Proposal on shared tree root selection

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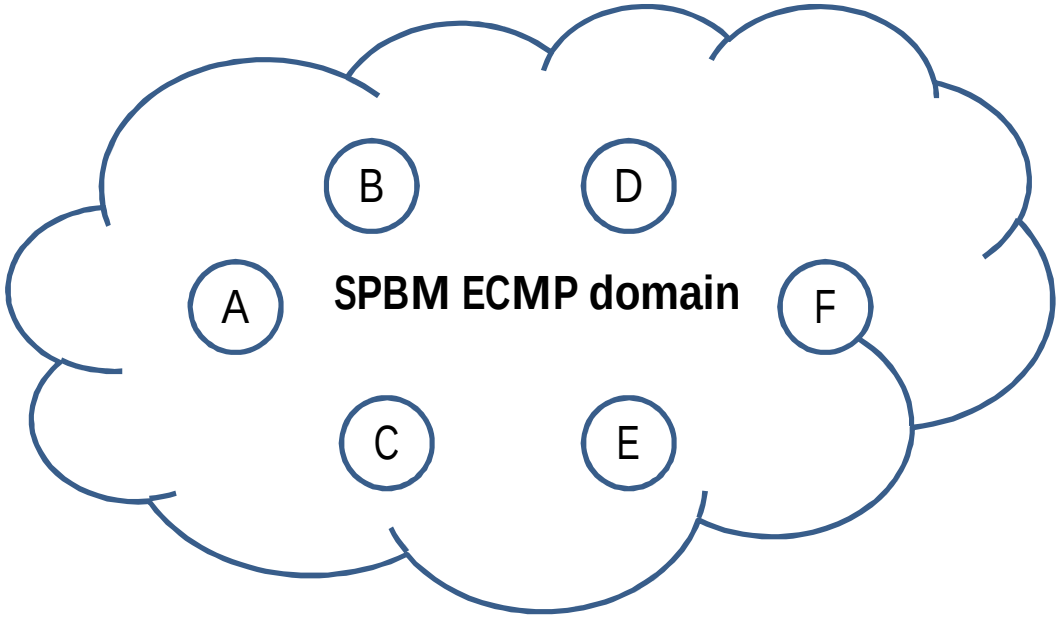
Current mechanism for shared tree root selection



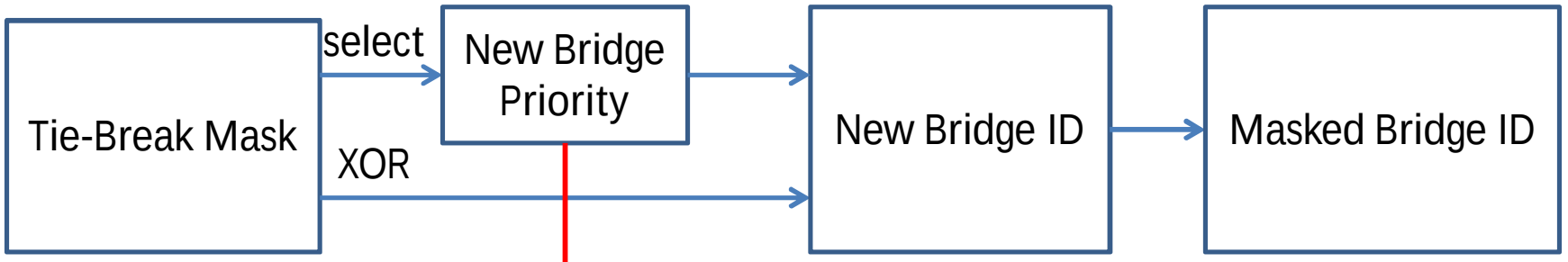
- If assume there are Node A – Node F in a SPBM ECMP domain
  - Provisioned Tie-Break Mask = 0x6 (binary 0110)
  - provisioned Bridge Priority (A < B < C < D < E < F)
  - Bridge ID = Bridge Priority (higher 2 bytes) + SPB System ID (lower 6 bytes)

    à achieved Bridge ID (A < B < C < D < E < F)
  - Masked Bridge ID = XORs (Tie-Break Mask) with (Bridge ID)

    à Masked Bridge ID = XORs (01100110…0110) with (Bridge ID)
- Then the node with the best (least) masked Bridge ID is the selected root Bridge

Reason to do modification

The current mechanism: indirect two-steps selection. It's complicated and reduce the predictability of the sorting



Used for root selection

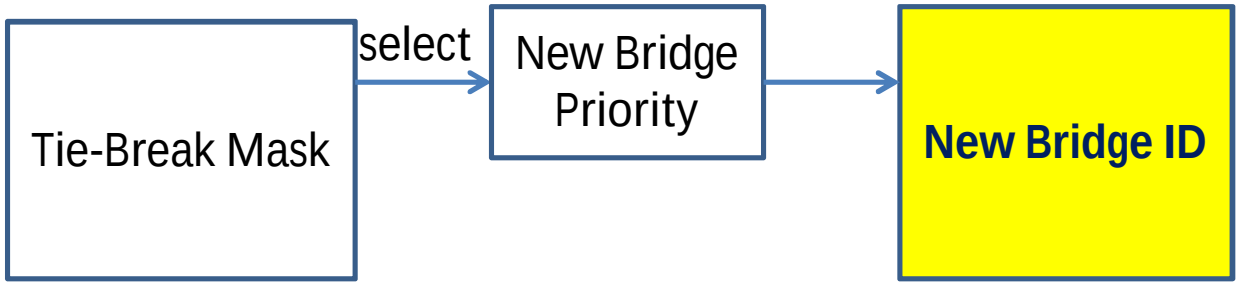
	Octet	Length
Type (2)	1	1
Length	2	1
ECT-ALGORITHM (00-80-C2-11)	3-6	4
Tie-Break Mask	7	4-bits
reserved	7	4-bits
Bridge Priority	8-9	2
...		
Tie-Break Mask	(3n+4)	4-bits
reserved	(3n+4)	4-bits
Bridge Priority	(3n+5)-(3n+6)	2

New sub-TLV in LSP is defined and flooded

Figure 28-1—ECMP ECT-ALGORITHM sub-TLV

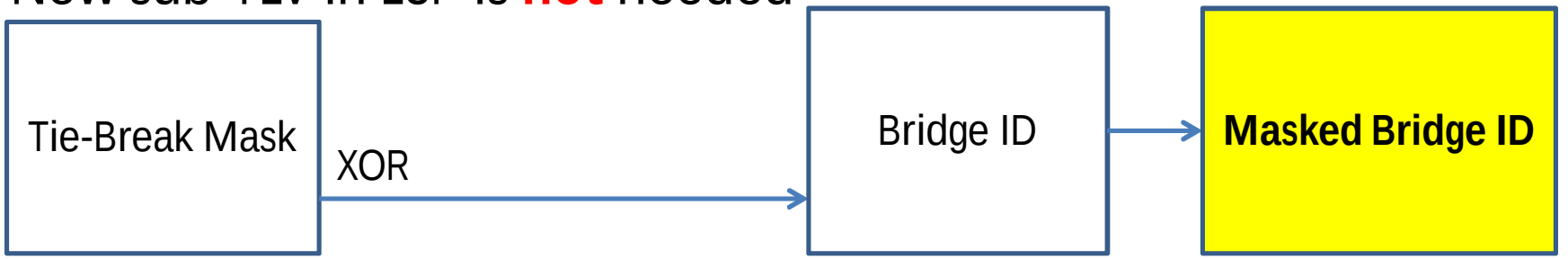
Optional new mechanisms

The optional new mechanism 1: direct one-step selection.
New sub-TLV in LSP is **still** needed



Used for root selection

The optional new mechanism 2 : direct one-step selection.
New sub-TLV in LSP is **not** needed



Used for root selection

Proposal

- Modify the current mechanism for shared tree root selection to make it simpler and more direct
  - Include optional new mechanism 1 or
  - Include optional new mechanism 2 or
  - Include optional new mechanism both 1 and 2

Thank you!