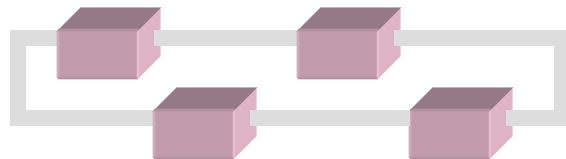


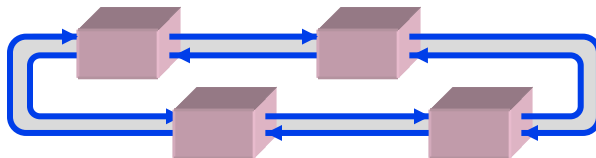
RPR discovery

- **Prepared for 802.17, Nov 2002**
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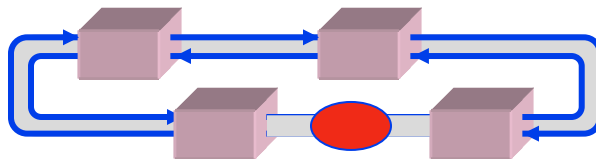
Supported topologies



- A physical ring

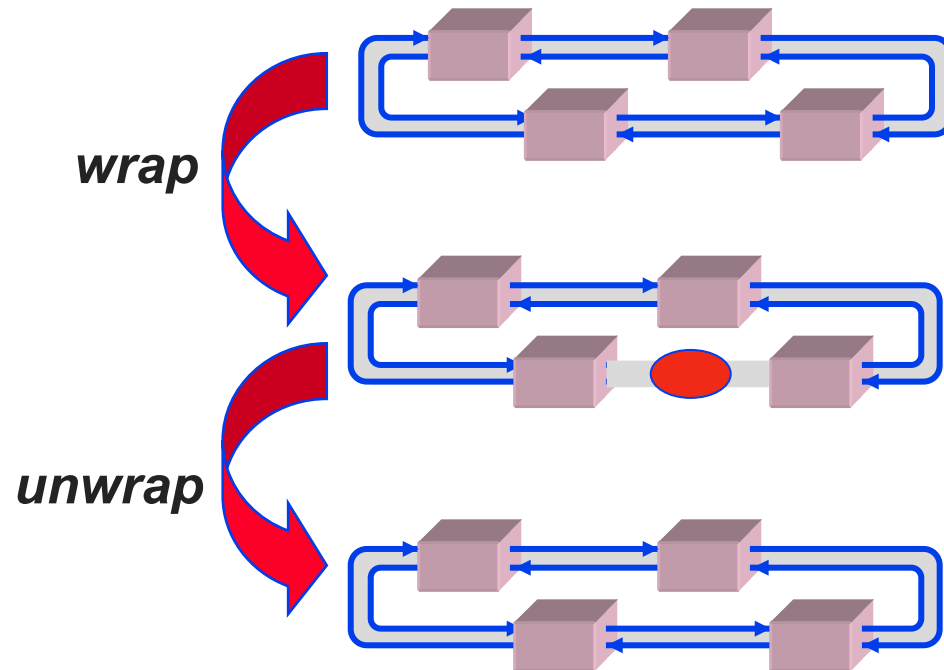


- Dual ringlets



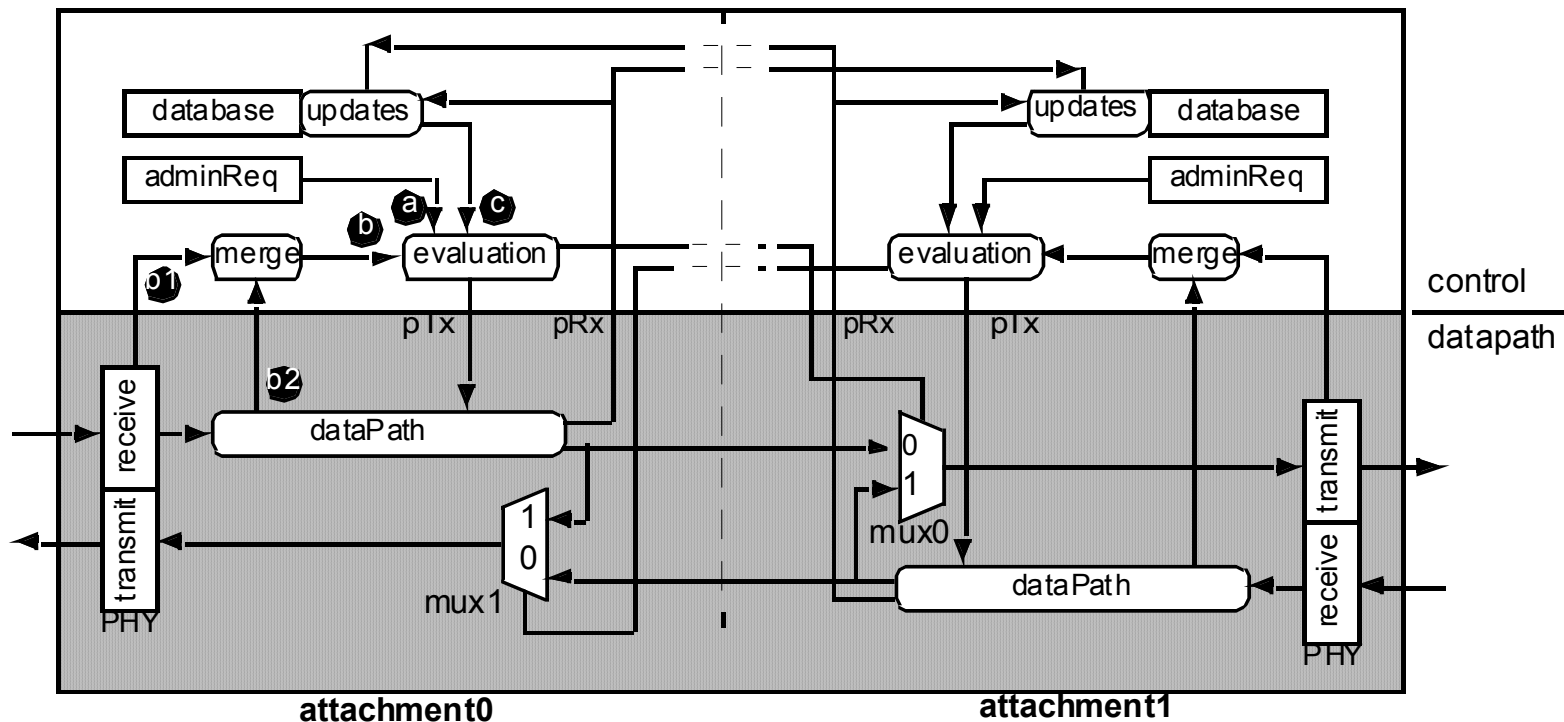
- Duplex ringlet

Link failures: wrap & unwrap

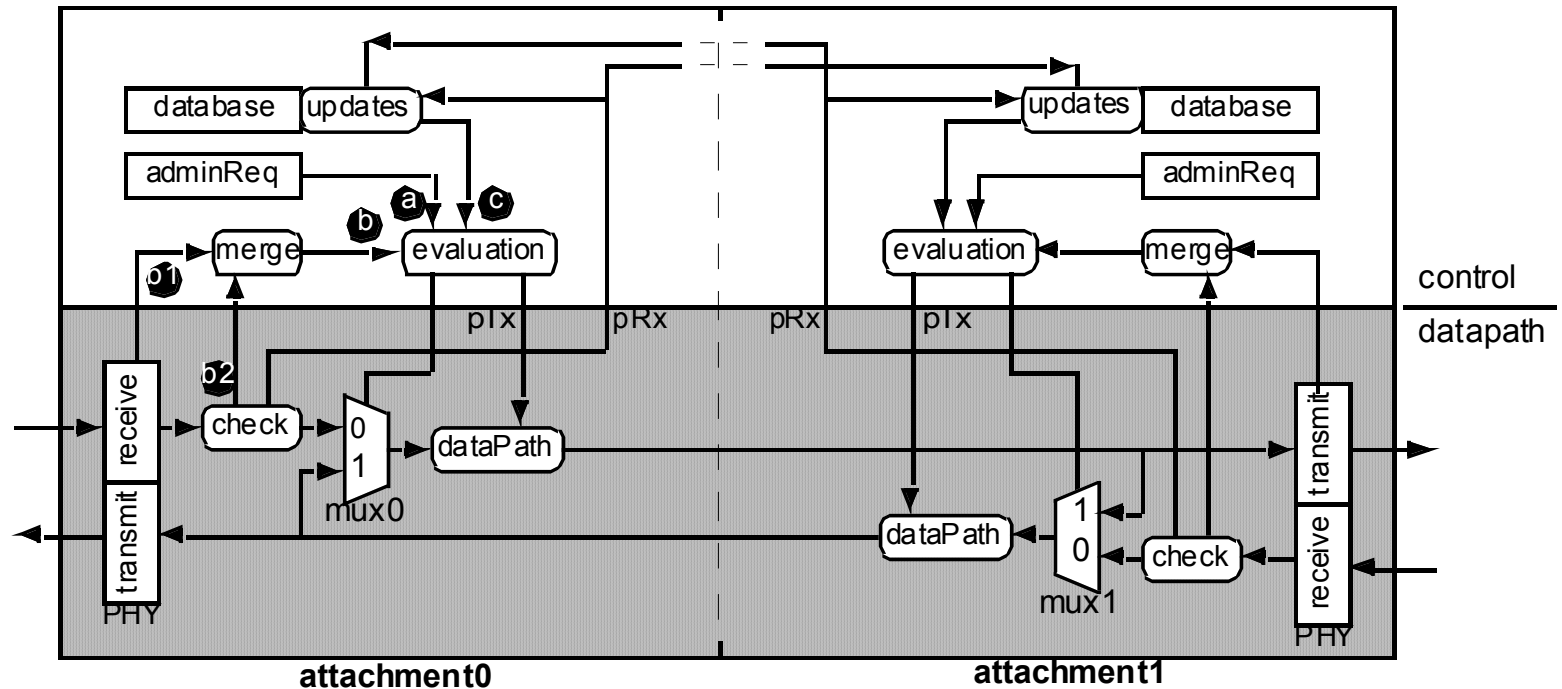


- Dual ringlets
- Duplex ringlet
- Dual ringlets

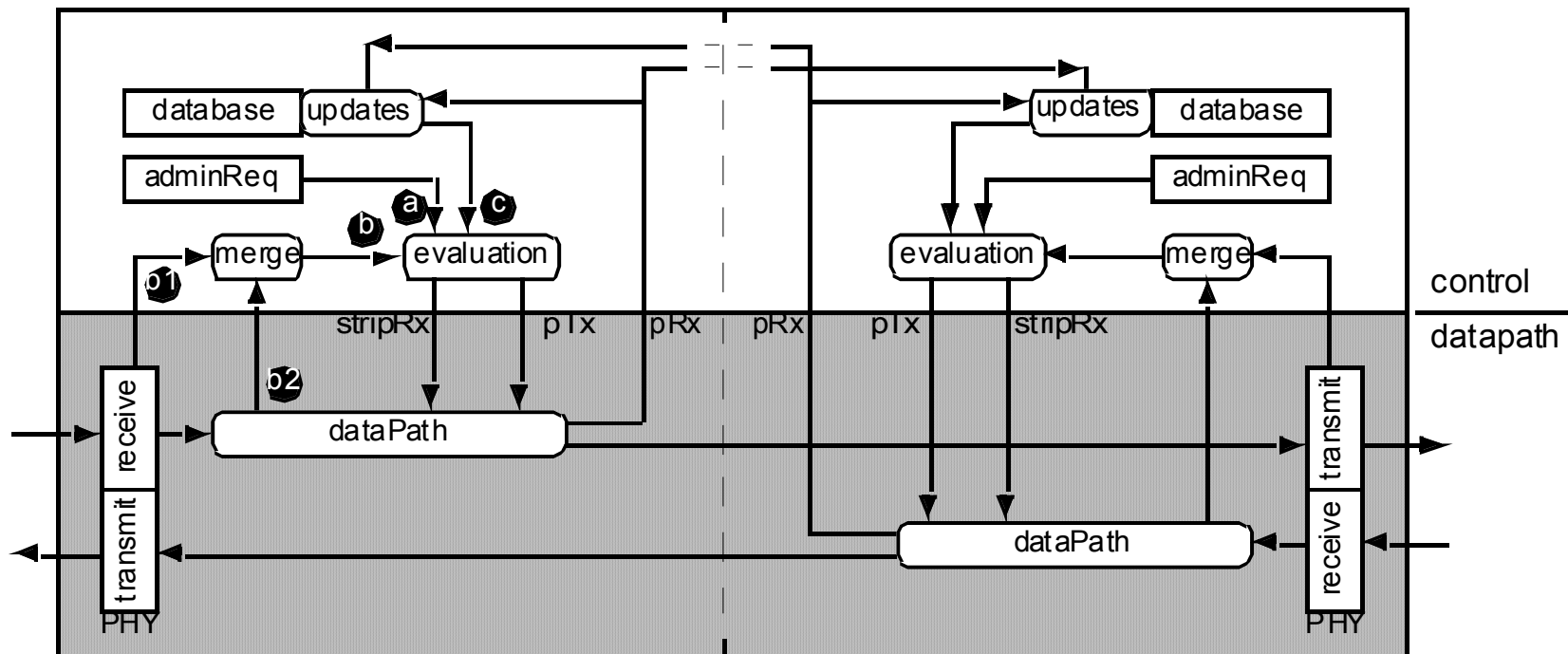
Center-wrapped protection



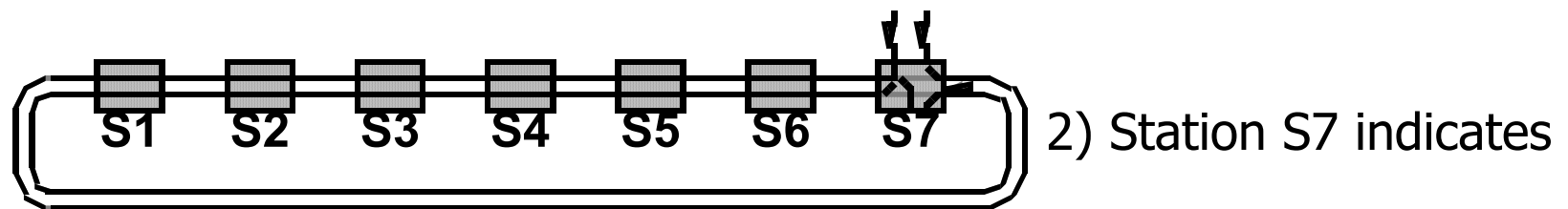
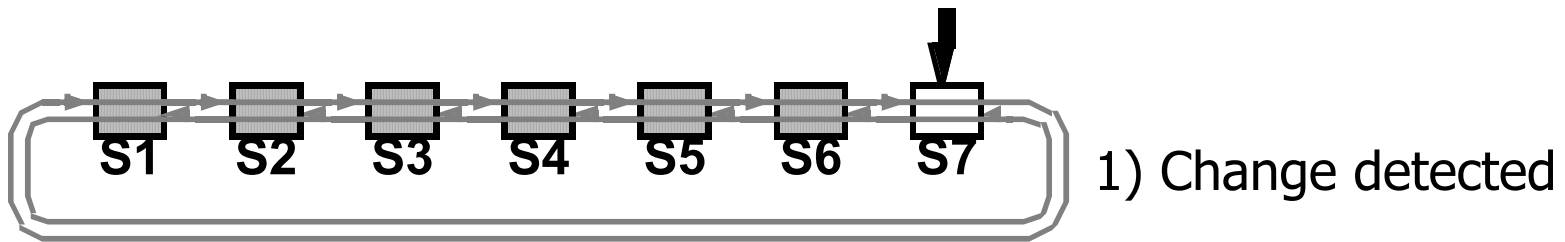
Edge-wrap protection



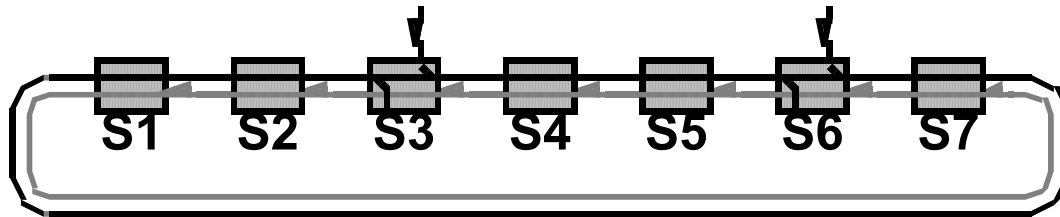
Edge steer protection



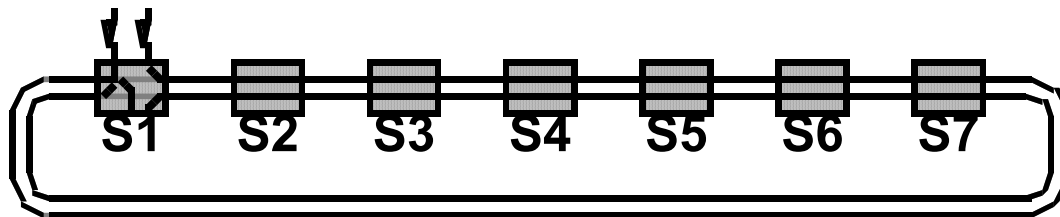
Rediscovery (phase #1)



Rediscovery (phase #2)

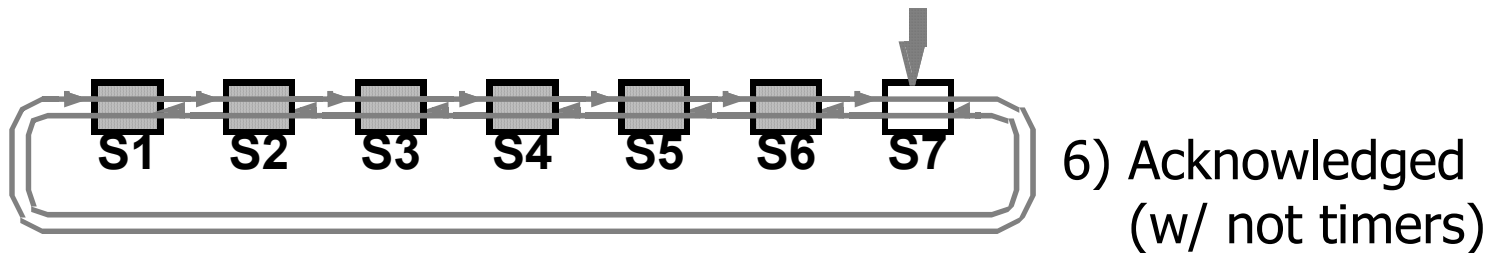
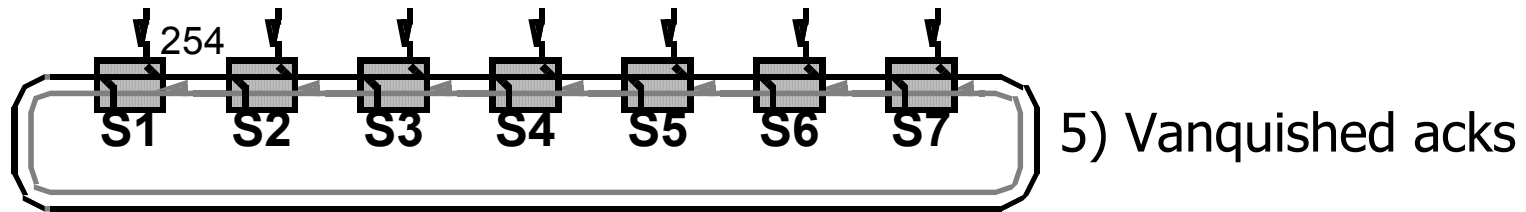


3) Other preferences



4) Station S1 dominates

Rediscovery (phase #3)



Discovery properties

- **During topology changes, chaos is inevitable**
 - **Cannot distinguish link failure or topology change**
 - **Times are hard to ensure (too big or too small)**
 - **Messages loss is most likely at this time**
- **Bridging required context containment**
 - **For correctness, confirmation is desired**
 - **For performance, confirmation is desired (15 ms is often excessive...)**
- **Broadcast confirmation is difficult (in general)**
 - **macAddress tie-breaker makes it possible**