

IEEE P802.3az

Asymmetric and symmetric modes

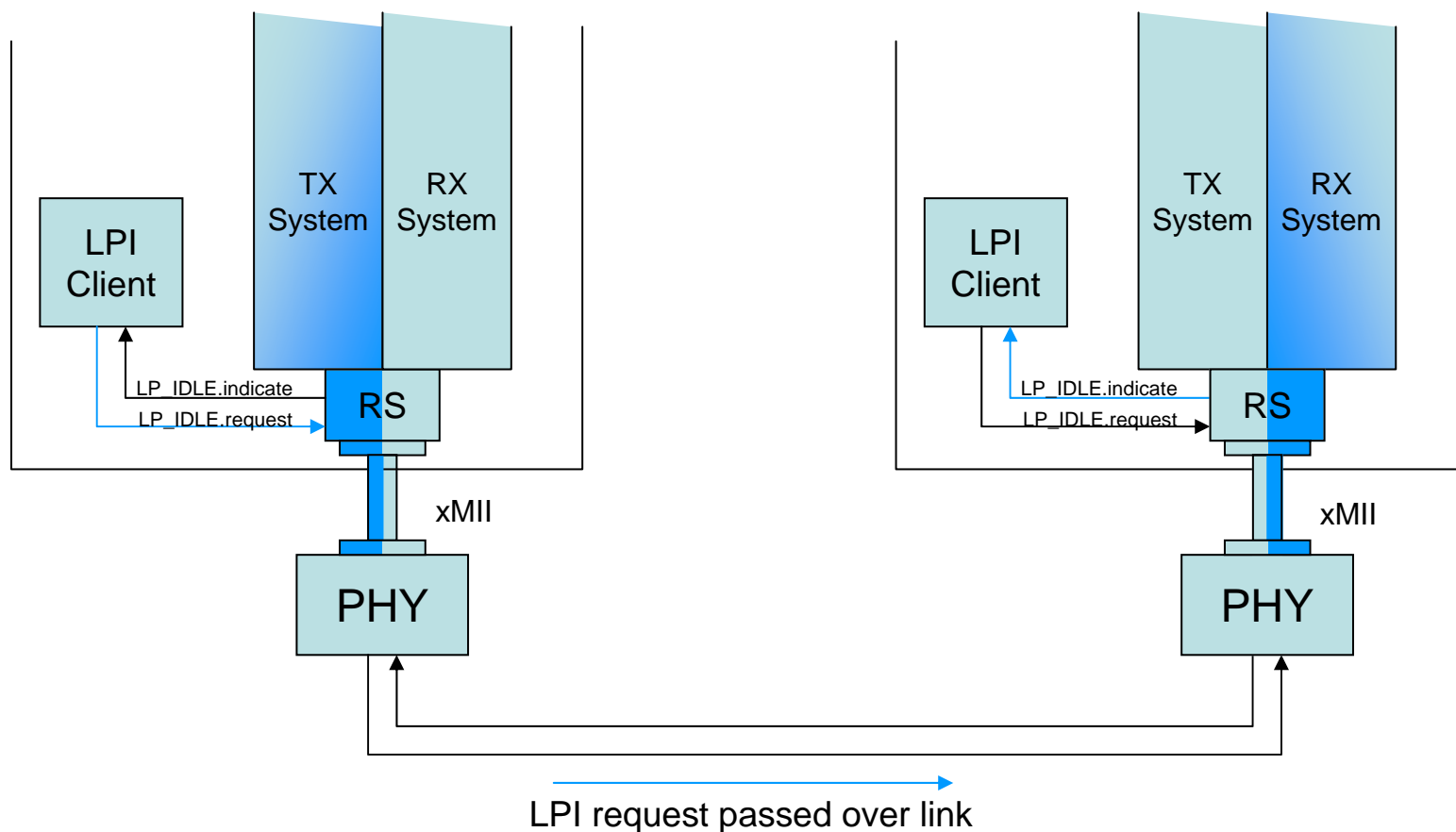
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Symmetric and asymmetric operation

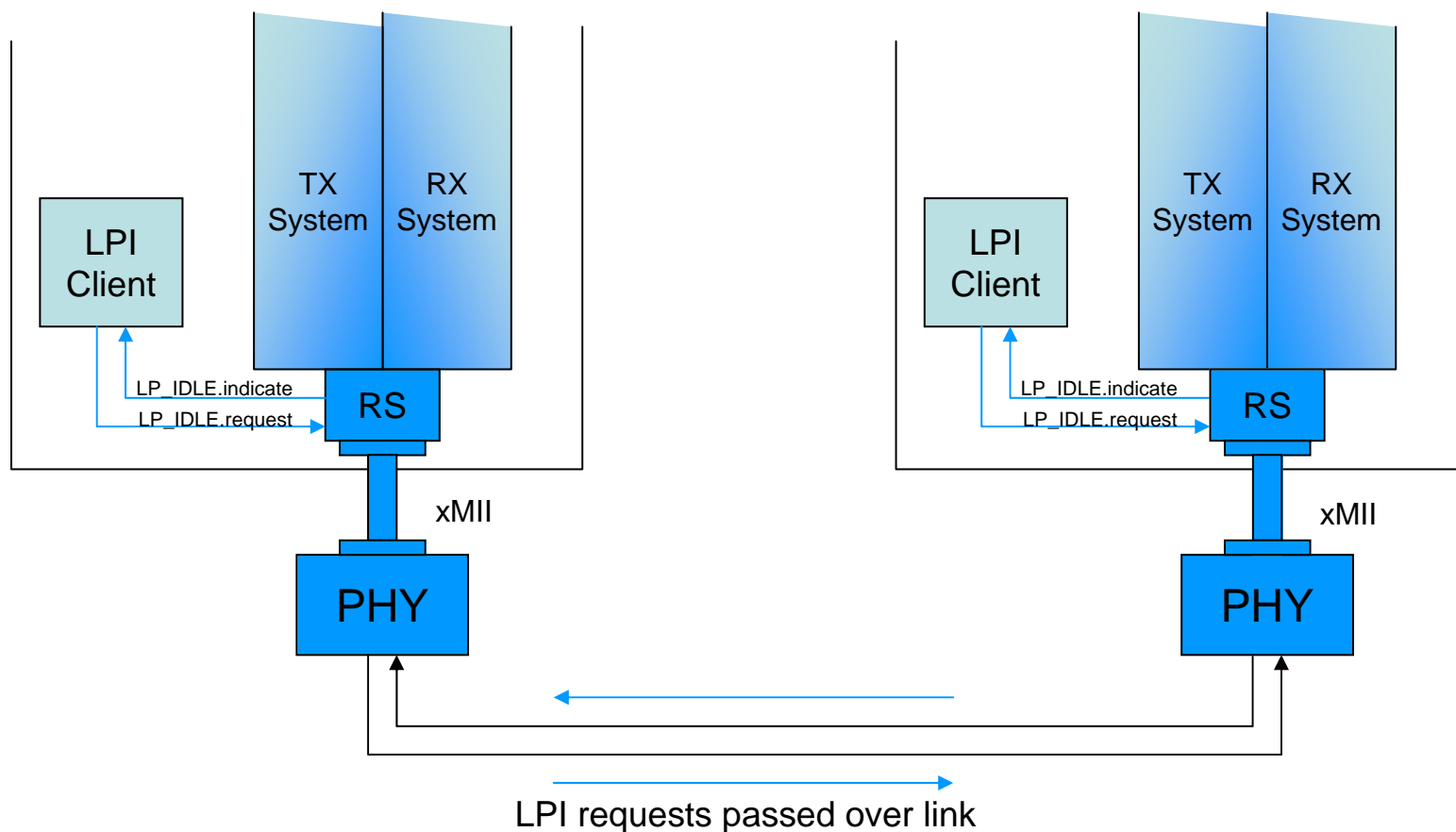
- Definition (see 78.1.3)
 - ‘If both link partner enter and exit Low Power Idle mode simultaneously this mode of operation is called symmetric. If each link partner can entrance and exit Low Power Idle mode independently this mode of operation is called asymmetric.’
- One PHY supports symmetric operation
 - 1000BASE-T PHY
 - Only symmetric at PHY level
 - At system level is asymmetric

1000BASE-T symmetric operation



LPI request passed over link so system energy savings as Asymmetric

1000BASE-T symmetric operation



LPI request in both directions so system and PHY energy savings

PHY energy saving modes supported

PHY Type	System savings	PHY savings
10GBASE-T	Asymmetric	Asymmetric
10GBASE-KX4	Asymmetric	Asymmetric
10GBASE-KX4	Asymmetric	Asymmetric
1000BASE-T	Asymmetric	Symmetric
1000BASE-KX	Asymmetric	Asymmetric
100BASE-T	Asymmetric	Asymmetric

Comment summary

- Defining two modes just to describe one PHY's entry and exit to power saving seems like a slightly complex approach
 - Better to remove the modes and just mention this exception in PHY it relates to
- If consensus is not to remove these modes
 - Make it clear this relates only to PHY energy savings and that system energy savings are always asymmetric