



UCL Department of Computer Science
CS M038/GZ06: Mobile and Cloud Computing
Spring 2016
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One-pager: Maranello (Han *et al.*, 2010)

Due: Start of lecture, 3rd February 2016

Instructions: *in your own words*, answer the following questions as *succinctly* as possible (in 200–500 words total, but shorter answers within this range are encouraged). Quoting figures or text from the assigned reading or from any other source is specifically prohibited.

Bit-rate adaptation algorithms interact interestingly with a partial-packet recovery (PPR) scheme like Maranello. Suppose Bicket deployed Maranello on his 802.11 testbed during his evaluation of SampleRate and the previously proposed ARF bit-rate adaptation algorithm. Recall Bicket’s definitions of “gradual” and “lossy” links.

When SampleRate operates on a “lossy” link, what opportunities would Maranello have to improve throughput, and why? Refer to the relevant details of SampleRate and Maranello in your answer.

Now consider using ARF on a “gradual” link with Maranello. What opportunities would Maranello have to improve throughput, and why? Refer to the relevant details of ARF and Maranello in your answer.