

# FILE SHARING METHOD, SERVER, AND TERMINAL

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This application claims priority of Chinese Patent Application No. 201310357140.x, filed  
5 before Chinese Patent Office on August 15, 2013 and entitled "FILE SHARING METHOD,  
SERVER, AND TERMINAL ", which is incorporated herein by reference in its entirety.

## TECHNICAL FIELD

The present invention relates to the field of computer technology, and in particular, relates  
10 to a method, a server, and terminals for file sharing.

## BACKGROUND

In the field of network technology development, computer terminals can share files over  
the network. So that other terminals can access the files through the network, to benefit  
15 information sharing. Therefore, the file sharing is the current problem need to be solved.

The current file sharing method includes shared file decomposition on a terminal. The  
terminal uploads each decomposed page to a server. The terminal receives shared addresses of  
the decomposed pages from the server, and notifies the shared addresses to other terminals.  
The other terminals can download the decomposed pages from the server based on the shared  
20 addresses.

For example, in order to share a PPT (PowerPoint, Presentation) file, the terminal needs to  
decompose the PPT file. To share the first decomposed page as an example, the terminal may  
upload the first decomposed page to the server. The server can provide a URL (Uniform  
Resource Locator) of the first decomposed page to the terminal. The terminal receives the URL  
25 of the first decomposed page, and notifies the URL of the first decomposed page to the other  
terminals.

In the prior art, if the file includes multiple pages, the terminal needs to upload the  
decomposed pages to the server individually. Thus, the increased interactions between the  
terminal and the server will increase the communication cost.

## SUMMARY

In order to reduce the higher communication cost caused by increased interactions between the terminal and the server, when the terminal needs to upload the decomposed pages individually, embodiments of the present invention provide a method, a serve, and a terminal for file sharing. The technical solutions of embodiments of the present invention are as follows:

At the first aspect, embodiment of the present invention provides a method of file sharing. The method comprises:

receiving a file from a terminal;

generating a shared address set of the file; and

feedbacking the shared address set to the terminal, where the terminal shares shared addresses of the shared address set with other terminals.

At the second aspect, embodiment of the present invention provides a method of file sharing. The method comprises:

sending a file to a server, where the server generates a shared address set of the file;

receiving the shared address set from the server; and

sharing shared addresses of the shared address set with other terminals.

At the third aspect, embodiment of the present invention provides a server of file sharing. The server comprises:

a first receiving module, receiving a file from a terminal;

a generation module, generating a shared address set of the file; and

a feedback module, feedbacking the shared address set to the terminal, where the terminal shares shared addresses of the shared address set with other terminals.

At the fourth aspect, embodiment of the present invention provides a terminal of file sharing. The terminal comprises:

a sending module, sending a file to a server, where the server generates a shared address set of the file;

a second receiving module, receiving the shared address set from the server; and

a sharing module, sharing shared addresses of the shared address set with other terminals.

At a fifth aspect, embodiment of the present invention provides a server of file sharing.

The server comprises:

one or more processors; and

a memory, the memory stores one or more programs, the one or more programs are configured to be executed by the one or more processors, the one or more programs  
5 comprise instructions of:

receiving a file from a terminal;

generating a shared address set of the file; and

feedbacking the shared address set to the terminal, where terminal shares shared addresses of the shared address set with other terminals.

10 At a sixth aspect, embodiment of the present invention provides a terminal of file sharing.

The terminal comprises:

one or more processors; and

a memory, the memory stores one or more programs, the one or more programs are configured to be executed by the one or more processors, the one or more programs  
15 comprise instructions of:

sending a file to a server, where the server generates a shared address set of the file;

receiving the shared address set from the server; and

sharing shared addresses of the shared address set with other terminals.

20 At a seventh aspect, embodiment of the present invention provides a system of file sharing. The system comprises a terminal, a server and at least one other terminal. Wherein:

The terminal is configured to send a file to a server;

The server is configured to receive the file from the terminal, generate a shared address set of the file, and feedback the shared address set to the terminal; and

25 the terminal is further configured to receive the shared address set from the server, and share shared addresses of the shared address set with the other terminal(s).

In the prior art, when the file includes multiple pages, the terminal needs to upload decomposed pages to the server individually, resulting in increased interactions between the terminal and the server. By means of receiving a file from a terminal, generating a shared address set of the file, feedbacking the shared address set to the terminal, and sharing shared  
30 addresses of the shared address set with other terminals, the present disclosure can solve the

problem of high communication cost and save the communication resources.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

To better describe the technical solutions in the embodiments of the present invention, the enclosed drawings for illustrating the embodiments are described briefly below. Obviously, the enclosed drawings in the following description illustrate only some of the embodiments of the present invention. One of ordinary skill in the art may derive other alternative drawings from the enclosed drawings base on the embodiments of the present invention.

FIG. 1 is a structural schematic of a team voice instrument in embodiments of the present invention.

FIG. 2 is a flow chart of a file sharing method in one embodiment of the present invention.

FIG. 3A is a flow chart of a file sharing method in another embodiment of the present invention.

FIG. 3B is a schematic of a first application of a file sharing method in one embodiment of the present invention.

FIG. 3C is a schematic of a second application of a file sharing method in one embodiment of the present invention.

FIG. 3D is an application interface diagram of a sharing method in the embodiments of the present invention.

FIG. 4 is a flow chart of a file sharing method in another embodiment of the present invention.

FIG. 5 is a flow chart of a file sharing method in another embodiment of the present invention.

FIG. 6 is a structure block diagram of a file sharing system in one embodiment of the present invention;

FIG. 7 is a structure block diagram of a file sharing system in another embodiment of the present invention.

FIG. 8 is a structure block diagram of a file sharing server or terminal in one embodiment of the present invention.

FIG. 9 is a structure block diagram of a file sharing system in another embodiment of the

present invention.

## DETAILED DESCRIPTION

To better describe the objectives, technical solutions, and advantages of the present invention clearer, the embodiments of the present invention are described in details below with reference to the enclosed drawings.

Referring now to FIG.1, therein is shown a structural schematic of a team voice instrument in embodiments of the present invention. The team voice instrument can include at least a terminal 110 and a server 120.

The terminal 110 can be an electronic device, such as a computer, a smart phone, a tablet, or e-book reader. The electronic device can install an application client of the team voice instrument, or a browser. The electronic device can access a web client of the team voice instrument via the browser. The terminal 110 can be categorized by users, such as teacher terminals used by teachers and student terminals used by students. The teacher is a user teaching lecture files. The teacher can upload the lecture files to the server 120. The server 120 can process the lecture files and send the processed lecture files to the teacher terminals and the student terminals. The students are users learning the lecture files. The students can receive and display the processed lecture files from the server 120. In this embodiment of the present invention, the teacher terminals and the student terminals are in the same teaching channel.

The server 120 can be connected to the terminal 110 via wired or wireless network. The server 120 can be one server, multiple servers, or a cloud computation center. In other words, the server 120 can be implemented by one server or a combination of multiple servers, wherein each of the multiple servers can provide same or different functions, such as a register and login server, a client portrait storage server, a channel information and configuration storage server, or a picture and video storage server, etc. The server 120 can be implemented by the cloud computation center, wherein the cloud computation center is a virtual computation platform with a cluster of servers.

Referring now to FIG. 2, therein is shown a flow chart of a file sharing method in one embodiment of the present invention. The embodiment of the present invention describes the

file sharing method applied to the implementing environment shown in FIG. 1 as an example. The file sharing method includes following steps.

Step 201, the terminal sends a file to the server, wherein the file can include a file generated by the terminal, or transmitted to the terminal from other equipment. The embodiment of the present invention does not restrict sources of the file. The terminal can send the file to the server via wired or wireless network.

Step 202, the server receives the file from the terminal, wherein the server can receive the file from the terminal via wired or wireless network, which corresponds to the manner of sending file of the terminal.

Step 203, the server generates a shared address set of the file. When the file sent from the terminal includes multiple pages, the server can decompose the file to multiple file pages and generate one of shared addresses for each of the file pages such that the terminal can download one of the file pages in accordance with each of the shared addresses. Or, the terminal can generate one shared address for a plurality of the file pages, such that the terminal can download the plurality of the file pages in accordance with the shared address, to reduce the interaction between the terminal and the server, resulting in improvement of the downloading efficiency.

Preferably, the server can group the shared addresses as the shared address set and send the shared address set to the terminal, to save communication resources comparing with sending each of the shared addresses to the terminal individually.

Step 204, the server feedbacks the shared address set to the terminal. The server can send the shared address set to the terminal, to avoid the problems in prior art of the terminal uploading the file pages to and receiving the shared addresses from the server individually and repeatedly, resulting in saving communication resources and reduction of the cost.

Specifically, the server can feedback the shared address set to the terminal via wired or wireless network.

Step 205, the terminal receives the shared address set feedback from the server. Specifically, the terminal can receive the shared address set from the server via wired or wireless network.

Step 206, the terminal shares the shared address set with other terminals. The terminal can

share entire or a portion of the shared addresses of the shared address set with the other terminals. The other terminals can download the file from the server in accordance with the shared addresses.

In summary, the file sharing method provided by the embodiment of the present invention includes, receiving a file from a terminal, generating a shared address set of the file, 5 feedbacking the shared address set to the terminal, the terminal sharing shared addresses of the shared address set with other terminals. The method of the embodiment of the present invention resolves the problems in the prior art of increased interactions between the server and the terminal caused by uploading the decomposed file pages to the server individually and 10 repeatedly, when the file has multiple pages, resulting in saving communication resources and reduction of the cost.

Referring now to FIG. 3A, therein is shown a flow chart of a file sharing method in another one embodiment of the present invention. The embodiment of the present invention describes the file sharing method applied to the implementing environment shown in FIG. 1. 15 The difference between the current embodiment and the embodiment shown in FIG. 2 is that, a server can convert the file format of a received file, and share the converted file. The file sharing method can comprises following steps.

Step 301, a terminal sends a file to the server. The file can be generated by the terminal. Or, when the file format is not commonly supported by the terminal, the predetermined 20 application supporting the file format is not commonly used, or the installation of the predetermined application is complicated. The terminal can fetch the file from other equipment to avoid the installing and calling of the predetermined application. The embodiment of the present invention does not restrict file sources.

The terminal can sent the file to the server, wherein the file format of the file can be the 25 file format when the file is created, or the file format after the file is converted. The embodiment of the present invention does not restrict the file format. For example, the terminal can send the server a PPT file. The PPT file can be created by the OFFICE, or converted from files with other file formats by the OFFICE.

In general, the file can include multiple pages. To reduce the interaction between the 30 terminal and the server, the terminal can send a plurality of the file pages altogether to the

server. Further, the terminal can send a plurality of the file altogether to the server. Specifically, the terminal can send the file to the server via wired or wireless network.

Step 302, the server receives the file from the terminal. The server can receive the file from the terminal via wired or wireless network.

5 Step 303, the server can convert the file format.

Because the server is pre-installed a predetermined file format conversion application, the server can call the predetermined file format conversion application after receives the file. The server can convert the file format of the file with the predetermined file format conversion application and generate a converted file.

10 Specifically, the file format conversion can include decomposing the file into a plurality of the file pages, and converting each of the file pages to one of the converted file pages with a predetermined file format.

If the file includes a plurality of pages, the server can decompose the file into a plurality of the file pages, and convert the file format of each of the decomposed file pages to the predetermined file format. The predetermined file format can be a default or a specified file format, such as an image format or a text format. The converted file pages can refer to the file pages after the file format conversion.

Typically, the server can enable a system mode. In the system mode, the predetermined file format conversion application can only convert one file at a time, resulting in a lower file conversion efficiency. The system mode may be system user accounts. Therefore, if there are at least two files, the file format conversion may include:

enabling at least two system modes in parallel; and

converting the files in turn in each of the system modes with the predetermined file format conversion application pre-installed in the server.

25 For example, when the server installs WINDOWS system, the WINDOWS system can set up at least two user accounts. Since each of the user accounts can call the OFFICE to convert one PPT file, parallel logging on to the at least two user accounts can convert at least two PPT files in parallel, resulting in improvement of the conversion efficiency.

The version of the predetermined file format conversion application installed on the terminal may be various. Different version of the predetermined file format conversion

application may convert the file differently. For example, a lower version of the predetermined file format conversion application may convert the file with a lower conversion quality. Therefore, the server can install the latest version of the predetermined file format conversion application and convert all of the files from terminals with the latest version to avoid lower conversion quality and conversion inconsistency among the different terminals.

Further, the server can configure conversion parameters of the predetermined file format conversion application, to further improve the file conversion quality. Specifically, before enabling at least two system modes in parallel, the server can configure conversion parameters for a predetermined file format conversion application. Then, converting the files in turn via the predetermined file format conversion application installed in the server includes converting the files in turn via the predetermined file format conversion application configured with the conversion parameters.

For example, OFFICE can configure a picture resolution when a PPT file is converted to a picture. The server can configure the picture resolution in accordance with the conversion requirement.

Step 304, the server generates the shared address set. When the file sent by the terminal includes multiple pages, the server can generate one of the shared addresses for each of the converted file pages, so the terminal can download one of the converted file page in accordance with the one of the shared addresses. Or the server can generate one shared address for multiple converted file pages, so the terminal can download multiple converted file pages in accordance with the shared address, to reduce the interaction between the terminal and the server, resulting in improvement of the downloading efficiency. Typically, each of the shared addresses of the shared address set can correspond to one or multiple converted file pages.

Preferably, the server can combine the generated shared addresses of the file pages as the shared address set and send the shared address set to the terminal, to save the communication resources than sending the shared addresses to the terminal one at a time.

Step 305, the server can feedback the shared address set to the terminal. The server can send the shared address set to the terminal, to avoid the waste of communication resources in the prior art cause by the terminal uploading the decomposed file pages to and receiving the shared addresses from the server individually and repeatedly, resulting in saving of

communication resources and reduction of the cost.

Specifically, the server can feedback the shared address set to the terminal via a wired or wireless network.

Step 306, the terminal can receive the shared address set from the server. Specifically,  
5 corresponding to how the server feedbacks the shared address set, the terminal can receive the shared address set from the server via a wired or wireless network.

Further, after receives the shared address set from the server, the terminal can download the file pages corresponding to the shared addresses of the shared address set.

If the terminal needs to acquire the converted file, after receiving the shared address set,  
10 the terminal can acquire the converted file from the server in accordance with the shared address set. For example, the terminal can acquire the file pages in accordance with the shared addresses of the shared address set in sequence. Or, the terminal may acquire a plurality of the file pages in parallel in accordance with a plurality of the shared addresses of the shared address set.

15 Step 307, the terminal shares the shared addresses of the shared address set with other terminals. The terminal can share entire or a portion of the shared addresses of the shared address set with the other terminals. The other terminals can acquire the converted files from the server in accordance with the shared addresses.

Preferably, the terminal may confirm that the file pages corresponding to the shared  
20 addresses of the shared address set are acquired successfully, before the terminal shares the shared addresses with the other terminals, in order to improve file sharing success rate in other terminals.

In particular, the terminal sharing the shared addresses of the shared addresses set with other terminals can include:

25 sending the shared addresses of the shared addresses set to a predetermined equipment, and the predetermined equipment broadcasting the shared addresses of the shared addresses set to the other terminals.

In the embodiment of the present invention, the terminal may share or broadcast the shared addresses of the shared addresses set to the other terminals directly. Or, the terminal can  
30 send the shared addresses of the shared addresses set to the predetermined equipment, and the

predetermined equipment can broadcast the shared addresses of the shared addresses set to the other terminals. Wherein, before send or broadcast the shared addresses, the terminal or the predetermined equipment may need to determine the other terminals receiving the shared addresses. For example, the other terminals may be terminals connected to the terminal, or may be other terminals in the predetermined equipment corresponding to the terminal. The number of the other terminals is at least one .

Further, the predetermined equipment can cache the shared addresses of the shared address set, in order to send the cached shared addresses to subsequently joined other terminals. Wherein the subsequently joined other terminals can be at least one.

Further, the terminal may store the shared address set, in order to acquire the converted file in accordance with the stored shared address set subsequently.

Additionally, in the embodiment of the present invention, the server can be broken down into a front end server, a conversion server, and a sharing server. The front end server is used to communicate with the sharing server and the terminal. The conversion server is used to communicate with the front end server. The sharing server is used to communicate with the front end server and the terminal. Alternatively, in the embodiment of the present invention, the server can also be broken down into the front end server and the conversion server, while the sharing server is a third-party equipment interacting with the server. Since the conversion server can interact with the front end server via predetermined accounts, the safety of the converted file can be guaranteed.

Referring now to FIG. 3B, therein is shown a schematic of a first application of the file sharing method in one embodiment of the present invention. In FIG. 3B, a server is for example divided into a front end server, a conversion server, and a sharing server. The front-end server may receive a file sent from a terminal, and forward the file to the conversion server. The conversion server converts the file format of the file, and sends the converted files to the front end server. The front end server can upload the converted file to the sharing server, and receive a shared address set feedback from the sharing server. The front end server can feedback the shared address set to the terminal.

In summary, the file sharing method provided by the embodiment of the present invention can include, receiving a file from a terminal, generating a shared address set of the file,

feedbacking the shared address set to the terminal, sharing the shared addresses of the shared address set with other terminals. The method of the embodiment of the present invention solves the problems in the prior art of increased interactions between the server and the terminal caused by uploading the decomposed file pages to the server individually and repeatedly when the file has multiple pages, resulting in saving communication resources and reduction of the cost. Additionally, by enabling at least two system modes in parallel, the files can be converted in sequence in each of the system modes by a predetermined file format conversion application pre-installed on the server, and the predetermined file format conversion application can be invoked in parallel in the server to convert the files. The method of the embodiment of the present invention solves a low conversion efficiency problem caused by individual conversion of the files with the predetermined file format conversion application, resulting in improvement of the conversion efficiency.

Referring now to FIG. 3C, therein is shown a schematic diagram of a second application of a file sharing method. The file sharing method provided in the embodiment of the present invention can be applied in online education. In FIG. 3C, teachers can prepare a PPT lecture file on the terminal, wherein the PPT lecture file can include at least one page. The teachers send the PPT lecture file to the server via the terminal. The server can convert each of the PPT lecture file pages to one of images, and generate an image set of all the images. The server can store each of the images of the image set, and assigns a URL to one or several images. The server can combine the URLs of the images into a URL set, and forward the URL set to the terminal.

After receives the URL set via the terminal, the teachers can send or broadcast the URL set to other terminals connected to the terminal.

Alternatively, the teachers can send the URL set to a predetermined equipment, and the predetermined equipment can broadcast the URL set to students. Further, to diversify the course contents, the predetermined equipment may provide multiple teaching channels corresponding to subjects. Each of the teaching channels can be accessed by a teacher and several students. After receives the URL set, the predetermined equipment can determine the teaching channel accessed by the teacher, and broadcast the URL set to the students who access the said teaching channel. The teacher through the terminal and the students through the other

terminal 1, 2..., and  $n$ , send image requests with the URL to the sharing server, and download the images in accordance with the URL. Alternatively, in order to improve the success rate of sharing images, the teacher can share the URLs after acquiring the images. For example, the teacher can send the requests with the image URL to the sharing server and download the images in accordance with the URLs from a sharing server, before send the URLs to the predetermined equipment. After receiving the URLs, the predetermined equipment can determine the teaching channel accessed by the teacher, and broadcast the URL to the students who access the said teaching channel. Through other terminals 1, 2, to  $n$ , the students can send image requests with URL to the sharing server, and acquire the images from the sharing server corresponding to the URLs. The teacher can teach the course based on the images, after teacher and students get all the images.

Further, the predetermined equipment can store the broadcasted URL set. If the predetermined equipment detects that subsequently joined students accessing the said teaching channel, the predetermined equipment can send the URL set to the subsequently joined student terminals. The subsequently joined student terminals can acquire the converted images in accordance with the received URL set.

Referring now to FIG. 3D, therein is shown an application interface diagram of the file sharing method in the embodiments of the present invention. In FIG. 3D, the teacher teaches a mathematics course. The teacher and the students access a teaching channel 8619. The total number of persons accessing the teaching channel is 364. The teacher's lecture content is shown in an exercise area 310 on the left of the screen. From top to bottom on the right of the screen is a teacher information display area 311, a floor control display area 312, a discussion & question display area 313, and an input display area 314. Wherein, the teacher information includes a teacher's picture, a nickname, and number of followers. After the students enter texts in an input box in the input display area 314 and click a SEND button to the right of the input box, the students entered texts can be displayed in the discussion & question display area 313.

Referring now to FIG. 4, therein is shown a flow chart of a file sharing method in another one embodiment of the present invention. The flow chart in FIG. 4 describes the file sharing method applied to implementing environment shown in FIG. 1. The difference between this embodiment and the embodiment shown in FIG. 2 is that, the server can convert the received

lecture file format, and share the converted lecture file. The file sharing method can include following steps.

Step 401, the teacher terminal can send the lecture file to the server, wherein the lecture file can include at least one lecture file page.

5 The lecture file sent to the server from the teacher terminal can be the lecture file generated by the teacher terminal, or acquired from other equipment. The embodiment of the present invention does not restrict file sources. Wherein acquiring the file from other equipment can avoid installation of the application supporting the lecture file format on the teacher terminal, and save memory spaces thereof.

10 In general, one lecture file can include at least one file pages. To reduce the interaction between the teacher terminal and the server, the teacher terminal can send entire lecture file to the server. Further, the teacher terminal can send the server a plurality of the lecture files altogether. The teacher terminal can send the server the lecture files via a wired or wireless network.

15 Step 402, the server receives the lecture file from the teacher terminal. The server can receive the lecture file from the teacher terminal via a wired or wireless network.

Step 403, the server can convert each of the lecture file pages to one of converted lecture file pages with a predetermined file format.

20 Because the server is pre-installed a predetermined file format conversion application converting the lecture file, the server can call the predetermined file format conversion application after receives the lecture file. The server then can decompose the lecture file into a plurality of lecture file pages, and convert each of the lecture file pages to one of converted lecture file pages with the predetermined file format. Wherein the predetermined file format can be default or specified, such as, an image format or a text format. The converted lecture  
25 file pages refer to the file pages of the decomposed lecture file page converted to the predetermined file format.

Typically, the server can enable a system mode. In the system mode, the predetermined file format conversion application can only convert one lecture file at a time, resulting in a lower lecture file conversion efficiency. Wherein, the system mode may be system user  
30 accounts. Therefore, if there are at least two lecture files, the lecture file format conversion

may include:

enabling at least two system modes in parallel, and

converting each of the lecture files in sequence in each of the system modes with the predetermined file format conversion application pre-installed on the server.

5 For example, when WINDOWS system is installed in the server, the WINDOWS system can set up at least two user accounts. Since each of the user accounts can call OFFICE to convert one PPT lecture file, parallel logging on to the at least two user accounts can convert at least two PPT lecture files in parallel, resulting in improvement of the conversion efficiency.

10 The version of the predetermined file format conversion application installed on the teacher terminal may be various. Different version of the predetermined file format conversion application may convert the lecture file differently. For example, a lower version of the predetermined file format conversion application may convert the lecture file with a lower conversion quality. Therefore, the server can install the latest version of the predetermined file format conversion application and convert the lecture file with the latest version to avoid lower  
15 conversion quality and conversion inconsistency resulting from conversion of the lecture file by different teacher terminals.

Further, the server can configure conversion parameters of the predetermined file format conversion application, to further improve the lecture file conversion quality. Specifically, before enabling at least two system modes in parallel, the conversion parameters for the  
20 predetermined file format conversion application are configured. Then, converting the lecture files in sequence via the predetermined file format conversion application installed on the server comprises converting the lecture files in sequence through the predetermined file format conversion application after configuration.

For example, OFFICE can configure an image resolution when converting a PPT lecture  
25 file to an image. The server can configure the image resolution in accordance with the conversion requirement.

Step 404, the server can share each of the converted lecture file pages and generate the shared address set of the converted lecture file. Wherein the shared address set includes at least one shared address, and each shared address corresponds to at least one converted lecture file  
30 page.

The server can generate a shared address for each of the converted lecture file pages. The teacher terminal can acquire a single converted lecture file page in accordance with one of the shared addresses. Or the server can generate one shared address for at least two converted lecture file pages. The teacher terminal can acquire at least two converted lecture file pages in accordance with a single shared address, to reduce the interaction between the teacher terminal and the server, resulting in improvement of the downloading efficiency.

After generates the shared addresses of the lecture file pages, the server can combine the shared addresses of all lecture file pages into the shared address set and send the shared address set to the teacher terminal, to save the communication resources required by sending the shared addresses to the terminal individually and repeatedly.

Step 405, the server feedback the shared address set to the teacher terminal. The server can send the shared address set to the teacher terminal, to save the communication resources required by sending the shared addresses to the teacher terminal individually and repeatedly.

Specifically, the server can feedback the shared address set to the teacher terminal via a wired or wireless network.

Step 406, the teacher terminal receives the shared address set from the server.

Specifically, corresponding to the manner of the server sending the shared address set, the teacher terminal can receive the shared address set from the server via a wired or wireless network.

Step 407, the teacher terminal can acquire the lecture file page corresponding to each of shared addresses of the shared address set.

If the teacher terminal needs to acquire the converted lecture file, the teacher terminal can acquire the converted lecture file from the server in accordance with the shared address set received from the server. For example, the teacher terminal can acquire the lecture file pages successively in accordance with the shared addresses of the shared address set. Or, the teacher terminal may acquire a plurality of lecture file pages in accordance with a plurality of shared addresses of the shared address set in parallel.

Step 408, the teacher terminal shares the shared addresses of the shared address set with the student terminals after acquiring the lecture file pages corresponding to shared addresses.

The teacher terminal can share entire or a portion of the shared addresses of the shared

address set with the student terminals. The student terminals can acquire the converted lecture files from the server in accordance with the shared addresses.

Preferably, the teacher terminal may acquire each of the lecture file pages corresponding to each of the shared addresses of the shared address set. After acquiring the lecture file pages corresponding to the shared addresses, the teacher terminal can confirm that the lecture file pages are acquired successfully before the teacher terminal shares the shared addresses with the student terminals. The file sharing method in the embodiment of the present invention can improve the file sharing success rate on the student terminals, and prevent failure of acquiring the converted lecture file pages on the student terminals when the server fails to share the converted lecture file pages.

In particular, the teacher terminal sharing the shared addresses of the shared addresses set with the student terminals can include:

sending the shared addresses of the shared addresses set to a predetermined equipment, and the predetermined equipment broadcasting the shared addresses of the shared addresses set to the student terminals.

In the embodiment of the present invention, the teacher terminal may send or broadcast the shared addresses of the shared addresses set directly to the student terminals. Or, the teacher terminal can send the shared addresses of the shared addresses set to the predetermined equipment, and the predetermined equipment can broadcast the shared addresses of the shared addresses set to the student terminals. Before send or broadcast the shared addresses of the shared addresses set, the teacher terminal or the predetermined equipment may need to determine the student terminals. For example, the student terminals may be terminals connected to the teacher terminal, or terminals corresponded to the teacher terminal in the predetermined equipment. The student terminals comprise at least one.

Further, the predetermined equipment can cache the shared address of the shared address set, in order to send the cached shared addresses to subsequently joined student terminals. Wherein, the number of the subsequently joined student terminals can be at least one.

Further, the teacher terminal may store the shared address set, in order to acquire the converted lecture file subsequently in accordance with the stored shared address set.

In summary, the file sharing method provided by the embodiment of the present invention

can include, receiving a lecture file from a teacher terminal, generating a shared address set of the lecture file, feedbacking the shared address set to the teacher terminal, the teacher terminal sharing the shared addresses of the shared address set with student terminals. The method of the embodiment of the present invention solves the problem in the prior art of increased interactions between the server and the teacher terminal caused by uploading decomposed lecture file pages to the server individually and repeatedly when the lecture file has multiple pages, resulting in saving communication resources and reduction of the cost. Additionally, by enabling at least two system modes in parallel, the server can convert the lecture files in sequence in one of the system modes with a predetermined file format conversion application pre-installed on the server, and the predetermined file format conversion application can be invoked in parallel to convert files. The method of the embodiment of the present invention solves a low conversion efficiency problem caused by individual conversion of the lecture files with the predetermined file format conversion application, resulting in improvement of the conversion efficiency.

Referring now to FIG. 5, therein is shown a flow chart of a file sharing method in another one embodiment of the present invention. The flow chart in FIG. 5 describes the file sharing method applied to the implementing environment shown in FIG. 1. The difference between the current embodiment and the embodiment shown in FIG. 4 is that, the server can be broken down into a front end server, a conversion server, and a sharing server. The file sharing method can include following steps.

Step 501, the teacher terminal send the lecture file to the front end server, wherein the lecture file can includes at least one lecture file page.

The lecture file sent to the server from the teacher terminal can be the lecture file generated by the teacher terminal, or acquired from other equipment. The embodiment of the present invention does not restrict to file sources. Wherein acquiring the file from other equipment can avoid installation of the application supporting the lecture file format on the teacher terminal, and save memory spaces of the teacher terminal.

In general, the lecture file can include at least one lecture file pages. To reduce the interaction between the teacher terminal and the front end server, the teacher terminal can send entire lecture file to the front end server. Further, the teacher terminal can send the front end

server a plurality of the lecture files altogether. The teacher terminal can send the front end server the lecture files via a wired or wireless network.

Step 502, the front end server receives the lecture file from the teacher terminal.

Corresponding to the manner of sending the lecture file by the teacher terminal, the front end server can receive the lecture file from the teacher terminal via a wired or wireless network.

Step 503, the front end server can send the lecture file to the conversion server.

Wherein, the conversion server can convert the format of each of lecture file pages in the lecture file.

Step 504, the conversion server receives the lecture file from the front end server, and converts each lecture file page of the lecture file to the converted lecture file page with the predetermined file format.

Because the conversion server is pre-installed a predetermined file format conversion application, the conversion server can call the predetermined file format conversion application after receives the lecture file. The lecture file can be decomposed into lecture file pages by the predetermined file format conversion application, and each of the lecture file pages can be converted to the converted lecture file pages with a predetermined file format. The predetermined file format can be a default or a specified file format, such as an image format or a text format. The converted lecture file pages can refer to the decomposed lecture file pages subjected to the predetermined file format conversion.

Typically, the conversion server can enable a system mode. In one system mode, the predetermined file format conversion application can only convert one lecture file at a time, resulting in a lower lecture file conversion efficiency. The system mode may be system user accounts. Therefore, if there are at least two lecture files, the lecture file format conversion may include: enabling at least two system modes in parallel, and converting each of the lecture files in each of the system modes with the predetermined file format conversion application pre-installed on the conversion server.

For example, when the conversion server installs WINDOWS system, at least two user accounts can be set up in the WINDOWS system. Since each of the user accounts can call OFFICE to convert one PPT lecture file, parallel logging on to the at least two user accounts

can convert at least two PPT lecture files in parallel, resulting in improvement of the conversion efficiency.

The version of the predetermined file format conversion application installed on the teacher terminal may be various. Different version of the predetermined file format conversion application may convert the lecture file differently. For example, a lower version of the predetermined file format conversion application may convert the lecture file with a lower conversion quality. Therefore, the conversion server can install the latest version of the predetermined file format conversion application and convert the lecture file with the latest version to avoid lower conversion quality and conversion inconsistency resulting from conversion of lecture files by different teacher terminals.

Further, the conversion server can configure conversion parameters of the predetermined file format conversion application, to further improve the lecture file conversion quality. Specifically, before enabling at least two system modes in parallel, the conversion server can configure the conversion parameters of the predetermined file format conversion application. Then converting the lecture files via the predetermined file format conversion application installed in the conversion server including converting the lecture files via the predetermined file format conversion application after configuration.

For example, OFFICE can configure an image resolution when converting a PPT lecture file to an image. The conversion server can configure the image resolution in accordance with the conversion requirement.

Step 505, the conversion server sends the converted lecture file pages with the predetermined file format to the front end server.

The conversion server can convert each of the lecture file pages to one of the converted lecture file pages with the predetermined file format, and send the converted lecture file pages to the front end server.

Step 506, the front end server receives the converted lecture file pages with the predetermined file format.

Step 507, the front end server sends the converted lecture file pages with the predetermined file format to the sharing server.

Wherein, the sharing server can share the converted lecture file pages with the

predetermined file format.

Step 508, the sharing server shares each of the converted lecture file pages with the predetermined file format, generates a shared address set of the converted lecture file pages. Wherein the shared address set can include at least one shared address, and each shared  
5 address corresponds to one of the converted lecture file pages.

The sharing server can generate a shared address for each of the pages of the converted lecture file. The teacher terminal can acquire a single converted lecture file page in accordance with one the shared address. Or the sharing server can generate a shared address for at least two converted lecture file pages. The teacher terminal can acquire at least two converted  
10 lecture file pages in accordance with a single shared address, to reduce the interaction between the teacher terminal and the sharing server, resulting in improvement of the downloading efficiency.

Step 509, the sharing server can send the shared address set to the front end server.

After generates the shared addresses of the lecture file pages, the sharing server can  
15 combine the shared addresses of all lecture file pages into the shared address set and send the shared address set to the front end server, to save the communication resources required from sending the shared addresses individually and repeatedly.

Step 510, the front end server receives the shared address set.

Step 511, the front end server feedback the shared address set to the teacher terminal.

The front end server can send the shared address set to the teacher terminal, to save the  
20 communication resources required from sending the shared addresses individually and repeatedly.

Specifically, the front end server can feedback the shared address set via a wired or wireless network.

Step 512, the teacher terminal receives the shared address set from the front end server.

Specifically, corresponding to the manner of sending the shared address set by the front end server, the teacher terminal can feedback the shared address set via a wired or wireless network.

Step 513, the teacher terminal can acquire the lecture file page corresponding to each  
30 shared addresses of the shared address set.

If the teacher terminal needs to acquire the converted lecture file, the teacher terminal can acquire the converted lecture file from the sharing server in accordance with the shared address set received from the sharing server. For example, the teacher terminal can acquire the lecture file pages in accordance with the shared addresses of the shared address set in sequence. Or, the teacher terminal may acquire a plurality of lecture file pages in parallel in accordance with a plurality of shared addresses of the shared address set.

Step 514, the teacher terminal shares the shared addresses of the shared address set with the student terminals, after acquires the converted lecture file pages corresponding to the shared addresses.

The teacher terminal can share entire or a portion of the shared address of the shared address set with the student terminals. The student terminals can acquire the converted lecture files from the sharing server in accordance with the shared addresses.

Preferably, the teacher terminal may acquire each of the converted lecture file pages corresponding to one of the shared addresses of the shared address set. After acquiring the lecture file pages corresponding to the shared addresses, the teacher terminal can confirm that the converted lecture file pages are acquired successfully, before the teacher terminal shares the shared addresses with the student terminals. The file sharing method in the embodiment of the present invention can improve the file sharing success rate on the student terminals, and prevent failure of acquiring the converted lecture file pages on the student terminals when the server fails to share the converted lecture file pages.

In particular, the teacher terminal sharing the shared addresses of the shared addresses set with the student terminals can include: sending the shared addresses of the shared addresses set to a predetermined equipment, and the predetermined equipment broadcasting the shared addresses of the shared address set to the student terminals.

In the embodiment of the present invention, the teacher terminal may send or broadcast the shared addresses of the shared addresses set directly to the student terminals. Alternatively, the teacher terminal can send the shared addresses of the shared addresses set to the predetermined equipment, and the predetermined equipment can broadcast the shared addresses of the shared address set to the student terminals. Before send or broadcast the shared addresses of the shared address set, the teacher terminal or the predetermined

equipment may need to determine the student terminals. For example, the student terminals may be terminals connected to the teacher terminal, or be terminals corresponded to the teacher terminal in the predetermined equipment. The student terminals comprise at least one.

Further, the predetermined equipment can cache the shared addresses of the shared address set, in order to send the cached shared addresses to subsequently joined student terminals. Wherein, the subsequently joined student terminals can be at least one.

Further, the teacher terminal may store the shared address set, in order to acquire the converted lecture file subsequently in accordance with the stored shared address set.

In summary, the file sharing method provided by the embodiment of the present invention can include, the sharing server generating a shared address set of the lecture file, the sharing server sending the shared address set to the front end server, the front end server feedbacking the shared address set to the teacher terminal, the teacher terminal sharing the shared addresses of the shared address set with the student terminals. The method of the embodiment of the present invention solves the problem in the prior art of increased interactions between the front end server and the teacher terminal caused by uploading decomposed lecture file pages to the front end server individually and repeatedly when the lecture file has multiple pages, resulting in saving communication resources and reduction of the cost. Additionally, by enabling at least two system modes in parallel, the lecture files can be converted in sequence in each of the system modes with a predetermined file format conversion application pre-installed on the conversion server, and the predetermined file format conversion application can be invoked in parallel to convert the lecture files. The method of the embodiment of the present invention solves a low conversion efficiency problem caused by individual conversion of the lecture files with the predetermined file format conversion application, resulting in improvement of the conversion efficiency.

Referring now to FIG. 6, therein is shown a structure block diagram of a file sharing system in one embodiment of the present invention. The embodiment of the present invention describes the file sharing method applied to the implementing environment shown in FIG. 1. The file sharing system may include servers, terminals, and a number of other terminals. Wherein, the server may include a first receiving module 610, a generation module 620, and a feedback module 630. The terminals may include a sending module 710, a second receiving

module 720, and a sharing module 730.

The sending module 710 can send a file to the server, wherein the server can generate a shared address set of the file.

The first receiving module 610 can receive the file from the terminal.

5       The generation module 620 can generate a shared address set of the file received from the first receiving module 610.

The feedback module 630 can feedback the shared address set generated by the generation module 620 to the terminal, wherein the terminal can share shared addresses of the shared address set with other terminals.

10       The second receiving module 720 can receives the shared address set generated by the server.

The sharing module 730 can share the shared addresses of the shared address set received by the second receiving module 720 with other terminals.

In summary, the file sharing system provided by the embodiment of the present invention  
15 includes, receiving a file from a terminal, generating a shared address set of the file, feedbacking the shared address set to the terminal, the terminal sharing the shared addresses of the shared address set with other terminals. The method of the embodiment of the present invention solves the problem in the prior art of increased interactions between the server and the terminal caused by uploading the decomposed file pages to the server individually and  
20 repeatedly when the file has multiple pages, resulting in saving communication resources and reduction of the cost.

Referring now to FIG. 7, therein is shown a structure block diagram of a file sharing system in another one embodiment of the present invention. The embodiment of the present invention describes the file sharing method applied to the implementing environment shown in  
25 FIG. 1. The file sharing system may include servers, terminals, and a number of other terminals. Wherein, the server may include a first receiving module 610, a generation module 620, and a feedback module 630. The terminals may include a sending module 710, a second receiving module 720, and a sharing module 730.

The sending module 710 can send a file to the server, wherein the server can generate a  
30 shared address set of the file.

The first receiving module 610 can receive the file from the terminal.

The generation module 620 can generate a shared address set of the file received from the first receiving module 610.

5 The feedback module 630 can feedback the shared address set generated by the generation module 620 to the terminal, wherein the terminal can share shared addresses of the shared address set with other terminals.

The second receiving module 720 can receives the shared address set generated by the server.

10 The sharing module 730 can share the shared addresses of the shared address set received by the second receiving module 720 with other terminals.

Further, the server can include a conversion module 640 , converting the file into a plurality of converted file pages with the predetermined file format, each of shared addresses of a shared address set of the file corresponds to one or multiple converted file pages with the predetermined file format.

15 Specifically, if there are at least two files, the conversion module 640 can further include:

a enabling unit 641, enabling at least two system modes in parallel; and

a conversion unit 642, converting the files in sequence with a predetermined application installed on the server, in the each of the system modes enabled by the enabling unit 641.

Further, the conversion module 640 can include:

20 a configuration unit 643 , configuring conversion parameters of the predetermined application, before enabling unit 641 enables at least two system modes in parallel ; and

the conversion unit 642, converting the files in sequence with the predetermined application configured by the configuration unit 643.

25 Further, the server can include a storage module 650, storing the converted file pages with the predetermined file format.

The shared address set of the files can include the storage address of one or multiple converted file pages with the predetermined file format stored by the storage module 650.

30 Further, each of shared addresses of the shared address set corresponds to one or multiple converted file pages with the predetermined file format. The server can decompose the file into a plurality of file pages and convert each of the decomposed file pages to the converted file

page with the predetermined file format.

Further, the terminal can include an acquiring module 740, acquiring the file pages corresponding to the shared addresses of the shared address set.

In particularly, the sharing module 730 can send the shared addresses of the shared address set to the predetermined equipment, wherein the predetermined equipment can broadcast the shared addresses of the shared address set to the other terminals.

In summary, the file sharing system provided by the embodiment of the present invention includes, receiving a file from a terminal, generating a shared address set of the file, feedbacking the shared address set to the terminal, and the terminal sharing the shared addresses of the shared address set with other terminals. The method of the embodiment of the present invention solves the problem in the prior art of increased interactions between the server and the terminal caused by uploading the decomposed file pages to the server individually and repeatedly when the file has multiple pages, resulting in saving communication resources and reduction of the cost. Additionally, by enabling at least two system modes in parallel, the files can be converted in sequence in one of the system modes with a predetermined file format conversion application pre-installed on the server, and the predetermined file format conversion application can be invoked in parallel to convert files. The method of the embodiment of the present invention solves a low conversion efficiency problem caused by individual conversion of the files with the predetermined file format conversion application, resulting in improvement of the conversion efficiency.

Referring now to FIG. 8, therein is shown a structure block diagram of a file sharing server or terminal in one embodiment of the present invention. The server or terminal 800 can include a central processing unit (CPU) 801, a system memory 804 including a random access memory (RAM) 802 and a read only memory (ROM) 803, and a system bus 805 connecting the system memory 804 and the CPU 801. The server or terminal 800 also includes a basic input/output (I/O) system 806 transmitting information between various devices of the computer, and a mass storage device 807 storing an operating system 813, applications 814, and other program modules 818.

The basic I/O system 806 can include a display device 808 displaying the information, and input devices 809 for user to enter input information, such as, a mouse or a keyboard.

Wherein, the display device 808 and input devices 809 are connected to the CPU 801 via an input/output (I/O) controller 810 connected to the system bus 805. The basic I/O system 806 may also include the I/O controller 810 for receiving and processing inputs from the keyboard, the mouse, an electronic stylus, or various other devices. Similarly, the I/O controller 810 also provides outputs to a display screen, a printer, or other output devices.

The mass storage device 807 is connected to the CPU 801 via a mass storage controller (not shown) connected to the system bus 805. The mass storage device 807 and associated computer-readable medium thereof provide non-volatile storages to the server or terminal 800. Thus, the mass storage device 807 may include computer-readable medium (not shown), such as hard disks or CD-ROM drives.

In general, the computer-readable medium may comprise computer storage medium and communication medium. The computer storage medium can include volatile and nonvolatile, removable and non-removable medium implemented by any technique or method, for storage of computer readable instructions, data structures, program modules, or other data information. The computer storage medium can include RAM, ROM, EPROM, EEPROM, flash memory or other solid state memory technology, CD-ROM, DVD, or other optical storage including magnetic cassettes, magnetic tape, magnetic disk storage, or other magnetic storage devices. Of course, to one of ordinary skill in the art, the computer storage medium is not limited to the above varieties. The system memory 804 and mass storage device 807 may be referred to as memory.

According to the embodiments of the present invention, the server or terminal 800 may also be connected to a remote computer of a network via networking such as an internet. Thus, the server or terminal 800 can be connected to a network 812, or other networking or remote computing systems (not shown), via a network interface unit 811 connected to the system bus 805.

The memory further comprises one or more programs, wherein the one or more programs are stored in memory. The one or more programs can include instructions for executing the file sharing method provided by the embodiment of the present invention.

Referring now to FIG. 9, therein is shown a structure block diagram of a file sharing system in another one embodiment of the present invention. The current embodiment describes

the file sharing system applied to the implementing environment shown in FIG. 1 as an example. The file sharing system can comprise a terminal 910, a server 920, and a plurality of other terminals 930.

The terminal 910 can send a file to the server 920.

5 The server 920, can receive the file sent from the terminal 910, generate a shared address set of the file, and feedback the shared address set to the terminal.

The terminal 910, can receive the shared address set feedback from the server 920, and share shared addresses of the shared address set with the other terminals 930.

The file sharing system can further include a predetermined equipment 940, wherein the  
10 predetermined equipment 940 can link the terminal 910 and a plurality of the other terminals 930. The terminal 910 can send the shared address set to the predetermined equipment 940. The predetermined equipment 940 can broadcast the shared address set to the other terminals 930. The other terminals 930 can send downloading requests with the shared addresses to the server 920 to acquire the file for sharing.

15 Wherein the terminal 910 can be the terminals of FIG. 6, FIG. 7, or FIG. 8, or the server 920 can be the servers of FIG. 6, FIG. 7, or FIG. 8. When the file sharing system of the embodiment of the present invention is used in education, the terminal 910 can be the teacher terminal, the other terminals 930 can be student terminals.

The terminal 910 can be connected to the server 920 via a wired or wireless networking.

20 In summary, the file sharing system provided by the embodiment of the present invention can include, receiving a file from a terminal, generating a shared address set of the file, feedbacking the shared address set to the terminal, sharing shared addresses of the shared address set with other terminals. The system of the embodiment of the present invention resolves the problem of the prior art of increased interactions between the server and the  
25 terminal caused by uploading decomposed pages to the server individually and repeatedly when the file has multiple pages, resulting in saving communication resources and reduction of the cost. Additionally, by enabling at least two system modes in parallel, the files can be converted in sequence in one of the system modes with a pre-installed predetermined file format conversion application on the server, and the predetermined file format conversion  
30 application can be invoked in parallel to convert files. The system of the embodiment of the

present invention solves a low conversion efficiency problem caused by individual conversion of the files with the predetermined file format conversion application, resulting in improvement of the conversion efficiency.

It is to be noted that, the above functional modules are illustrated by way of example only when the terminal and the server in the above embodiments are used for file sharing. In practise, the various functions can be implemented by different functional modules as necessary, i.e., internal structures of the terminal and the server can be divided into different functional modules performing the whole or portion of the functions described above. Additionally, the server and the terminal in the embodiment of the present invention follow the same concept as the file sharing method described above. Details of implementations of the terminal and the server can be referred to embodiments of the file sharing method above and are not explained hereby.

The numerals of the embodiments of the present invention are only for easy description but not for preference.

One of the ordinary skill in the art understands that, entire or a portion of the steps disclosed in the embodiments of the present invention can be implemented with hardware, or hardware instructed by programs. The programs can be stored in a computer readable storage medium, wherein the computer readable storage medium may be a read-only memory, magnetic or optical disk.

The above embodiments are preferable embodiments, and not to limit the invention. It is intended to embrace all alternatives, modifications, and variations that fall within the scope of the included claims.

# CLAIMS

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What is claimed is:

1. A method of file sharing comprising:  
receiving at least one file from a terminal;  
generating a shared address set of the at least one file; and  
feedbacking the shared address set to the terminal, where the terminal shares shared addresses of the shared address set with other terminals.
2. The method as claimed in claim 1 wherein after receiving at least one file from a terminal, the method further comprising converting the file format of the at least one file.
3. The method as claimed in claim 2 wherein the number of the at least one file is at least two, and converting the file format of the at least one file, comprises:  
enabling at least two system modes in parallel; and  
converting the files in sequence in each of the at least two system modes with predetermined application installed in the server.
4. The method as claimed in claim 3 wherein, before enabling the at least two system modes in parallel, the method further comprises:  
configuring conversion parameters of the predetermined application; and  
converting the files in sequence with the predetermined application comprises converting the files in sequence with the predetermined application after configuration.
5. The method as claimed in claim 2 wherein converting the file format of the at least one file comprises decomposing the at least one file into a plurality of file pages and converting each of the decomposed file pages to one of converted file pages with a predetermined file format.
6. The method as claimed in claim 5 wherein each of the shared addresses in the shared address set of the at least one file corresponds to one or multiple of the converted file pages with the predetermined file format.
7. A method of file sharing comprising:  
sending at least one file to a server, where the server generates a shared address set of the at least one file;

receiving the shared address set from the server; and  
sharing shared addresses of the shared address set with other terminals.

8. The method as claimed in claim 7, wherein each of the shared addresses in the shared address set of the at least one file corresponds to one or multiple of converted file pages with a predetermined file format, the converted file pages with the predetermined file format are acquired through the manner of decomposing the at least one file into a plurality of file pages and converting the format of each of the decomposed file pages by the server.

9. The method as claimed in claim 8, wherein after receiving the shared address set from the server, the method further comprises acquiring the converted file pages in accordance with the shared addresses of the shared address set.

10. The method as claimed in any one of claim 7 to 9, wherein sharing the shared addresses of the shared address set with the other terminals comprises sending the shared addresses of the shared addresses set to a predetermined equipment, the predetermined equipment broadcasting the shared addresses of the shared addresses set to the other terminals.

11. A server, comprising:

one or more processors; and

a memory, the memory stores one or more programs, the one or more programs are configured to be executed by the one or more processors, the one or more programs comprise instructions of:

receiving at least one file from a terminal;

generating a shared address set of the at least one file; and

feedbacking the shared address set to the terminal, where the terminal shares shared addresses of the shared address set with other terminals.

12. The server as claimed in claim 11, wherein the one or more programs further comprise instructions of converting the file format of the at least one file.

13. The server as claimed in claim 12 wherein

the number of the at least one file is at least two, and

the one or more programs further comprises instructions of:

enabling at least two system modes in parallel, and

converting the files in sequence in each of the at least two system modes with

predetermined application installed in the server.

14. The server as claimed in claim 13 wherein the one or more programs further comprises instructions of:

configuring conversion parameters of the predetermined application, and

converting the files in sequence with the predetermined application after configuration.

15. The server as claimed in claim 12, wherein the one or more programs further comprises instructions of decomposing the at least one file into a plurality of file pages and converting each of the decomposed file pages to one of converted file pages with a predetermined file format.

16. The server as claimed in claim 15, wherein each of the shared address in the shared address set of the at least one file corresponds to one or multiple of the converted file pages with the predetermined file format.

17. A terminal, comprising:

one or more processors; and

a memory, the memory stores one or more programs, the one or more programs are configured to be executed by the one or more processors, the one or more programs comprise instructions of:

sending at least one file to a server, where the server generates a shared address set of the at least one file;

receiving the shared address set from the server; and

sharing shared addresses of the shared address set with other terminals.

18. The terminal as claimed in claim 17, wherein each of the shared addresses in the shared address set of the at least one file corresponds to one or multiple of converted file pages with a predetermined file format, the converted file pages with the predetermined file format are acquired through the manner of decomposing the at least one file into a plurality of file pages and converting the format of each of the decomposed file pages by the server.

19. The terminal as claimed in claim 18, wherein the one or more programs further comprises instruction of acquiring the converted file pages in accordance with the shared addresses of the shared address set.

20. The terminal as claimed in any one of claim 17 to 19, wherein the one or more

programs further comprises instructions of: sending the shared addresses of the shared addresses set to a predetermined equipment, the predetermined equipment broadcasting the shared addresses of the shared addresses set to the other terminals.