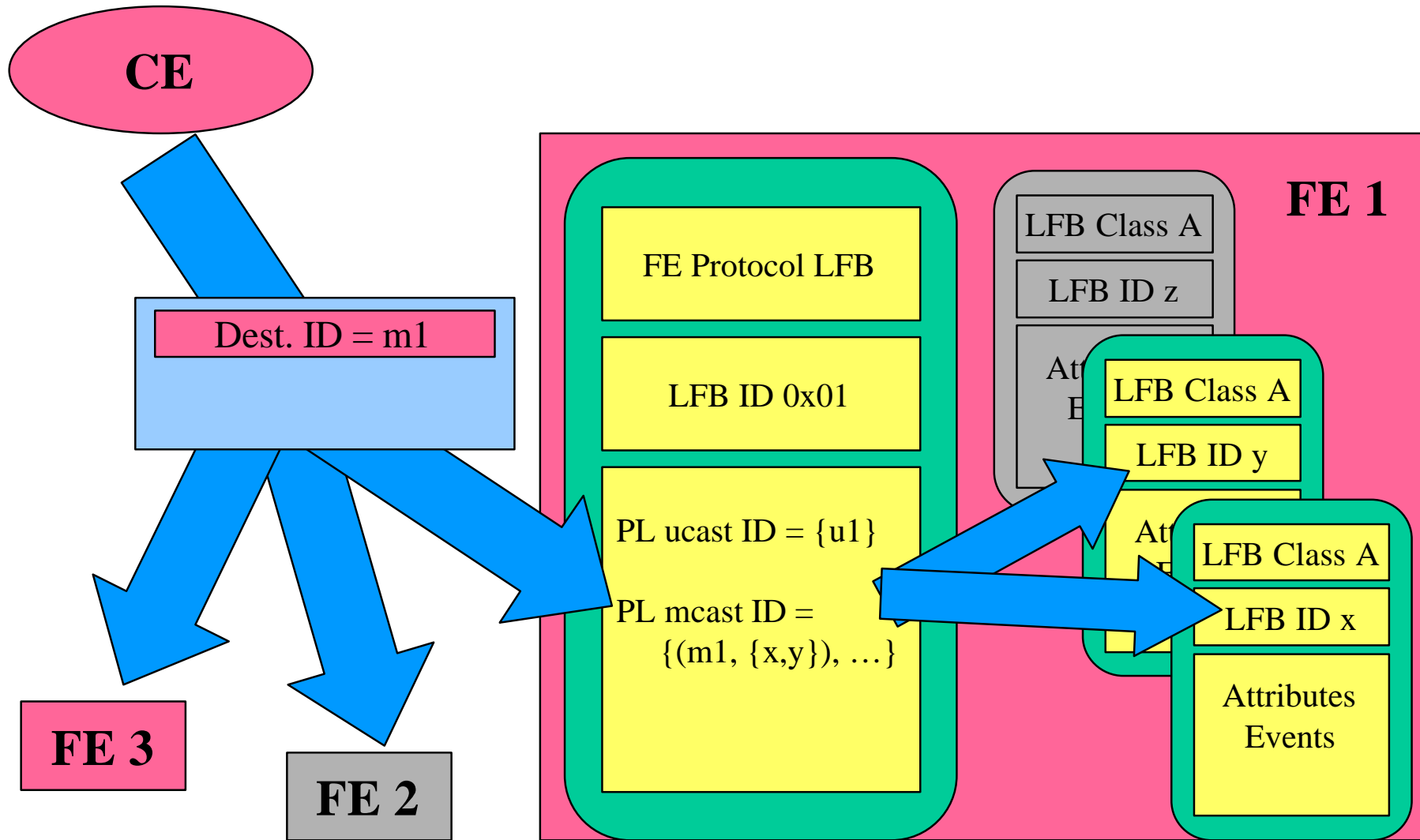


Options for LFB-level multicast and related issues

Robert Haas, rha@zurich.ibm.com

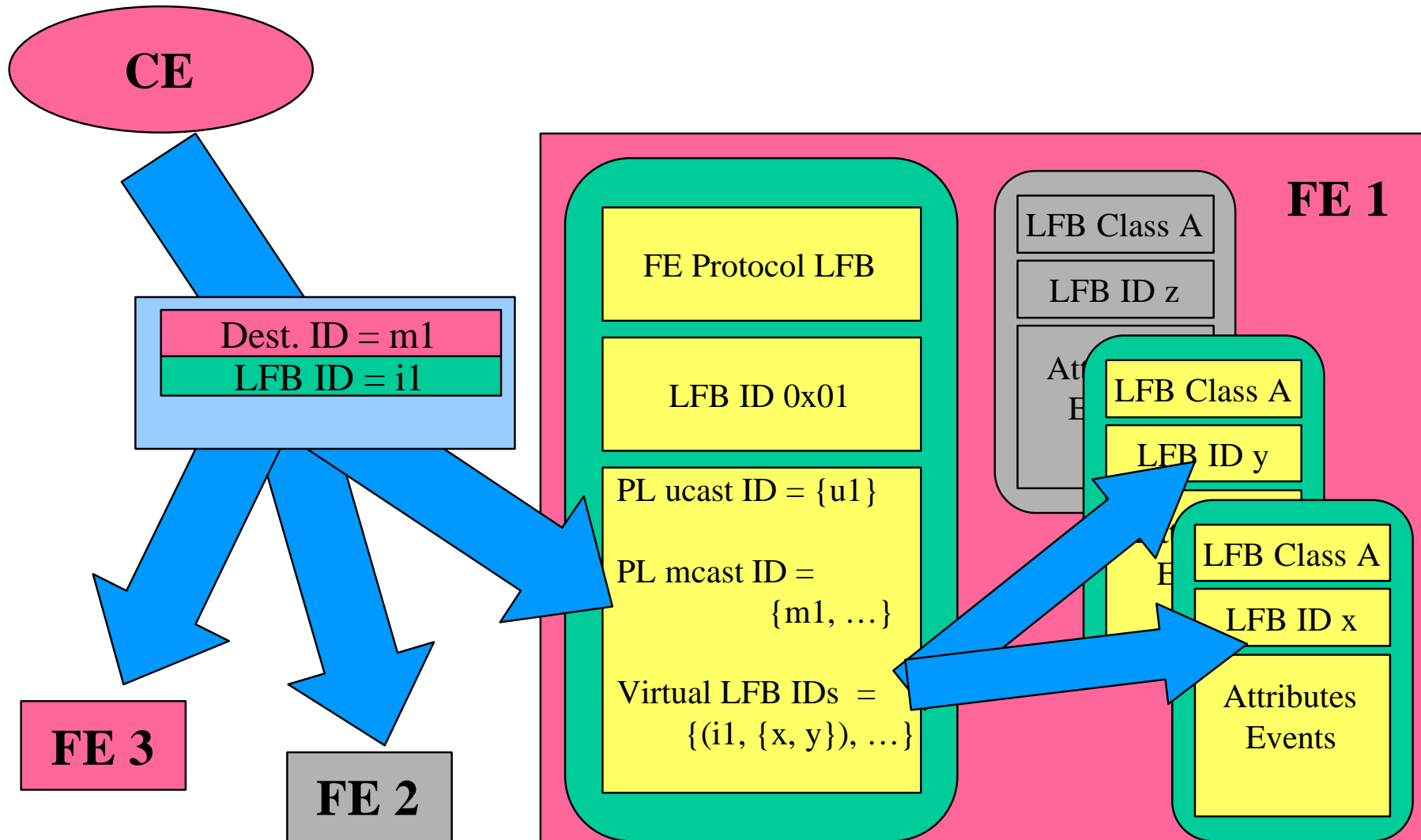
Nov 2, 2004

Merged: $m1 = \text{PL-level mcast ID}$

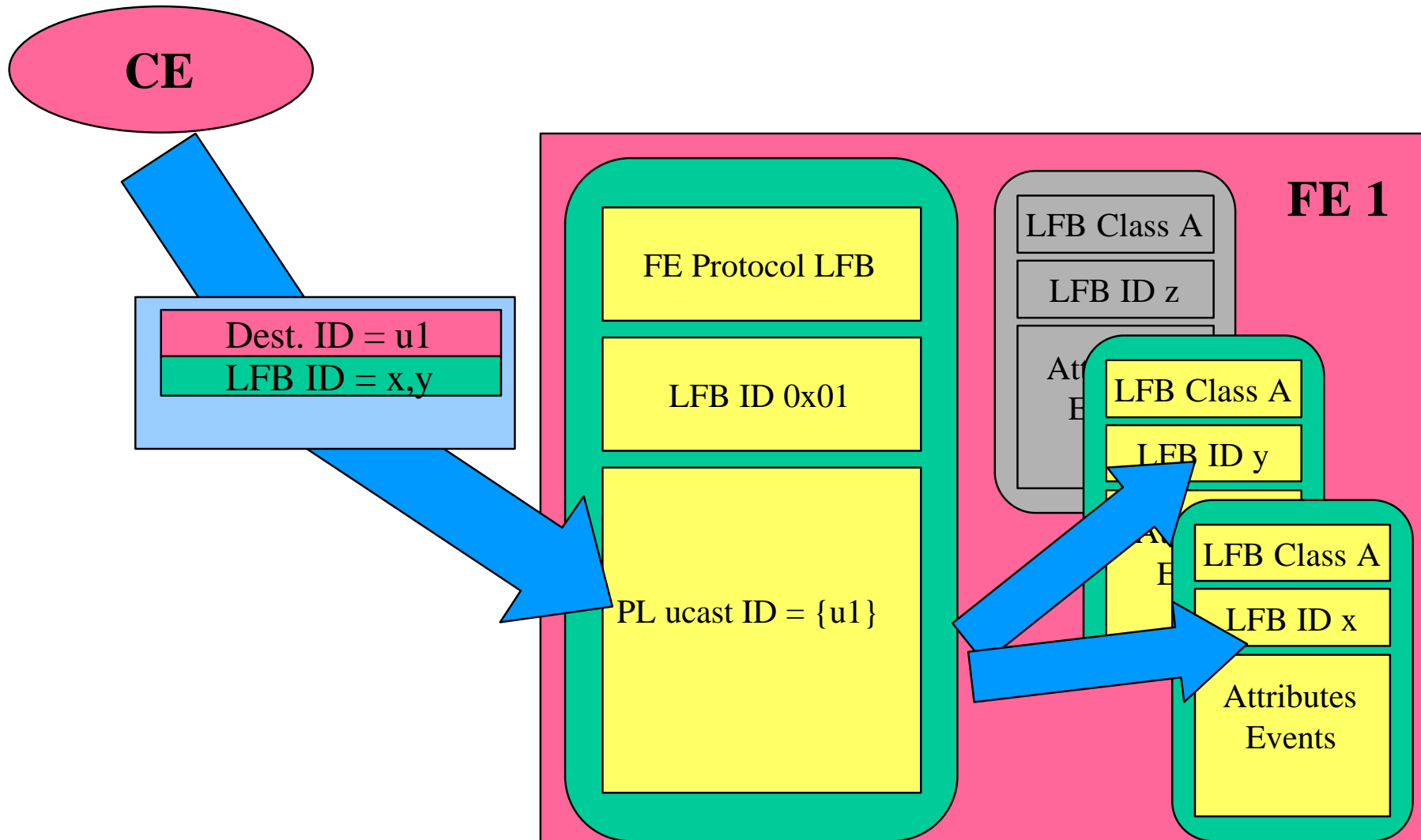


Split: m1= PL-level mcast ID

i1 = virtual LFB instance ID



Xcast: x,y = list of LFB instance IDs



Comparison

- **Merged mcast**
 - NE-wide group of LFBs is identified with a PL-level mcast ID
 - Does not respect strict layering between FE level and LFB level.
 - No LFB_select within PL message needed
- **Split mcast**
 - NE-wide group of LFBs is identified via a Virtual LFB Instance ID (=MIID)
 - Decoupled from the PL-level mcast ID
 - Can address various MIIDs in the same PL message
 - Risk of inconsistency. Example:
 - sending a PL-level message to a PL mcast ID that only covers a subset of the FEs with LFBs identified with the same MIID
- **Xcast list**
 - Only unicast PL messages
 - No prior configuration of PL mcast ID or MIIDs required.
 - Lists can become long if no ranges can be used (depends on the LFB Instance ID allocation)

Additional issues

- Splitting Class and Instance ID into two TLVs
 - When addressing many same-class LFBs in the same FE, but each LFB with a different command, no need to repeat the class.
 - Really saving anything ?
 - Is only class+instance unique, or is instance alone unique in the FE ?