

Version Control for Data

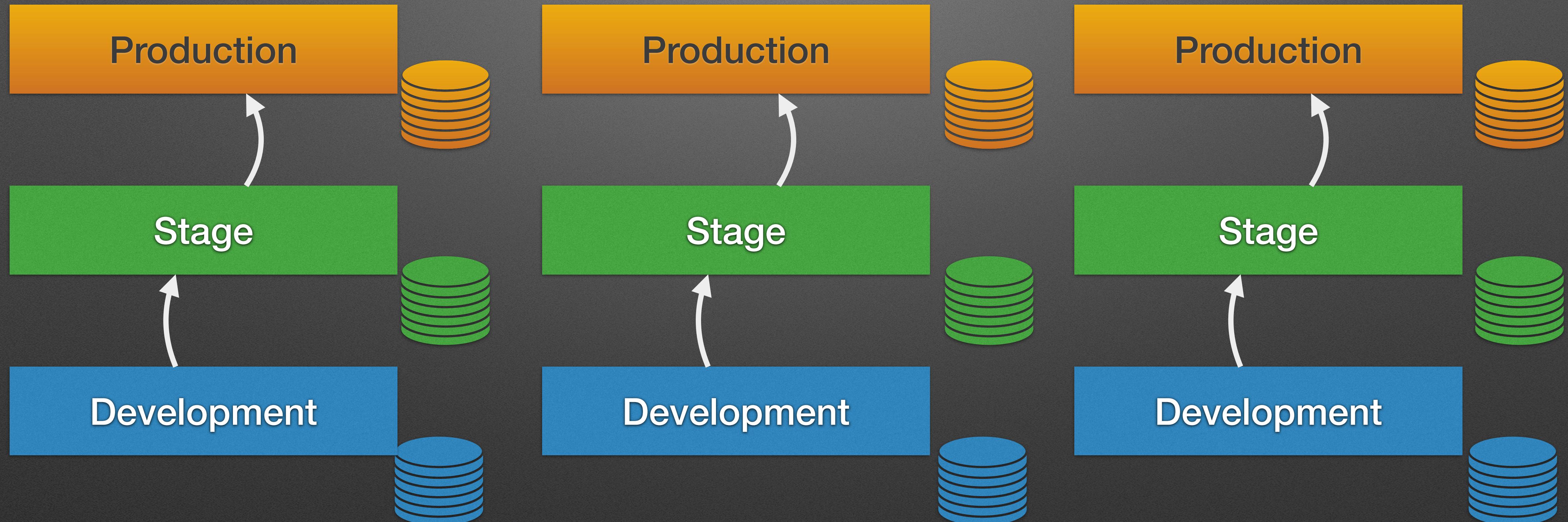
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The value of code

The value of data

What does “Versioned Data” mean?

A motivating case



What does “Versioned Data” mean?

- Where are we now?

What does Versioned data mean?

- Where are we now?
- What's ahead of us?

What does Versioned data mean?

- How did we get here?
- Where are we now?
- What's ahead of us?

What does Versioned data mean?

- How did we get here?
- Where are we now?
- What's ahead of us?
- What else could happen?

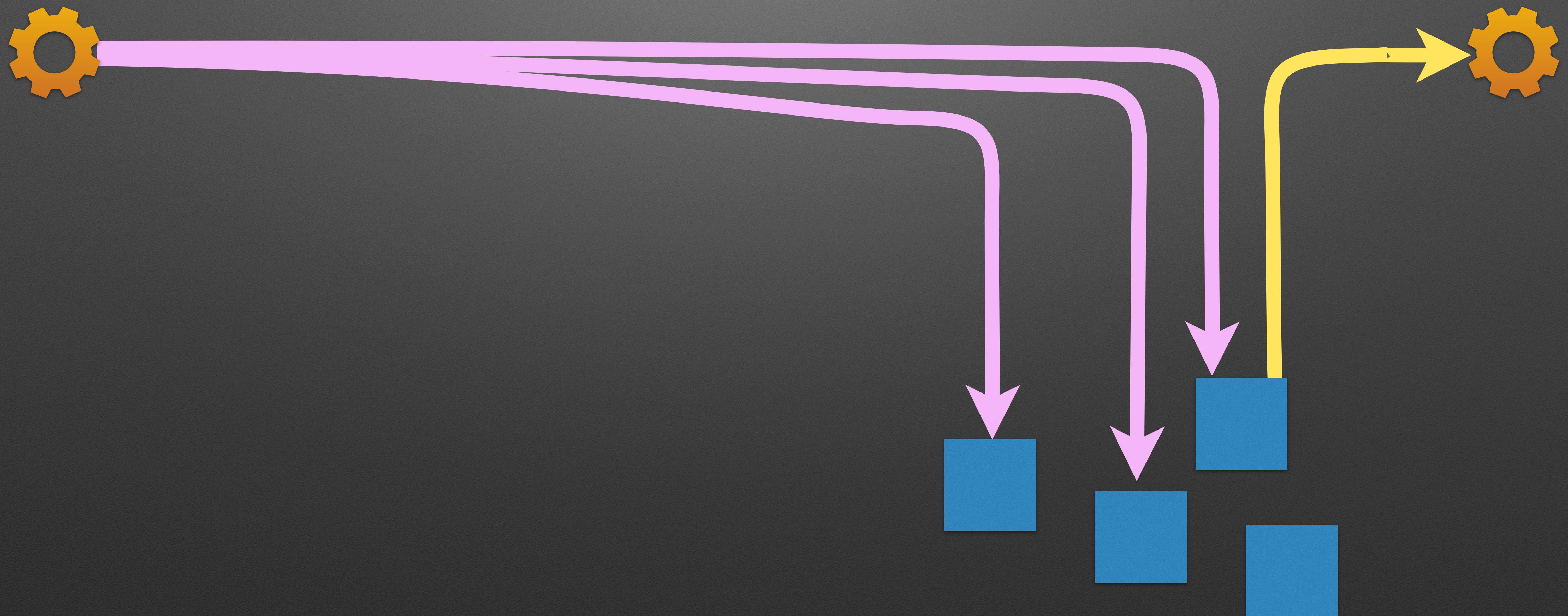
We've forgotten how to build
databases

Security needs to be failsafe

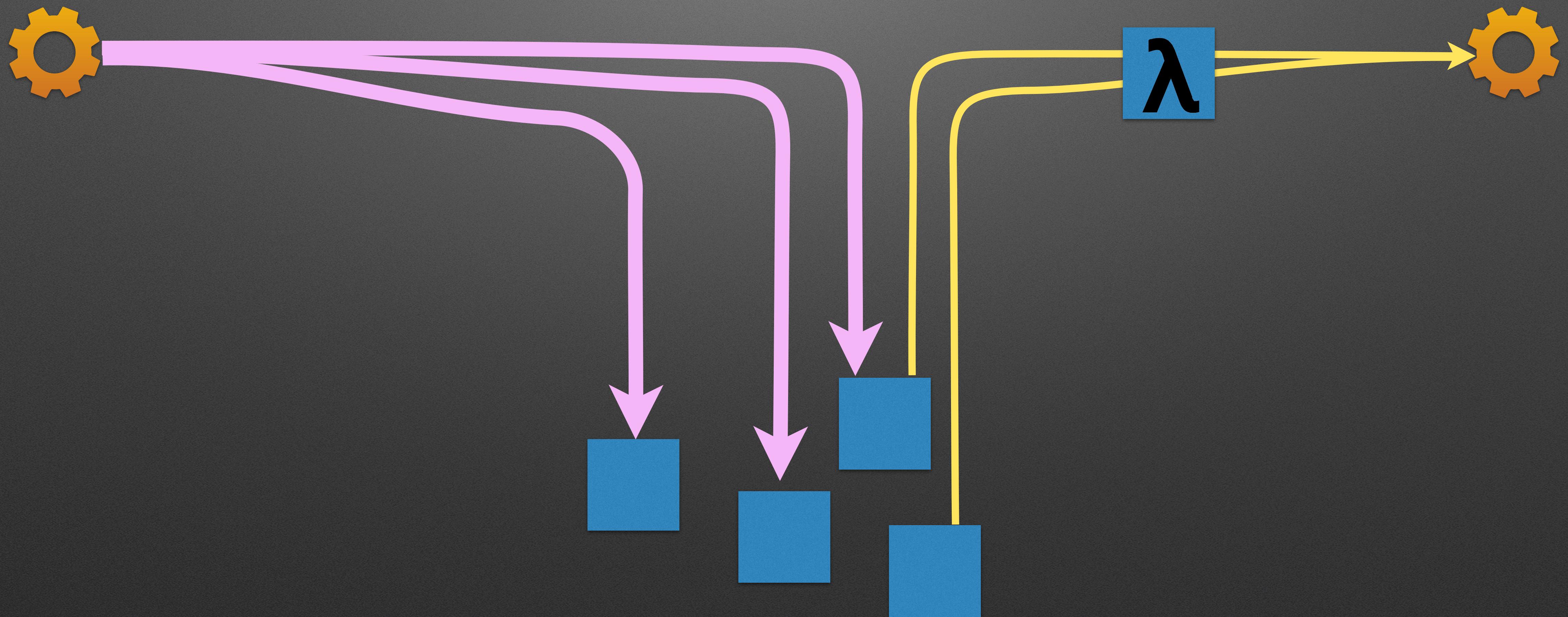
Plasticity

What is a database anyway?

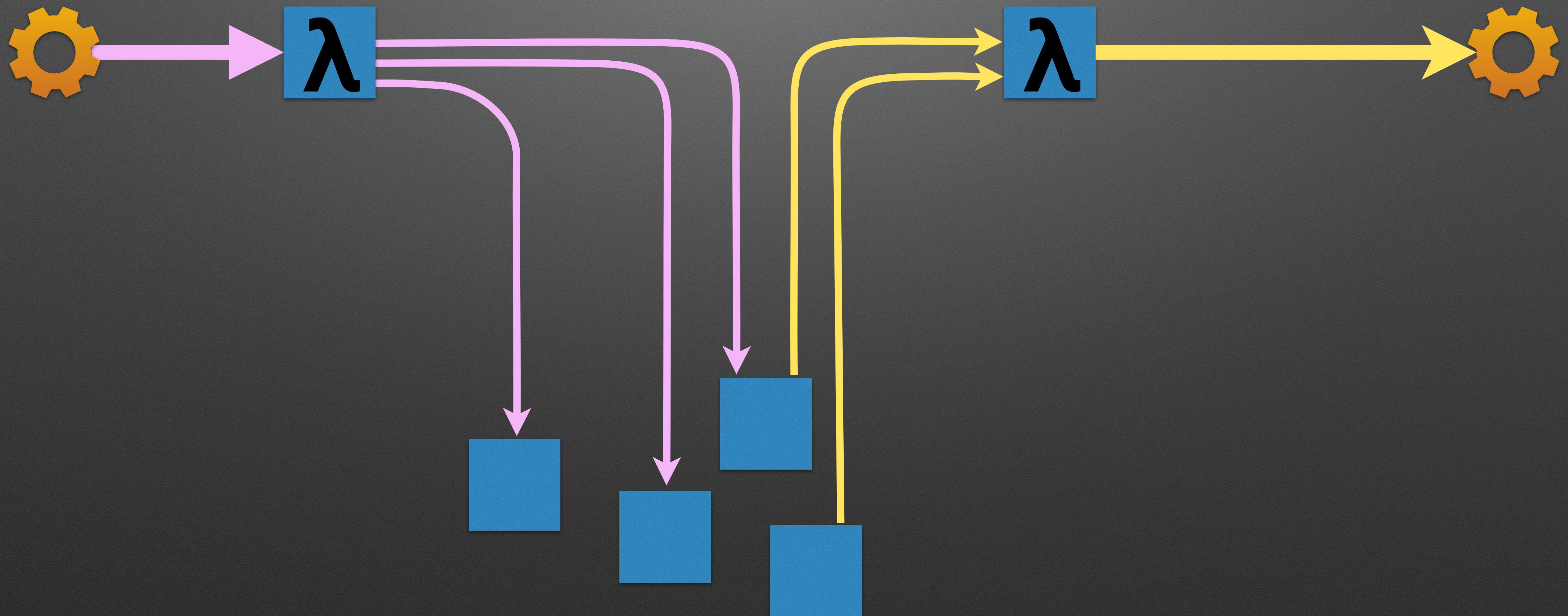
The file model



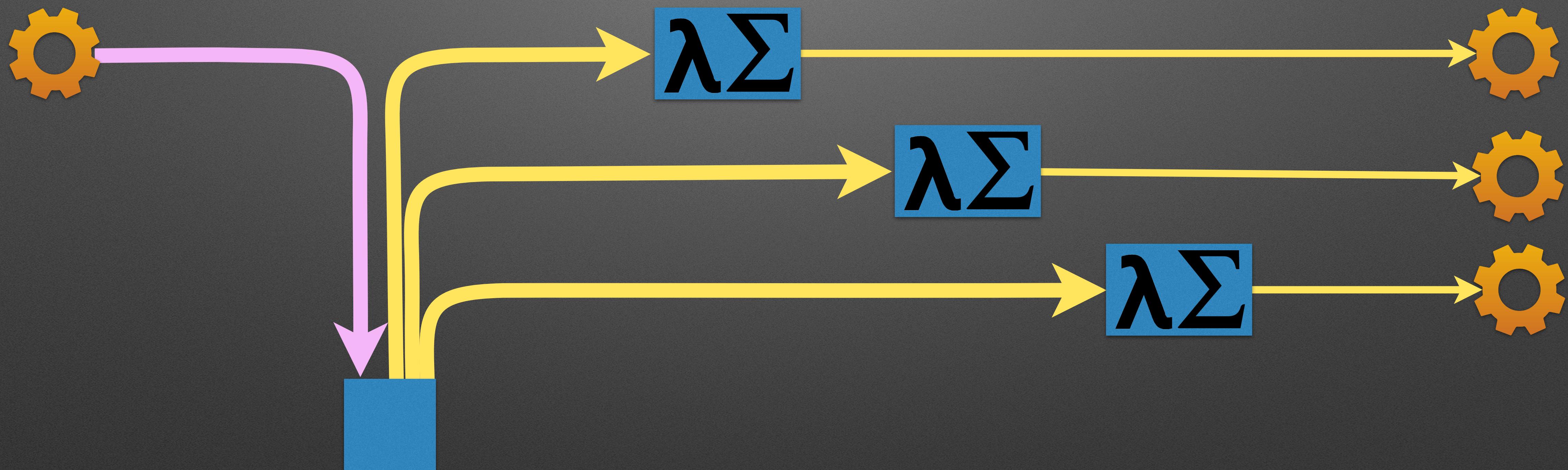
The relational model



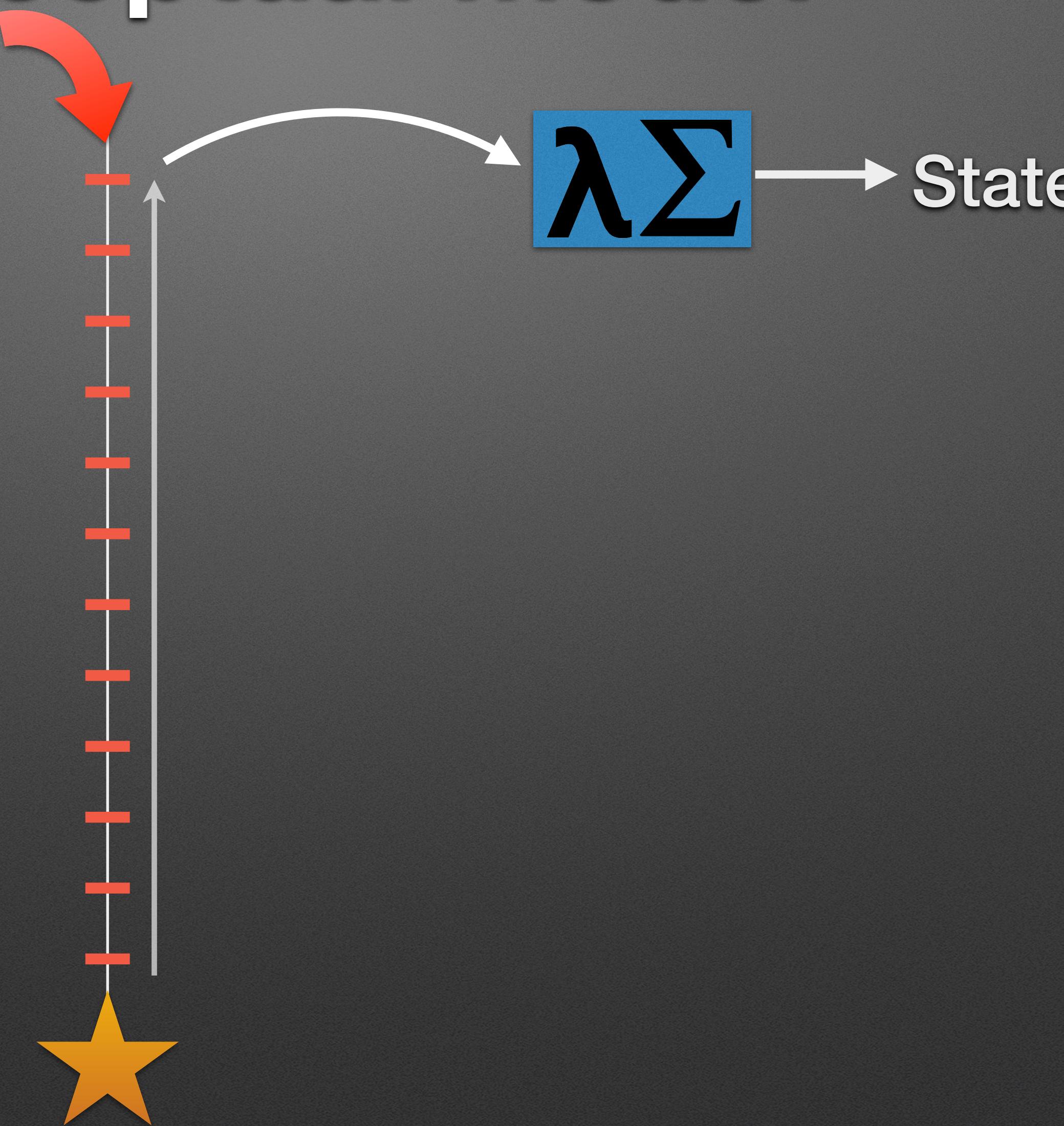
The CQRS model



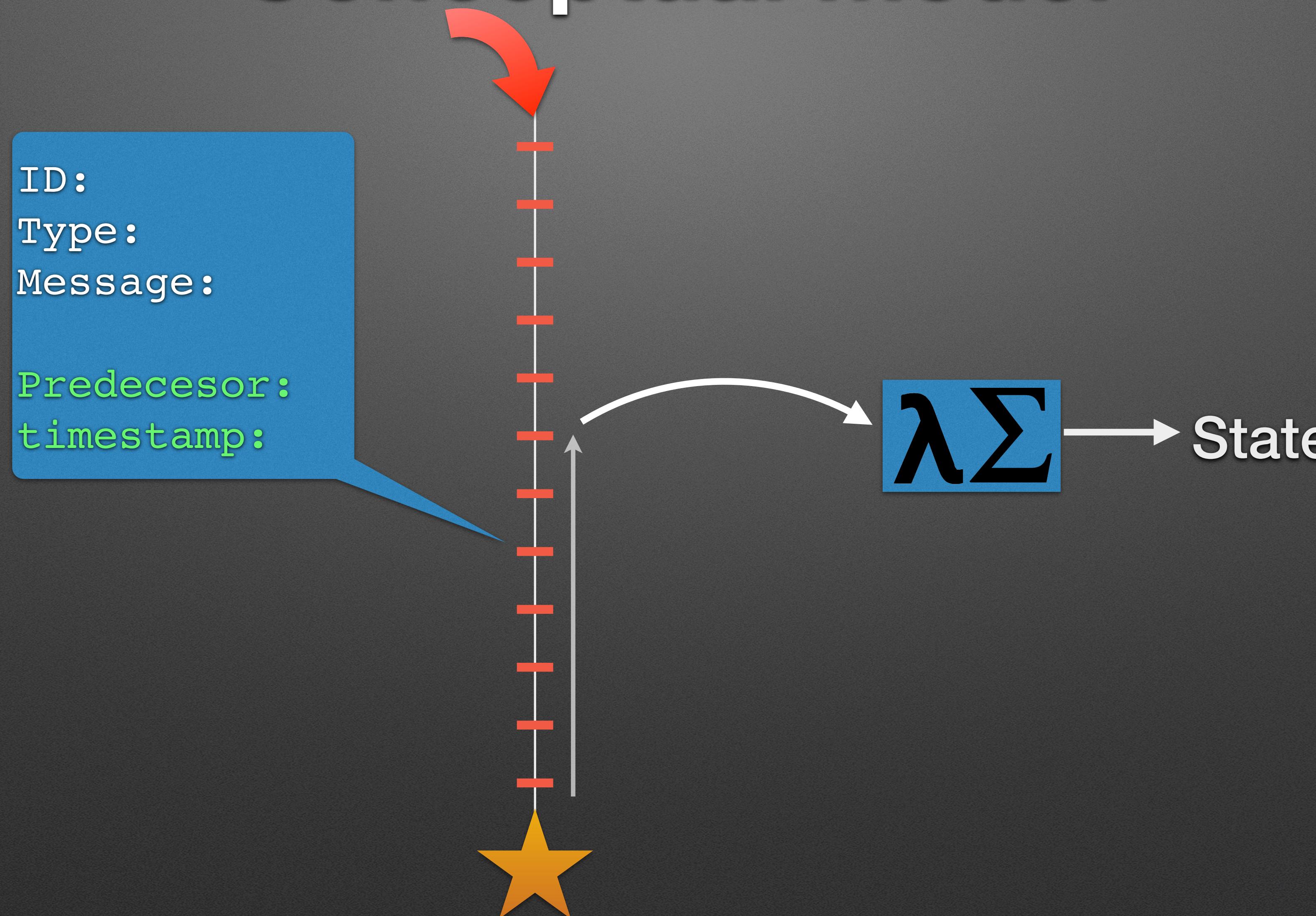
The Event Source model



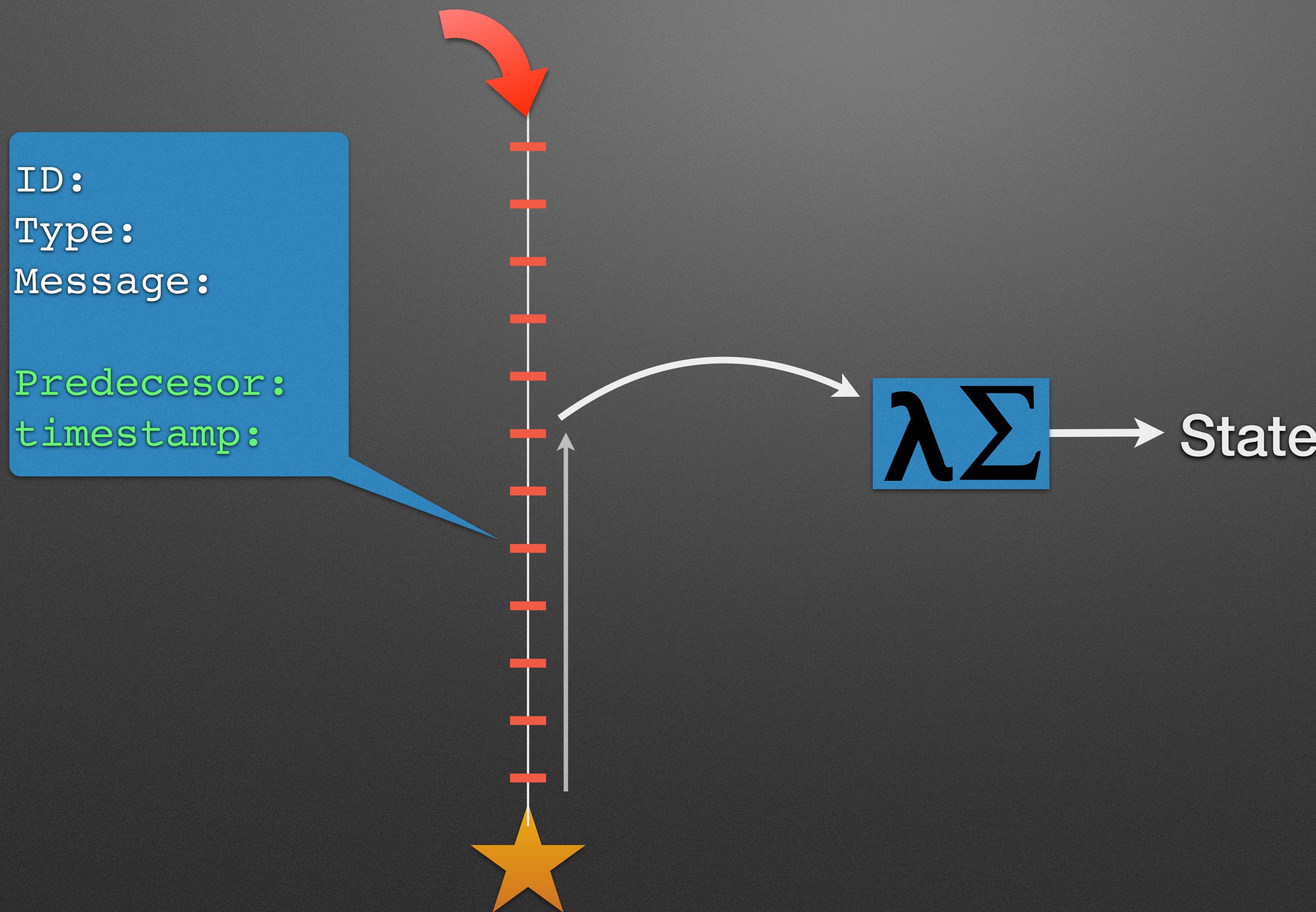
Conceptual model



Conceptual model



The Event Source model

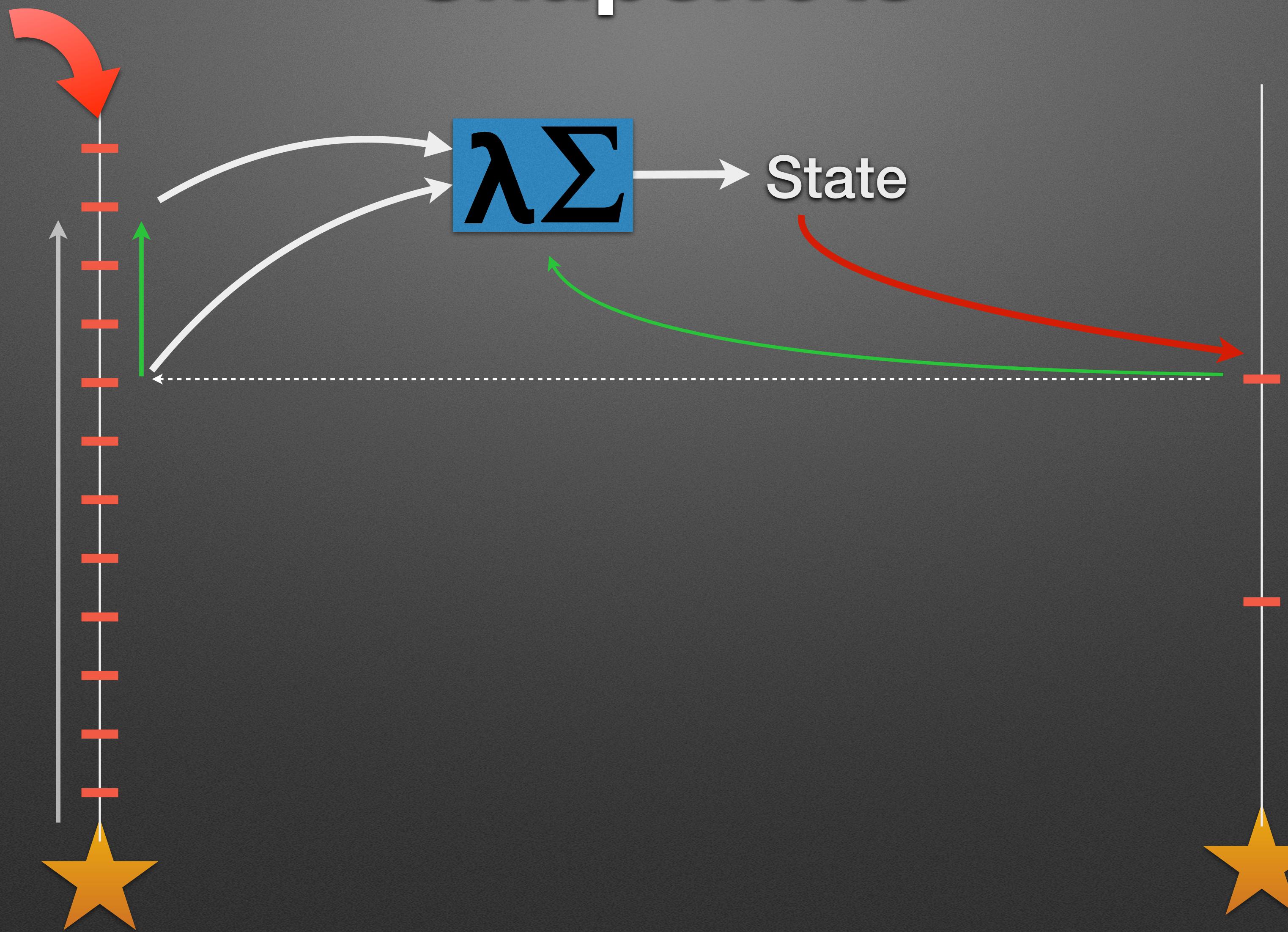


The Event Source model

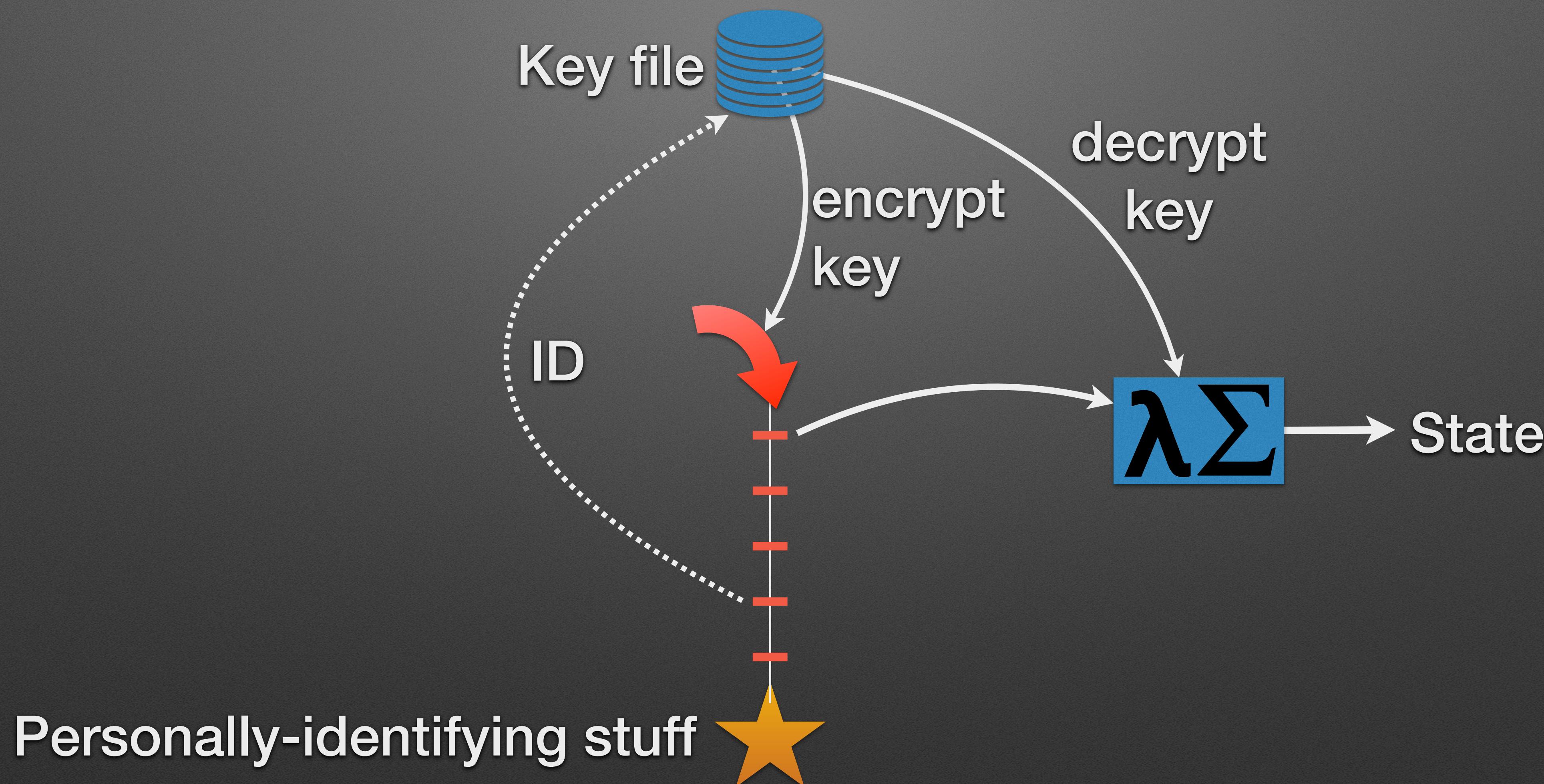
- Highly durable - everything is immutable
- Highly plastic - no schemata
- No race or collision issues - there's a strict order to everything
- Highly performant - scanning is very efficient
- Highly secure - Deletion is encryption
- Inherently distributable - immutability built-in
- Simple - events, lambdas, and states all drawn from the domain
- Highly auditable

Some advanced patterns

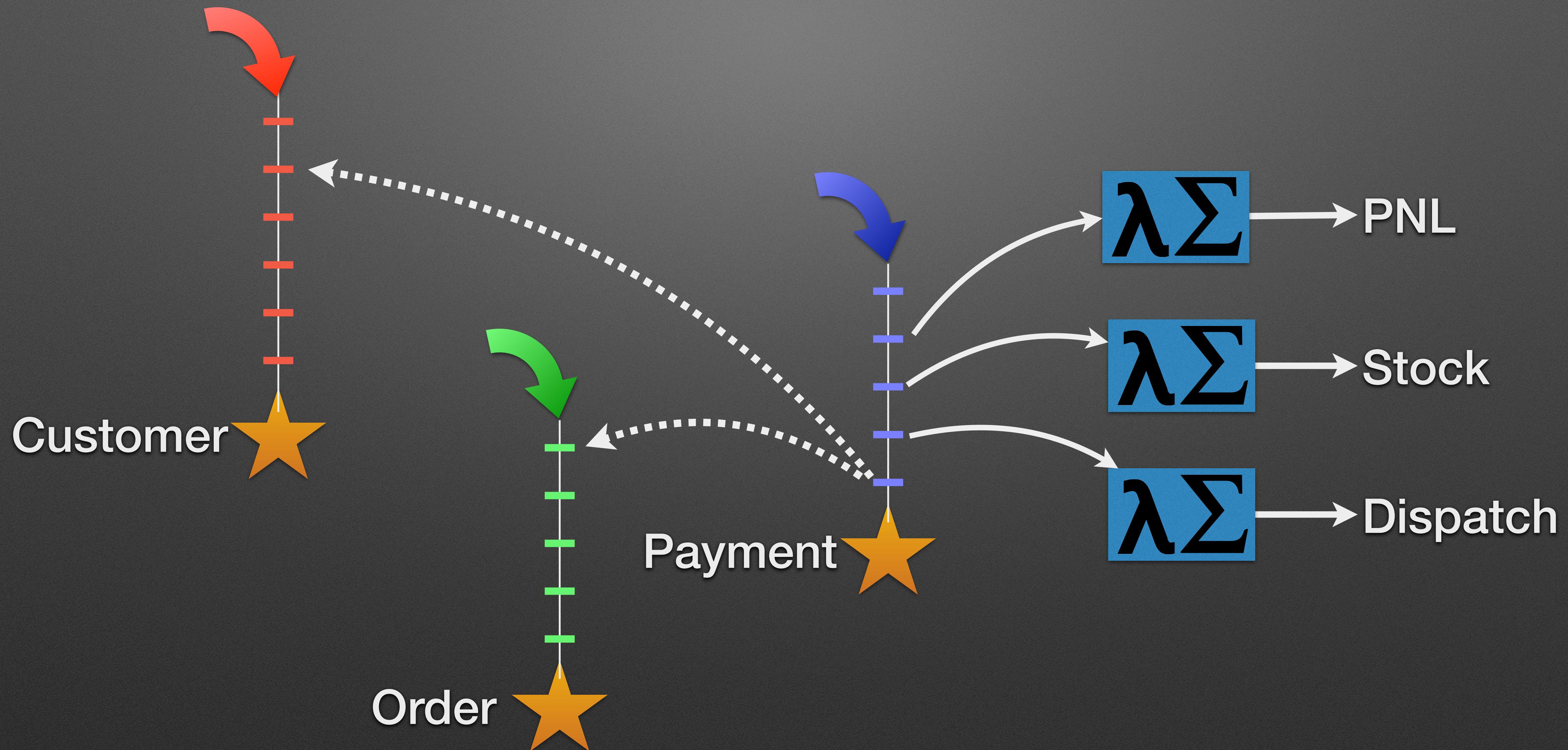
Snapshots



Authentication and revocation

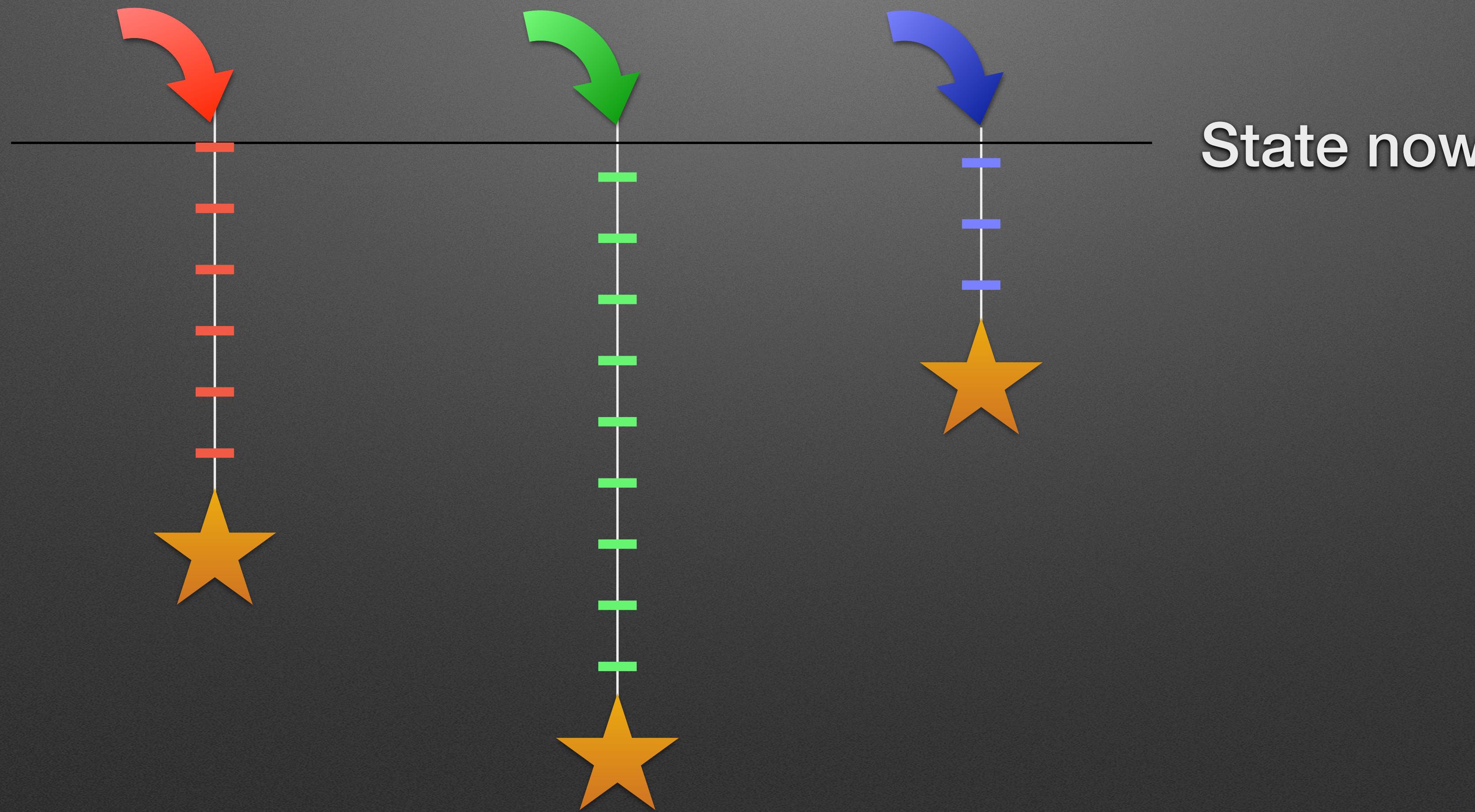


Microservices

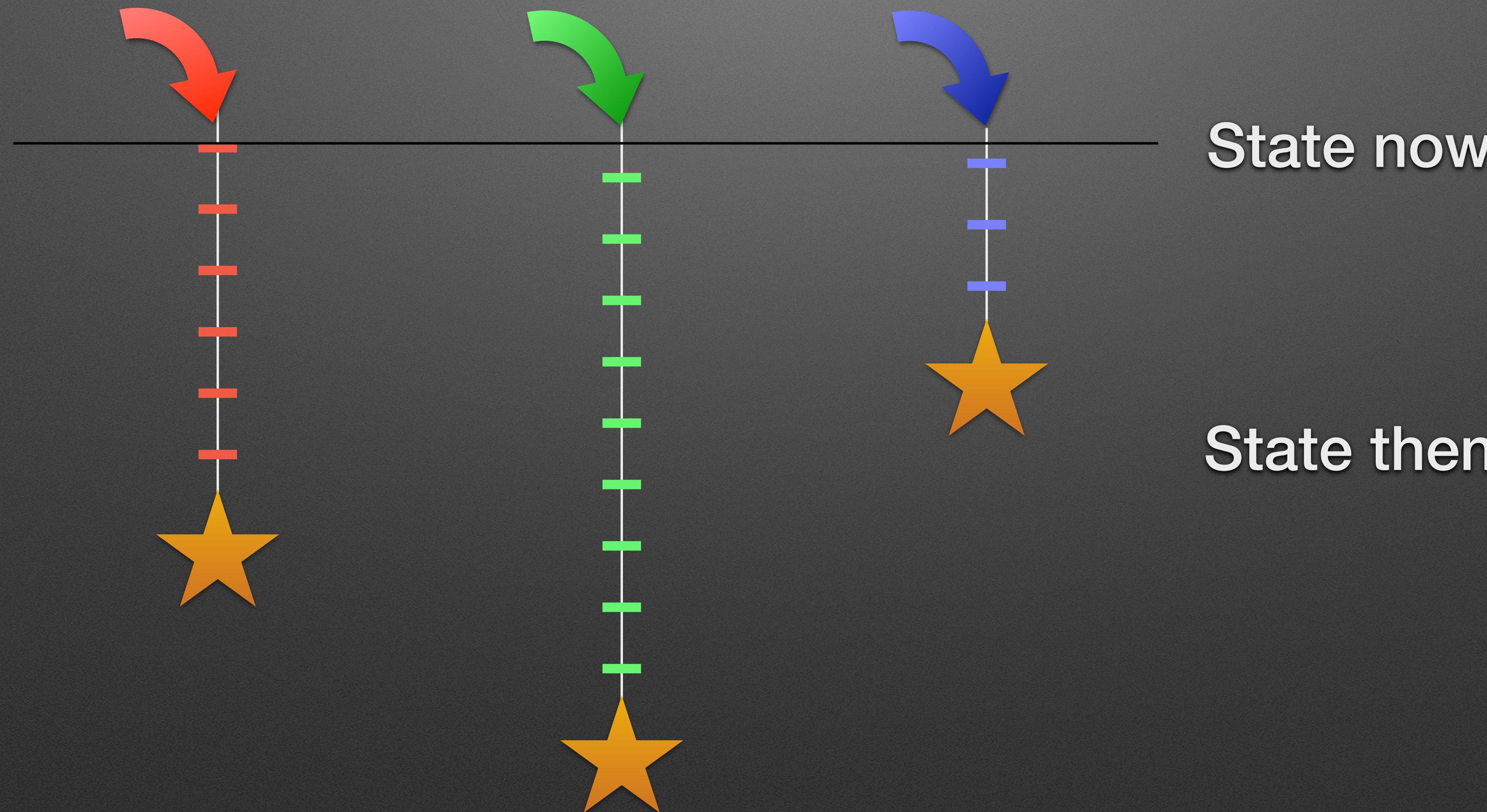


Towards version control

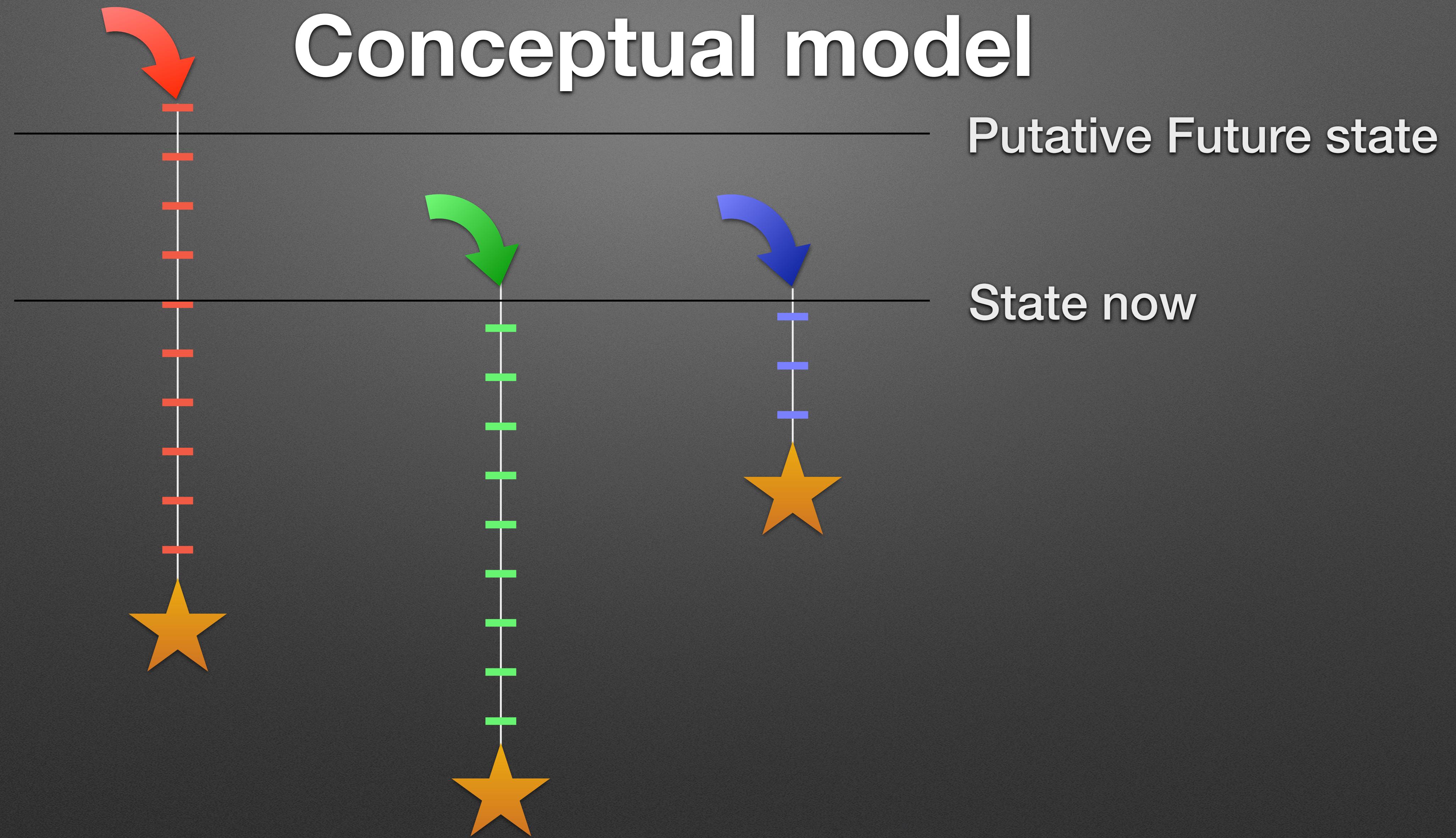
Conceptual model



Conceptual model



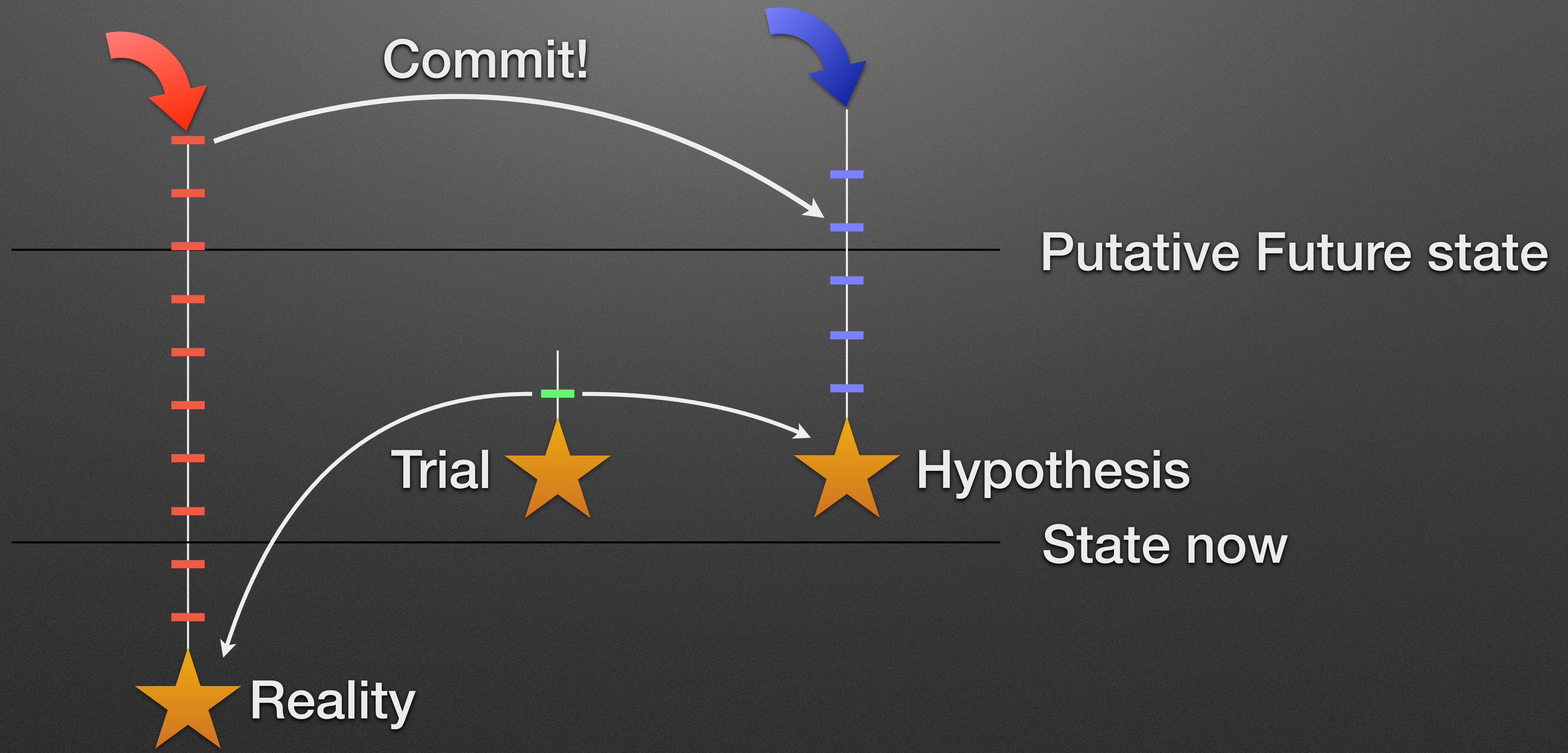
Conceptual model



Putative Future state

State now

Conceptual model



In practice...

A list of event source databases:



<https://eventstore.org>

Wrap-up

Questions?