

WHAT IS CLAIMED IS:

1. A method for multi-person audio-video interaction applied to a terminal of a team voice communication platform, the method, comprising:

obtaining channel configuration information corresponding to current channel from a server;

loading a scene module corresponding to the current channel according to ~~obtained~~ the channel configuration information and pre-stored configuration information obtained; wherein, the scene module comprises a virtual scene, a video display region and a user interaction region; the video display region and the user interaction region are located in the virtual scene, and the user interaction region comprises ~~at least one~~ a plurality of simulation objects, and each simulation object corresponds to one client in the current channel;

dividing the user interaction region into a plurality of partitions, wherein each partition displays only a subset of the simulation objects;

obtaining pictures or videos corresponding to the current channel from the server, and displaying the pictures or the videos by a video display region of the scene module;

displaying text information by a simulation object corresponding to the client in the user interaction region of the scene module, when the text information of a client is received from the server; and

sending the text information to the server so as to forward the text information to ~~at least one~~ a target client in the current channel by the server, when the text information that is triggered by the user in the user interaction region of the scene module is received, wherein:

the target client to which the current client sends the text information in the form of private chat is an opposite end client during this private chat; and

the target client to which the current client sends the text information in the form of common chat is all the clients in the partition where the current client is located in the current channel.

2. The method according to claim 1, wherein, the channel configuration information comprises: first information used to represent whether to load the scene module or not; second information used to represent a version number of the scene module that needs be loaded; and third information used to represent subboards that need to be loaded and content data that each subboard needs; the step of loading a scene module corresponding

to the current channel according to ~~obtained-the~~ channel configuration information and the pre-stored configuration information obtained, comprise:

detecting whether the first information represents loading the scene module or not;

loading the virtual scene in the scene module corresponding to the version number according to the second information and the pre-stored configuration information, if it is detected that the first information represents loading the scene module; and

loading a subboard used for displaying the video display region according to the third information, and loading at least one subboard used for displaying the user interaction region according to the third information; wherein, the at least one subboard comprises a subboard used for displaying the simulation object in the user interaction region.

3. The method according to claim 2, before the step of loading the virtual scene in the scene module corresponding to the version number according to the second information and the pre-stored configuration information, further comprising:

detecting whether the pre-stored configuration information and the scene module corresponding to the version number are stored according to the second information;

sending an acquisition request to the server if it is detected that the pre-stored configuration information and the scene module corresponding to the version number are not stored; wherein, the acquisition request is used for acquiring the pre-stored configuration information and the scene module corresponding to the version number in the second information; and

receiving and storing the pre-stored configuration information and the scene module used for acquiring a corresponding version number sent by the server.

4. The method according to claim 2, wherein, the user interaction region further comprises at least one of: show information, a subscription list, a contribution list, a gift region, a vehicle region and a sharing list; the step of loading at least one subboard used for displaying the user interaction region according to the third information, comprise:

loading a subboard used for displaying the show information in the user interaction region if the third information comprises configuration about the show information;

loading a subboard used for displaying the subscription list in the user interaction region if the third information comprises configuration about the subscription list;

loading a subboard used for displaying the contribution list in the user interaction region if the third information comprises configuration of the subscription list;

loading a subboard used for displaying gift animations in the user interaction region if the third information comprises configuration about the gift region;

loading a subboard used for displaying vehicles in the user interaction region if the third information comprises configuration about vehicle information; and

loading a subboard used for displaying the sharing list in the user interaction region if the third information comprises configuration about the sharing list.

5. The method according to claim 3, after the step of loading a subboard used for displaying vehicles in the user interaction region if the third information comprises configuration about vehicle information, further comprising:

displaying vehicle displaying animations corresponding to the client in the user interaction region by use of the subboard used for displaying the vehicles in the user interaction region, when receives vehicle displaying information corresponding to a client sent by the server.

6. The method according to claim 3, after the step of loading a subboard used for displaying gift animations in the user interaction region if the third information comprises configuration about the gift region, further comprising:

displaying gift animations corresponding to the client in the user interaction region by means of a subboard used for displaying the gift animations in the user interaction region, when receives gift giving information corresponding to a client sent by the server.

7. The method according to any of claims 2-4, after the step of loading a subboard used for displaying the video display region according to the third information, further comprising:

sending videos to the server by use of the subboard used for displaying the video display region so as to send the videos to at least one client in the current channel by the server, if the third information comprises video uploading permission information; wherein, the video uploading permission information is located in content data corresponding to the subboard used for displaying the video display region in the third information.

8. The method according to any of claims 1-6, wherein, the simulation object comprises at least one of a client picture, a client nickname and a client level, and is a display object with a certain shape; the step of displaying text information by a simulation object

corresponding to the client in the user interaction region of the scene module, comprises:

displaying the text information, in the form of text box or animation, by the simulation object corresponding to the client in the user interaction region; and
continuing to display the text information for a predetermined time.

9. A method for multi-person audio-video interaction applied to a server of a team voice communication platform, the method, comprising:

sending channel configuration information corresponding to current channel to at least one client in the current channel, so as to load a scene module corresponding to the current channel according to ~~obtained-the~~ channel configuration information and pre-stored configuration information obtained by the client; wherein, the scene module comprises a virtual scene, a video display region and a user interaction region; the video display region and the user interaction region are located in the virtual scene, and the user interaction region comprises ~~at least one~~ a plurality of simulation objects, and each simulation object corresponds to one client in the current channel;

dividing the user interaction region into a plurality of partitions, wherein each partition displays only a subset of the simulation objects;

sending pictures or videos corresponding to the current channel to the at least one client in the current channel, so as to display the pictures or the videos by the video display region of the scene module by the at least one client;

receiving text information sent by a client in the current channel; and

sending the text information sent by ~~the client a user~~ to ~~the at least one a target~~ client in the current channel ~~to make the at least one client in the current channel display the text information by a simulation object corresponding to the client in the user interaction region of the scene module, wherein:~~

the target client to which the current client sends the text information in the form of private chat is an opposite end client during this private chat; and

the target client to which the current client sends the text information in the form of common chat is all the clients in the partition where the current client is located in the current channel.

10. The method according to claim 9, the step of sending the channel configuration information corresponding to current channel to at least one client in the current channel, comprising:

receiving request information sent by at least one client that has logged in, wherein, the request information is used to enter the current channel; and

sending the channel configuration information corresponding to the current channel to the client, after receiving the request information; wherein, the channel configuration information comprises: first information used to represent whether to load a scene module or not; second information used to represent a version number of the scene module that needs be loaded; and third information used to represent subboards that need to be loaded and content data that each subboard needs.

11. The method according to claim 10, after the step of sending the channel configuration information corresponding to the current channel to the client, after receiving the request information, further comprising:

receiving an acquisition request sent by the client; the acquisition request used for acquiring the pre-stored configuration information and the scene module corresponding to a version number in the second information; and

sending the pre-stored configuration information and the scene module corresponding to the version number to the client.

12. The method according to claim 9, the step of sending pictures or videos corresponding to the current channel to the at least one client in the current channel, comprising:

detecting whether the client having ~~the~~ video uploading permission information of the at least one client in the current channel is uploading the video or not;

if the client having the video uploading permission information in the at least one client in the current channel is uploading the video, sending the video to the at least one client in the current channel, so as to display the video by the video display region of the scene module by the at least one client; and

if the client having the video uploading permission information in the at least one client in the current channel does not upload the video, sending the pictures corresponding to the current channel to the at least one client in the current channel so as to display the pictures by the video display region of the scene module by the at least one client.

13. The method according to claim 10 or 11, after the step of sending the channel configuration information corresponding to the current channel to the client if the third information comprises configuration of vehicle information, further comprising:
- detecting whether the client corresponds to a vehicle or not, when a client enters into the current channel; and
 - sending vehicle displaying information corresponding to the client to the at least one client in the current channel so as to display vehicle displaying animations corresponding to the client in the user interaction region by means of a subboard used for displaying the vehicle in the user interaction region by the at least one client in the current channel, if the client corresponds to a vehicle.
14. The method according to claim 10 or 11, after the step of sending the channel configuration information corresponding to the current channel to the client if the third information comprises configuration of gift region, further comprising:
- receiving gift giving information sent by a client in the current channel; and
 - forwarding the gift giving information sent by the client to the at least one client in the current channel so as to display gift animations corresponding to the client in the user interaction region by means of a subboard used for displaying the gift animations in the user interaction region by the at least one client.
15. A client, applied to a team voice communication platform, the client comprising:
- an information acquisition module, configured for obtaining the channel configuration information corresponding to current channel from a server;
 - a scene loading module, configured for loading a scene module corresponding to the current channel according to the channel configuration information obtained by the information acquisition module and the pre-stored configuration information; wherein, the scene module comprises a virtual scene, a video display region and a user interaction region, and the video display region and the user interaction region are located in the virtual scene; the user interaction region comprises at least one a plurality of simulation objects, and each simulation object corresponds to one client in the current channel;
 - a partition function for dividing the user interaction region into a plurality of partitions, wherein each partition displays only a subset of the simulation objects;
 - a media display module, configured for obtaining pictures or videos corresponding to the current channel from the server and displaying the pictures or the videos by a video

display region of the scene module loaded by the scene loading module;

a text display module, configured for displaying text information by a simulation object corresponding to the client in the user interaction region of the scene module loaded by the scene loading module, when the text information of a client is received from the server; and

a text sending module, configured for sending the text information to the server so as to forward the text information to ~~at least one a~~ target client in the current channel by the server, when the text information that is triggered by ~~the a~~ user in the user interaction region of the scene module loaded by the scene loading module is received, wherein:

the target client to which the current client sends the text information in the form of private chat is an opposite end client during this private chat; and

the target client to which the current client sends the text information in the form of common chat is all the clients in the partition where the current client is located in the current channel.

16. The client according to claim 15, wherein, the channel configuration information comprises: first information used to represent whether to load the scene module or not; second information used to represent a version number of the scene module that needs be loaded; and third information used to represent subboards that need to be loaded and content data that each subboard needs; the scene module comprises:

an information detection unit, configured for detecting whether the first information represents loading the scene module or not;

a scene loading unit, configured for loading the virtual scene in the scene module corresponding to the version number according to the second information and the pre-stored configuration information, if the information detection unit detects that the first information represents loading the scene module; and

a subboard loading unit, configured for loading a subboard used for displaying the video display region and at least one subboard used for displaying the user interaction region according to the third information if the information detection unit detects that the first information represents loading the scene module; wherein, the at least one subboard comprises a subboard used for displaying the simulation object in the user interaction region.

17. The client according to claim 16, wherein, the scene module further comprises:

a scene detection unit, configured for detecting whether the pre-stored configuration information and the scene module corresponding to a version number are stored according to the second information;

a request sending unit, configured for sending an acquisition request to the server if the scene detection unit detects that the pre-stored configuration information and the scene module corresponding to a version number are not stored; wherein, the acquisition request is used for acquiring the pre-stored configuration information and the scene module corresponding to a version number in the second information; and

a scene acquisition unit, configured for receiving and storing the pre-stored configuration information and the scene module used for acquiring a corresponding version number sent by the server.

18. The client according to claim 16, wherein, the user interaction region further comprises at least one of: show information, a subscription list, a contribution list, a gift region, a vehicle region and a sharing list; the subboard loading unit is configured for:

loading a subboard used for displaying the show information in the user interaction region if the third information includes the configuration about the show information;

loading a subboard used for displaying the show information in the user interaction region if the third information includes the configuration about the show information;

loading a subboard used for displaying the contribution list in the user interaction region if the third information includes the configuration of the subscription list;

loading a subboard used for displaying gift animations in the user interaction region if the third information includes the configuration about the gift region;

loading a subboard used for displaying vehicles in the user interaction region if the third information includes the configuration about vehicle information; and

loading a subboard used for displaying a sharing list in the user interaction region if the third information includes the configuration about the sharing list.

19. The client according to claim 18, further comprising an animation displaying module, wherein, the animation displaying module is configured for, when receives vehicle displaying information corresponding to a client sent from the server, displaying vehicle displaying animations corresponding to the client in the user interaction region by use of the subboard used for displaying the vehicles in the user interaction region.

20. The client according to claim 17, further comprising: a gift animation module, wherein, the gift animation module is configured for displaying gift animations corresponding to the client in the user interaction region by means of a subboard used for displaying the gift animations in the user interaction region, when receives gift giving information corresponding to a client sent from the server.
21. The client according to any of claims 16-18, further comprising a video uploading module, wherein, the video uploading module is configured for sending videos to the server by use of the subboard used for displaying the video display region so as to send the videos to the at least one client in the current channel by the server, if the third information comprises video uploading permission information; wherein, the video uploading permission information is located in content data corresponding to the subboard used for displaying the video display region in the third information.
22. The client according to any of claims 15-20, wherein, the simulation object comprises at least one of a client picture, a client nickname and a client level, and is a display object with a certain shape; the text display module is used for displaying the text information, in the form of text box or animation, by the simulation object corresponding to the client in the user interaction region and continuing to display the text information for a predetermined time.
23. A server, applied to a team voice communication platform, and comprising:
an information sending module, configured for sending channel configuration information corresponding to current channel to at least one client in the current channel so as to load a scene module corresponding to the current channel according to ~~obtained~~ the channel configuration information and pre-stored configuration information obtained by the client; wherein, the scene module includes a virtual scene, a video display region and a user interaction region; the video display region and the user interaction region are located in the virtual scene, and the user interaction region includes ~~at least one a plurality of~~ simulation objects, and each simulation object corresponds to one client in the current channel and each user interaction region includes a plurality of partitions wherein each partition displays only a subset of the simulation objects;
a media sending module, configured for sending pictures or videos corresponding to the current channel to the at least one client in the current channel so as to display the pictures or the videos by the video display region of the scene module by the at least one

client;

a text receiving module, configured for receiving text information sent by a client in the current channel; and

a text forwarding module, configured for sending the text information sent by the client to ~~the at least one~~ a target client in the current channel to make the ~~at least one~~ target client in the current channel display the text information by a simulation object corresponding to the client in ~~the a~~ user interaction region of the scene module wherein:

the target client to which the current client sends the text information in the form of private chat is an opposite end client during this private chat; and

the target client to which the current client sends the text information in the form of common chat is all the clients in the partition where the current client is located in the current channel.

24. The server according to claim 23, wherein, the information sending module comprises:

a request receiving unit, configured for receiving request information sent by at least one client that has logged in, wherein, the request information is used to enter the current channel; and

an information sending unit, configured for sending the channel configuration information corresponding to the current channel to the client, after the request receiving unit receives the request information;

wherein, the channel configuration information comprises: first information used to represent whether to load a scene module or not; second information used to represent a version number of the scene module that needs be loaded; and third information used to represent subboards that need to be loaded and content data that each subboard needs.

25. The server according to claim 24, further comprising:

an acquisition receiving unit, configured for receiving an acquisition request sent by the client; wherein, the acquisition request is used for acquiring the pre-stored configuration information and the scene module corresponding to the version number in the second information; and

a scene sending unit, configured for sending the pre-stored configuration information and the scene module corresponding to the version number to the client.

26. The server according to claim 24, wherein, the media sending module comprises:

a uploading detection unit, configured for detecting whether the client having the video uploading permission information of the at least one client in the current channel is uploading the video or not;

a video sending unit, configured for, if the uploading detection unit detects that the client having the video uploading permission information in the at least one client in the current channel is uploading the video, sending the video to the at least one client in the current channel so as to display the video by the video display region of the scene module by the at least one client; and

a picture sending unit, configured for, if the uploading detection unit detects that the client having the video uploading permission information in the at least one client in the current channel does not upload the video, sending the pictures corresponding to the current channel to the at least one client in the current channel so as to display the pictures by the video display region of the scene module by the at least one client.

27. The server according to claim 24 or 25, further comprising:

a vehicle detection module, configured for detecting whether the client corresponds to a vehicle or not, when a client enters into the current channel; and

an appearance sending module, configured for, when the vehicle detection module detects that the client corresponds to a vehicle, sending vehicle displaying information corresponding to the client to the at least one client in the current channel so as to display vehicle displaying animations corresponding to the client in the user interaction region by means of the subboard used for displaying the vehicle in the user interaction region by the at least one client in the current channel.

28. The server according to claim 24 or 25, further comprising:

a gift information receiving module, configured for receiving gift giving information sent by a client in the current channel; and

a gift information forwarding module, configured for forwarding the gift giving information sent by the client to the at least one client in the current channel so as to display gift animations corresponding to the client in the user interaction region by means of a subboard used for displaying gift animations in the user interaction region by the at least one client.

29. A system for multi-person audio-video interaction, comprising: at least one client and a

server, and the at least one client comprising the client according to any of claims 15-22, and the server comprising the server according to any of claims 23-28.