

Multicasting for EPON

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LLID (Logical Link Identifier)

- ❑ Only P2P Emulation and SCB solution
- ❑ Mode : used to emulate SCB or multicast channel
- ❑ LLID: A numerical identifier assigned to a P2MP association between an OLT and ONU established through the Point-to-Point Emulation sublayer. Each P2MP association is assigned a **unique LLID**.
- ❑ LLID for multicast: cannot be a solution because each ONU is allowed to have only one LLID. And, each ONU should distinguish between unicast LLID with multicast LLID.

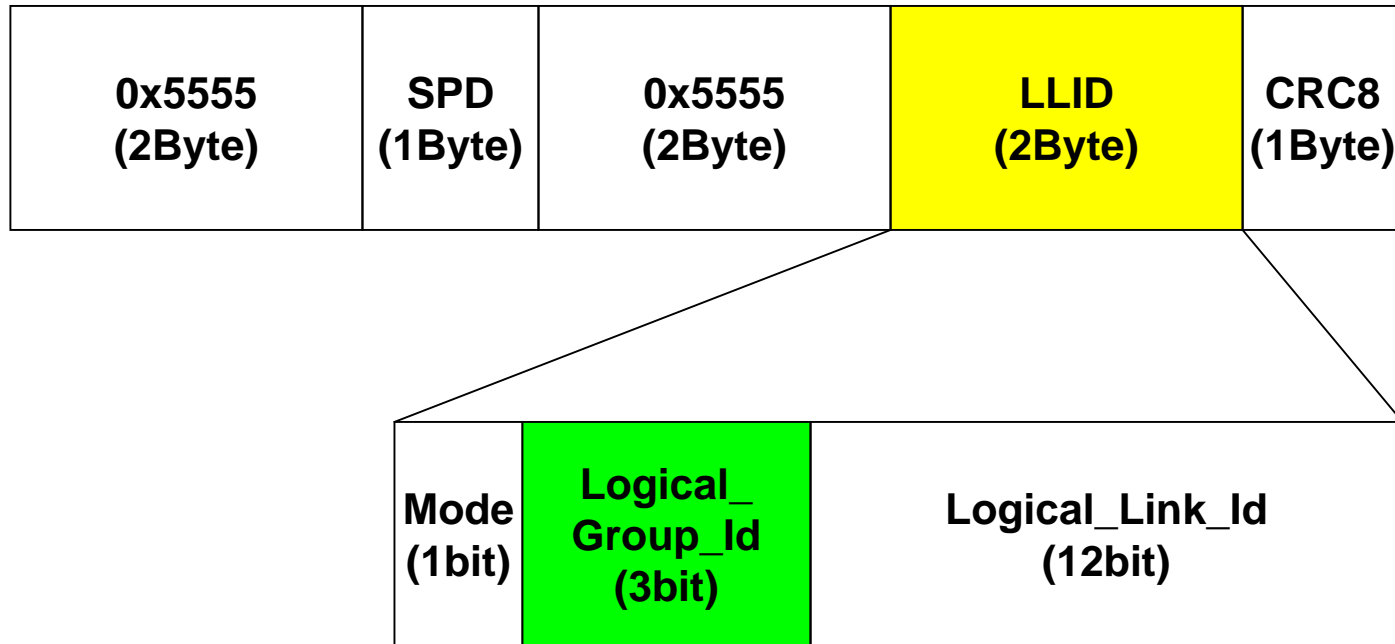
LGID (Logical Group Identifier)

❑ Multicast for EPON

- Provider separation
- Customer separation: FTTH ONU
- Multicast address grouping

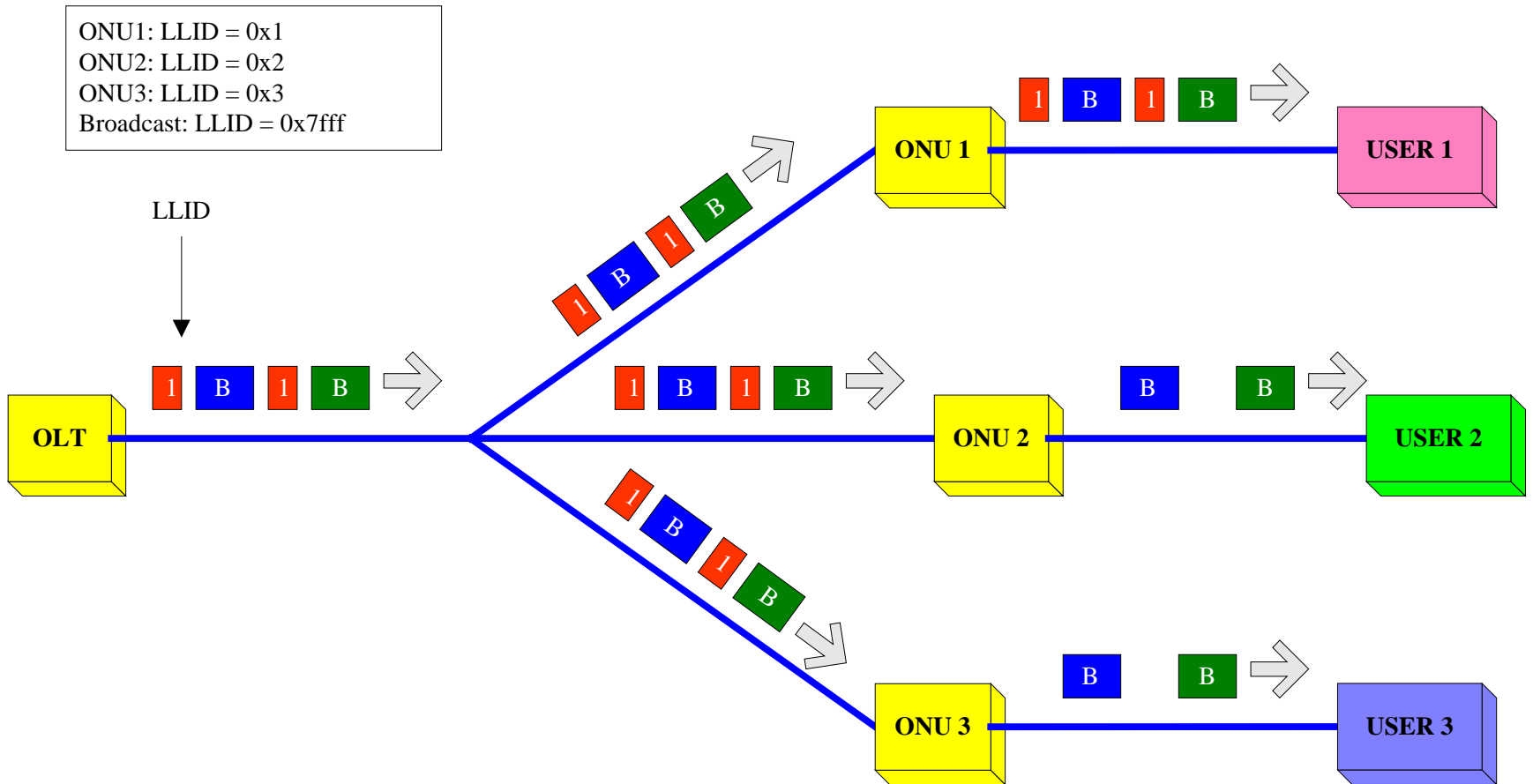
❑ **LGID**: indicates group ID of each link. Can be applied with VLAN Identifier or Multicast address/addresses. Multiple group ID can be allowed for each Link.

Suggested Preamble Format

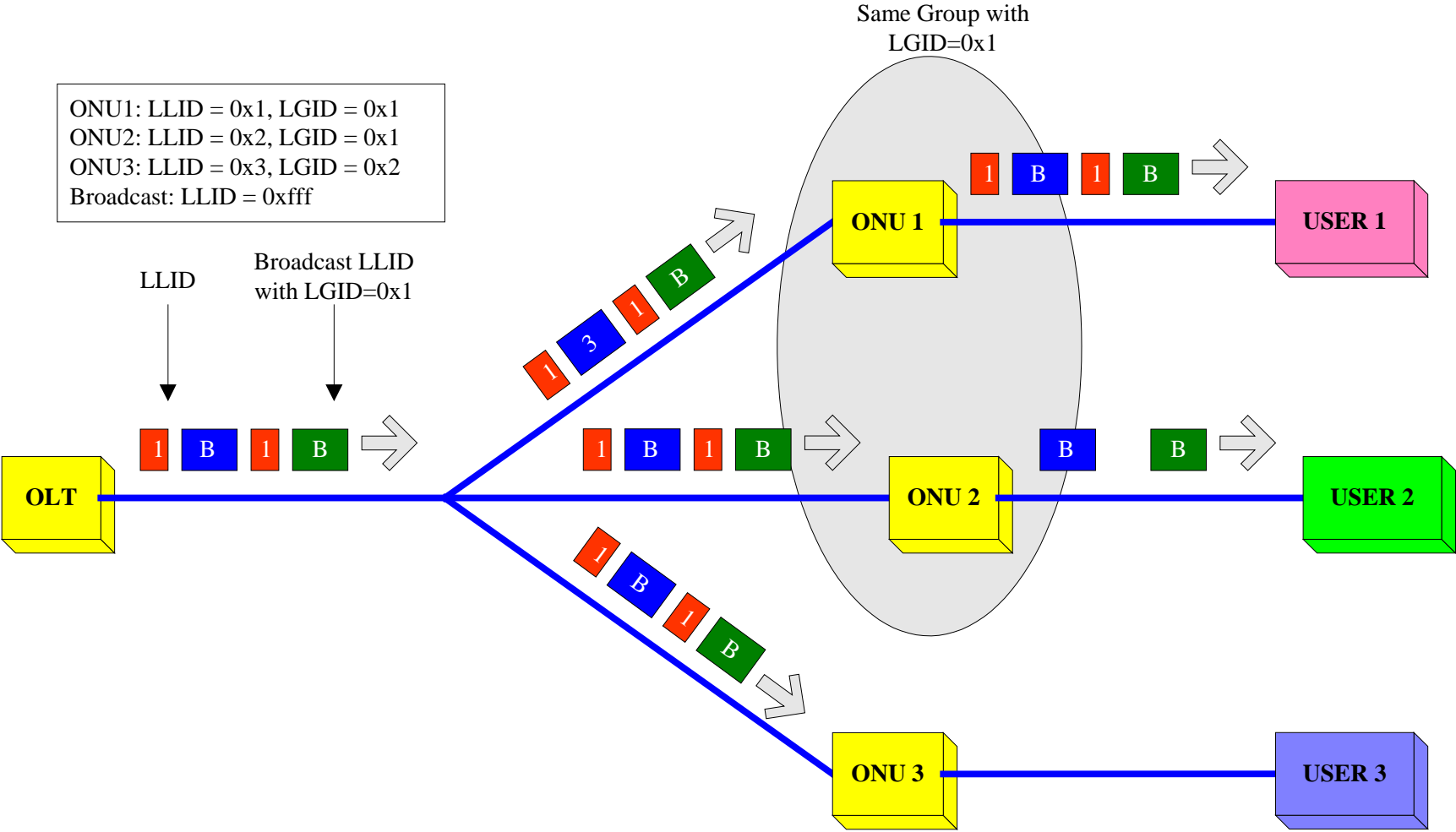


Broadcast LLID: 0x7FFF → 0xFFF
Logical Group: support 8 groups

P2P Emulation with SCB



P2P Emulation with Multicasting



Suggested Frame Reception Rule

		Frame Tag		Receiver Action	
Mode	LLID	LGID	ONU	OLT	
0	Match	Match	Accept	Accept	
		No match	Discard		
	0xFFF	Match/ No match	Discard	Accept	
		No match	Match/ No match	Discard	Discard
1	Match	Match/ No match	Discard	Discard	
	0xFFF/ No match	Match	Accept		
		No match	Discard		