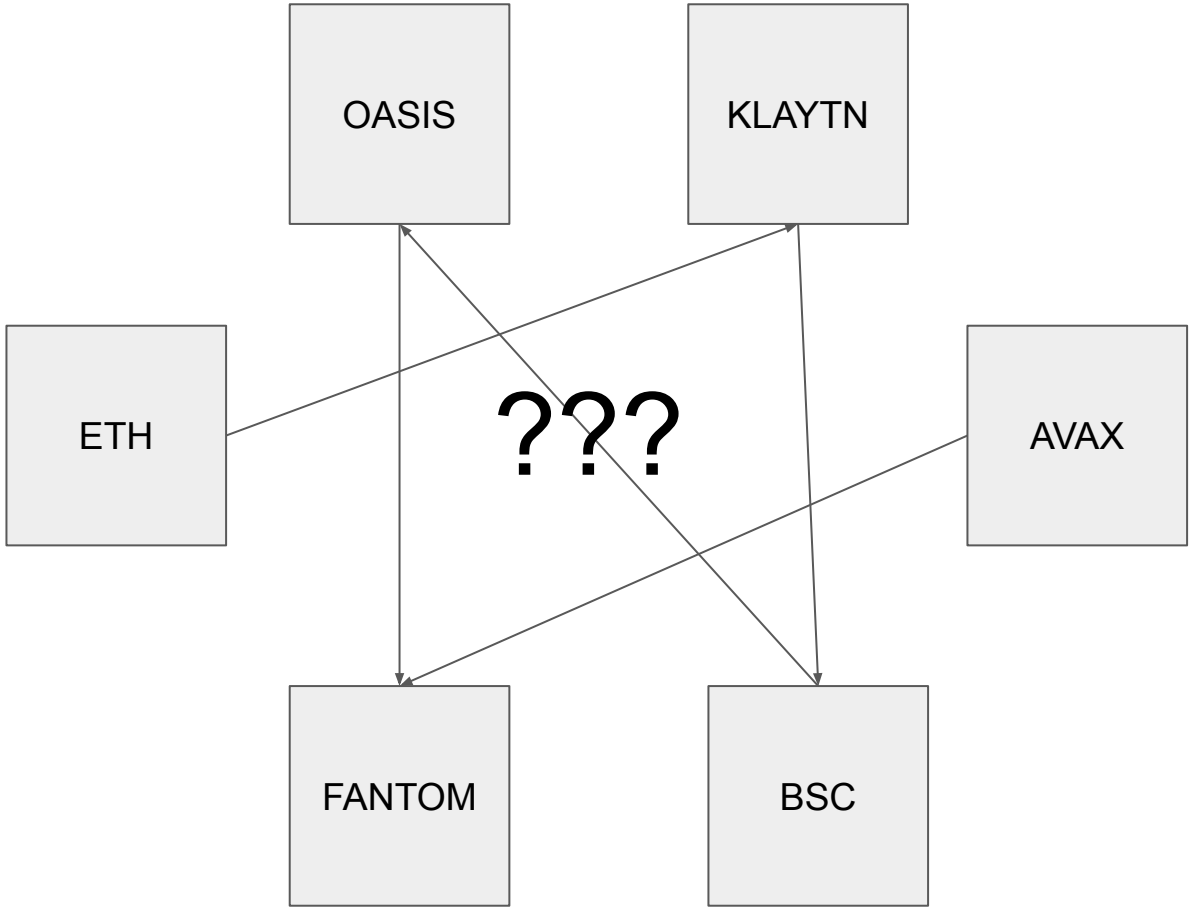
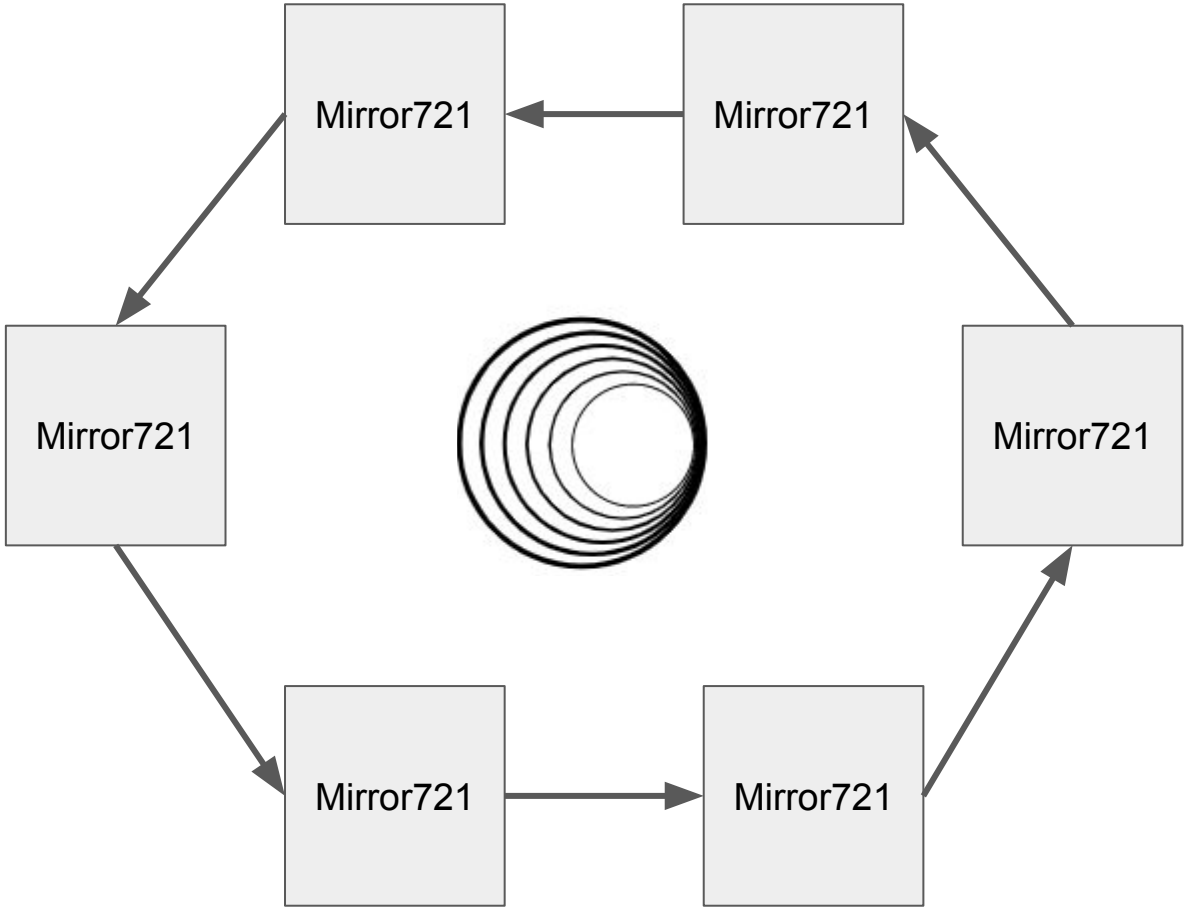
Mirror721

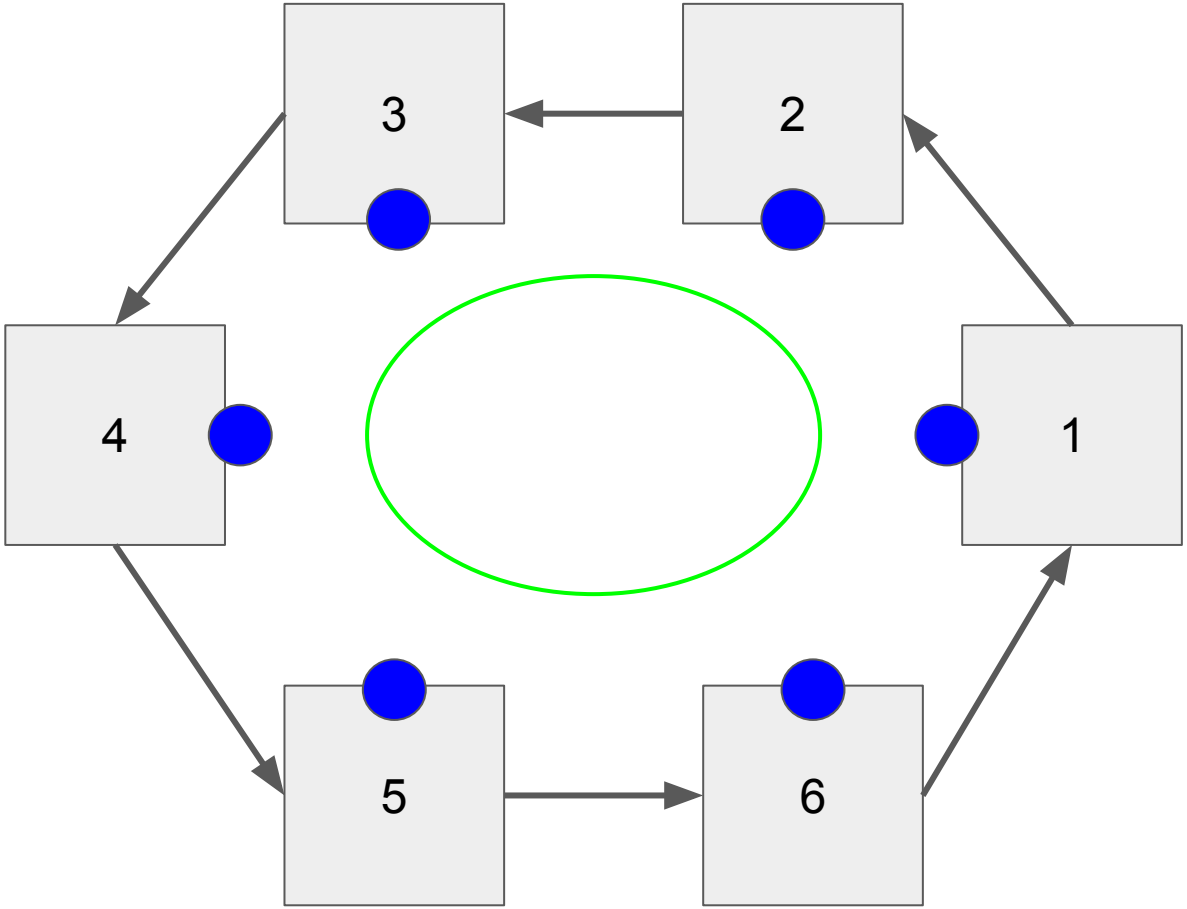
# Mirror721

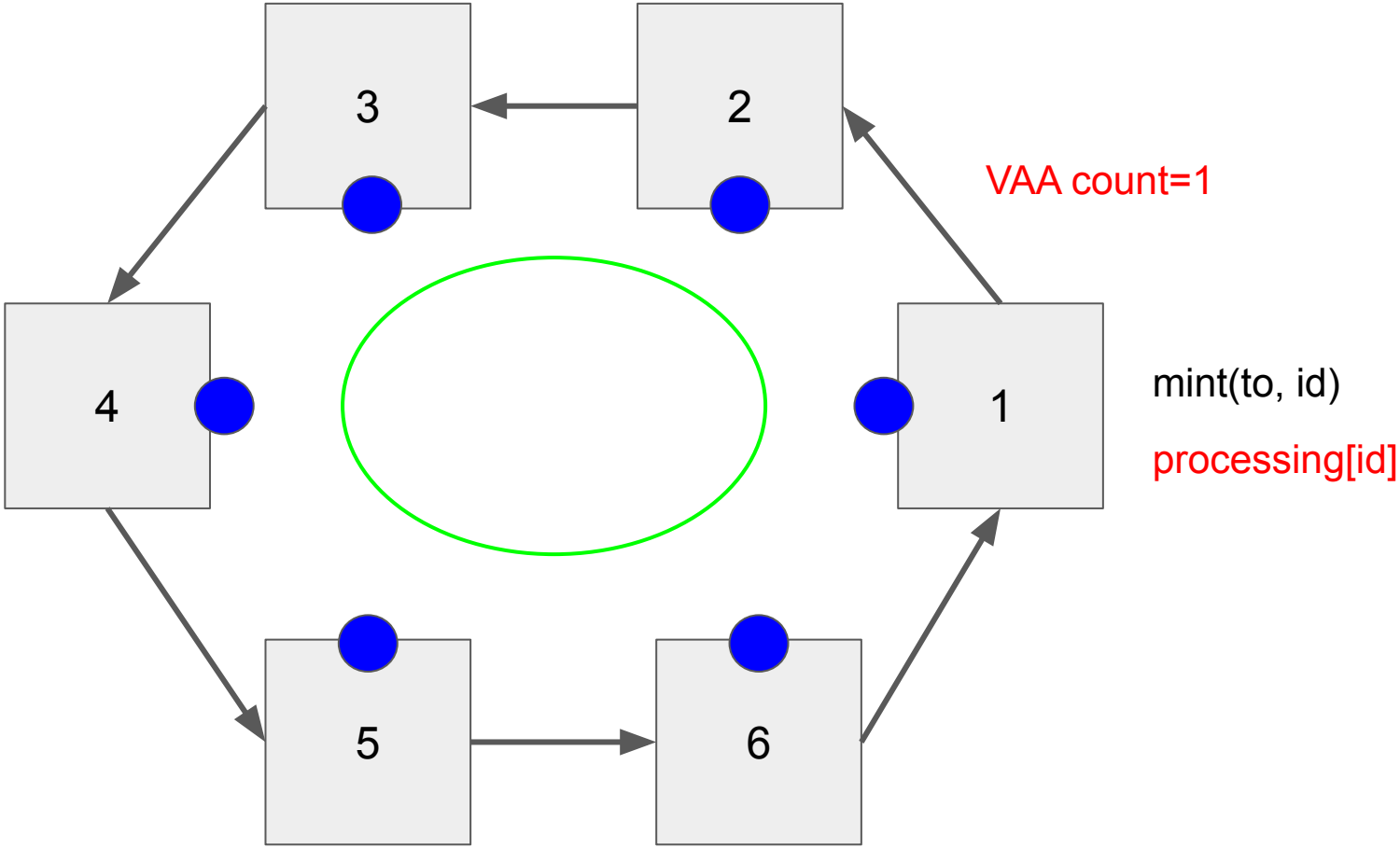
- Can we make an NFT that exists on multiple EVM chains and mirrors state across those chains?
- Can we remove the concept of that NFT originating from a single chain?



- Organize contracts as nodes on a circular list
- Traverse forward to make updates and backward to rectify disagreements
- Updates can originate from any chain




3
2
4
1
5
6
mint()

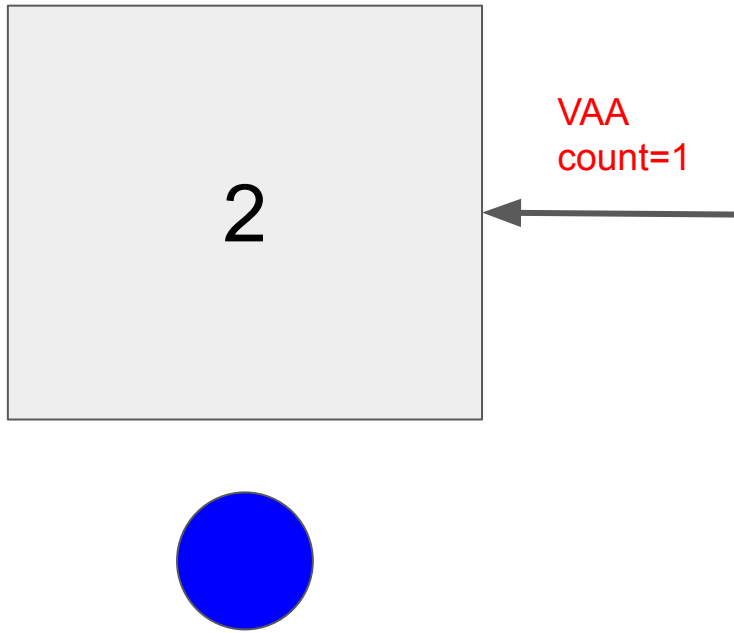

3
2
VAA count=1
4
1
mint(to, id)
processing[id]
5
6

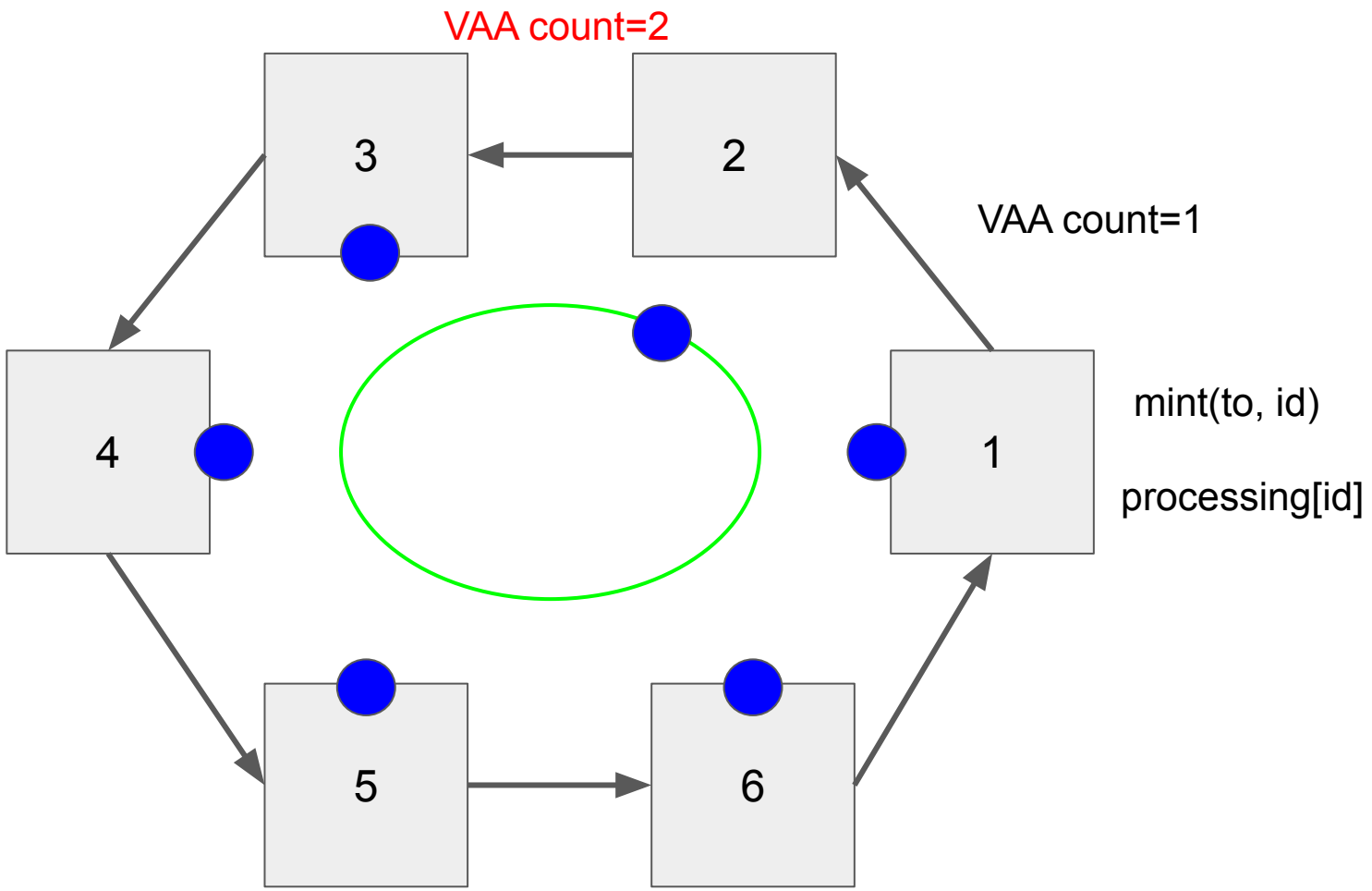
# Is this legit?

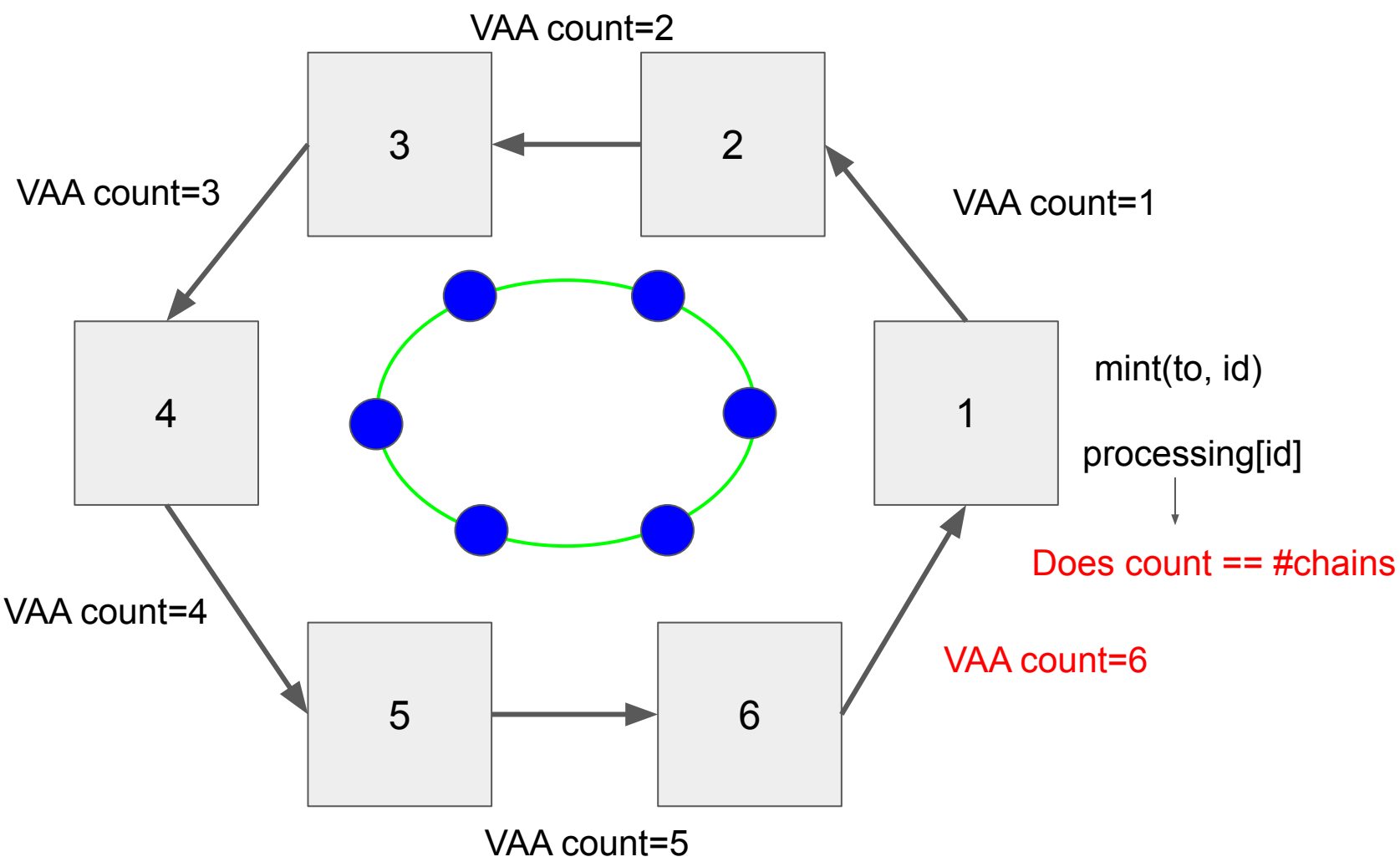
- Signed by guardians?
- Are we processing[id]?
- Does emitterChainId == prevChainId?
- Does emitterAddress == address(this)?

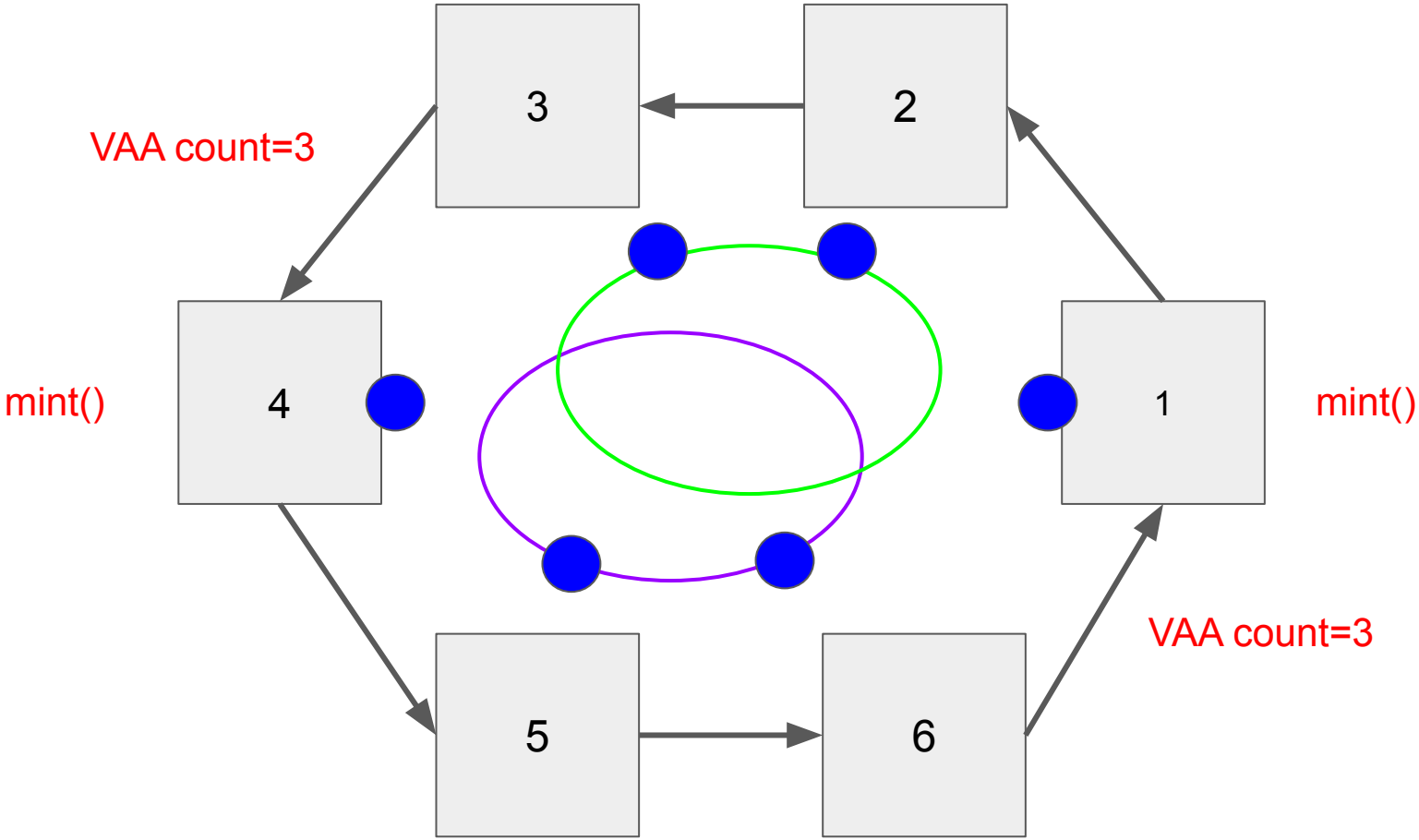
Use CREATE3 Factory to deploy at same address across chains!

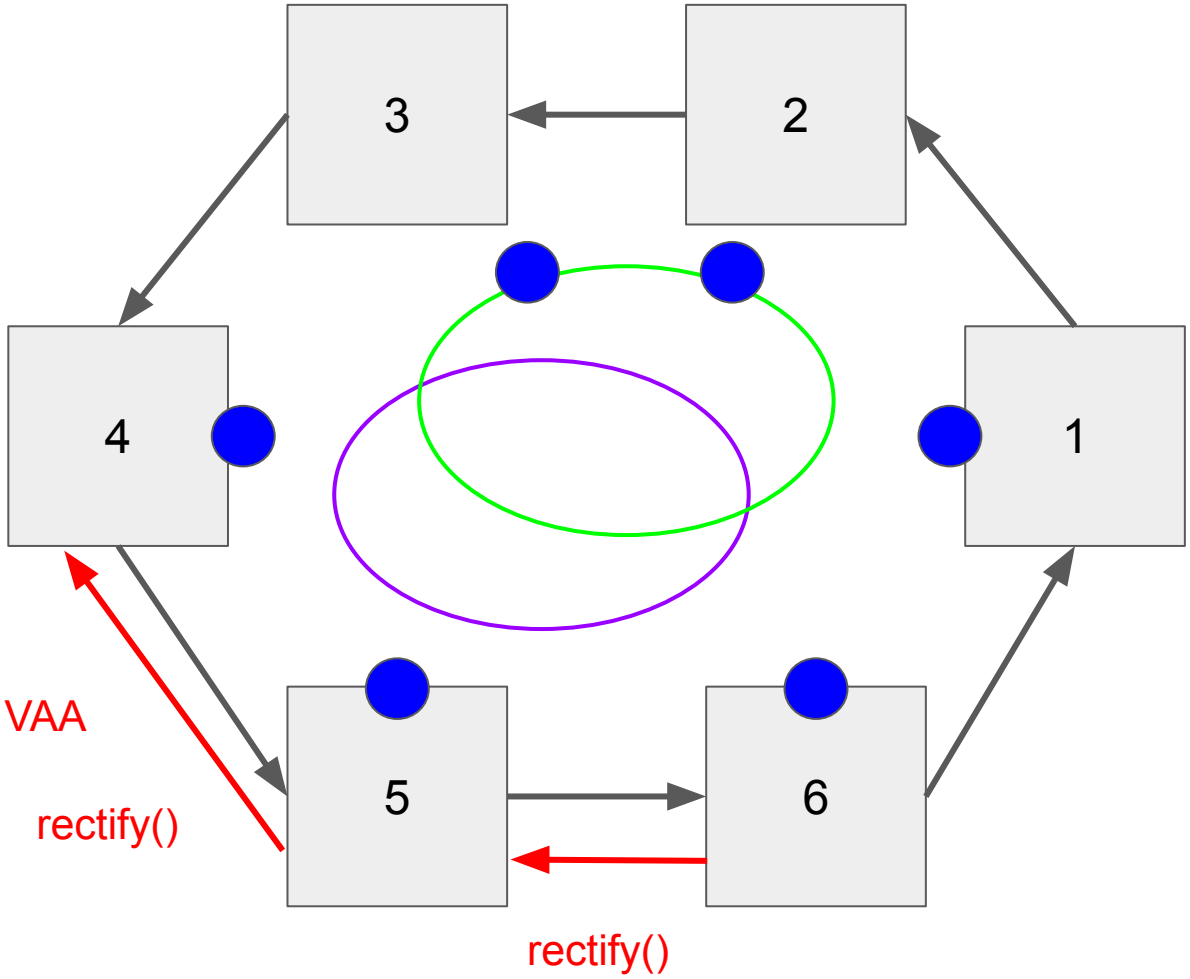
- mint()
- ++count
- Publish VAA

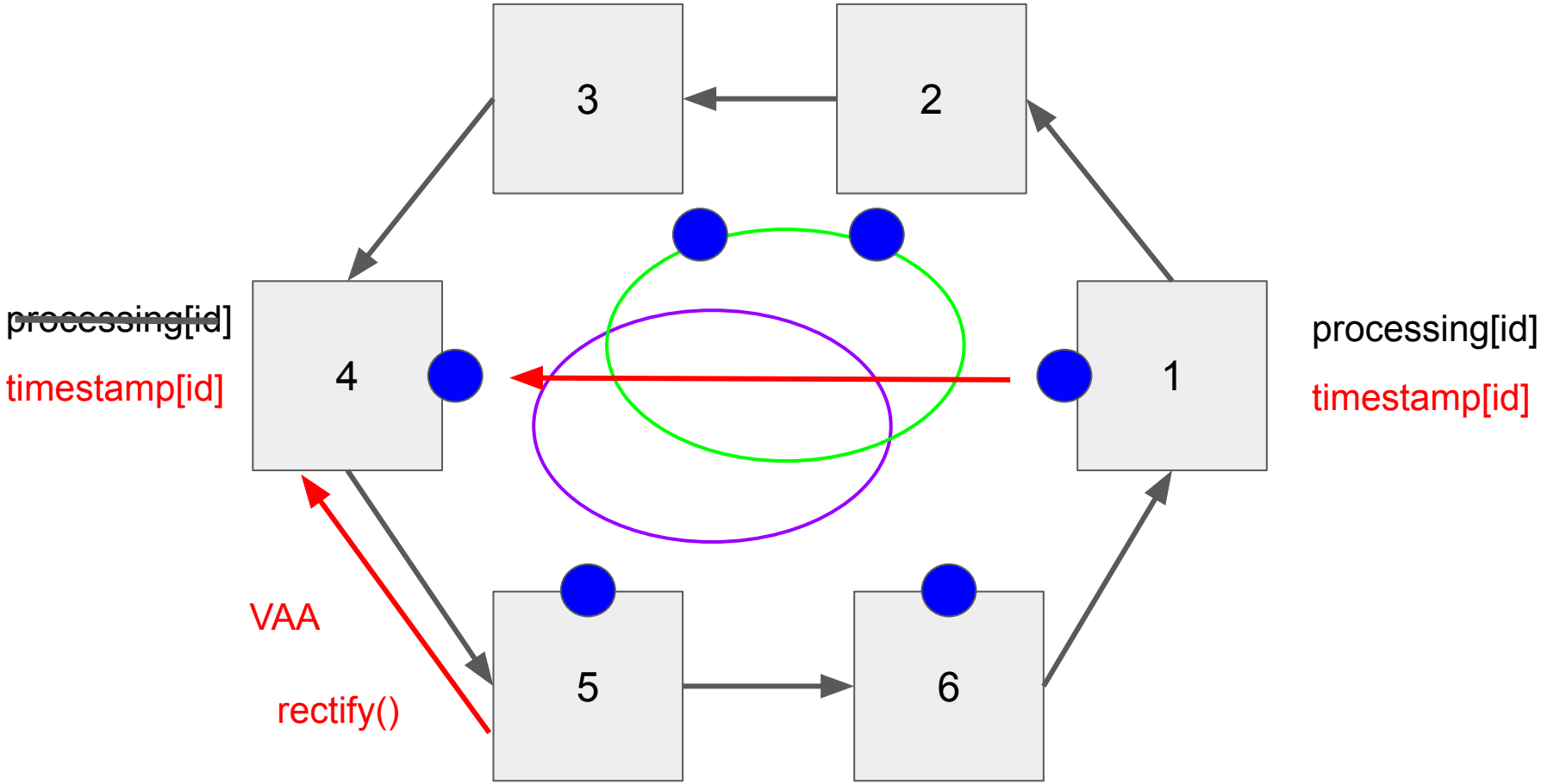


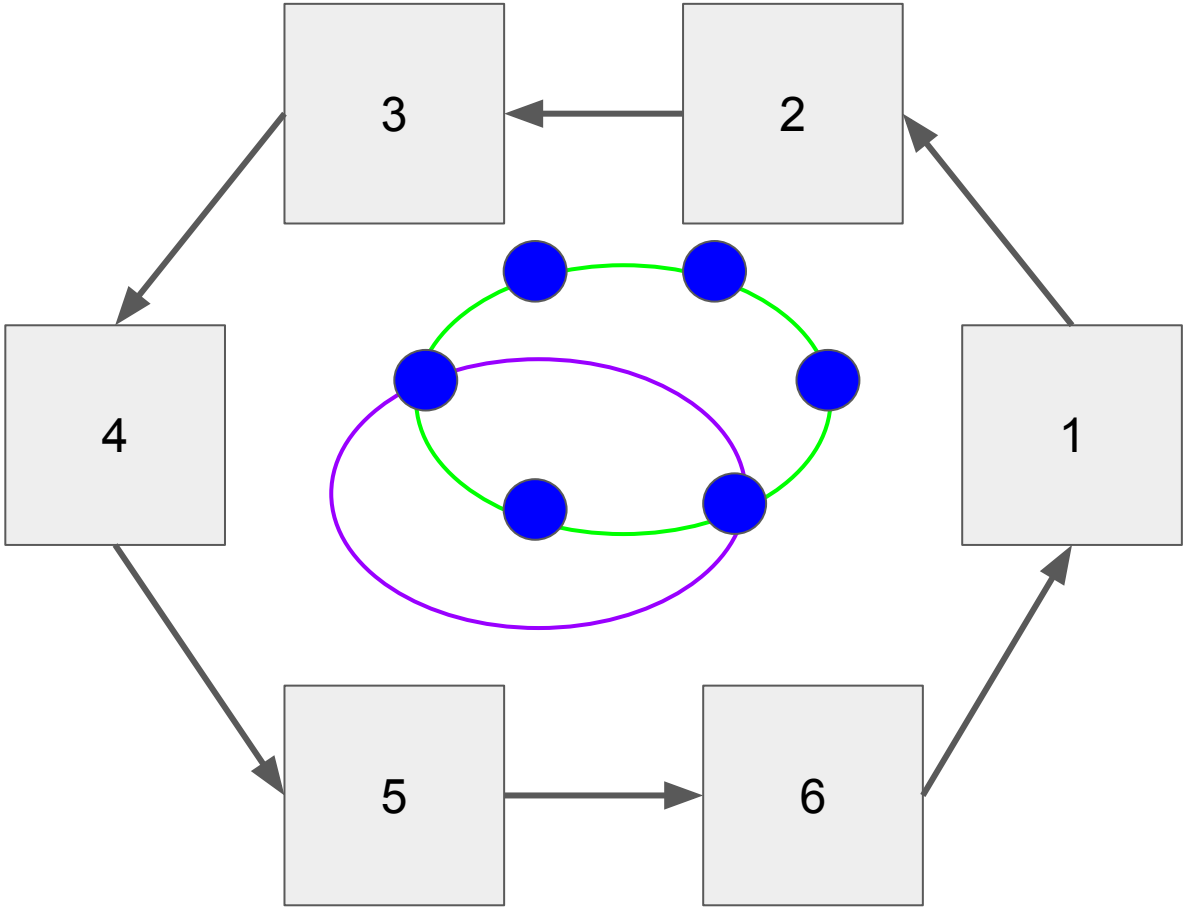

VAA count=2
3
2
VAA count=1
4
1
mint(to, id)
processing[id]
5
6


VAA count=2
3
2
VAA count=3
VAA count=1
4
1
mint(to, id)
processing[id]
Does count == #chains
VAA count=4
VAA count=6
5
6
VAA count=5


3
2
VAA count=3
mint()
4
1
mint()
5
6
VAA count=3


3
2
4
1
5
6
VAA
rectify()
rectify()


3
2
~~processing[id]~~
timestamp[id]
4
1
processing[id]
timestamp[id]
VAA
rectify()
5
6


3
2
4
1
5
6