

Nomadic Communications Labs



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802.11n
New ideas for the second
Report

802.11n

- ❑ We are going to explore our 802.11n network
- ❑ We don't have a clear picture of all the features supported/enabled/used
- ❑ We are also looking for ideas for different setup and configuration

802.11n: Beacon task (2 groups)

- ❑ Capture 802.11n beacon in Povo1 and around in Ateneo (Lettere is another interesting site!) and FBK
- ❑ Analyze the beacon with an eye on the “vendor specific” attributes
- ❑ Analyze the features supported and announced explaining the meaning
- ❑ If the job is complete and accurate, maybe it will be possible to publish a small paper!

802.11n: WME task (2 groups)

- ❑ Analyze the WME parameters of the beacon
- ❑ Verify if the client traffics use this parameters (like multiple-ack)
- ❑ Try to tag your traffic as video, there are difference in the wireless traffics?
- ❑ We are going to change the configuration of the AP to support different TXOP. Then you should check if there are difference in the traffic/performance

802.11n: manag. task (2 groups)

- Look at the traffics of the wireless network
- Analyze the packets looking to the management frames:
 - rts/cts
 - ack
 - beacon
- Analyze the behavior of the network when there are client 802.11b/802.11g/802.11n (mixed, only of one kind)

802.11n: monitor task (1 group)

- ❑ Look at the WEB and try to discover different kind of wireless-cards and their support to the monitor mode.
- ❑ Summarize the difference like:
 - the capability to acquire packets while transmitting
 - The number of management frame it is able to acquire
 - ...

802.11n: some statistics

□ Povo 1:

- 802.11g 27%
- 802.11n 2.4GHz 47%
- 802.11a 3%
- 802.11n 5GHz 23%

□ LETTERE:

- 802.11g 10%
- 802.11n 2.4GHz 75%
- 802.11a 5%
- 802.11n 5GHz 10%