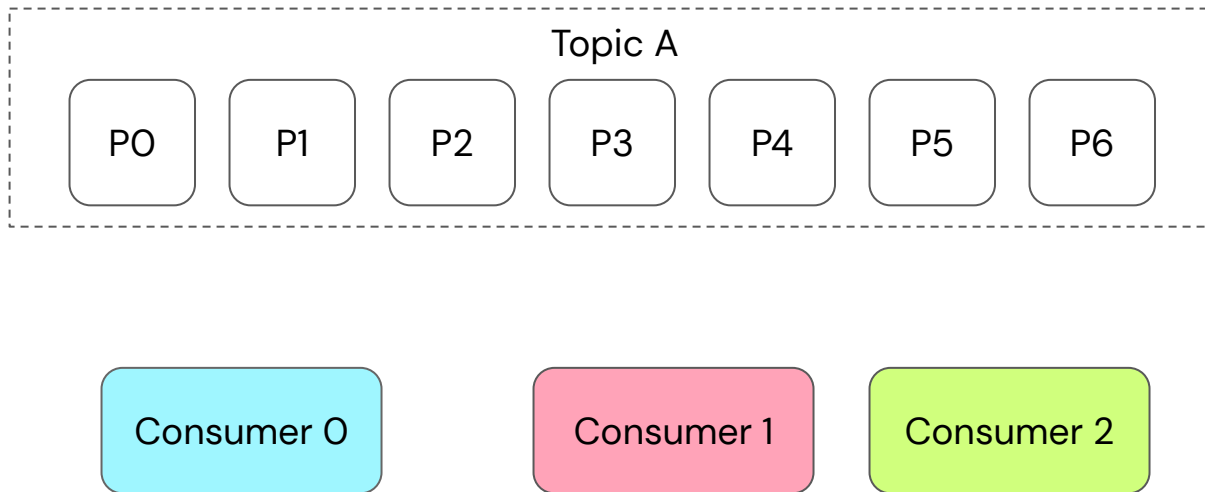


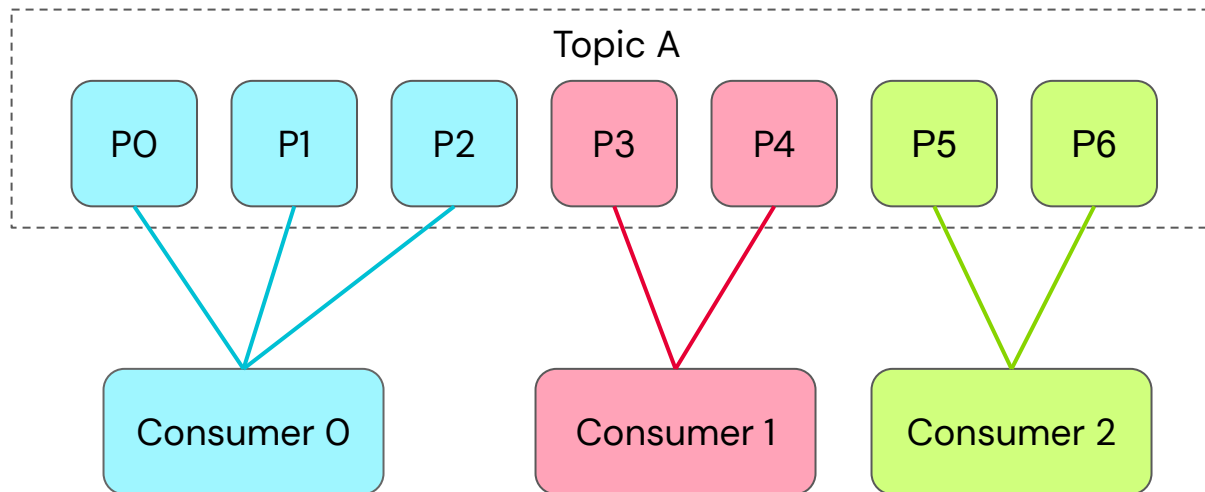
Strategies: Range

Goal: Partition collocation



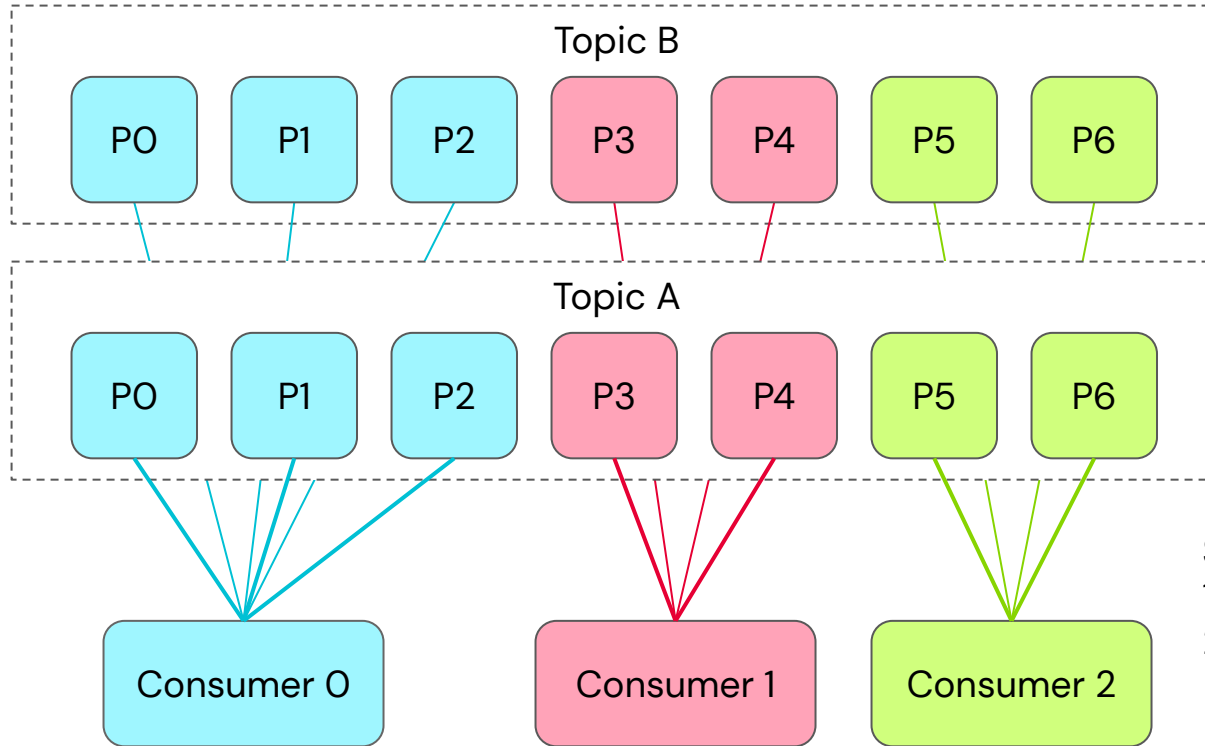
Strategies: Range

Goal: Partition collocation



Strategies: Range

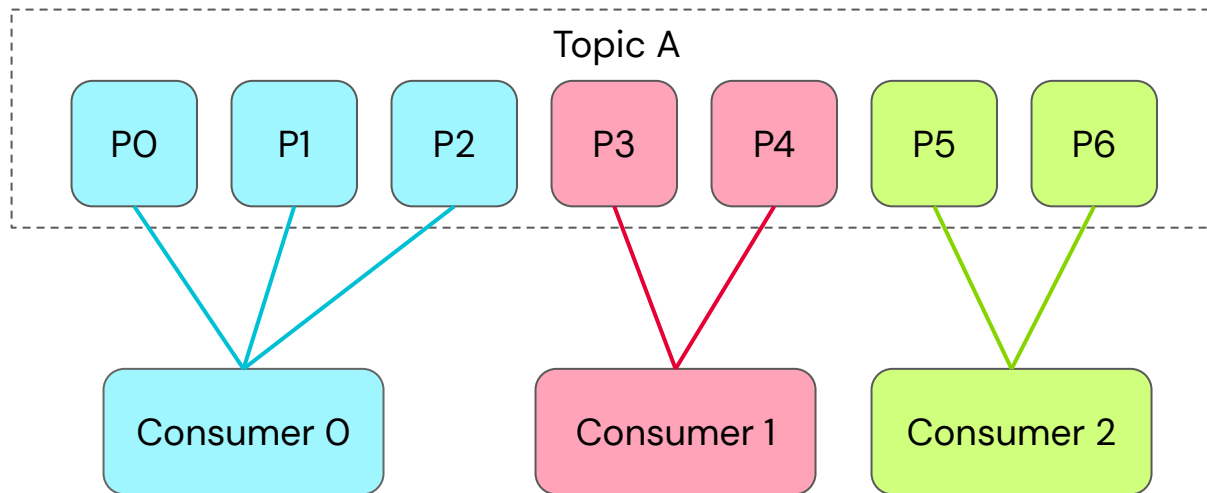
Goal: Partition collocation



Same:
1. # partitions
2. key-partitioning

Strategies: Range

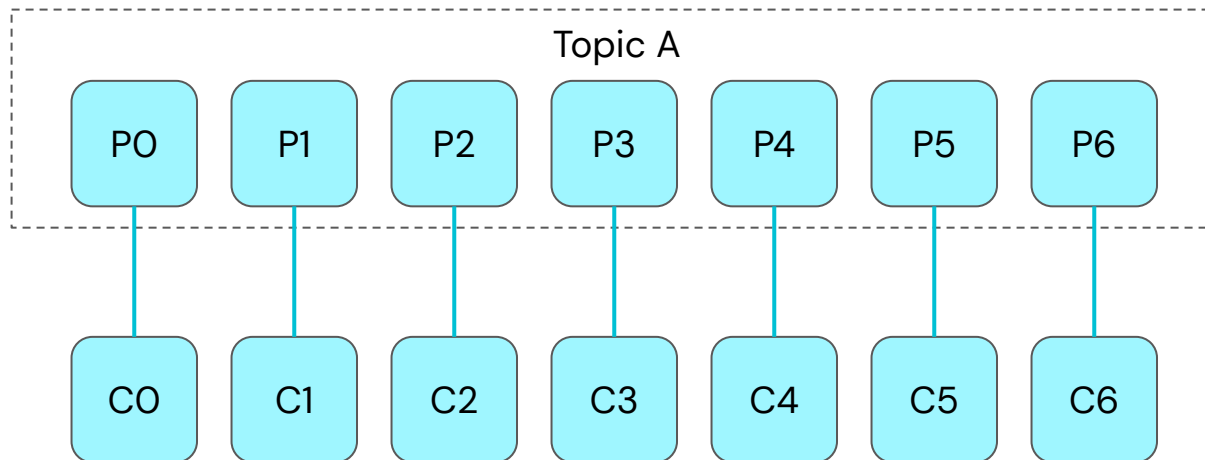
Goal: Partition collocation



Sorted by member.id
(fragile for cache)

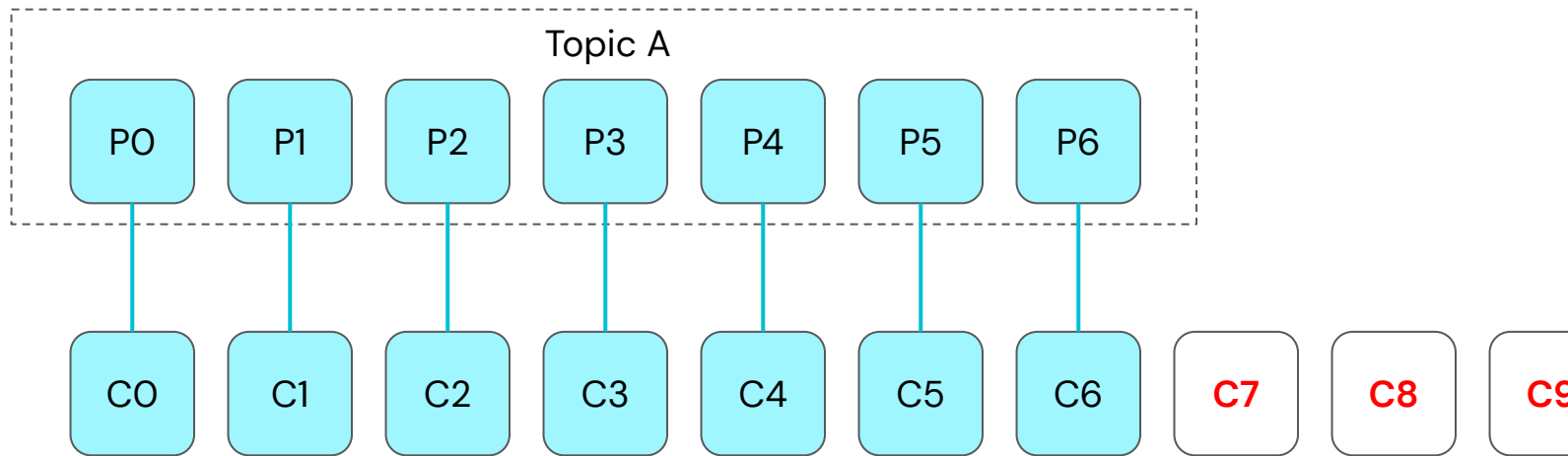
Strategies: Range

Goal: Partition collocation



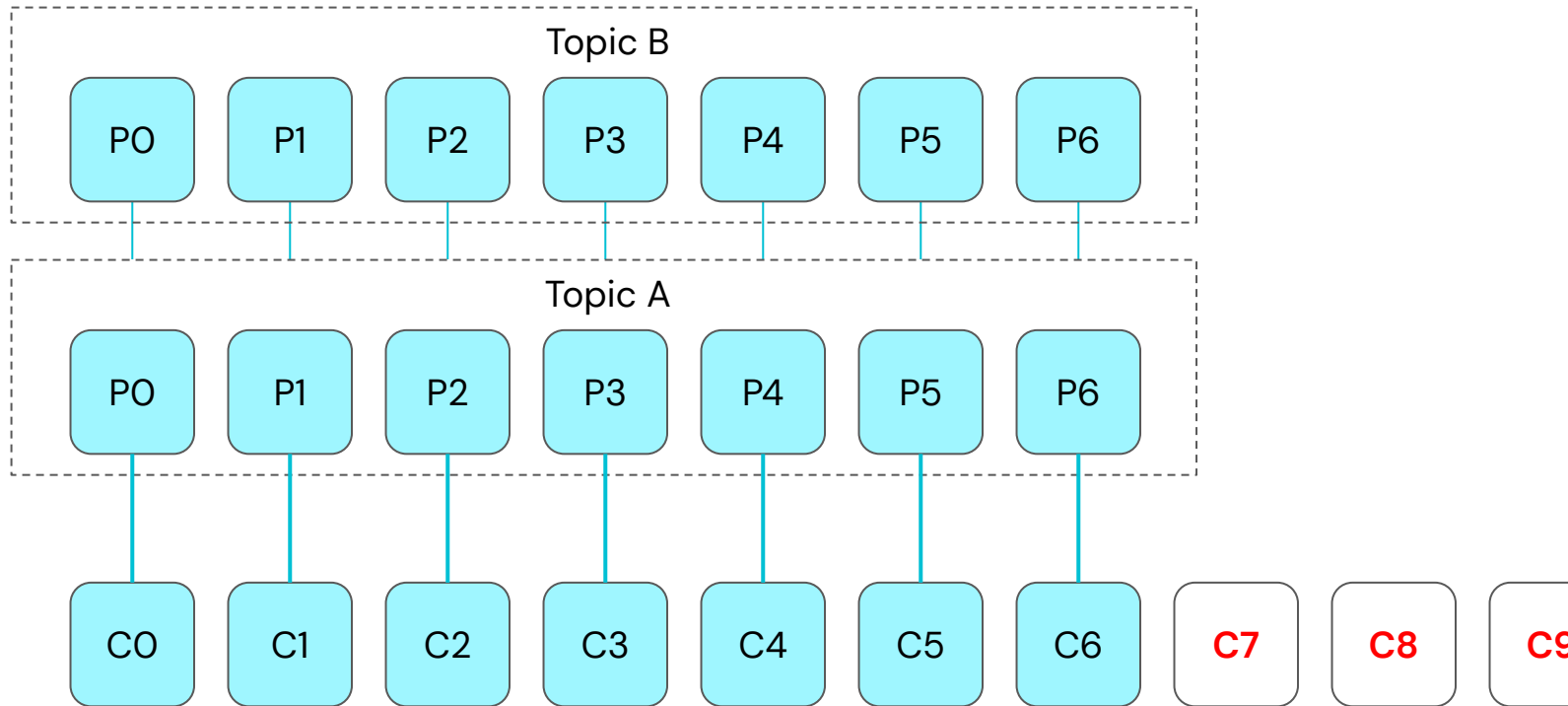
Strategies: Range

Goal: Partition collocation



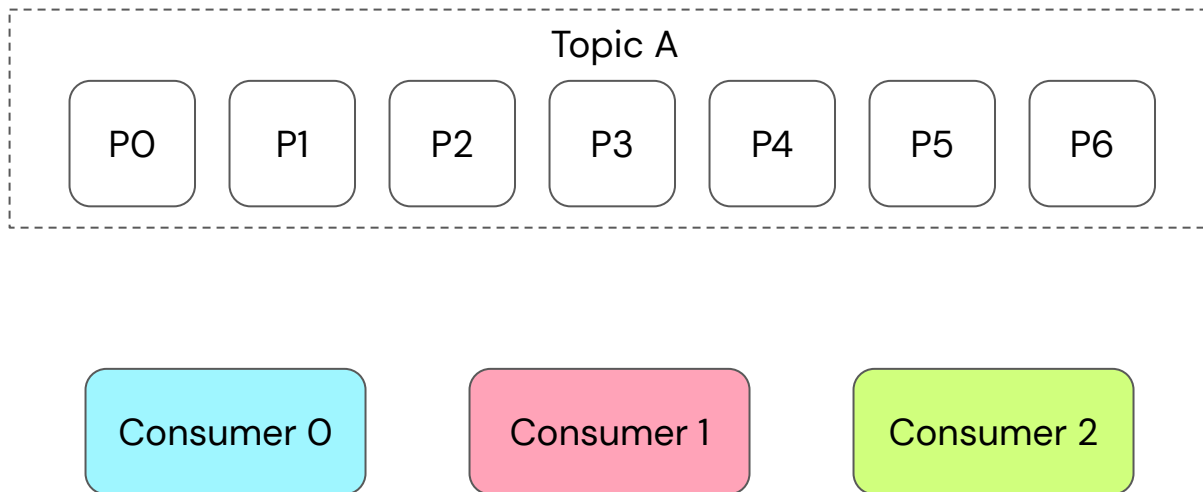
Strategies: Range

Goal: Partition collocation



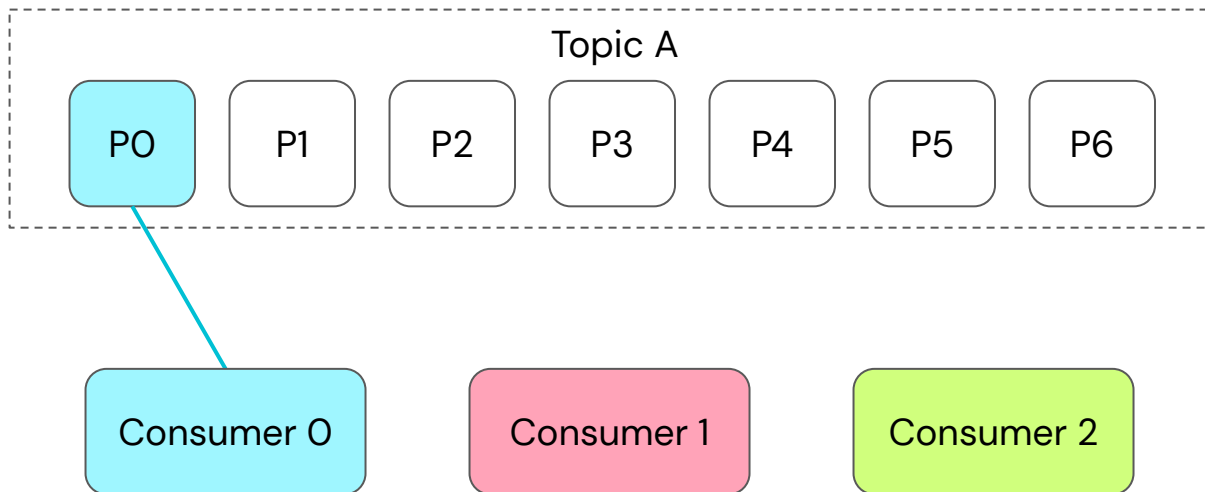
Strategies: RoundRobin

Goal: Even distribution



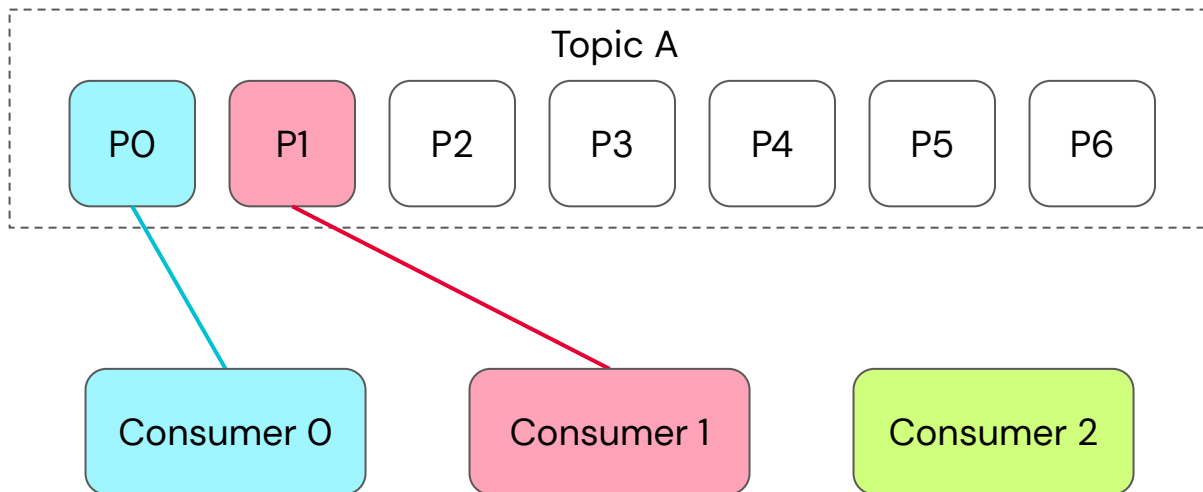
Strategies: RoundRobin

Goal: Even distribution



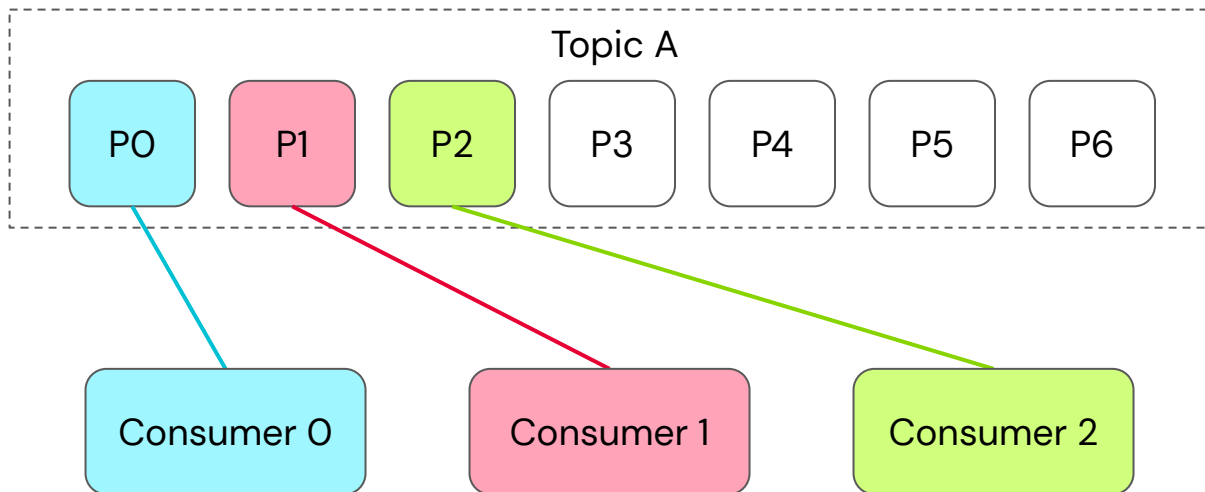
Strategies: RoundRobin

Goal: Even distribution



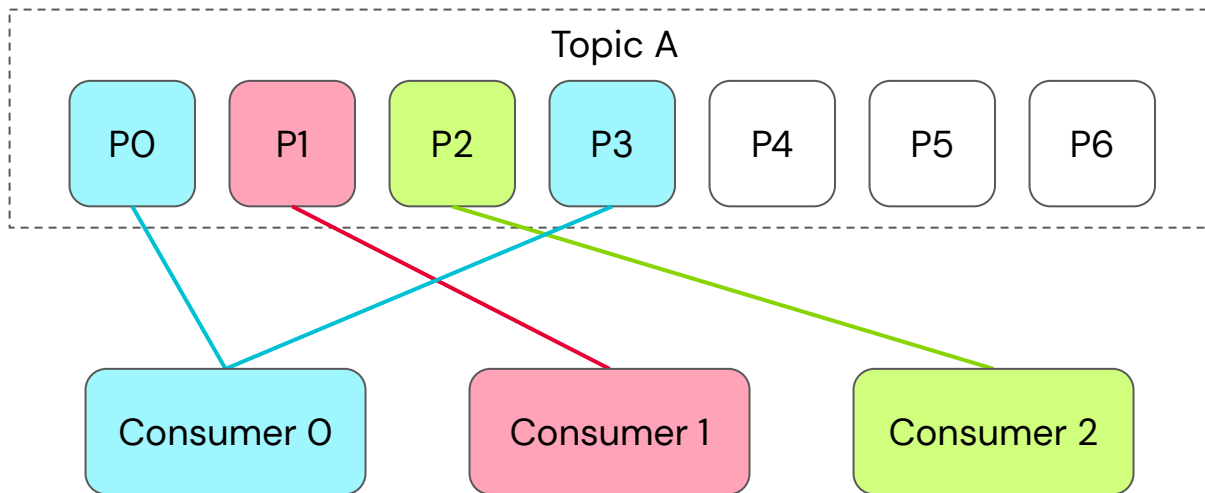
Strategies: RoundRobin

Goal: Even distribution



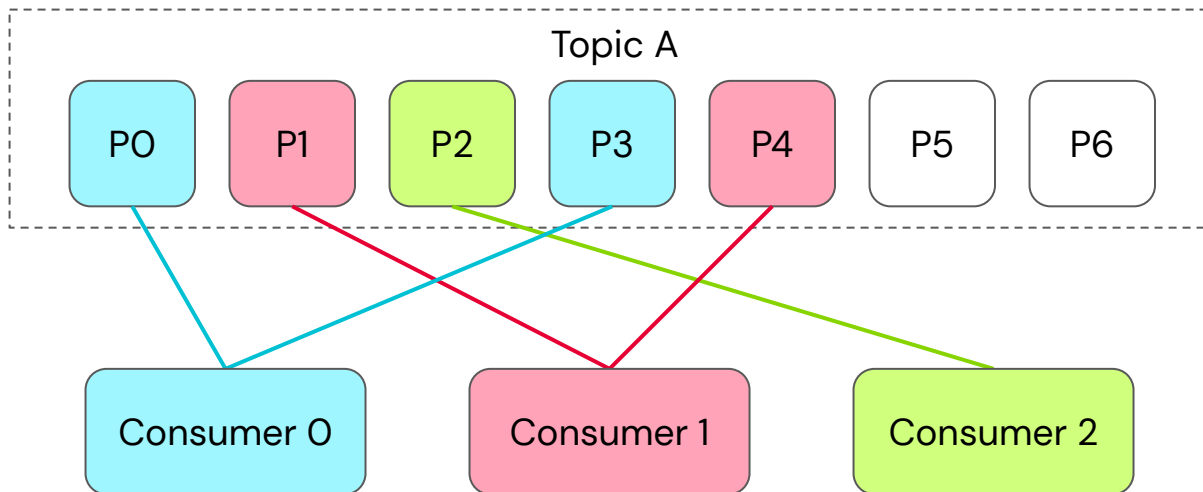
Strategies: RoundRobin

Goal: Even distribution



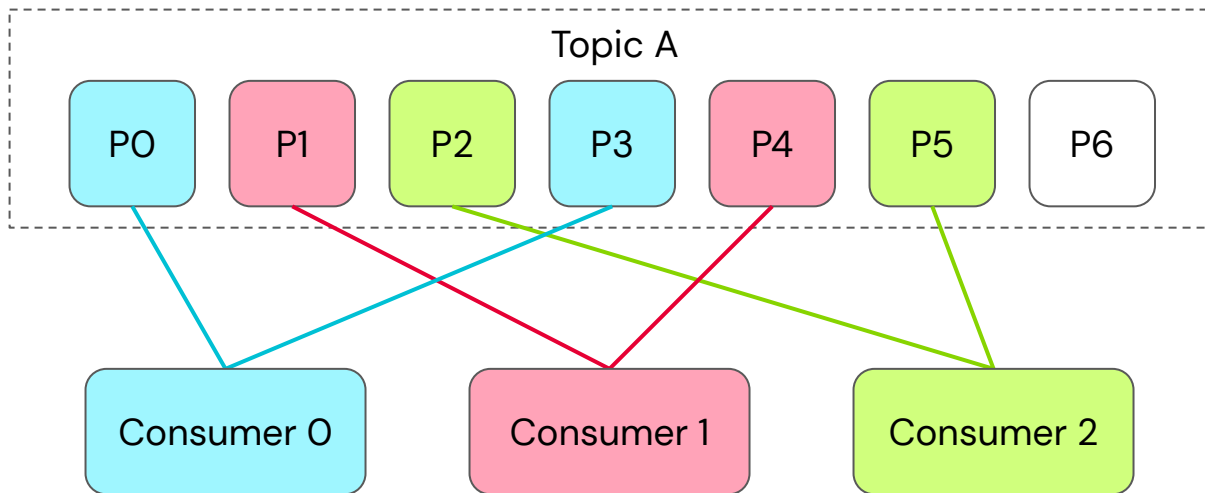
Strategies: RoundRobin

Goal: Even distribution



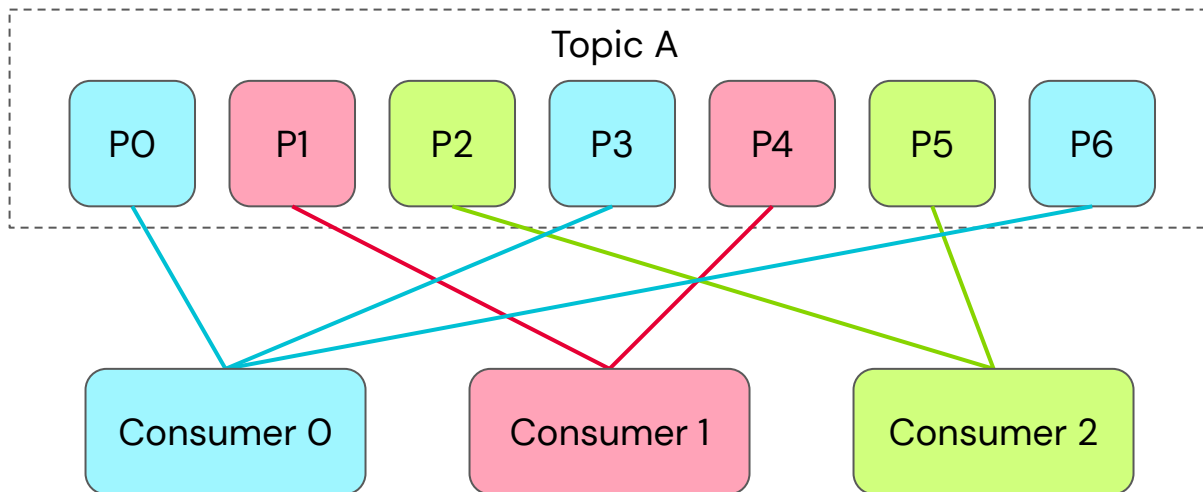
Strategies: RoundRobin

Goal: Even distribution



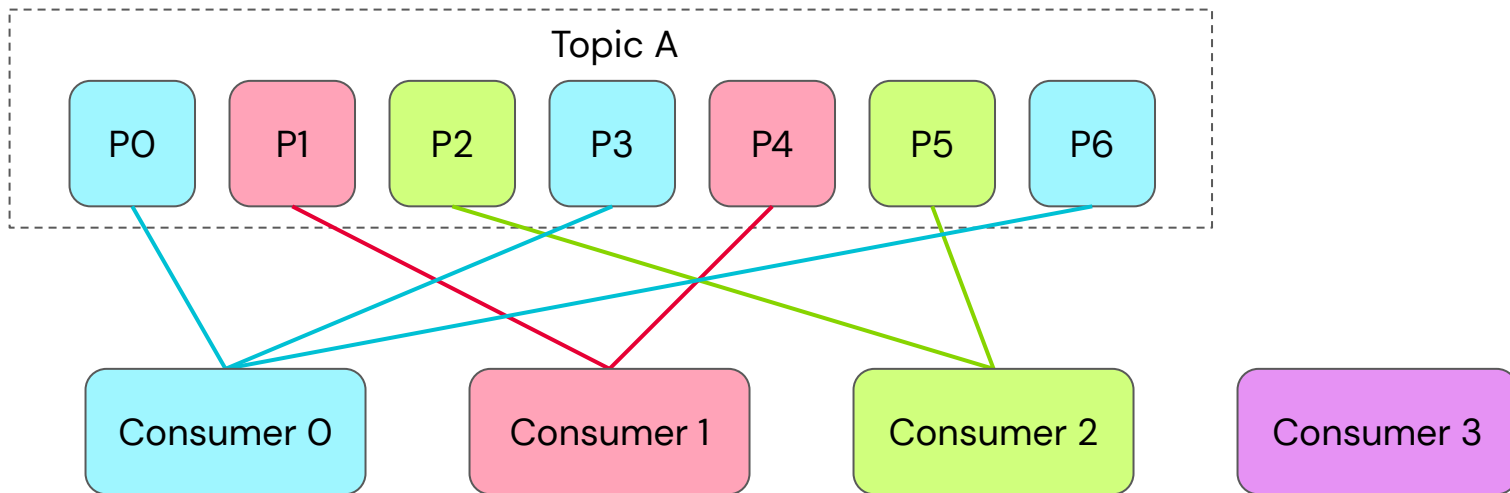
Strategies: RoundRobin

Goal: Even distribution



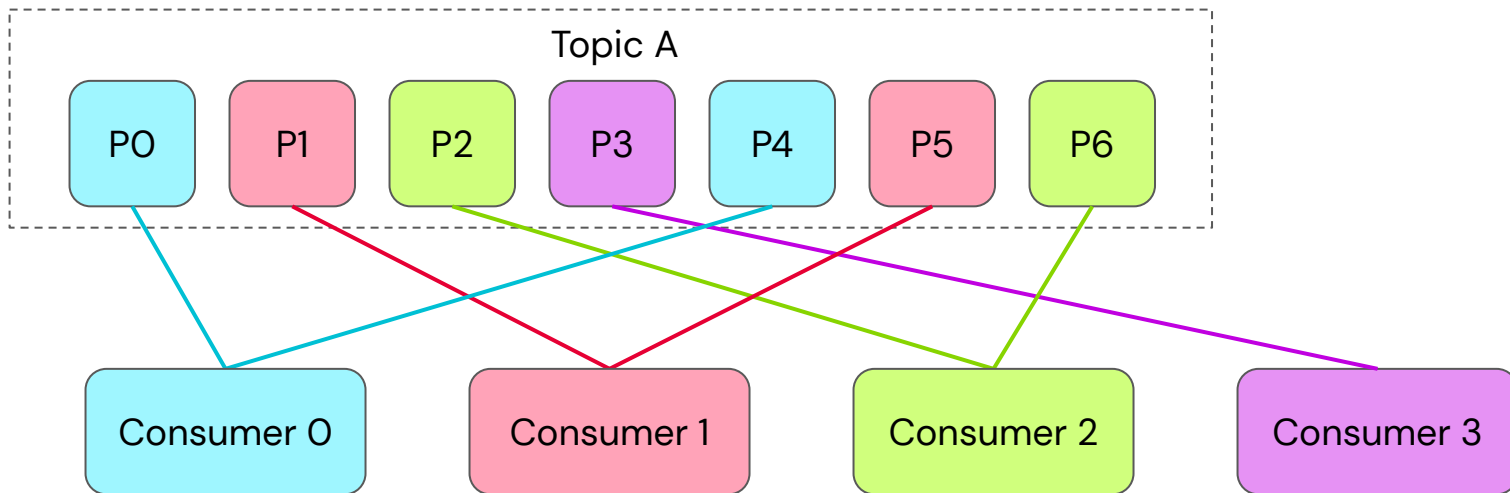
Strategies: RoundRobin

Goal: Even distribution



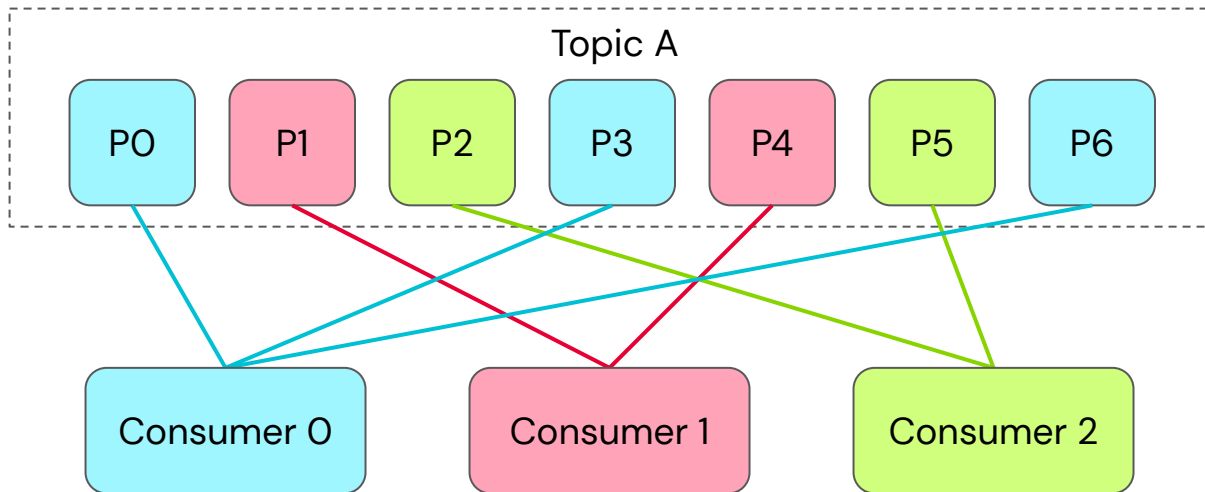
Strategies: RoundRobin

Goal: Even distribution



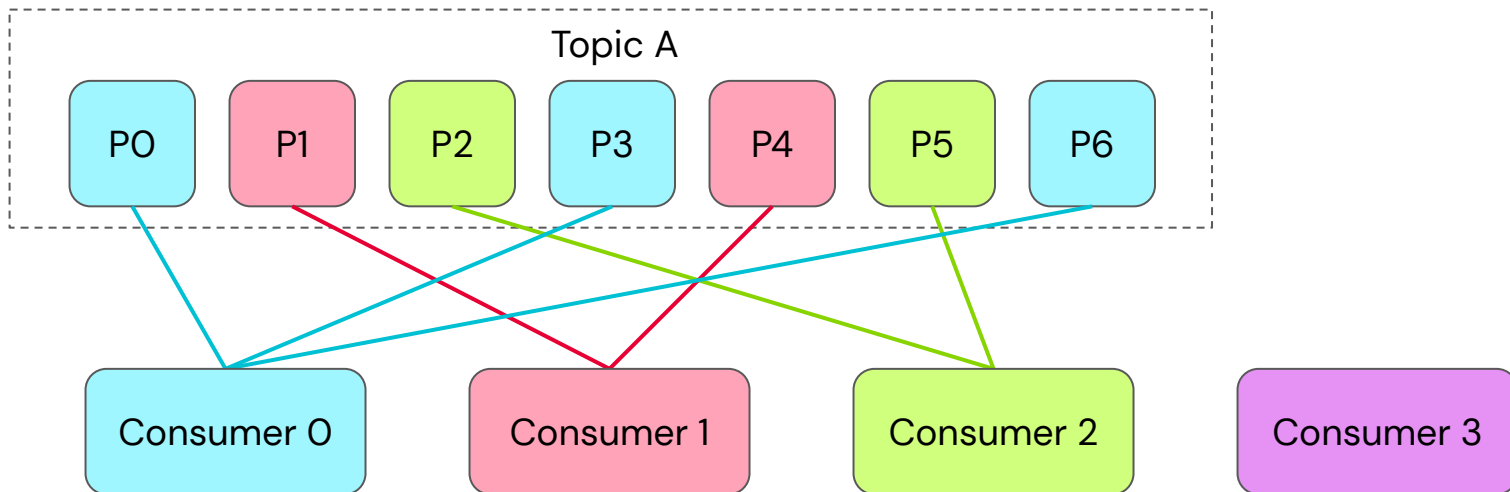
Strategies: Sticky

Goal 1: Even distribution
Goal 2: Minimum reassignments



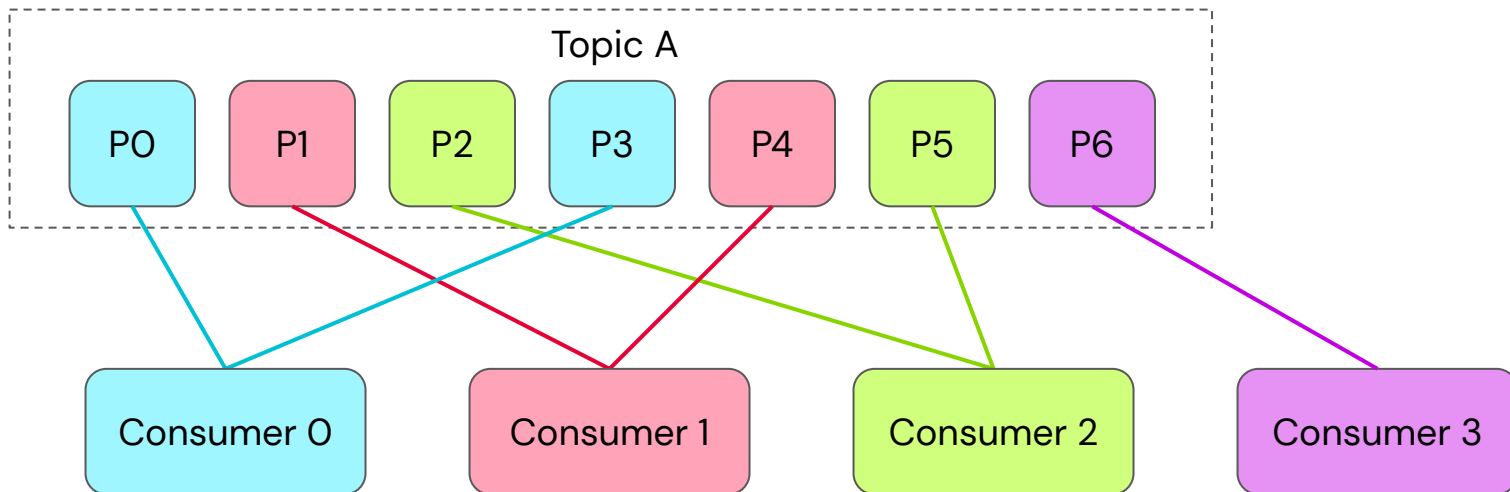
Strategies: Sticky

Goal 1: Even distribution
Goal 2: Minimum reassignments



Strategies: Sticky

Goal 1: Even distribution
Goal 2: Minimum reassignments



Strategies Comparison

	Goal	Downsides
Range	Collocate partitions for Consumers that join data from multiple topics	Uneven distribution. Some consumers may stay idle.
RoundRobin	Distribute evenly	Does not attempt to reduce partition movements
Sticky	Distribute evenly and reduce partition movements	
CooperativeSticky	Same as Sticky, but enables Incremental Cooperative Rebalance	