Oct-28-2014

Note Title 8/28/2014

MAC

- Polling (+token)

  M = # nodes

  τ = prop time between nodes

  C = cap

  $T_R = M\tau/2$

  effective size of network = $a' = \frac{T_R}{(L/C)}$

  S_{max} ↓ a' ↑

- Random Access

  + Algorithm Tx & wait for Ack

    ✗ no Ack Then ReTx

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- Ack timer
- Assume no ack → collision
- Back off algorithm

+ Time
  - unslotted → as sync
  - slotted → pay for sync

+ Net State
  - CS → reduces time you are vulnerable to collision
  - CD

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+ Flavors of RA nets (slotted or unslotted)

- ALOHA
- p-persistent CSMA
- non-persistent

know how

+ $S_{max} = 18\%$ for unslotted Aloha
  $= 36\%$, for slotted

+ S_{max} CSMA

effective size of net $= a = \frac{T}{\left(\frac{L}{C}\right)}$

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Sonar ↓ and a ↑

- CSMA + min packet size keep a small

+ max packet size for fairness