Exam Report Communication Networks II

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Abstract

In this document the network depicted in fig1 is evaluated regarding given Qos Requirements.

0.1 The Network

Bild

0.2 General Assumptions

Since the overall Goal is to evaluate the network performance regarding the Qos during the Video Lecture, we will assume an assessment period of around 90 minutes. Before the Video Lecture starts, the Network will in general be used by the Students, which surf the Web at the Audimax, the Student who uploads a file. Optional the Camera will be turned on or switched off to evaluate the networks behavior with and without the additional traffic load.

0.3 HTTP Service

average download rate of the http client how many students can use the web while the file is uploaded, the camera is streaming and the professor is giving the lecture, so that the Qos requirements (delay, loss rate) are still met?

0.3.1 Expectations and theoretical Justification

0.4 Video Conference

How do the other apps influence the call. Is it required to Pause the CCTV camera during the video lecture? Is the Radio Link sufficient for the Video Call? Improvements of the Qos?

0.4.1 Influence of CCTV Camera on Video Conference

Where is the main bootleneck of the network, when the CCTV camera is turned on? Where is the main bootleneck of the network, when the CCTV camera is turned off?

Expectations and theoretical Justification

Confidence Intervals

Simulation Results and Interpretation regarding the Expectations

0.5 Radio Link

Is the radio link sufficient for all services to meet te Qos of all Apps?

0.5.1 Expectations and theoretical Justification

Confidence Intervals

0.5.2 Simulation Results and Interpretation regarding the Expectations

0.6 FTP Service

average data rate of the ftp upload

0.6.1 Expectations and theoretical Justification

Confidence Intervals

0.6.2 Simulation Results and Interpretation regarding the Expectations