

## ANNEX 1

## CONDITIONAL AMENDMENTS (INTEGER BREAKDOWNS)

## Conditional Amendment 1 (Annotated)

Claim	Integer
<b>Claim 1</b>	[1.1] A method for presenting rate-adaptive streams, the method comprising:
	[1.2] streaming by a media player (114) operating on an end user station (104) a video from a set of one or more servers (116),
	[1.2.1] wherein each of a plurality of different copies of the video is encoded at a respective different bit rate
	[1.2.2] and each copy is encoded as multiple files on the set of servers,
	[1.2.3] wherein each of the multiple files independently encapsulates a different portion of the video for playback,
	[1.2.4] wherein the multiple files across the different copies yields the same portions of the video on playback,
	[1.2.5] each of said files having a time index indicating the position of the content in that file in relation to the beginning of the video such that the files whose playback is the same portion of the video for each of the different copies have the same time index in relation to the beginning of the video,
	[1.3] and wherein the streaming comprises: requesting by the media player (114) a plurality of sequential ones of the files of one of the copies from the set of servers over one or more Transmission Control Protocol (TCP) connections based on the time indexes, wherein each file is individually requested by one or more respective HTTP requests over the one or more TCP connections;
	[1.4] automatically requesting by the media player (114) from the set of servers (116) over the one or more TCP connections subsequent portions of the video by requesting for each such portion one of the files from one of the copies dependent upon successive determinations by the media player to shift the playback quality to a higher or lower quality one of the different copies, wherein each file is individually requested by one or more respective HTTP requests over the one or more TCP connections,
	[1.4.1] said automatically requesting including regularly generating (706) a set of one or more factors indicative of the current ability to sustain the streaming of the video using the files from different ones of the copies, wherein the set of one or more factors relate to the performance of the network; and
	[1.4.2] making the successive determinations (710,712) to shift the playback quality based on at least one of the set of factors
	[1.4.3] to achieve continuous playback of the video
	[1.4.4] using the files of the highest quality one of the copies determined sustainable at that time;
	<u>[1.4.5] wherein said making the successive determinations to shift the playback quality comprises upshifting to a higher quality one of the different copies when:</u>
	<u>[1.4.5.1] the said at least one of the set of factors is greater than a threshold; and</u>
<u>[1.4.5.2] the higher quality playback is determined to be sustainable according to a combination of further factors, wherein said combination of further factors</u>	

## ANNEX 2

## CONDITIONAL AMENDMENTS (FULL CLAIMS)

**Claims 1 and 3 - Amended per Conditional Amendment 1 (Annotated)**

1. A method for presenting rate-adaptive streams, the method comprising:

streaming by a media player (114) operating on an end user station (104) a video from a set of one or more servers (116), wherein each of a plurality of different copies of the video is encoded at a respective different bit rate and each copy is encoded as multiple files on the set of servers, wherein each of the multiple files independently encapsulates a different portion of the video for playback, wherein the multiple files across the different copies yields the same portions of the video on playback, each of said files having a time index indicating the position of the content in that file in relation to the beginning of the video such that the files whose playback is the same portion of the video for each of the different copies have the same time index in relation to the beginning of the video, and wherein the streaming comprises:

requesting by the media player (114) a plurality of sequential ones of the files of one of the copies from the set of servers over one or more Transmission Control Protocol (TCP) connections based on the time indexes, wherein each file is individually requested by one or more respective HTTP requests over the one or more TCP connections;

automatically requesting by the media player (114) from the set of servers (116) over the one or more TCP connections subsequent portions of the video by requesting for each such portion one of the files from one of the copies dependent upon successive determinations by the media player to shift the playback quality to a higher or lower quality one of the different copies, wherein each file is individually requested by one or more respective HTTP requests over the one or more TCP connections, said automatically requesting including,

regularly generating (706) a set of one or more factors indicative of the current ability to sustain the streaming of the video using the files from different ones of the copies, wherein the set of one or more factors relate to the performance of the network; and

making the successive determinations (710,712) to shift the playback quality based on at least one of the set of factors to achieve continuous playback of the video using the files of the highest quality one of the copies determined sustainable at that time;

wherein said making the successive determinations to shift the playback quality comprises upshifting to a higher quality one of the different copies when:

the said at least one of the set of factors is greater than a threshold; and

the higher quality playback is determined to be sustainable according to a combination of further factors, wherein said combination of further factors comprises factors selected from a group consisting of an amount of contiguously available files stored in a staging module, a minimum safety margin, and a current read ahead margin; and

presenting the video by playing back with the media player on the end user station the requested files in order of ascending playback time.

~~3. A method as claimed in Claim 1, wherein said making the successive determinations to shift comprises:~~

~~upshifting to a higher quality one of the different copies when the at least one factor is greater than a first threshold; and~~

~~and determining if the higher quality playback can be sustained.~~

**Claim 6 - Amended per Conditional Amendment 2 (Annotated)**

6. A method as claimed in Claim 1,

wherein said requesting the plurality of sequential ones of the files includes initially requesting the files from a low the lowest quality one of the different copies to enable instant playback of the video,

and wherein said automatically requesting includes upshifting to a higher quality one of the different copies.