Date: Fri, 21 Jan 2000 11:45:07 -0800 (PST)
From: "Fouad A. Tobagi" <tobagi@stanford.edu>
To: Diane Shankle <shankle@ee.stanford.edu>
Cc: Fouad Tobagi <tobagi@stanford.edu>
Subject: Re: Quals Question

Quals Question - January 2000:

Consider the design of a Video-On-Demand Server where digitized and compressed video is stored and from which it is streamed to users over a network. It is important that the design be scalable and flexible. What are the principal components of the video server and their underlying design parameters? What are the design issues and tradeoffs? The focus is on the storage aspects and data flow aspects.

Fouad A. Tobagi
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On Wed, 19 Jan 2000, Diane Shankle wrote:

> Please submit your Quals Question by email or hard copy.
> Due date Friday, January 21st.
> Thanks!
> Diane
>
> _____Diane Joan Shankle
> Tel: (650) 723-3194
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> Stanford University
> Dept of Electrical Engineering
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>

Cpu. memeory

may need dedicated video decoder chip if we have to decompress video

latency. jitter

X-Authentication-Warning: sidon.stanford.edu: tobagi owned process doing -bs
Date: Mon, 25 Feb 2002 19:28:40 -0800 (PST)
From: "Fouad A. Tobagi" <tobagi@Stanford.EDU>
To: Diane Shankle <shankle@ee.Stanford.EDU>
Subject: Re: Quals Question 2002

Consider a video clip of 30 frames per second and of a given duration, say T seconds. It is compressed using variable bit rate encoding; that is, the number of bits per frame varies from frame to frame. We let bi denote the number of bits in frame i.

The compressed vide file is stored on a video server from which it is streamed at constant bit rate c to a client. The client has a buffer of size B. Determine the possible values of c and B that allows a smooth playback of the video at the client.

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Fouad Tobagi

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