IEEE P802.11  
Wireless LANs

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| Problems to be solved by 802.11ak/802.1Qbz | | | | |
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Abstract

This document is an effort to enumerate and perhaps prioritize the problems to be solved by 802.11ak in conjunction, as necessary, with 802.1Qbz.

# Problems to be solved by 802.11ak/802.1Qbz

1. Addressing problem: There needs to be enough information included in frames so that two 802 stations behind non-AP STAs or behind an AP and a non-AP STA can communicate.
2. Reflection problem: A non-AP STA must be able to correctly discard or accept a multi-destination frame (broadcast, multi-cast, or flooded unicast) from its associated AP depending on whether or not that non-AP STA sent that frame to the AP.
3. Blocked AP port problem: How to assure that a non-AP STA will not accept a multi-destination frame from the AP if bridge protocols at the AP say the frame should not be sent to that non-AP STA.
4. Per port VLAN mapping: Is “per port” VLAN mapping supported and if so, how?
5. Ethertyping versus LLC: 802.3 frames are Ethertype encoded and 802.11 frames are LLC encoded. It may be impossible to do a perfect job of translating from one to the other. Adequate mechanisms to handle this in the real world are required.
6. How are QoS and queuing handled, particularly at the AP? Involves mapping between 802.1 and 802.11 traffic classes.
7. How is the internal connectivity/cost of the AP and associated non-AP STAs reported to the rest of the network? Relates to
   1. Link Metrics.
   2. Unreliable links.
   3. Direct Link between non-AP STAs.

Note 1: Problems 2, 3, and 4 could be solved with a general capability for an AP to send to a subset of associated non-AP STAs or could be solved in other ways.

Note 2: In connection with item 7, a combination of “pessimism and hysteresis” has been suggested.**References:**