

# EXHIBIT 3



(12) **United States Patent**  
**Thang et al.**

(10) **Patent No.:** **US 10,356,145 B2**  
 (45) **Date of Patent:** **\*Jul. 16, 2019**

(54) **METHOD AND DEVICE FOR PROVIDING STREAMING CONTENT**

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(73) Assignee: **IDEAHUB, INC.**, Seoul (KR)

(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **16/224,555**

(22) Filed: **Dec. 18, 2018**

(65) **Prior Publication Data**

US 2019/0124130 A1 Apr. 25, 2019

**Related U.S. Application Data**

(63) Continuation of application No. 15/785,275, filed on Oct. 16, 2017, now Pat. No. 10,178,142, which is a (Continued)

(30) **Foreign Application Priority Data**

Sep. 1, 2010 (KR) ..... 10-2010-0085527  
 Sep. 1, 2011 (KR) ..... 10-2011-0088325

(51) **Int. Cl.**

**H04L 29/06** (2006.01)  
**H04L 29/08** (2006.01)

(Continued)

(52) **U.S. Cl.**

CPC ..... **H04L 65/60** (2013.01); **H04L 65/4084** (2013.01); **H04L 67/2804** (2013.01); (Continued)

(58) **Field of Classification Search**

CPC combination set(s) only.  
 See application file for complete search history.

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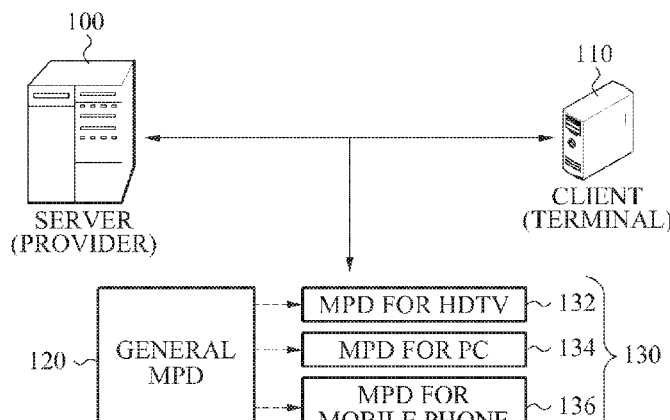
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(57) **ABSTRACT**

A method and apparatus for an adaptive Hypertext Transfer Protocol (HTTP) streaming service using metadata of content are provided. The metadata of the content may be efficiently divided for a purpose of use of a terminal based on general media information or specific media information, and may be transmitted to the terminal. A group may include one or more representations of content. The metadata may include a group element, and the group element may provide a summary of attributes of one or more representations included in the group.

**20 Claims, 7 Drawing Sheets**



**US 10,356,145 B2**

**Related U.S. Application Data**

continuation of application No. 13/820,408, filed as application No. PCT/KR2011/006496 on Sep. 1, 2011, now Pat. No. 9,794,312.

(51) **Int. Cl.**

- H04N 21/239* (2011.01)
- H04N 21/845* (2011.01)
- H04N 21/2343* (2011.01)
- H04N 21/258* (2011.01)
- H04N 21/262* (2011.01)
- H04N 21/658* (2011.01)
- H04N 21/643* (2011.01)
- H04N 21/6437* (2011.01)

(52) **U.S. Cl.**

- CPC ... *H04N 21/2393* (2013.01); *H04N 21/23439* (2013.01); *H04N 21/25825* (2013.01); *H04N 21/26258* (2013.01); *H04N 21/8456* (2013.01); *H04N 21/6437* (2013.01); *H04N 21/64322* (2013.01); *H04N 21/6582* (2013.01)

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FIG. 1

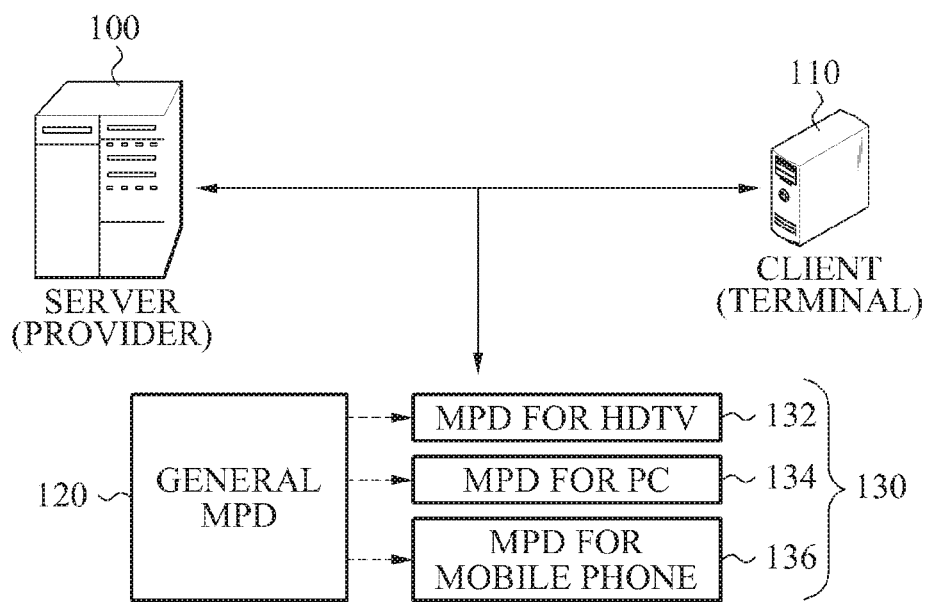
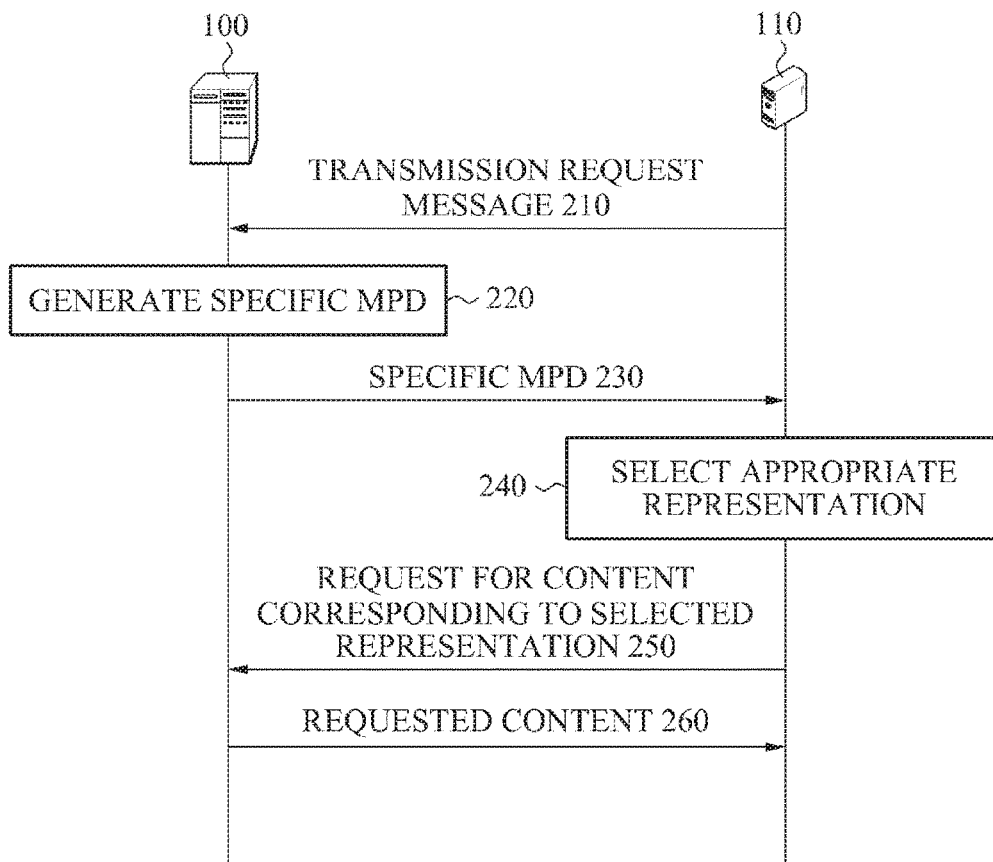


FIG. 2



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