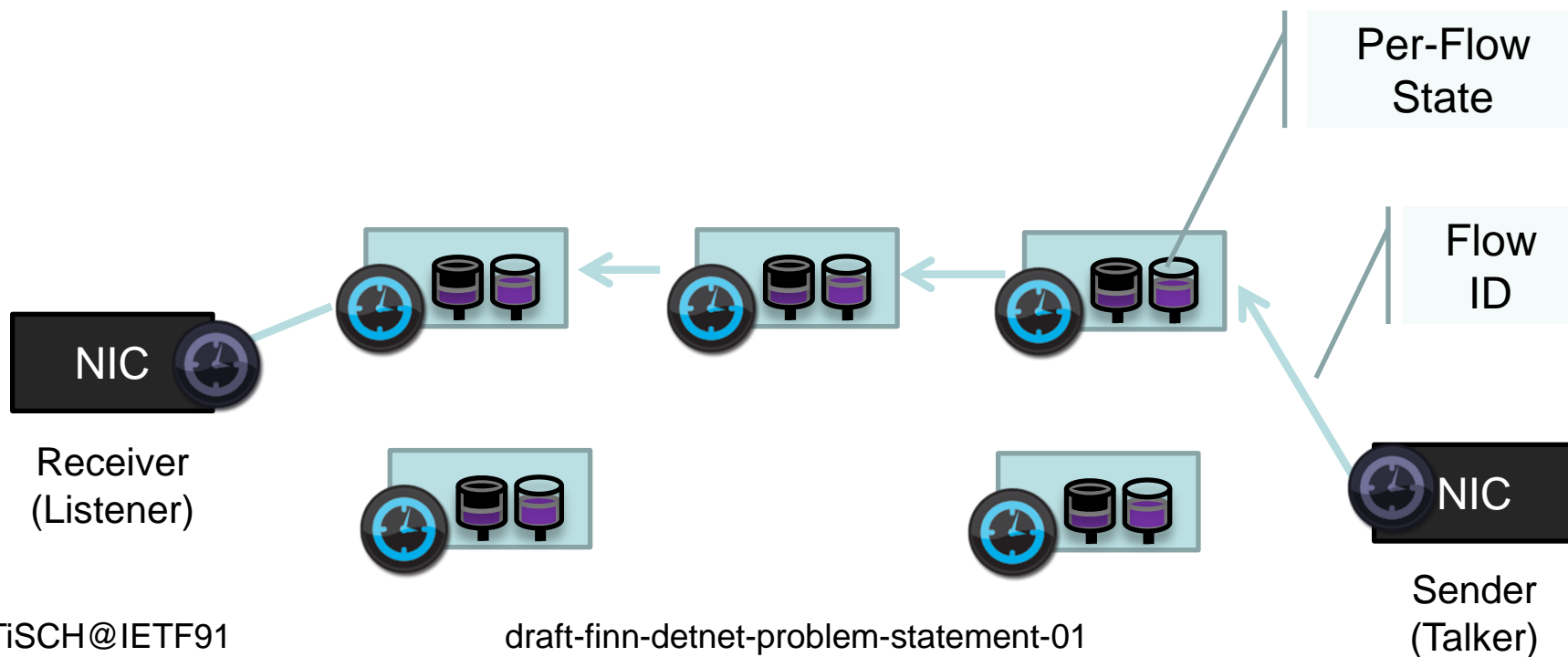


draft-finn-detnet-problem- statement-01

Norm Finn
Pascal Thubert

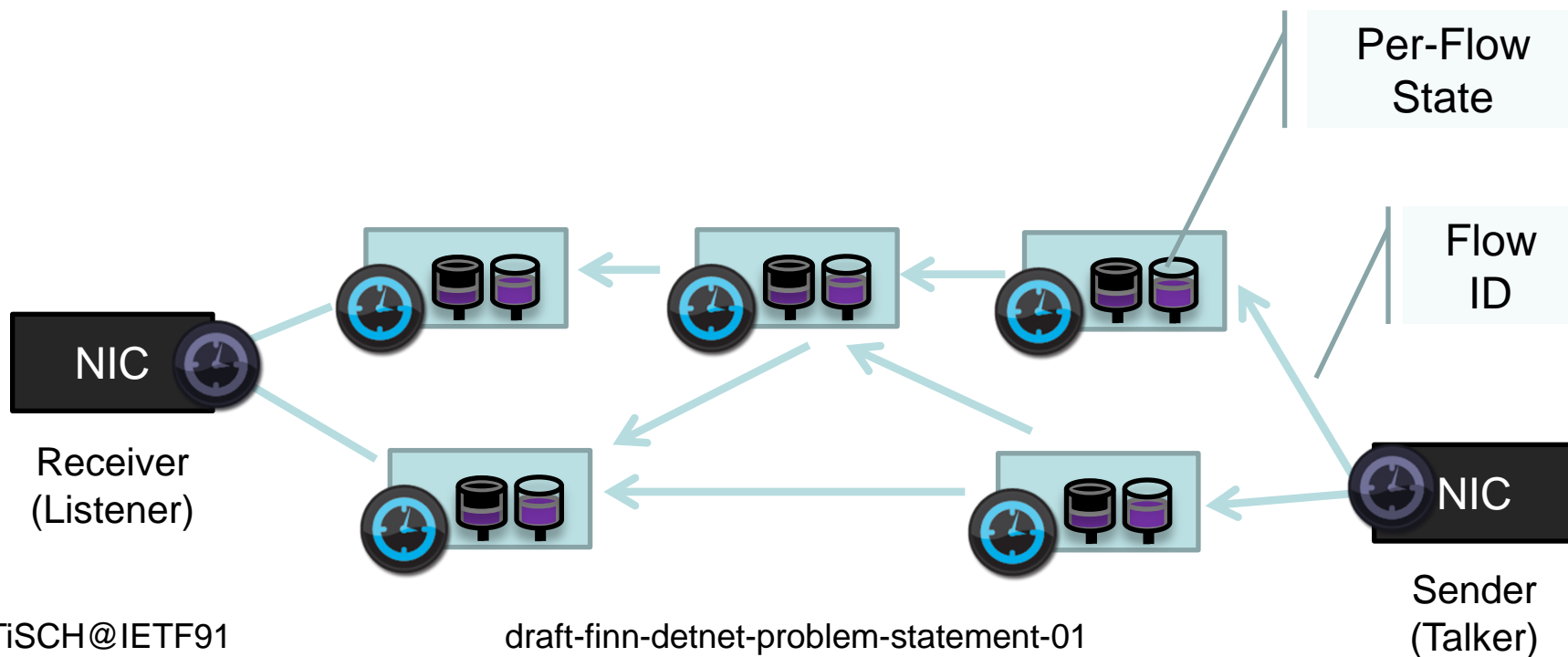
Basic Dataplane Model

- Single nailed-up path

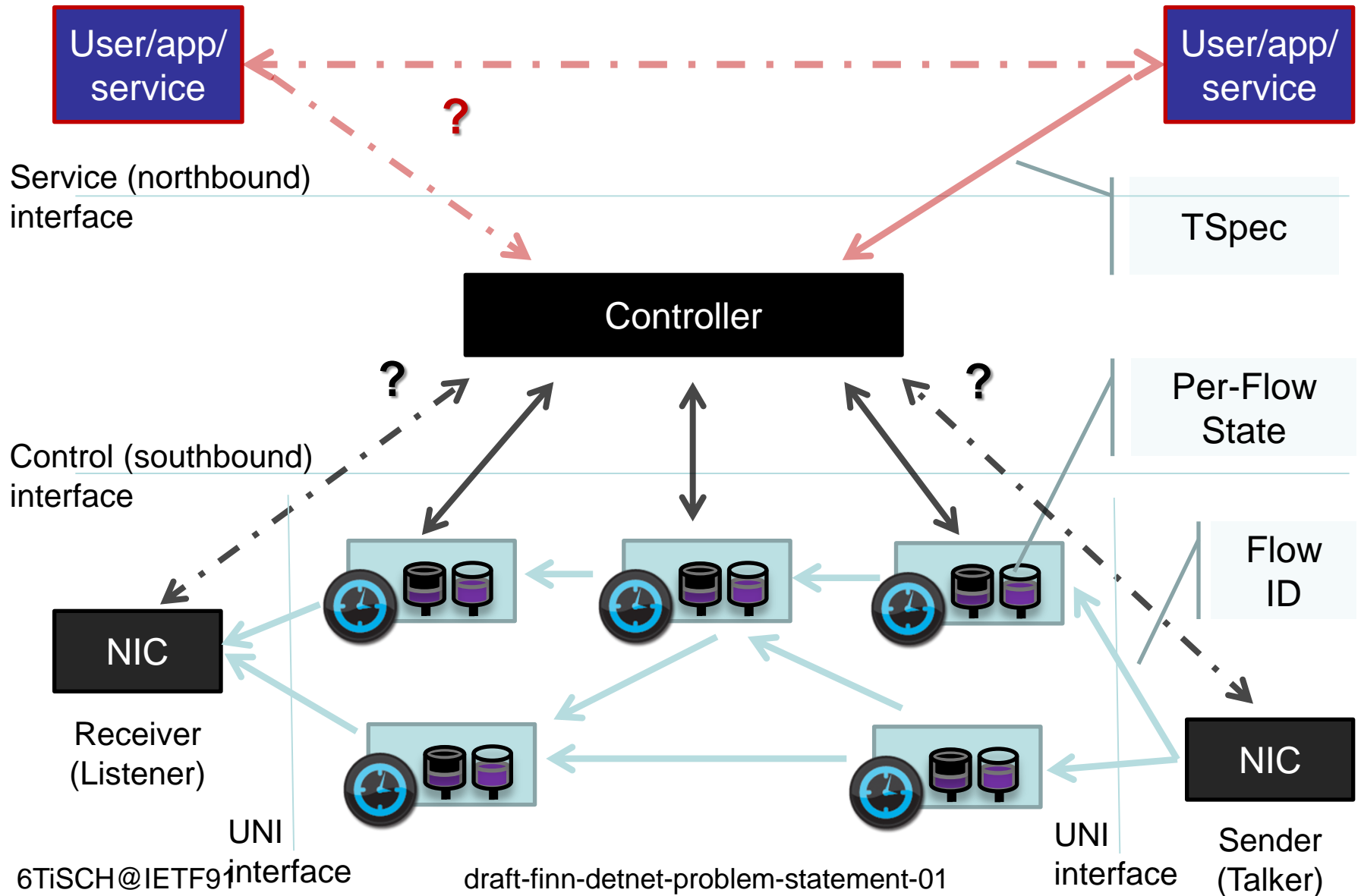


Dataplane Model

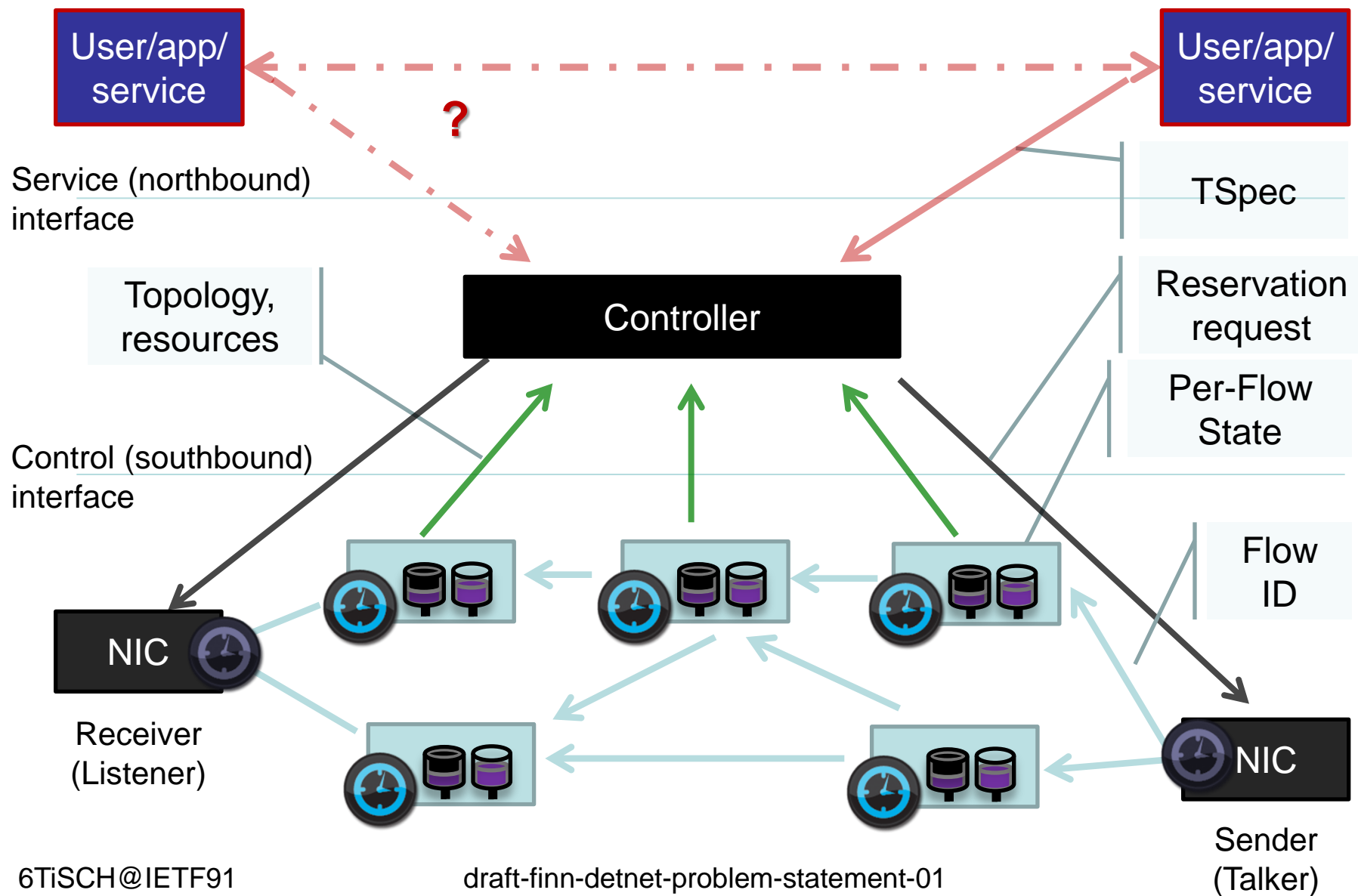
- Add Replication & Elimination for resiliency



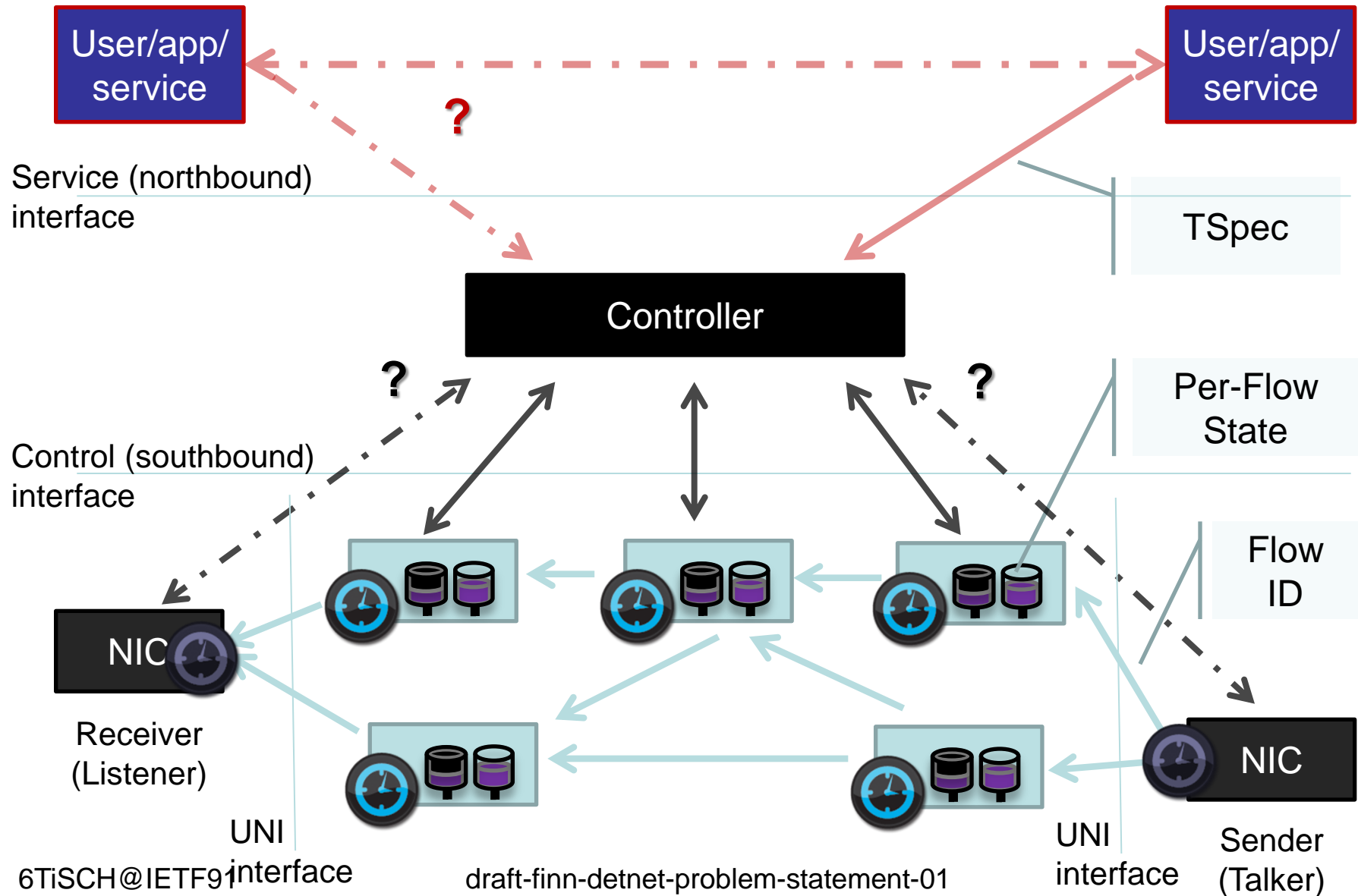
Suggested model based on Art



In-band reservations



Reservations from Controller



Left to be solved

- **Interaction models**

 - Centralized architecture

 - SouthBound and Northbound flows

 - UNI (management (LMI+), rate (CIR++) ...)

- **Data Models**

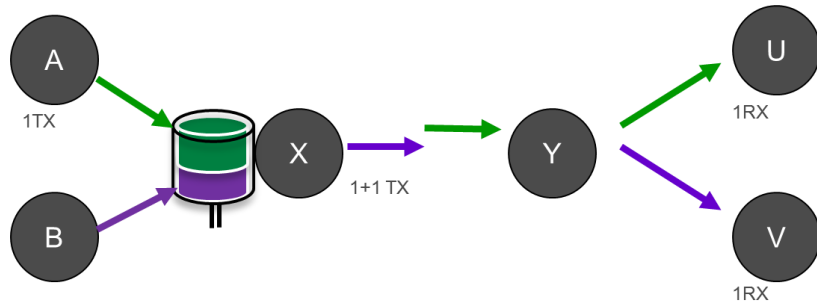
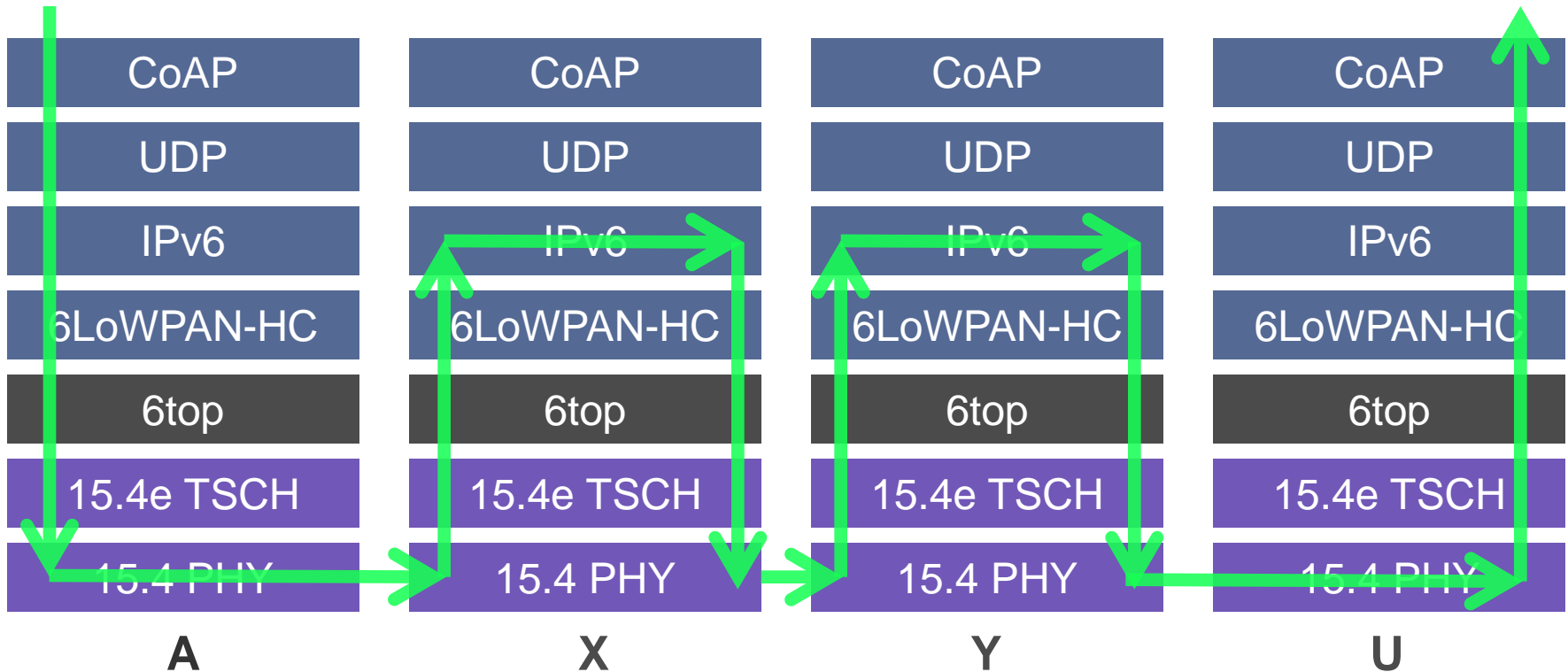
 - TSpec (app/service flow characterization)

 - Data model for per-flow state (buffers, Qs, timing)

 - Flow identification in packets (FlowID, seq#, time)

6TiSCH requirements to DetNet

Best effort routing



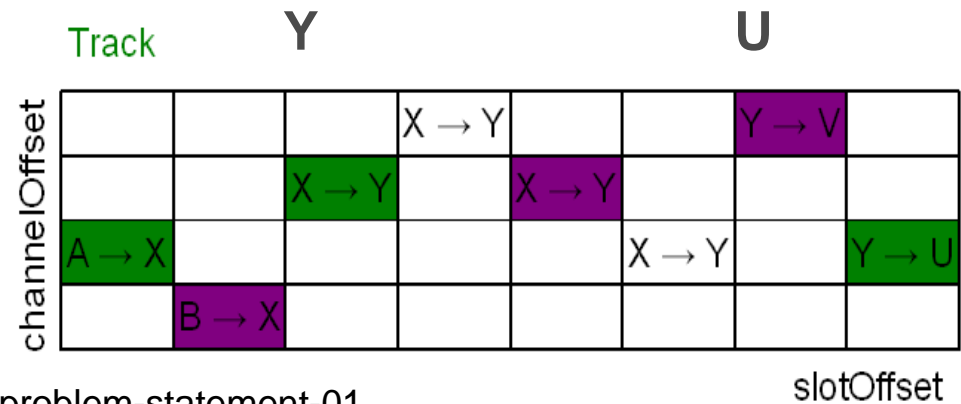
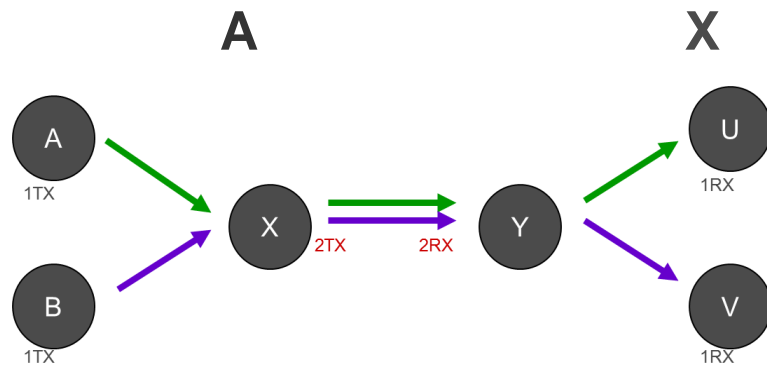
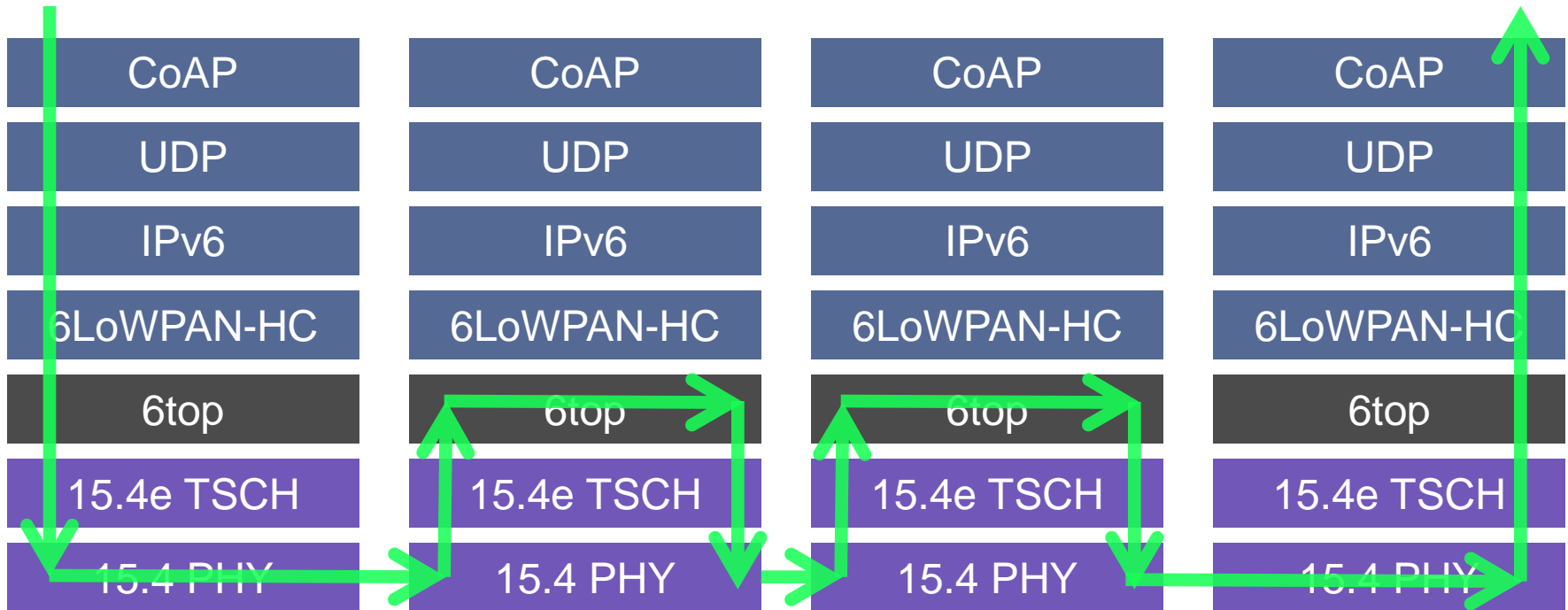
Bundle

			X → Y			Y → V	
A → X					X → Y		Y → U
	B → X						

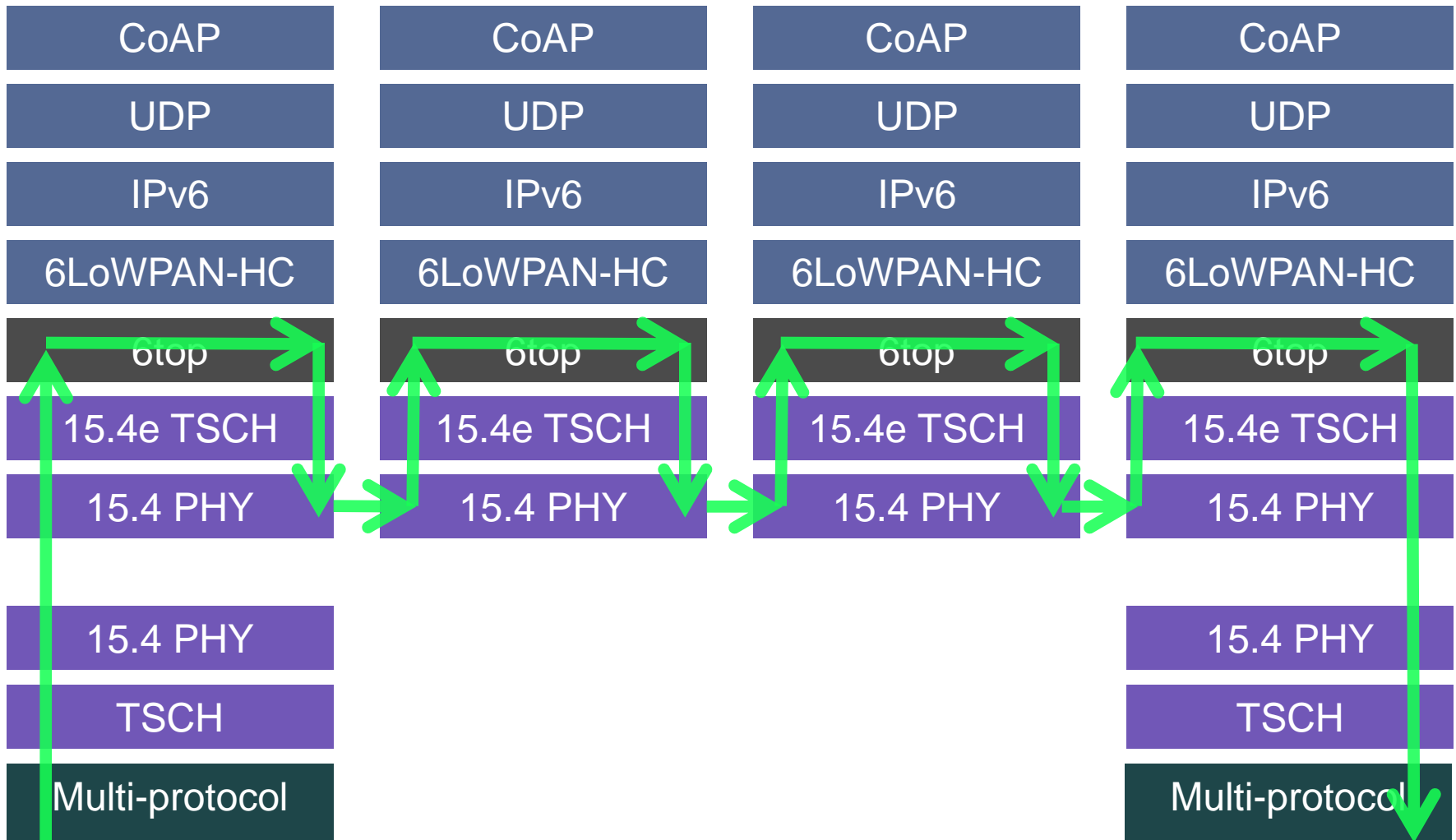
channelOffset

slotOffset

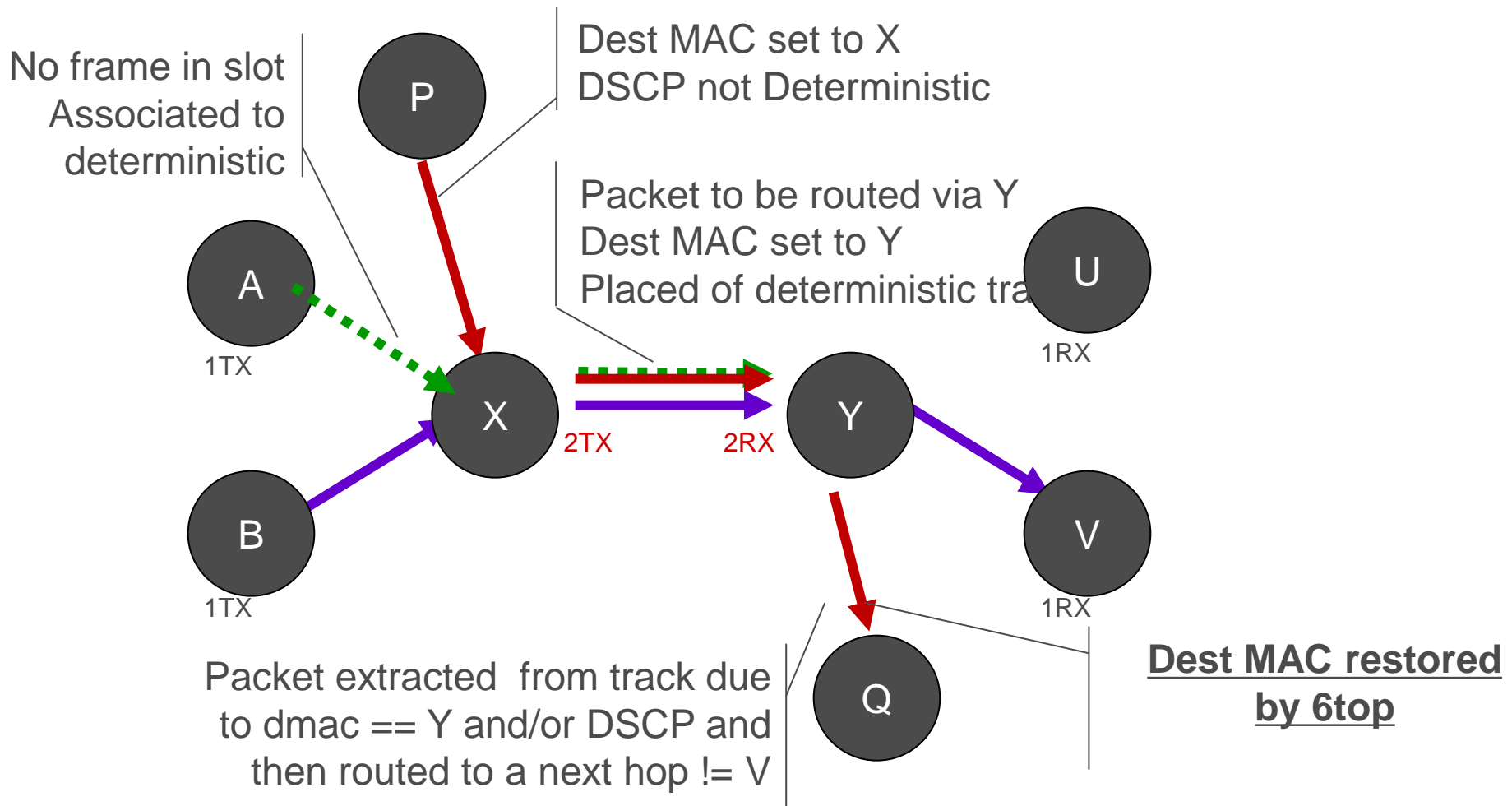
Track Switching in Transport Mode



Track Switching in Tunnel Mode



Opportunistic track slot reuse



Retracking after recovery

