

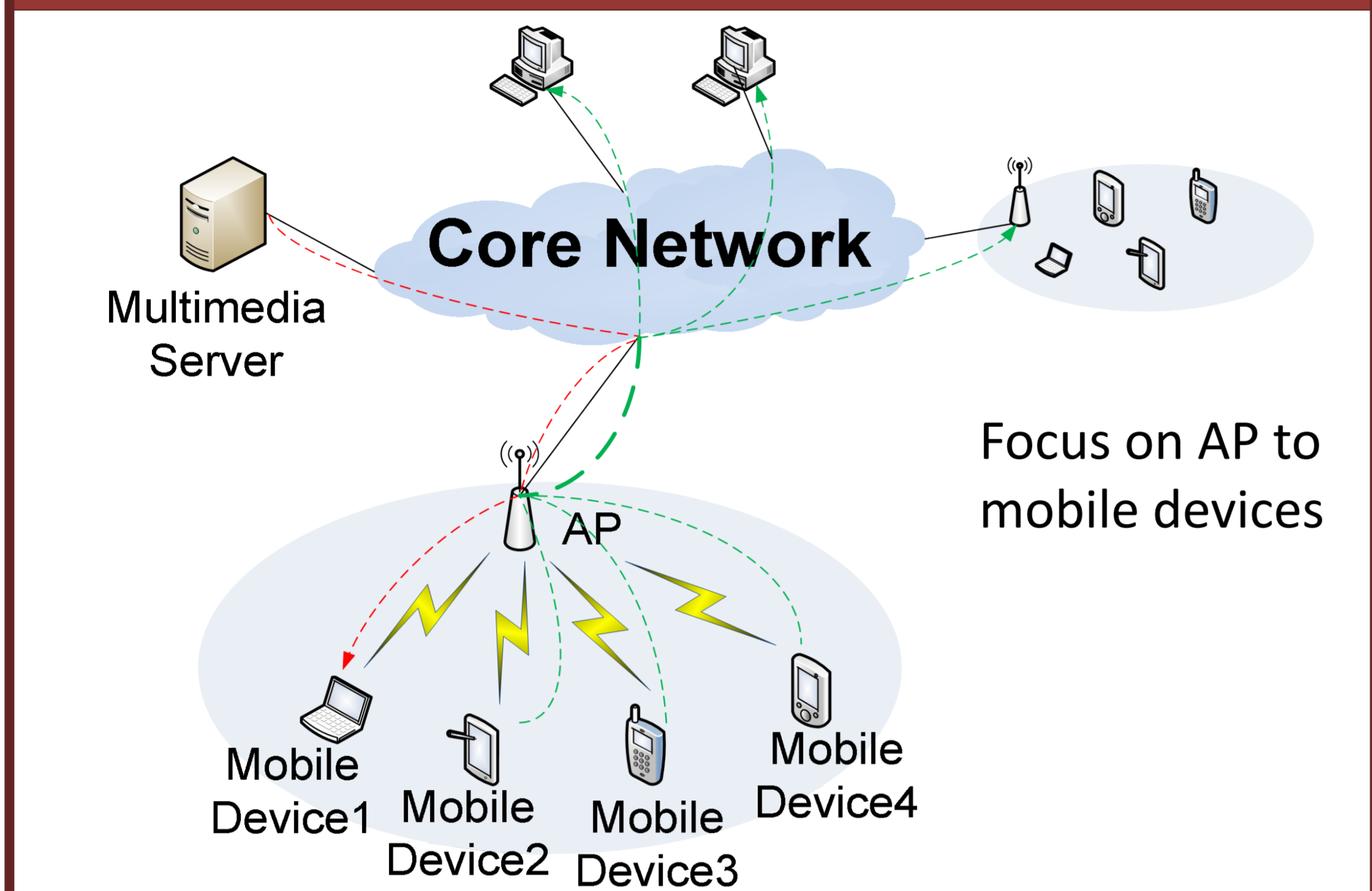
Simulator for Adaptive Multimedia Transmission over Wireless Networks

Xiaojing Li, Wei Song and Bradford G. Nickerson
lixiaojing057@gmail.com, wsong@unb.ca, bgn@unb.ca

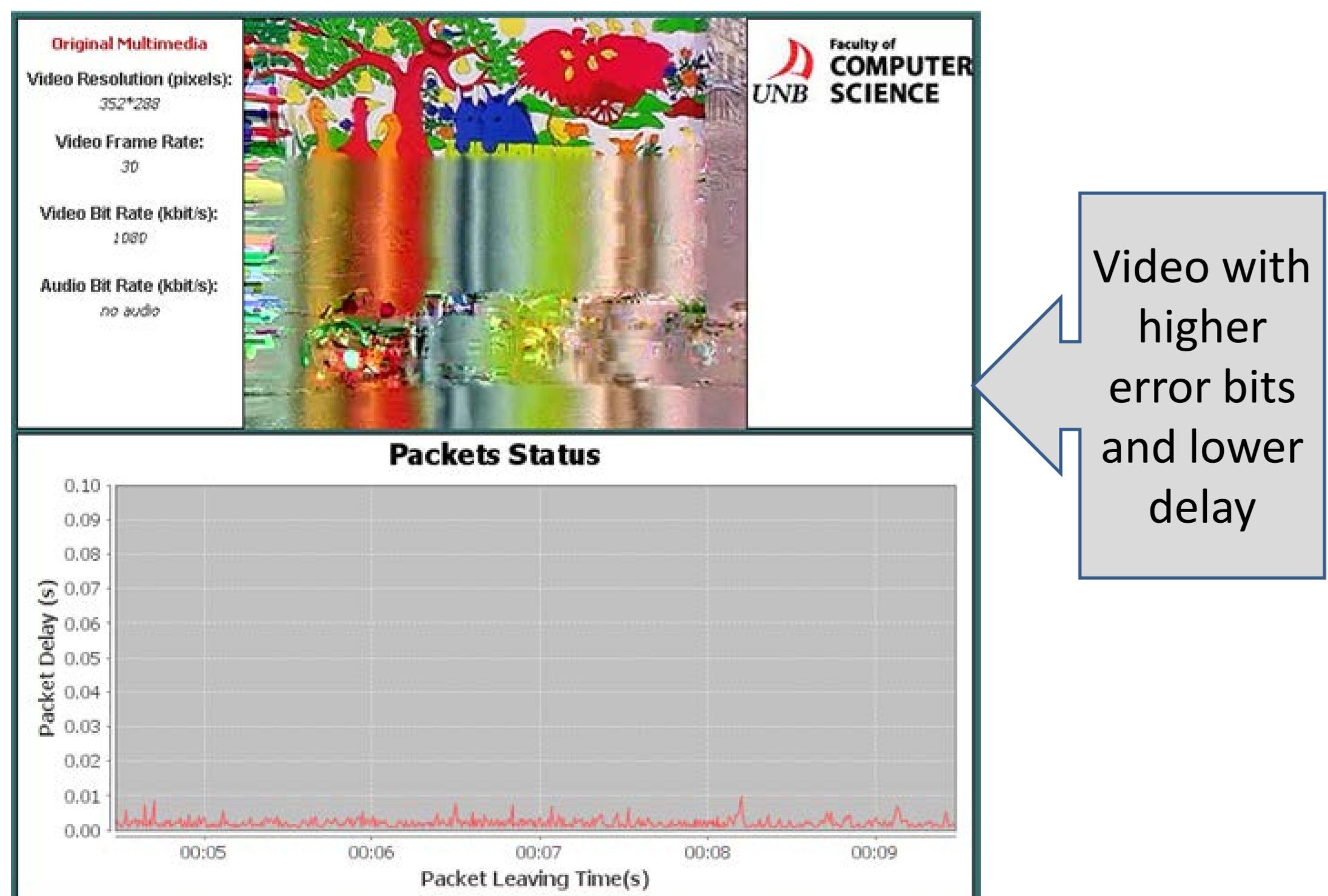
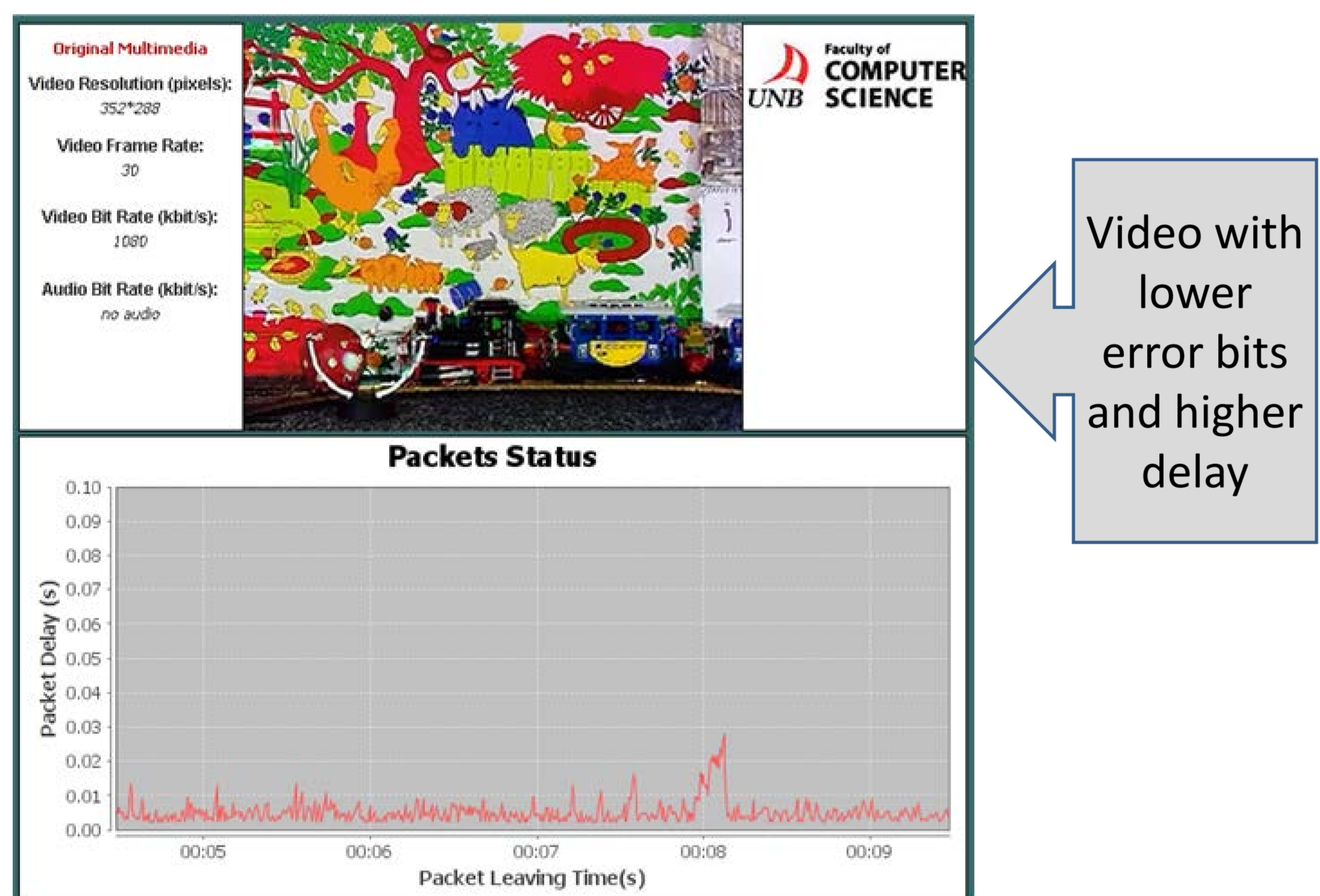
Motivation

Build a simulator which can illustrate visual/auditory effects of wireless transmission on streaming video and audio.

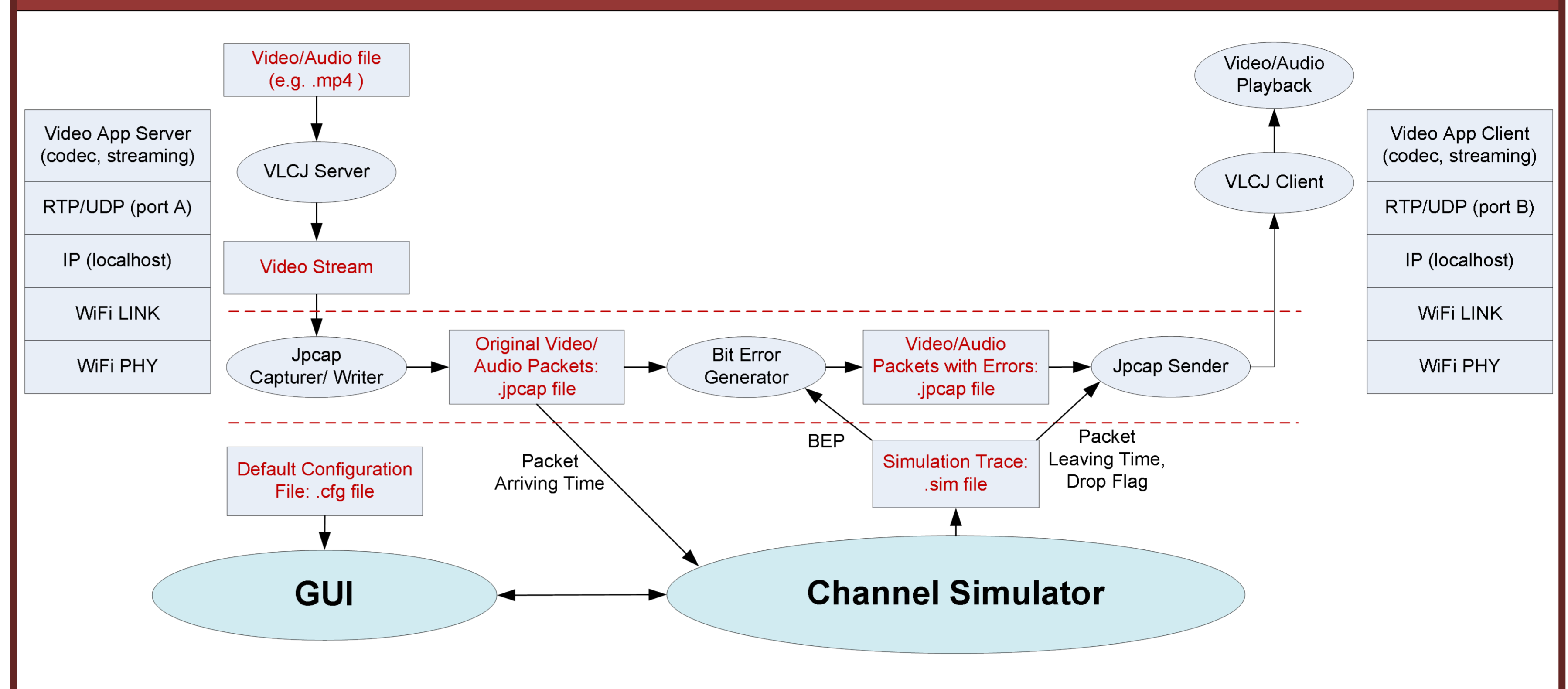
Simulation Scenario



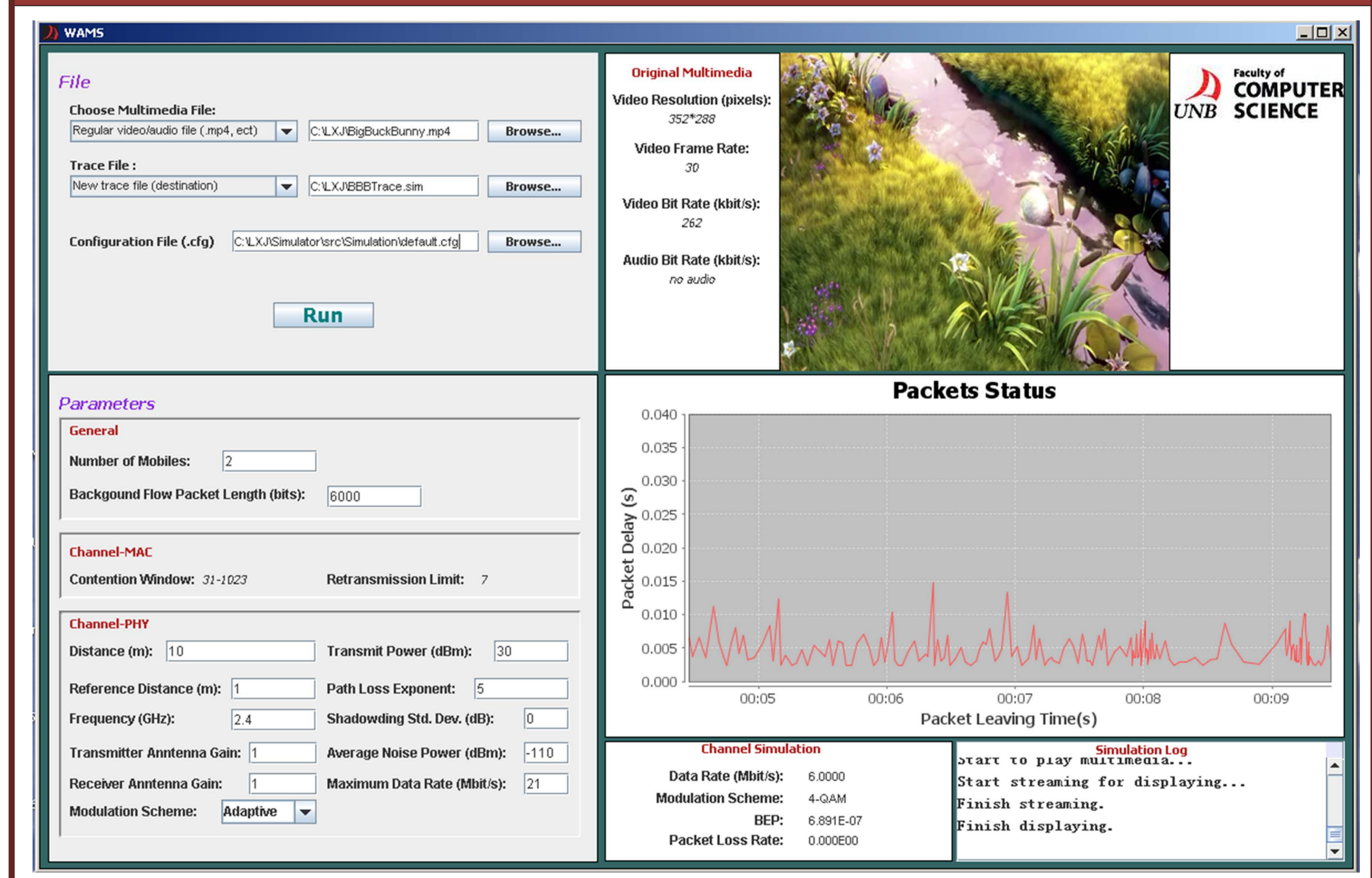
Video Comparison



Simulator Framework



Simulator GUI



Statistical Analysis Results for Mean Opinion Score (MOS) (N=10)

Number of Stations	BEP	Data Rate (Mbit/s)	MOS Statistical Validation					
			News	Bus	Mobile	Speech	Piano	BBC
5 / 10	1.7×10^{-10}	11	▲	▲	▲	▲	<	▲
15 / 30	1.7×10^{-10}	11	▲	<	<	<	<	<
30 / 50	1.7×10^{-10}	11	<	<	<	<	<	<
2 / 5	1.1×10^{-8}	11	<	▲	▲	▲	▲	▲
2 / 5	1.3×10^{-5}	11	<	<	<	<	<	<
2 / 5	1.3×10^{-6}	11	<	<	<	▲	▲	<
15 / 30	9.5×10^{-7}	21	<	<	<	<	<	<
15 / 30	3.4×10^{-6}	3	<	<	<	<	<	<

FI NB IF
INNOVATION

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