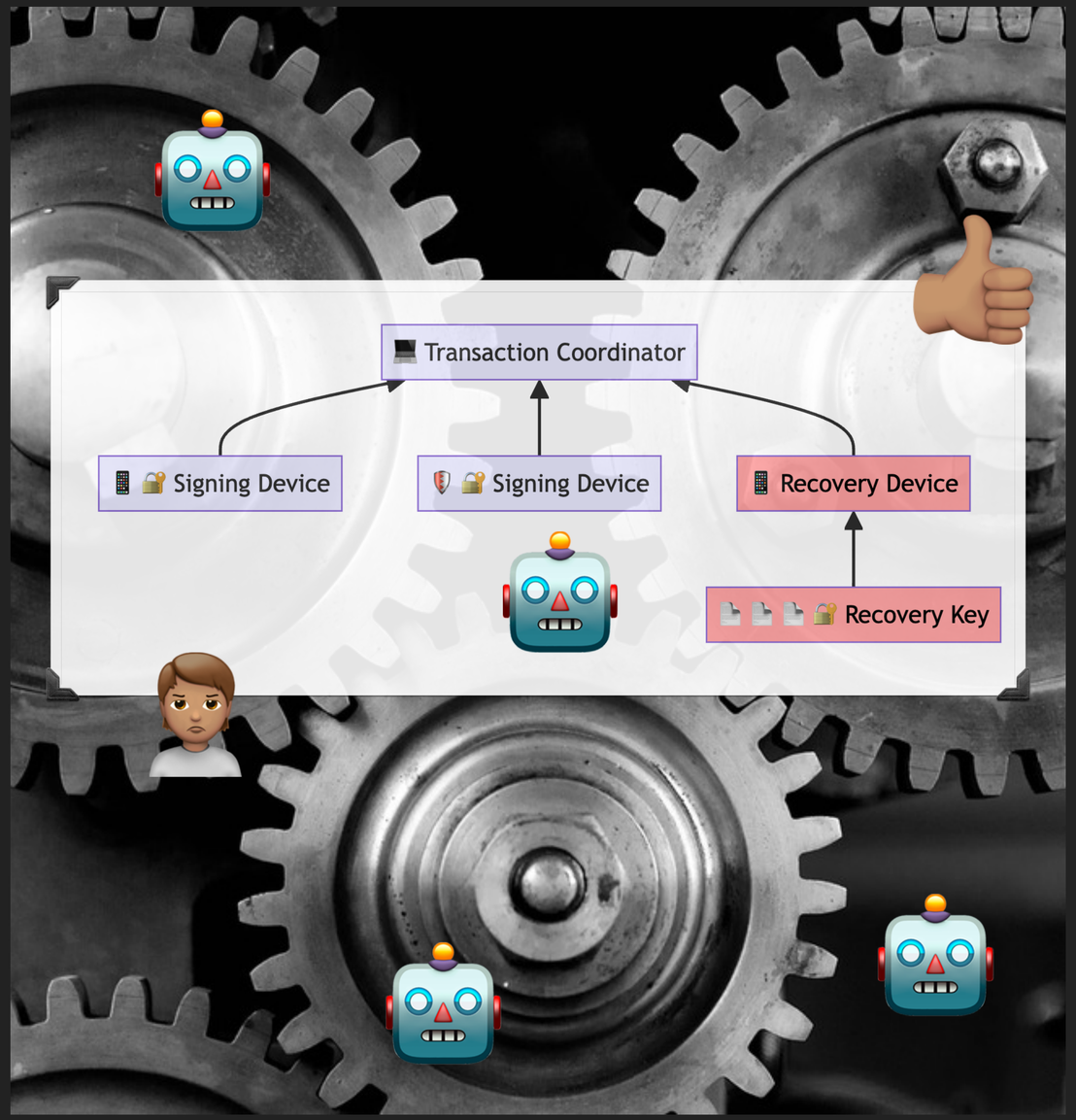
AUTOMATED MULTISIG

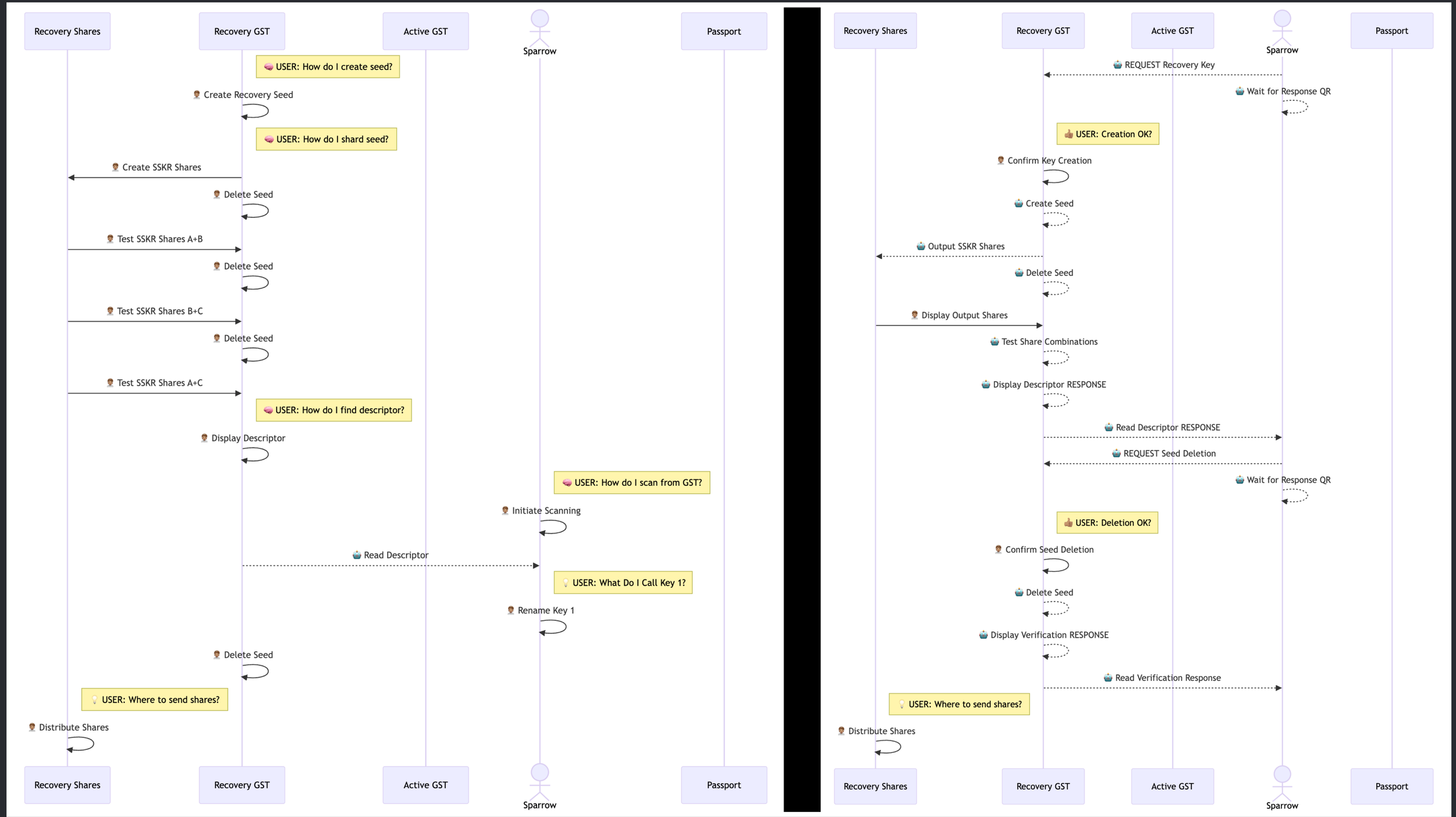
- Transaction Coordinator is Conductor
  - Centralizes Decisions
  - Tells The User What to Do
  - Communicates with Devices
    - Rather than the User Jumping Around
  - Tells the Devices What to Do
    - Rather the the User Having to Know



AUTOMATED MULTISIG WITH USER

- Transaction Coordinator is Conductor
  - But …
- The User Confirms
- The User Takes Physical Actions





TASK AUTOMATION

	Classic	R/R
Decision Points (💡)	5	2
Confirmation Points (👍🏽)	0	6
Research Points (🧠)	11	1
Human Actions (👨🏽)	31	14
Automated Actions (🤖)	5	33

TASK SIMPLIFICATION

R/R ECOSYSTEM STARTS TODAY!

- Foundation Devices is Supporting Envelope & Request/Response for an Upcoming Project

FOUNDATION

- Join Us in Creating an Automated & Interoperable Ecosystem

FOR MORE ON REQUEST & RESPONSE

- Take a Look at our Full Use Case:
  - In our Smart Custody Repo
  - https://tinyurl.com/multisigs-rr
- Implement with the Implementation Guide:
  - In our Research Repo
  - https://tinyurl.com/multisigs