September 1993 Doc: IEEE P802.11-93/159a

Frame Prioritization in a CSMA/CA Media Access Control Protocol

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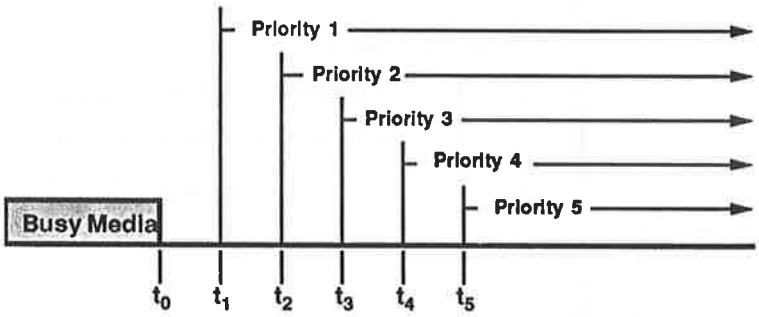
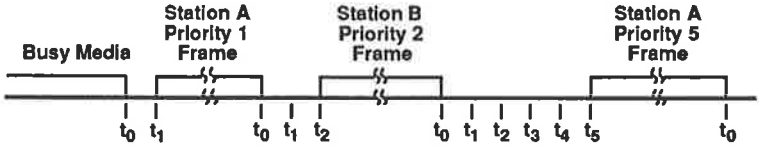
September 1993 Doc: IEEE P802.11-93/159a

Prioritization using Timed Interframe Spacing

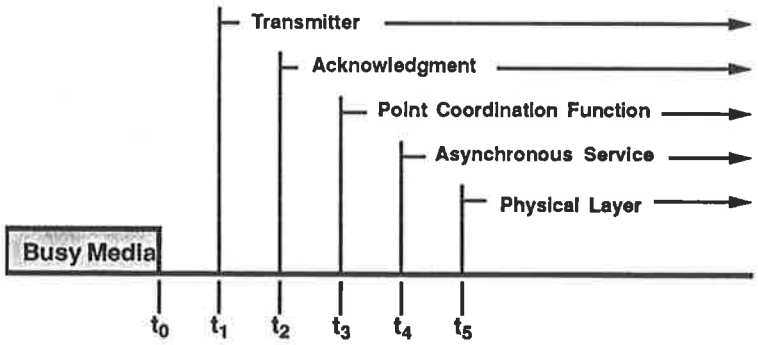


Prioritization Example



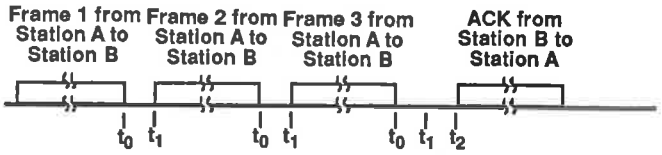
- Station A
  - Priority 1 Frame
  - Priority 5 Frame
- Station B
  - Priority 2 Frame

Traffic Prioritization



September 1993 Doc: IEEE P802.11-93/159a

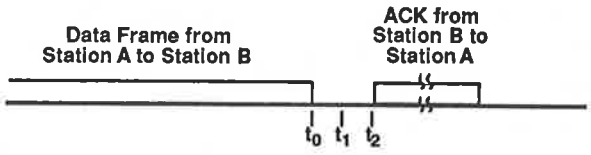
Multi-Frame Windowing



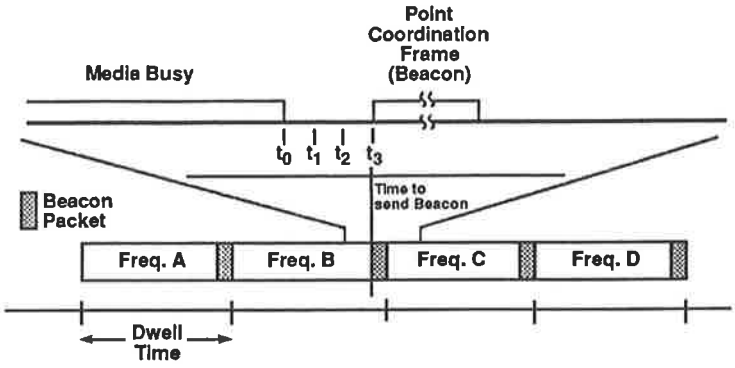
- Three Frames From Station A to Station B
- ACK Frame from Station B to Station A

September 1993 Doc: IEEE P802.11-93/159a

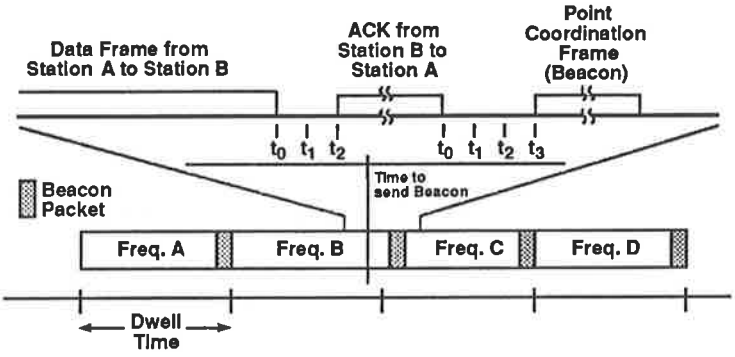
Priority 2 - Acknowledgment



Frequency Hop Synchronization



Dwell Stretching using Prioritization



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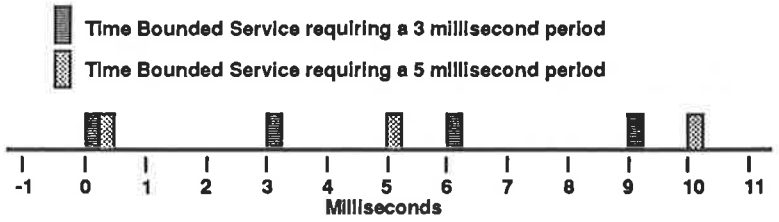
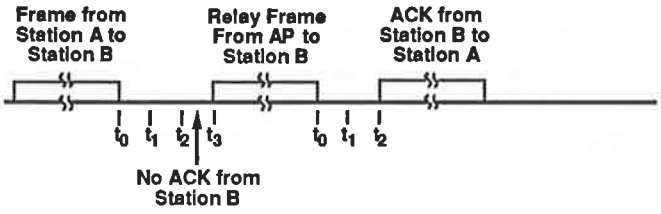
Time Bounded Services Requiring Different Periods



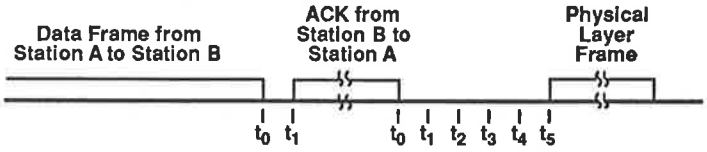
September 1993 Doc: IEEE P802.11-93/159a

Transparent Relay



September 1993 Doc: IEEE P802.11-93/159a

Priority 5 - Physical Layer



September 1993 Doc: IEEE P802.11-93/159a

Conclusions

- Enhancement of existing MAC proposal
- Supports Time Bounded Services without the requirement of a TDMA frame
- Provides windowing of multi-packet transmissions
- Provides transparent relay when an Access Point is present
- Provides synchronization in a frequency hopping system
- Allows Physical Layer to transmit packets independent of the MAC