

CLAIMS

1. A method for delivering audio and/or video contents to a player in a local area network, the local area network comprising a plurality of content delivery network CDN receiver devices, the CDN receiver devices receiving audio and/or video contents in form of segments through at least one provider network and the CDN receiver devices transferring the received segments of the audio and/or video contents in the local area network so as to enable player-equipped terminals in the local area network to receive the audio and/or video contents, wherein the method comprises:
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- obtaining capacity information from the CDN receiver devices, the capacity information being indication of processing resources actually in use compared with total capacity of the CDN receiver devices;
 - selecting, according to the capacity information, at least one CDN receiver device for delivering an audio and/or video content to the player;
 - 15 - detecting that a session for delivering the audio and/or video content to the player starts and ends;
 - when the session for delivering the audio and/or video content from the selected at least one CDN receiver device to the player ends, the selected at least one CDN receiver device holds in place, during a predefined time duration, processing resources for a
 - 20 potential upcoming session for delivering the same or another audio and/or video content to the player;
 - when another session for delivering another audio and/or video content to the player starts before expiry of the predefined time duration, said same or another audio and/or video content is delivered to the player by said selected at least one CDN receiver device
 - 25 using the processing resources hold in place; and
 - when another session for delivering said same or another audio and/or video content to the player starts after expiry of the predefined time duration, reselection of at least one CDN receiver device, according to updated capacity information, is performed to deliver said another audio and/or video content to the player.
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2. The method according to claim 1, wherein the audio and/or video contents are made available to the CDN receivers in various representations so as to enable adaptive bit rate ABR.

3. The method according to claim 2, wherein the selected at least one CDN receiver device detects that the session for delivering the audio and/or video content to the player starts, when receiving a request for obtaining a manifest file of the audio and/or video content.
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4. The method according to claim 1, wherein the selected at least one CDN receiver device detects that the session for delivering the audio and/or video content to the player starts, when receiving a message indicating that said session starts.
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5. The method according to any one of claims 1 to 4, wherein the selected at least one CDN receiver device detects that the session for delivering the audio and/or video content to the player ends, when detecting that no request related to said delivery of the audio and/or video content to the player has been received by said selected at least one CDN receiver device during a predefined time duration.
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6. The method according to any one of claims 1 to 5, wherein the audio and/or video contents are made available to the CDN receivers in multicast form and the CDN receiver devices are de-multicasters converting in unicast form the segments received in multicast form through the at least one provider network.
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7. The method according to any one of claims 1 to 6, wherein each CDN receiver device transmits its capacity information at the same time as responding to a request for checking whether or not the audio and/or video content to be consumed is made available through the CDN receiver device in question.
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8. The method according to claim 7, wherein, when the capacity information transmitted by at least one CDN receiver device in response to a request for checking whether or not the audio and/or video content to be consumed is made available through the CDN receiver device in question has changed, the method further comprises
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- requesting capacity information to each other CDN receiver device in order to obtain updated capacity information.
9. The method according to any one of claims 1 to 8, wherein obtaining capacity information from the CDN receiver devices and selecting, according to the capacity

information, the at least one CDN receiver device for delivering the audio and/or video content to the player are performed by an application associated with the player.

10. The method according to any one of claims 1 to 8, wherein obtaining capacity
5 information from the CDN receiver devices and selecting, according to the capacity information, the at least one CDN receiver device for delivering the audio and/or video content to the player are performed by one CDN receiver to which an application associated with the player requests whether or not the audio and/or video content to be consumed is made available through the CDN receiver device in question.

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11. The method according to any one of claims 1 to 10, wherein when the session implies delivering the audio and/or video content to the player from plural selected CDN receiver devices, the player communicates with a proxy device for receiving the segments of the audio and/or video content and the proxy device communicates with
15 the plural selected CDN receiver devices for obtaining the segments of the audio and/or video content while managing load balancing for delivering the audio and/or video content to the player.

12. The method according to claim 11, wherein, when the proxy device receives from
20 the player a request for obtaining a manifest file of the audio and/or video content, the proxy device transmits one such request for obtaining a manifest file of the audio and/or video content to each one of said plural selected CDN receiver devices.

13. An audio and/or video contents delivery system configured for delivering audio
25 and/or video contents to a player in a local area network, the local area network comprising a plurality of content delivery network CDN receiver devices of the audio and/or video contents delivery system, the CDN receiver devices receiving audio and/or video contents in form of segments through at least one provider network and the CDN receiver devices transferring the received segments of the audio and/or video contents
30 in the local area network so as to enable player-equipped terminals in the local area network to receive the audio and/or video contents, wherein the audio and/or video contents delivery system comprises:

- means for obtaining capacity information from the CDN receiver devices, the capacity information being indication of processing resources actually in use compared with total capacity of the CDN receiver devices;
- means for selecting, according to the capacity information, at least one CDN receiver
- 5 device for delivering an audio and/or video content to the player;
- means for detecting that a session for delivering the audio and/or video content to the player starts and ends;
- and wherein the audio and/or video contents delivery system is further configured as follows:
- 10 - when the session for delivering the audio and/or video content from the selected at least one CDN receiver device to the player ends, the selected at least one CDN receiver device holds in place, during a predefined time duration, processing resources for a potential upcoming session for delivering the same or another audio and/or video content to the player;
- 15 - when another session for delivering another audio and/or video content to the player starts before expiry of the predefined time duration, said same or another audio and/or video content is delivered to the player by said selected at least one CDN receiver device using the processing resources hold in place; and
- when another session for delivering said same or another audio and/or video content
- 20 to the player starts after expiry of the predefined time duration, reselection of at least one CDN receiver device, according to updated capacity information, is performed to deliver said another audio and/or video content to the player.