

CS 305 Computer Networking - Lab6

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1. Introduction

In lab 6.1, I use Chrome to load a dash resource and check the detail information in the developer tools.

In lab 6.2, I added two new functions based on lab 4.3. The code is in the attachment with necessary comments.

2. Results

1. There is a 'mdp' file named manifest.mpd as shown in the figure. Its description in mime is 'application/dash+xml'.

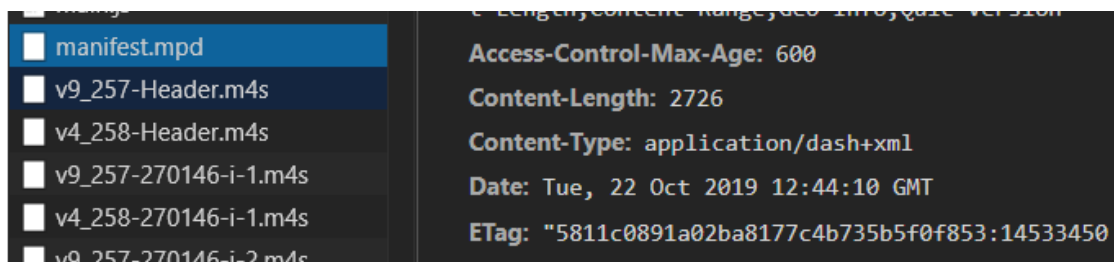


Fig.1

2. There are 'm4s' files like the file in Fig.2. The length of it is 519944 bits. So the rate of it is $519944 \text{ bit} / 374.03 \text{ ms} = 1390.1 \text{ Kbps}$.

Name	×	Headers	Preview	Response	Timing
v4_257-270146-i-1.m4s					Resource Scheduling
v2_257-270146-i-2.m4s					Queueing
v2_257-270146-i-3.m4s					1.04 ms
v4_258-270146-i-2.m4s					Connection Start
v2_257-270146-i-4.m4s					Stalled
v4_258-270146-i-3.m4s					19.57 ms
v2_257-270146-i-5.m4s					Request/Response
v4_258-270146-i-4.m4s					Request sent
v2_257-270146-i-6.m4s					0.18 ms
v4_258-270146-i-5.m4s					Waiting (TTFB)
v4_258-270146-i-6.m4s					476.18 ms
					Content Download
					374.03 ms
83 requests					17.2 MB transferred
					Explanation
					870.99 ms

Fig.2

The rate changes. When downloading this file with length of 462280 bits, the rate is $462280 \text{ bit} / 354.30 \text{ ms} = 1304.8 \text{ Kbps}$.

Name	×	Headers	Preview	Response	Timing
<div> <div></div> <div>v4_257-270146-i-1.m4s</div> </div> <div> <div></div> <div>v2_257-270146-i-2.m4s</div> </div> <div> <div></div> <div>v2_257-270146-i-3.m4s</div> </div> <div> <div></div> <div>v4_258-270146-i-2.m4s</div> </div> <div> <div></div> <div>v2_257-270146-i-4.m4s</div> </div> <div> <div></div> <div>v4_258-270146-i-3.m4s</div> </div> <div> <div></div> <div>v2_257-270146-i-5.m4s</div> </div> <div> <div></div> <div>v4_258-270146-i-4.m4s</div> </div> <div> <div></div> <div>v2_257-270146-i-6.m4s</div> </div> <div> <div></div> <div>v4_258-270146-i-5.m4s</div> </div> <div> <div></div> <div>v4_258-270146-i-6.m4s</div> </div>					
Resource Scheduling					TIME
Queueing					1.31 ms
Connection Start					TIME
Stalled					13.88 ms
Request/Response					TIME
Request sent					0.17 ms
Waiting (TTFB)					574.83 ms
Content Download					354.30 ms
83 requests	17.2 MB transferred	<u>Explanation</u>			944.49 ms

Fig.3

3. Summary

After this lab I learned the process of loading a video and how to calculate the rate.