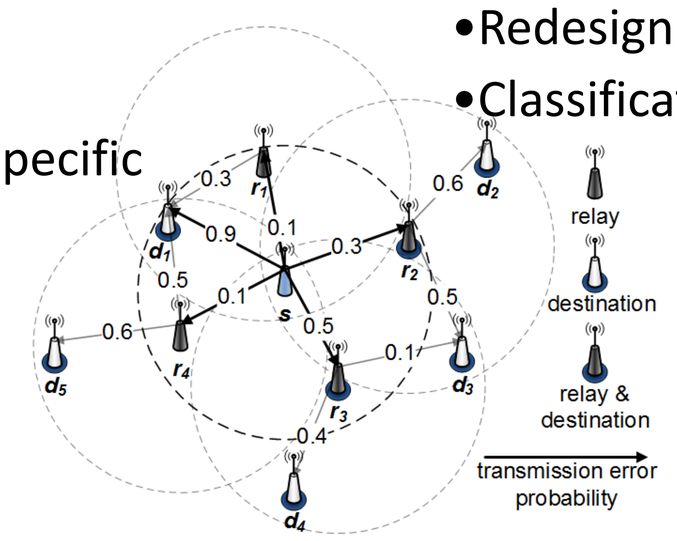
# Demonstration of a Video-aware Multicast Opportunistic Routing protocol over 802.11 two-hop mesh networks

## MORE

- State of the Art Opportunistic Routing algorithm
- Network coding approach: Random mix of packets in a batch for forwarding
- Based on 802.11 CSMA/CA
- Source transmits continuously
- Relays retransmit every packet for a specific number of times
- Until source gets acknowledgment

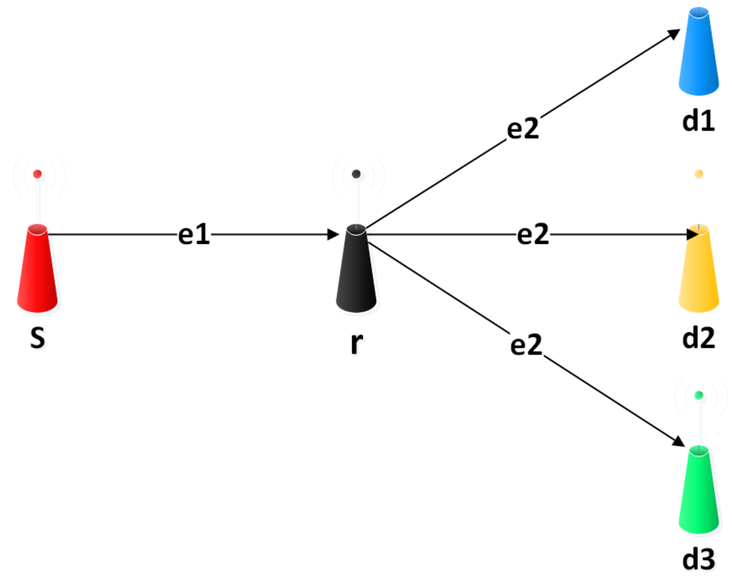
## ViMOR

- Our proposed scheme
- Extends MORE, enabling support for video streaming :
  - Denial of the acknowledgment mechanism
  - Redesign of the transmissions policy
  - Classification and prioritization of packets




## DEMONSTRATION DETAILS

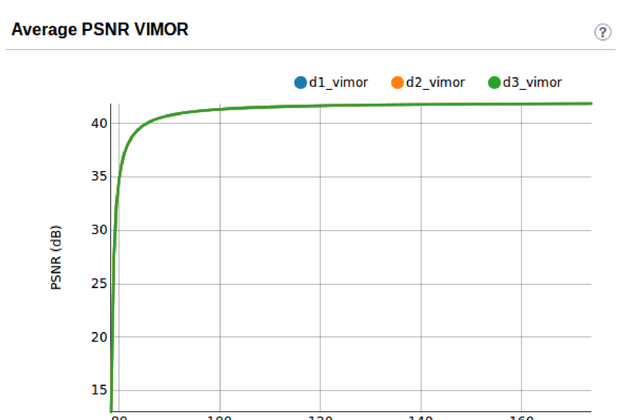
### DEMONSTRATION TOPOLOGY

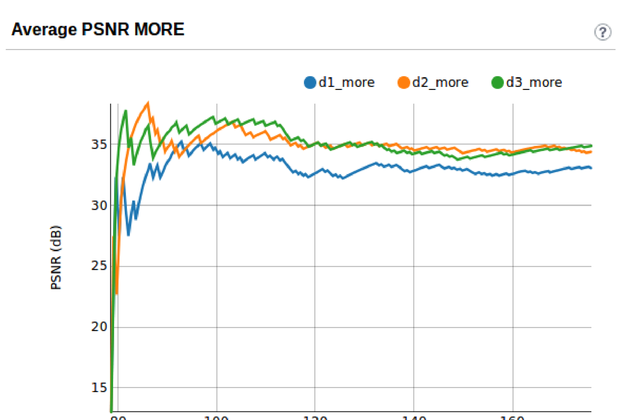


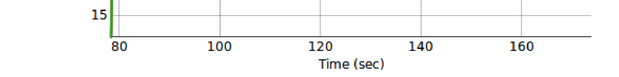

### IMPLEMENTATION DETAILS

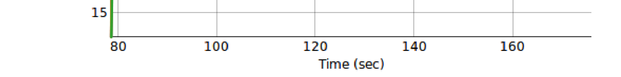
- Implementation based on the Click Modular Router
- Deployment on NITOS testbed
- Fixing of transmission error probabilities with filtering mechanism
- Slot : duration of the forwarding process of a batch
- Comparison between MORE and ViMOR in terms of PSNR metric

Slot 525 ms e1 = 0.1, e2 = 0.3

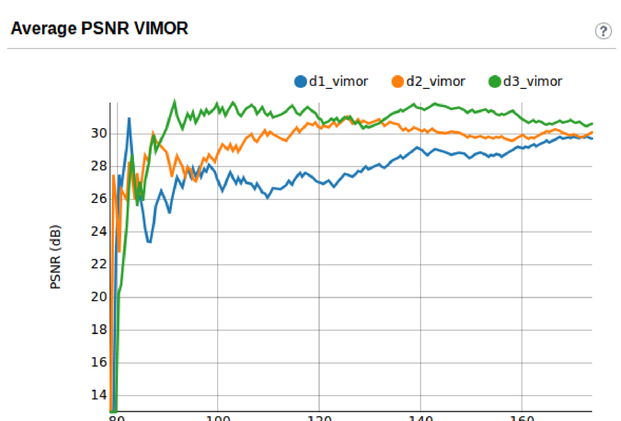


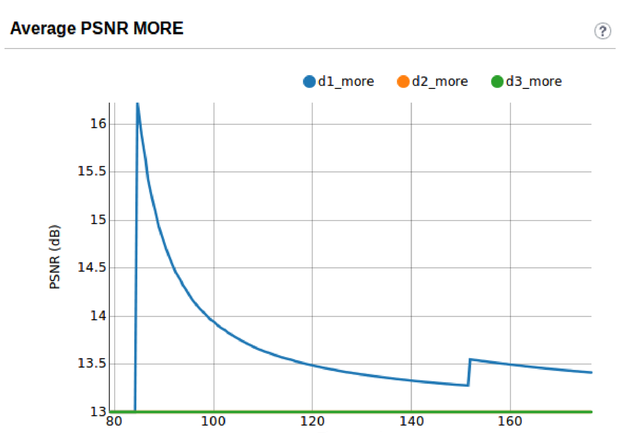



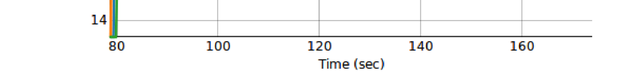



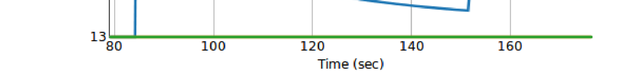




Slot 525 ms e1 = 0.3, e2 = 0.5

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