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(54) **VIDEO SHARING PLATFORM PROVIDING FOR PUBLIC AND PRIVATE SHARING AND DISTRIBUTED DOWNLOADS OF VIDEOS**

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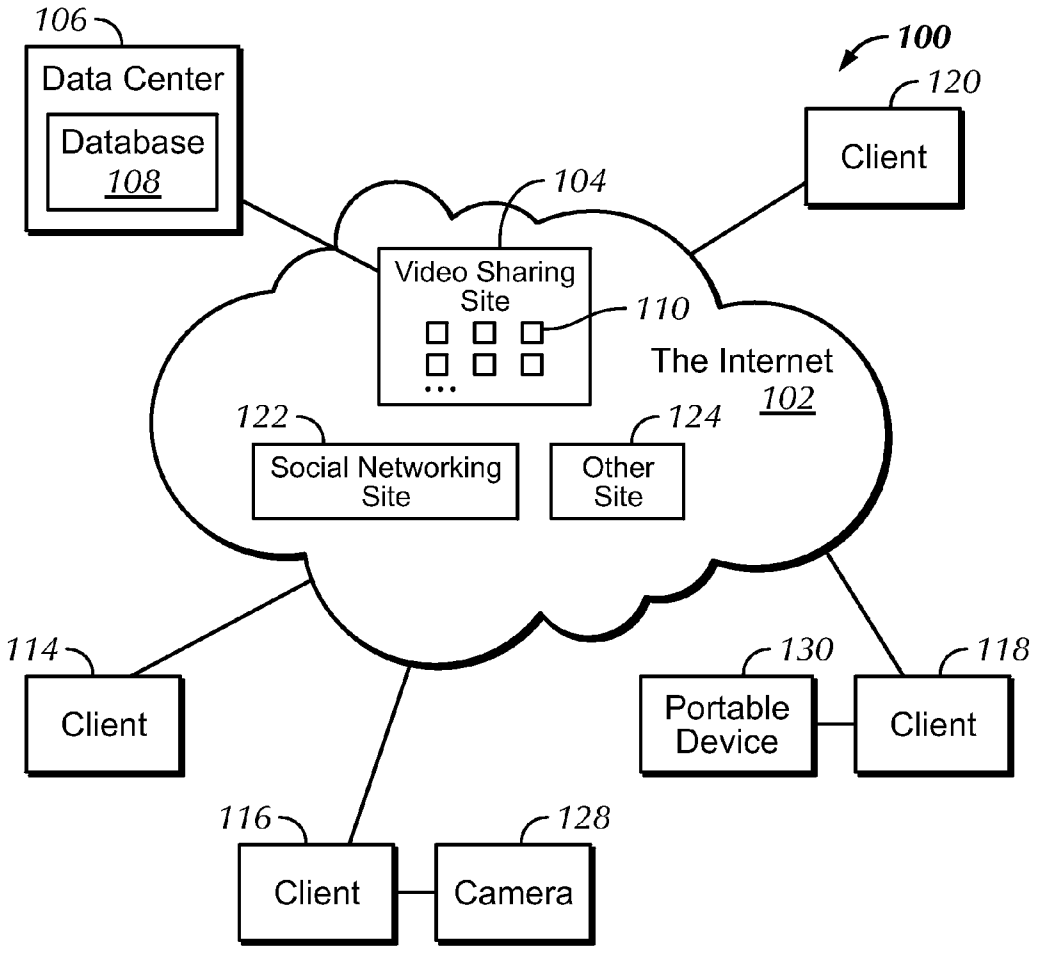
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(57) **ABSTRACT**

A method for use in providing content includes hosting a network site on a computer network, displaying on the network site links to one or more videos, and displaying on the network site at least an on-demand preview of a first video in response to a corresponding one of the links being selected. A storage medium stores a computer program for use on a client computer. Several other methods, systems and programs are also disclosed.



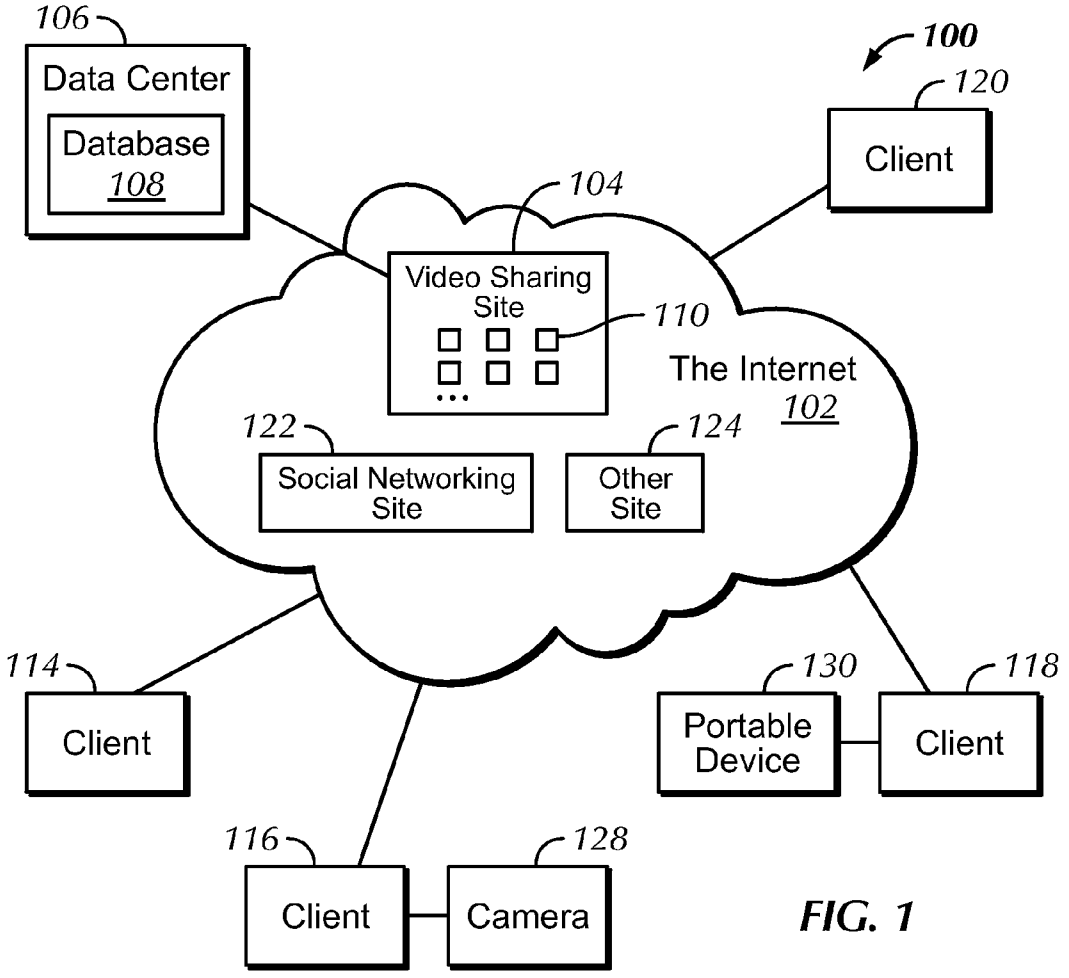

106
Data Center
Database
108
100
120
Client
104
Video Sharing
Site
110
The Internet
102
122
Social Networking
Site
124
Other
Site
114
Client
130
Portable
Device
118
Client
116
Client
128
Camera

FIG. 1

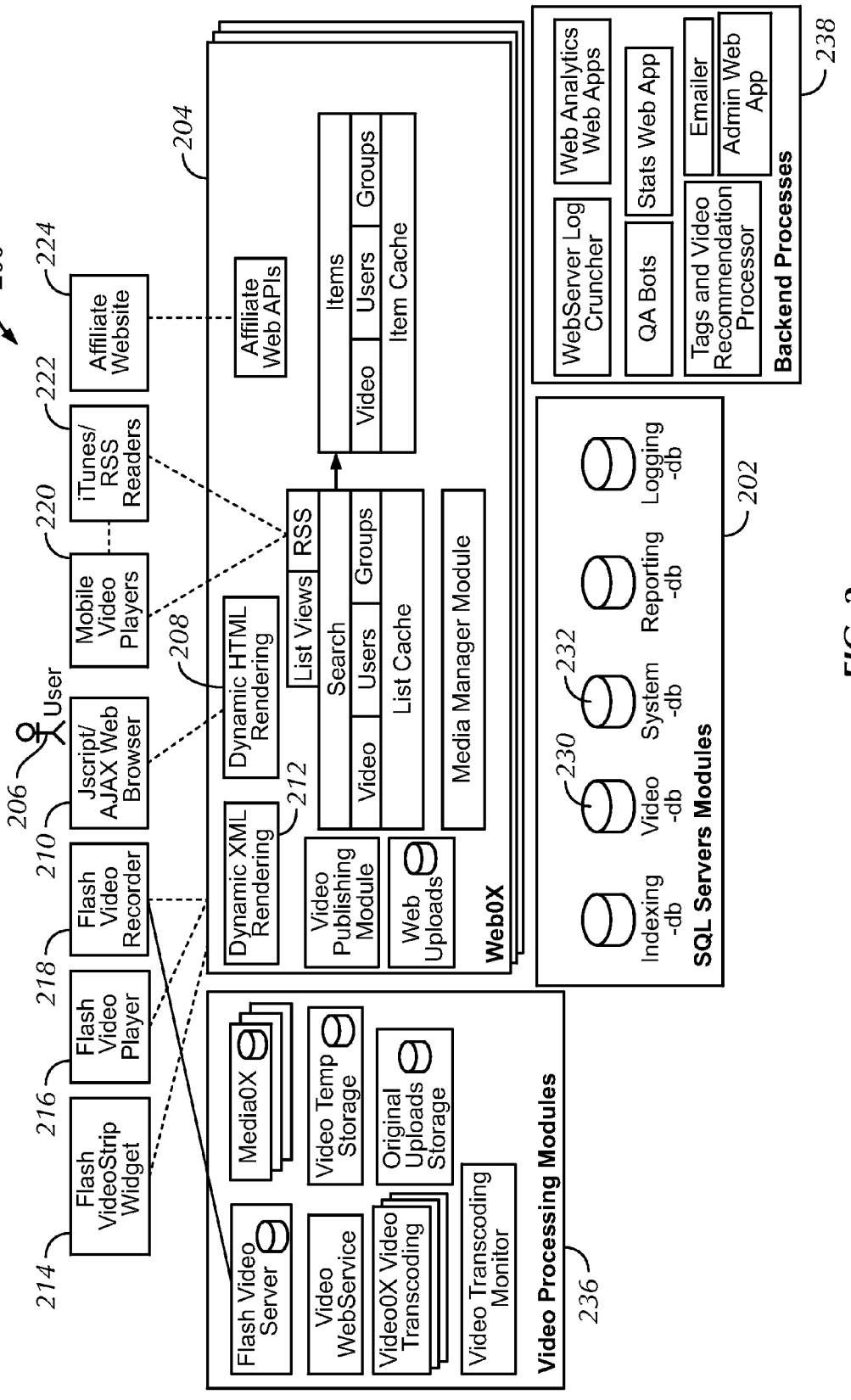

200
User
206
Flash VideoStrip Widget
214
Flash Video Player
216
Flash Video Recorder
218
Jscript/ AJAX Web Browser
210
Mobile Video Players
208
iTunes/ RSS Readers
220
Affiliate Website
222
224
Flash Video Server
Video WebService
Video0X Video Transcoding
Video Transcoding Monitor
Media0X
Video Temp Storage
Original Uploads Storage
Video Processing Modules
236
Dynamic XML Rendering
Dynamic HTML Rendering
212
Video Publishing Module
Web Uploads
Media Manager Module
List Views
RSS
Search
Video
Users
Groups
List Cache
Items
Video
Users
Groups
Item Cache
Affiliate Web APIs
Web0X
204
Indexing -db
Video -db
230
System -db
232
Reporting -db
Logging -db
SQL Servers Modules
202
WebServer Log Cruncher
QA Bots
Tags and Video Recommendation Processor
Web Analytics Web Apps
Stats Web App
Emailer
Admin Web App
Backend Processes
238

FIG. 2

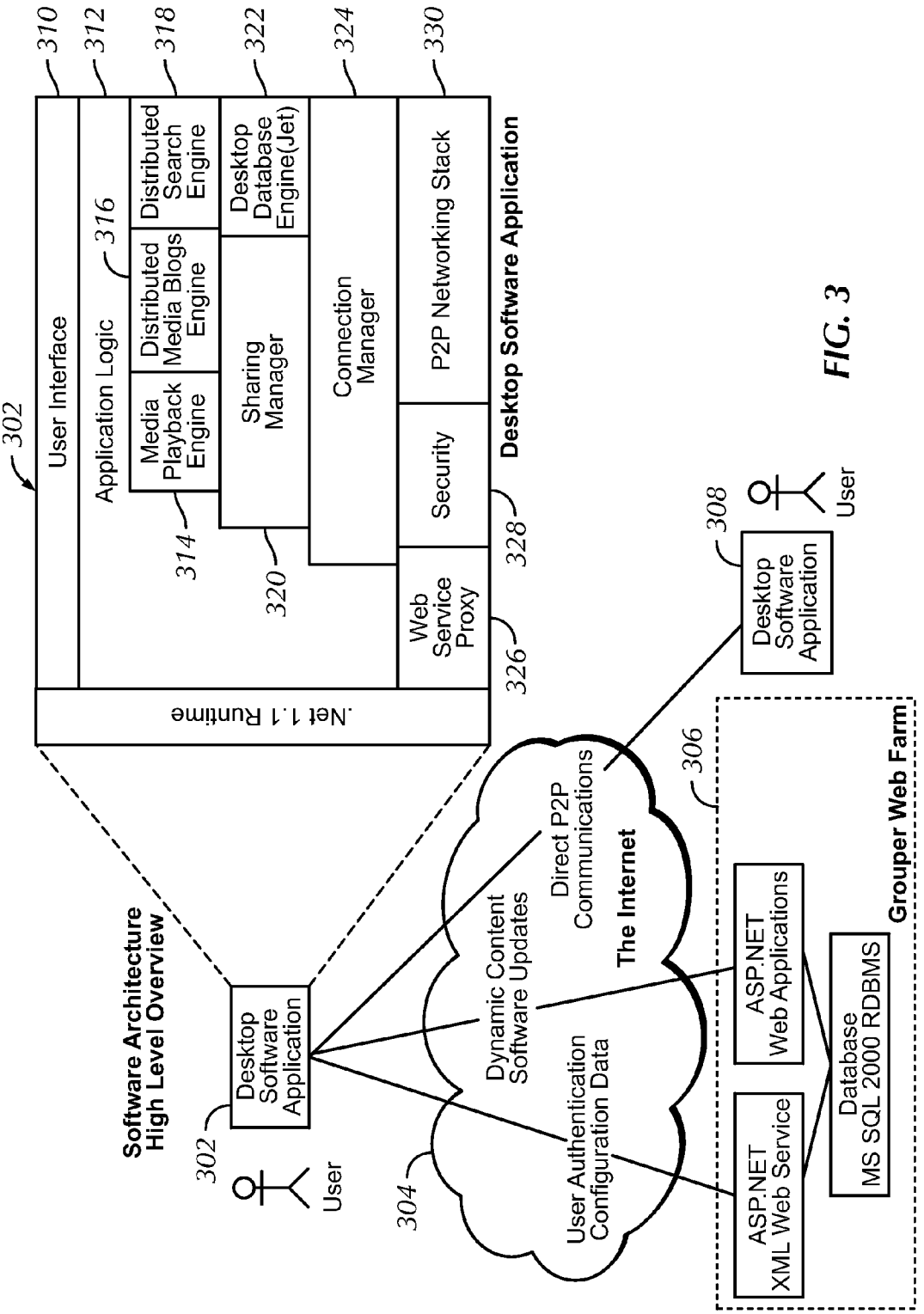

Software Architecture
High Level Overview
Desktop Software Application
User Interface
Application Logic
Media Playback Engine
Distributed Media Blogs Engine
Distributed Search Engine
Sharing Manager
Desktop Database Engine(Jet)
Connection Manager
Security
P2P Networking Stack
Web Service Proxy
.Net 1.1 Runtime
302
310
312
316
318
322
324
330
314
320
326
328
User
Dynamic Content Software Updates
Direct P2P Communications
User Authentication Configuration Data
The Internet
304
306
308
Desktop Software Application
ASP.NET XML Web Service
ASP.NET Web Applications
Database MS SQL 2000 RDBMS
Grouper Web Farm

FIG. 3

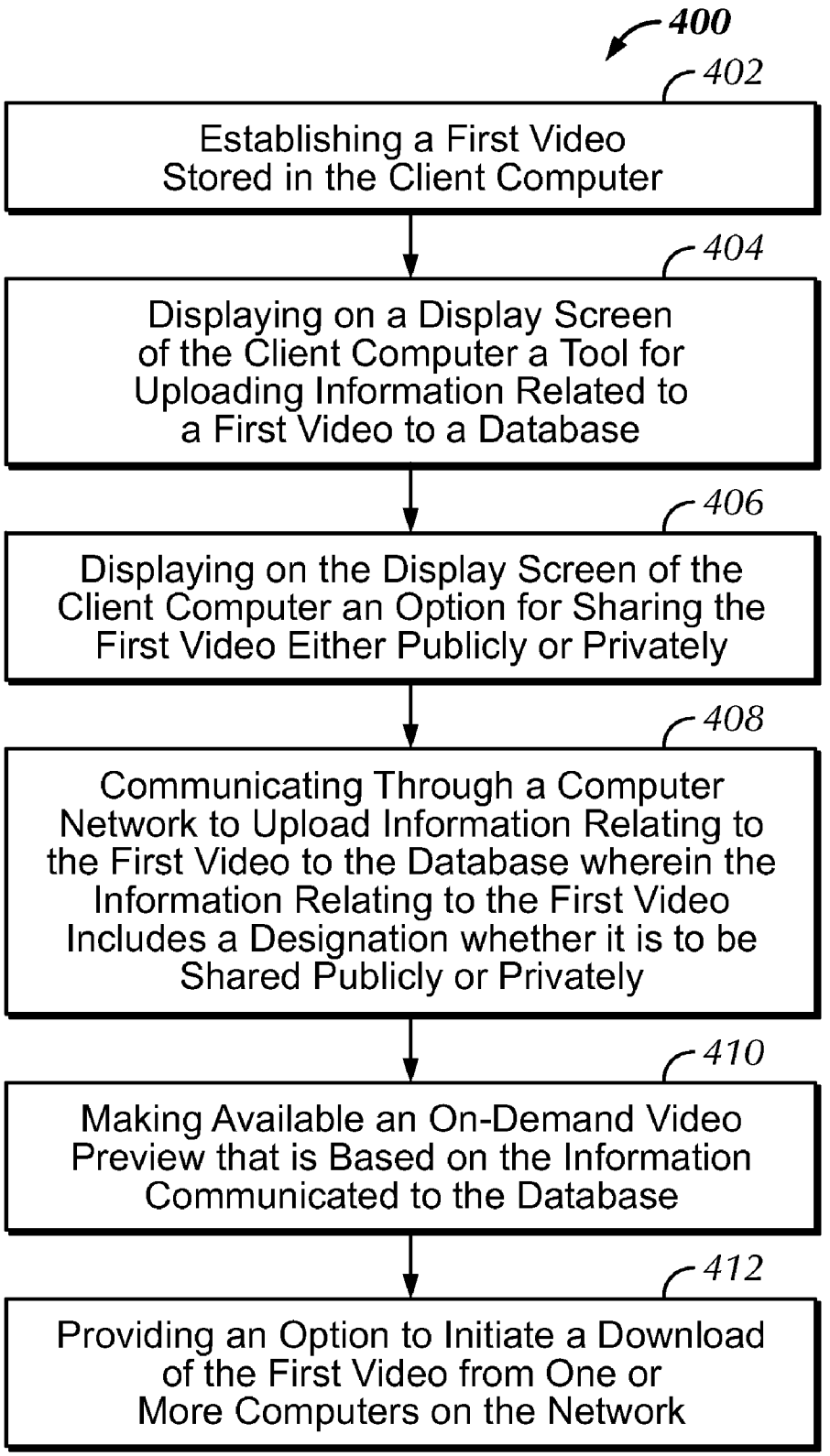

400
402
Establishing a First Video Stored in the Client Computer
404
Displaying on a Display Screen of the Client Computer a Tool for Uploading Information Related to a First Video to a Database
406
Displaying on the Display Screen of the Client Computer an Option for Sharing the First Video Either Publicly or Privately
408
Communicating Through a Computer Network to Upload Information Relating to the First Video to the Database wherein the Information Relating to the First Video Includes a Designation whether it is to be Shared Publicly or Privately
410
Making Available an On-Demand Video Preview that is Based on the Information Communicated to the Database
412
Providing an Option to Initiate a Download of the First Video from One or More Computers on the Network

FIG. 4

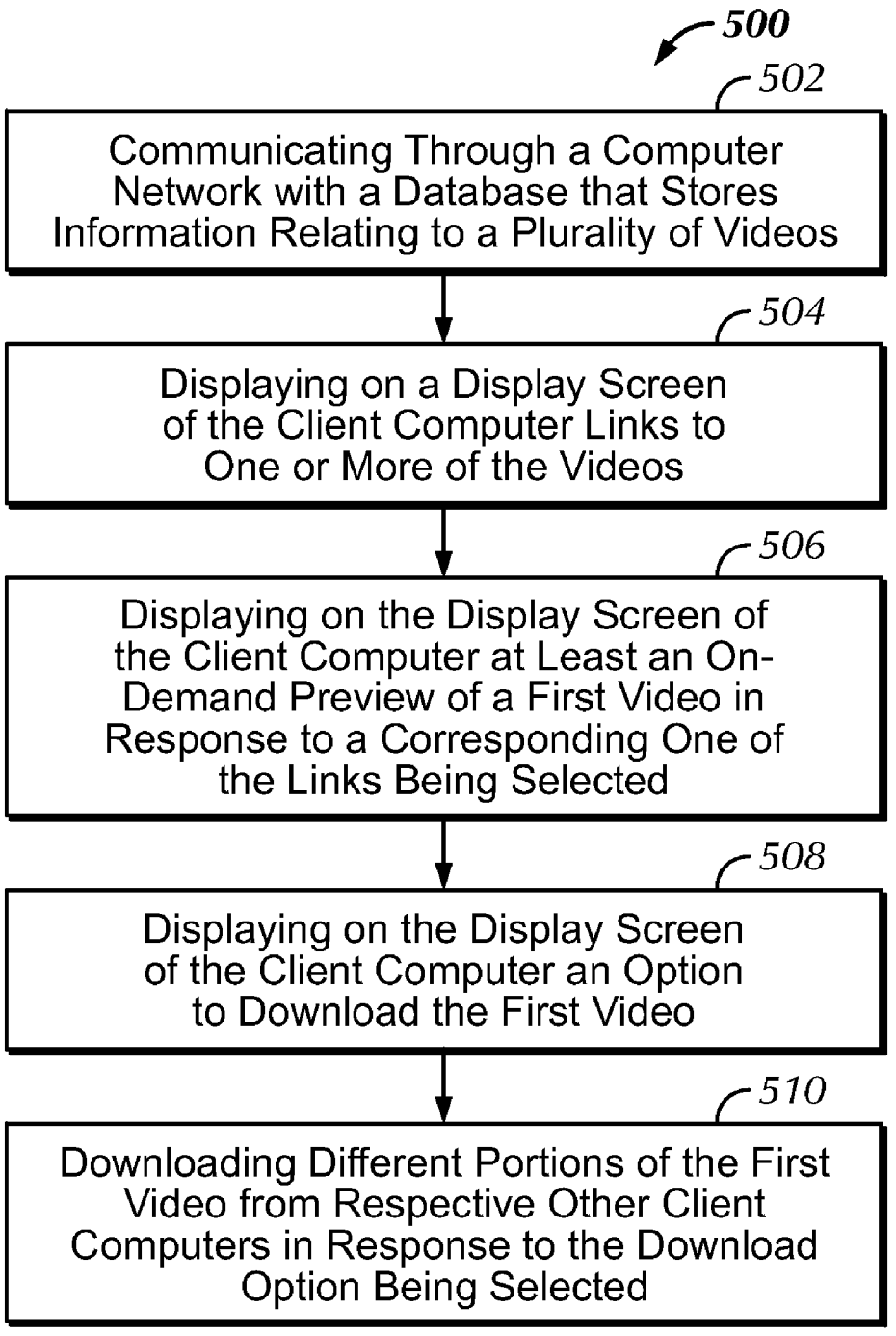

500
502
Communicating Through a Computer Network with a Database that Stores Information Relating to a Plurality of Videos
504
Displaying on a Display Screen of the Client Computer Links to One or More of the Videos
506
Displaying on the Display Screen of the Client Computer at Least an On-Demand Preview of a First Video in Response to a Corresponding One of the Links Being Selected
508
Displaying on the Display Screen of the Client Computer an Option to Download the First Video
510
Downloading Different Portions of the First Video from Respective Other Client Computers in Response to the Download Option Being Selected

FIG. 5

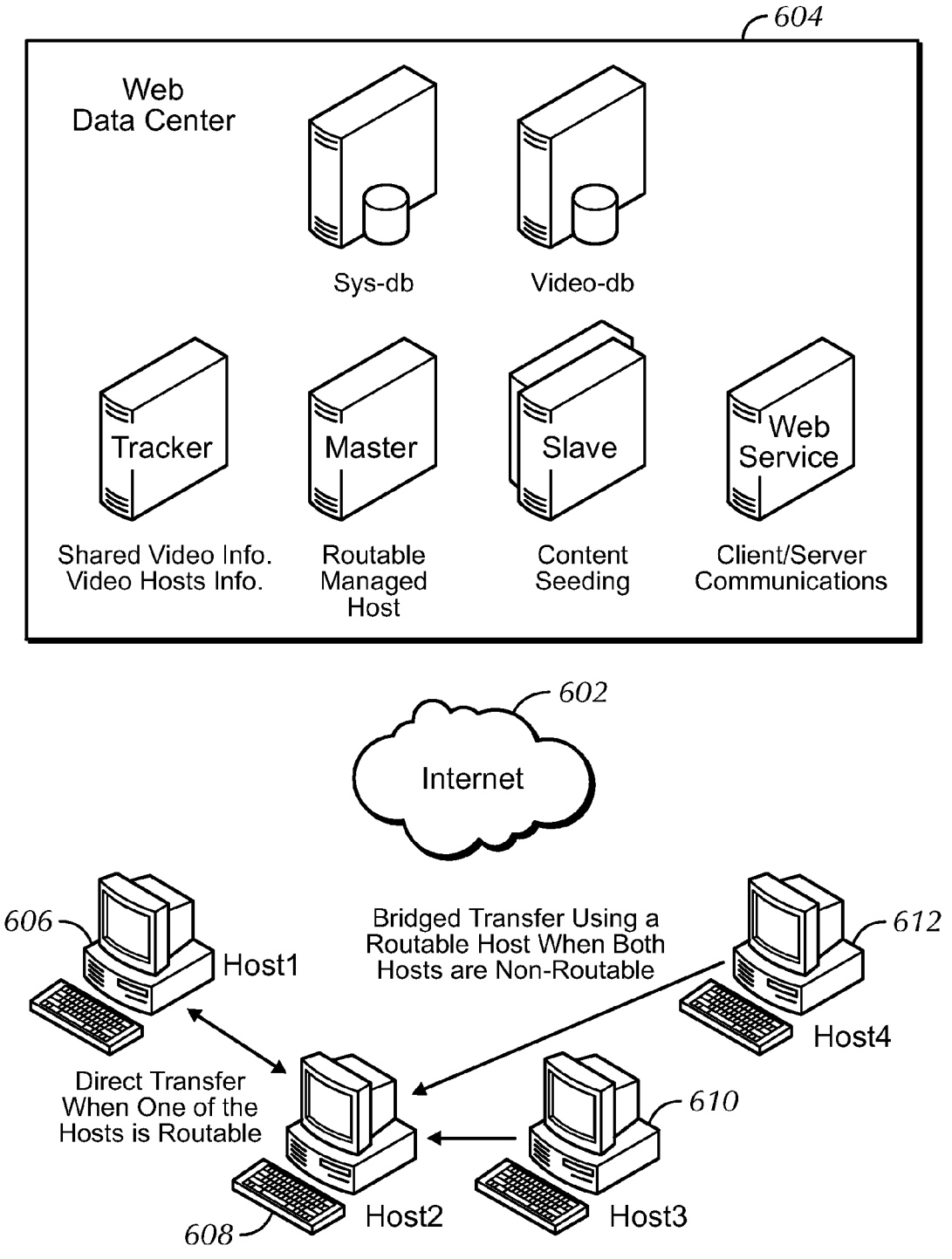

604
Web
Data Center
Sys-db
Video-db
Tracker
Master
Slave
Web
Service
Shared Video Info.
Video Hosts Info.
Routable
Managed
Host
Content
Seeding
Client/Server
Communications
602
Internet
606
Host1
Bridged Transfer Using a
Routable Host When Both
Hosts are Non-Routable
612
Host4
Direct Transfer
When One of the
Hosts is Routable
610
608
Host2
Host3

FIG. 6

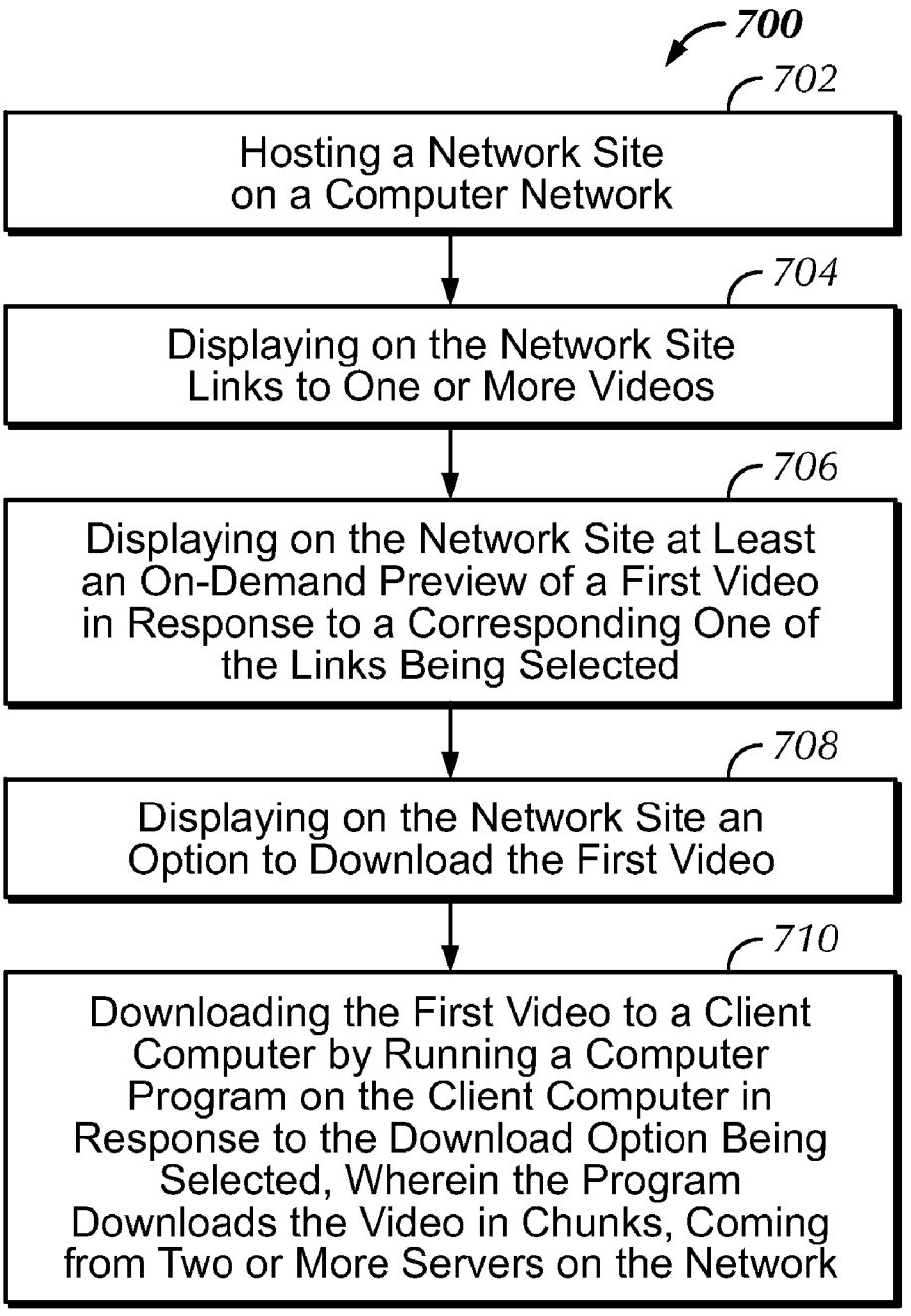

700
702
Hosting a Network Site on a Computer Network
704
Displaying on the Network Site Links to One or More Videos
706
Displaying on the Network Site at Least an On-Demand Preview of a First Video in Response to a Corresponding One of the Links Being Selected
708
Displaying on the Network Site an Option to Download the First Video
710
Downloading the First Video to a Client Computer by Running a Computer Program on the Client Computer in Response to the Download Option Being Selected, Wherein the Program Downloads the Video in Chunks, Coming from Two or More Servers on the Network

FIG. 7

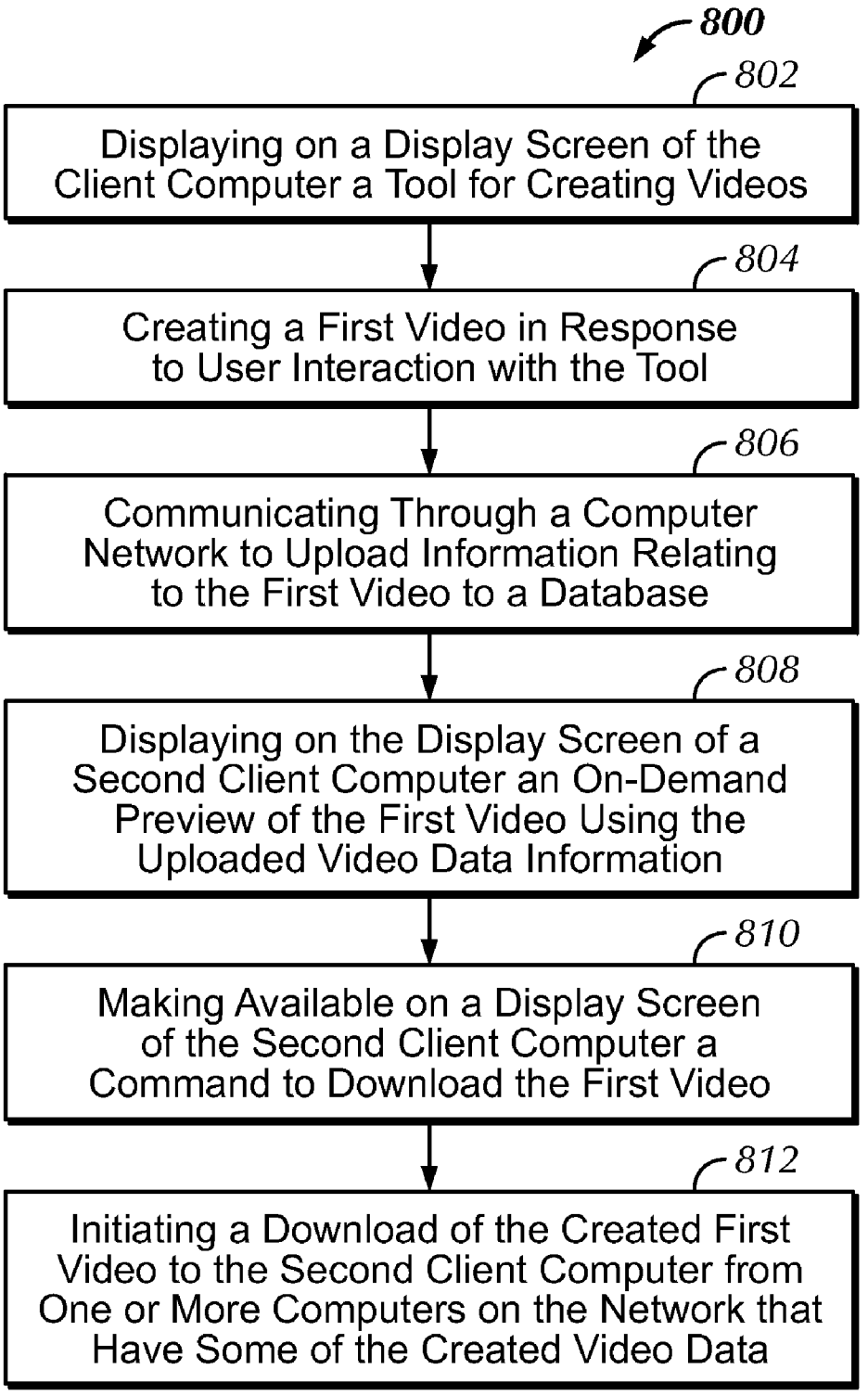

800
802
Displaying on a Display Screen of the Client Computer a Tool for Creating Videos
804
Creating a First Video in Response to User Interaction with the Tool
806
Communicating Through a Computer Network to Upload Information Relating to the First Video to a Database
808
Displaying on the Display Screen of a Second Client Computer an On-Demand Preview of the First Video Using the Uploaded Video Data Information
810
Making Available on a Display Screen of the Second Client Computer a Command to Download the First Video
812
Initiating a Download of the Created First Video to the Second Client Computer from One or More Computers on the Network that Have Some of the Created Video Data

FIG. 8

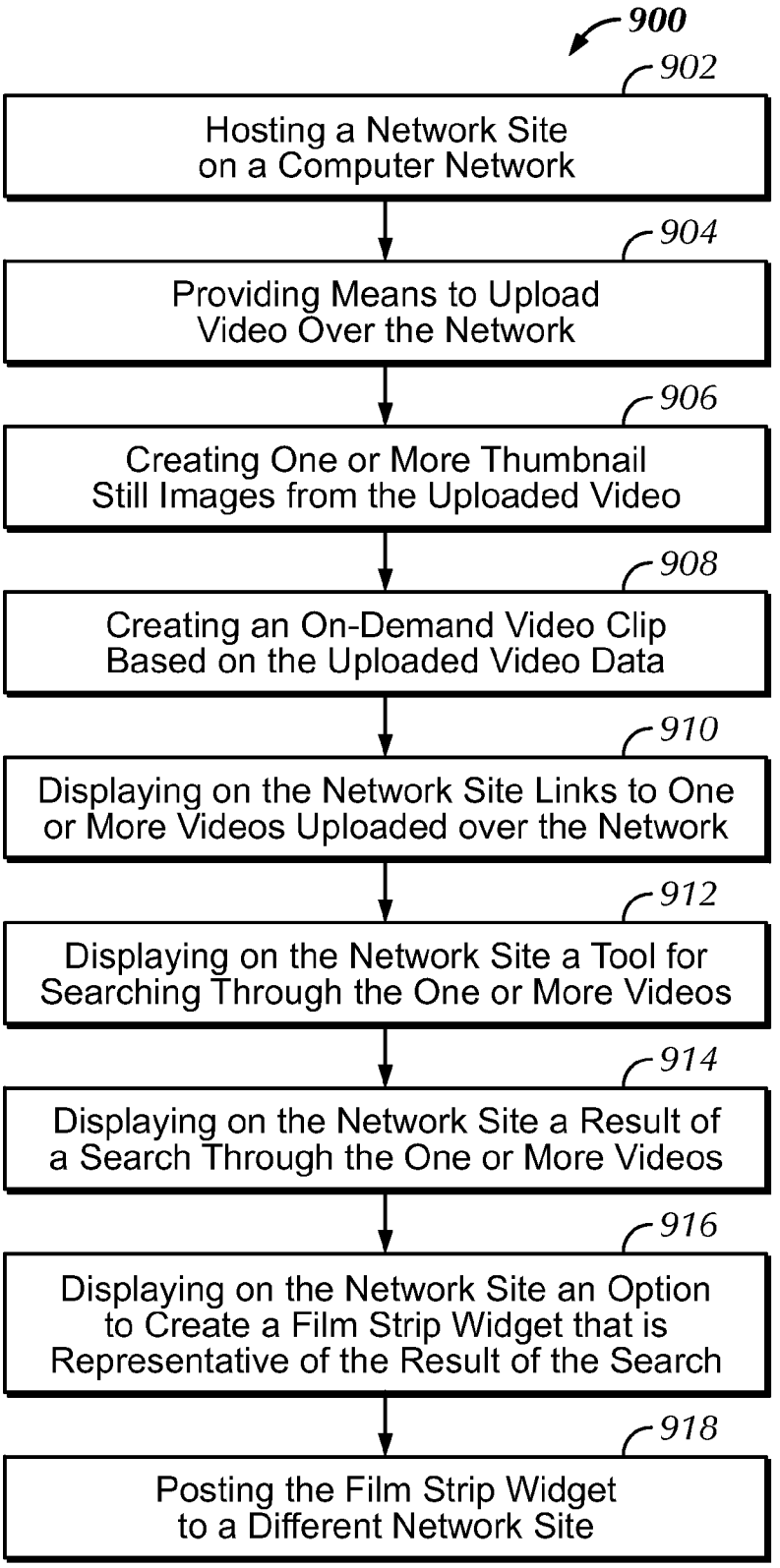

900
902
Hosting a Network Site on a Computer Network
904
Providing Means to Upload Video Over the Network
906
Creating One or More Thumbnail Still Images from the Uploaded Video
908
Creating an On-Demand Video Clip Based on the Uploaded Video Data
910
Displaying on the Network Site Links to One or More Videos Uploaded over the Network
912
Displaying on the Network Site a Tool for Searching Through the One or More Videos
914
Displaying on the Network Site a Result of a Search Through the One or More Videos
916
Displaying on the Network Site an Option to Create a Film Strip Widget that is Representative of the Result of the Search
918
Posting the Film Strip Widget to a Different Network Site

FIG. 9

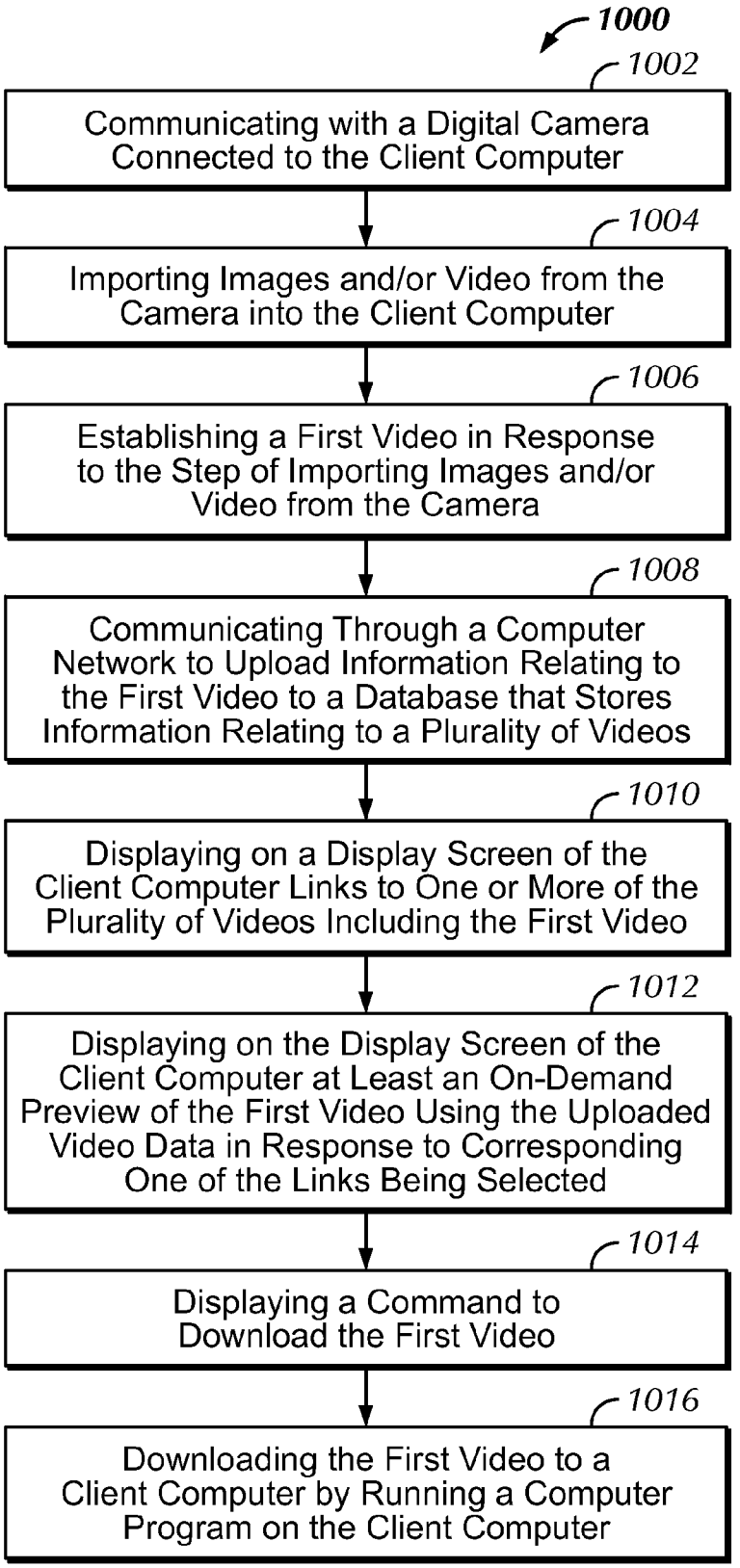

1000
1002
Communicating with a Digital Camera Connected to the Client Computer
1004
Importing Images and/or Video from the Camera into the Client Computer
1006
Establishing a First Video in Response to the Step of Importing Images and/or Video from the Camera
1008
Communicating Through a Computer Network to Upload Information Relating to the First Video to a Database that Stores Information Relating to a Plurality of Videos
1010
Displaying on a Display Screen of the Client Computer Links to One or More of the Plurality of Videos Including the First Video
1012
Displaying on the Display Screen of the Client Computer at Least an On-Demand Preview of the First Video Using the Uploaded Video Data in Response to Corresponding One of the Links Being Selected
1014
Displaying a Command to Download the First Video
1016
Downloading the First Video to a Client Computer by Running a Computer Program on the Client Computer

FIG. 10

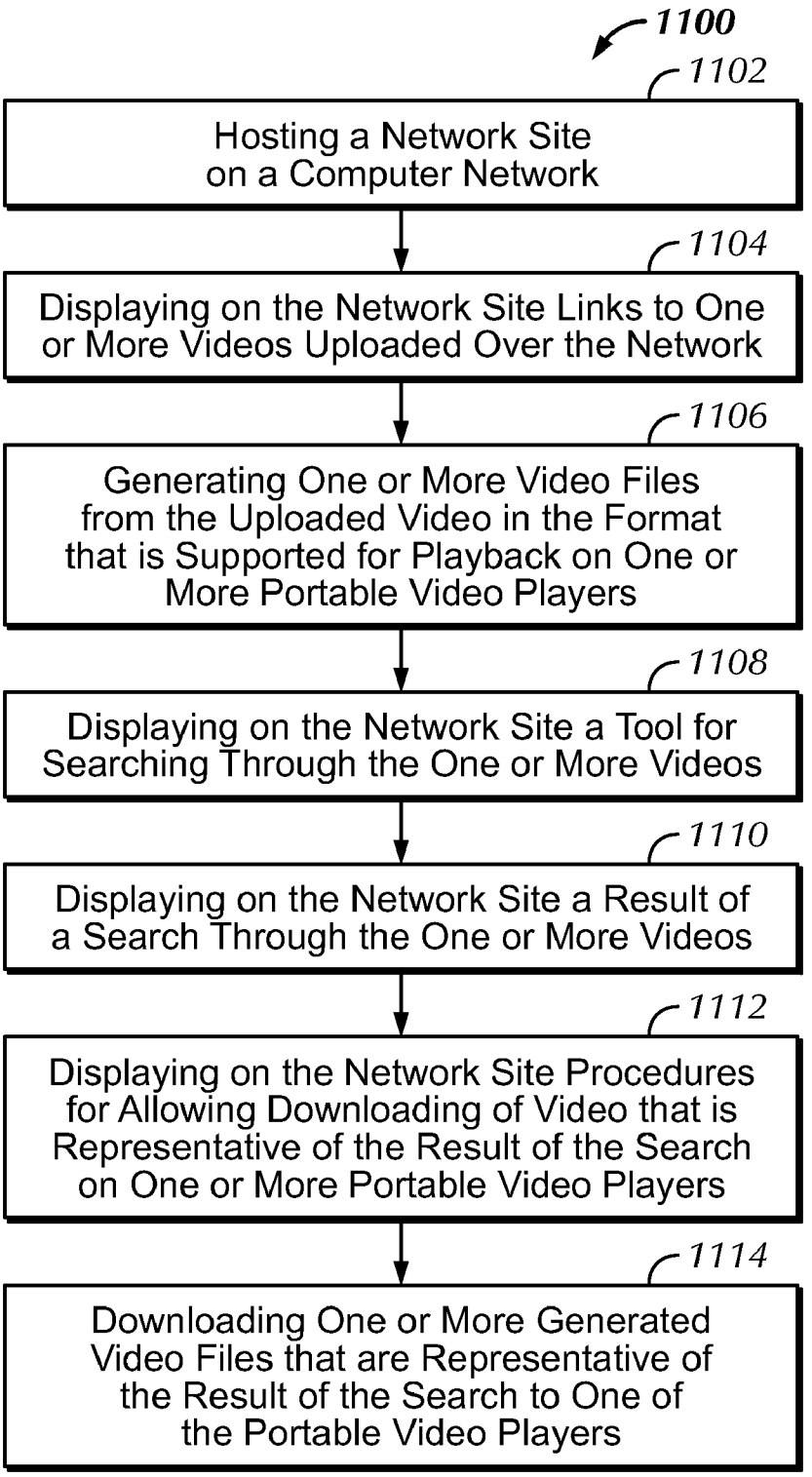

1100
1102
Hosting a Network Site on a Computer Network
1104
Displaying on the Network Site Links to One or More Videos Uploaded Over the Network
1106
Generating One or More Video Files from the Uploaded Video in the Format that is Supported for Playback on One or More Portable Video Players
1108
Displaying on the Network Site a Tool for Searching Through the One or More Videos
1110
Displaying on the Network Site a Result of a Search Through the One or More Videos
1112
Displaying on the Network Site Procedures for Allowing Downloading of Video that is Representative of the Result of the Search on One or More Portable Video Players
1114
Downloading One or More Generated Video Files that are Representative of the Result of the Search to One of the Portable Video Players

FIG. 11

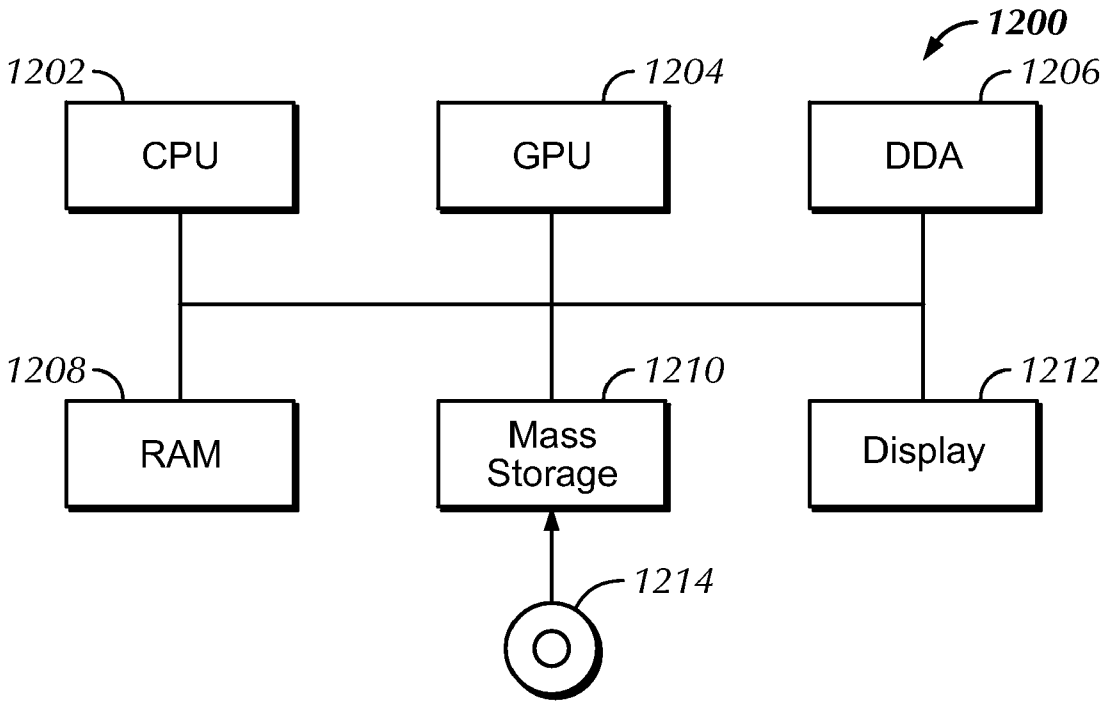

1200
1202
CPU
1204
GPU
1206
DDA
1208
RAM
1210
Mass Storage
1212
Display
1214

FIG. 12

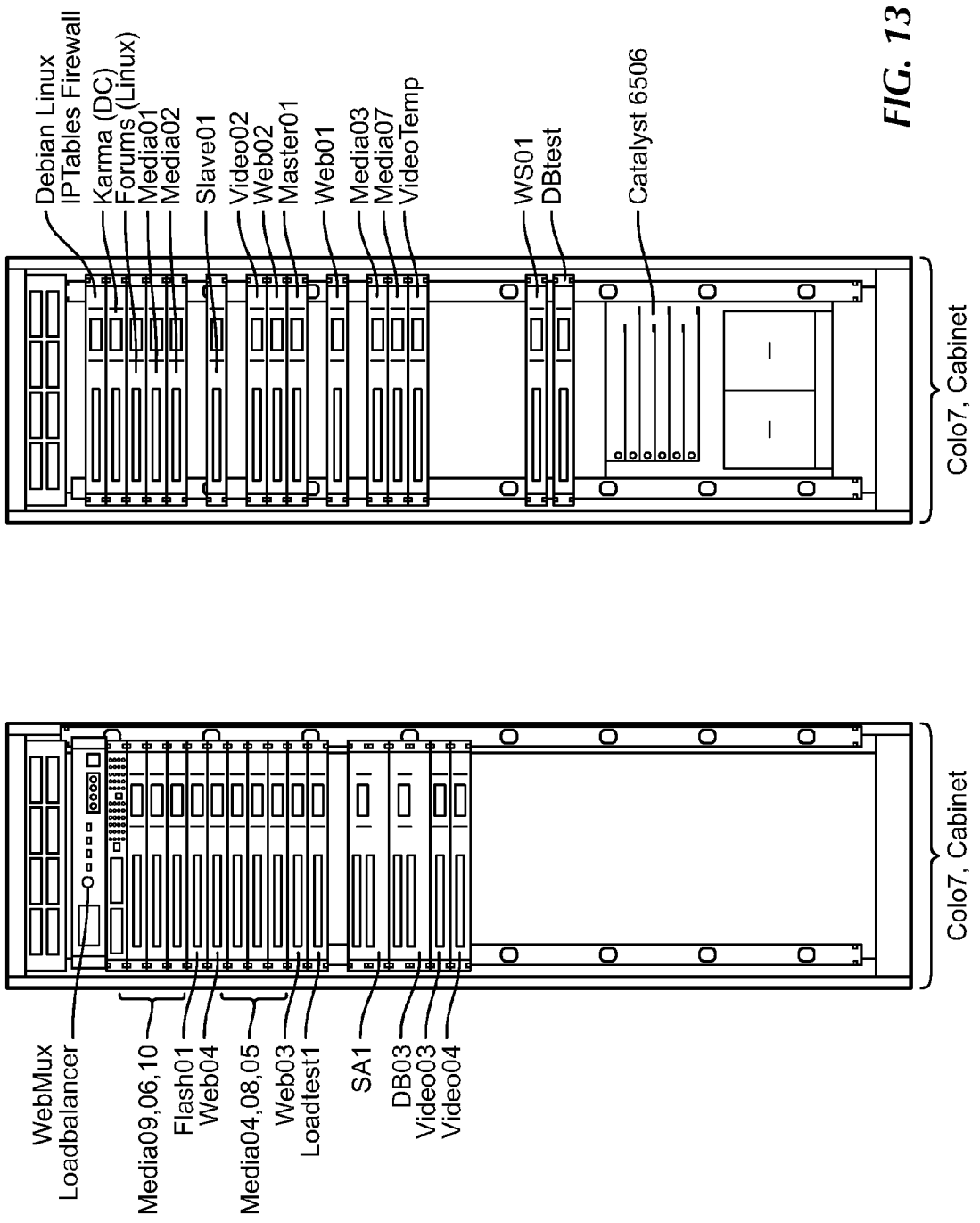

Debian Linux
IPTables Firewall
Karma (DC)
Forums (Linux)
Media01
Media02
Slave01
Video02
Web02
Master01
Web01
Media03
Media07
VideoTemp
WS01
DBtest
Catalyst 6506
Colo7, Cabinet
WebMux
Loadbalancer
Media09,06,10
Flash01
Web04
Media04,08,05
Web03
Loadtest1
SA1
DB03
Video03
Video04
Colo7, Cabinet

FIG. 13

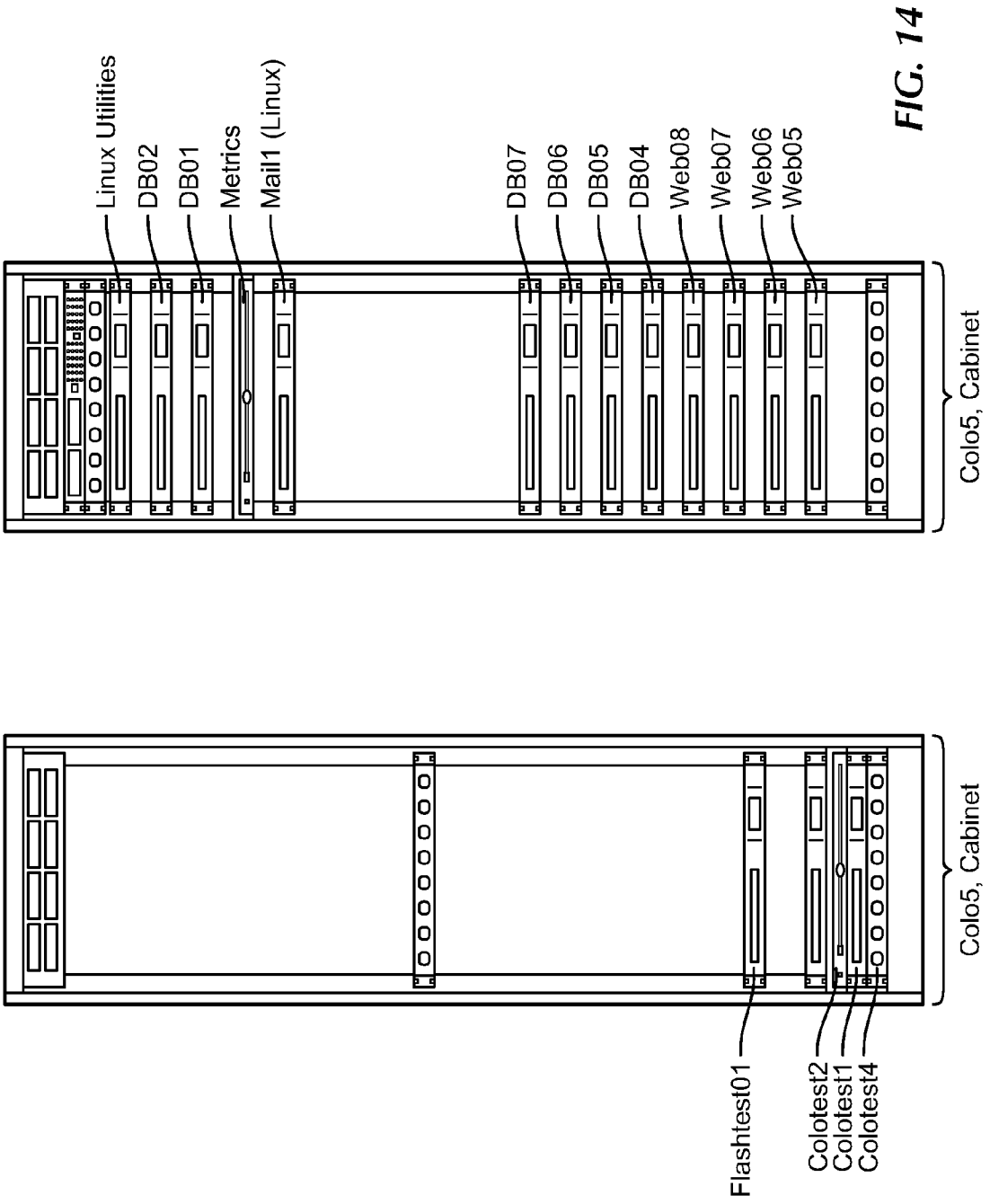

Linux Utilities
DB02
DB01
Metrics
Mail1 (Linux)
DB07
DB06
DB05
DB04
Web08
Web07
Web06
Web05
Colo5, Cabinet
Colo5, Cabinet
Flashtest01
Colotest2
Colotest1
Colotest4

FIG. 14

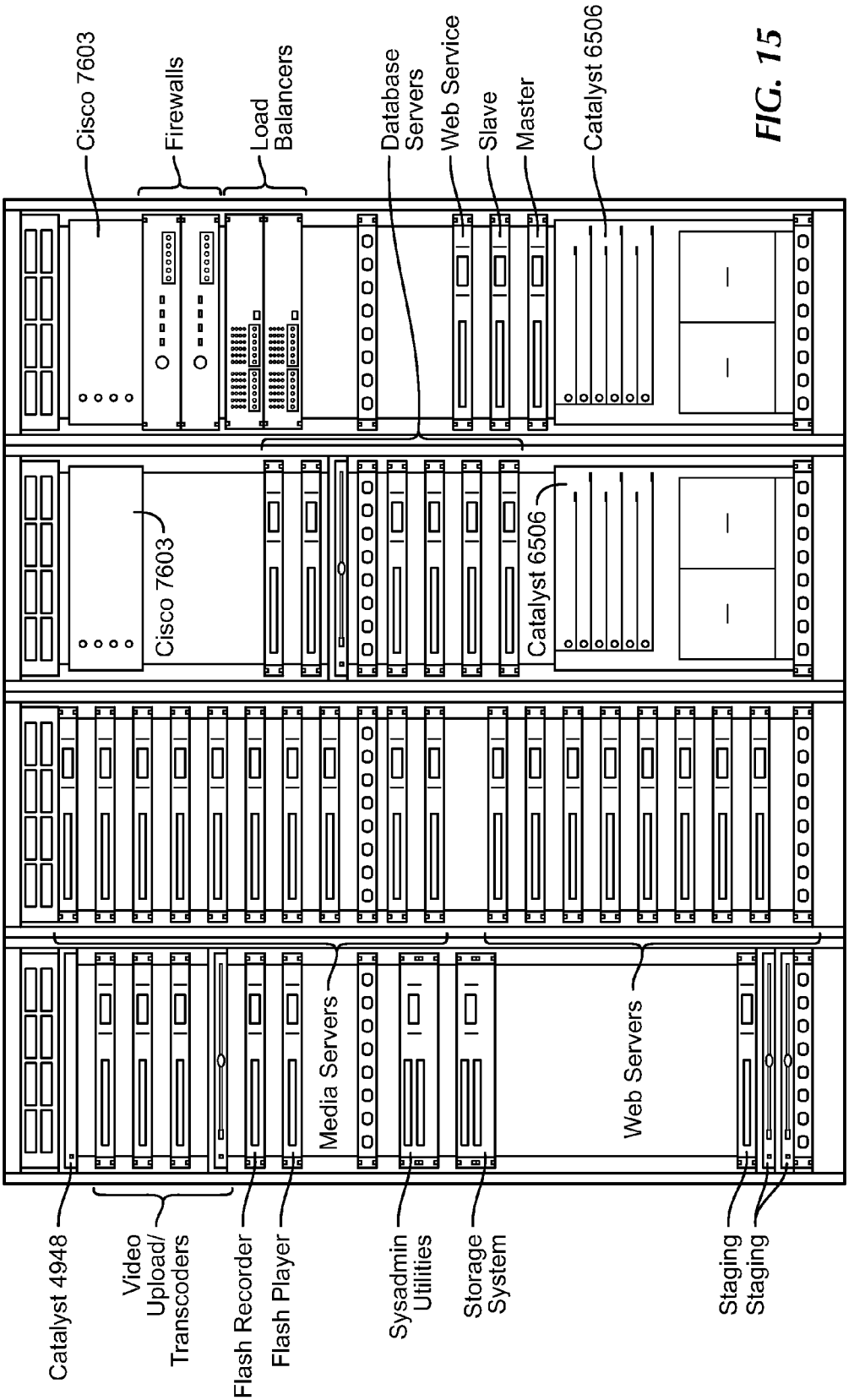

Cisco 7603
Firewalls
Load Balancers
Database Servers
Web Service
Slave
Master
Catalyst 6506
Cisco 7603
Catalyst 6506
Media Servers
Web Servers
Catalyst 4948
Video Upload/ Transcoders
Flash Recorder
Flash Player
Sysadmin Utilities
Storage System
Staging
Staging

FIG. 15

VIDEO SHARING PLATFORM PROVIDING FOR PUBLIC AND PRIVATE SHARING AND DISTRIBUTED DOWNLOADS OF VIDEOS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Patent Application No. 60/868,713, filed Dec. 5, 2006, entitled "VIDEO SHARING PLATFORM," the entire disclosure of which is hereby incorporated herein by reference in its entirety.

[0002] This application is related to U.S. patent application Ser. No. _____, filed on the same date as this application, entitled "TOOL FOR CREATING CONTENT FOR VIDEO SHARING PLATFORM," identified as Attorney Docket No. 86480 [50W8718.03], the entire disclosure of which is hereby incorporated herein by reference in its entirety.

[0003] This application is related to U.S. patent application Ser. No. _____, filed on the same date as this application, entitled "VIDEO SHARING PLATFORM PROVIDING FOR POSTING CONTENT TO OTHER WEBSITES," identified as Attorney Docket No. 86481 [50W8718.04], the entire disclosure of which is hereby incorporated herein by reference in its entirety.

[0004] This application is related to U.S. patent application Ser. No. _____, filed on the same date as this application, entitled "VIDEO SHARING PLATFORM PROVIDING FOR DOWNLOADING OF CONTENT TO PORTABLE DEVICES," identified as Attorney Docket No. 86482 [50W8718.05], the entire disclosure of which is hereby incorporated herein by reference in its entirety.

BACKGROUND OF THE INVENTION

[0005] 1. Field of the Invention

[0006] The present invention relates generally to content sharing and delivery, and more specifically to the sharing and delivery of video over large networks such as the Internet.

[0007] 2. Discussion of the Related Art

[0008] The proliferation of digital content and the ability to easily distribute such content via the Internet has provided the public with immense convenience, efficiency and flexibility. Furthermore, the ability to easily distribute content via the Internet has also created opportunities to provide entertaining websites, applications, etc.

[0009] It is with respect to these and other background information factors that the present invention has evolved.

SUMMARY OF THE INVENTION

[0010] One embodiment provides a storage medium storing a computer program for use in uploading content from a client computer, the computer program causing the client computer to execute steps comprising: establishing a first video stored in the client computer; displaying on a display screen of the client computer a tool for uploading information related to a first video to a database that stores information relating to the video, wherein the information includes some or all of the video; displaying on the display screen of the client computer an option for sharing the first video either publicly or privately; communicating through a computer network to upload information relating to the first video to the database that stores information relating to a plurality of videos, wherein the information relating to the first video includes a designation whether it is to be shared publicly or privately; making available an on-demand video preview that is based on the information communicated to the database; and providing an option to initiate a download of the first video in pieces from two or more computers on the network.

[0011] One embodiment provides a storage medium storing a computer program for use in receiving content at a client computer, the computer program causing the client computer to execute steps comprising: communicating through a computer network with a database that stores information relating to a plurality of videos; displaying on a display screen of the client computer links to one or more of the videos; displaying on the display screen of the client computer at least an on-demand preview of a first video in response to a corresponding one of the links being selected; displaying on the display screen of the client computer an option to download the first video; and downloading different portions of the first video from respective other client computers in response to the download option being selected.

[0012] Another embodiment provides a system for use in sharing content, comprising: a data center that includes a database that stores information relating to a plurality of videos, wherein the data center is configured to display on a network site links to one or more of the videos, at least an on-demand preview of a first video in response to a corresponding one of the links being selected, and an option to download the first video; at least two client computers that each store different portions of the first video, wherein the data center is further configured to keep track of which client computer has what portion of the first video; and another client computer that is configured to request from the data center a list of file sources for the first video and then download the different portions of the first video from the at least two client computers in response to the download option being selected.

[0013] Another embodiment provides a method for use in providing content, comprising: hosting a network site on a computer network; displaying on the network site links to one or more videos; displaying on the network site at least an on-demand preview of a first video in response to a corresponding one of the links being selected;

[0014] displaying on the network site an option to download the first video; and downloading the first video to a client computer by running a computer program on the client computer in response to the download option being selected, wherein the program downloads the first video in chunks, coming from two or more servers on the network.

[0015] Another embodiment provides a storage medium storing a computer program for use in manipulating content on a client computer, the computer program causing the client computer to execute steps comprising: communicating with a digital camera connected to the client computer; importing images and/or video from the camera into the client computer; establishing a first video in response to the step of importing images and/or video from the camera; communicating through a computer network to upload information relating to the first video to a database that stores information relating to a plurality of videos including video data of some or all of the first video; displaying on a display screen of the client computer links to one or more of the plurality of videos including the first video; displaying on the display screen of the client computer at least an on-demand preview of the first video using the uploaded video data in response to a corresponding one of the links being selected; displaying a command to download the first video; and downloading the first

video to a client computer by running a computer program on the client computer in response to the download option being selected, wherein the program downloads the video in chunks, coming from two or more servers on the network.

[0016] A better understanding of the features and advantages of various embodiments of the present invention will be obtained by reference to the following detailed description and accompanying drawings which set forth an illustrative embodiment in which principles of embodiments of the invention are utilized.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The above and other aspects, features and advantages of embodiments of the present invention will be more apparent from the following more particular description thereof, presented in conjunction with the following drawings wherein:

[0018] FIG. **1** is a block diagram illustrating a system that operates in accordance with an embodiment of the present invention;

[0019] FIG. **2** is a block diagram illustrating an example architecture that may be used for the data center shown in FIG. **1** in accordance with an embodiment of the present invention;

[0020] FIG. **3** is a block diagram illustrating an example architecture that may be used for a client software application in accordance with an embodiment of the present invention;

[0021] FIG. **4** is a flow diagram illustrating a method that operates in accordance with an embodiment of the present invention;

[0022] FIG. **5** is a flow diagram illustrating a method that operates in accordance with another embodiment of the present invention; FIG. **6** is a block diagram illustrating an example of a distributed download in accordance with an embodiment of the present invention;

[0023] FIG. **7** is a flow diagram illustrating a method that operates in accordance with another embodiment of the present invention;

[0024] FIG. **8** is a flow diagram illustrating a method that operates in accordance with another embodiment of the present invention;

[0025] FIG. **9** is a flow diagram illustrating a method that operates in accordance with another embodiment of the present invention;

[0026] FIG. **10** is a flow diagram illustrating a method that operates in accordance with another embodiment of the present invention;

[0027] FIG. **11** is a flow diagram illustrating a method that operates in accordance with another embodiment of the present invention;

[0028] FIG. **12** is a block diagram illustrating a computer system that may be used to run, implement and/or execute the methods shown and described herein in accordance with embodiments of the present invention; and

[0029] FIGS. **13**, **14** and **15** are schematic diagrams illustrating example physical layouts that may be used for the data center shown in FIG. **1** in accordance with embodiments of the present invention.

DETAILED DESCRIPTION

[0030] Various embodiments of the present invention provide various methods, techniques and features that may be used in a video sharing platform. A video sharing platform generally comprises a website or software where a user can distribute video clips. Some embodiments provide for a video sharing platform itself.

[0031] Some embodiments allow users to watch, share and create video on the Web, desktop and/or connected devices. Some embodiments may be used in the so-called user-generated video space in which users browse videos on a video sharing website and have the option to post them to a wide variety of third party websites directly from the video sharing website. For example, in some embodiments, with one-click, users can add video to their personal pages on a social networking website (e.g., MySpace, Facebook, Y!360, Friendster, Blogger, etc.) and/or any other webpage.

[0032] Referring to FIG. **1**, there is illustrated a system **100** that operates in accordance with an embodiment of the present invention. The system **100** includes a computer network **102**, such as for example the Internet. A network site **104**, such as for example a video sharing site, may be hosted on the network **102**. A data center **106** associated with the network site **104** includes a database **108**. The data center **106** may communicate with the network site **104** through the computer network **102**. In some embodiments the database **108** stores information relating to a plurality of videos, and the network site **104** may include links **110** to one or more of the videos.

[0033] In some embodiments at least an on-demand preview of one of the videos may be displayed on the network site **104** in response to a corresponding one of the links being selected. An option to download a video may also be displayed on the network site **104**. In some embodiments a video is downloaded to a client computer by running a client software application on the client computer in response to the download option being selected. In general, streaming may comprise playing a file as it downloads, without having to wait for the download to finish, whereas with downloading the file is copied from the Web sever to the user's computer.

[0034] In some embodiments a tool for searching through the videos may be displayed on the network site **104**. A result of a search through the videos may be displayed on the network site **104** in response to a search.

[0035] One or more client computers or other devices **114**, **116**, **118**, **120** may also be connected or have access to the network **102**. Such client computers may be used to visit the network site **104**, or other sites such as a social networking site **122**, or any other site, such as the site **124**.

[0036] In some embodiments the client computers or other devices **114**, **116**, **118**, **120** may include a client software application that facilitates communication through the computer network **102** with the data center **106** and database **108**. Links to one or more of the videos associated with the database **108** may be displayed on a display screen of the client computer. Furthermore, at least an on-demand preview of videos may be displayed on the display screen of the client computers in response to a corresponding one of the links being selected. In some embodiments an option to download a video may be displayed on the display screen of the client computer. In some embodiments the client software application may facilitate other functions, as will be described below.

[0037] An example architecture that may be used for the data center **106** in accordance with an embodiment of the present invention is illustrated in FIG. **2**. Specifically, the example architecture **200** includes a database **202** and a media manager **204**. Similar to as described above, the database **202** may store information relating to a plurality of videos. The

database **202** may include one or more separate or subdivided databases, such as for example a video database **230** for storing information and/or data related to videos, and a system database **232** for storing system information such as for example user or member information and other information or data.

[0038] In some embodiments many different outputs may be used with the media manager **204** to provide output to a user **206**. For example, dynamic HTML rendering **208** may be used to render to a web browser **210**. Dynamic XML rendering **212** may also be used for applications such as client applications, web-based applications and web services that consume XML data such as RSS readers, Apple iTunes Software, SONY PSP Media Manager and Internet video search engines that can consume XML and Media RSS feeds. In some embodiments output may be to a flash videostrip widget **214** and/or a flash video player **216**, both of which will be described below. In some embodiments a flash video recorder **218** may be used to provide input to the architecture **200**. In some embodiments output may also be provided to mobile video players **220** and portable audio or RSS (really simple syndication) readers **222**. In some embodiments output may also be provided to one or more affiliate websites **224**.

[0039] In some embodiments the architecture **200** may includes a video processing module **236** and a backend processes module **238**. By way of example, the video processing module **236** may be used to process the video received from the flash video recorder **218**. The backend processes module **238** may be used for one or more of web server logs, web analysis, QA bots, statistics, tags, as an emailer, admin web applications, etc.

[0040] An example client software application that may be used in accordance with an embodiment of the present invention is illustrated in FIG. **3**. Specifically, as mentioned above, a client software application **302** may be used to facilitate communication through a computer network **304** with a data center **306**. In addition, in some embodiments the client software application **302** may also be used to facilitate communication through the computer network **304** with other peer client computers **308**.

[0041] In some embodiments, the client software application **302** may include a user interface **310**, application logic **312**, media playback engine **314**, distributed media blogs engine **316**, distributed search engine **318**, sharing manager **320**, desktop database engine **322**, connection manager **324**, web service proxy **326**, security layer **328**, and peer-to-peer (P2P) networking stack **330**.

[0042] Some embodiments of the present invention provide for public and private sharing of videos or other content. Namely, in some embodiments, the network site **104** (FIG. **1**) may be used to share videos privately, such as sharing within small groups of family, friends and people of related interests. In some embodiments, the network site **104** (FIG. **1**) may be used to share videos publicly. Namely, users may share and download video and image files publicly. In some embodiments, the client software application may include a "share publicly" icon. By clicking this icon a user can share videos and photos publicly, e.g. with the entire world. Anyone can look at the network site **104** and peruse the images and videos that are shared publicly.

[0043] For example, in some embodiments a client software application for use in uploading content from a client computer may cause the client computer to execute the following steps, which are illustrated in FIG. **4** as the method **400**. Namely, in step **402** a first video is established in the client computer. In step **404** a tool for uploading information related to a first video to a database may be displaying on a display screen of the client computer. The database may store information relating to the video where the information may include some or all the video. In some embodiments, the information may include a digital video file that is generated from the first video and includes a representation of some or all of the first video's video data and audio data. The information can also include metadata related to the video, such as author or classification information, or comments. Metadata can be provided by the uploading user, a user that has accessed the video, or an operator or administrator of the server system. Next, in step **406** an option for sharing the first video either publicly or privately may be displayed on the display screen of the client computer. Then, in step **408** information relating to the first video may be uploaded to the database. The information relating to the first video may include a designation whether it is to be shared publicly or privately.

[0044] In some embodiments an on-demand video preview that is based on the information communicated to the database may be made available on the network, which is indicated by step **410**. Such a video sample on the site may be, for example, up to 3 minutes long, or a different length. In step **412** a means or option to initiate a download of a video from one or more computers on the network may be provided. In some embodiments, the downloading of the video may be by means of a distributed download, which will be discussed below. For example, the video may be downloaded in pieces from two or more computers or other devices on the network. In some embodiments such downloading of clips and images may be restricted to members of the site. Each uploader's biography may be present by the media so people can find out about groups and ask for an invite.

[0045] Thus, in the video sharing process a user may share a file on his PC privately or publicly. A client may build hashes for the file and add the user as a file source to a file tracker (discussed below). A client may create a video preview and upload it to the network site **104** for on-demand streaming or download.

[0046] In some embodiments the user can specify to send an email with a link to shared video to friends and family. The data center **106** may generate a special URL for the video, and other clients may download the files through the special URL.

[0047] The video sharing process may also be determined during web uploads. Namely, a user may share video publicly or privately by uploading it to the network site **104**. The data center **106** may store the original video and generate an MP4 file for the uploaded file. The first download request for the original file may be served from the network site **104** storage. Clients that downloaded the file may become file sources and additional download requests are served from them (discussed below).

[0048] In some embodiments commercial video content may also be shared. Namely, such video may be added to the database **108**. The data center **106** may transcode the content for on-demand streaming and download (e.g., for mobile and/or portable video players). A video page may be generated for the content that may be discoverable on the network site **104**. Users may download the content via a special URL that may be made available on the network site **104**. Downloaders (client systems that will or have downloaded a file)

may become video sources and additional downloaders use them as such (discussed below).

[0049] Some embodiments of the present invention provide for distributed downloads of content, such as videos. For example, when a public or private video is made available for distributed download, a hash of that file is generated for the purpose of uniquely identifying that file throughout the network. The hash contains a recursively hierarchical hash of parts of that file (for example, Tiger-Tree). When a user initiates a download of this file, the system provides means to locate one or more computers that have already downloaded all or part of the file. The downloader downloads both the hash and parts the file from the given sources, verifies the validity of the downloaded parts and assembles the parts to an identical copy of the downloaded file.

[0050] As another example, in some embodiments, when a public or private piece of media is downloaded from another member, the system will chop the file up into blocks, or hash files. The code leading to the chunks of the files are stored in the settings for the client software application. When another person initiates a download of the same file, they may get blocks from anyone else who has previously downloaded a portion of that file. In addition, the downloads of multiple pieces of a file from respective peers can proceed in parallel. This provides for improved efficiency and in some cases speed of downloads.

[0051] So potentially, even though the original downloader computer may be offline, complete versions or enough parts from multiple members exist so that the transfer can happen even in his computer's absence. This distribution of the load also results in less upstream bandwidth used per member and thus quicker, more efficient downloading. In some cases, where downloaders downstream bandwidth is greater than uploaders upstream bandwith, this system provides a faster download compared to a non distributed download. In some cases, the system require less upstream bandwidth use from network servers that provide files for downloading, as the upload bandwidth requirements are spread between two or more servers. In some cases, the system provides a greater reliability than single-sourced downloading systems because downloads can continue when a server that offers a file goes offline in the cases that the parts of the file are already distributed to one or more additional network servers by the system. Media shared within a private group may not be accessible to members outside the group, which can help protect privacy. And in the public realm, a user may remain invisible to the members downloading blocks of public shared media from him or her. The system robot may only seek blocks matching the code of the file the user is trying to download.

[0052] For example, in some embodiments the client software application may cause the client computer to execute the following steps, which are illustrated in FIG. **5** as the method **500**. Namely, in step **502** the client computer may communicate through a computer network with a database that stores information relating to a plurality of videos. In step **504** the client computer may display on a display screen of the client computer links to one or more of the videos. In step **506**, at least an on-demand preview of a first video may be displayed on the display screen of the client computer in response to a corresponding one of the links being selected. In step **508**, an option to download the first video may be displayed on the display screen of the client computer. And in step **510**, when the download option is selected, different portions of the first video may be downloaded from respective other client computers (e.g., as identified by the database or an associated server). For example, in some embodiments, the first video may be downloaded in pieces from two or more computers or other devices on the network.

[0053] As another example, in some embodiments the first video may be downloaded to two client computers by running a computer program on the client computer in response to the download option being selected on each of the client computers. The program may download the video in chunks, where the initial chunks download operations, on the first client computer, downloads the video from one server on the network. The subsequent chunk download operations, from a second client computer, download the chunks coming from two or more servers or computers on the network, where each server has chunks that correspond to some or all of the first video data. Thus, for example, for three client computers, **c1**, **c2** and **c3**, assume that computer **c1** shares the video. Computer **c2** starts downloading chunks from computer **c1**. Computer **c3** starts downloading the chunks from **c1** and **c2**. Computer **c2** downloads additional chunks from computer **c3**. In the discussion herein, a server may refer to a peer computer.

[0054] FIG. **6** illustrates an example of a distributed download process in accordance with an embodiment of the present invention. Similar to as described above, a network **602** may have connected thereto a data center **604** and several client computers **606**, **608**, **610**, **612**.

[0055] In some embodiments, during the video download process a user may click a video special URL in a webpage or click to download video from the client software application. The client software application may request a list of file sources and routability information from the system tracker. The client starts requesting binary file chunks from routable sources and downloads the chunks. The system tracker may add the client as a source for the file for future downloads. A system slave (or multiple slaves) may be used to supply pieces of the file as well (e.g., as a last resort for initial file distribution). A client file transfer manager may track the progress. The client software application assembles the files from the chunks and notifies the user when the download is complete.

[0056] As shown, a direct transfer may take place between clients **606** and **608** when one of the hosts is routable. A bridged transfer may take place between client **606** and hosts **610**, **612** and using a routable host **608** when both hosts are non-routable.

[0057] In some embodiments, the distributed downloads technology may comprise a peer-to-peer (P2P) file transfer technology that allows users to download files directly from one or more users and likewise upload files to one or more users simultaneously. The technology may comprise one component of the client software application.

[0058] This technology may be used for the distribution of large video files as well as file transfers in a private group setting. In some embodiments, the technology may include one or more of the following benefits:

[0059] Unlimited Sharing. Users may share unlimited number of files without limitation on file size and download large files directly from other users.

[0060] No Central Hosting. The data center **404** does not need to centrally host shared files on its web servers. Files may be served directly from the user(s) sharing them.

[0061] Scalability. Distributed Downloads may be much more scalable compared to downloads from web or ftp server. With distributed downloads, a multitude of people can down-

load the same large file over the Internet without hogging the server that initially made the file available and without consuming massive amount of bandwidth by the server. With distributed downloads, the bandwidth used to download a file is spread between all the PCs that have started to download the file.

[0062] Faster Downloads. Downloads of popular files may be faster because the sum of the upstream bandwidth used for file transfers by the sources that have partially or completely downloaded the file is typically greater than the upstream bandwidth from a single file source.

[0063] High Availability. File availability may be higher than other file sharing technology, as the original file sharer does not need to be online for the file transfer to occur (assuming that at least one user "seeding" the file is online at any given time).

[0064] Thus, the distributed file sharing system may be more scalable and cheaper to operate than a centrally hosted file distribution system and it may provide a better file sharing experience to users compared to previous systems. This may be due to higher availability for popular files, better download speeds, and conservation of users upstream bandwidth.

[0065] Regarding distributed downloads and video sharing, in some embodiments when users share a video clip file privately or publicly, a video preview of up to the first 2, 3, 4, . . . 10, etc. minutes (or some other length) of the source video clip may be created and made available for streaming over the web on the network site. All major video formats such as QuickTime, Windows Media, MPG, and MPG4 may be supported. A visitor to the network site may watch the streaming preview and initiate a distributed download of the shared video by clicking on a special download link. The client software downloads the shared video clip identified by the link using its distributed download technology.

[0066] Regarding distributed downloads and private group sharing, the system may allow users to share files in private group settings. A member of a group may browse files shared by other members and request to download them. Downloads may be implemented using distributed downloads. All distributed downloads for group file sharing may be encrypted end-to-end using any encryption technology.

[0067] Regarding distributed downloads and upstream bandwidth conservation, an issue with traditional P2P file transfers is upstream bandwidth hogging. Upstream bandwidth hogging occurs when P2P file transfers use all of the upstream bandwidth that is available to the user on his Internet connection. This may cause other Internet applications running on the user's computer to become slow or to fail to work. Distributed downloads technology may prevent hogging of users upstream bandwidth when other users are downloading files from them. The software monitors its use of upstream bandwidth and will slowdown in-progress file uploads to remain below a percentage of bandwidth allocated to the system.

[0068] The client software may default to use up to 90% of a typical home broadband upstream bandwidth (512 kbps). Users with faster or slower connections can set a manual limit on the bandwidth allocated to the system. In addition, the client software may have a notion of different categories of data transfers, such as thumbnail transfer, file transfers, and audio streaming. To ensure good user experience, limits may be applied to each category individually. This technology may allow transfers to use another category's bandwidth if there is some to spare. So the percentage allocated to a specific category is just what is reserved for that category if it tries to use that bandwidth.

[0069] The tracker may comprise a centralized network service that keeps track of which user PC has what file. The tracker may be used by the client software to obtain an initial list of sources (PCs running the client software) that have some or all of a requested file. Information about an instance of the client software that is running on a user's PC may be added to the tracker when that instance starts to download a file. In addition, the client software may act as a tracker for files that are shared from that PC privately in a group.

[0070] Regarding file blocks and hashes, distributed downloads may be implemented using, e.g., Merkle hash trees. Files may be transferred in blocks over the Internet and blocks may be assembled into complete files on the downloader PC. Hash trees may be used to guard against file corruption, be it malicious in nature or otherwise.

[0071] The following references at the indicated Internet addresses are related to distributed downloads technology and the entire contents of each are hereby incorporated herein by reference in their entirety: Shareza open source p2p software:

http://sourceforge.net/projects/shareaza/; Open Source bittorent client:

http://sourceforge.net/projects/azureus/; Bittorent open source project:

http://sourceforge.net/projects/bittorrent/;

http://bittorrent.cvs.sourceforge.net/bittorrent/BitTorrent/; Yahoo Bittornet Group:

http://tech.groups.yahoo.com/group/BitTorrent/; and

http://en.wikipedia.org/wiki/Hash_tree.

[0072] Some embodiments of the present invention provide for video viewing and downloading from the network site **104** (FIG. **1**). That is, videos may be available for viewing and downloading on the network site **104**. When a member publicly shares a video a sample may be put up to view. By way of example, in some embodiments the sample may be up to 3 minutes (or some other length), so in some cases users can see most or all of a video offering. In some embodiments if a user wants to download a file and his or her computer includes the client software application, then one click may open the client and immediately begin downloading the file. If the user's computer does not include the client software, then the software can be downloaded (e.g., manually or automatically).

[0073] For example, in some embodiments a method for use in providing content may comprise the following steps, which are illustrated in FIG. **7** as the method **700**. Namely, in step **702** a network site may be hosted on a computer network, and in step **704** links to one or more videos may be displayed on the network site. In step **706** at least an on-demand preview of a first video may be displayed on the network site in response to a corresponding one of the links being selected, and in step **708** an option to download the first video may be displayed on the network site.

[0074] In step **710**, the first video may be downloaded to a client computer by running a computer program on the client computer in response to the download option being selected. The program may download the video in chunks, coming from two or more computers or servers on the network. That is, the downloading may comprise a distributed download as described above where, for example, the video is downloaded in pieces from two or more computers or other devices on the

network. A similar process can be applied to stream video from the server or from multiple peers.

[0075] Some embodiments of the client software application may comprise a video creating and/or editing tool. For example, a video creator tool may be included with the client software application to allow the combining of media such as video clips, audio, and digital photos into a movie or multimedia presentation. The tool may allow the user to choose a soundtrack, rotate images, prune video, etc. Some embodiments may allow videos to be created and then uploaded to the network site.

[0076] For example, in some embodiments a computer program for use in creating content may cause the client computer to execute the following steps, which are illustrated in FIG. **8** as the method **800**. Namely, in step **802** a tool for creating videos may be displayed on a display screen of the client computer, and in step **804** a first video may be created in response to user interaction with the tool. In step **806** information relating to the first video may be uploaded to a database that stores information relating to a plurality of videos, including video data information of some or all of the created video clip. In step **808** an on-demand preview of the first video may be displayed on the display screen of a second client computer using the uploaded video data information. In step **810** a command to download the first video may be made available on a display screen of the second client computer. And in step **812** in some embodiments, a download of the created video to the second client computer may be triggered from one or more computers on the network that have some of the created video data in response to the user of the second client computer selecting the command. In some embodiments, the downloading of the created video may be by means of a distributed download. For example, the video may be downloaded in pieces from two or more computers or other devices on the network.

[0077] In some embodiments, the network site **104** (FIG. **1**) may comprise the ability to provide media-to-go film strips, RSS (really simple syndication) feeds and other types of XML data feeds such as Video Podcasting feeds. These items may be used to add content to a social networking site **122**, such as for example Friendster, MySpace, or Blogger pages, or any other site **124**.

[0078] In some embodiments, the media-to-go lets a user copy and paste code directly to any HTML page. The result may comprise film strip of video and photos (e.g., in one or more diagonal, horizontal, vertical rows) that gets updated every time a new item is added to the network site **104**. The user may choose a category, search term, even a particular member and have a personalized film strip that may be kept up to date. In some embodiments the client software application is not even needed.

[0079] For example, in some embodiments a method for use in providing content may comprise the following steps, which are illustrated in FIG. **9** as the method **900**. Namely, in step **902** a network site may be hosted on a computer network, and in step **904** a means to upload video over the network may be provided. In step **906** one or more thumbnail still images from the uploaded video may be created, and in step **908** an on-demand video clip based on the uploaded video data may be created. In step **910** links to one or more videos uploaded over the network may be displayed on the network site. In step **912** a tool for searching through the one or more videos may be displaying on the network site, and in step **914** a result of a search through the one or more videos may be displayed on the network site.

[0080] In step **916** an option may be displayed on the network site to post a film strip widget that is representative of the result of the search to a different network site. The film strip widget may include a display of the still images for the corresponding videos and a command to start an on-demand playback of the created on-demand video clip for any video included in the film strip. In step **918** the film strip widget that is representative of the result of the search may then be posted to the different network site in response to the option being selected. The film strip may then be updated. The film-strip embeddable HTML code includes identifiers that are used by the film-strip code to identify one or more video files to be displayed in the film-strip. For example, the information may include a video sharer user ID or a video search term. The film-strip code uses this information to query a server for meta-data about video such as video name, playback webpage network location, description and duration and information locating a still image thumbnail for the video on the network. This meta-data may be used by the film-strip code to display the film-strip content and to allow users to click on a thumbnail to browse the video's playback web-page and to play the video.

[0081] With respect to RSS feeds, in some embodiments step **916** may be replaced with a step of displaying on the network site an option to create a feed that will provide notifications of updates to the result of a search. Similarly, step **918** may be replaced with the step of providing notifications of updates to the result of a search to users who are subscribers to the feed.

[0082] In some embodiments, the method **900** may also include a step of providing an option to initiate a download of a selected one of the videos. In some embodiments, the downloading of the video may be by means of a distributed download. For example, the video may be downloaded in pieces from two or more computers or other devices on the network. Such filmstrips and RSS feeds may be used to keep users connected to the things that matter to them. With RSS feeds, information can be brought to the user instead of the user having to find the information. For example, a user can subscribe to receive notifications to favorite news reader software or My Yahoo! page when new listed groups are available. This may allow the user to have the most recent information on the things he or she finds interesting. Thus, an RSS feed allows a user to subscribe to the a category and see every time a new group of interest is added.

[0083] In some embodiments it can be made to work by browsing a category in the public directory web pages. An "RSS" icon may be displayed at the bottom of the page. A user may right-click on the "RSS" icon, choose "Copy Shortcut", and paste it into the user's RSS reader software. Or, in some embodiments if the user is a My Yahoo! User he or she may just click on a 'My Y!' icon to subscribe. In some embodiments, the user may subscribe to provided RSS feeds using his web-browser software application. In some cases, an HTML representation of the RSS file is displayed when the user clicks on the icon. This representation contains instructions regarding subscribing to the clicked RSS feed.

[0084] In some embodiments, when an RSS feeds contains meta-data about shared video, when a new video is shared that matches the criteria specified by the feed, it will automatically be added to the feed and subscribers will be able to be notified

regarding the new video existence and are able to read video meta-data, to watch the video and to download it to their computer. For example, for an RSS feed of the publicly shared video clips by a user, when the user shares a new video, it is added to the feed and RSS readers display information about the new video when they query the feed for updates get the new RSS item that represents the video. When an RSS feed identifies a search term, when new video is shared that corresponds to this search term, the video will be included in the feed and users that are subscribed to this feed will be able to be notified when the new video is available, read video meta-data, watch the video or download it.

[0085] In some embodiments groups may be tracked by search terms. A user may subscribe to all groups that match a search term by performing a search in the directory and using the RSS icon at the bottom of search results pages. For example, if a user likes BreakBeat, just search for "breaks" and subscribe using the RSS icon at the bottom of the search results web pages to receive updates when new breaks groups are created.

[0086] In some embodiments a user may also be the first to join new groups. Interesting newly created groups may be joined by subscribe to a New Groups Feed. Users may also keep up with friends' groups. Namely, when a user sees a user nickname in the public directory web page, the user can click on it to view that user's listed groups. The "RSS" link at the bottom of the page may be used to subscribe to receive a notification when this user had created or joined a listed group.

[0087] Thus, the RSS feed helps users make the most of their media, keeping them close to their friends.

[0088] In some embodiments of the present invention the client software application may comprise a camera still image and/or video importing tool and/or wizard. Such camera import wizard can help make the client software a true end-to-end solution for getting video and photos from a user's camera to the web. For example, a camera **128** (FIG. **1**) maybe plugged into one of the client computers **116**. In response to the camera **128** being plugged into the computer **116**, a user may select the client software application when Windows asks what the user wants to do, and then the on screen instructions may be followed. Thus, in a few quick steps (or a single user action in some configurations) the media may be taken from the camera **128** and uploaded to the network site **104**. In some embodiments the user may add titles, description, and tags to help friends find them easily.

[0089] For example, in some embodiments a computer program for use in manipulating content on a client computer may cause the client computer to execute the following steps, which are illustrated in FIG. **10** as the method **1000**. Namely, in step **1002** the client computer may communicate with a digital camera connected to the client computer and in step **1004** import images and/or video from the camera into the client computer. Then, in step **1006** a first video may be established in response to the step of importing images and/or video from the camera. In step **1008** the computer may communicate through a computer network to upload information relating to the first video to a database that stores information relating to a plurality of videos, including video data of some or all of the first video. In step **1010** links to one or more of the plurality of videos including the first video may be displayed on a display screen of the client computer. In step **1012** at least an on-demand preview of the first video using the uploaded video data may be displayed on the display screen of the client computer in response to a corresponding one of the links being selected. In step **1014** a command to download the first video clip may be displayed, and in step **1016** the first video may be downloaded to the client computer by running a computer program on the client computer in response to the download option being selected. In some embodiments, the downloading of the first video may be by means of a distributed download. For example, the program may download the first video in chunks, coming from two or more computers or servers on the network, similar to as described above.

[0090] In some embodiments, the network site **104** (FIG. **1**) may comprise feeds for portable devices, such as portable audio and/or video players, such as for example mobile phones, PDA's, or media devices such as the popular Sony PlayStation Portable (PSP)™ or Apple iPod™. For example, a portable (or mobile) device **130** may be plugged into one of the client computers **118**, and the network site **104** may provide a feed for such portable device. This helps a user transfer video into the portable (or mobile) device **130**. In some embodiments, video meta-data is provided in Video Podcasting feeds and in Media RSS feeds. These extended RSS feeds allow RSS readers such as SONY PSP Media Manager and Apple iTunes that are designed to handle multimedia data such as video to download video files specified in RSS items to the users computer and to portable video playback devices for playback.

[0091] In some embodiments, some or all of the video that is available on the network site may be specially formatted to play on such portable (or mobile) devices. In some embodiments, the user does not have to download the video one file at a time. Namely, the network site may provide for the user to subscribe to personalized feeds (categories, search terms, user-specific, or single items) and the content may be downloaded automatically and synchronized to the portable device.

[0092] In some embodiments, a portable or mobile device may include media manager software, such as with some models of the Sony PlayStation Portable. The network site **104** may be configured to work with such manager software so that videos may be delivered straight to the portable device. In some embodiments, the RSS reader that is used to consume RSS feed and to download video described in these feeds, is running directly on some models of the Sony PlayStation Portable.

[0093] For example, in some embodiments a method for use in providing content may comprise the following steps, which are illustrated in FIG. **11** as the method **1100**. Namely, in step **1102** a network site may be hosted on a computer network, and in step **1104** links to one or more videos uploaded over the network may be displayed on the network site. In step **1106** one or more video files may be generated from the uploaded video in a format that is supported for playback on one or more portable video players. In step **1108** a tool for searching through the one or more videos may be displayed on the network site, and in step **1110** a result of a search through the one or more videos may be displayed on the network site. In step **1112** procedures for allowing viewing of video that is representative of the result of the search on one or more portable video players may be displayed on the network site. And then in step **1114** one or more generated video files that are representative of the result of the search may be transferred to one of the portable video players in response to the procedures being followed. In some embodiments, the transferring or downloading of the video may be by

means of a distributed download. For example, the video may be downloaded in pieces from two or more computers or other devices on the network. Each transferred video clip may be playable on the mobile video player. The video that is representative of the result of the search in the portable device may be updated.

[0094] Thus, some embodiments of the present invention provide a scalable, public and private decentralized video distribution scheme. Private large file transfers in file sharing groups may take place. The information in such transfers may be encrypted. Public large file transfers may also take place, and streaming media may be supported. The system may provide good web integration, including web integration via special URLs, and digital rights management (DRM) may also be supported.

[0095] In some embodiments the network site may include an integrated distributed search engine. In some embodiments high-quality video in play-lists may be pushed to client software based on user subscriptions and play-lists. Mobile video files may be created from user shared video in the client and distributed using a peer-to-peer (P2P) scheme. By way of example, 3GPP and MP4 may be supported.

[0096] In some embodiments a distributed download feature in a peer-to-peer (P2P) scheme may be used with distributed file blocks transfer. File blocks and hashing may be used, and file verification may be used. NAT (Network Address Translation) hole punching may be supported, and Windows XP firewall transversal may be supported to bridge firewalled clients. Media transcoding and streaming may be used in the P2P scheme, and downloads verification may be used. It is believed that such a scheme is more scalable, cheaper and faster than centralized file distribution. It is also believed to lead to user upstream bandwidth preservation and conservation. The ability to distribute storage at the host layer may enable efficient low cost storage alternatives. Furthermore, P2P may allow for high quality content distribution that are prohibitive to centralized streaming economics. Unlimited file size and number of files shared may be supported. Any file type and video format may also be supported, and tracking, multi-sourcing and swarming may be supported. A light-weight file transfer and manager may be used, and the transfer manager may be integrated with the client video player for seamless playback experience.

[0097] A swarm may comprise the peer computers that are used in a peer-to-peer (P2P) file distribution protocol. Such concepts are explained on the Internet at: http://en.wikipedia.org/wiki/Bittorrent, the entire contents of which are hereby incorporated herein by reference in their entirety.

[0098] A low level of technical knowledge should be sufficient on the part of users to use the scheme. In some embodiments the ability to use the system may be packaged in one client software package with an easy to use and fin user interface. The client software package may be auto updateable. The client software package, which may also be referred to as the desktop client, may comprise one of the software components of the system. The network site web application may comprise another component. Other components may include P2P network servers and/or XML web services. In some embodiments digital video encoding, flash video recording, tags and related media processing, users, groups and video databases, and/or automated testing bots may also be supported.

[0099] Different embodiments may operate in different ways. For example, the network site may be focused on video or some other media. Videos may be watched on both the network site and via the client software application, or only on one or the other. In some embodiments, when videos are watched on the network site and/or via the client software application they are streamed. Similarly, videos may be shared and/or created on both the network site and via the client software application, or only on one or the other. In some embodiments the ability to publish videos may be enabled with a small number of procedures or interactions by the user, such as only one-click. In some embodiments webcam instant posting and webcam video comments may be used. In some embodiments a search engine may be used that is optimized with custom RSS feeds. In some embodiments videos may be downloaded to the desktop or to a portable device.

[0100] Referring to FIG. **12**, there is illustrated an example system **1200** that may be used in some embodiments for implementing, running and/or executing any of the methods and/or techniques described herein. By way of example, the system **1200** or any portion(s) thereof may be used for implementing any of the client computers or devices mentioned herein. By way of further example, the system **1200** or any portion(s) thereof may be used for implementing any of the data centers mentioned herein. Use of the system **1200** or any portion thereof, however, is certainly not required.

[0101] By way of example, the system **1200** may include, but is not required to include, a central processing unit (CPU) **1202**, a graphics processing unit (GPU) **1204**, digital differential analysis (DDA) hardware **1206**, a random access memory (RAM) **1208**, and a mass storage unit **1210**, such as a disk drive. Thus, in some embodiments the system **1200** comprises a processor based system. The system **1200** may be coupled to, or integrated with, a display **1212**, such as for example any type of display. Again, some or all of the aforementioned components may not be needed and are not required.

[0102] The CPU **1202** and/or GPU **1204** may be used to execute or assist in executing the steps of the methods and techniques described herein, and various program content, images and/or videos maybe rendered on the display **1212**. Removable storage media **1214** may optionally be used with the mass storage unit **1210**, which may be used for storing code that implements the methods, techniques and/or features described herein. However, any of the storage devices, such as the RAM **1208** or mass storage unit **1210**, may be used for storing such code. Either all or a portion of the system **1200** may be embodied in any type of device, such as for example a television, computer, video game console or system, portable device, handheld device, or any other type of device, including any type of device mentioned herein.

[0103] Example physical layouts that may be used for the data center **106** (FIG. **1**) in some embodiments are illustrated in FIGS. **13**, **14** and **15**. For example, in FIG. **13** two cabinets may be used and may provide for a GNI (ISP) termination point. For networking, additional redundancy may be used, and a single load balancer and a single catalyst may be used. For servers, redundant media servers (MediaX) may be used, and redundant web and video servers (WebX, VideoX) may be used. For the test/staging environment, it may supports a QA process.

[0104] For example, in FIG. **14** four cabinets may be used. A new catalyst switch may be used to facilitate migration and provide redundancy for network. An active directory may be

used for central control of services, authentication, etc. An exchange mail server may be used, and it may be outbound only.

[0105] While the invention herein disclosed has been described by means of specific embodiments and applications thereof, numerous modifications and variations could be made thereto by those skilled in the art without departing from the scope of the invention set forth in the claims.

What is claimed is:

1. A storage medium storing a computer program for use in uploading content from a client computer, the computer program causing the client computer to execute steps comprising:

establishing a first video stored in the client computer;

displaying on a display screen of the client computer a tool for uploading information related to a first video to a database that stores information relating to the video, wherein the information includes some or all of the video;

displaying on the display screen of the client computer an option for sharing the first video either publicly or privately;

communicating through a computer network to upload information relating to the first video to the database that stores information relating to a plurality of videos, wherein the information relating to the first video includes a designation whether it is to be shared publicly or privately;

making available an on-demand video preview that is based on the information communicated to the database; and

providing an option to initiate a download of the first video in pieces from two or more computers on the network.

2. A storage medium in accordance with claim **1**, wherein the information includes a digital video file that is generated from the first video and includes a representation of some or all of the first video's video data and audio data.

3. A storage medium in accordance with claim **1**, wherein the on-demand video preview is made available on a video sharing website.

4. A storage medium in accordance with claim **1**, wherein the option to initiate a download of the first video is restricted to members of a video sharing website.

5. A storage medium in accordance with claim **1**, wherein the computer program further causes the client computer to execute a step comprising:

displaying on the display screen of the client computer an option for sending an email having a link to the on-demand video preview.

6. A storage medium storing a computer program for use in receiving content at a client computer, the computer program causing the client computer to execute steps comprising:

communicating through a computer network with a database that stores information relating to a plurality of videos;

displaying on a display screen of the client computer links to one or more of the videos;

displaying on the display screen of the client computer at least an on-demand preview of a first video in response to a corresponding one of the links being selected;

displaying on the display screen of the client computer an option to download the first video; and

downloading different portions of the first video from respective other client computers in response to the download option being selected.

7. A storage medium in accordance with claim **6**, wherein the computer program further causes the client computer to execute a step comprising:

requesting a list of file sources for the first video.

8. A storage medium in accordance with claim **6**, wherein the computer program further causes the client computer to execute a step comprising:

assembling the different portions of the first video received from other client computers.

9. A storage medium in accordance with claim **6**, wherein the respective other client computers comprise a private group.

10. A system for use in sharing content, comprising:

a data center that includes a database that stores information relating to a plurality of videos, wherein the data center is configured to display on a network site links to one or more of the videos, at least an on-demand preview of a first video in response to a corresponding one of the links being selected, and an option to download the first video;

at least two client computers that each store different portions of the first video, wherein the data center is further configured to keep track of which client computer has what portion of the first video; and

another client computer that is configured to request from the data center a list of file sources for the first video and then download the different portions of the first video from the at least two client computers in response to the download option being selected.

11. A system in accordance with claim **10**, wherein the another client computer is further configured to assemble the different portions of the first video received from the at least two client computers.

12. A system in accordance with claim **10**, wherein the data center is further configured to add the another client computer to the list of file sources for the first video for future downloads.

13. A system in accordance with claim **10**, wherein the at least two client computers and the another client computer all comprise a private group.

14. A method for use in providing content, comprising:

hosting a network site on a computer network;

displaying on the network site links to one or more videos;

displaying on the network site at least an on-demand preview of a first video in response to a corresponding one of the links being selected;

displaying on the network site an option to download the first video; and

downloading the first video to a client computer by running a computer program on the client computer in response to the download option being selected, wherein the program downloads the first video in chunks, coming from two or more computers on the network.

15. A method in accordance with claim **14**, further comprising:

providing a list of file sources for the first video to the client computer.

16. A method in accordance with claim **14**, further comprising:

assembling the different chunks of the first video received from the two or more servers.

17. A method in accordance with claim **14**, further comprising:

adding the client computer to a list of file sources for the first video for future downloads.

18. A storage medium storing a computer program for use in manipulating content on a client computer, the computer program causing the client computer to execute steps comprising:

communicating with a digital camera connected to the client computer;

importing images and/or video from the camera into the client computer;

establishing a first video in response to the step of importing images and/or video from the camera;

communicating through a computer network to upload information relating to the first video to a database that stores information relating to a plurality of videos including video data of some or all of the first video;

displaying on a display screen of the client computer links to one or more of the plurality of videos including the first video;

displaying on the display screen of the client computer at least an on-demand preview of the first video using the uploaded video data in response to a corresponding one of the links being selected;

displaying a command to download the first video; and

downloading the first video to a client computer by running a computer program on the client computer in response to the download option being selected, wherein the program downloads the first video in chunks, coming from two or more computers on the network.

19. A storage medium in accordance with claim **18**, wherein the on-demand video preview is made available on a video sharing website.

20. A storage medium in accordance with claim **18**, wherein the command to download the first video is restricted to members of a video sharing website.

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