CLAIMS

1. A method for performing live-streaming of user-generated content over a media-streaming network, the method being performed by at least one processor and configured to support the user-generated content by a 5th generation media streaming (5GMS)-aware application, and the method comprising:

transmitting, by a 5th generation media streaming (5GMS)-aware application, a live-streaming request corresponding to the user-generated content to a 5GMS application provider (AP);

receiving, by the 5GMS-aware application, from the 5GMS AP, an edge application server (EAS) profile corresponding to the live-streaming request, wherein the EAS profile indicates a service class (SC) from among a plurality of SCs, the SC corresponding to the live-streaming request;

selecting, by the 5GMS-aware application, a 5GMS application server (AS) based on the SC; and

performing the live-streaming of the user-generated content over a 5GMS network to the 5GMS AS according to the SC;

wherein the EAS profile further indicates a scale and geographical distribution (SGD) corresponding to the SC, the SGD indicates at least one of an audience size and an audience location, and the 5GMS AS is selected based on the SGD and a location of a user corresponding to the live-streaming request.

2. The method of claim 1, selecting further comprises:

transmitting, by the 5GMS-aware application to a 5GMS application function (AF), a request to locate at least one AS corresponding to the SC;

receiving, by the 5GMS-aware application from the 5GMS AF, a list of the at least one 5GMS AS corresponding to the SC; and

selecting the 5GMS AS from the list based on the SC.

3. The method of claim 1, wherein the SC specifies a content preparation process supporting at least one from among upscaling, light correction, stabilization, audio quality improvement, dubbing, captioning, overlaying, tagging, indexing, key feature detection, navigation improvement, multirate encoding, content-aware encoding, low latency encoding, just-in-time encoding, transcoding multi-path encoding for on-demand content, splicing content, manifest signaling, ad insertion queues, ad-insertion information, language setting, service metadata, content protection, and digital rights management.

4. The method of claim 1, wherein the EAS profile further indicates a service class requirement (SCR) corresponding to the SC, and

wherein the 5GMS AS is selected based on the SCR.

5. The method of claim 4, wherein the SC and the SCR are stored in database corresponding to the 5GMS AP.

6. The method of claim 4, wherein the SCR specifies at least one from among a hardware resource corresponding to the SC, a connectivity parameter corresponding to the SC, an availability corresponding to the SC, and a function corresponding to the SC.

7. The method of claim 1, wherein based on the 5GMS-aware application determining that the SC changed to a new SC, the method further comprises selecting a new 5GMS AS corresponding to the new SC, and performing the live-streaming of the user-generated content to the new 5GMS AS according to the new SC.

8. A device for performing live-streaming of user-generated content over a media-streaming network, the device comprising:

at least one memory configured to store program code; and

at least one processor configured to read the program code and operate as instructed by the program code, the program code including performing the method according to any one of claims 1 to 7.

9. A non-transitory computer-readable medium storing instructions, the instructions comprising: one or more instructions that, when executed by one or more processors of a device for performing live-streaming of user-generated content over a media-streaming network, cause the one or more processors to perform the method according to any one of claims 1 to 7.