

Next Generation Settlement with TigerBeetle

PI-22 Mojaloop Community Meeting

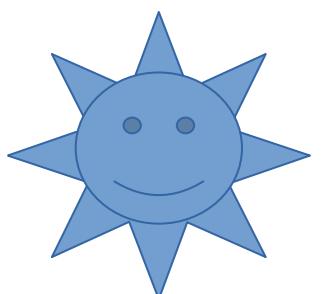
Presented by Jason Bruwer
28 June 2023

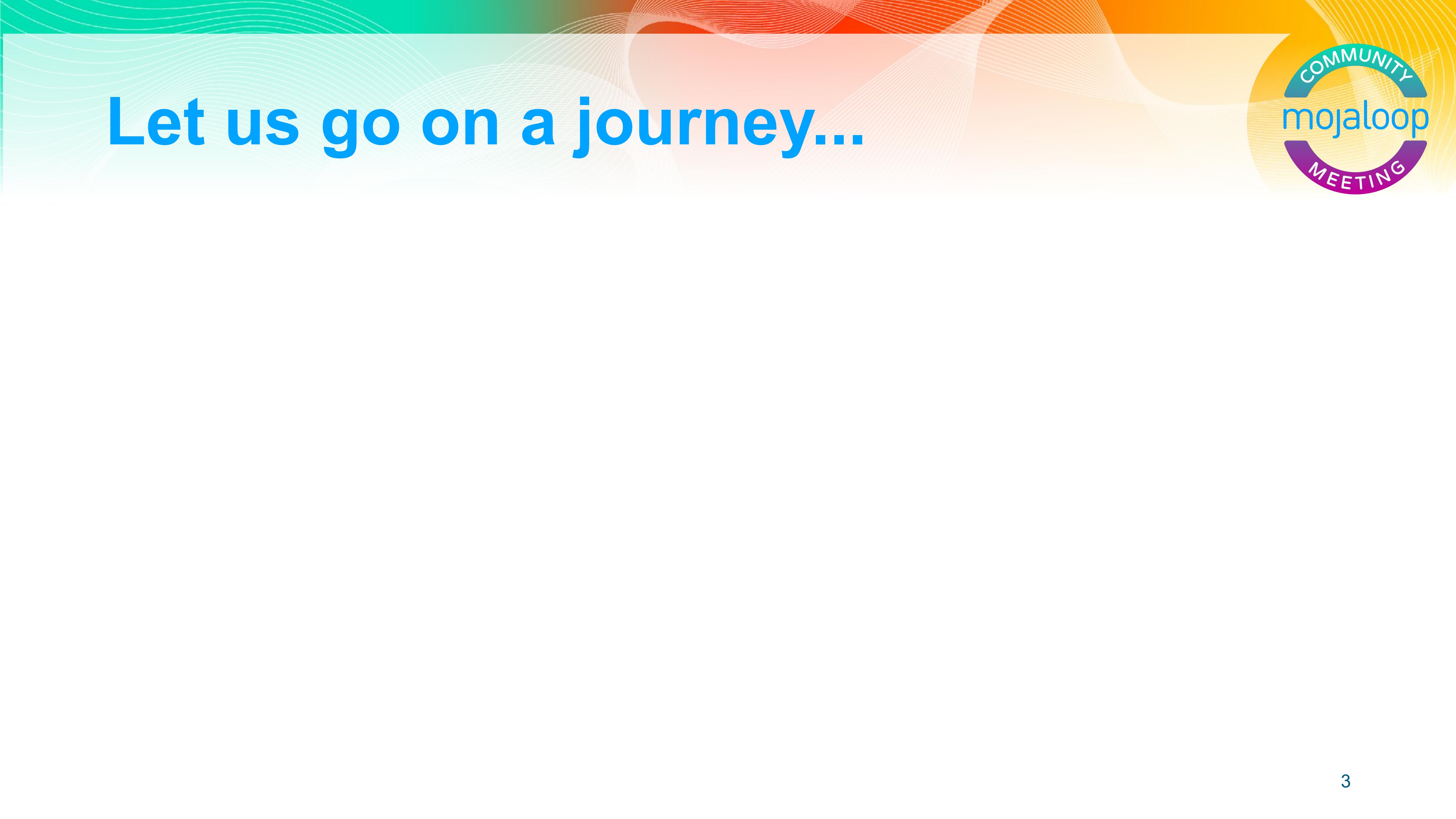


Contributor appreciation



- Paul Makin
- Michael Richards
- Pedro Barreto
- Paul Baker
- Miguel de Barros
- James Bush
- Sam Kummary

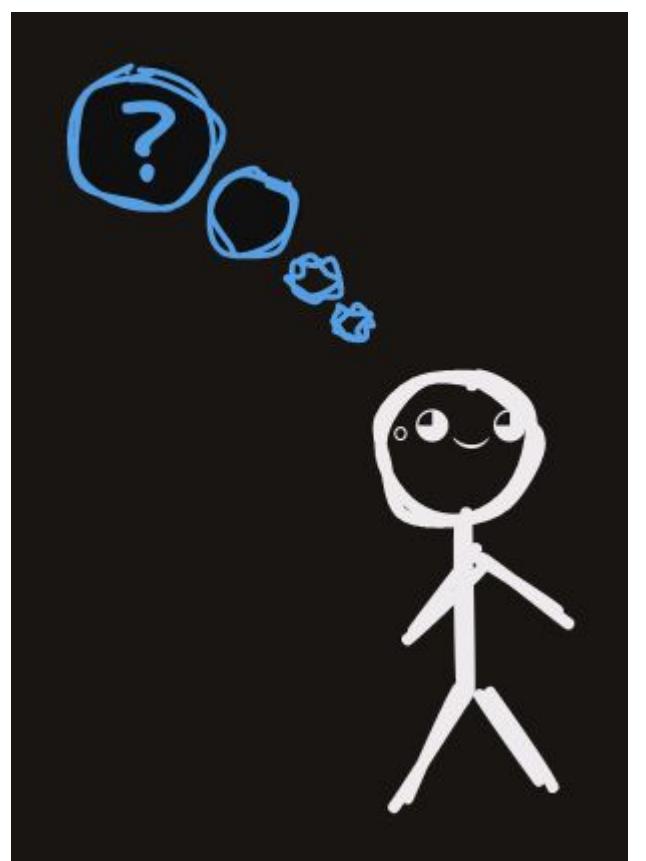




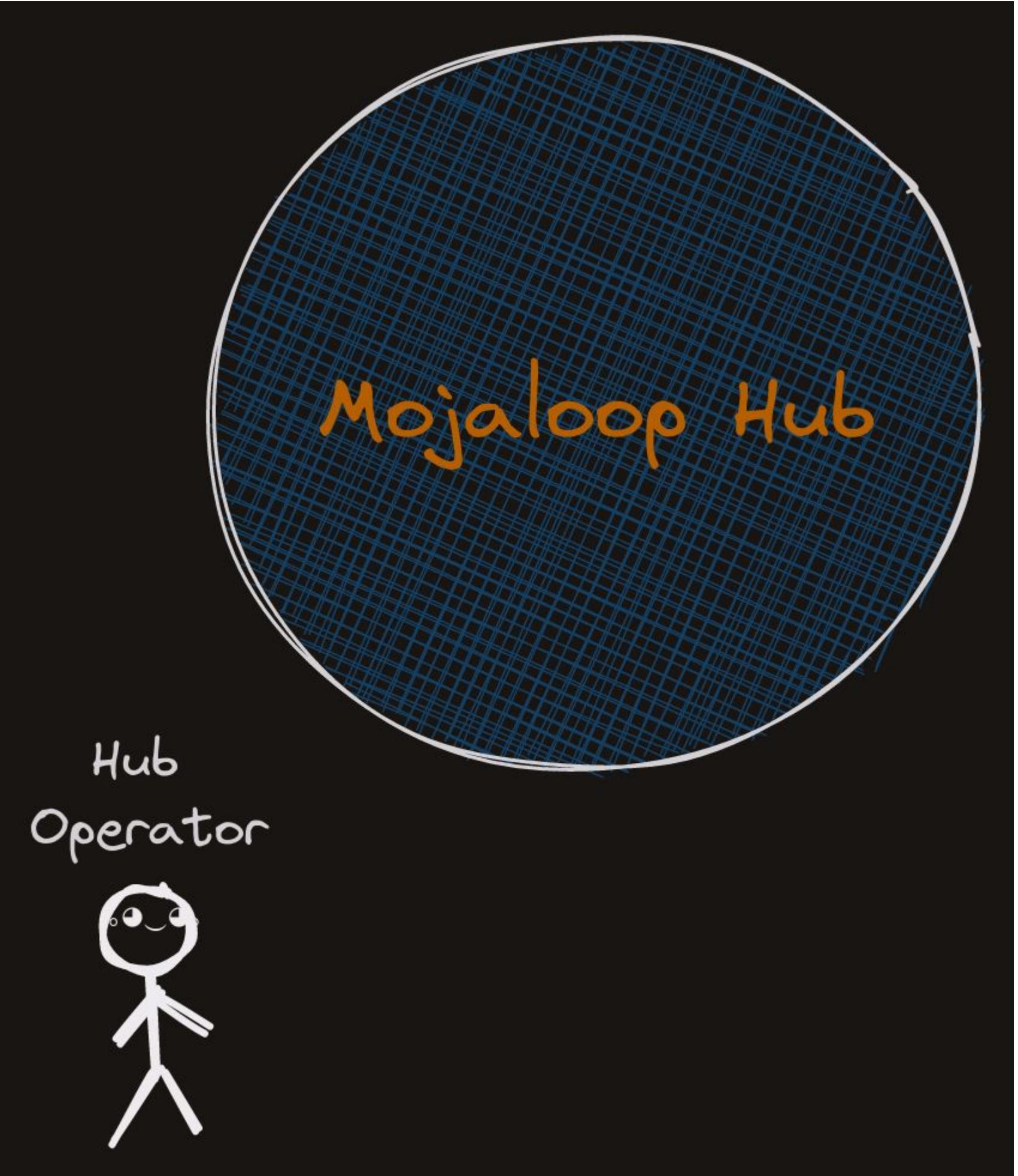
Let us go on a journey...



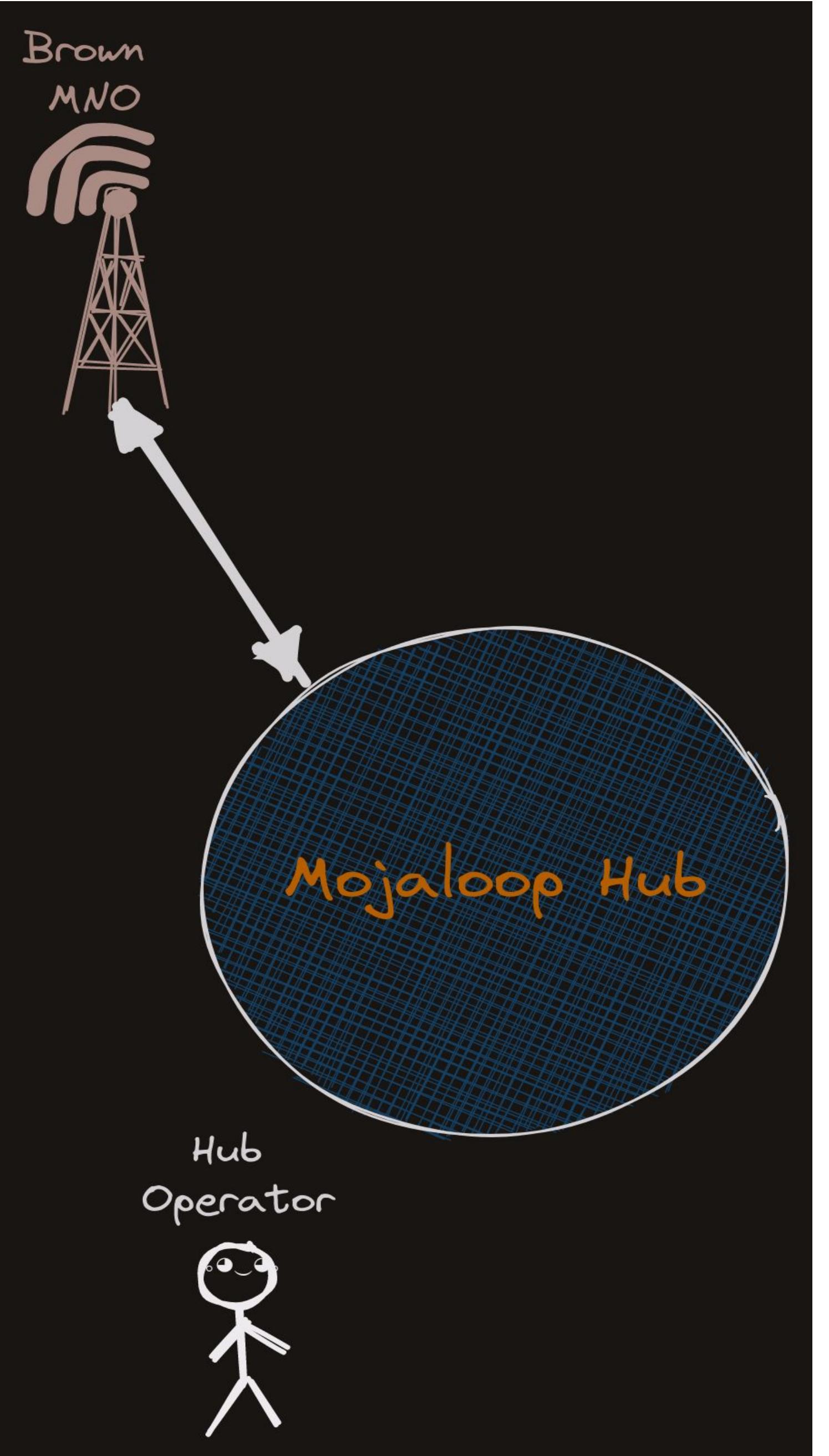
Intro



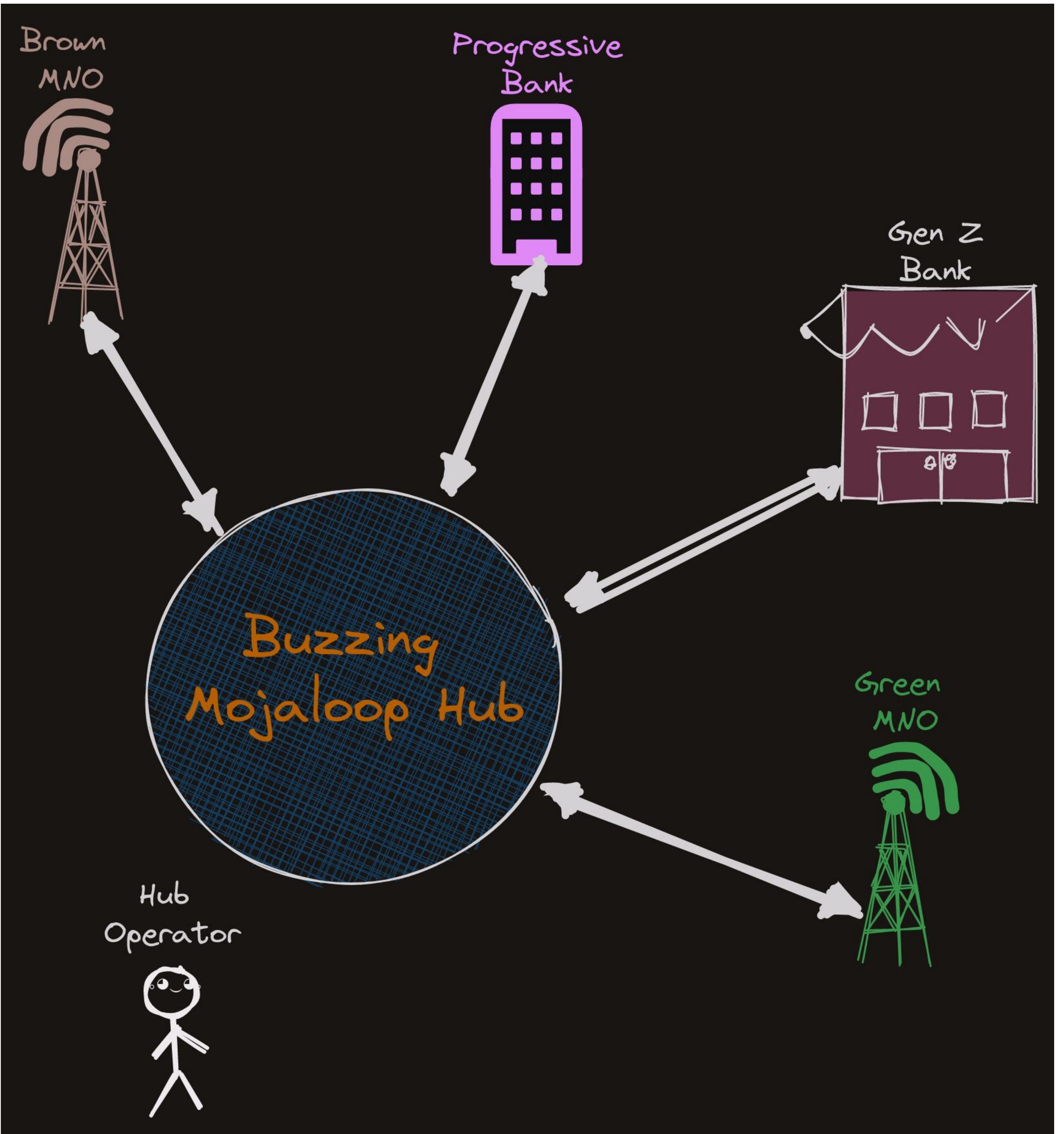
Intro



Intro

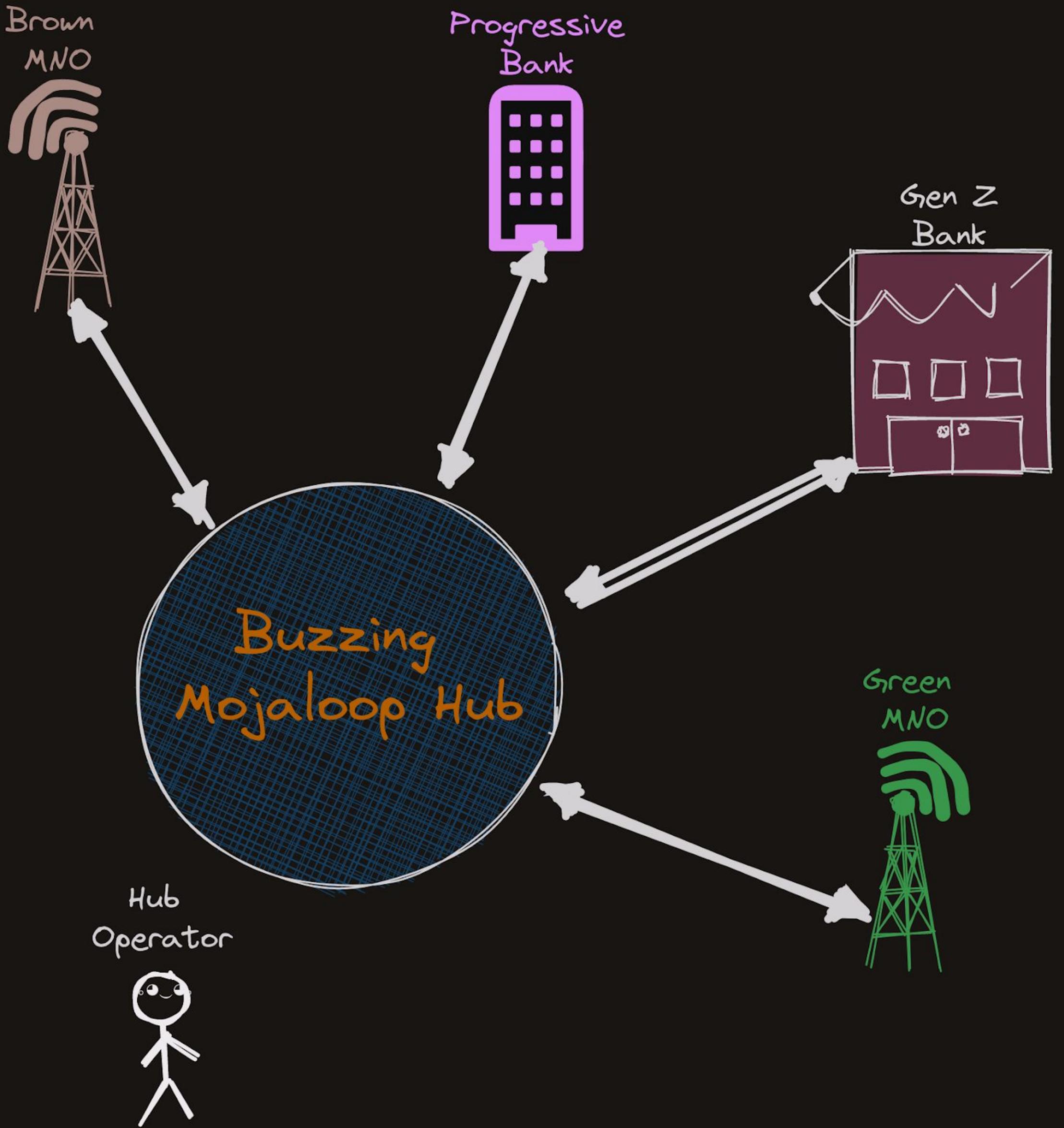


Intro



Scheme rules

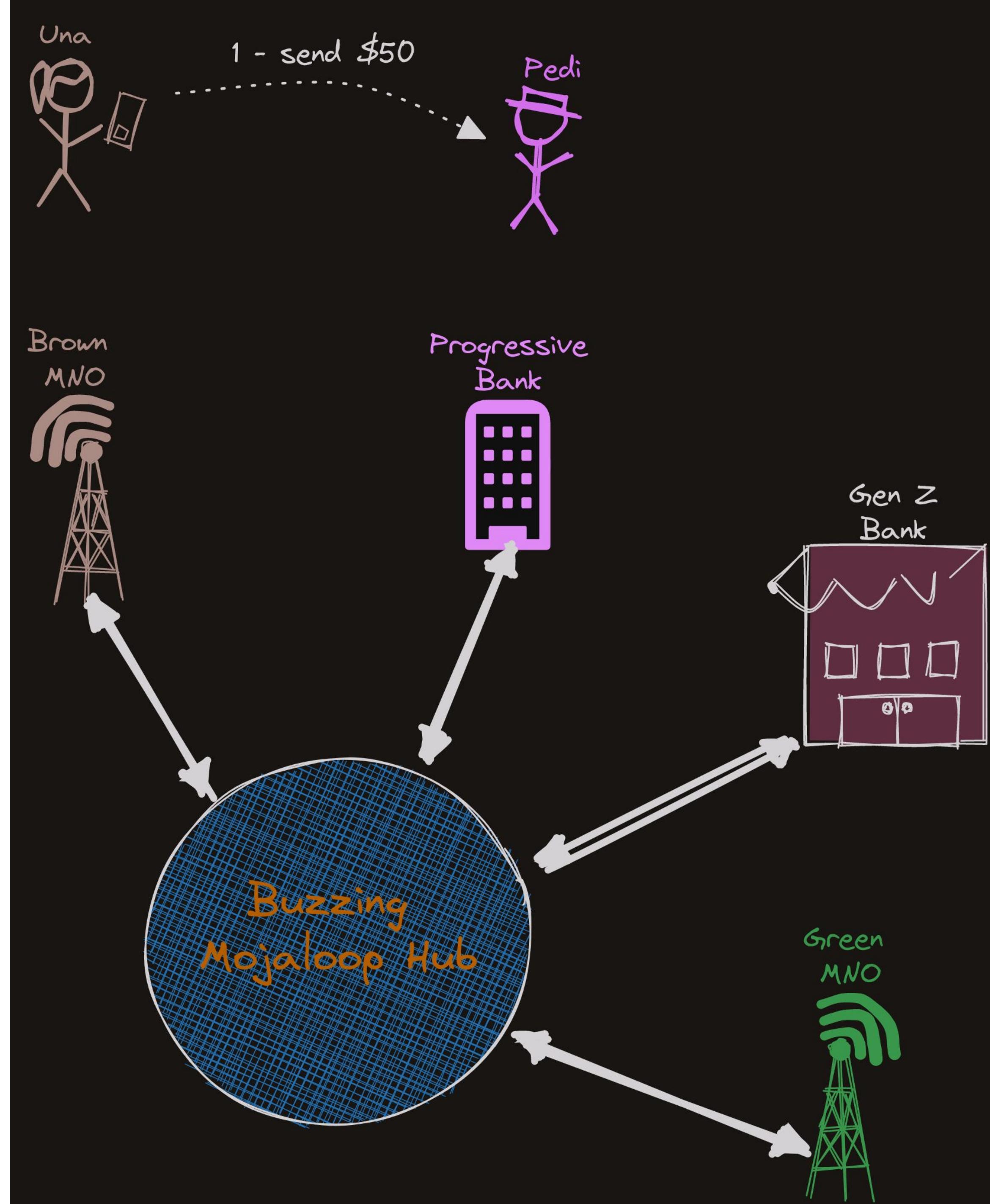
- multi-lateral net sttl
- daily sttl at 24M
- ...



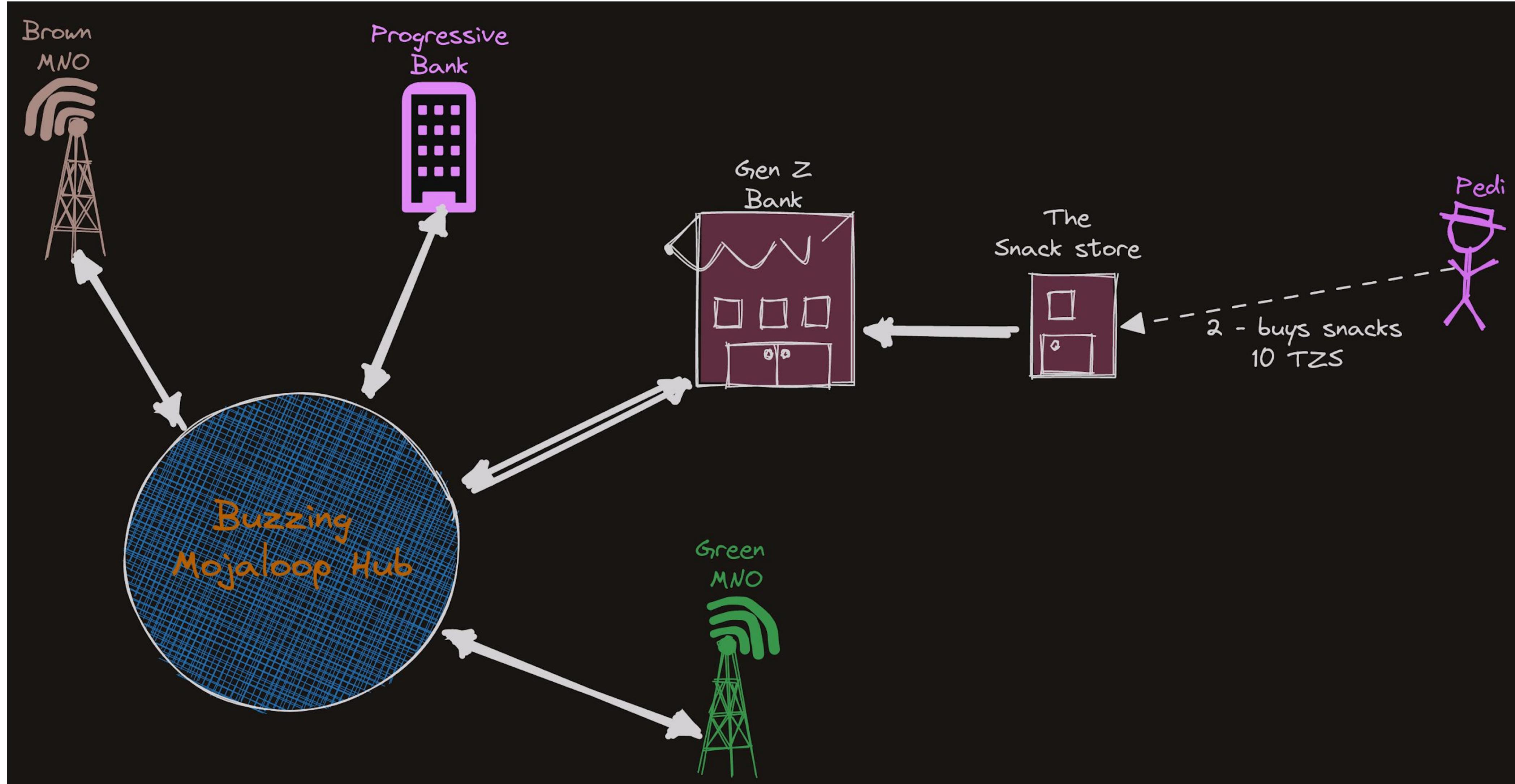


Let's transact...

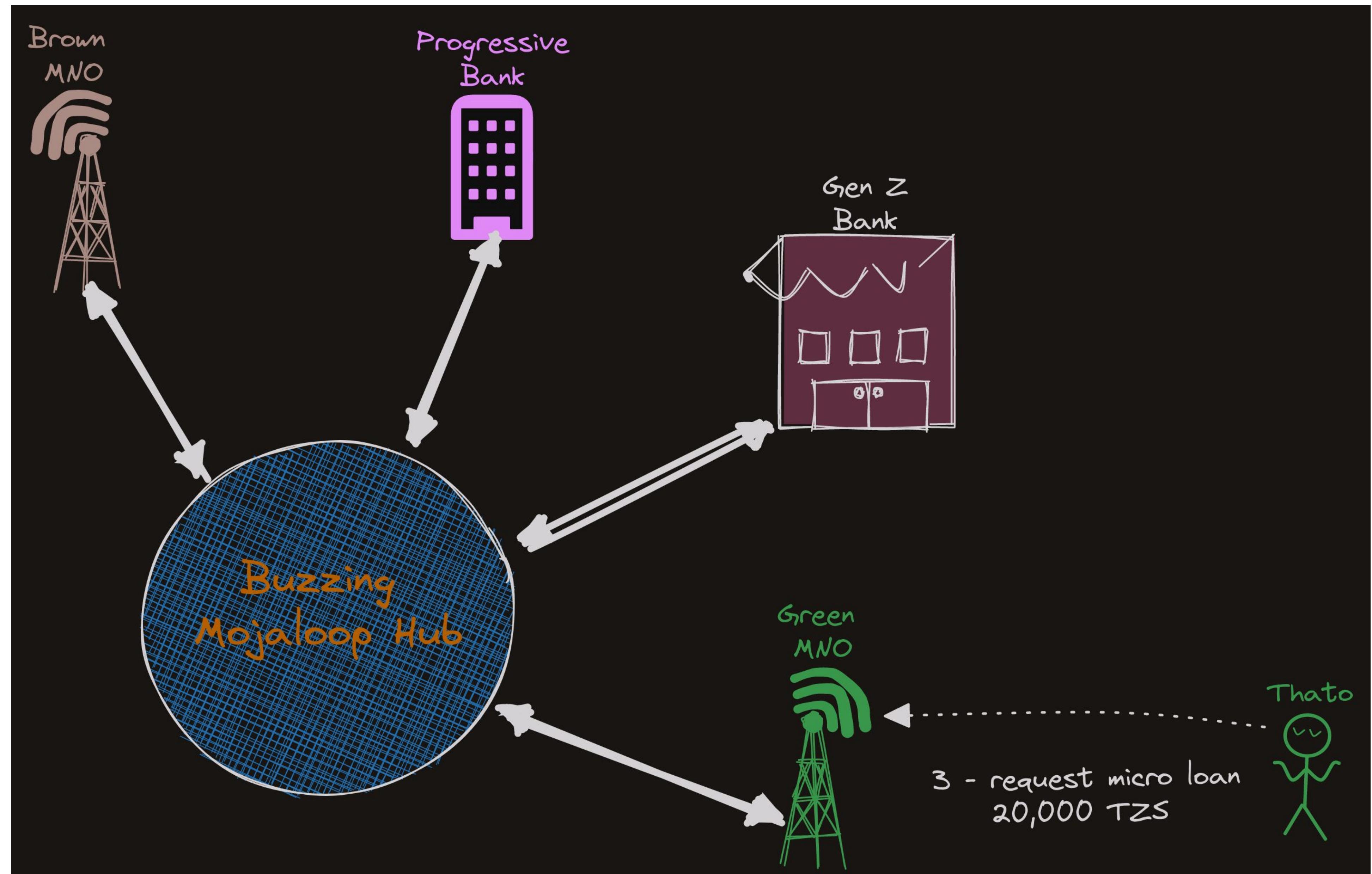
Transact



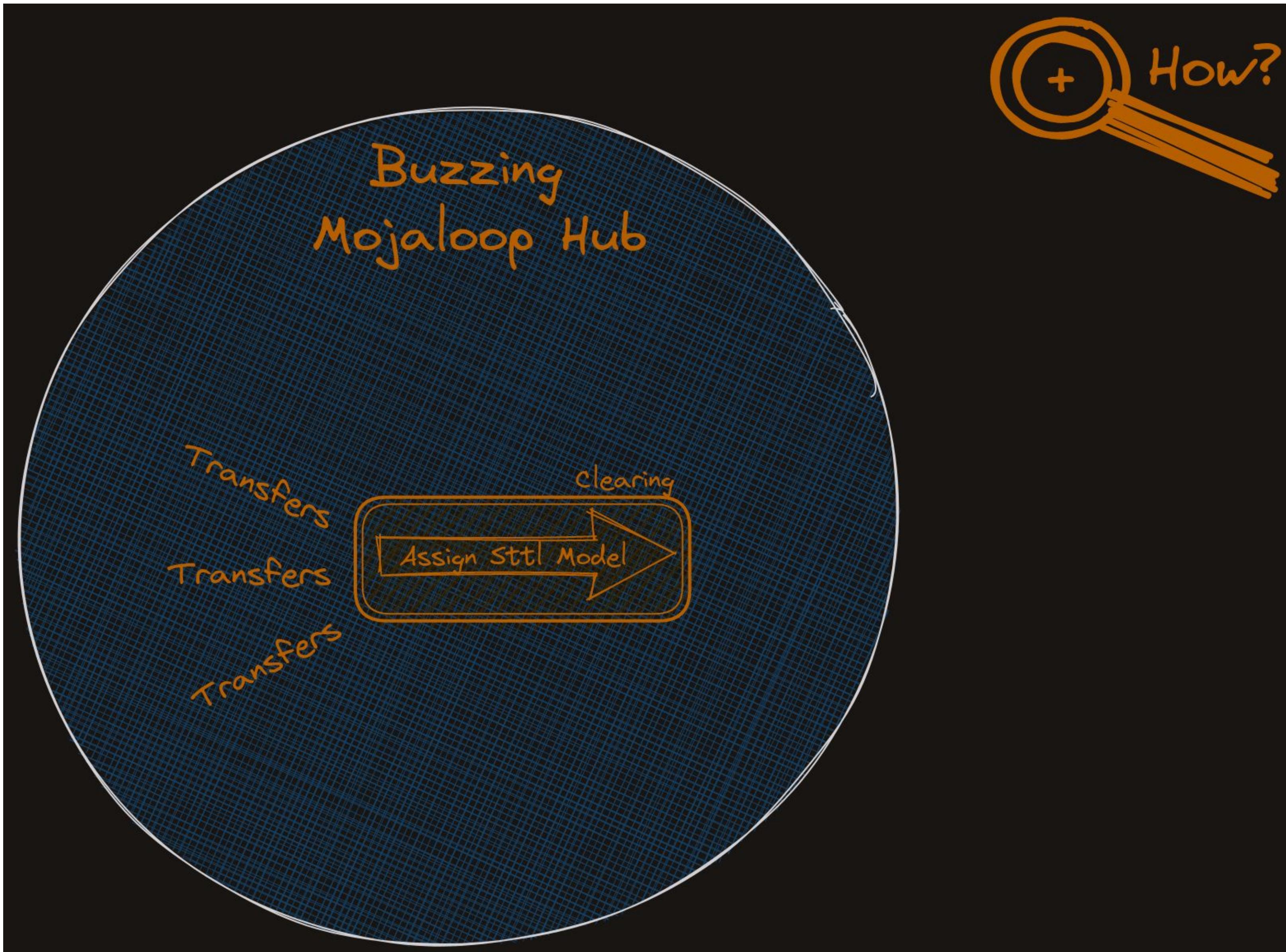
Transact



Transact



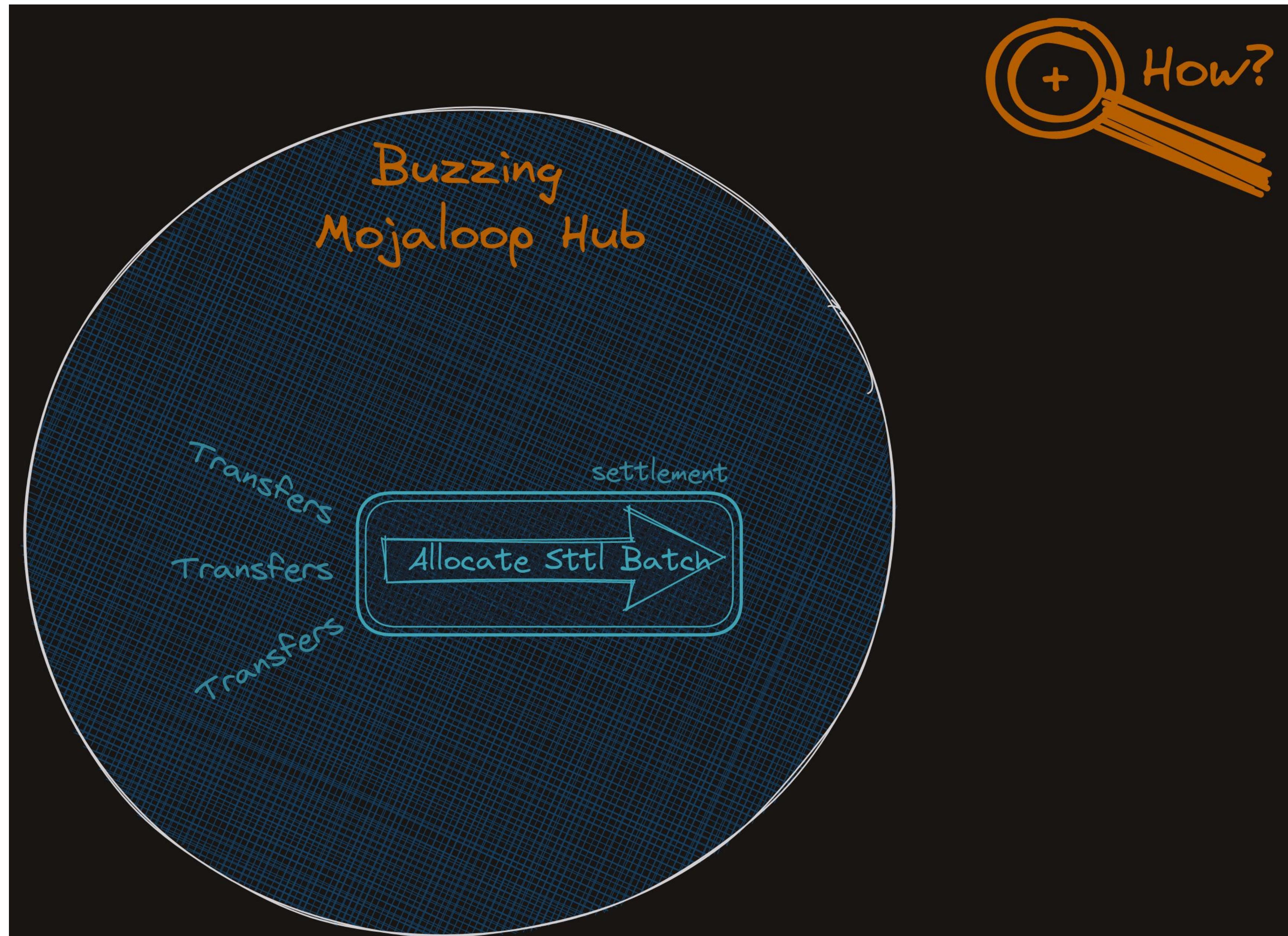
Before settlement





Over to the
Settlement Service...

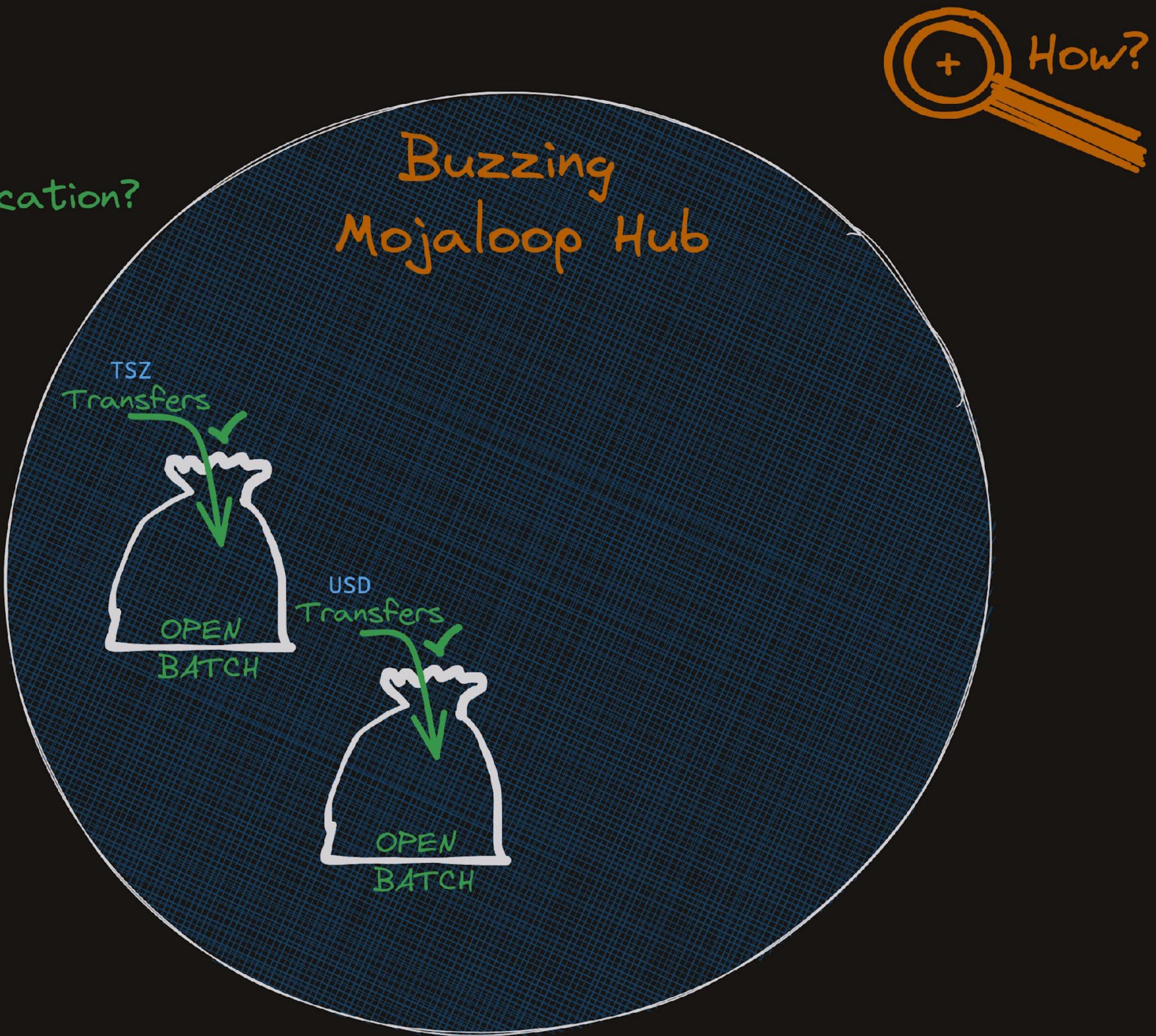
Zoom into Settlement



ZOOM INTO SETTLEMENT...

What affects batch allocation?

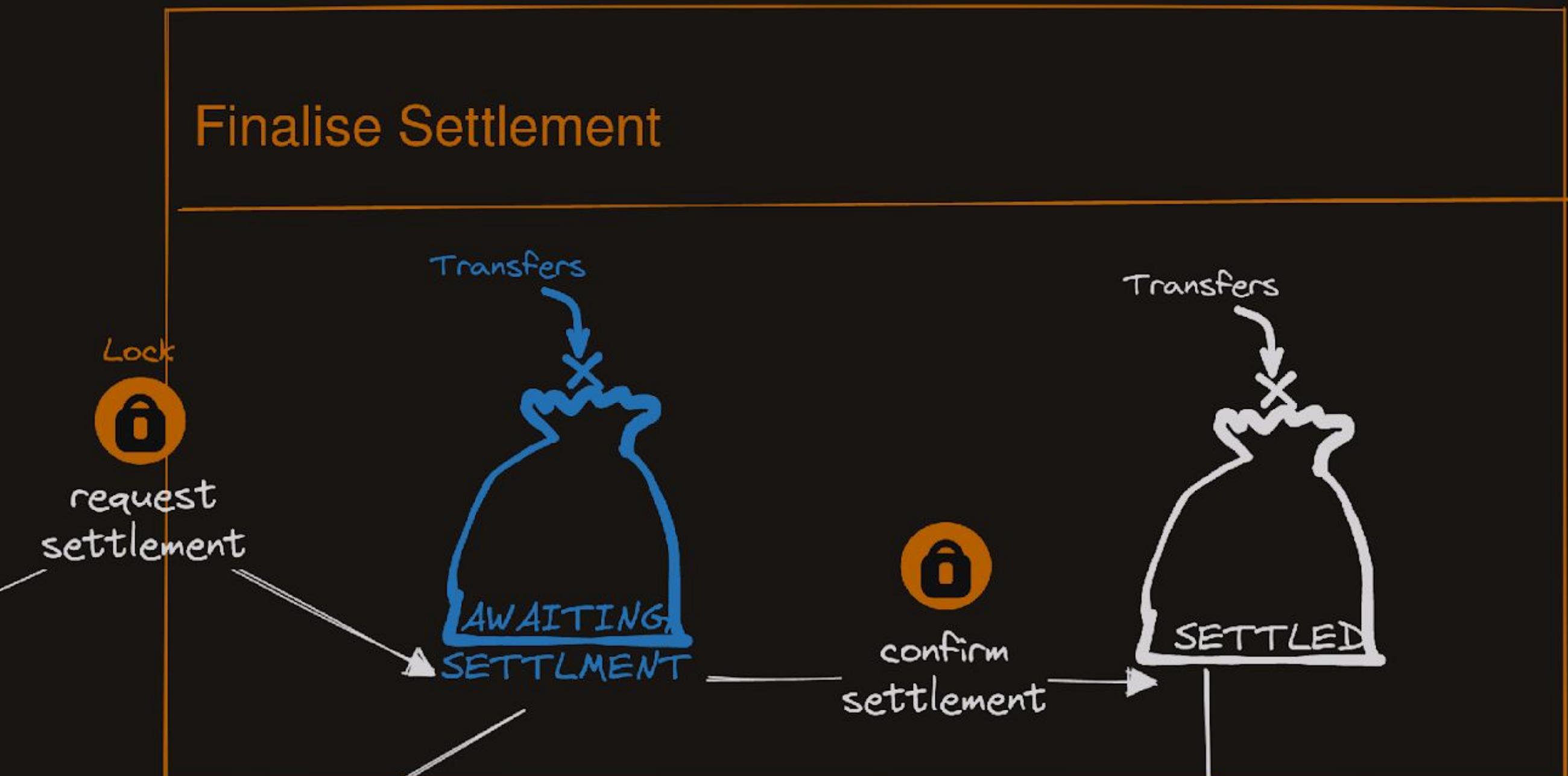
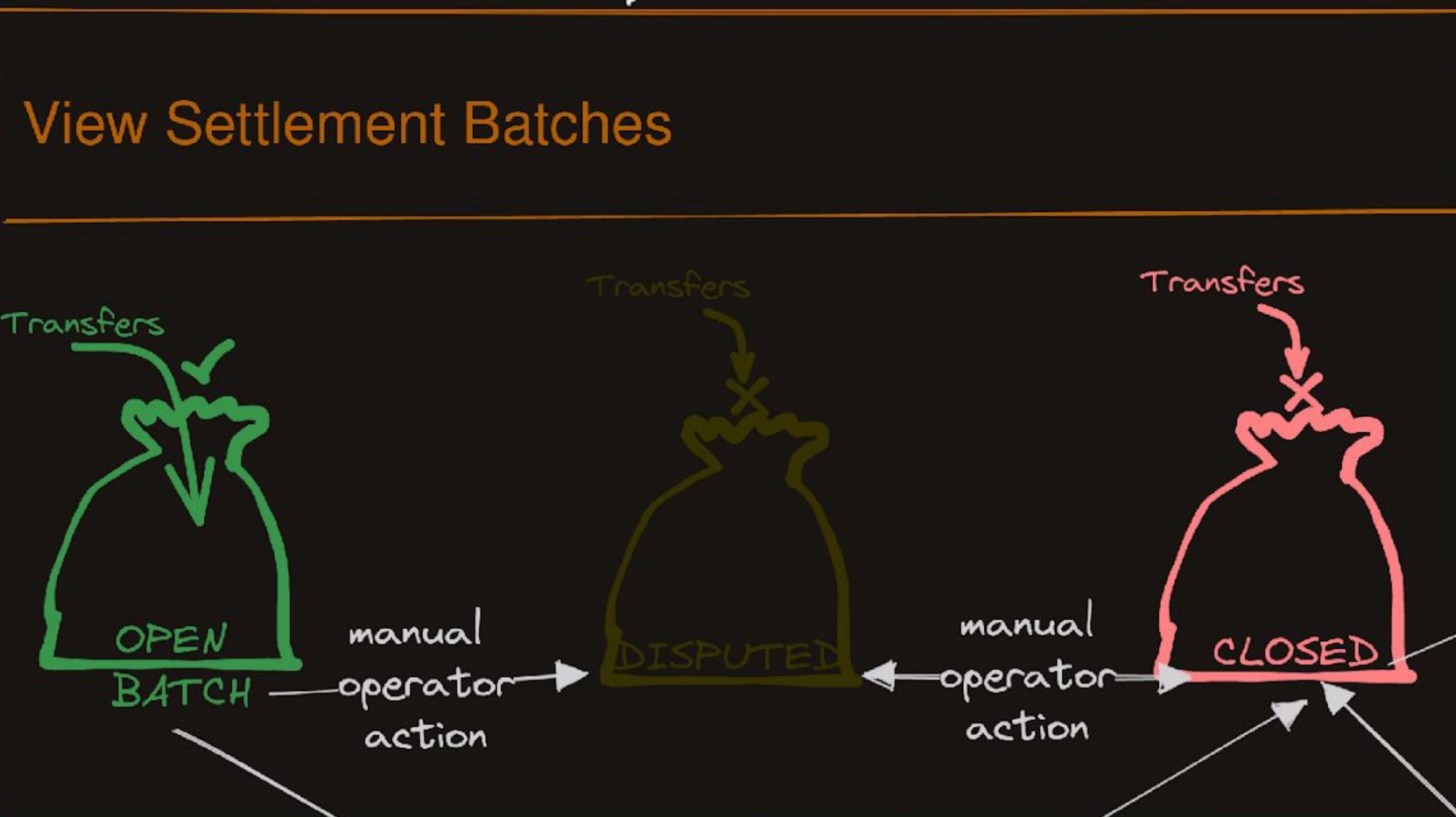
- time
- currency
- sttl model





ZOOM INTO SETTLEMENT...

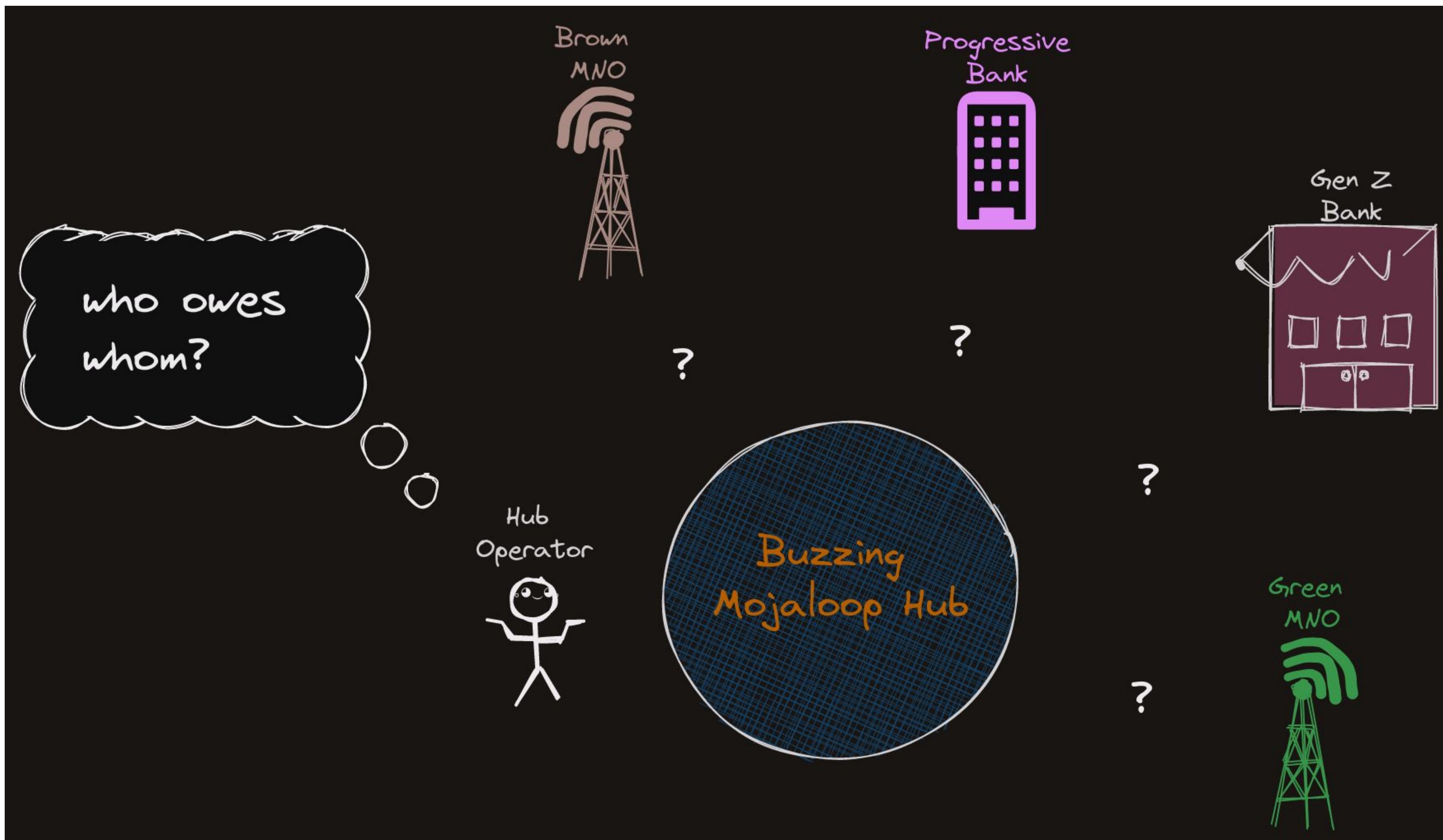
listen for
cleared transactions



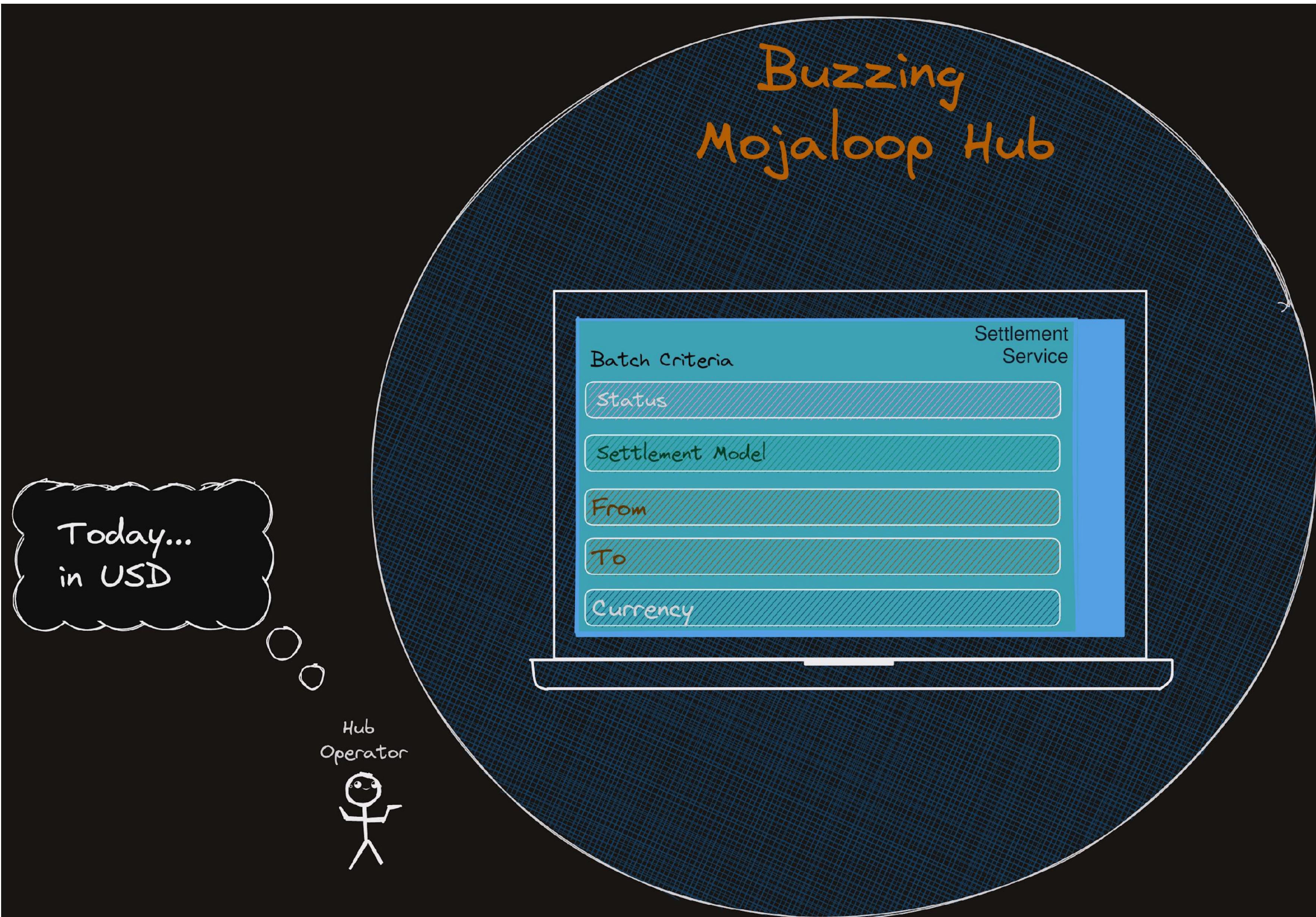


A look at
Settlement reports...

Later that day...



Later that day...



SHOW ME THE CURRENT
SETTLEMENT OBLIGATIONS...



Batch Criteria

Settlement Service

Status

open; closed; await_sttl

Settlement Model

DEFAULT

From

26-Jun-2023 00:00.000

To

26-Jun-2023 23:59.999

Currency

USD

VIEW THE
SETTLEMENT REPORT...

req_ID_78

Report Criteria

Status	open; closed; await_sttl	From	26-Jul-2023 00:00.000	Currency	USD
Settlement Model	DEFAULT	To	26-Jul-2023 00:00.000		

Close

Dispute

Request Sttl

Participant: Gen Z Bank

<input checked="" type="checkbox"/>	Batch name	Seq #	Model	Currency	Status	DR Position	CR Position
<input checked="" type="checkbox"/>	DEFAULT.USD.2023.06.26.11.50	001	DEFAULT	USD	CLOSED	50	100

Net Position - CLOSED: 50

<input checked="" type="checkbox"/>	DEFAULT.USD.2023.06.26.11.50	002	DEFAULT	USD	OPEN	100	279
<input checked="" type="checkbox"/>	DEFAULT.USD.2023.06.26.12.00	001	DEFAULT	USD	OPEN	50	50

Net Position - OPEN: 179

GRAND TOTAL - NET POSITION: 229

Participant: Green MNO

<input checked="" type="checkbox"/>	Batch name	Seq #	Model	Currency	Status	DR Position	CR Position	Settlement ID
<input checked="" type="checkbox"/>	DEFAULT.USD.2023.06.26.08.23	001	DEFAULT	USD	AWAIT_STTL	500	7,000	req_ID_52

Net Position - AWAIT_STTL: 6,500

GRAND TOTAL - NET POSITION: 6,500

Hub
Operator



what is ready to
be settled?

**CONFIRM
SETTLEMENT ...**

Lets get these accounts settled!



Hub
Operator

Settlement Verification req_ID_80

Status	awaiting settlement	From	26-Jul-2023 00:00.000	Currency	USD
Settlement Model	DEFAULT	To	26-Jul-2023 00:00.000		

Cancel
Confirm Settlement

Participant: Gen Z Bank

	Batch name	Seq #	Model	Currency	Status	DR Position	CR Position	Settlement ID
<input checked="" type="checkbox"/>	DEFAULT.USD.2023.06.26.11.50	001	DEFAULT	USD	AWAIT_STTL	50	100	req_ID_80

Net Position - AWAIT_STTL: 50

GRAND TOTAL - NET POSITION: 50

VIEW THE SETTLEMENT
RESULT

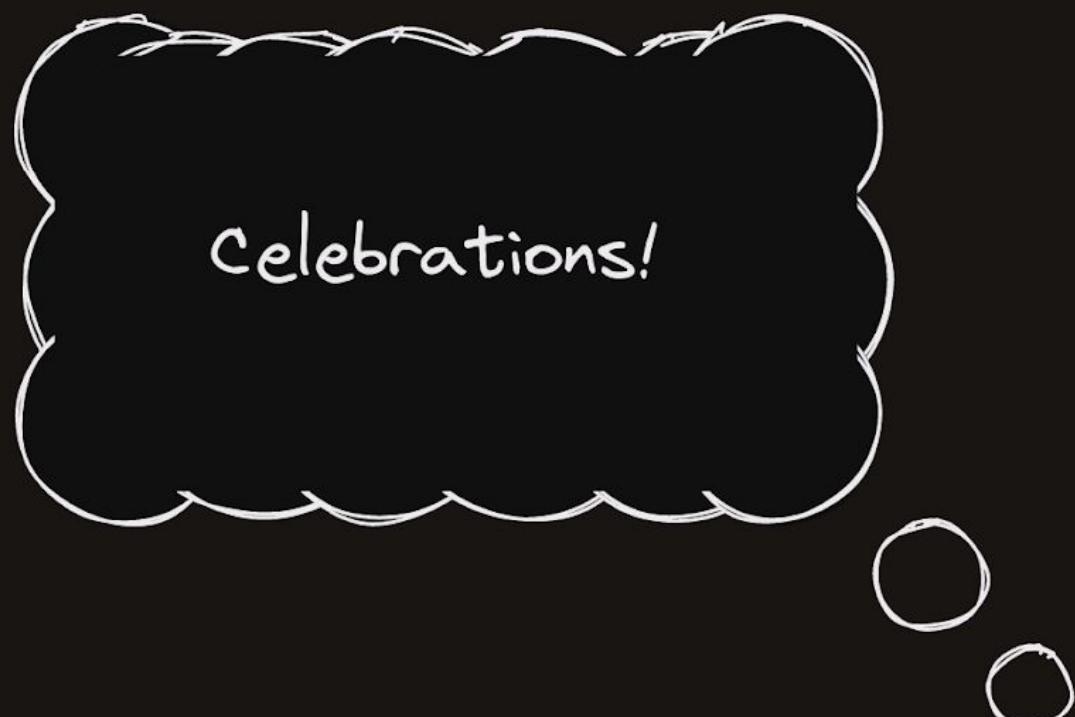
Settlement Result req_ID_80

Status	settled	From	26-Jul-2023 00:00.000	Currency	USD
Settlement Model	DEFAULT	To	26-Jul-2023 00:00.000		

Participant: Gen Z Bank

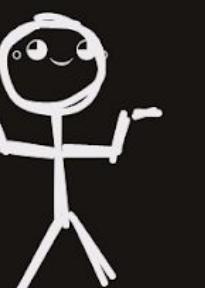
<input checked="" type="checkbox"/>	Batch name	Seq #	Model	Currency	Status	DR Liquidity	CR Liquidity	Settlement ID
<input checked="" type="checkbox"/>	DEFAULT.USD.2023.06.26.11.50	001	DEFAULT	USD	SETTLED	50	100	req_ID_80

Liquidity - SETTLED: 50



celebrations!

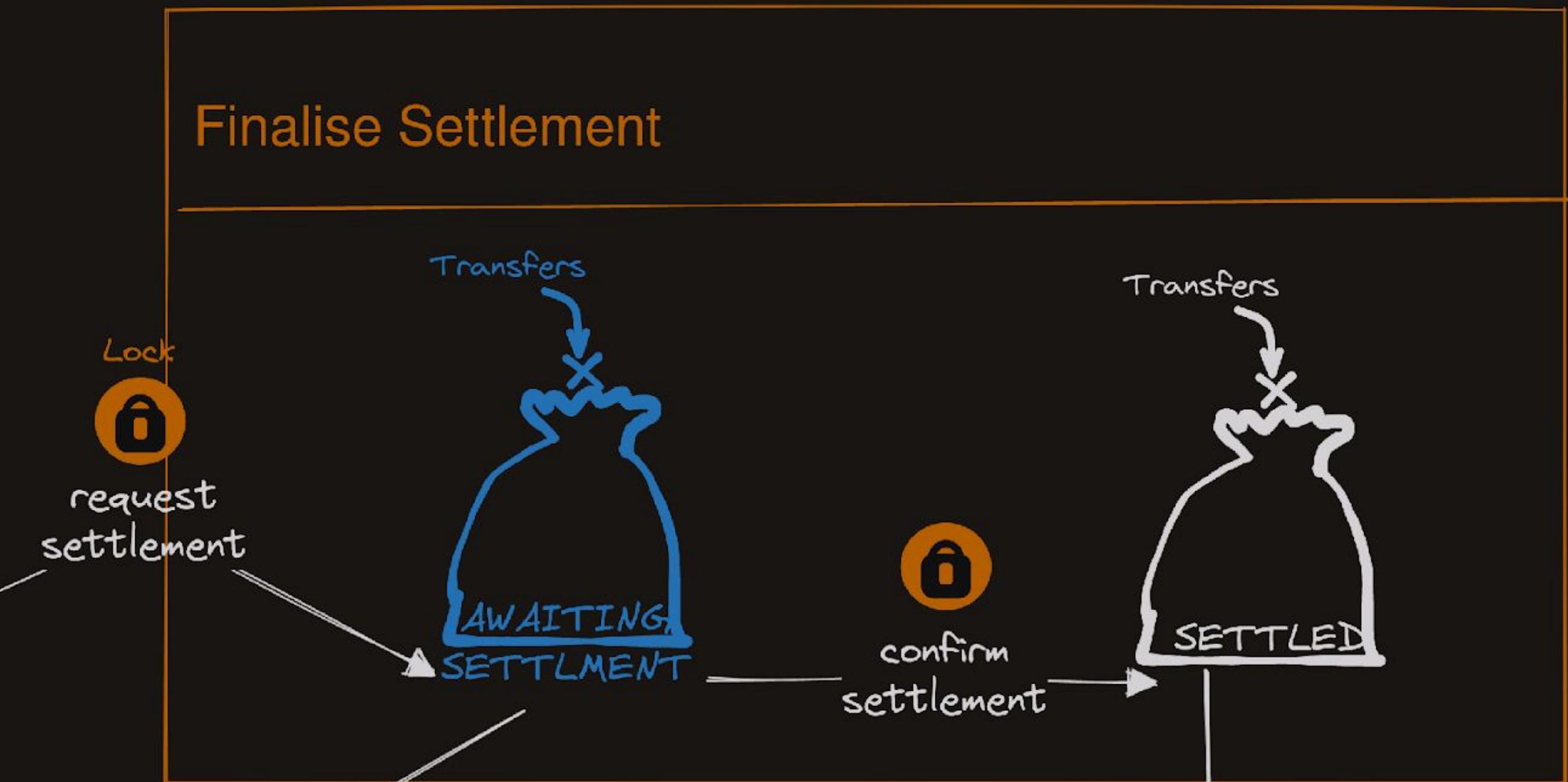
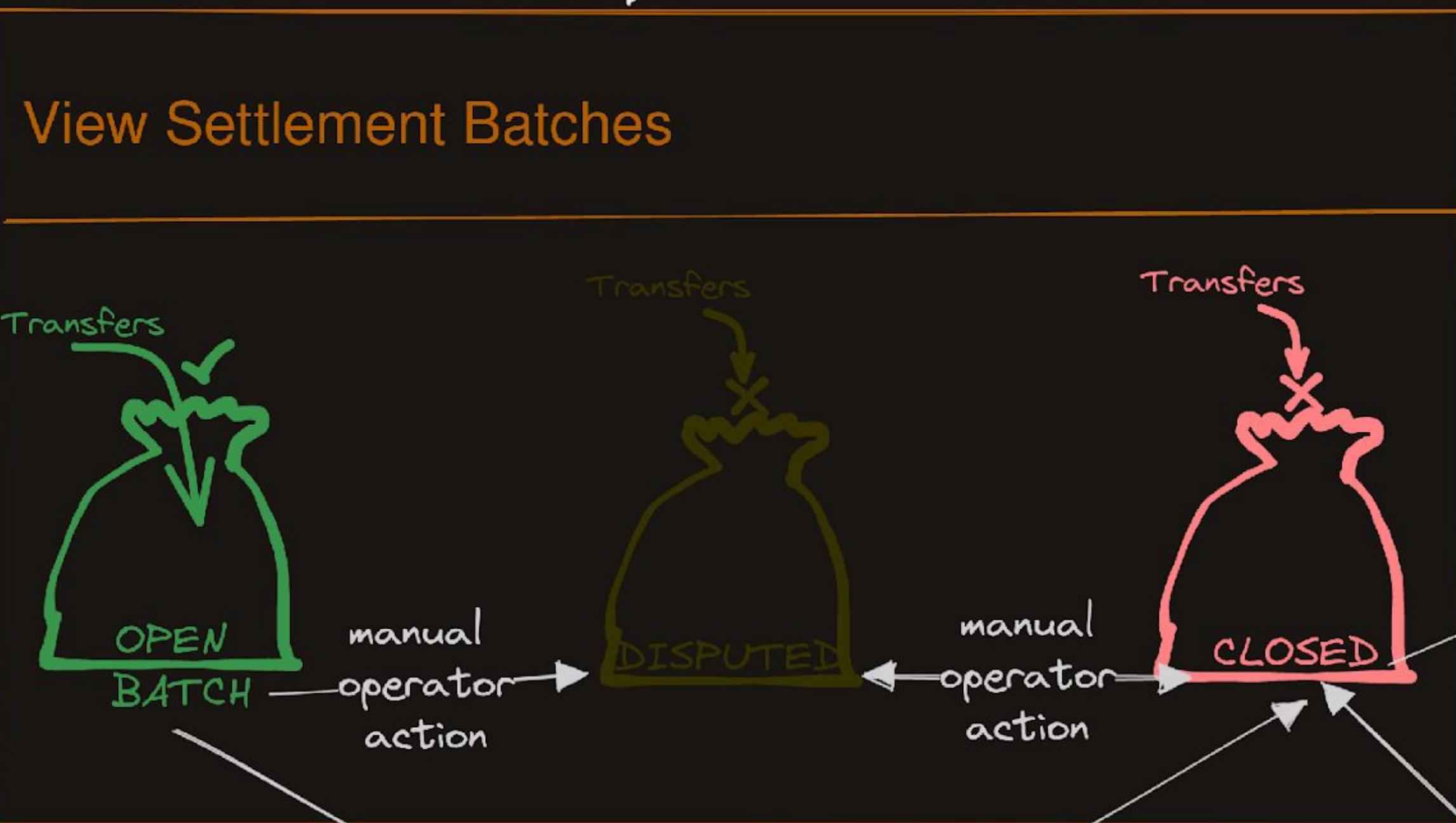
Hub
Operator





ZOOM INTO SETTLEMENT...

listen for
cleared transactions





Thank you!