Cycle reconfiguration for a bridge

Proposal for January 26 P1394.1 working group

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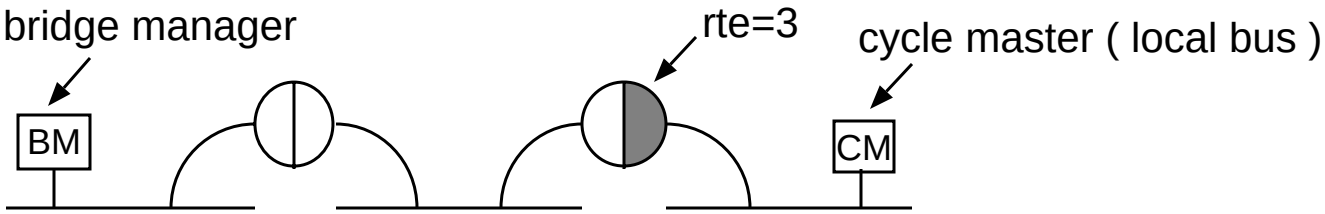
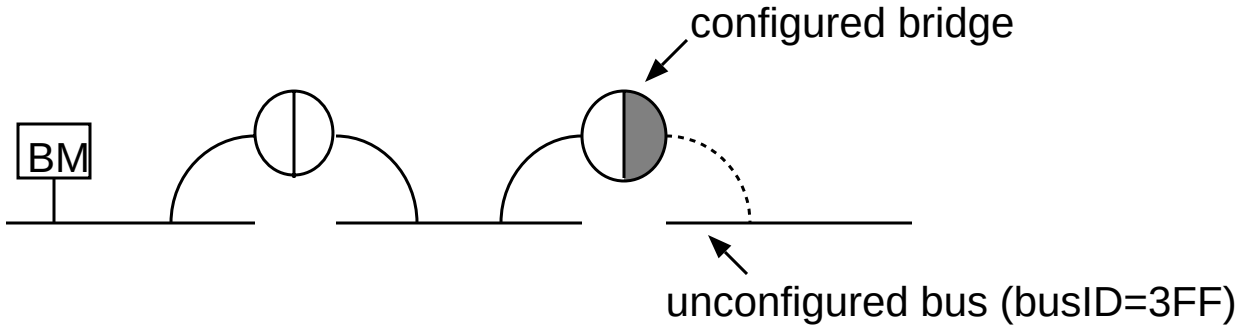
Cycle reconfiguration: requirement

A cycle reconfiguration process is required under these conditions...

① When a rte field of a portal is three and the portal does not become a cycle master.

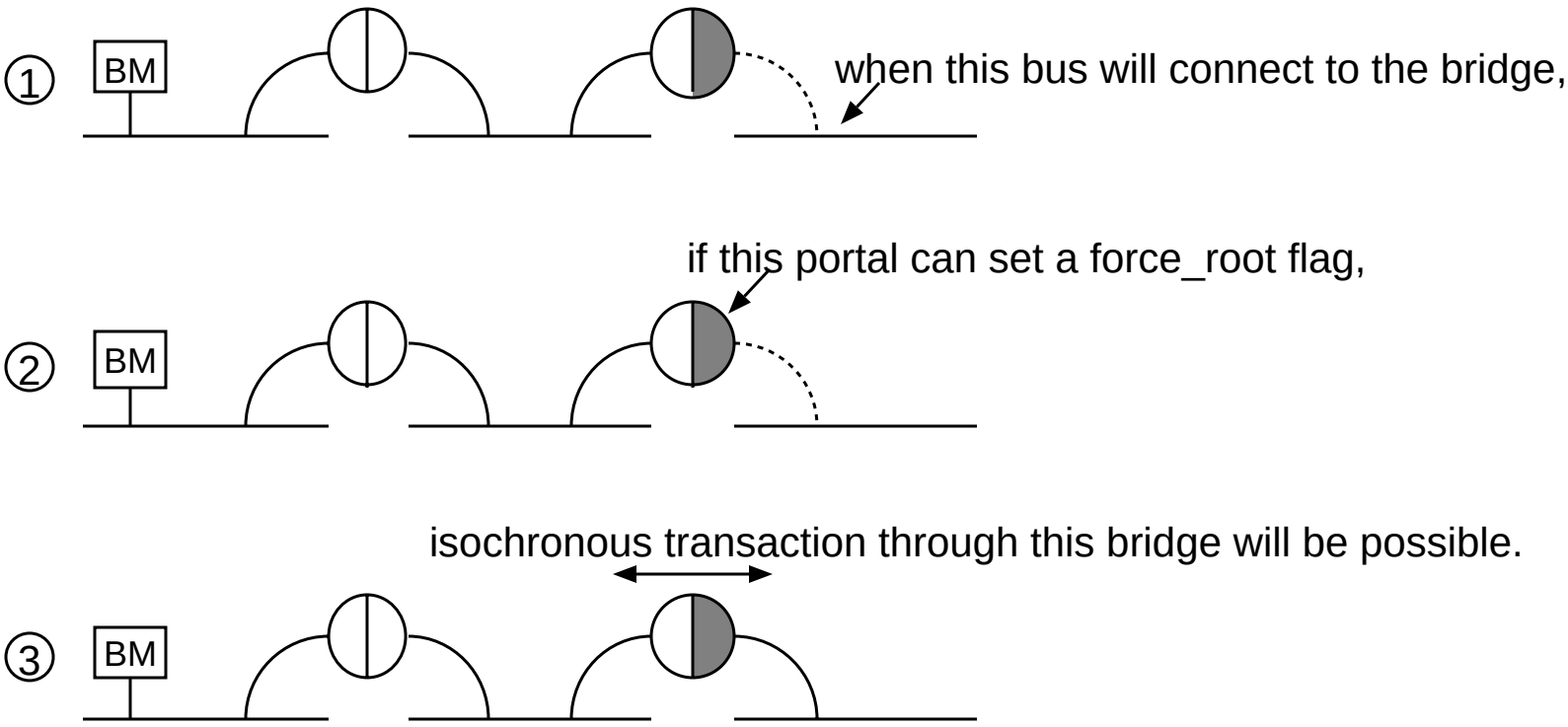


② When an unconfigured bus connects to a configured bridge.



Cycle reconfiguration: solution (1)

If a bridge manager or the portal can request or set a force_root flag of the portal, the portal will become a root and isochronous packets through the bridge will be possible.



Cycle reconfiguration: solution (2)

① Who generates a PHY configuration packet with the force_root flag ?

Plan A "bridge manager" checks and requests,
"portal" generates

Plan B "portal" checks and generates

Plan C "bridge manager" or "portal" checks and requests,
"bus manager" of the bus generates

② What is different from the current 1394 protocol ?

1. A bridge manager or a portal can know whether any portals of all buses become a cycle master or not.
2. A portal which is not a bus manager can generate a PHY configuration packet with the force_root flag. (plan A, plan B)
3. A bus manager can be requested to generate a PHY configuration packet with the force_root flag. (plan C)