



# EMQX Rebalancing and Node Evacuation

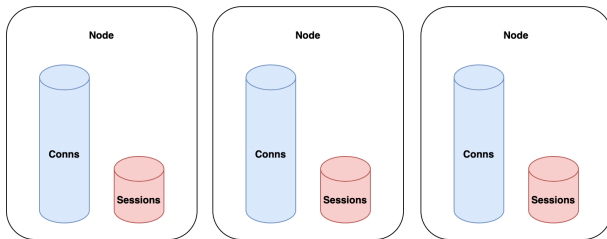
Ilya Averyanov

2022



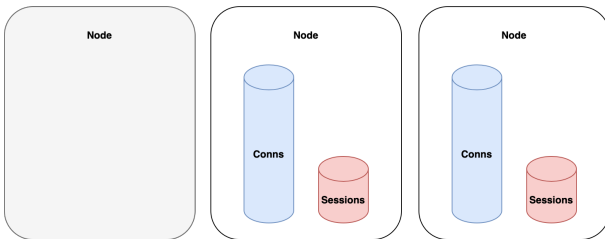


# Node Evacuation Problem



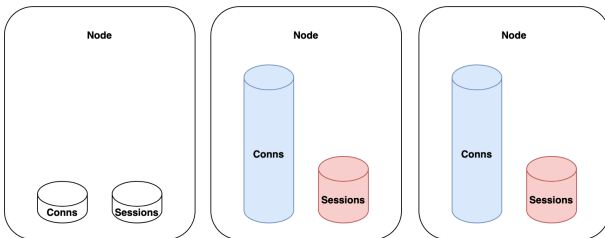


# Node Evacuation Problem





# Node Rebalance Problem





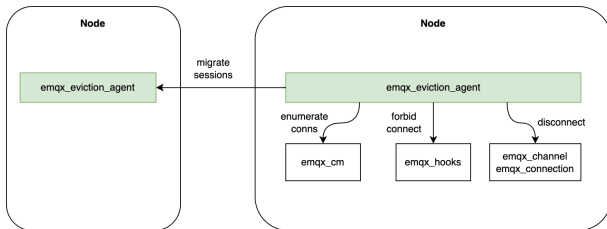
## Node Rebalance Solution

We introduce two new apps:

- ▶ `emqx_eviction_agent` – low-level logic
- ▶ `emqx_node_rebalance` – high-level scenarios

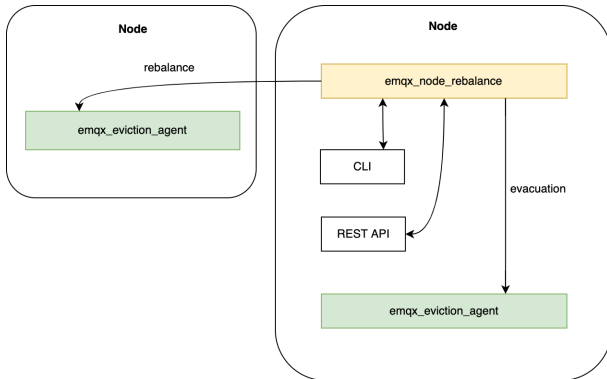


# EMQX Eviction Agent





# EMQX Node Rebalance





# EMQX Node Rebalance Scenarios

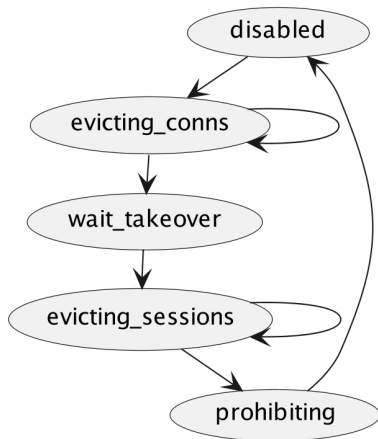
- ▶ Node evacuation
- ▶ Node rebalance





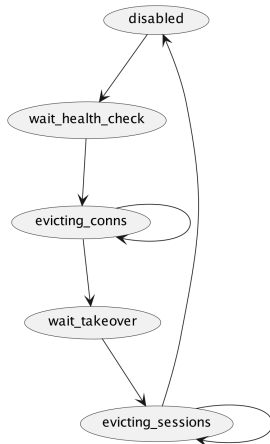


# EMQX Node Evacuation Algorithm



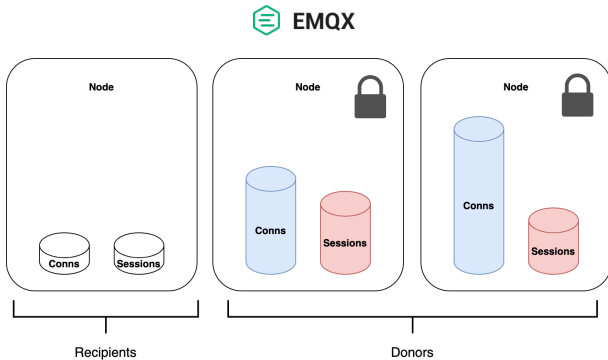


# EMQX Node Rebalance Algorithm



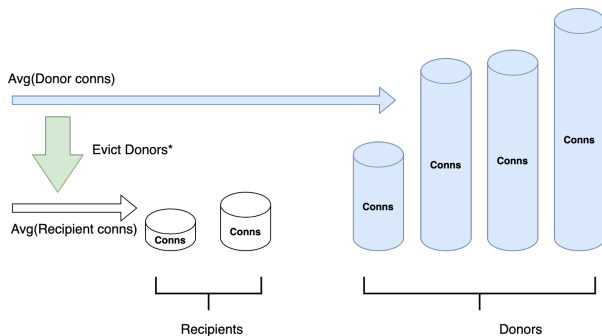


# EMQX Node Rebalance Algorithm





# EMQX Node Rebalance Algorithm





## EMQX Node Rebalance Scenarios

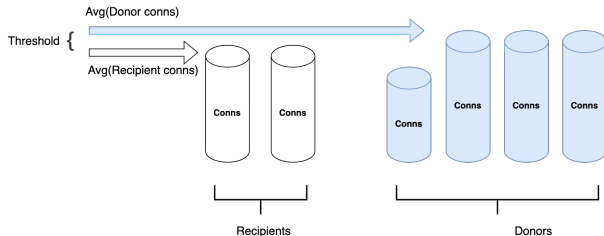


- ▶ We suppose that connection are distributed among new nodes evenly
- ▶ We do not evict from donors that have too few connections/sessions





# EMQX Node Rebalance Algorithm





Thank you!