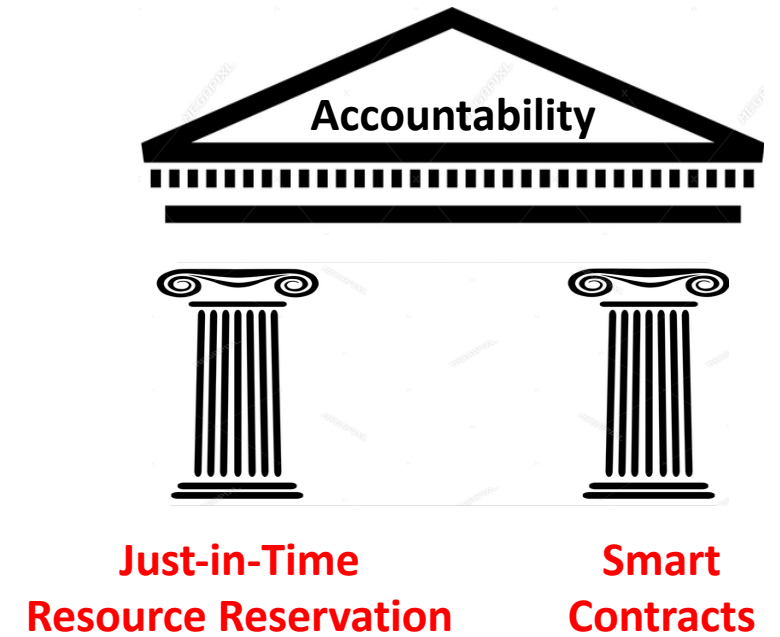


AJIT: Accountable **Just-in-Time** Resource Allocation with **Smart Contracts**



Tooba Faisal



Damiano
Di Francesco Maesa



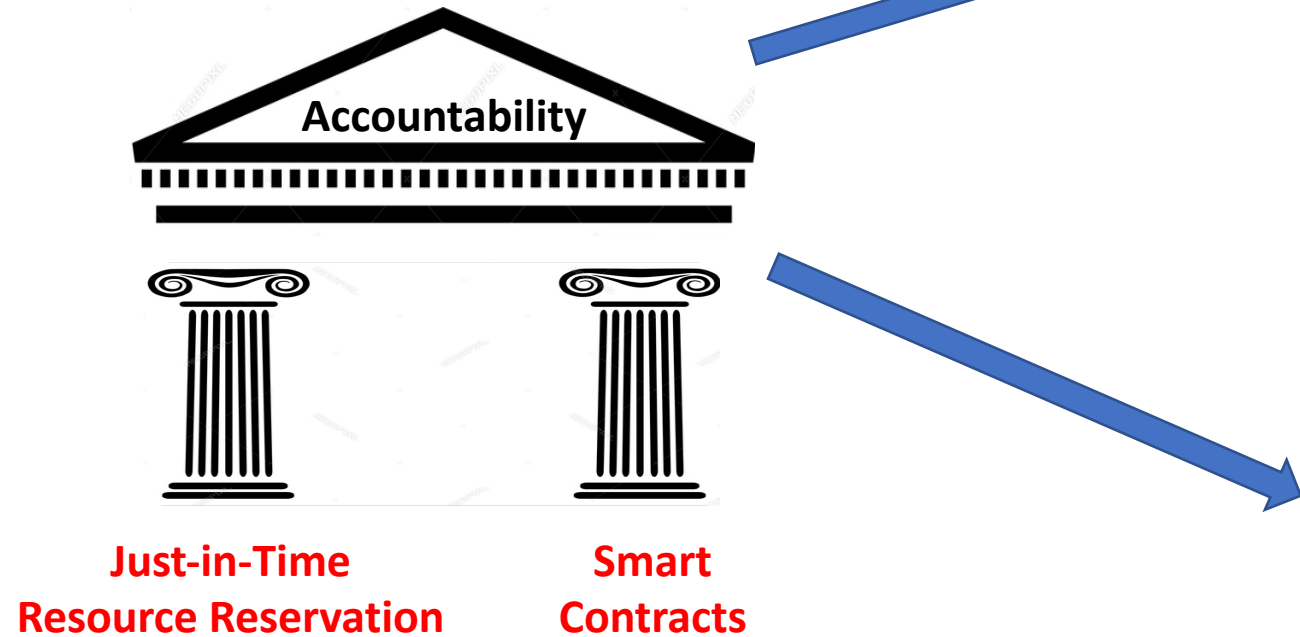
Nishanth Sastry



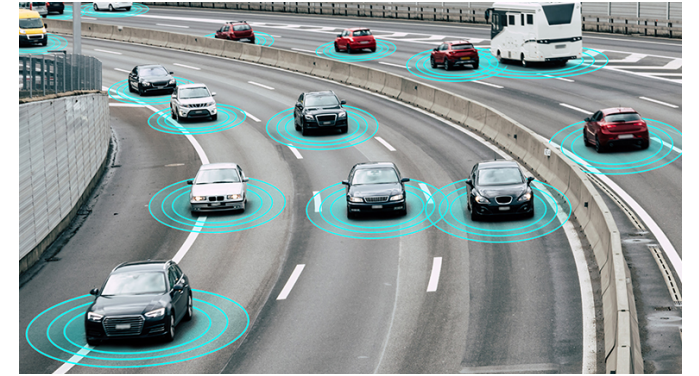
Simone Mangiante



Supporting mission-critical services



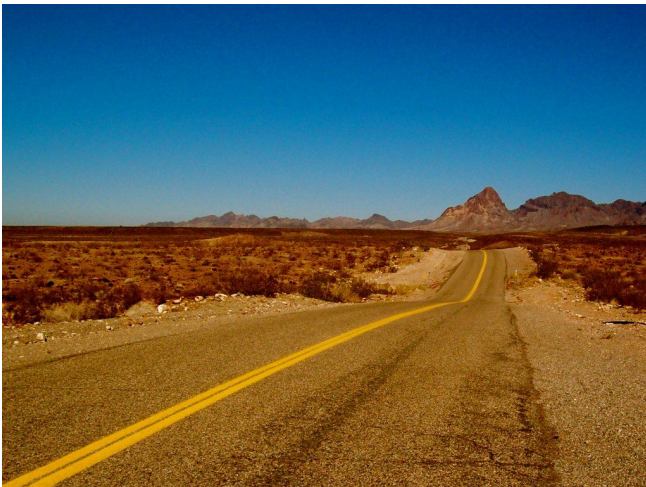
Resource allocation



SLA Accountability

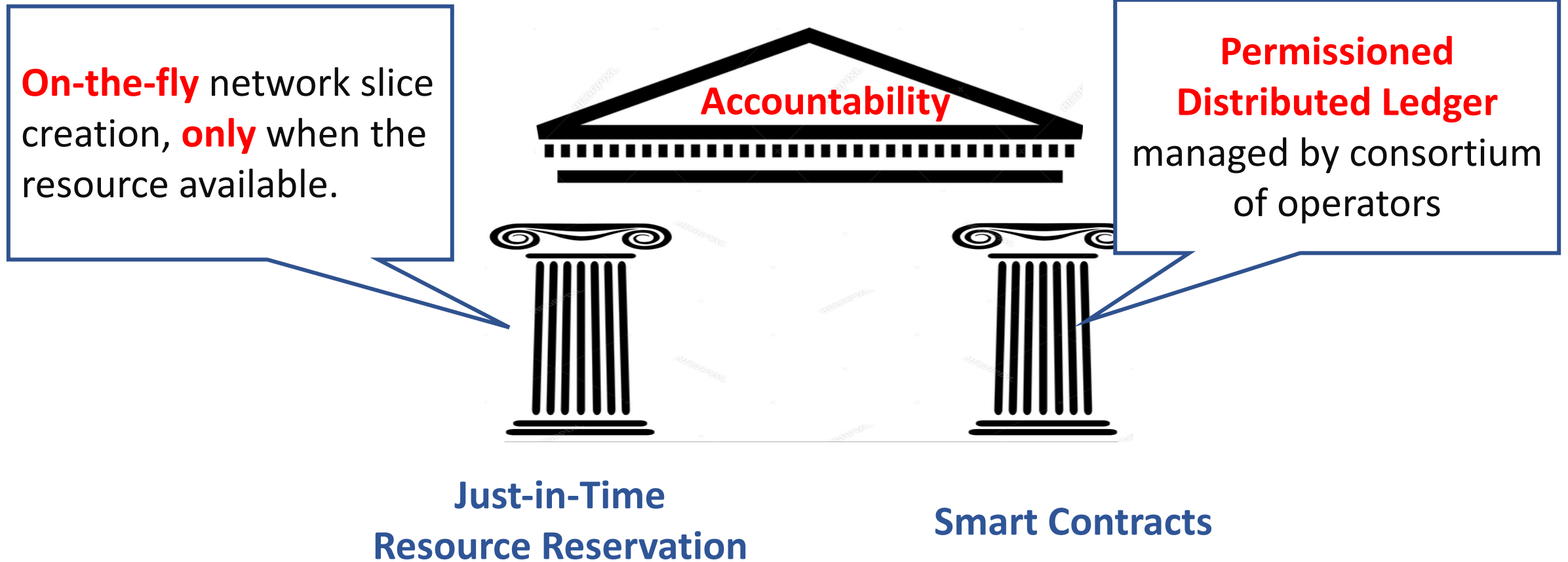
Problems with current service contracts

Consumer: Service level guarantees are **not always** required.

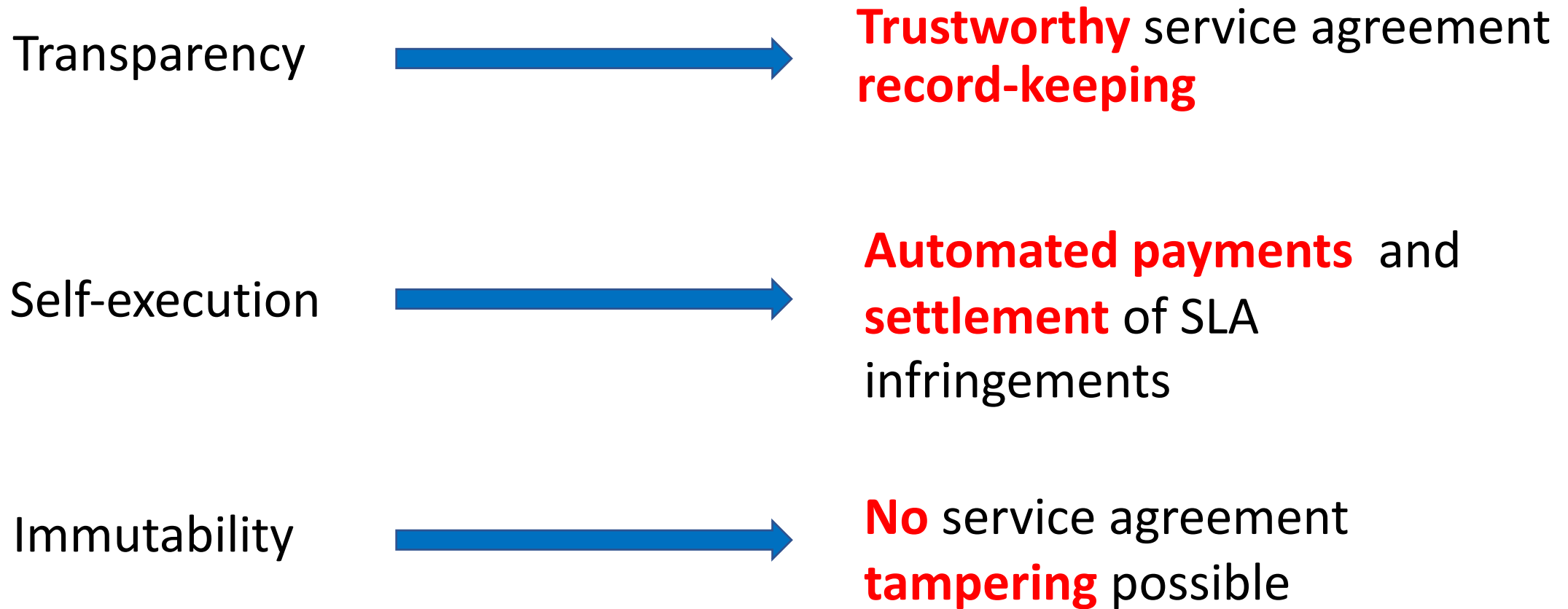


Operators: **Stringent SLAs** are **difficult** to honor and may be **unnecessary**.

Our proposal



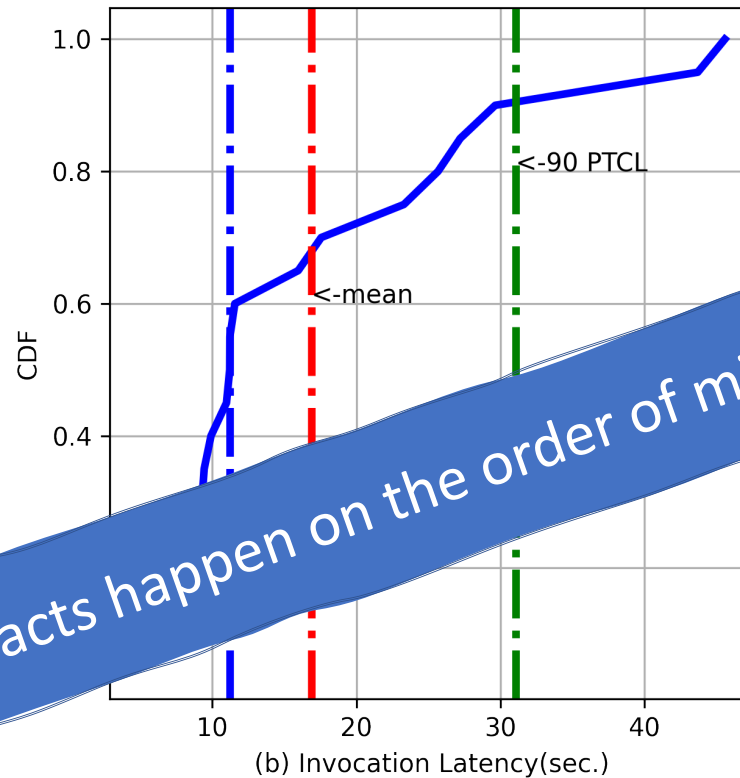
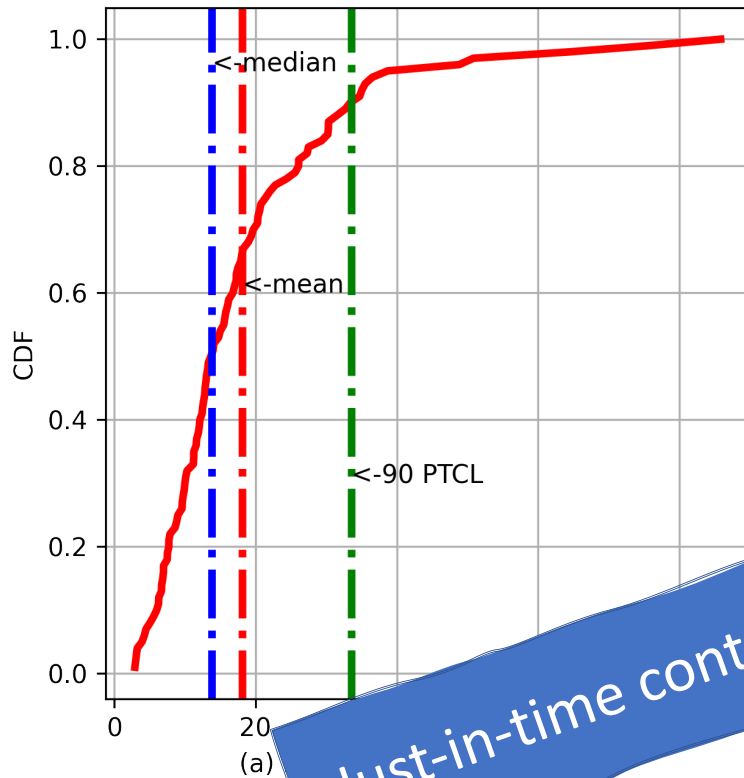
Why Smart contracts?



Network slicing for resource reservation

- Enables **tailor-made** services(i.e. one slice for one service type)
- **Dynamic** resource reservation
- Better management may enable operators to **manage congestion** in the network and generate **higher revenue** (i.e. higher cost for busy times/paths)

Is Just-in-Time possible?



- Mean Deployment ~18s.
- Mean **invocation** ~16s.

Just-in-time contracts happen on the order of minutes

Resource reservation may take order of minutes.

Conclusions

