

Thoughts on .1Qau Flow ID Tagging

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- **Fate-Sharing**
 - LAG/ECMP
 - Disjoint Paths

- **NIC Teaming**

- **CNM-to-Flow Association at the RP**

- **Allocation of (Limited Number of) RPs to Flows**

- **L2-L3 Interaction**

- Solves the ECMP/LAG Fate-Sharing and the NIC Teaming issues but...
 - Penalizes flows with RL assignment at birth
 - Sub optimal utilization of RLs at the endnode (no reallocation allowed)
 - Does not address the L2-L3 interaction

■ Solves

- CNM to Flow Association at the RP
- Allocation of (Limited number of) RPs to Flows
- L2-L3 interaction
- NIC Teaming

■ But if RL is determined upon reception of CNM then...

- Can't be used to deal with the ECMP/LAG Fate-Sharing

Proposal: Augmented Flow ID (AFID)



- **Flow ID + “Fate” Sharing ID**
 - “Fate” Sharing ID represents a time persistent grouping of flows.
- **Solves**
 - CNM to Flow Association at the RP
 - Allocation of (Limited number of) RPs to Flows
 - L2-L3 interaction
 - NIC Teaming (could be done based on the “Fate” Sharing ID)
- **And also...**
 - Allows the network to choose paths based on the “Fate” Sharing ID” thus solving the Fate Sharing issue for LAG/ECMP as long as the NIC does a “reasonable” allocation of RPs