

802.1Qbp – in one slide (minus OA&M)

ISIS-Hello	ECT-ALGORITHM= 00-80-C2-11 (after .1aq's) B-VID = VID 0	If VID = 0 then no B-TAG else normal B-TAG. Only one ECT-ALGORITHM required and only one B-VID (or 0) required. Multiple B-VIDs may be used but only one ECT-ALGORITHM for Qbp now.
ISIS-LSP	ISID-ADDR-TLV B-VID (as above) Tx;Rx;Ts;,,SUB-ALG:5 ,ISID:24	ISID in Qbp mode when B-VID matches ECT-ALGORITHM VID (above). Tx =(S,G) Transmitter, Rx =Receiver, Ts =(*,G) Transmitter Tie breaking/root selection based on XOR against MASK[SUB-ALG] (similar to the 802.1aq CIST algorithm but with MASK)
Group DA Format	(* ,G) => F(SUB-ALG)-xx-xx-xx (S,G) => SpSource-xx-xx-xx Head => B-DA	Shared TREE – identifies SUB-ALG (for RPFC) where xx-xx-xx is ISID. Source TREE uses SPBM format where xx-xx-xx is ISID. Head replication just uses normal unicast B-DA for each copy.
Compute	Unicast	Run SPF from self. On equal cost alternatives, “OR” ECMP sets of the two alternatives together to form ECMP set for this child (like OSPF/IP).
Compute	Multicast – Shared Tree 16 trees, one per SUB-ALG when at least one Ts bit is set	Find node with lowest BridgIdentifier XOR MASK[SUB-ALG]. Run SPF with that node as root. When two equal cost choices, pick parent with lowest BridgIdentifier XOR MASK[SUB-ALG]. Then prune tree per ISID with Ts bit set. FIB DA is F(SUB-ALG)-xx-xx-xx
Compute	Multicast – Source tree 16 per source, one per SUB-ALG when at least one Tx is set.	Same as above except that source is the Bridge with the ISID Tx bit set. Then prune tree per ISID (same as AQ but <i>not symmetric</i>) because tie breaker only backtracks to parents to pick min masked BridgIdentifier.
Compute	Multicast – Head end replication	Head end builds replication over unicast tunnels to all ISID with Rx set.
Data Path	PBB + F-TAG [B-TAG optional]	F-TAG = <F-TAG-TYPE:16, PCP:3,DEI:1,RESV: 6, TTL :6, Flow-ID :16 >
Loop Prevention	TTL RPFC – (S,G) RPFC – (*,G)	Decrement. New – must check SA ECMP ‘set’ against L2 ECMP FIB, if matches any ok. New – must lookup <SA, SUB-ALG > in new tables..