A Demonstration of a User Centric Prioritization Scheme for Wireless LANs

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Traditional 802.11e

➤ As the number of wireless networks increases, there is a tremendous need for management of the wireless bandwidth.

➤ There are users that should prevent their bandwidth no matter what the number of stations in the network is.
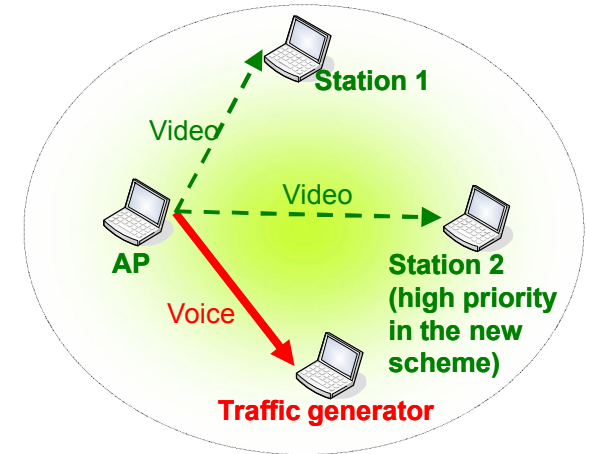
New User Centric Mechanism

➤ The new mechanism takes under consideration the MAC address of the station that generates the traffic additionally to the traffic itself.
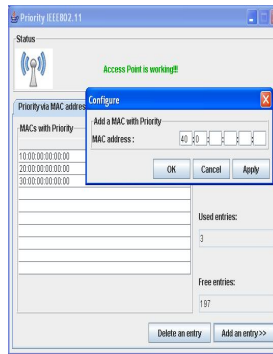
➤ It uses a second prioritization level on the top of the one that is implemented in IEEE 802.11e.

Demo Setup

Three phases in the Demo

1: IEEE 802.11e is active. No additional traffic except for the two video streams. **Acceptable video** at both stations.

2: IEEE 802.11e is active. Additional voice traffic by station3. **Video becomes bad** at both stations due to the heavy traffic and the high priority that voice traffic has.

3: The **new prioritization scheme** is active. **Good video quality at station 2** (high priority station), although the heavy traffic in the network. Station1 keeps having bad video quality

Legacy 802.11e results

➤ Since voice has higher priority than video, voice traffic kills the video traffic and therefore the video quality is poor in both stations.

Snapshot (Bad Quality)

New Prioritization Scheme results

➤ The quality of the video at *Station 2* upgrades appreciably, although the heavy traffic in the network.
➤ *Station 1* keeps having bad video quality.

Snapshot (Good Quality)