



(51) International Patent Classification:

H04N 19/33 (2014.01) H04N 19/70 (2014.01)
H04N 19/172 (2014.01) H04N 19/177 (2014.01)
H04N 19/597 (2014.01) H04N 19/187 (2014.01)

(21) International Application Number:

PCT/US2020/051478

(22) International Filing Date:

18 September 2020 (18.09.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/903,603 20 September 2019 (20.09.2019) US
17/019,959 14 September 2020 (14.09.2020) US

(71) Applicant: **TENCENT AMERICA LLC** [US/US]; 2747 Park Boulevard, Palo Alto, CA 94306 (US).

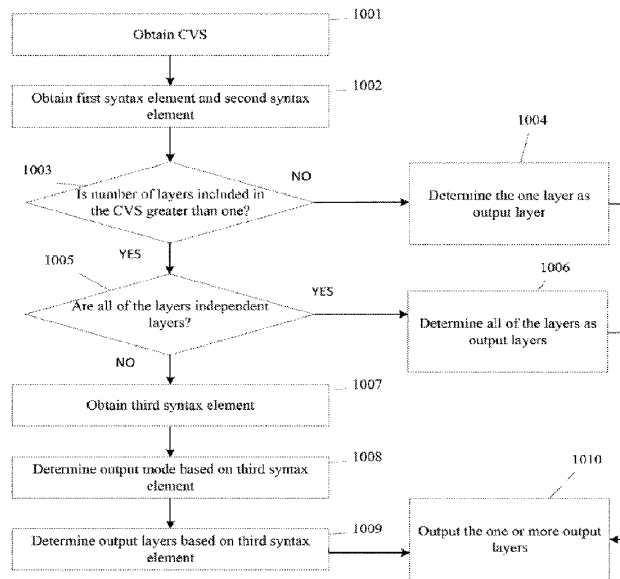
(72) Inventors: **CHOI, Byeongdoo**; c/o Tencent America LLC, 2747 Park Boulevard, Palo Alto, CA 94306 (US). **WENGER, Stephan**; c/o Tencent America LLC, 2747 Park Boulevard, Palo Alto, CA 94306 (US). **LIU, Shan**; c/o Tencent America LLC, 2747 Park Boulevard, Palo Alto, CA 94306 (US).

(74) Agent: **RABENA, John F.** et al.; Sughrue Mion, PLLC, 2000 Pennsylvania Ave., N.W., Suite 900, Washington, DC 20006 (US).

(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,

(54) Title: SIGNALING OF SCALABILITY PARAMETERS IN VIDEO BITSTREAM

FIG. 10 1000



(57) Abstract: A method of decoding an encoded video bitstream using at least one processor includes obtaining a coded video sequence from the encoded video bitstream; obtaining a first syntax element indicating a number of a plurality of layers included in the coded video sequence; obtaining a second syntax element indicating whether the plurality of layers included in the coded video sequence are all independent layers; based on the first syntax element indicating that the number of the plurality of layers is greater than one, and the second syntax element indicating that the plurality of layers are not all the independent layers, obtaining a third syntax element indicating an output mode; determining the output mode based on the third syntax element; determining one or more output layers from among the plurality of layers based on the determined output mode; and outputting the one or more output layers.

[Continued on next page]

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,
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))