## CLAIMS

1. An image processing method, performed by a server, and comprising:

obtaining, when running a target cloud game, feedback data transmitted by a target game client; the feedback data reflecting a frame rate requirement of the target game client;

adjusting an encoding frame rate according to the feedback data to obtain an adjusted encoding frame rate;

performing image encoding on a game screen of the target cloud game according to the adjusted encoding frame rate to obtain encoded data; and

transmitting the encoded data to the target game client, so that the target game client displays the game screen according to the encoded data;

wherein the target cloud game runs in a target container, the target game client is connected to the target container, and the target container is any system container running in a target edge server in a cloud gaming system; and the method further comprises:

determining a number of remaining resources of a graphics processing unit (GPU) of the target edge server according to a total amount of resources and a number of occupied resources of the GPU of the target edge server; and

adjusting the number of system containers running in the target edge server according to the number of remaining resources;

the number of occupied resources comprising at least a number of resources occupied by the image encoding of the game screen; and an amount of resources occupied by the image encoding of the game screen according to the adjusted encoding frame rate is less than an amount of resources occupied by the image encoding of the game screen according to the encoding frame rate, when the adjusted encoding frame rate is less than the encoding frame rate.

2. The method according to claim 1, wherein the feedback data comprises feedback information under at least one feedback indicator, and the feedback indicator comprises a hardware configuration indicator, an application scene indicator, a network status indicator, and a user type indicator.

3. The method according to claim 2, wherein the adjusting an encoding frame rate according to the feedback data to obtain an adjusted encoding frame rate comprises:

obtaining a reference frame rate corresponding to feedback information under each feedback

indicator in the feedback data, and calculating a target frame rate according to the reference frame rate corresponding to the feedback information under the each feedback indicator; and

adjusting the encoding frame rate according to an encoding method by using the target frame rate to obtain the adjusted encoding frame rate.

4. The method according to claim 3, wherein one feedback indicator corresponds to one frame rate lookup table, and the frame rate lookup table comprises multiple pieces of information and a frame rate corresponding to each piece of information; and

a reference frame rate corresponding to feedback information under any feedback indicator in the feedback data is identified by looking up a frame rate lookup table corresponding to the any feedback indicator.

5. The method according to claim 3, wherein the calculating a target frame rate according to the reference frame rate corresponding to the feedback information under the each feedback indicator comprises:

selecting a slowest reference frame rate from the reference frame rates corresponding to the feedback information under the feedback indicators as the target frame rate.

6. The method according to claim 3, wherein the calculating a target frame rate according to the reference frame rate corresponding to the feedback information under the each feedback indicator comprises:

calculating a mean value of the reference frame rates corresponding to the feedback information under the feedback indicators to obtain the target frame rate.

7. The method according to claim 3, wherein the calculating a target frame rate according to the reference frame rate corresponding to the feedback information under the each feedback indicator comprises:

obtaining a weight value of each feedback indicator, and performing weighted summation on the reference frame rates corresponding to the feedback information under the feedback indicators by using the weight value of each feedback indicator to obtain the target frame rate.

8. The method according to claim 3, wherein the game screen of the target cloud game is obtained through rendering by a rendering module, and the image encoding is performed by an encoding module; the encoding method is an on-demand encoding method, and the on-demand encoding method is a method in which the encoding module performs encoding according to a rendering progress of the rendering module; and

the adjusting the encoding frame rate according to an encoding method by using the target frame rate to obtain the adjusted encoding frame rate comprises:

adjusting a generation period of a hardware vertical sync semaphore according to the target frame rate to obtain an adjusted generation period of the hardware vertical sync semaphore;

synchronously adjusting a generation period of a software vertical sync semaphore based on the adjusted generation period of the hardware vertical sync semaphore; the software vertical sync semaphore being generated based on the hardware vertical sync semaphore, and the software vertical sync semaphore being used for triggering screen rendering;

adjusting a rendering frame rate of the rendering module by using an adjusted generation period of the software vertical sync semaphore; and

adjusting the encoding frame rate based on an adjusted rendering frame rate to obtain the adjusted encoding frame rate; the adjusted encoding frame rate being equal to the adjusted rendering frame rate.

9. The method according to claim 3, wherein the game screen of the target cloud game is obtained through rendering by a rendering module, and the image encoding is performed by an encoding module; the encoding method is a fixed sampling period encoding method, and the fixed sampling period encoding method is a method in which the encoding module encodes, according to a fixed sampling period, the game screen rendered by the rendering module.

the adjusting the encoding frame rate according to an encoding method by using the target frame rate to obtain the adjusted encoding frame rate comprises:

updating the encoding frame rate by using the target frame rate to obtain the adjusted encoding frame rate; the adjusted encoding frame rate being equal to the target frame rate.

10. The method according to claim 2, wherein the adjusting an encoding frame rate according to the feedback data to obtain an adjusted encoding frame rate comprises:

determining a frame rate adjustment direction according to feedback information under each feedback indicator in the feedback data; the frame rate adjustment direction comprising a frame rate increase direction or a frame rate decrease direction; and

obtaining a frame rate adjustment factor corresponding to the frame rate adjustment direction, and adjusting the encoding frame rate by using the frame rate adjustment factor to obtain the adjusted encoding frame rate.

11. The method according to claim 1, wherein the adjusting the number of system containers

running in the target edge server according to the amount of remaining resources comprises:

running at least one new system container in parallel in the target edge server when the number of remaining resources is greater than a resource threshold.

12. The method according to claim 1, wherein the adjusting the number of system containers running in the target edge server according to the number of remaining resources comprises:
stopping running at least one running system container in the target edge server when the amount of remaining resources is less than or equal to a resource threshold.

13. An image processing apparatus, comprising:

an obtaining unit, configured to obtain, during running of a target cloud game, feedback data transmitted by a target game client; the feedback data being used for reflecting a frame rate requirement of the target game client;

a processing unit, configured to adjust an encoding frame rate according to the feedback data to obtain an adjusted encoding frame rate;

the processing unit being further configured to perform image encoding on a game screen of the target cloud game according to the adjusted encoding frame rate to obtain encoded data; and

a transmission unit, configured to transmit the encoded data to the target game client, so that the target game client displays the game screen according to the encoded data;

wherein the target cloud game runs in a target container, the target game client is connected to the target container, and the target container is any system container running in a target edge server in a cloud gaming system;

the processing unit is further configured to:

determine a number of remaining resources of a GPU of the target edge server according to a total amount of resources and an amount of occupied resources of the GPU of the target edge server; and

dynamically adjust the number of system containers running in the target edge server according to the number of remaining resources;

the number of occupied resources including at least an amount of resources occupied by the image encoding of the game screen; and an amount of resources occupied by the image encoding of the game screen according to the adjusted encoding frame rate is less than an amount of resources occupied by the image encoding of the game screen according to the encoding frame rate, when the adjusted encoding frame rate is less than the encoding frame rate.

14. The image processing apparatus according to claim 13, wherein the feedback data comprises feedback information under at least one feedback indicator, and the feedback indicator comprises a hardware configuration indicator, an application scenario indicator, a network status indicator, and a user type indicator.

15. The image processing apparatus according to claim 14, wherein the processing unit is further configured to:

obtain a reference frame rate corresponding to feedback information under each feedback indicator in the feedback data, and calculate a target frame rate according to the reference frame rate corresponding to the feedback information under the each feedback indicator; and

adjust the encoding frame rate according to an encoding method by using the target frame rate to obtain the adjusted encoding frame rate.

16. The image processing apparatus according to claim 15, wherein one feedback indicator corresponds to one frame rate lookup table, and the frame rate lookup table comprises multiple pieces of information and a frame rate corresponding to each piece of information; and

a reference frame rate corresponding to feedback information under any feedback indicator in the feedback data is identified by looking up a frame rate lookup table corresponding to the any feedback indicator.

17. The image processing apparatus according to claim 14, wherein the processing unit is further configured to:

determine a frame rate adjustment direction according to feedback information under each feedback indicator in the feedback data; the frame rate adjustment direction comprising a frame rate increase direction or a frame rate decrease direction; and

obtain a frame rate adjustment factor corresponding to the frame rate adjustment direction, and adjust the encoding frame rate by using the frame rate adjustment factor to obtain the adjusted encoding frame rate.

18. A server, comprising an input interface and an output interface, and further comprising:

a computer storage medium, configured to store one or more instructions; and

a processor, configured to load the one or more instructions stored in the computer storage medium to perform the image processing method according to any one of claims 1 to 12.

19. A computer storage medium, storing one or more instructions, the one or more instructions being adapted to be loaded by a processor and perform the image processing method according to

any one of claims 1 to 12.