

**ENSC 427: COMMUNICATION NETWORKS**

**ANALYSIS OF VOIP  
PERFORMANCE OVER  
WI-FI NETWORKS**

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**Group #4**

Nickolas Cheng (nwc@sfu.ca)

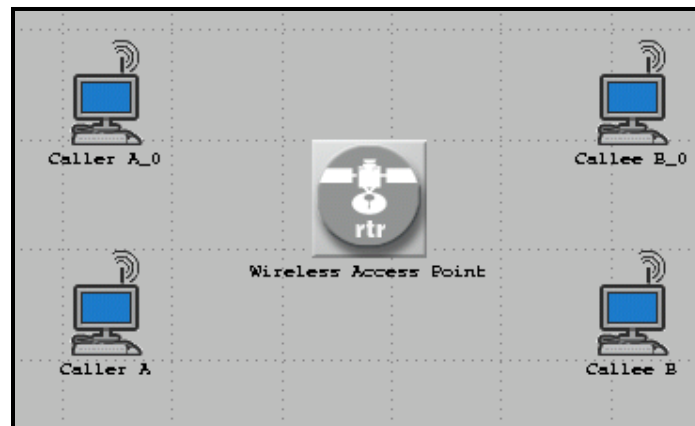
Marissa Hun (mmh2@sfu.ca)

Sami (Thao) Nguyen (samin@sfu.ca)

<http://www.sfu.ca/~samin/ensc427/>

# OVERVIEW

- Introduction
- Simulation Guideline
- Analysis of Results
- Conclusion



# INTRODUCTION

- ◎ Purpose

- Performance of VoIP over Wi-Fi Networks
- Implementing this technology campus wide

- ◎ Issues to Analyze

- Quality of Service (QoS)
- Range vs. power considerations
- Jitter and delay
- Packet loss

# SIMULATION GUIDELINE

- ◎ Network Topology
  - Campus Network
  - Two Calling Pairs
- ◎ Technology
  - Wi-Fi: 802.11g at 54Mbps (standard)
  - VoIP: G.729a encoding (most common)
- ◎ Scenarios
  - Single and multiple stationary calling pairs
  - Multiple moving calling pairs
  - Power modifications

# CONCLUSION

- ◉ VoIP is over Wi-Fi is a good choice for stationary nodes
- ◉ Increased power profiles will help maintain high QoS
- ◉ Cost-effective while providing greater clarity
- ◉ Feasible in fixed environments