



- (51) **International Patent Classification:**  
*H04N 21/647* (2011.01) *H04N 21/845* (2011.01)  
*H04N 21/637* (2011.01)
- (21) **International Application Number:**  
PCT/EP2021/060862
- (22) **International Filing Date:**  
26 April 2021 (26.04.2021)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**  
20315225.1 27 April 2020 (27.04.2020) EP
- (71) **Applicant:** **BROADPEAK** [FR/FR]; 15 rue Claude Chappe, Zone des Champs Blancs, 35510 CESSON SEVIGNE (FR).
- (72) **Inventors:** **BICHOT, Guillaume**; C/O BROADPEAK, 15 rue Claude Chappe, Zone des Champs Blancs, 35510 CESSON SEVIGNE (FR). **GUERY, Pierre-Jean**; C/O BROADPEAK, 15 rue Claude Chappe, 35510 CESSON SEVIGNE (FR). **RICHARD, Vincent**; C/O BROADPEAK, 15 rue Claude Chappe, Zone des Champs Blancs, 35510 CESSON SEVIGNE (FR). **LE SCOUARNEC, Nicolas**; C/O BROADPEAK, 15 rue Claude Chappe, 35510 CESSON SEVIGNE (FR).
- (74) **Agent:** **LE GUEN MAILLET 728**; 3 impasse de la Vigie, CS 71840, 35418 SAINT-MALO Cedex (FR).
- (81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,

(54) **Title:** METHOD AND SERVER FOR AUDIO AND/OR VIDEO CONTENT DELIVERY

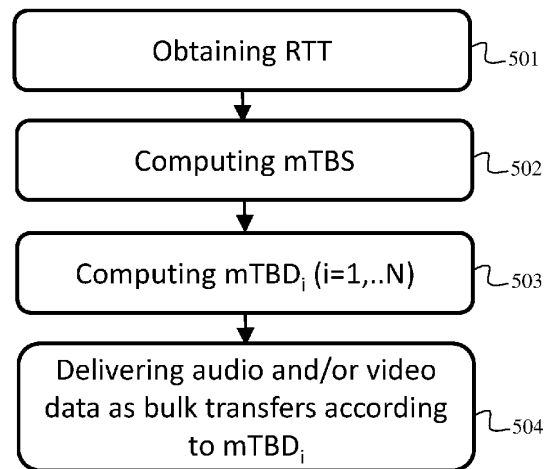


Fig. 5

(57) **Abstract:** For delivering an audio and/or video content using adaptive streaming from a cache server to a client device, the audio and/or video content being segmented into data segments available in various representations with respective audio and/or video qualities, the representations being time-aligned per segment, the segments being further divided into chunks, a method comprises: obtaining a round-trip time value applicable between the cache server and the client device; computing a minimum bulk transfer size from the maximum average bitrate of the various representations of the audio and/or video content and from the obtained round-trip time value; computing a minimum bulk duration, with respect to the audio and/or video content, for the representation to be delivered to the client device; and delivering the audio and/or video content by burst transfers in the form of bulks of aggregated successive chunks for each segment in accordance with the computed minimum bulk duration.

[Continued on next page]

ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,  
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,  
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,  
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

**(84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

**Published:**

— with international search report (Art. 21(3))