PATENT APPLICATION

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Inventors: Albert John McGowan, a citizen of The United States, residing at
4201 E. Camelback Rd., #101
Phoenix AZ, 85018

Nicholas Maultsby, a citizen of The United States, residing at
19239 N. 30th Pl
Phoenix AZ 85050

Jared Marshall, a citizen of the United States, residing at
21 E 6th Street #414
Tempe, AZ 85281

Assignee: Unicorn Media, Inc.
24 West 5th Street
Tempe, AZ 85281

Entity: Small

Petitioner Disney Ex-1027, 0001

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

[0001] This application claims the benefit of U.S. Provisional Application No. 61/884,709, entitled "DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA," filed September 30, 2013. The above-listed application is hereby incorporated by reference in its entirety for all purposes.

CROSS-REFERENCES TO RELATED APPLICATIONS

[0002] The following regular U.S. patent applications (including this one) are being filed concurrently, and the entire disclosure of the other applications are incorporated by reference into this application for all purposes:

- Application No. _____, filed November 21, 2013, entitled " DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE " (Attorney Docket No. 92853-882531 (004100US); and
- Application No. _____, filed November 21, 2013, entitled " DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: DYNAMIC PERMUTATION LAYER " (Attorney Docket No. 92853-882532 (004200US)).

BACKGROUND OF THE INVENTION

[0003] The delivery of media over data networks such as the Internet is in high demand. This is due, in large part, to much of the media being advertisement ("ad") supported. This even applies to streamed live content.

[0004] The insertion of ads and other on-demand content into a stream of live content can be difficult. The unpredictable nature of live content can result in corresponding unpredictability of points in the live content at which ads may be shown. Furthermore, because live content can be

Petitioner Disney Ex-1027, 0002

generated for hours, weeks, or longer, the timestamps associated with live will not be synchronized with the timestamps of ads (or other on-demand content) inserted into the stream of live content. This can cause problems for some clients during playback.

BRIEF SUMMARY OF THE INVENTION

[0005] Techniques disclosed herein provide for dynamically rewriting the timestamps in streams of media that transition from one source to another (such as from live content to on-demand content, and vice versa). Embodiments can coordinate the creation of a client manifest with the dynamic creation of a requested segment of media (i.e., "chunk") to determine how to rewrite timestamps of requested chunks are continuous through the transition.

[0006] An example method of providing media streaming via a data communications network, according to the disclosure, includes receiving a stream of data representing live media content, obtaining timing information of the stream of data, and receiving, via the data communications network, a request to stream the live media content. The method further includes creating, with a processing unit, a manifest file where the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data. The method further includes and sending, via the data communications network, the manifest file.

[0007] The method of providing media streaming via a data communications network can include one or more of the following features. The method can include providing an application programming interface (API), where request to stream the live media content is received via the API. Creating the manifest file further can include providing, in the manifest file, an indication of a discontinuity in the stream of the live media content. The method can also include determining a type of client associated with the request to stream the live media content, where providing the indication of the discontinuity is based on the determination of the type of client. Obtaining the timing information of the stream of data can include sending a request for the timing information, and receiving a response to the request, the response including the timing information. The method can also include receiving an indication of a period of time in the live

Petitioner Disney Ex-1027, 0003

media content designated for advertising, where sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising. The timing information of the stream of data can include one or more timestamps associated with one or more segments of the stream of data.

[0008] An example server for providing media streaming via a data communications network, according to the disclosure, includes a communications interface, a memory, and a processing unit coupled to the communications interface and the memory. The processing unit is configured to cause the server to receive a stream of data representing live media content, obtain timing information of the stream of data, and receive, via the communications interface, a request to stream the live media content. The processing unit is further configured to create a manifest file where the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data. The processing unit is also configured to send, via the communications interface, the manifest file.

[0009] The server for providing media streaming via a data communications network can include one or more of the following features. The processing unit can be further configured to cause the server to provide an application programming interface (API), wherein request to stream the live media content is received via the API. The processing unit can be configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content. The processing unit can be further configured to cause the server to determine a type of client associated with the request to stream the live media content where providing the indication of the discontinuity is based on the determination of the type of client. The processing unit can be configured to cause the server to obtain the timing information of the stream of data by sending a request for the timing information, and receiving a response to the request, the response including the timing information. The processing unit can be further configured to cause the server to receive an indication of a period of time in the live media content designated for advertising where sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising. The timing information of the stream

Petitioner Disney Ex-1027, 0004

of data can include one or more timestamps associated with one or more segments of the stream of data.

[0010] An example non-transitory computer-readable medium, according to the disclosure, has instructions embedded thereon for providing media streaming via a data communications network. The instructions, when executed by a computer, cause the computer to perform functions including: receiving a stream of data representing live media content, obtaining timing information of the stream of data, and receiving a request to stream the live media content. The functions further include creating a manifest file, where the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data. The functions also include sending the manifest file.

[0011] The computer-readable medium can include one or more of the following features. The computer-readable medium can include instructions for causing the computer to provide an application programming interface (API), wherein request to stream the live media content is received via the API. The instructions for creating the manifest file can further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content. The computer-readable medium can include instructions for causing the computer to determine a type of client associated with the request to stream the live media content, where providing the indication of the discontinuity is based on the determination of the type of client. The instructions for obtaining the timing information of the stream of data can further include instructions for causing the computer to send a request for the timing information, and receive a response to the request, the response including the timing information. The computer-readable medium can include instructions for causing the computer to receive an indication of a period of time in the live media content designated for advertising where sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

[0012] Items and/or techniques described herein may provide one or more of the following capabilities, as well as other capabilities not mentioned. Techniques allow for a client to

Petitioner Disney Ex-1027, 0005

transition from one source of streaming media to another without incurring errors due to inconsistencies in the timestamps of chunks between the two sources of media. Techniques can be dynamically executed on the fly and customized for each client. These and other embodiments, along with many of its advantages and features, are described in more detail in conjunction with the text below and attached figures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] The present disclosure is described in conjunction with the appended figures:

[0014] FIG. 1 is a block diagram illustrating a media servicing system, according to some embodiments of the present invention.

[0015] FIG. 2 is a functional block diagram illustrating a system configured to provide dynamic chunk manipulation according one embodiment.

[0016] FIG. 3 is a functional block diagram of a system, similar to the system of FIG. 2, incorporating ad server(s).

[0017] FIG. 4 is a simplified block diagram illustrating an example of how timestamps can be rewritten.

[0018] FIG. 5 is a swim-lane diagram illustrating example interactions between a client, API, and DPL.

[0019] FIG. 6 is a simplified flow chart illustrating an example method of providing a manifest file in accordance techniques described herein.

[0020] FIG. 7 is a simplified flow chart illustrating an example method of creating media chunks using offset information included in a request, in accordance with techniques described herein.

[0021] FIG. 8 illustrates an embodiment of a computer system.

[0022] In the appended figures, similar components and/or features may have the same reference label. Further, various components of the same type may be distinguished by following the reference label by a dash and a second label that distinguishes among the similar components. If only the first reference label is used in the specification, the description is

Petitioner Disney Ex-1027, 0006

applicable to any one of the similar components having the same first reference label irrespective of the second reference label.

DETAILED DESCRIPTION OF THE INVENTION

[0023] The ensuing description provides preferred exemplary embodiment(s) only, and is not intended to limit the scope, applicability or configuration of the disclosure. Rather, the ensuing description of the preferred exemplary embodiment(s) will provide those skilled in the art with an enabling description for implementing various embodiments of the invention. It is understood that various changes may be made in the function and arrangement of elements without departing from the spirit and scope as set forth in the appended claims.

[0024] The terms "ad" and "advertisement," including alternate forms thereof, refer to marketing content distinct from user-requested media content. Although the techniques described herein discuss obtaining and providing advertising data, they also can be applied to data for content other than advertising, such as other on-demand content. Furthermore, although techniques described herein are often provided in the context of video streaming, they can be applied to other forms of media content (e.g., audio streaming) as well. A person of ordinary skill in the art will recognize many alternate applications.

[0025] It can be noted that, although embodiments disclosed herein describe techniques as implemented by a cloud-hosted integrated multi-node pipelining system (CHIMPS), embodiments are not so limited. Other systems may be configured to implement the techniques disclosed.

[0026] The increased availability of media content over data communications networks such as the Internet has mirrored the increased bandwidth for these networks. Because media has recently taken a more prominent role in data communications, the distribution of media and the data associated with such distribution has become increasingly important, particularly to media content providers. Much of this media is ad-supported, allowing media content providers to receive advertising revenue from media content, while often allowing end users to consume the media content free of charge.

[0027] Advertisements are often stored and maintained separate from the primary media content. The distribution of ad-supported media via the Internet can therefore involve a variety

Petitioner Disney Ex-1027, 0007

of entities. **FIG. 1** is a block diagram illustrating a media servicing system 100, according to some embodiments of the present invention. The system may deliver media content to a client 145, executed by an end user device 140 providing media playback to an end user. The client 145 can be, for example, a media player, browser, or other application adapted to request and/or play media files. The media content can be provided via a network such as the Internet 170 and/or other data communications networks, such as a distribution network for television content. The end user device 140 can be one of any number of devices configured to receive media over the Internet 170, such as a mobile phone, tablet, personal computer, portable media device, set-top box, video game system, etc. Although only one client 145 and one end user device 140 are shown in FIG. 1, it will be understood that the media servicing system 100 can provide media to many (hundreds, thousands, millions, etc.) of clients 145 on many (hundreds, thousands, millions, etc.) of end user devices 140.

[0028] For on-demand content (e.g., requested media that is stored in its entirety), a media file provided by one or more media providers 130 can be processed and indexed by cloud-hosted integrated multi-node pipelining system (CHIMPS) 110. The media file may be stored on media file delivery service provider (MFDSP) 150, such as a content delivery network, media streaming service provider, cloud data services provider, or other third-party media file delivery service provider. Additionally or alternatively, the CHIMPS 110 may also be adapted to store the media file. On-demand content can be provided to the client 145 via progressive downloading and/or streaming.

[0029] For purposes of this disclosure, advertising content can be considered a form of on-demand content that is distributed much the same way. (As previously mentioned, techniques for interleaving live and on-demand content apply not only to inserting ads into live content, but can apply to inserting any form of on-demand content, including non-advertisement content as well.) Rather than media providers, however, ad content can come from ad networks 160. Furthermore, the ad networks 160 may determine what ads to provide at a given point in time for a given client 145 by implementing business rules.

[0030] For live content (e.g., requested content that is sent to one or more end user devices 140 as it is received from media provider(s) 130, that is, in real time or near-real time, depending on processing times and/or other buffer times), a similar process can take place. For example,

Petitioner Disney Ex-1027, 0008

media provider(s) 130 can provide a media stream (e.g., live video), which is processed and indexed by the CHIMPS 110. Encoded segments of the media stream can be stored as files (i.e., "chunks"), on the media file delivery service provider (MFDSP) 150 and/or the CHIMPS 110. Embodiments may have a delay from the time the media stream is received to the time the associated content is stored and available for streaming to the one or more end user devices 140. The delay can be due to transcoding and/or other types of processing for making the received media stream available for downloading. This delay can create a buffer period of time in which one or more of the techniques described herein can take place, such as processing cue tones and/or placing ads in the content. (These techniques are described in greater detail below.)

[0031] Both on-demand and live content can utilize any of a variety of forms of streaming media. One such method is chunk-based media streaming in which a media file or live stream is processed into smaller chunks and stored (e.g., in a server of the CHIMPS 110 or Media File Delivery Service Provider 150) for serving to a client 145. The client 145 can make a URL request to the CHIMPS 110, which can provide a manifest file (also known as an index file) indicating the locations of each of the chunks of media using, for example, Uniform Resource Indicators (URIs) (e.g., Universal Resource Locators (URLs)) or other indicators. The client 145 can then use the information in the manifest file to stream the media content, following one location after the other to download each chunk of media. The client may sequentially request and receive multiple manifest files to stream requested media content. This is especially true for live media, where the live stream might still be received and processed by the CHIMPS 110 when the client makes the request for the manifest file. Additional detail regarding such chunking and indexing, as well as techniques for dynamically creating chunks and manifest files, can be found in U.S. Patent Nos. 8,327,013 entitled "Dynamic Index File Creation for Media Streaming" and 8,145,782, entitled "Dynamic Chunking For Media Streaming," both of which are incorporated by reference herein in their entirety.

[0032] The CHIMPS 110 can further manage the processing and syndication of media (live or on-demand) received from the media provider(s) 130. For example, the CHIMPS 110 can provide transcoding and other services to enable media provided by the media provider(s) to be distributed in a variety of formats to a variety of different device types in a variety of locations. Furthermore, the CHIMPS 110 provide feedback to the media provider(s) 130 regarding the media's syndication, including user behavior during media playback. For example, the CHIMPS

Petitioner Disney Ex-1027, 0009

110 can provide a media provider 130 with information indicating that end users tend to stop watching a video at a certain point in playback, or that users tend to follow links associated with certain advertisements displayed during playback. With this data, media provider(s) 130 can adjust factors such as media content, advertisement placement and content, etc., to increase revenue associated with the media content and provide the end user device 140 with a more desirable playback experience. Additionally or alternatively, the CHIMPS 110 can dynamically provide a customized playback experience on the end user device 140 according to aspects of the context associated with the content at the time of the request, aspects of the content request itself, or both. It can be noted that although embodiments herein may utilize media files and live streams explicitly, other embodiments may utilized other forms of media assets, such as dynamic web pages, and may incorporate multiple media elements, including players, user interface components, user controls and control components, images, and other media content, objects, or types. Additionally, it can be noted that various functions, operations, processes, or other aspects that are described in this example, and other examples, as being performed by or attributable to the CHIMPS 110 can be performed by another system operating in conjunction with the CHIMPS 110, loosely or tightly synchronized with the CHIMPS 110, or independently; for example, collecting data from other digital services to be combined and reported with data collected by the CHIMPS 110 can, in some implementations, be performed by a system other than the CHIMPS 110. Additional detail regarding the functionality of the CHIMPS 110 can be found in in U.S. Patent No. 8,301,733, entitled "Dynamic Chunking for Delivery Instances," which is incorporated by reference herein in its entirety.

[0033] A content owner 120 can utilize one or more media provider(s) 130 to distribute media content owned by the content owner 120. For example, a content owner 120 could be a movie studio that licenses distribution of certain media through various media providers 130 such as television networks, Internet media streaming websites and other on-demand media providers, media conglomerates, and the like. In some configurations, the content owner 120 also can operate as a media provider 130.

[0034] The content owner 120 and/or media provider(s) 130 can enter into an agreement with one or more ad network(s) 160 to provide advertisements to numerous clients 145 on numerous end user devices 140. In this manner, the ad network(s) 160 allow companies to show advertisements to end users viewing the media content from the media provider(s) 130. Because

Petitioner Disney Ex-1027, 0010

ad network(s) 160 can maintain advertisements and/or advertisement data separate from media content, the advertisements can be updated and—as previously indicated—subject to business rules such that, two users viewing the same media content at different times and/or in different locations may see different advertisements.

[0035] Advertisements may be inserted directly into content consumed by the client, depending on the streaming techniques utilized. In such cases, a Live Advertising Processing Engine Service (APES) can be utilized to provide the client with advanced functionality for advertising during the consumption of live content by a client. Additional details regarding Live APES can be can be found in in U.S. Patent App. No. 14/069,961 entitled "Live Advertising Processing Engine Service," which is incorporated by reference herein in its entirety.

[0036] The insertion of ads directly into content consumed by the client can cause playback issues in at least some types of clients. One such issue can arise from the mismatch between timestamps of the live media (e.g., presentation timestamp (PTS) values) and those of the ad. Some clients will incur playback errors when encountering such mismatches. Techniques disclosed herein can provide for dynamically re-writing timestamps for on-demand (e.g., ad) content into stream of live content, which can prevent these playback errors from occurring.

[0037] Although embodiments provided herein discuss dynamically re-writing timestamps for inserting on-demand media into live content, embodiments are not so limited. Principles provided herein can be extended to embodiments that insert live content into on-demand media, a first on-demand media into a second on-demand media, first live content into second live content, and so forth. A person of ordinary skill in the art will recognize many substitutions, additions, omissions, and other variations to the embodiments provided herein.

[0038] **FIG. 2** is a functional block diagram illustrating a system 200 configured to provide dynamic chunk manipulation, including timestamp rewriting techniques provided herein, according one embodiment. The system 200 can comprise a client 145, MFDSP 150, application programming interface (API) 260, dynamic permutation layer (DPL) 270 origin 240, transcode module 230, clock 250, ingest module 220, and encoder 210, and one or more ad servers 310. As shown, these components can be executed by and/or incorporated into larger systems, such as the end user device 140, CHIMPS 110, and/or media provider(s) 130 as shown in FIG. 1. In other embodiments, however, the illustrated components may be incorporated differently into a

Petitioner Disney Ex-1027, 0011

larger system and/or may be stand-alone components. Furthermore, other embodiments may combine, separate, add, omit, substitute, and/or modify components of the system 200, while providing the same overall functionality as described herein. A person of ordinary skill in the art will recognize many substitutions, additions, omissions, and other variations to the embodiments provided herein.

[0039] In this embodiment, a live stream is provided by the encoder 210 in chunks (i.e., segments), each of which can each have a PTS value and/or other timing information as dictated by the encoder. Because live media can vary widely in duration, PTS values for the live stream can vary correspondingly. To help keep track of PTS values of the live stream received by the ingest module 220, a local clock 250 can be used. For example, a "source manifest" can be created by recording the times at which chunks (having unique PTS values) of the live stream are received from the live stream source (i.e., the encoder 210). This source manifest can then be used by other components, such as the API 260, to determine which chunk was received at a given local time.

[0040] Ingested chunks are then provided to the transcode module 230, which transcodes the chunks into various formats according to a variety of different media profiles. Media profiles can determine bit rate, resolution, frame rate, and other media characteristics that can accommodate the various types of networks, clients, and/or end user devices used to stream the live content. For example, chunks with lower bit rates are generally used to stream the live content to an end user device 140 that has a poor network connection or low-resolution display, whereas chunks with higher bit rates are generally used to stream the live content to an end user device 140 that has a good network connection or high-resolution display.

[0041] The various chunks are stored in the origin 240. The origin 240 can be a data storage comprising one or more physical storage devices, which can be distributed geographically, and may be local to and/or remote from the transcode module 230 and/or DPL, depending on desired functionality. The origin 240 can further store and/or manage an "origin manifest" that records information regarding the available media profiles of the stored chunks and their corresponding PTS values. Thus, together with the source manifest, the origin manifest can be used to track the time at which each chunk of the live stream is received and determine the available media profiles of the corresponding chunks stored in the origin 240.

Petitioner Disney Ex-1027, 0012

[0042] The client 145 can request to stream content of the live stream from the API 260 by, for example, following a URL received from the media provider(s) 130. (This URL, or other URI, may be provided to the media provider(s) 130 by the CHIMPS 110, indicating an Internet location at which the live stream may be accessed.) The API 260, upon receiving the client's request, can create a client manifest (also known as an index file), comprising a list of links (e.g., URLs) to chunks of the live content. Once it receives the client manifest from the API 260, the client 145 can request the chunks from the MFDSP 150. If a chunk is not already cached at the MFDSP 150, the chunk request can be relayed to the DPL, which can dynamically create the requested chunk (e.g., at runtime) by retrieving one or more corresponding chunks stored at the origin 240, relaying it back to the MFDSP 150, which can then provide the requested chunk to the client 145. Because the DPL can create requested chunks on the fly, the requested chunks can be customized according to each request. For example, although chunks stored at the origin 240 may comprise a five-second segment of the live content, a client may request a 20-second chunk, in which case the DPL 270 can retrieve a plurality of five-second chunks from the origin corresponding to the requested 20-second chunk and dynamically create the requested chunk and provide the requested chunk to the MFDSP 150. (Additional detail regarding such chunking can be found in in U.S. Patent No. 8,145,782, which is incorporated herein above.) Because the API 260 creates the client manifest used by the client 145 to request chunks, it is the API 260 that determines which chunks are requested and when. The API 260 can therefore craft client manifests to dictate at what point in the live content clients will begin streaming and the length of the chunks each client requests.

[0043] This ability to dynamically create both client manifests and requested chunks can also enable the system 200 to rewrite timestamps on the requested chunks to help ensure a client 145 receives a stream of chunks with continuous time stamps when streaming live content containing interleaved on-demand content, such as advertisements.

[0044] **FIG. 3** illustrates how a system 300, similar to the system 200 of FIG. 2, can incorporate ad server(s) 310 to determine which ads to insert into a stream of live content. Here, the ad server(s) 310 can be maintained by one or more ad network(s) 160, which may have an agreement with the media provider(s) 130 regarding which ads to run during an ad break of a live stream. In some embodiments, the DPL 270 may communicate with the ad server(s) 310 to obtain the ad content for the ads to run.

Petitioner Disney Ex-1027, 0013

[0045] A typical live stream can consist of continuous data including one or more "content" segments (e.g. a sporting event, a news report, etc.), followed by a first advertising "break" during which advertising is intended to be shown. After the first advertising break, there can be a second set of one or more content segments, a second advertising break, and so forth. Advertising breaks can be determined by the media provider(s) 130 and indicated by "cue tones," which are analog or digital signals which indicate in a first form that a break is about to begin. Cue tones can also indicate in a second form that the break is about to end. These cue tones can occur at any point in the stream, and in many circumstances the timing of the breaks is not known before the live stream is initiated.

[0046] The API 260 can determine when advertisements are needed (e.g., by receiving a cue tone) and generate a manifest file accordingly. As previously indicated, the processing of a live stream (e.g., ingest and transcode) can take time, causing a buffer period between when a live stream is ingested to when the live content is provided to the client. This buffer period can provide the API 260 with enough time to determine that a cue tone has been detected at a certain point in the live stream and generate the client manifest which inserts advertisements at corresponding points in the live content provided to the client 145. Ad server(s) 310 can indicate to the API 260 which ad(s) to insert and, optionally, provide additional metadata regarding the ad(s). The ad content may also be provided by the ad server(s) 310 and previously stored as chunks at the origin 240 and/or other data storage, enabling the DPL 270 to dynamically manipulate requested ad chunks.

[0047] In some embodiments, when the API 260 determines an ad is to be inserted into live content provided to the client 145, it can request timing information from the DPL 270 for a corresponding chunk, such as a PTS value. The API 260 can therefore determine what PTS value corresponds to the point in the live stream at which an ad is to be inserted, and include offset information in the client manifest. When using the client manifest to request a chunk, the request provided by the client 145 to the MFDSP 150 (relayed to the DPL 270) can include metadata, including the offset information, signaling to the DPL 270 to rewrite the timestamps of the requested ad chunks so that the chunks provided to the client have continuous timestamps, despite changes between the live content and ad chunks.

Petitioner Disney Ex-1027, 0014

[0048] **FIG. 4** is a simplified block diagram provided to help illustrate an example of how timestamps can be rewritten. In this illustration, the chunks of the live stream 410 have PTS (timestamp) values of 11111, 11112, etc. Cue tones associated with the live stream may be received, indicating to the API 260 a starting point 412 and ending point 413 for an advertisement. To replace the chunks of live content 415 between the starting point 412 and ending point 413 with ad chunks 420 (or other on-demand content), the API 260 can request information from the DPL 270 regarding the PTS value of the chunk 411 before the starting point 412, for example. (In other embodiments, the API 260 may receive timing information regarding other chunks.)

[0049] Using this timing information, the API 260 can create a client manifest with URLs that include offset information in parameter strings that reflects this timing information. For example, the offset information can include an indication of the PTS value and/or an indication of a number by which ad chunks 420 should be offset to match the PTS values of the live stream 410. When these URLs are used by the client 145 to request ad chunks from the DPL 270 (via the MFDSP 150), the DPL 270 can then determine, from the parameter strings, the offset information. The DPL 270 can then, each time an ad chunk is requested, retrieve the ad chunk from the origin 240, dynamically offset the ad chunks according to the offset information (as shown by chunk sequence 430) and provide the requested chunk to the client 145 (via the MFDSP 150). This ultimately results in the client 145 receiving a mixed stream of chunks 440 with continuous timestamps that includes both live and on-demand (e.g., ad) content.

[0050] It can be noted that the example provided in FIG. 4 is a simplified one. In practice, systems may employ variations on this basic technique to accommodate different scenarios. For example, ad chunks 420 may differ in length the chunks of the live stream 410. However, because the DPL 270 is able to dynamically create requested chunks from the ad chunks 420, it is also able to provide chunks of a requested length. The API 260 can ensure that the client manifest provided to the client 145 indicates the proper length of requested chunks so that they match the chunk length of the live stream 410.

[0051] Also, although an ending point 413 in the example of FIG. 4 is known at the time the API 260 creates the corresponding client manifest, this may not always be the case. Depending on ad break length, client manifest size, buffer times, and/or other factors, the client manifest

Petitioner Disney Ex-1027, 0015

may not include a transition back from ad content to live content. However, this information may simply be provided in a subsequent client manifest.

[0052] Additionally, although the example of FIG. 4 suggests matching PTS values of chunks of a live stream 410 as received from an encoder 210, this may not always be the case. PTS values may be modified (or replaced entirely) when transcoded by the transcode module 230. However, because the DPL 270 can provide timing information regarding the transcoded chunks as they are stored in the origin 240, this is not an issue. The chunks of the live stream 410 with modified PTS values are provided to the client 145, and the timestamp values of the ad chunks 420 are rewritten to match these modified PTS values.

[0053] In some embodiments, the API 260 may additionally include a discontinuity tag (or other indicator) in the client manifest to flag the transition from live to on-demand content (and/or vice versa). This can indicate to the client 145 to clear their video buffer, enabling the client 145 to make the transition without any playback errors. Because some clients may require the discontinuity tag while others may not, the API 260 can first determine the type of client 145 consuming the live content and provide a discontinuity tag if the determined client is of a type that would need such a tag.

[0054] **FIG. 5** is a swim-lane diagram illustrating example interactions between a client, API, and DPL, such as the client 145, API 260, and DPL 270 illustrated in FIGS. 2 and 3. As with all other figures provided herein, FIG. 5 is provided as a non-limiting example. Embodiments of the invention may employ entities other than the client, API, and/or DPL, and/or may add, omit, substitute and/or otherwise alter the interactions illustrated in FIG. 5.

[0055] At block 505, the API receives an indication to insert an ad into a live content. The indication can be, for example, a cue tone in and/or related to a live stream of media and/or an indication that such a cue tone has been detected by another component (e.g., an ingest module). As described in previous embodiments, the API may maintain and/or have access to a database, list, or other data structure, enabling the API to determine a time in the live media an ad break in the live content begins.

[0056] At block 510, the API requests timing information from the DPL, and the request is received at block 515. Timing information can include information regarding the PTS value of a chunk and/or other information that can be used to determine an offset needed to ensure

Petitioner Disney Ex-1027, 0016

continuity in the timestamps of chunks when transitioning to and from live content to ad content. The timing information is provided by the DPL at block 520 and received at block 525.

[0057] At block 530 the client request a client manifest. Due to the nature of live content, which is being received and processed by a CHIMPS or other system at the same (or substantially the same) time it is being sent to the client, the client manifest typically contains only a portion of the live content available. Thus, in order to consume all or a larger portion of the live content, a client can request multiple client manifests in succession, requesting a new client manifest when the live content corresponding to a previous manifest is or soon will be completely consumed. Thus, the client manifest requested by the client at block 530 may be one of a series of client manifests requested by the client over a period of time while consuming the live content.

[0058] At block 535, the request for the client manifest is received by the API. Because the DPL is capable of dynamically manipulating chunks to accommodate chunk requests, the API can provide URLs (or other URIs) in the client manifest with parameter strings and/or other information that can be relayed to the DPL to dictate how the DPL manipulates the chunks that are ultimately provided to the client. Thus, the API can utilize the timing information received at block 525 to provide offset information in the client manifest to cause the DPL to rewrite timestamps of ad chunks inserted into the live content to ensure the timestamps received by the client are continuous. At block 545, the API can then return client manifest based on the timing information, which is received by the client at block 550.

[0059] Optionally, the API may insert a discontinuity tag into the client manifest, as shown at block 540. The location of the discontinuity tag may vary, depending on factors such as the streaming protocol and/or format of the client manifest. In some embodiments, for example, the discontinuity tag may simply be placed in between URLs on a sequential list of URLs in the client manifest that correspond to chunks to be consumed by a client. Thus, for transitions from live content to ad content, the discontinuity tag can follow URLs for chunks of live content and precede URLs for chunks of ad content. Depending on the needs of the client a discontinuity tag may additionally or alternatively be used in the transition back from ad content to live content, in a similar manner.

Petitioner Disney Ex-1027, 0017

[0060] At block 555, the client uses the client manifest at block 550 to send a request for live chunk(s) (i.e., chunks of live content) from the DPL, which is received by the DPL at block 560. The DPL then prepares the live chunk(s), as detailed herein above, and returns the live chunk(s) at block 565, which are received by the client at block 570. (It will be understood that, where multiple chunks are requested, the process shown in blocks 555-570 is repeated for each chunk. That is, the client sends a separate request for each chunk requested.)

[0061] At block 575 the client uses the client manifest to send a request for ad chunk(s) (i.e., chunks of ad content) from the DPL, which is received by the DPL at block 580. (Again, It will be understood that, where multiple chunks are requested, the process shown in blocks 575-595 is repeated for each requested ad chunk.) Here, each chunk request can include offset information provided in the client manifest to indicate to the DPL how the timestamps should be rewritten to ensure the timestamps of the ad chunks provided to the client are continuous with the timestamps of the live chunks previously received by the client at block 570. At block 585, the DPL normalizes ad chunks accordingly, using the offset information to rewrite the timestamps of the ad chunks. At block 590 the DPL returns the normalized ad chunks, which are received by the client at block 595.

[0062] It can be noted that the manifest file provided by the API can accommodate various other scenarios. For example, a manifest file may cause the client to initially request ad chunk(s), rather than live chunk(s).

[0063] **FIG. 6** is a simplified flow chart illustrating an example method 600 of providing a manifest file in accordance with the techniques described above. The method 600 can be implemented, for example, by an API 260 and/or other components shown in FIGS. 2 and 3 above. As with all other figures provided herein, FIG. 6 is provided as an example and is not limiting. Various blocks may be combined, separated, and/or otherwise modified, depending on desired functionality. Furthermore, different blocks may be executed by different components of a system and/or different systems. Such systems can include the computer system, described herein below with regard to FIG. 8.

[0064] At block 605, a stream of data representing live media content is received. The stream of data can include a live stream received by an encoder of a media provider, and may be processed according to previously-described techniques.

Petitioner Disney Ex-1027, 0018

[0065] At block 615, timing information of the stream of data is obtained. The timing information can include a PTS value or other information sufficient to determine offset information for timestamps of chunks of on-demand content inserted into the live media content.

[0066] At block 625 a request to stream the live media content is received. A request can include, for example, a request for a manifest file (e.g., a "client manifest" as described above).

[0067] The manifest file is created at block 635. Here, the manifest file includes information for streaming one or more segments of live media content via a data communications network, such as the Internet. Such information can include, for example, a list of URLs that can be used to request chunks of the live media content. The manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content. The media file can include, for example, an advertisement or other on-demand content with timestamps that differ from the timestamps of the live media content. The manifest file further includes offset information for streaming the one or more segments of the media file. This offset information can be embedded in or otherwise associated with the URLs themselves, and can relay offset information to an entity, such as a DPL, when used by a client. Finally, the manifest file is sent at block 645.

[0068] **FIG. 7** is a simplified flow chart illustrating an example method 700 of creating media chunks using offset information included in a request, in accordance with the techniques described above. The method 700 can be implemented, for example, by a DPL 270 and/or other components shown in FIGS. 2 and 3 above. Different blocks may be executed by different components of a system and/or different systems. Such systems can include the computer system, described herein below with regard to FIG. 8.

[0069] At block 705, a request for a segment of media is received. The request includes offset information for the requested segment of media. As indicated above, the offset information can be any information that enables the timestamp of a requested chunk (i.e., segment of media) to be rewritten, allowing for continuity in the timestamps of chunks of the media being streamed.

[0070] Block 715 includes determining one or more files to use for creating the segment of media, based on the request for the segment of media. As described above, chunks may be dynamically crafted to accommodate requests. Because the contents (e.g., start/end times,

Petitioner Disney Ex-1027, 0019

lengths, etc.) of requested chunks may vary from the content of files (e.g., stored chunks) used to create the requested chunks, more than one files may be used to create the requested chunk.

[0071] At block 725, the one or more files are obtained from a data storage. The files may be stored at a local system, or may be retrieved from a remote system, such as an advertisement server, for example.

[0072] Block 735 includes creating the segment of media from the one or more files by providing at least one timestamp for the segment of media based on the offset information. Rewriting timestamps in this manner allows for continuity in the timestamps of chunks of the media being streamed when transitioning from one type of media (e.g., live) to another (e.g., on-demand). The segment of media is then sent at block 745.

[0073] **FIG. 8** illustrates an embodiment of a computer system 800, which may be configured to execute various components described herein using any combination of hardware and/or software. For example, one or more computer systems 800 can be configured to execute components of the CHIMPS 110 shown in systems 200 and 300 if FIGS. 2 and 3, including the API 260 and DPL 270, as well as the encoder 210, end user device 140, and/or other components of the systems described in relation to FIGS. 1-3. FIG. 8 provides a schematic illustration of one embodiment of a computer system 800 that can perform the methods provided by various other embodiments, such as the methods described in relation to FIGS. 5-7. It should be noted that FIG. 8 is meant only to provide a generalized illustration of various components, any or all of which may be utilized as appropriate. FIG. 8, therefore, broadly illustrates how individual system elements may be implemented in a relatively separated or relatively more integrated manner. In addition, it can be noted that components illustrated by FIG. 8 can be localized to a single device and/or distributed among various networked devices, which may be disposed at different physical locations.

[0074] The computer system 800 is shown comprising hardware elements that can be electrically coupled via a bus 805 (or may otherwise be in communication, as appropriate). The hardware elements may include processing unit(s) 810, which can include without limitation one or more general-purpose processors, one or more special-purpose processors (such as digital signal processors, graphics acceleration processors, and/or the like), and/or other processing structure, which can be configured to perform one or more of the methods described herein,

Petitioner Disney Ex-1027, 0020

including the methods described in relation to FIGS. 5-7, by, for example, executing commands stored in a memory. The computer system 800 also can include one or more input devices 815, which can include without limitation a mouse, a keyboard, and/or the like; and one or more output devices 820, which can include without limitation a display device, a printer, and/or the like.

[0075] The computer system 800 may further include (and/or be in communication with) one or more non-transitory storage devices 825, which can comprise, without limitation, local and/or network accessible storage. This can include, without limitation, a disk drive, a drive array, an optical storage device, a solid-state storage device, such as a random access memory ("RAM"), and/or a read-only memory ("ROM"), which can be programmable, flash-updateable, and/or the like. Such storage devices may be configured to implement any appropriate data stores, including without limitation, various file systems, database structures, and/or the like.

[0076] The computer system 800 can also include a communications interface 830, which can include wireless and wired communication technologies. Accordingly, the communications interface can include a modem, a network card (wireless or wired), an infrared communication device, a wireless communication device, and/or a chipset (such as a Bluetooth™ device, an IEEE 802.11 device, an IEEE 802.15.4 device, a WiFi device, a WiMax device, cellular communication facilities, UWB interface, etc.), and/or the like. The communications interface 830 can therefore permit the computer system 800 to be exchanged with other devices and components of a network.

[0077] In many embodiments, the computer system 800 will further comprise a working memory 835, which can include a RAM or ROM device, as described above. Software elements, shown as being located within the working memory 835, can include an operating system 840, device drivers, executable libraries, and/or other code, such as one or more application programs 845, which may comprise computer programs provided by various embodiments, and/or may be designed to implement methods, and/or configure systems, provided by other embodiments, as described herein. Merely by way of example, one or more procedures described with respect to the method(s) discussed above, such as the methods described in relation to FIGS. 5-7, might be implemented as code and/or instructions executable by a computer (and/or a processing unit within a computer); in an aspect, then, such code and/or

Petitioner Disney Ex-1027, 0021

instructions can be used to configure and/or adapt a general purpose computer (or other device) to perform one or more operations in accordance with the described methods.

[0078] A set of these instructions and/or code might be stored on a non-transitory computer-readable storage medium, such as the storage device(s) 825 described above. In some cases, the storage medium might be incorporated within a computer system, such as computer system 800. In other embodiments, the storage medium might be separate from a computer system (e.g., a removable medium, such as an optical disc), and/or provided in an installation package, such that the storage medium can be used to program, configure, and/or adapt a general purpose computer with the instructions/code stored thereon. These instructions might take the form of executable code, which is executable by the computer system 800 and/or might take the form of source and/or installable code, which, upon compilation and/or installation on the computer system 800 (e.g., using any of a variety of generally available compilers, installation programs, compression/decompression utilities, etc.), then takes the form of executable code.

[0079] It will be apparent to those skilled in the art that substantial variations may be made in accordance with specific requirements. For example, customized hardware might also be used, and/or particular elements might be implemented in hardware, software (including portable software, such as applets, etc.), or both. Further, connection to other computing devices such as network input/output devices may be employed.

[0080] As mentioned above, in one aspect, some embodiments may employ a computer system (such as the computer system 800) to perform methods in accordance with various embodiments of the invention. According to a set of embodiments, some or all of the procedures of such methods are performed by the computer system 800 in response to processing unit(s) 810 executing one or more sequences of one or more instructions (which might be incorporated into the operating system 840 and/or other code, such as an application program 845) contained in the working memory 835. Such instructions may be read into the working memory 835 from another computer-readable medium, such as one or more of the storage device(s) 825. Merely by way of example, execution of the sequences of instructions contained in the working memory 835 might cause the processing unit(s) 810 to perform one or more procedures of the methods described herein. Additionally or alternatively, portions of the methods described herein may be executed through specialized hardware.

Petitioner Disney Ex-1027, 0022

[0081] It should be noted that the methods, systems, and devices discussed above are intended merely to be examples. It must be stressed that various embodiments may omit, substitute, or add various procedures or components as appropriate. For instance, it should be appreciated that, in alternative embodiments, the methods may be performed in an order different from that described, and that various steps may be added, omitted, or combined. Also, features described with respect to certain embodiments may be combined in various other embodiments. Different aspects and elements of the embodiments may be combined in a similar manner. Also, it should be emphasized that technology evolves and, thus, many of the elements are examples and should not be interpreted to limit the scope of the invention.

[0082] Terms, "and" and "or" as used herein, may include a variety of meanings that also is expected to depend at least in part upon the context in which such terms are used. Typically, "or" if used to associate a list, such as A, B, or C, is intended to mean A, B, and C, here used in the inclusive sense, as well as A, B, or C, here used in the exclusive sense. In addition, the term "one or more" as used herein may be used to describe any feature, structure, or characteristic in the singular or may be used to describe some combination of features, structures, or characteristics. However, it should be noted that this is merely an illustrative example and claimed subject matter is not limited to this example. Furthermore, the term "at least one of" if used to associate a list, such as A, B, or C, can be interpreted to mean any combination of A, B, and/or C, such as A, AB, AA, AAB, AABBCCC, etc.

[0083] Having described several embodiments, it will be recognized by those of skill in the art that various modifications, alternative constructions, and equivalents may be used without departing from the spirit of the invention. For example, the above elements may merely be a component of a larger system, wherein other rules may take precedence over or otherwise modify the application of the invention. Also, a number of steps may be undertaken before, during, or after the above elements are considered. Accordingly, the above description should not be taken as limiting the scope of the invention.

Petitioner Disney Ex-1027, 0023

WHAT IS CLAIMED IS:

1. A method of providing media streaming via a data communications network, the method comprising:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving, via the data communications network, a request to stream the live media content;

creating, with a processing unit, a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

sending, via the data communications network, the manifest file.

2. The method of providing media streaming via a data communications network, as recited in claim 1, further comprising providing an application programming interface (API), wherein the request to stream the live media content is received via the API.

3. The method of providing media streaming via a data communications network, as recited in claim 1, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

4. The method of providing media streaming via a data communications network, as recited in claim 3, further comprising:

determining a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

Petitioner Disney Ex-1027, 0024

5. The method of providing media streaming via a data communications network, as recited in claim 1, wherein obtaining the timing information of the stream of data comprises:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

6. The method of providing media streaming via a data communications network, as recited in claim 5, further comprising:

receiving an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

7. The method of providing media streaming via a data communications network, as recited in claim 1, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

8. A server for providing media streaming via a data communications network, the server comprising:

a communications interface;

a memory; and

a processing unit coupled to the communications interface and the memory, the processing unit configured to cause the server to:

receive a stream of data representing live media content;

obtain timing information of the stream of data;

receive, via the communications interface, a request to stream the live media content;

create a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

Petitioner Disney Ex-1027, 0025

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

send, via the communications interface, the manifest file.

9. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is further configured to cause the server to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

10. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

11. The server for providing media streaming via a data communications network, as recited in claim 10, wherein the processing unit is further configured to cause the server to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

12. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to obtain the timing information of the stream of data by:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

13. The server for providing media streaming via a data communications network, as recited in claim 12, wherein the processing unit is further configured to cause the server to:

receive an indication of a period of time in the live media content designated for advertising;

Petitioner Disney Ex-1027, 0026

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

14. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

15. A non-transitory computer-readable medium having instructions embedded thereon for providing media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving a request to stream the live media content;

creating a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

sending the manifest file.

16. The computer-readable medium, as recited in claim 15, further comprising instructions for causing the computer to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

17. The computer-readable medium, as recited in claim 15, wherein the instructions for creating the manifest file further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

18. The computer-readable medium, as recited in claim 17, further including instructions for causing the computer to:

Petitioner Disney Ex-1027, 0027

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

19. The computer-readable medium, as recited in claim 15, wherein the instructions for obtaining the timing information of the stream of data further include instructions for causing the computer to:

send a request for the timing information; and

receive a response to the request, the response including the timing information.

20. The computer-readable medium, as recited in claim 19 further comprising instructions for causing the computer to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

Petitioner Disney Ex-1027, 0028

ABSTRACT OF THE DISCLOSURE

Timestamps for streams of media that transition from one media source to another (such as from live content to on-demand content, and vice versa) can be rewritten by a server to help ensure error-free streaming by the client. Embodiments can coordinate the creation of a client manifest with the dynamic creation of a requested segment of media (i.e., "chunk") to determine how to rewrite timestamps of requested chunks such that they are continuous through the transition.

63868945 v1

Petitioner Disney Ex-1027, 0029

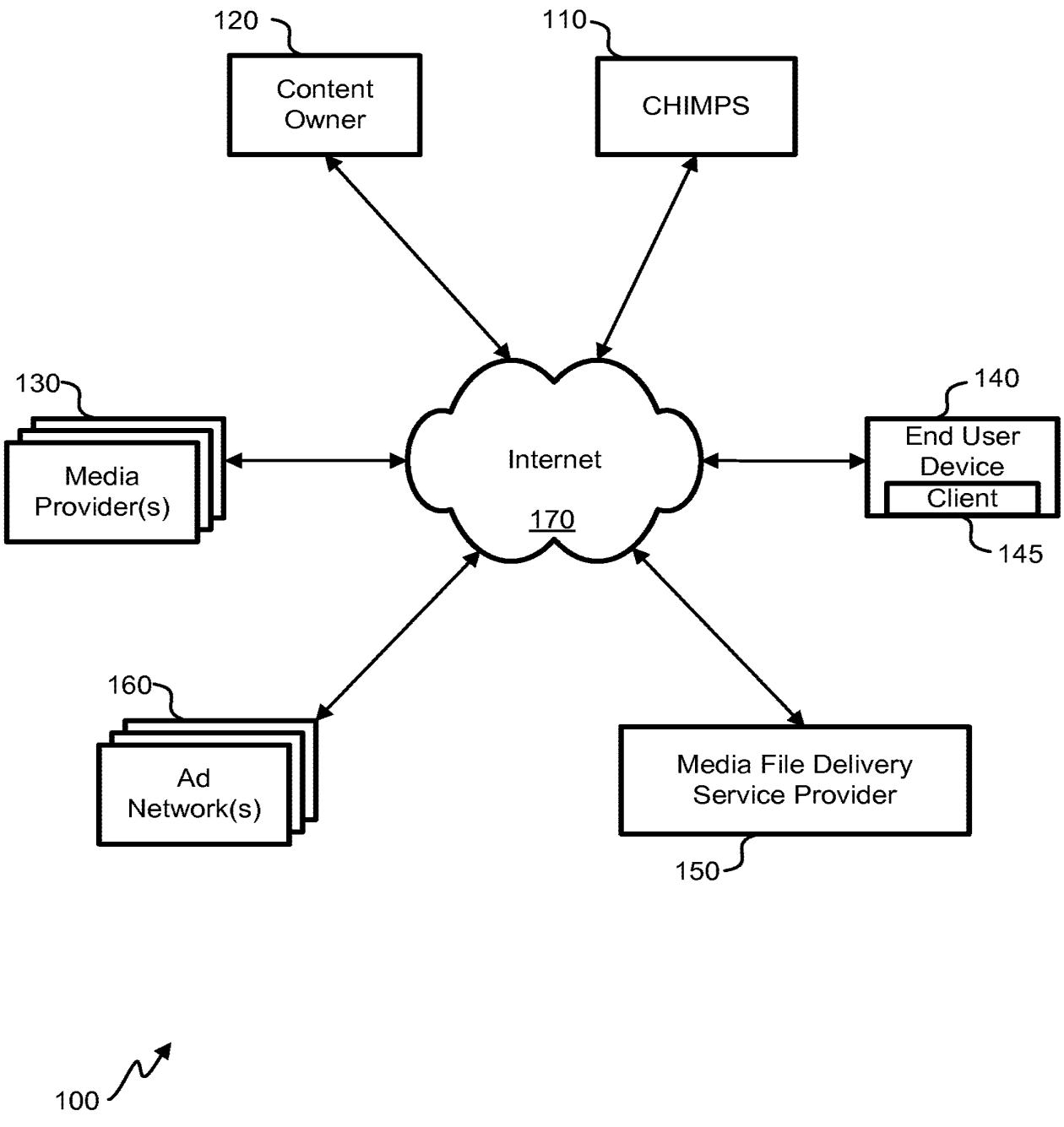

120
Content Owner
110
CHIMPS
130
Media Provider(s)
Internet
170
140
End User Device
Client
145
160
Ad Network(s)
Media File Delivery Service Provider
150
100

FIG. 1

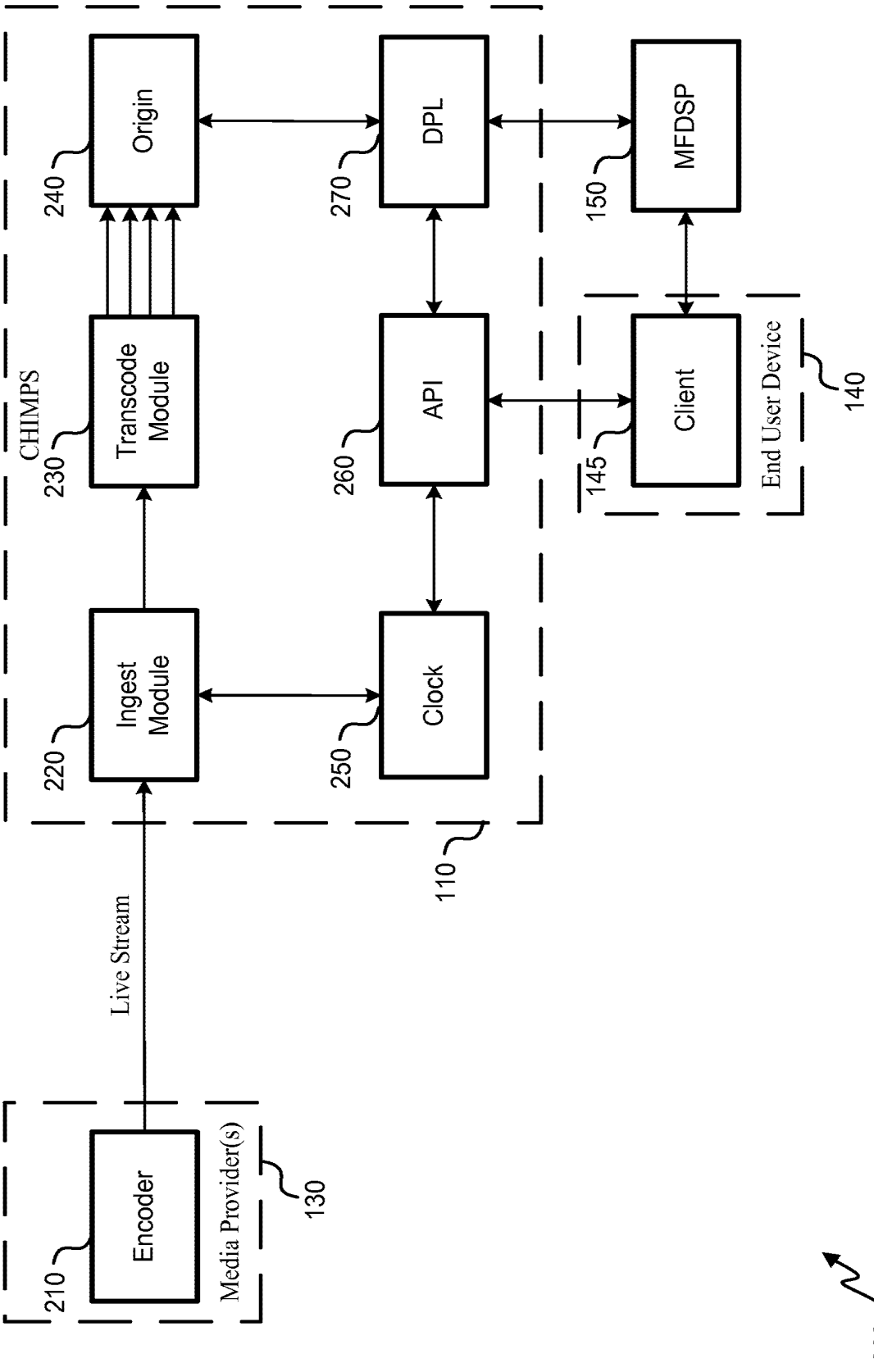

Origin
240
DPL
270
MFDSP
150
CHIMPS
230
Transcode Module
260
API
Client
145
End User Device
140
220
Ingest Module
250
Clock
110
Live Stream
Encoder
210
Media Provider(s)
130
200

FIG. 2

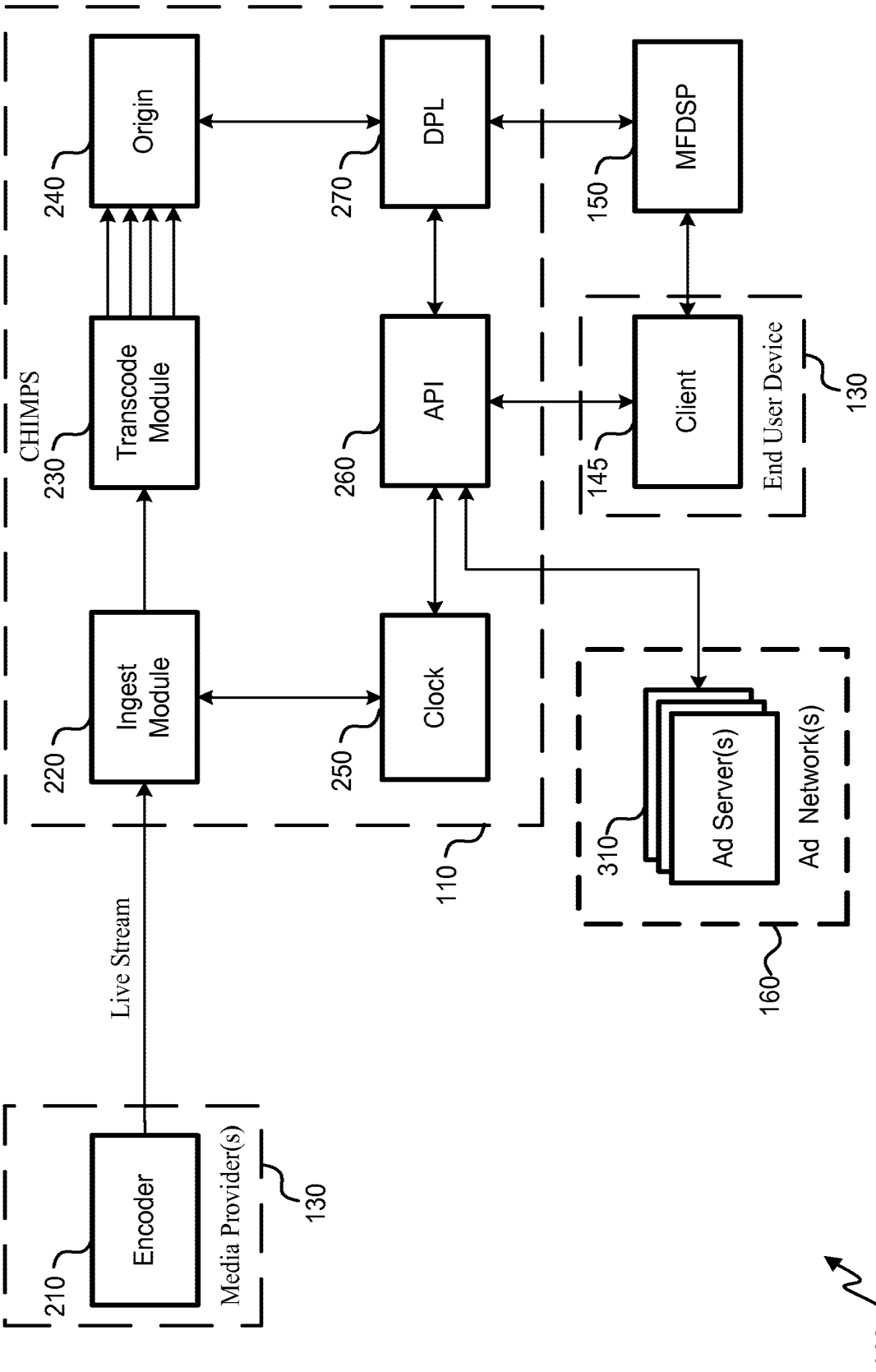

Origin
240
DPL
270
MFDSP
150
CHIMPS
Transcode Module
230
API
260
Client
145
End User Device
130
Ingest Module
220
Clock
250
110
Ad Server(s)
310
Ad Network(s)
160
Live Stream
Encoder
210
Media Provider(s)
130
300

FIG. 3

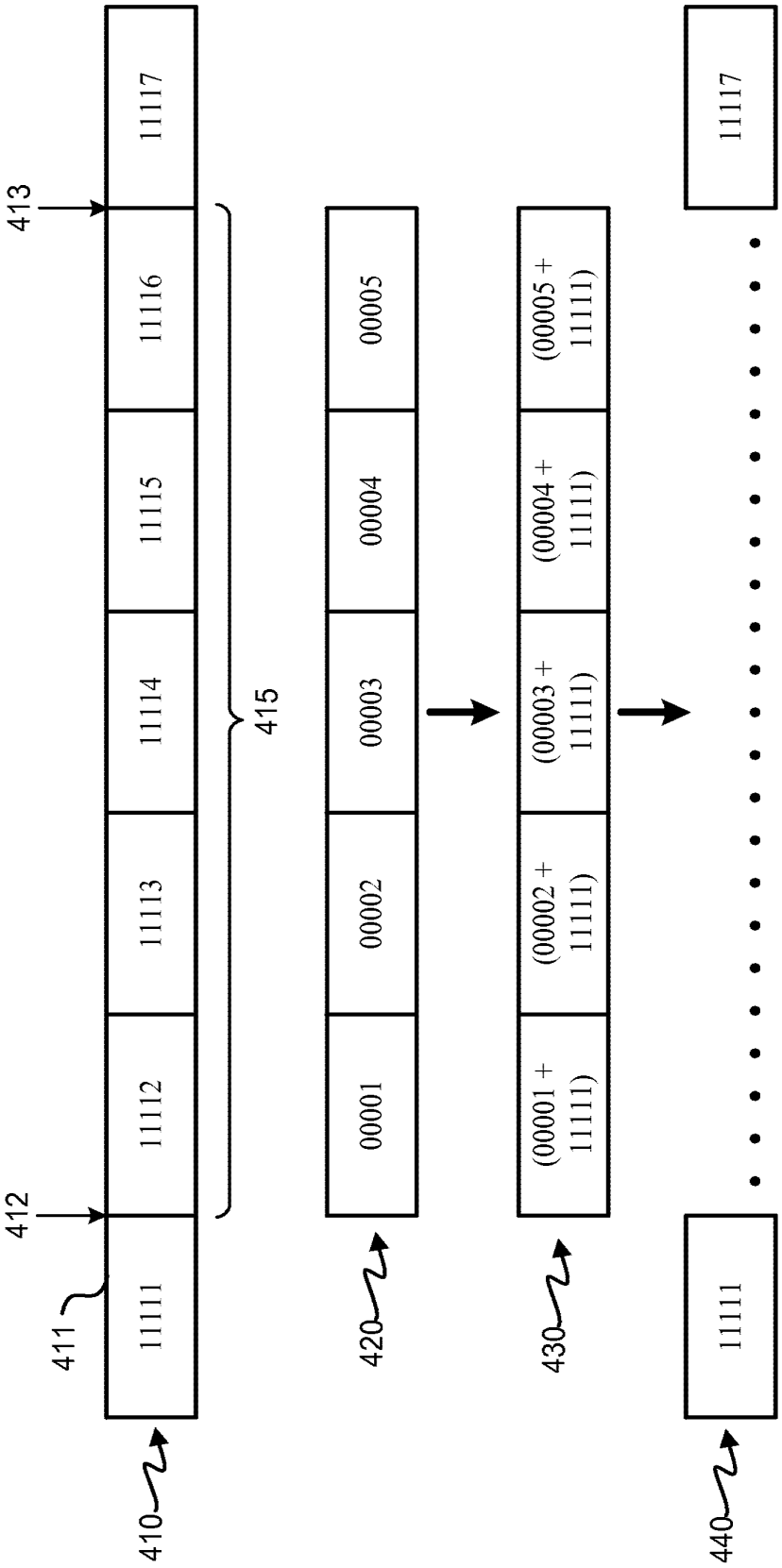

410
411
412
413
415
420
430
440
11111
11112
11113
11114
11115
11116
11117
00001
00002
00003
00004
00005
(00001 + 11111)
(00002 + 11111)
(00003 + 11111)
(00004 + 11111)
(00005 + 11111)

FIG. 4

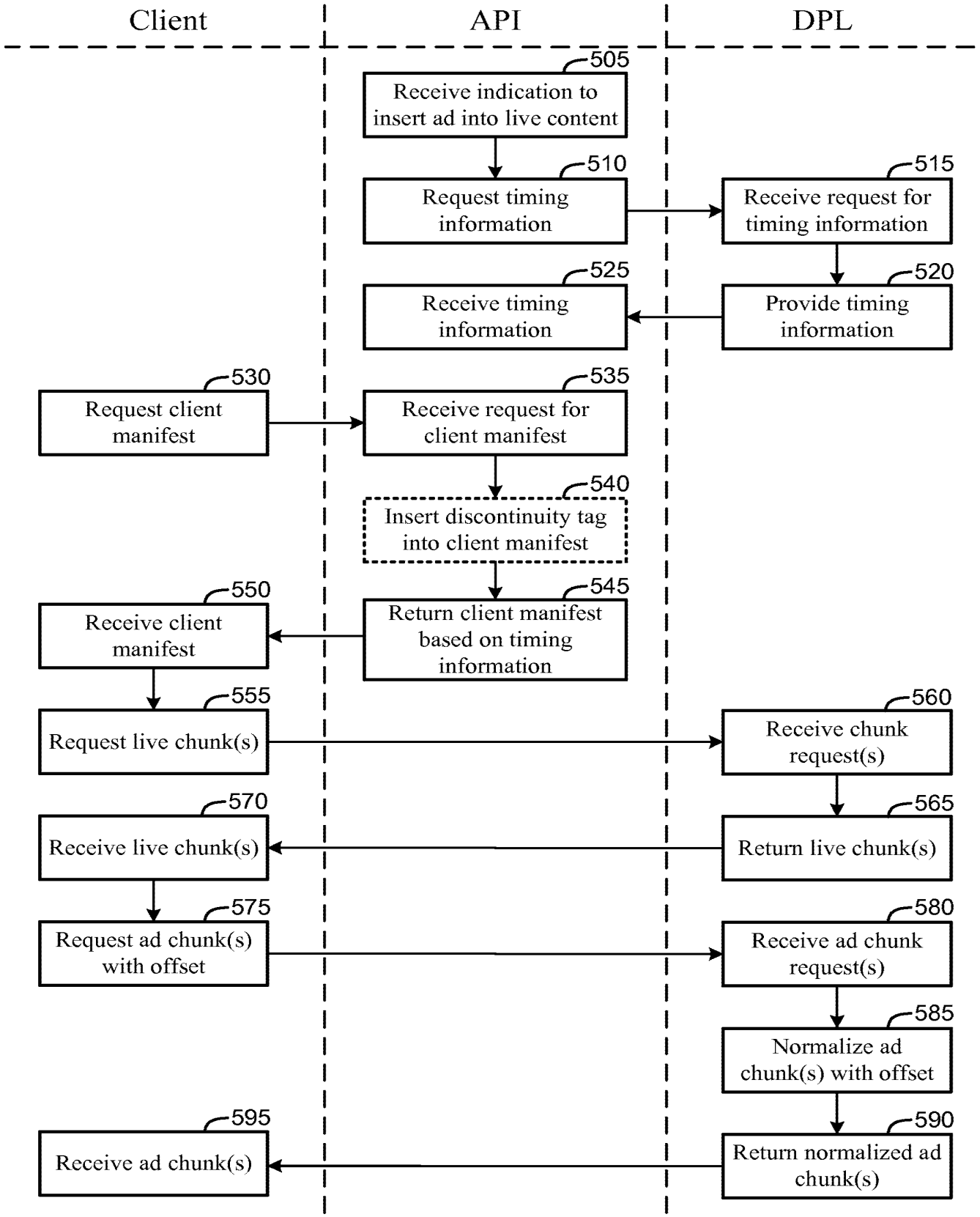

Client
API
DPL
505
Receive indication to insert ad into live content
510
Request timing information
515
Receive request for timing information
520
Provide timing information
525
Receive timing information
530
Request client manifest
535
Receive request for client manifest
540
Insert discontinuity tag into client manifest
545
Return client manifest based on timing information
550
Receive client manifest
555
Request live chunk(s)
560
Receive chunk request(s)
565
Return live chunk(s)
570
Receive live chunk(s)
575
Request ad chunk(s) with offset
580
Receive ad chunk request(s)
585
Normalize ad chunk(s) with offset
590
Return normalized ad chunk(s)
595
Receive ad chunk(s)

FIG. 5

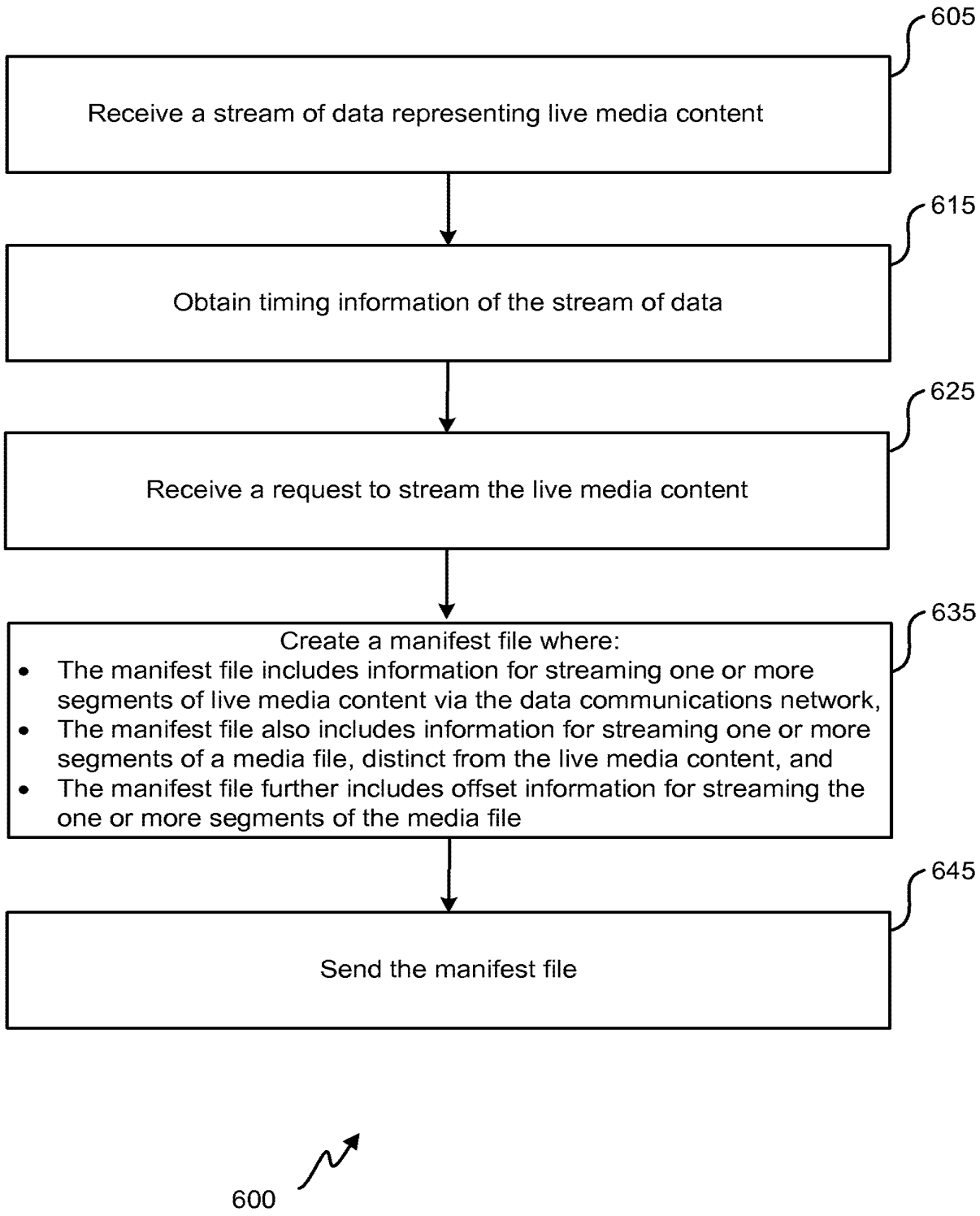

605
Receive a stream of data representing live media content
615
Obtain timing information of the stream of data
625
Receive a request to stream the live media content
635
Create a manifest file where:
• The manifest file includes information for streaming one or more segments of live media content via the data communications network,
• The manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and
• The manifest file further includes offset information for streaming the one or more segments of the media file
645
Send the manifest file
600

FIG. 6

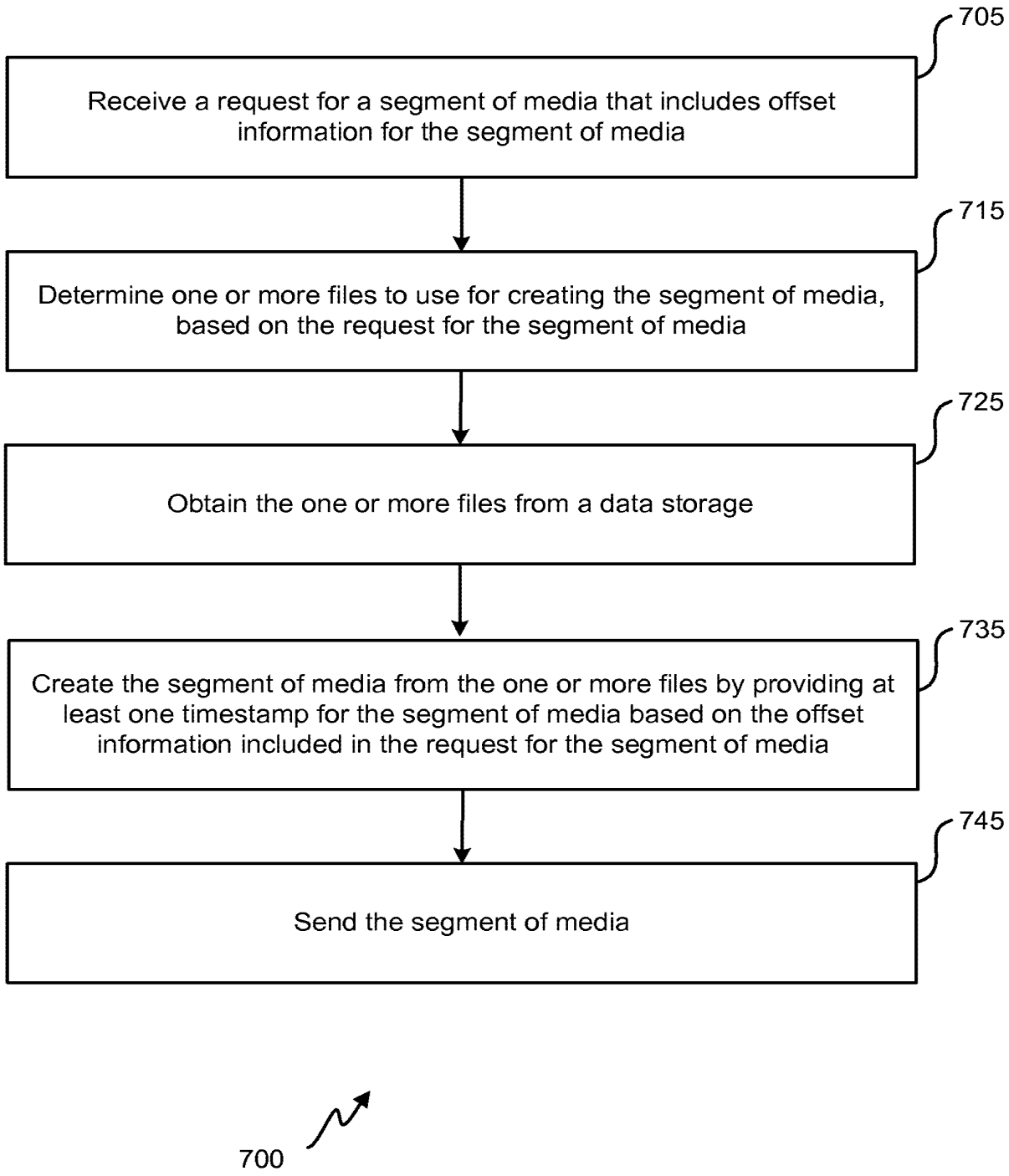

705
Receive a request for a segment of media that includes offset information for the segment of media
715
Determine one or more files to use for creating the segment of media, based on the request for the segment of media
725
Obtain the one or more files from a data storage
735
Create the segment of media from the one or more files by providing at least one timestamp for the segment of media based on the offset information included in the request for the segment of media
745
Send the segment of media
700

FIG. 7

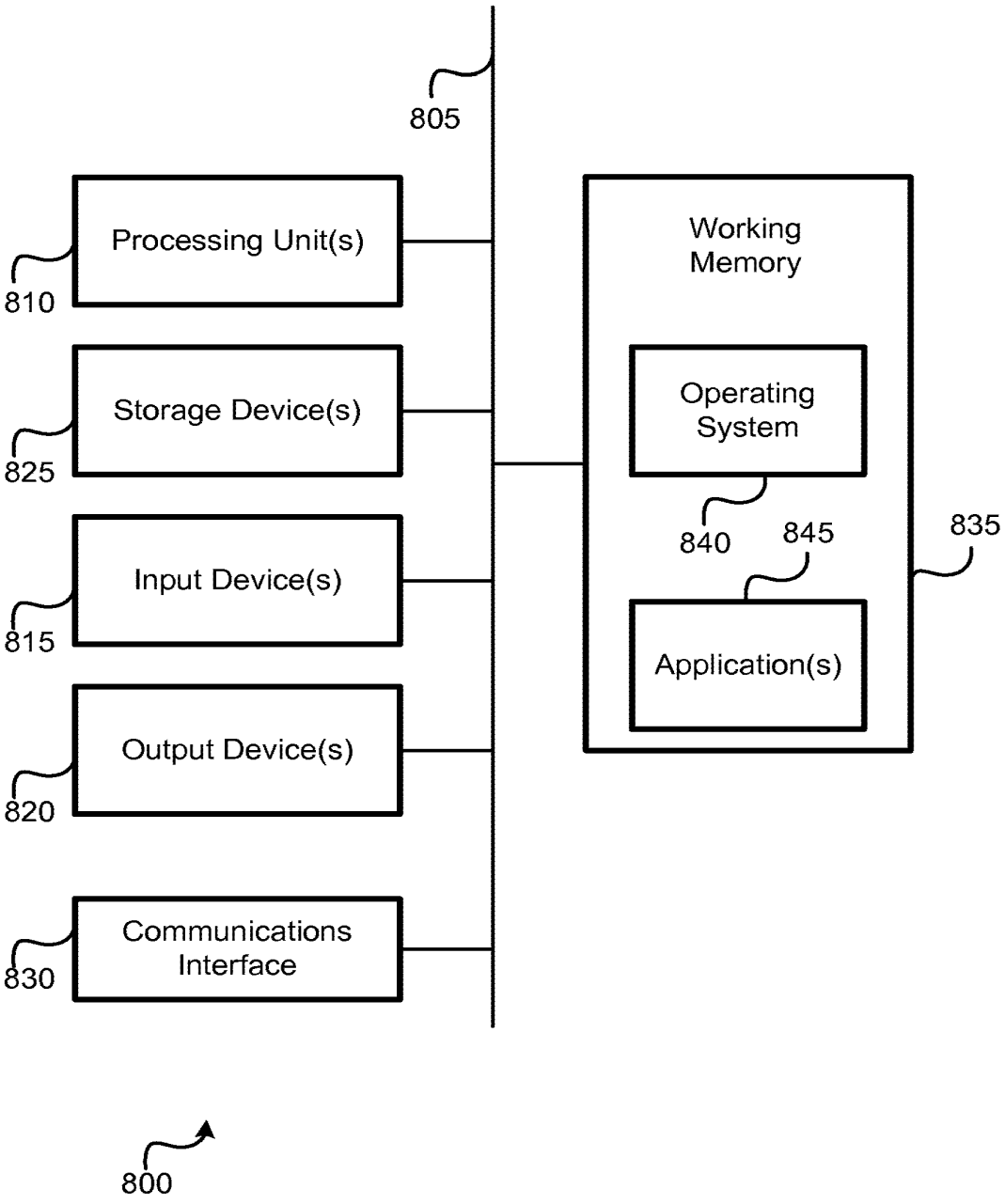

805
Processing Unit(s)
810
Storage Device(s)
825
Input Device(s)
815
Output Device(s)
820
Communications Interface
830
Working Memory
Operating System
840
845
Application(s)
835
800

FIG. 8

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	92853-882531 (004100US)
	Application Number	
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Albert	John	McGowan	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Phoenix	State/Province	AZ	Country of Residence i	US

Mailing Address of Inventor:

Address 1	4201 E. Camelback Road, No. 101		
Address 2			
City	Phoenix	State/Province	AZ
Postal Code	85018	Country i	US

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Nicholas		Maultsby	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Phoenix	State/Province	AZ	Country of Residence i	US

Mailing Address of Inventor:

Address 1	19239 N. 30th Pl.		
Address 2			
City	Phoenix	State/Province	AZ
Postal Code	85050	Country i	US

Inventor 3 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Jared		Marshall	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	92853-882531 (004100US)
	Application Number	
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

City	Tempe	State/Province	AZ	Country of Residence i	US

Mailing Address of Inventor:

Address 1	21 E 6th Street #414		
Address 2			
City	Tempe	**State/Province**	AZ
Postal Code	85281	**Country** i	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	20350		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE		
Attorney Docket Number	92853-882531 (004100US)	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	8	**Suggested Figure for Publication (if any)**	

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	92853-882531 (004100US)
	Application Number	
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Customer Number	20350

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	non provisional of	61884709	2013-09-30

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) [i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove

Application Number	Country [i]	Filing Date (YYYY-MM-DD)	Access Code [i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	92853-882531 (004100US)
	Application Number	
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Authorization to Permit Access:

☐ Authorization to Permit Access to the Instant Application by the Participating Offices

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :	
If the Applicant is an Organization check here. ☒	
Organization Name	UNICORN MEDIA, INC.

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	92853-882531 (004100US)
	Application Number	
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Mailing Address Information:			
Address 1	24 West 5th Street		
Address 2			
City	Tempe	**State/Province**	AZ
Country i	US	Postal Code	85281
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Non-Applicant Assignee Information:

Providing assignment information in this section does not subsitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee 1

Complete this section only if non-applicant assignee information is desired to be included on the patent application publication in accordance with 37 CFR 1.215(b). Do not include in this section an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest), as the patent application publication will include the name of the applicant(s).

Remove

If the Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information:			
Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee Data may be generated within this form by selecting the Add button. Add

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	92853-882531 (004100US)
	Application Number	
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Signature:

Remove

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications

Signature	/Scott L. McMillan/			Date (YYYY-MM-DD)	2013-11-21
First Name	Scott	Last Name	McMillan	Registration Number	62079

Additional Signature may be generated within this form by selecting the Add button. Add

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/AIA/01 (06-12)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [■] The attached application, or
- [ ] United States application or PCT international application number _____ filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Albert John McGowan Date (Optional): 11-15-13

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/01 (06-12)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [■] The attached application, or
- [ ] United States application or PCT international application number _____ filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Nicholas Maultsby Date (Optional): 11/21/13

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/01 (06-12)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [■] The attached application, or
- [ ] United States application or PCT international application number _____ filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Jared Marshall Date (Optional): 11-15-13

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Filer:	Scott Lee McMillan/Dane Stephenson
Attorney Docket Number:	92853-882531 (004100US)

Filed as Small Entity

Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	70	70
Utility Search Fee	2111	1	300	300
Utility Examination Fee	2311	1	360	360
Request for Prioritized Examination	2817	1	2000	2000
Pages:				
Claims:				
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Publ. Fee- Early, Voluntary, or Normal	1504	1	300	300
OTHER PUBLICATION PROCESSING FEE	1808	1	130	130
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
PROCESSING FEE, EXCEPT PROV. APPLS.	2830	1	70	70
		Total in USD ($)		**3230**

Electronic Acknowledgement Receipt

EFS ID:	17472365
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Dane Stephenson
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	21-NOV-2013
Filing Date:	
Time Stamp:	18:40:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$3230
RAM confirmation Number	6208
Deposit Account	201430
Authorized User	MCMILLAN, SCOTT

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	TrackOne Request	92853-882531_TrackOne_Request.pdf	150179 bf301a6800aed2f43073bb44c4d702190365fa1d	no	2
Warnings:					
Information:					
2	First Action Interview - Enrollment Request	92853-882531_Request_First_Action_Interview.pdf	173560 753b77d25ca60346fe5716f13c61840a9aac39f6	no	3
Warnings:					
Information:					
3		92853-882531_Specification.pdf	156265 1572e360e9b51303b98bdc745af50217adbc0b75	yes	29

Multipart Description/PDF files in .zip description

Document Description	Start	End
Transmittal of New Application	1	1
Specification	2	23
Claims	24	28
Abstract	29	29

Warnings:					
Information:					
4	Drawings-only black and white line drawings	92853-882531_Figures.pdf	111060 6e897b57875f27d07f318aba9a9260ffc314bb22	no	8
Warnings:					
Information:					
5	Application Data Sheet	92853-882531_ADS.pdf	1509939 45eae1a88f4ce14af177db3fd1fe1bac579e8cdc	no	7
Warnings:					
Information:					

6	Oath or Declaration filed	92853-882531_Declarations.pdf	1274337 d20fa9598bfd7d1685ef08bbcf3db6eae40b976b	no	3
Warnings:					
Information:					
7	Fee Worksheet (SB06)	fee-info.pdf	42289 951a24ec8f860af280b7d38a16ec2292f60908c5	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	3417629	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Doc Code: TRACK1.REQ
Document Description: TrackOne Request

PTO/AIA/424 (03-13)

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)

First Named Inventor:	Albert John McGowan	Nonprovisional Application Number (if known):	
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1), the prioritized examination fee set forth in 37 CFR 1.17(c), and if not already paid, the publication fee set forth in 37 CFR 1.18(d) have been filed with the request. The basic filing fee, search fee, examination fee, and any required excess claims and application size fees are filed with the request or have been already been paid.

2. The application contains or is amended to contain no more than four independent claims and no more than thirty total claims, and no multiple dependent claims.

3. The applicable box is checked below:

I. ☑ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.

---OR---

(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.

ii. The executed inventor's oath or declaration is filed with the application. (37 CFR 1.63 and 1.64)

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

i. A request for continued examination has been filed with, or prior to, this form.
ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature /Scott L. McMillan/	Date November 21, 2013
Name (Print/Typed) Scott L. McMillan	Practitioner Registration Number 62,079

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.**

☑ *Total of 1 forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Petitioner Disney Ex-1027, 0054

Doc Code: FAI.REQ
Document Description: Request First Action Interview

PTO/SB/413C (05-11)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST FOR FIRST ACTION INTERVIEW (FULL PILOT PROGRAM)

Attorney Docket Number: 92853-882531 (004100US)	Application Number (if known):	Filing date: November 21, 2013
First Named Inventor: Albert John McGowan	Title: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

APPLICANT HEREBY REQUESTS A FIRST ACTION INTERVIEW IN THE ABOVE-IDENTIFIED APPLICATION. See Instruction Sheet on page 2.

1. The application must contain three (3) or fewer independent claims and twenty (20) or fewer total claims.

2. The application must not contain any multiple dependent claims.

3. By filing this request:

   Applicant is agreeing to make an election without traverse if the Office determines that the claims are not obviously directed to a single invention; and

   Applicant is agreeing not to request for a refund of the search fee and any excess claims fee paid in the application after the mailing or notification of the pre-interview communication prepared by the examiner.

4. Other attachments: _____

Signature /Scott L. McMillan/	Date November 21, 2013
Name (Print/Typed) Scott L. McMillan	Registration Number 62,079

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.*

■ *Total of 1 forms are submitted.

The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/413C (05-11)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Instruction Sheet for Request for First Action Interview (Full Pilot Program)

(Not to be Submitted to the USPTO)

A grantable request must meet the following conditions:

1. The application must be a new non-reissue utility application filed under 35 U.S.C. 111(a) or an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).

2. The application must contain three (3) or fewer independent claims and twenty (20) or fewer total claims. The application may not contain any multiple dependent claims.

3. The request must be filed electronically using the Office's electronic filing system, EFS-Web.

4. The claims must be directed to a single invention. If the Office determines that the claims are directed to multiple inventions (*e.g.*, in a restriction requirement), the applicant must make an election without traverse.

5. The request must be filed at least one day before a first Office action on the merits of the application appears in the Patent Application Information Retrieval (PAIR) system (*i.e.*, at least one day prior to the date when a first Office action on the merits, notice of allowability or allowance, or action under Ex parte Quayle, 1935 Dec. Comm'r Pat. 11 (1935) appears in the PAIR system). Applicant may check the status of the application using the PAIR system.

6. The request for a first action interview must include a statement that applicant agrees not to file a request for a refund of the search fee and any excess claims fees paid in the application after the mailing or notification of the Pre-Interview Communication. Any petition for express abandonment under 37 CFR 1.138(d), and request for a refund of the search fee and any excess claims fees, filed after the mailing or notification of the Pre-Interview Communication will not be granted.

For more information, see notice "Full First Action Interview Pilot Program" available on the USPTO web site at http://www.uspto.gov/patents/init_events/faipp_full.jsp

Petitioner Disney Ex-1027, 0056

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Petitioner Disney Ex-1027, 0057

Doc Code: FAI.REQ
Document Description: Request First Action Interview

PTO/SB/413C (05-11)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST FOR FIRST ACTION INTERVIEW (FULL PILOT PROGRAM)

Attorney Docket Number: 92853-882531 (004100US)	Application Number (if known):	Filing date: November 21, 2013
First Named Inventor: Albert John McGowan	Title: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

APPLICANT HEREBY REQUESTS A FIRST ACTION INTERVIEW IN THE ABOVE-IDENTIFIED APPLICATION. See Instruction Sheet on page 2.

1. The application must contain three (3) or fewer independent claims and twenty (20) or fewer total claims.

2. The application must not contain any multiple dependent claims.

3. By filing this request:

   Applicant is agreeing to make an election without traverse if the Office determines that the claims are not obviously directed to a single invention; and

   Applicant is agreeing not to request for a refund of the search fee and any excess claims fee paid in the application after the mailing or notification of the pre-interview communication prepared by the examiner.

4. Other attachments: _____

Signature /Scott L. McMillan/	Date November 21, 2013
Name (Print/Typed) Scott L. McMillan	Registration Number 62,079

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.*

■ *Total of 1 forms are submitted.

The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/SB/413C (05-11)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Instruction Sheet for Request for First Action Interview (Full Pilot Program)

(Not to be Submitted to the USPTO)

A grantable request must meet the following conditions:

1. The application must be a new non-reissue utility application filed under 35 U.S.C. 111(a) or an international application that has entered the national stage in compliance with 35 U.S.C. 371(c).

2. The application must contain three (3) or fewer independent claims and twenty (20) or fewer total claims. The application may not contain any multiple dependent claims.

3. The request must be filed electronically using the Office's electronic filing system, EFS-Web.

4. The claims must be directed to a single invention. If the Office determines that the claims are directed to multiple inventions (*e.g.*, in a restriction requirement), the applicant must make an election without traverse.

5. The request must be filed at least one day before a first Office action on the merits of the application appears in the Patent Application Information Retrieval (PAIR) system (*i.e.*, at least one day prior to the date when a first Office action on the merits, notice of allowability or allowance, or action under Ex parte Quayle, 1935 Dec. Comm'r Pat. 11 (1935) appears in the PAIR system). Applicant may check the status of the application using the PAIR system.

6. The request for a first action interview must include a statement that applicant agrees not to file a request for a refund of the search fee and any excess claims fees paid in the application after the mailing or notification of the Pre-Interview Communication. Any petition for express abandonment under 37 CFR 1.138(d), and request for a refund of the search fee and any excess claims fees, filed after the mailing or notification of the Pre-Interview Communication will not be granted.

For more information, see notice "Full First Action Interview Pilot Program" available on the USPTO web site at http://www.uspto.gov/patents/init_events/faipp_full.jsp

Petitioner Disney Ex-1027, 0059

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Petitioner Disney Ex-1027, 0060

Document code: WFEE

United States Patent and Trademark Office
Sales Receipt for Accounting Date: 12/06/2013

SDUONG ADJ #00000001 Mailroom Dt: 11/21/2013
Seq No: 6208 Sales Acctg Dt: 11/22/2013 14086801
06 FC : 1808 -130.00 OP

Document code: WFEE

United States Patent and Trademark Office
Sales Receipt for Accounting Date: 12/06/2013

SDUONG RF #30137503 Mailroom Dt: 12/06/2013 14086801

Credit Card Refund Total: $130.00

American Express XXXXXXXXXXXX1001

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 14/086,801

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	70		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	300		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*	x 40 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x 210 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	730		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
14/086,801	11/21/2013	2447	1030	92853-882531 (004100US)	20	3

CONFIRMATION NO. 6031

20350
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

FILING RECEIPT



Date Mailed: 12/13/2013

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)
Albert John McGowan, Phoenix, AZ;
Nicholas Maultsby, Phoenix, AZ;
Jared Marshall, Tempe, AZ;

Applicant(s)
UNICORN MEDIA, INC., Tempe, AZ

Assignment For Published Patent Application
UNICORN MEDIA, INC., Tempe, AZ

Power of Attorney: None

Domestic Priority data as claimed by applicant
This appln claims benefit of 61/884,709 09/30/2013

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

If Required, Foreign Filing License Granted: 12/05/2013
The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/086,801**
Projected Publication Date: 04/02/2015
Non-Publication Request: No
Early Publication Request: No
** **SMALL ENTITY** **

Petitioner Disney Ex-1027, 0064

Title

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

Petitioner Disney Ex-1027, 0065

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO CA 94111-3834

MAILED

DEC 17 2013

OFFICE OF PETITIONS

Doc Code: TRACK1.GRANT

Decision Granting Request for Prioritized Examination (Track I or After RCE)	Application No.: 14/086,801

1. THE REQUEST FILED November 21, 2013 IS **GRANTED.**

The above-identified application has met the requirements for prioritized examination

A. ☒ for an original nonprovisional application (Track I).
B. ☐ for an application undergoing continued examination (RCE).

2. **The above-identified application will undergo prioritized examination.** The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:

A. filing a **petition for extension of time** to extend the time period for filing a reply;
B. filing an **amendment to amend the application to contain more than four independent claims, more than thirty total claims**, or a multiple dependent claim;
C. filing a **request for continued examination**;
D. filing a notice of appeal;
E. filing a request for suspension of action;
F. mailing of a notice of allowance;
G. mailing of a final Office action;
H. completion of examination as defined in 37 CFR 41.102; or
I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to Brian W. Brown at 571-272-5338.

/Brian W. Brown/
[*Signature*]

Petitions Examiner, Office of Petitions
(Title)

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

20350 7590 02/20/2014

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
HUSSAIN, TAUQIR	
ART UNIT	**PAPER NUMBER**
2452	

NOTIFICATION DATE	DELIVERY MODE
02/20/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com
mcollins@kilpatricktownsend.com

Petitioner Disney Ex-1027, 0068

Notice of References Cited	Application/Control No. 14/086,801	Applicant(s)/Patent Under Reexamination MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2011/0264506 A1	10-2011	Grant et al.	705/14.39
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Petitioner Disney Ex-1027, 0069

First Action Interview Pilot Program Pre-Interview Communication	Application No. 14/086,801	Applicant(s) MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	AIA (First Inventor to File) Status Yes

-The MAILING OR NOTIFICATION DATE of this communication appears on the cover sheet with the correspondence address -

THE SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **ONE MONTH OR THIRTY (30) DAYS,** WHICHEVER IS LONGER, FROM THE MAILING OR NOTIFICATION DATE OF THIS COMMUNICATION.

This time period for reply is extendable under 37 CFR 1.136(a) for only ONE additional MONTH.

This communication constitutes notice under 37 CFR 1.136(a)(1)(i).

Applicant must, within the time period for reply, file: (1) A letter requesting not to have a first action interview; (2) A reply under 37 CFR 1.111 waiving the first action interview and First Action Interview Office Action; or (3) An Applicant Initiated Interview Request Form (PTOL-413A) electronically via EFS-Web, accompanied by a proposed amendment or arguments, and schedule the interview within 2 months from the filing of the request. A failure to respond to this communication will be treated as a request not to have an interview. If applicant waives the First Action Interview Office Action, the instant Pre-Interview Communication is deemed the first Office Action on the Merits. The next subsequent Office action may be made final if appropriate. See MPEP 706.07(a).

Status

1)☒ Responsive to communication(s) filed on *11/21/2013*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

Disposition of Claims

2)☒ Claim(s) *1-20* is/are pending in the application.

2a) Of the above claim(s) _____ is/are withdrawn from consideration.

3)☐ Claim(s) _____ is/are allowed.

4)☒ Claim(s) *1-20* is/are rejected.

5)☐ Claim(s) _____ is/are objected to.

6)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

7)☐ The specification is objected to by the Examiner.

8)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

9)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

Contact Information

Examiner's Telephone Number: (571)270-1247

Examiner's Typical Work Schedule: M-F

Supervisor's Name: Thu V. Nguyen

Supervisor's Telephone Number:

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

Petitioner Disney Ex-1027, 0070

First Action Interview Pilot Program Pre-Interview Communication	Application No. 14/086,801	Applicant(s) MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	AIA (First Inventor to File) Status No

Notification of Rejection(s) and/or Objection(s)

#	Claim(s)	Reference(s) (if applicable)	Rejection Statutory Basis	Brief Explanation of Rejection
	1,8 and 15	US 20110264506 A1	102(b)	[0005], [0019], [0029, [0039], [0037]
	2,9 and 16		102(b)	[0046]
	3,10,17		102(b)	[0070]-[0071]
	4,11 and 18		102(b)	[0036]
	5, 12 and 19		102(b)	[0044]

Expanded Discussion/Commentary

		6, 13 and 20 : [0044]-[0046]
		7 and 14: [0015]

DATE: 08 February, 2014	/TAUQIR HUSSAIN/ Primary Examiner, Art Unit 2452	

Notice of References Cited	Application/Control No. 14/086,801	Applicant(s)/Patent Under Reexamination MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2011/0264506 A1	10-2011	Grant et al.	705/14.39
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Petitioner Disney Ex-1027, 0072

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	847	stream$3 with (tim$3 timpe near2 stamp) with (manifest metadata attribute preference) with (segment portion frame)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 10:50
S2	4512	709/232.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:13
S3	28	rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:17
S4	0	(on$1demand stream$3 media content) with rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:18
S5	14	(on$1demand stream$3 media content) same rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:18
S6	14	S5 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:20
S7	28	dynamic$4 and rewrit$3 near8 timestamp and (media near2 content live near3 stream$3 video VOD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S8	28	S7 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S9	0	(API "application programing interface") with stream$3 with rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:07
S10	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08

Petitioner Disney Ex-1027, 0073

S11	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp and dynamic$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08
S12	0	meida near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S13	0	meida near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S14	202	media near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S15	91	media near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S16	0	media near3 content with manifest near4 file and dynamic$5 and rewrit$5 near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S17	33	media near3 content with manifest near4 file and dynamic$5 and timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S18	0	media near3 content with manifest near4 file and dynamic$5 and timestamp and rewrit$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S19	33	S17 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10

EAST Search History (Interference)

<This search history is empty>

2/8/2014 9:44:43 PM
C:\Users\thussain1\Documents\EAST\Workspaces\14086801.wsp

Petitioner Disney Ex-1027, 0074

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	Art Unit
	TAUQIR HUSSAIN	2452

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	232	2/10/2014	TH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (USPAT, USPGPUB, EPO, USOCR, FERS, JPO, DERWENT, IBM_TDB) - See East Search history printout.	2/10/2014	TH
Search of Obviousness type DP was conducted in East Search History printout.	2/10/2014	TH
Inventor and assignee search in east- see east search history printout.	2/10/2014	TH
Inventor and assignee search in Palm.	2/10/2014	TH
709/232 text search, see East Search History printout.	2/10/2014	TH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
709	Please see attached east search history for interference search.	2/10/2014	TH

Petitioner Disney Ex-1027, 0075

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 6031

SERIAL NUMBER	FILING or 371(c) DATE RULE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
14/086,801	11/21/2013	709	2452	92853-882531 (004100US)

APPLICANTS

UNICORN MEDIA, INC., Tempe, AZ, Assignee (with 37 CFR 1.172 Interest);

INVENTORS

Albert John McGowan, Phoenix, AZ;
Nicholas Maultsby, Phoenix, AZ;
Jared Marshall, Tempe, AZ;

**** CONTINUING DATA ***************************

This appln claims benefit of 61/884,709 09/30/2013

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **

12/05/2013

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /TAUQIR HUSSAIN/ Examiner's Signature	☐ Met after Allowance TH Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		AZ	8	20	3

ADDRESS

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834
UNITED STATES

TITLE

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

FILING FEE RECEIVED		
1030	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14/086,801
	Filing Date	November 21, 2013
	First Named Inventor	Albert John McGowan
	Art Unit	2447
	Examiner Name	
	Attorney Docket Number	92853-882531

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1.	US-8,145,782		03-27-2012	McGowan, et al.	
	A2.	US-8,301,733		10-30-2012	McGowan	
	A3.	US-8,327,013		12-04-2012	McGowan, et al.	

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T[5]

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
[4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

Electronic Acknowledgement Receipt

EFS ID:	18251006
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Tina Bello
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	20-FEB-2014
Filing Date:	21-NOV-2013
Time Stamp:	12:34:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		2014_02_20_92853_882531_IDS.pdf	172623 8da9015a29b953cc7b8d29816fa05d74f69c1241	yes	3

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Transmittal Letter	1	2
	Information Disclosure Statement (IDS) Form (SB08)	3	3
Warnings:			
Information:			
	Total Files Size (in bytes):	172623	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on February 20, 2014.

KILPATRICK TOWNSEND & STOCKTON LLP

By: /Tina Bello/
Tina Bello

PATENT
Attorney Docket No.: 92853-882531 (004100US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Albert John McGowan, et al. Application No.: 14/086,801 Filed: November 21, 2013 For: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE Customer No.: 20350	Confirmation No.: 6031 Examiner: Tauqir Hussain Technology Center/Art Unit: 2447 INFORMATION DISCLOSURE STATEMENT

Mail Stop IDS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

The references cited on attached form PTO/SB/08A are being called to the attention of the Examiner. Copies of the references are enclosed in compliance with the requirements of 37 CFR § 1.98(a)(2).

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR § 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

Petitioner Disney Ex-1027, 0080

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if any additional fees are due for the submission of this Information Disclosure Statement, please deduct those fees from Deposit Account No. 20-1430.

Respectfully submitted,

/Scott L. McMillan/

Scott L. McMillan
Registration No. 62,079

KILPATRICK TOWNSEND & STOCKTON LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 415-576-0300
SMcMillan/Tbello
Attachments

Petitioner Disney Ex-1027, 0081

Applicant Initiated Interview Request Form

Application No.: 14/086,801 First Named Applicant: Albert John McGowan
Examiner: Hussain Art Unit: 2452 Status of Application: Pending

Tentative Participants:
(1) Scott L. McMillan, Reg. No. 62,079 **(2) Examiner: Tauqir Hussain**
(3) **(4)** **(5)**

Proposed Date of Interview: March 25, 2014 **Proposed Time: 2:00PM (AM/PM)**

Type of Interview Requested:
(1) [X] Telephonic (2) [ ] Personal (3) [ ] Video Conference

Exhibit To Be Shown or Demonstrated: [ ] YES [X] NO
If yes, provide brief description:

Issues To Be Discussed

Issues (Rej.,Obj.,etc.)	Claims/ Fig.#s	Prior Art	Discussed	Agreed	Not Agreed
(1) 102	1-20	Grant (US 2011/0264506)	[ ]	[ ]	[ ]
(2)			[ ]	[ ]	[ ]
(3)			[ ]	[ ]	[ ]

[ ] Continuation Sheet Attached [x] Proposed Amendment or Arguments Attached

Brief Description of Argument to be Presented: Please see the attached arguments..

An interview was conducted on the above-identified application on

NOTE: This form should be completed and filed by applicant in advance of the interview (see MPEP § 713.01). If this form is signed by a registered practitioner not of record, the Office will accept this as an indication that he or she is authorized to conduct an interview on behalf of the principal (37 CFR 1.32(a)(3)) pursuant to 37 CFR 1.34. This is not a power of attorney to any above named practitioner. See the Instruction Sheet for this form, which is incorporated by reference. By signing this form, applicant or practitioner is certifying that he or she has read the Instruction Sheet. After the interview is conducted, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible. This application will not be delayed from issue because of applicant's failure to submit a written record of this interview.

/Scott L. McMillan/
Applicant/Applicant's Representative Signature

Examiner/SPE Signature

Scott L. McMillan
Typed/Printed Name of Applicant or Representative

62,079
Registration Number, if applicable

66157831V.1

Instruction Sheet for:

APPLICANT INITIATED INTERVIEW REQUEST FORM

(Not to be Submitted to the USPTO)

1. If this form is signed by a registered practitioner not of record, the authority to submit the Applicant Initiated Interview Request Form is pursuant to limited authority to act in a representative capacity under 37 CFR 1.34 and further proof of authority to act in a representative capacity may be required. *See* 37 CFR 1.34.

   The Office will accept the signed form as an indication that the registered practitioner not of record is authorized to conduct an interview on behalf of the principal in pursuant to 37 CFR 1.34.

   For more information, see the "Conducting an Interview with a Registered Practitioner Acting in a Representative Capacity" notice which is available on the USPTO Web site at: http://www.uspto.gov/patents/law/notices/2010.jsp.

2. This is not a power of attorney to any named practitioner. Accordingly, any registered practitioner not of record named on the form does not have authority to sign a request to change the correspondence address, a request for express abandonment, a disclaimer, a power of attorney, or other document requiring the signature of the applicant, assignee of the entire interest or an attorney of record. If appropriate, a separate power of attorney to the named practitioner should be executed and filed in the US Patent and Trademark Office.

3. Any interview concerning an unpublished application under 35 U.S. C. § 122(b) with a registered practitioner not of record, pursuant to 37 CFR 1.34, will be conducted based on the information and files supplied by the practitioner in view of the confidentiality requirements of 35 U.S. C. § 122(a).

Application No.: 14/086,801		First Named Applicant: Albert John McGowan	
Examiner: Tauqir Hussain	Art Unit: 2452	Status of Application: First Action Interview	

Dear Examiner Hussain,

I have drafted a proposed agenda for the Examiner Interview we have scheduled for Tuesday, March 25, 2014 at 2 PM Eastern. I will call you to start our interview.

Please review the agenda and let me know if you have suggested changes. Here is the proposed agenda:

1. Discuss the invention and intended scope of the claims.
2. Review the Grant reference (US 2011/0264506 A1) to clarify our understanding of this reference.
3. Discuss how Grant is alleged to disclose the following claim terms:
    - "timing information"
    - "manifest file"
    - "offset information for streaming the one or more segments of the media file"
4. Based on our discussions above, discuss any language that could be introduced into the claims to bring these claims into allowance.

Thank you for agreeing to speak with me regarding this application.

Best Regards,

Scott McMillan

Electronic Acknowledgement Receipt

EFS ID:	18525869
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Dane Stephenson
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	19-MAR-2014
Filing Date:	21-NOV-2013
Time Stamp:	17:22:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	First Action Interview - Schedule Interview request	92853-882531_Interview_Request.pdf	122912 793fc3645c4cddd5812725a0d9af830c610f413a	no	2

Warnings:	
Information:	

2	Miscellaneous Incoming Letter	92853-882531_IA.pdf	53799 4af62078ffbc186e5dab94755c39a30070bdeb5f	no	1

Warnings:	
Information:	
Total Files Size (in bytes):	176711

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

20350 7590 07/09/2014

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
HUSSAIN, TAUQIR	
ART UNIT	**PAPER NUMBER**
2452	

NOTIFICATION DATE	DELIVERY MODE
07/09/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com

Petitioner Disney Ex-1027, 0087

Office Action Summary	Application No. 14/086,801	Applicant(s) MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	AIA (First Inventor to File) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03/19/2014*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date *02/20/2014*.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

Petitioner Disney Ex-1027, 0088

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

1. Claims 1-20 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103 as being unpatentable over Biderman et al. (2010/0169303 A1), hereinafter “Biderman” in view of Lewis et al. (Pub. No.: US 2012/0047542 A1), hereinafter “Lewis”.

4. As to claims 1, 8 and 15, Biderman discloses, a method of providing media streaming via a data communications network(Biderman, Abstract, fig.2A), the method comprising:

receiving a stream of data representing live media content (Biderman, [0014]);

obtaining timing information of the stream of data (Biderman, [0013]);

receiving, via the data communications network, a request to stream the live media content (Biderman, [0014]);

creating, with a processing unit, a manifest file (Biderman, fig.2A, [0092]), wherein:

the file includes information for streaming one or more segments of the live media content via the data communications network (Biderman, fig.2A, [0092]),

the file also includes information for streaming one or more segments of a media file, distinct from the live media content (Biderman, fig.2A, [0092]); and

the file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data (Biderman, [0127]); and

sending, via the data communications network, the file (Biderman, fig.2A, [0097]).

Biderman however is silent on disclosing explicitly that generated file is a manifest file.

Lewis however discloses a similar concept in the same environment, generated file is a manifest file (Lewis, Abstract).

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to incorporate the teachings of "Lewis" into those of "Biderman" in order to provide a rule-based dynamic server-side streaming manifest files. Such a manifest file may implement various features such as dynamic advertisement insertion, load balancing, client customization, user and device targeting, enhanced security mechanisms, global announcements, and others.

5. As to claims 2, 9 and 16, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, providing an application programming

interface (API), wherein the request to stream the live media content is received via the API (Biderman, [0016]).

6. As to claims 3, 10 and 17, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content (Lewis, 0023]).

7. As to claims 4, 11 and 18, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, determining a type of client associated with the request to stream the live media content (Lewis, [0006]);

wherein providing the indication of the discontinuity is based on the determination of the type of client (Lewis, [0025]).

8. As to claims 5, 12 and 19, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, sending a request for the timing information (Lewis, [0017]); and

receiving a response to the request, the response including the timing information (Lewis, [0017]).

9. As to claim 6, 13 and 20, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, receiving an indication of a period of time in the live media content designated for advertising (Lewis, [0018]);

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising (Lewis, [0018]).

10. As to claim 7 and 14, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data (Lewis, [0019]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAUQIR HUSSAIN whose telephone number is (571)270-1247. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu V. Nguyen can be reached on (571) 272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TAUQIR HUSSAIN/
Primary Examiner, Art Unit 2452

Notice of References Cited	Application/Control No. 14/086,801	Applicant(s)/Patent Under Reexamination MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2010/0169303 A1	07-2010	Biderman et al.	707/723
*	B	US-2012/0047542 A1	02-2012	Lewis et al.	725/97
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Petitioner Disney Ex-1027, 0094

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Field
PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	14/086,801
Filing Date	November 21, 2013
First Named Inventor	Albert John McGowan
Art Unit	2447
Examiner Name	
Attorney Docket Number	92853-882531

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1.	US-8,145,782		03-27-2012	McGowan, et al.	
	A2.	US-8,301,733		10-30-2012	McGowan	
	A3.	US-8,327,013		12-04-2012	McGowan, et al.	

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T[5]

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

EXAMINER SIGNATURE

Examiner Signature	/Tauqir Hussain/	Date Considered	03/26/2014

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
[4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

66083226V.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.H

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	Art Unit
	TAUQIR HUSSAIN	2452

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	232	2/10/2014	TH
	Search Updated.	7/1/2014	TH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (USPAT, USPGPUB, EPO, USOCR, FERS, JPO, DERWENT, IBM_TDB) - See East Search history printout.	2/10/2014	TH
Search of Obviousness type DP was conducted in East Search History printout.	2/10/2014	TH
Inventor and assignee search in east- see east search history printout.	2/10/2014	TH
Inventor and assignee search in Palm.	2/10/2014	TH
709/232 text search, see East Search History printout.	2/10/2014	TH
Search Updated.	7/1/2014	TH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
709	Please see attached east search history for interference search.	2/10/2014	TH
	Search Updated.	7/1/2014	TH

Petitioner Disney Ex-1027, 0096

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	13	("20050163163" | "20100169303" | "20100169303" | "20120047542" | "20100312828" | "20100312828" | "7647614" | "20090164904").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/07/01 10:01
L2	6	("20050163163" | "20100169303" | "20100169303" | "20120047542" | "20100312828" | "20100312828" | "7647614" | "20090164904").PN.	US-PGPUB; USPAT	OR	ON	2014/07/01 10:01
L4	45	(creat$3 generat$3 produc$3) with manifest near3 file with (dynamic static)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/07/01 11:37
L5	45	4 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/07/01 11:37
S1	847	stream$3 with (tim$3 timpe near2 stamp) with (manifest metadata attribute preference) with (segment portion frame)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 10:50
S2	4512	709/232.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:13
S3	28	rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:17
S4	0	(on$1demand stream$3 media content) with rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2014/02/07 11:18

Petitioner Disney Ex-1027, 0097

			EPO; JPO; DERWENT; IBM_TDB			
S5	14	(on$1demand stream$3 media content) same rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:18
S6	14	S5 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:20
S7	28	dynamic$4 and rewrit$3 near8 timestamp and (media near2 content live near3 stream$3 video VOD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S8	28	S7 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S9	0	(API "application programing interface") with stream$3 with rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:07
S10	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08
S11	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp and dynamic$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08
S12	0	meida near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S13	0	meida near3 content with manifest	US-PGPUB; USPAT;	OR	ON	2014/02/07 13:09

Petitioner Disney Ex-1027, 0098

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S14	202	media near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S15	91	media near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S16	0	media near3 content with manifest near4 file and dynamic$5 and rewrit$5 near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S17	33	media near3 content with manifest near4 file and dynamic$5 and timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S18	0	media near3 content with manifest near4 file and dynamic$5 and timestamp and rewrit$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S19	33	S17 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S20	2	"20110264506".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 11:50
S21	25	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 11:56

S22	6	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 11:56
S23	60	("20060015637" | "20110246659" | "20070078712" | "8165343" | "20050193205" | "7877511" | "7925849" | "8027787" | "20030229900" | "20040022391" | "20070168542" | "20080141027" | "20080207182" | "20090022172" | "20090031424" | "20090172197" | "20100118973" | "20110029999" | "20120005312" | "7958007" | "8027878" | "20110246603" | "20020046404" | "20100138892" | "20100161425" | "7925549" | "20080215620" | "20090063280" | "20110238507" | "20060114985" | "20070162571" | "20070168416" | "20090217316" | "20100057926" | "20110264506" | "20120005313" | "6912315" | "7788581" | "7827298" | "7992165" | "20020150239" | "20030004804" | "20060288112" | "20080005349" | "20100100742" | "20100129057" | "5612742" | "20020122430" | "20060122882" | "20080059310" | "20090257435" | "20090327896" | "20100095121" | "8145782" | "20020073084" | "8099473" | "20070233891" | "20090287841" | "20110287748" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:23
S24	51	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 12:27
S25	21	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:27
S26	1	"8145782".pn.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:32
S27	1	"20120254431".pn. and integration and specification	US-PGPUB; USPAT	OR	ON	2014/03/26 12:57

EAST Search History (Interference)

<This search history is empty>

7/ 1/ 2014 11:37:45 AM
C:\ Users\ thussain1\ Documents\ EAST\ Workspaces\ 14086801.wsp

Petitioner Disney Ex-1027, 0100

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14/086,801
	Filing Date	November 21, 2013
	First Named Inventor	Albert John McGowan
	Art Unit	2452
	Examiner Name	Tauqir Hussain
	Attorney Docket Number	92853-882531 (004100US)

U.S. PATENTS						
Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

U.S. PATENT APPLICATION PUBLICATIONS						
Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A4	US 2013-0219428	A1	08-22-2013	Jennings et al.	
	A5	US 2013-0317919	A1	11-28-2013	Raman et al.	

FOREIGN PATENT DOCUMENTS								
Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T[5]

NON-PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
[4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

Electronic Patent Application Fee Transmittal

Application Number:	14086801
Filing Date:	21-Nov-2013
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Filer:	Scott Lee McMillan/Tina Bello
Attorney Docket Number:	92853-882531 (004100US)

Filed as Small Entity

Utility under 35 USC 111(a) Filing Fees

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Submission- Information Disclosure Stmt	2806	1	90	90
		Total in USD ($)		**90**

Electronic Acknowledgement Receipt

EFS ID:	20332825
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Tina Bello
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	06-OCT-2014
Filing Date:	21-NOV-2013
Time Stamp:	11:22:19
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$90
RAM confirmation Number	8433
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)

1		2014_10_06_92853_882531_IDS.pdf	174292 6cc0a0101b1b0edd22ea576115c9ad21d21b6a24	yes	3

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Transmittal Letter	1	2
Information Disclosure Statement (IDS) Form (SB08)	3	3

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	30837 1a334c33a09b69b97e57c49449498585e121a84b	no	2

Warnings:

Information:

Total Files Size (in bytes):	205129

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on October 6, 2014.

PATENT
Attorney Docket No.: 92853-882531 (004100US)

KILPATRICK TOWNSEND & STOCKTON LLP

By: /Tina Bello/
Tina Bello

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Albert John McGowan, et al. Application No.: 14/086,801 Filed: November 21, 2013 For: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE Customer No.: 20350	Confirmation No.: 6031 Examiner: Tauqir Hussain Technology Center/Art Unit: 2452 SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

The references cited on attached form PTO/SB/08A are being called to the attention of the Examiner. Copies of the references are not enclosed in compliance with the requirements of 37 CFR § 1.98(a)(2).

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR § 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

Petitioner Disney Ex-1027, 0106

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

The Commissioner is authorized to charge the fee set forth in § 1.17(p) to the firm's credit card for consideration of this paper. The Commissioner is authorized to charge any additional fee due to Deposit Account No. 20-1430.

Respectfully submitted,

/Scott L. McMillan/

Scott L. McMillan
Registration No. 62,079

KILPATRICK TOWNSEND & STOCKTON LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 415-576-0300
SLM/tmb
Attachments

Petitioner Disney Ex-1027, 0107

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on October 8, 2014.

KILPATRICK TOWNSEND & STOCKTON LLP

By: /Dane Stephenson/
Dane Stephenson

PATENT
Attorney Docket No. 92853-882531 (004100US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Albert John McGowan et al.	Confirmation No. 6031
Application No.: 14/086,801	Examiner: HUSSAIN, TAUQIR
Filed: November 21, 2013	Technology Center/Art Unit: 2452
For: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	AMENDMENT
Customer No. 20350	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the non-Final Office Action mailed July 9, 2014 (hereinafter the "Office Action"), please enter the following amendments and remarks:

Listing of the Claims is reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Petitioner Disney Ex-1027, 0108

Listing of Claims:

1. (Original) A method of providing media streaming via a data communications network, the method comprising:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving, via the data communications network, a request to stream the live media content;

creating, with a processing unit, a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

sending, via the data communications network, the manifest file.

2. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, further comprising providing an application programming interface (API), wherein the request to stream the live media content is received via the API.

3. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

4. (Original) The method of providing media streaming via a data communications network, as recited in claim 3, further comprising:

determining a type of client associated with the request to stream the live media content;

Petitioner Disney Ex-1027, 0109

wherein providing the indication of the discontinuity is based on the determination of the type of client.

5. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein obtaining the timing information of the stream of data comprises:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

6. (Original) The method of providing media streaming via a data communications network, as recited in claim 5, further comprising:

receiving an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

7. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

8. (Original) A server for providing media streaming via a data communications network, the server comprising:

a communications interface;

a memory; and

a processing unit coupled to the communications interface and the memory, the processing unit configured to cause the server to:

receive a stream of data representing live media content;

obtain timing information of the stream of data;

receive, via the communications interface, a request to stream the live media content;

create a manifest file, wherein:

Petitioner Disney Ex-1027, 0110

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

send, via the communications interface, the manifest file.

9. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is further configured to cause the server to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

10. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

11. (Original) The server for providing media streaming via a data communications network, as recited in claim 10, wherein the processing unit is further configured to cause the server to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

12. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to obtain the timing information of the stream of data by:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

Petitioner Disney Ex-1027, 0111

13. (Original) The server for providing media streaming via a data communications network, as recited in claim 12, wherein the processing unit is further configured to cause the server to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

14. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

15. (Original) A non-transitory computer-readable medium having instructions embedded thereon for providing media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving a request to stream the live media content;

creating a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

sending the manifest file.

Petitioner Disney Ex-1027, 0112

16. (Original) The computer-readable medium, as recited in claim 15, further comprising instructions for causing the computer to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

17. (Original) The computer-readable medium, as recited in claim 15, wherein the instructions for creating the manifest file further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

18. (Original) The computer-readable medium, as recited in claim 17, further including instructions for causing the computer to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

19. (Original) The computer-readable medium, as recited in claim 15, wherein the instructions for obtaining the timing information of the stream of data further include instructions for causing the computer to:

send a request for the timing information; and

receive a response to the request, the response including the timing information.

20. (Original) The computer-readable medium, as recited in claim 19 further comprising instructions for causing the computer to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

Petitioner Disney Ex-1027, 0113

REMARKS/ARGUMENTS

Status of the Application

Prior to entry of this amendment, claims 1-20 were pending in this application. No claims have been amended, added, or canceled. Therefore, claims 1-20 remain pending. Claims 1, 8 and 15 are independent claims. Applicants respectfully request reconsideration of these claims for at least the reasons presented below.

35 U.S.C. §103Rejection

The Office Action has rejected claims 1-20 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Pub. No. 2010/0169303 of ("Biderman") in view of U.S. Patent Pub. No. 2012/0047542 ("Lewis"). It is respectfully submitted that Biderman in combination with Lewis, fails to teach or suggest each element of any of the rejected claims, and reconsideration of the rejections is respectfully requested.

Claims 1, 8, and 15

The Office Has Not Shown How The Cited Art Is Alleged To Disclose "Offset Information Based On The Timing Information Of The Stream Of Data"

Among other things, claim 1 recites "the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data." Although differing in scope, claims 8 and 15 include similar language. Problematically, however, the Office has not shown how the combination of Biderman and Lewis is alleged to disclose this feature in a manner sufficient to support prima facie obviousness under 35 U.S.C § 103.

Biderman discloses methods for real- time or near real-time streaming of content using transfer (e.g., HTTP compliant) protocols.[1] Such streaming of content can include dividing the stream of data into a plurality of data files and creating a playlist file

[1] *Biderman*, Abstract.

Petitioner Disney Ex-1027, 0114

indicating an order of the presentation of these data files.[2] Lewis discloses techniques for rule-based server-side streaming.[3] The Office alleges that paragraph [0127] of Biderman discloses "the file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data."[4] Problematically, however, the Office provides no reasoning for this allegation, and it is not apparent from paragraph [0127] of Biderman how this feature is alleged to be disclosed.

Paragraph [0127] of Biderman, in its entirety, reads as follows:

> **[0127] Each time a playlist file is loaded or reloaded, the client device examines the playlist file to determine the next media file to load. The first file to load is the media file selected to play first as described above. If the first media file to be played has been loaded and the playlist file does not contain the EXT-X-MEDIA-SEQUENCE tag then the client can verify that the current playlist file contains the URI of the last loaded media file at the offset where it was originally found, halting playback if the file is not found. The next media file to load can be the first media file URI following the last-loaded URI in the playlist file.**

As shown, this paragraph discloses how a client processes a playlist file to determine which media to load, and how the processing can vary, depending on whether the playlist file has a certain sequence tag. Although the paragraph mentions an "offset," it is not clear how it is used.[5] What is clear, however, is that paragraph [0127] fails to disclose "the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data." Particularly, paragraph [0127] does not state how the offset was created. And paragraph [0127] certainly falls far short of indicating that the offset was "based on the timing information of the stream of data."

---

[2] *Id.*
[3] *Lewis*, Abstract.
[4] *Office Action*, p. 3.
[5] The only other time Biderman mentions uses the term "offset" is in section 6.2.4 of the Appendix. This language, however, is identical to the language of paragraph [0127], and therefore does not provide any further clarification regarding the term "offset."

Petitioner Disney Ex-1027, 0115

Thus paragraph [0127] does not appear to disclose anything similar to "the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data." Moreover the Office has not provided any explanation as to how paragraph [0127] of Biderman is alleged to do so. ***Therefore, the Office Action falls far short of providing the "articulated reasoning with some rational underpinning" required to support a* prima facie *case of obviousness under § 103, as required by MPEP 2141.***

As such, Applicants respectfully request reconsideration and withdrawal of the rejections of these claims under § 103.

Dependent Claims 2-7, 9-14 and 16-20

Claims 2-7, 9-14 and 16-20 are dependent on claims 1, 8, and 15. Because claims 1, 8, and 15 are allowable for at least the reasons discussed above, Applicants assert that each of claims 2-7, 9-14 and 16-20 is allowable for at least the reason that it is dependent on an allowable claim.

In addition, the following claims are further allowable for at least the reasoning provided below:

- **Claims 3, 10, and 17: The cited portion of Lewis does not disclose "providing, in the manifest file, an indication of a discontinuity in the stream of the live media content."** The Office action alleges that paragraph [0023] of Lewis discloses this feature of claim 3, 10, and 17.[6] This paragraph discloses a process of substituting processed video segments 215 for live video segments 275 to avoid dead time before or after an ad insertion. The manifest file would, of course, enable this substitution. But there is no suggestion that "an indication of a discontinuity" would be included in the manifest file.
- **Claims 4, 11, and 18: The cited portion of Lewis does not disclose "wherein providing the indication of the discontinuity is based on the**

[6] *Office Action* at 4.

Petitioner Disney Ex-1027, 0116

determination of the type of client." The Office action alleges that paragraph [0025] of Lewis discloses this feature of claim 4, 11, and 18.[7] This paragraph describes the system disclosed in FIG. 3, which includes different client types 356. Problematically, however, paragraph [0025] discussions components of the system in FIG. 3, not functionality. It is therefore entirely absent of any discussion of "providing [an] indication of the discontinuity," much less doing so "based on the determination of the type of claim. And again, the Office provides no reasoning (other than the citation to paragraph [0025]) to justify is allegation that these features are disclosed in paragraph [0025].

- **Claims 5, 12, and 19: The cited portion of Lewis does not disclose "receiving a response to the request, the response including the timing information."** The Office action alleges that paragraph [0017] of Lewis discloses this feature of claim 5, 12, and 19.[8] This paragraph includes a few requests. For example: a request for live media content, an HTTP GET request, and a request for client parameters. And none of these requests appear to result in the receipt of timing information used to create a manifest file, as provided in claim 1. Furthermore, the Office provides no reasoning or explanation as to which request is alleged to read on the "request" of claims 5, 12, and 19. Thus, the Office again fails to show *prima facie* obviousness to support a rejection under § 103.

- **Claims 6, 13, and 20: The cited portion of Lewis does not disclose "wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising."** The Office action alleges that paragraph [0018] of Lewis discloses this feature of claim 6, 13, and 20.[9] In truth, however, paragraph [0018] discloses no such feature. This paragraph describes how a manifest file can reference live video segments 175 and ad video segments,

[7] *Id.*
[8] *Id.*
[9] *Id.* at 5.

Petitioner Disney Ex-1027, 0117

but it says nothing regarding requesting timing information based on "the indication of the period of time in the live media content designated for advertising." Thus, the Office again fails to provide adequate reasoning to support a *prima facie* case of obviousness.

- **Claims 7 and 14: The cited portion of Lewis does not disclose "wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data."** The Office action alleges that paragraph [0019] of Lewis discloses this feature of claim 7 and 14.[10] This paragraph discloses alternative uses for the techniques disclosed in Lewis, but does not disclose a "timestamp" or anything similar. Again, the Office has fallen far short of providing adequate reasoning to support rejection of these claims under § 103.

Request for New Non-Final Office Action

Applicants respectfully submit that the Office has failed to provide an Office Action in compliance with MPEP 706. Accordingly, if the Office issues a new action, Applicants respectfully request the issuance of a new Non-Final Office Action.

According to MPEP 706, "The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity." As discussed above, however, the Office provided citations to paragraphs that did not clearly contain the recited features, with no explanation or further discussion. With due respect to the examiner, Applicants do not understand how this type of rejection could possibly satisfy the requirement of "clearly articulat[ing]" the rejection under MPEP 706. Thus, the Applicants respectfully submit that all of the Office's claim rejections under § 103 improper under MPEP 706 and should be withdrawn.

Accordingly, if the Office maintains its rejections or otherwise issues a new action, Applicants respectfully request the issuance of a new Non-Final Office Action in compliance with MPEP 706.

[10] *Id.* at 5.

Petitioner Disney Ex-1027, 0118

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue, or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

/Scott L. McMillan/

Scott L. McMillan
Registration No. 62,079

KILPATRICK TOWNSEND & STOCKTON LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 415-576-0300
SLM:ds
66615361V.1

Petitioner Disney Ex-1027, 0119

Electronic Acknowledgement Receipt

EFS ID:	20364531
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Dane Stephenson
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	08-OCT-2014
Filing Date:	21-NOV-2013
Time Stamp:	16:37:08
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		92853-882531_Amendment.pdf	184613 ea84aacba9b238a310b2b206a9ab6fb3f84e082c	yes	12

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	12
Warnings:			
Information:			
	Total Files Size (in bytes):	184613	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/086,801	Filing Date 11/21/2013	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	10/08/2014	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	**0**

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/ANGELONA JONES/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

20350 7590 10/24/2014

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
HUSSAIN, TAUQIR	
ART UNIT	**PAPER NUMBER**
2452	

NOTIFICATION DATE	DELIVERY MODE
10/24/2014	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com

Petitioner Disney Ex-1027, 0123

Office Action Summary	Application No. 14/086,801	Applicant(s) MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	AIA (First Inventor to File) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/08/2014*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date *10/06/2014*.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

Response to Amendment

1. This office action is in response to amendment/reconsideration filed on 10/08/2014, the amendment/reconsideration has been considered. Claims 1-20 are pending for examination, the rejection cited as stated below.

Response to Arguments

2. Applicant's arguments filed 10/08/2014 have been fully considered but they are not persuasive. In remarks applicant argues in substance that:

(a) Applicant argues that cited references “Biderman and Lewis” does not disclose, “offset information based on the timing information of the stream of data”.

Examiner respectfully disagrees because Biderman clearly teaches the limitations e.g. in paragraph [0038] the client can be instructed to periodically retrieve from the server one or more updated playlist file(s) (similar to manifest file) in order to access any supplementary or additional/advertisements (or both) media content the server has introduced. It is believed that these segments play in specific timeline and playlist inserts them accordingly. In addition to Biderman the secondary reference “Lewis” also teaches, specifically in fig.2, the manifest files containing offset information for additional/advertisement segments. As far

technology is concern this limitation is well known which is evident by the cited references and those skilled in the art are well aware of this process.

(b) Applicant argues that cited references "Biderman and Lewis" does not disclose, "providing, in the manifest file, an indication of a discontinuity in the stream of the live media content."

Examiner respectfully disagrees because Biderman discloses in paragraph [0105], If the additional data constitutes advertisements, or other content to be inserted into the program represented by the playlist, the additional data can be stored (at least temporarily) in operation 215, segmented in operation 225 and stored in operation 235. Any time there is inserted an advertisement into a stream, a splicer uses a flag, pointer or a gap in the frames to cause the separation in the programing/live streaming and advertisement. These indications are transparent to the end user. Biderman further goes on to disclose, Changes to the playlist file(s) should be made atomically from the perspective of the client device in other words specific to the clients preferences or client device capability. Lewis also discloses this concept by introducing a rule-based dynamic server-side streaming manifest files and displayed in fig.2.

(c) Applicant argues that cited references "Biderman and Lewis" does not disclose, "wherein providing the indication of the discontinuity is based on the determination of the type of client."

Examiner respectfully disagrees and points to the argument above, which is partially reproduced here for applicant's convenience.

Biderman, paragraph [0105], Biderman further goes on to disclose, Changes to the playlist file(s) should be made atomically from the perspective of the client device in other words specific to the clients preferences or client device capability. Also read Lewis paragraph [0019].

(d) Applicant argues that cited references “Biderman and Lewis” does not disclose, “receiving a response to the request, the response including the timing information."

Examiner respectfully disagrees because, Lewis in addition to paragraph [0017] further discloses in [0016] e.g. Producer 180 may provide specific rules to rule resolution server 120 to customize the generation of manifest file 157, such a rule to insert advertising segments to overwrite a particular time block in the live stream. Thus, time is referenced throughout the streaming for each and every segment whether it is a programing segment or advertisement segments.

(e) Applicant argues that cited references “Biderman and Lewis” does not disclose, “wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.”

Examiner yet again respectfully disagrees because as discussed above for argument (d) instant limitation is just an extension and follow up for the last presented argument. Lewis discloses [0016], Live video encoder 170 may also provide rule resolution server 120 with an updated list of references for accessing live video segments 175 through content delivery network 135, which may then

be passed to dynamic manifest file server 110 for generating manifest file 157. Producer at that point reserves or overwrites a particular time block in the live stream.

(f) Applicant argues that cited references "Biderman and Lewis" does not disclose, "wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data."

Examiner respectfully disagrees because cited references clearly teach this limitation as should be clear and evident from the above discussion. In addition to the above discussion, Lewis discloses, fig.2, each segment is marked with the duration of the segment in sequential order therefore, each segment has an associated timestamp when to start and at what time to finish.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103 as being unpatentable over Biderman et al. (2010/0169303 A1), hereinafter "Biderman" in view of Lewis et al. (Pub. No.: US 2012/0047542 A1), hereinafter "Lewis".

5. As to claims 1, 8 and 15, Biderman discloses, a method of providing media streaming via a data communications network(Biderman, Abstract, fig.2A), the method comprising:

receiving a stream of data representing live media content (Biderman, [0014]);

obtaining timing information of the stream of data (Biderman, [0013]);

receiving, via the data communications network, a request to stream the live media content (Biderman, [0014]);

creating, with a processing unit, a manifest file (Biderman, fig.2A, [0092]), wherein:

the file includes information for streaming one or more segments of the live media content via the data communications network (Biderman, fig.2A, [0092]),

the file also includes information for streaming one or more segments of a media file, distinct from the live media content (Biderman, fig.2A, [0092]); and

the file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data (Biderman, [0127]); and

sending, via the data communications network, the file (Biderman, fig.2A, [0097]).

Biderman however is silent on disclosing explicitly that generated file is a manifest file.

Lewis however discloses a similar concept in the same environment, generated file is a manifest file (Lewis, Abstract).

Therefore, it would have been obvious to one of the ordinary skilled in the art at the time the invention was made to incorporate the teachings of "Lewis" into those of "Biderman" in order to provide a rule-based dynamic server-side streaming manifest files. Such a manifest file may implement various features such as dynamic advertisement insertion, load balancing, client customization, user and device targeting, enhanced security mechanisms, global announcements, and others.

6. As to claims 2, 9 and 16, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, providing an application programming interface (API), wherein the request to stream the live media content is received via the API (Biderman, [0016]).

7. As to claims 3, 10 and 17, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content (Lewis, 0023]).

8. As to claims 4, 11 and 18, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, determining a type of client associated with the request to stream the live media content (Lewis, [0006]);

wherein providing the indication of the discontinuity is based on the determination of the type of client (Lewis, [0025]).

9. As to claims 5, 12 and 19, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, sending a request for the timing information (Lewis, [0017]); and

receiving a response to the request, the response including the timing information (Lewis, [0017]).

10. As to claim 6, 13 and 20, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, receiving an indication of a period of time in the live media content designated for advertising (Lewis, [0018]);

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising (Lewis, [0018]).

11. As to claim 7 and 14, the combined system of Biderman and Lewis disclose the invention as in parent claim above, including, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data (Lewis, [0019]).

12. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part

of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAUQIR HUSSAIN whose telephone number is (571)270-1247. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu V. Nguyen can be reached on (571) 272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TAUQIR HUSSAIN/
Primary Examiner, Art Unit 2452

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Field
PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	14/086,801
Filing Date	November 21, 2013
First Named Inventor	Albert John McGowan
Art Unit	2452
Examiner Name	Tauqir Hussain
Attorney Docket Number	92853-882531 (004100US)

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A4	US 2013-0219428	A1	08-22-2013	Jennings et al.	
	A5	US 2013-0317919	A1	11-28-2013	Raman et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T[5]

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

EXAMINER SIGNATURE

Examiner Signature	/Tauqir Hussain/	Date Considered	10/20/2014

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
[4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

66605703V.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.H

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	Art Unit
	TAUQIR HUSSAIN	2452

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	232	2/10/2014	TH
	Search Updated.	7/1/2014	TH
	Search Updated.	10/20/2014	TH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (USPAT, USPGPUB, EPO, USOCR, FERS, JPO, DERWENT, IBM_TDB) - See East Search history printout.	2/10/2014	TH
Search of Obviousness type DP was conducted in East Search History printout.	2/10/2014	TH
Inventor and assignee search in east- see east search history printout.	2/10/2014	TH
Inventor and assignee search in Palm.	2/10/2014	TH
709/232 text search, see East Search History printout.	2/10/2014	TH
Search Updated.	7/1/2014	TH
Search Updated.	10/20/2014	TH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
709	Please see attached east search history for interference search.	2/10/2014	TH

Petitioner Disney Ex-1027, 0135

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
	Search Updated.	7/1/2014	TH
	Search Updated.	10/20/2014	TH

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L6	9	(manifest playlist) near3 file with (time duration length) with (offset replacement alternat$3 additional) near3 (segment advertisement announcement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:28
L7	9	6 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:28
L8	1	(manifest playlist) near3 file with live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:30
L9	93	live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:30
L10	1	(manifest playlist) near3 file same live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:30
L11	19	(manifest playlist) near3 file and (live near3 stream$3 same (continuity discontinuity))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:31
L12	19	11 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:31
S1	847	stream$3 with (tim$3 timpe near2 stamp)	US-PGPUB;	OR	ON	2014/02/07

Petitioner Disney Ex-1027, 0137

		with (manifest metadata attribute preference) with (segment portion frame)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			10:50
S2	4512	709/232.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:13
S3	28	rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:17
S4	0	(on$1demand stream$3 media content) with rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:18
S5	14	(on$1demand stream$3 media content) same rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:18
S6	14	S5 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:20
S7	28	dynamic$4 and rewrit$3 near8 timestamp and (media near2 content live near3 stream$3 video VOD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S8	28	S7 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S9	0	(API "application programing interface") with stream$3 with rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2014/02/07 13:07

Petitioner Disney Ex-1027, 0138

			IBM_TDB			
S10	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08
S11	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp and dynamic$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08
S12	0	meida near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S13	0	meida near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S14	202	media near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S15	91	media near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S16	0	media near3 content with manifest near4 file and dynamic$5 and rewrit$5 near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S17	33	media near3 content with manifest near4 file and dynamic$5 and timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S18	0	media near3 content with manifest near4 file and dynamic$5 and timestamp and rewrit$5	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2014/02/07 13:10

Petitioner Disney Ex-1027, 0139

			EPO; JPO; DERWENT; IBM_TDB			
S19	33	S17 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S20	2	"20110264506".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 11:50
S21	25	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 11:56
S22	6	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 11:56
S23	60	("20060015637" | "20110246659" | "20070078712" | "8165343" | "20050193205" | "7877511" | "7925849" | "8027787" | "20030229900" | "20040022391" | "20070168542" | "20080141027" | "20080207182" | "20090022172" | "20090031424" | "20090172197" | "20100118973" | "20110029999" | "20120005312" | "7958007" | "8027878" | "20110246603" | "20020046404" | "20100138892" | "20100161425" | "7925549" | "20080215620" | "20090063280" | "20110238507" | "20060114985" | "20070162571" | "20070168416" | "20090217316" | "20100057926" | "20110264506" | "20120005313" | "6912315" | "7788581" | "7827298" | "7992165" | "20020150239" | "20030004804" | "20060288112" | "20080005349" | "20100100742" | "20100129057" | "5612742" | "20020122430" | "20060122882" | "20080059310" | "20090257435" | "20090327896" | "20100095121" | "8145782" | "20020073084" | "8099473" | "20070233891" | "20090287841" | "20110287748" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:23
S24	51	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" |	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 12:27

Petitioner Disney Ex-1027, 0140

		"20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.				
S25	21	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:27
S26	1	"8145782".pn.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:32
S27	1	"20120254431".pn. and integration and specification	US-PGPUB; USPAT	OR	ON	2014/03/26 12:57
S28	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2014/10/21 11:01
S29	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2014/10/21 11:01

EAST Search History (Interference)

<This search history is empty>

10/21/2014 2:33:56 PM
C:\Users\thussain1\Documents\EAST\Workspaces\14086801.wsp

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14/086,801
	Filing Date	November 21, 2013
	First Named Inventor	Albert John McGowan
	Art Unit	2452
	Examiner Name	Tauqir Hussain
	Attorney Docket Number	92853-882531 (004100US)

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A6	US 7,203,758	B2	04-10-2007	Cook et al.	

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A7	US 2013-080579	A1	03-28-2013	Gordon et al.	
	A8	US 2013-083859	A1	04-04-2013	Nemiroff et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T[5]

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	C1	International Search Report and Written Opinion mailed December 9, 2014 for PCT/US2014/056823 filed on September 22, 2014, 10 pages.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14/086,801
	Filing Date	November 21, 2013
	First Named Inventor	Albert John McGowan
	Art Unit	2452
	Examiner Name	Tauqir Hussain
	Attorney Docket Number	92853-882531 (004100US)

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
[4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14/086,801
	Filing Date	November 21, 2013
	First Named Inventor	Albert John McGowan
	Art Unit	2452
	Examiner Name	Tauqir Hussain
	Attorney Docket Number	92853-882531 (004100US)

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e) (1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e) (2).

☐ See attached certification statement.

☐ Fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Scott L. McMillan/	Date (YYYY-MM-DD)	2015-01-22
Name/Print	Scott L. McMillan	Registration Number	62,079

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Electronic Patent Application Fee Transmittal

Application Number:	14086801
Filing Date:	21-Nov-2013
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Filer:	Scott Lee McMillan/Tina Bello
Attorney Docket Number:	92853-882531 (004100US)

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Submission- Information Disclosure Stmt	2806	1	90	90
		Total in USD ($)		**90**

Electronic Acknowledgement Receipt

EFS ID:	21281494
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Tina Bello
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	22-JAN-2015
Filing Date:	21-NOV-2013
Time Stamp:	16:02:37
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$90
RAM confirmation Number	2668
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	NPL_ISR_WO_PCTUS2014_056823.pdf	10164851 2dbaf324f5994edc4e4aeed13f0ce04cf28a2e0d	no	10
Warnings:					
Information:					
2		2015_01_22_92853_882531_IDS.pdf	210130 d4f15ce1e0f78adddae2e6e3424067588 31fe725	yes	5

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Transmittal Letter	1	2
	Information Disclosure Statement (IDS) Form (SB08)	3	5

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	31094 f2113988eec09b59804062de3ad3b779e994b5dd	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	10406075		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:
McMillan, Scott L.
Kilpatrick Townsend & Stockton LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
ETATS-UNIS D'AMERIQUE

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 92853-916778	Date of mailing *(day/month/year)* 9 December 2014 (09-12-2014) **FOR FURTHER ACTION** See paragraphs 1 and 4 below
International application No. PCT/US2014/056823	International filing date *(day/month/year)* 22 September 2014 (22-09-2014)
Applicant CACTI ACQUISITION LLC	

1. [X] The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46).

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

   How? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Fascimile No.: (41-22) 338.82.70

   For more detailed instructions, see *PCT Applicant's Guide*, International Phase, paragraphs 9.004 - 9.011.

2. [ ] The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. [ ] **With regard to any protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   [ ] the protest together with the decision thereon has been transmitted to the International Bureau together with any applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

   [ ] no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Reminders**

   The applicant may **submit comments on an informal basis on the written opinion of the International Searching Authority** to the International Bureau. These comments will be made available to the public after international publication. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established.

   Shortly after the expiration of **18 months from the priority date, the international application will be published** by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau before the completion of the technical preparations for international publication (Rules 90*bis*.1 and 90*bis*.3).

   Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase **until 30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for **entry into the national phase** before those designated Offices. In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months. For details about the applicable time limits, Office by Office, see www.wipo.int/pct/en/texts/time_limits.html and the *PCT Applicant's Guide*, National Chapters.

   Within **19 months from the priority date, the applicant may request that a supplementary international search be carried out** by a different International Searching Authority that offers this service (Rule 45*bis*.1). The procedure for requesting supplementary international search is described in the *PCT Applicant's Guide*, International Phase, paragraphs 8.006-8.032.

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040 Fax: (+31-70) 340-3016	Authorized officer SCHALINATUS, Dana Tel: +49 (0)89 2399-8242

Form PCT/ISA/220 (July 2014)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	**FOR FURTHER ACTION**	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
92853-916778		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/US2014/056823	22 September 2014 (22-09-2014)	30 September 2013 (30-09-2013)
Applicant		
CACTI ACQUISITION LLC		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

[X] It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**
   a. With regard to the **language,** the international search was carried out on the basis of:
      [X] the international application in the language in which it was filed
      [ ] a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))
   b. [ ] This international search report has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43.6*bis*(a)).
   c. [ ] With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. [ ] **Certain claims were found unsearchable** (See Box No. II)

3. [ ] **Unity of invention is lacking** (see Box No III)

4. With regard to the **title,**
   [X] the text is approved as submitted by the applicant
   [ ] the text has been established by this Authority to read as follows:

5. With regard to the **abstract,**
   [X] the text is approved as submitted by the applicant
   [ ] the text has been established, according to Rule 38.2, by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the **drawings,**
   a. the figure of the **drawings** to be published with the abstract is Figure No. 5
      [X] as suggested by the applicant
      [ ] as selected by this Authority, because the applicant failed to suggest a figure
      [ ] as selected by this Authority, because this figure better characterizes the invention
   b. [ ] none of the figures is to be published with the abstract

Petitioner Disney Ex-1027, 0151

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2014/056823

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04N21/234 H04N21/44 H04N21/81
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2013/080579 A1 (GORDON MICHAEL M [US] ET AL) 28 March 2013 (2013-03-28) paragraphs [0003] - [0008], [0045] - [0053], [0110] - [0121]; claims; figures	1-20
X	US 7 203 758 B2 (COOK DAVID H [US] ET AL) 10 April 2007 (2007-04-10) the whole document	1-20
X	US 2013/083859 A1 (NEMIROFF ROBERT S [US] ET AL) 4 April 2013 (2013-04-04) the whole document	1-20

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
2 December 2014	09/12/2014

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	D'Attilia, Marco

1

Form PCT/ISA/210 (second sheet) (April 2005)

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2014/056823

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2013080579 A1	28-03-2013	AU 2012362500 A1	17-07-2014
		CA 2861811 A1	04-07-2013
		GB 2514027 A	12-11-2014
		US 2013080579 A1	28-03-2013
		WO 2013101841 A1	04-07-2013
US 7203758 B2	10-04-2007	AU 3774802 A	21-05-2002
		US 2003018966 A1	23-01-2003
		WO 0239718 A2	16-05-2002
US 2013083859 A1	04-04-2013	CN 103959807 A	30-07-2014
		EP 2752023 A1	09-07-2014
		US 2013083859 A1	04-04-2013
		WO 2013052265 A1	11-04-2013

Petitioner Disney Ex-1027, 0153

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/US2014/056823	22.09.2014	30.09.2013

International Patent Classification (IPC) or both national classification and IPC
INV. H04N21/234 H04N21/44 H04N21/81

Applicant
CACTI ACQUISITION LLC

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:	Date of completion of this opinion	Authorized Officer
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Fax: +49 89 2399 - 4465	see form PCT/ISA/210	Telephone No. +49 89 2399-0

Form PCT/ISA/237 (Cover Sheet) (July 2009)

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:

   ☒ the international application in the language in which it was filed

   ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:

   a. (means)

   ☐ on paper

   ☐ in electronic form

   b. (time)

   ☐ in the international application as filed

   ☐ together with the international application in electronic form

   ☐ subsequently to this Authority for the purposes of search

4. ☐ In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	5-7, 12-14, 19, 20
	No:	Claims	1-4, 8-11, 15-18
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-20
Industrial applicability (IA)	Yes:	Claims	1-20
	No:	Claims	

2. Citations and explanations

see separate sheet

Petitioner Disney Ex-1027, 0155

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Petitioner Disney Ex-1027, 0156

Re Item V

Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability.

1. Reference is made to the following documents:

D1 US 2013/080579 A1 (GORDON MICHAEL M [US] ET AL) 28 March 2013 (2013-03-28)

D2 US 7 203 758 B2 (COOK DAVID H [US] ET AL) 10 April 2007 (2007-04-10).

2. Claim 1

The below-mentioned lack of clarity notwithstanding (see Point VIII), the present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses a method of providing media streaming via a data communications network (D1, paragraphs 2, 3), the method comprising:
receiving a stream of data representing live media content (D1, the above passages, fig. 1);
obtaining timing information of the stream of data (D1, paragraphs 110, 121);
receiving, via the data communications network, a request to stream the live media content (D1, paragraph 5);
creating, with a processing unit, a manifest file(D1, paragraphs 3, 5), wherein:
the manifest file includes information for streaming one or more segments of the live media content via the data communications network (D1, claim 1, paragraph 60) ,
the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content (D1, paragraphs 8, 60, 121, claim 6) , and offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data (it is implicit that if a new segment (advertisement paragraph 121) is inserted in the playback of the requested media file, an offset in the playback time of the segments has to be present).

sending, via the data communications network, the manifest file (D1, paragraph 3).

Petitioner Disney Ex-1027, 0157

3. Claims 8 and 15

Claims 8 and 15 disclose a server and computer readable medium corresponding to the subject-matter of claim 1, hence all the objections raised to the above claim are applicable to claim 8 and 15.

4. The additional features disclosed in the dependent claims are either known from the cited documents D1, D2 or considered to be within the capabilities of the skilled person, and therefore, they do not appear to add anything inventive to the subject-matter of the claims on which they depend. In particular:

4.1 The additional feature of dependent claims 2, 9 and 16 are well known (D1, paragraph 53).

4.2 The additional features of claims 3, 4, 10, 11, 17, 18 (see point VIII) are known (D1, paragraph 45).

Re Item VII

Certain defects in the international application

1. The Independent claims are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known from the prior art (document D1) being placed in the preamble (Rule 6.3(b)(I) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).

2. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in documents D1, D2 are not mentioned in the description, nor are these documents identified therein.

3. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Petitioner Disney Ex-1027, 0158

Re Item VIII

Certain observations in the international application (clarity).

1. Claim 1

The application does not meet the requirements of Article 6 PCT, because claim 1 is not clear.

It is not clear how the system is composed and which apparatus of the system performs the different steps of the method.

Moreover it is not clear what the "timing information, the information for streaming the live media content, the the information for streaming a media file distinct from the live media content and the offset information" are and which information they contain since they are not defined.

The claim refers to a method for providing media streaming but only the manifest file is sent on the network thereby rendering the definition of the subject-matter of said claim unclear.

2. Claims 3, 10, 17

The application does not meet the requirements of Article 6 PCT, because claims 3, 10 and 17 are not clear.

It is not clear what a "discontinuity" is and which technical feature it should disclose.

Petitioner Disney Ex-1027, 0159

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on January 22, 2015.

PATENT
Attorney Docket No.: 92853-882531(004100US)

KILPATRICK TOWNSEND & STOCKTON LLP

By: /Tina Bello/
Tina Bello

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Albert John McGowan, et al. Application No.: 14/086,801 Filed: November 21, 2013 For: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE Customer No.: 20350	Confirmation No.: 6031 Examiner: Tauqir Hussain Technology Center/Art Unit: 2452 SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

The references cited on attached form PTO/SB/08A are being called to the attention of the Examiner. Copies of the references are enclosed in compliance with the requirements of 37 CFR § 1.98(a)(2).

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR § 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

Petitioner Disney Ex-1027, 0160

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

I hereby certify that each item of information contained in the Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Information Disclosure Statement.

The Commissioner is authorized to charge the fee set forth in § 1.17(p) to the firm's credit card for consideration of this paper. The Commissioner is authorized to charge any additional fee due to Deposit Account No. 20-1430.

Respectfully submitted,

/Scott L. McMillan/

Scott L. McMillan
Registration No. 62,079

KILPATRICK TOWNSEND & STOCKTON LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 415-576-0300
SLM/tmb
Attachments

Petitioner Disney Ex-1027, 0161

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	14/086,801	Filing Date	2013-11-21	Docket Number (if applicable)	92853-882531 (004100US)	Art Unit	2452
First Named Inventor	Albert John McGowan			Examiner Name	HUSSAIN, TAUQIR		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the orde in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☒ Other
Extension Fee

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.
☒ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to
Deposit Account No 201430

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

☐ Applicant Signature

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Scott L. McMillan/	Date (YYYY-MM-DD)	2015-02-23
Name	Scott L. McMillan	Registration Number	62079

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is t file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Tim will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions fo reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the informatio solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record ma be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	14086801
Filing Date:	21-Nov-2013
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Filer:	Scott Lee McMillan/Dane Stephenson
Attorney Docket Number:	92853-882531 (004100US)

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
Request for Continued Examination	2801	1	600	600
		Total in USD ($)		**700**

Electronic Acknowledgement Receipt

EFS ID:	21575170
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Dane Stephenson
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	23-FEB-2015
Filing Date:	21-NOV-2013
Time Stamp:	18:18:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$700
RAM confirmation Number	5579
Deposit Account	201430
Authorized User	MCMILLAN, SCOTT

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		92853-882531_Amendment_After_Final.pdf	113831 f04eadf918c8e664645e57793ea41a34c7676d1d	yes	9

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Response After Final Action	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	9

Warnings:					
Information:					
2	Request for Continued Examination (RCE)	92853-882531-RCE.pdf	697873 9cbf04674b8ad361b81aad188d8c21114bfe0faf	no	3
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32937 c2f7656a14391fa05ace63246b1626a46434ea6b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	844641		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on February 23, 2015.

KILPATRICK TOWNSEND & STOCKTON LLP

By: /Dane Stephenson/
Dane Stephenson

PATENT
Attorney Docket No. 92853-882531 (004100US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Albert John McGowan et al.	Confirmation No. 6031
Application No.: 14/086,801	Examiner: HUSSAIN, TAUQIR
Filed: November 21, 2013	Technology Center/Art Unit: 2452
For: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	AMENDMENT AFTER FINAL
Customer No. 20350	

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Final Office Action mailed October 24, 2014 (hereinafter the "Final Office Action"), please enter the following amendments and remarks:

Listing of the Claims is reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Petitioner Disney Ex-1027, 0170

Listing of Claims:

1. (Currently Amended) A method of providing media streaming via a data communications network, the method comprising:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving, via the data communications network, a request to stream the live media content;

creating, with a processing unit, a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data **and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset**; and

sending, via the data communications network, the manifest file.

2. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, further comprising providing an application programming interface (API), wherein the request to stream the live media content is received via the API.

3. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

4. (Original) The method of providing media streaming via a data communications network, as recited in claim 3, further comprising:

determining a type of client associated with the request to stream the live media content;

Petitioner Disney Ex-1027, 0171

wherein providing the indication of the discontinuity is based on the determination of the type of client.

5. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein obtaining the timing information of the stream of data comprises:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

6. (Original) The method of providing media streaming via a data communications network, as recited in claim 5, further comprising:

receiving an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

7. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

8. (Currently Amended) A server for providing media streaming via a data communications network, the server comprising:

a communications interface;

a memory; and

a processing unit coupled to the communications interface and the memory, the processing unit configured to cause the server to:

receive a stream of data representing live media content;

obtain timing information of the stream of data;

receive, via the communications interface, a request to stream the live media content;

create a manifest file, wherein:

Petitioner Disney Ex-1027, 0172

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data **and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset**; and

send, via the communications interface, the manifest file.

9. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is further configured to cause the server to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

10. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

11. (Original) The server for providing media streaming via a data communications network, as recited in claim 10, wherein the processing unit is further configured to cause the server to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

12. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to obtain the timing information of the stream of data by:

sending a request for the timing information; and

Petitioner Disney Ex-1027, 0173

receiving a response to the request, the response including the timing information.

13. (Original) The server for providing media streaming via a data communications network, as recited in claim 12, wherein the processing unit is further configured to cause the server to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

14. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

15. (Currently Amended) A non-transitory computer-readable medium having instructions embedded thereon for providing media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving a request to stream the live media content;

creating a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data **and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset**; and

sending the manifest file.

Petitioner Disney Ex-1027, 0174

16. (Original) The computer-readable medium, as recited in claim 15, further comprising instructions for causing the computer to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

17. (Original) The computer-readable medium, as recited in claim 15, wherein the instructions for creating the manifest file further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

18. (Original) The computer-readable medium, as recited in claim 17, further including instructions for causing the computer to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

19. (Original) The computer-readable medium, as recited in claim 15, wherein the instructions for obtaining the timing information of the stream of data further include instructions for causing the computer to:

send a request for the timing information; and

receive a response to the request, the response including the timing information.

20. (Original) The computer-readable medium, as recited in claim 19 further comprising instructions for causing the computer to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

Petitioner Disney Ex-1027, 0175

REMARKS/ARGUMENTS

Status of the Application

Prior to entry of this amendment, claims 1-20 were pending in this application. Claims 1, 8, and 15 have been amended. No claims have been added or canceled. Therefore, claims 1-20 remain pending. Claims 1, 8 and 15 are independent claims. The Applicant respectfully requests reconsideration of these claims for at least the reasons presented below.

Summary of Examiner Interview

On January 26, 2015, the undersigned and the Examiner conducted an examiner interview to discuss the independent claims and the cited art. The Applicant appreciates the Examiner's willingness to interview this case. Through the examiner interview and subsequent communication, parties agreed that the amendments herein distinguish the claims over the art of record.

The Applicant invites the Examiner's comments if the Examiner has a different recollection of these events.

35 U.S.C. §103 Rejection

The Office Action has rejected claims 1-20 under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent Pub. No. 2010/0169303 of ("Biderman") in view of U.S. Patent Pub. No. 2012/0047542 ("Lewis"). It is respectfully submitted that Biderman in combination with Lewis, fails to teach or suggest each element of any of the rejected claims, and reconsideration of the rejections is respectfully requested.

The independent claims have been amended to clarify that "the offset information [is]…indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset." Support for this feature is found throughout the application as originally filed, including paragraphs [0047], [0049], and [0058], for example. As agreed upon in the above-summarized examiner interview and subsequent correspondence, the cited art fails to teach or make obvious any similar

Petitioner Disney Ex-1027, 0176

feature. As such, the Applicant respectfully requests reconsideration and withdrawal of the rejections of these claims under § 103.

Dependent Claims 2-7, 9-14 and 16-20

Claims 2-7, 9-14 and 16-20 are dependent on claims 1, 8, and 15. Because claims 1, 8, and 15 are allowable for at least the reasons discussed above, the Applicant asserts that each of claims 2-7, 9-14 and 16-20 is allowable for at least the reason that it is dependent on an allowable claim.

CONCLUSION

In view of the foregoing, the Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue, or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

/Scott L. McMillan/

Scott L. McMillan
Registration No. 62,079

Petitioner Disney Ex-1027, 0177

KILPATRICK TOWNSEND & STOCKTON LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 415-576-0300
SLM:ds
66685191V.1

Petitioner Disney Ex-1027, 0178

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
14/086,801	11/21/2013	

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **02/23/2015**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/STEFANIE BRYCE/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

20350 7590 02/24/2015

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
HUSSAIN, TAUQIR

ART UNIT	PAPER NUMBER
2452	

NOTIFICATION DATE	DELIVERY MODE
02/24/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com

Petitioner Disney Ex-1027, 0180

Applicant-Initiated Interview Summary	Application No.	Applicant(s)	
	14/086,801	MCGOWAN ET AL.	
	Examiner	Art Unit	
	TAUQIR HUSSAIN	2452	

All participants (applicant, applicant's representative, PTO personnel):

(1) *TAUQIR HUSSAIN*. (3)_____.

(2) *Scott McMillan*. (4)_____.

Date of Interview: *12 February 2015*.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☐ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☐102 ☒103 ☐Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: *1*.

Identification of prior art discussed: *Cited reference*.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Proposed amendment was discussed in reference to independent claim 1. Amendment was discussed specifically to elaborate to clarify the offset value e.g. added limitations recites, the manifest file…data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offsett". It was concluded that such amendment may overcome the cited reference. Further consideration and search will require upon receiving an official response.

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☐ Attachment

/TAUQIR HUSSAIN/ Primary Examiner, Art Unit 2452	

Petitioner Disney Ex-1027, 0181

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

———

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)

CONFIRMATION NO. 6031

PUBLICATION NOTICE

20350
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

OC000000074383358

Title:DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Publication No.US-2015-0095461-A1
Publication Date:04/02/2015

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Petitioner Disney Ex-1027, 0183

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

20350 7590 04/08/2015

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
HUSSAIN, TAUQIR

ART UNIT	PAPER NUMBER
2452	

NOTIFICATION DATE	DELIVERY MODE
04/08/2015	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com

Petitioner Disney Ex-1027, 0184

Office Action Summary	Application No. 14/086,801	Applicant(s) MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	AIA (First Inventor to File) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/23/2015*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-20* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-20* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date *01/22/2015*.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/23/2015 has been entered.

Response to Amendment

2. This office action is in response to amendment/reconsideration filed on 02/23/2015, the amendment/reconsideration has been considered. Claims 1, 8 and 15 have been amended. Claims 1-20 are pending for examination, the rejection cited as stated below.

Double Patenting

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the claims at issue are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s)

because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the reference application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO internet Web site contains terminal disclaimer forms which may be used. Please visit http://www.uspto.gov/forms/. The filing date of the application will determine what form should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to http://www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

4. Claims 1, 8 and 15 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1, 6 and 11of copending Application No. 14/086,822.

Although the claims at issue are not identical, they are not patentably distinct from each other because:

Instant Application: 14/086,801	Co-pending Application: 14/086,822
Claim 1. A method of providing media streaming via a data communications network, the method comprising: receiving a stream of data representing live media content; obtaining timing information of the stream of data; receiving, via the data communications network, a request to stream the live media content; creating, with a processing unit, a manifest file, wherein: the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a	Claim 1. A method of providing media streaming via a data communications network, the method comprising: receiving, via the data communications network, a request for a segment of media, wherein the request includes offset information for the segment of the media indicative of a value by which at least one timestamp of the segment of the media file is to be offset; determining, based on the request for the segment of the media, one or more files to use for creating the segment of media; obtaining the one or more files from a data storage; in response to receiving the request for the segment of media, creating, with a processing unit, the segment of media

media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and sending, via the data communications network, the manifest file.	from the one or more files, wherein creating the segment of media further includes providing the timestamp for the segment of media based on the offset information included in the request for the segment of media; and sending, via the data communications network, the segment of media.
Claim 8. A server for providing media streaming via a data communications network, the server comprising: a communications interface; a memory; and a processing unit coupled to the communications interface and the memory, the processing unit configured to	Claim 6. A server for providing media streaming via a data communications network, the server comprising: a communications interface; a memory; and a processing unit coupled to the communications interface and the memory, the processing unit configured to cause the server to:

cause the server to: receive a stream of data representing live media content; obtain timing information of the stream of data; receive, via the communications interface, a request to stream the live media content; create a manifest file, wherein: the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one	receive, via the communications interface, a request for a segment of media, wherein the request includes offset information for the segment of the media indicative of a value by which at least one timestamp of the segment of the media file is to be offset; determine, based on the request for the segment of the media, one or more files to use for creating the segment of media; obtain the one or more files from a data storage; in response to receiving the request for the segment of media, create the segment of media from the one or more files, wherein creating the segment of media further includes providing the timestamp for the segment of media based on the offset information included in the request for the segment of media; and send, via the communications interface, the segment of media.

timestamp of the one or more segments of the media file is to be offset; and send, via the communications interface, the manifest file.	
Claim 15. A non-transitory computer-readable medium having instructions embedded thereon for providing media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including: receiving a stream of data representing live media content; obtaining timing information of the stream of data; receiving a request to stream the live media content; creating a manifest file, wherein: the manifest file includes information for streaming one or more segments of the live media content via the data communications network,	Claim 11. A non-transitory computer-readable medium having instructions embedded thereon for providing media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including: receiving a request for a segment of media, wherein the request includes offset information for the segment of the media indicative of a value by which at least one timestamp of the segment of the media file is to be offset; determining, based on the request for the segment of the media, one or more files to use for creating the segment of media; obtaining the one or more files from a data

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and sending the manifest file.	storage; in response to receiving the request for the segment of media, creating the segment of media from the one or more files, wherein creating the segment of media further includes providing the timestamp for the segment of media based on the offset information included in the request for the segment of media; and sending the segment of media.

Dependent claims 2-7, 9-14 and 16-20 carry similar deficiency from the base claims and therefore are rejected for same rationale. This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAUQIR HUSSAIN whose telephone number is (571)270-1247. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu V. Nguyen can be reached on (571) 272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TAUQIR HUSSAIN/
Primary Examiner, Art Unit 2452

Notice of References Cited	Application/Control No. 14/086,801	Applicant(s)/Patent Under Reexamination MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2013/0080579 A1	03-2013	Gordon et al.	709/217
*	B	US-2013/0080268 A1	03-2013	Gordon et al.	705/14.73
*	C	US-2012/0110117 A1	05-2012	KOREEDA, Hiroyuki	709/217
*	D	US-2012/0179788 A1	07-2012	McGowan, Albert John	709/219
*	E	US-2003/0018966 A1	01-2003	Cook et al.	725/2
*	F	US-2013/0083859 A1	04-2013	Nemiroff et al.	375/240.25
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Petitioner Disney Ex-1027, 0194

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	26	stream$3 near3 download$3 with (collect$3 acquir$3 retriev$3 strip$4) near8 (metrics time$1stamp metadata header attribut)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/03 10:57
L2	15	stream$3 near3 download$3 with (collect$3 acquir$3 retriev$3 strip$4) near8 (metrics time$1stamp metadata header attribut) and (chunks frame segment portion)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/03 10:58
L3	14	2 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/03 10:58
S1	847	stream$3 with (tim$3 timpe near2 stamp) with (manifest metadata attribute preference) with (segment portion frame)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 10:50
S2	4512	709/232.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:13
S3	28	rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:17
S4	0	(on$1demand stream$3 media content) with rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:18
S5	14	(on$1demand stream$3 media content)	US-PGPUB;	OR	ON	2014/02/07

		same rewrite near5 timestamp	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			11:18
S6	14	S5 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:20
S7	28	dynamic$4 and rewrit$3 near8 timestamp and (media near2 content live near3 stream$3 video VOD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S8	28	S7 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 11:24
S9	0	(API "application programing interface") with stream$3 with rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:07
S10	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08
S11	3	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp and dynamic$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:08
S12	0	meida near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S13	0	meida near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2014/02/07 13:09

			IBM_TDB			
S14	202	media near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S15	91	media near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:09
S16	0	media near3 content with manifest near4 file and dynamic$5 and rewrit$5 near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S17	33	media near3 content with manifest near4 file and dynamic$5 and timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S18	0	media near3 content with manifest near4 file and dynamic$5 and timestamp and rewrit$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S19	33	S17 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/02/07 13:10
S20	2	"20110264506".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 11:50
S21	25	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 11:56
S22	6	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 11:56

Petitioner Disney Ex-1027, 0197

S23	60	("20060015637" | "20110246659" | "20070078712" | "8165343" | "20050193205" | "7877511" | "7925849" | "8027787" | "20030229900" | "20040022391" | "20070168542" | "20080141027" | "20080207182" | "20090022172" | "20090031424" | "20090172197" | "20100118973" | "20110029999" | "20120005312" | "7958007" | "8027878" | "20110246603" | "20020046404" | "20100138892" | "20100161425" | "7925549" | "20080215620" | "20090063280" | "20110238507" | "20060114985" | "20070162571" | "20070168416" | "20090217316" | "20100057926" | "20110264506" | "20120005313" | "6912315" | "7788581" | "7827298" | "7992165" | "20020150239" | "20030004804" | "20060288112" | "20080005349" | "20100100742" | "20100129057" | "5612742" | "20020122430" | "20060122882" | "20080059310" | "20090257435" | "20090327896" | "20100095121" | "8145782" | "20020073084" | "8099473" | "20070233891" | "20090287841" | "20110287748" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:23
S24	51	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/03/26 12:27
S25	21	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:27
S26	1	"8145782".pn.	US-PGPUB; USPAT	OR	ON	2014/03/26 12:32
S27	1	"20120254431".pn. and integration and specification	US-PGPUB; USPAT	OR	ON	2014/03/26 12:57
S28	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2014/10/21 11:01
S29	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2014/10/21 11:01
S35	9	(manifest playlist) near3 file with (time duration length) with (offset replacement	US-PGPUB; USPAT;	OR	ON	2014/10/21 14:28

Petitioner Disney Ex-1027, 0198

		alternat$3 additional) near3 (segment advertisement announcement)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S36	9	S35 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:28
S37	1	(manifest playlist) near3 file with live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:30
S38	93	live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:30
S39	1	(manifest playlist) near3 file same live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:30
S40	19	(manifest playlist) near3 file and (live near3 stream$3 same (continuity discontinuity))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:31
S41	19	S40 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/21 14:31
S42	2	"20100169303".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/01/23 11:08
S43	1076	stream$3 with (tim$3 timpe near2 stamp) with (manifest metadata attribute preference) with (segment portion frame)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49

S44	5632	709/232.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S45	33	rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S46	2	(on$1demand stream$3 media content) with rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S47	17	(on$1demand stream$3 media content) same rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S48	15	S47 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S49	34	dynamic$4 and rewrit$3 near8 timestamp and (media near2 content live near3 stream$3 video VOD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S50	31	S49 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S51	0	(API "application programing interface") with stream$3 with rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S52	5	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2015/04/02 19:49

Petitioner Disney Ex-1027, 0200

			DERWENT; IBM_TDB			
S53	5	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp and dynamic$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S54	0	meida near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S55	0	meida near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S56	327	media near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S57	169	media near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S58	2	media near3 content with manifest near4 file and dynamic$5 and rewrit$5 near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S59	47	media near3 content with manifest near4 file and dynamic$5 and timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S60	3	media near3 content with manifest near4 file and dynamic$5 and timestamp and rewrit$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S61	44	S59 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR;	OR	ON	2015/04/02 19:49

Petitioner Disney Ex-1027, 0201

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S62	2	"20110264506".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S63	25	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S64	6	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT	OR	ON	2015/04/02 19:49
S65	60	("20060015637" | "20110246659" | "20070078712" | "8165343" | "20050193205" | "7877511" | "7925849" | "8027787" | "20030229900" | "20040022391" | "20070168542" | "20080141027" | "20080207182" | "20090022172" | "20090031424" | "20090172197" | "20100118973" | "20110029999" | "20120005312" | "7958007" | "8027878" | "20110246603" | "20020046404" | "20100138892" | "20100161425" | "7925549" | "20080215620" | "20090063280" | "20110238507" | "20060114985" | "20070162571" | "20070168416" | "20090217316" | "20100057926" | "20110264506" | "20120005313" | "6912315" | "7788581" | "7827298" | "7992165" | "20020150239" | "20030004804" | "20060288112" | "20080005349" | "20100100742" | "20100129057" | "5612742" | "20020122430" | "20060122882" | "20080059310" | "20090257435" | "20090327896" | "20100095121" | "8145782" | "20020073084" | "8099473" | "20070233891" | "20090287841" | "20110287748" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2015/04/02 19:49
S66	51	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S67	21	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" |	US-PGPUB; USPAT	OR	ON	2015/04/02 19:49

Petitioner Disney Ex-1027, 0202

		"20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.				
S68	1	"8145782".pn.	US-PGPUB; USPAT	OR	ON	2015/04/02 19:49
S69	1	"20120254431".pn. and integration and specification	US-PGPUB; USPAT	OR	ON	2015/04/02 19:49
S70	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2015/04/02 19:49
S71	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2015/04/02 19:49
S72	9	(manifest playlist) near3 file with (time duration length) with (offset replacement alternat$3 additional) near3 (segment advertisement announcement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S73	9	S72 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S74	2	(manifest playlist) near3 file with live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S75	105	live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S76	2	(manifest playlist) near3 file same live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S77	27	(manifest playlist) near3 file and (live near3 stream$3 same (continuity discontinuity))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2015/04/02 19:49

Petitioner Disney Ex-1027, 0203

			IBM_TDB			
S78	26	S77 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S79	2	"20100169303".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:49
S80	383	(stream$3 near2 media multimedia) with (segment portions frames) with offset	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:51
S81	87	(stream$3 near2 media multimedia) with (segment portions frames) with time$1stamp and offset	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:51
S82	212	(stream$3 near2 media multimedia) with manifest near2 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:52
S83	2	S81 and S82	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:52
S84	85	S81 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:53
S85	0	manifest near2 file with time$1stamp with offset	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:55
S86	48	manifest near2 file with offset	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2015/04/02 19:55

			EPO; JPO; DERWENT; IBM_TDB			
S87	15	manifest near2 file with offset and time$2stamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:55
S88	0	manifest near2 file with offset with time$2stamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:55
S89	13	S87 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 19:55
S90	5	"2013080579".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 20:00
S91	3	"20130080579".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/02 20:01
S92	4	"7203758".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/03 00:00
S93	3	"20030018966".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/03 00:01
S94	3	"20130083859".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/04/03 00:02

EAST Search History (Interference)

<This search history is empty>

4/3/2015 11:07:00 AM
C:\Users\thussain1\Documents\EAST\Workspaces\14086801.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	Art Unit
	TAUQIR HUSSAIN	2452

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	232	2/10/2014	TH
	Search Updated.	7/1/2014	TH
	Search Updated.	10/20/2014	TH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (USPAT, USPGPUB, EPO, USOCR, FERS, JPO, DERWENT, IBM_TDB) - See East Search history printout.	2/10/2014	TH
Search of Obviousness type DP was conducted in East Search History printout.	2/10/2014	TH
Inventor and assignee search in east- see east search history printout.	2/10/2014	TH
Inventor and assignee search in Palm.	2/10/2014	TH
709/232 text search, see East Search History printout.	2/10/2014	TH
Search Updated.	7/1/2014	TH
Search Updated.	10/20/2014	TH

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
709	Please see attached east search history for interference search.	2/10/2014	TH

Petitioner Disney Ex-1027, 0207

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**
	Search Updated.	7/1/2014	TH
	Search Updated.	10/20/2014	TH

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Field
PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	14/086,801
Filing Date	November 21, 2013
First Named Inventor	Albert John McGowan
Art Unit	2452
Examiner Name	Tauqir Hussain
Attorney Docket Number	92853-882531 (004100US)

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A6	US 7,203,758	B2	04-10-2007	Cook et al.	

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A7	US 2013-080579	A1	03-28-2013	Gordon et al.	
	A8	US 2013-083859	A1	04-04-2013	Nemiroff et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T[5]

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	C1	International Search Report and Written Opinion mailed December 9, 2014 for PCT/US2014/056823 filed on September 22, 2014, 10 pages.	

66851654V.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.H

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Field

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14/086,801
	Filing Date	November 21, 2013
	First Named Inventor	Albert John McGowan
	Art Unit	2452
	Examiner Name	Tauqir Hussain
	Attorney Docket Number	92853-882531 (004100US)

EXAMINER SIGNATURE				
Examiner Signature	/Tauqir Hussain/		Date Considered	04/02/2015

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
[4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

66851654V.1

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /T.H

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on June 30, 2015.

KILPATRICK TOWNSEND & STOCKTON LLP

By: /Andrew Joseph/
Andrew Joseph

PATENT
Attorney Docket No. 92853-882531 (004100US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Albert John McGowan et al.	Confirmation No. 6031
Application No.: 14/086,801	Examiner: HUSSAIN, TAUQIR
Filed: November 21, 2013	Technology Center/Art Unit: 2452
For: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	AMENDMENT
Customer No. 20350	

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Non-Final Office Action mailed April 8, 2015 (hereinafter the "Non-Final Office Action"), please enter the following amendments and remarks:

Listing of the Claims is reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

Petitioner Disney Ex-1027, 0211

Listing of Claims:

1. (Previously Presented) A method of providing media streaming via a data communications network, the method comprising:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving, via the data communications network, a request to stream the live media content;

creating, with a processing unit, a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and

sending, via the data communications network, the manifest file.

2. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, further comprising providing an application programming interface (API), wherein the request to stream the live media content is received via the API.

3. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

4. (Original) The method of providing media streaming via a data communications network, as recited in claim 3, further comprising:

determining a type of client associated with the request to stream the live media content;

Petitioner Disney Ex-1027, 0212

wherein providing the indication of the discontinuity is based on the determination of the type of client.

5. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein obtaining the timing information of the stream of data comprises:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

6. (Original) The method of providing media streaming via a data communications network, as recited in claim 5, further comprising:

receiving an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

7. (Original) The method of providing media streaming via a data communications network, as recited in claim 1, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

8. (Previously Presented) A server for providing media streaming via a data communications network, the server comprising:

a communications interface;

a memory; and

a processing unit coupled to the communications interface and the memory, the processing unit configured to cause the server to:

receive a stream of data representing live media content;

obtain timing information of the stream of data;

receive, via the communications interface, a request to stream the live media content;

create a manifest file, wherein:

Petitioner Disney Ex-1027, 0213

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and

send, via the communications interface, the manifest file.

9. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is further configured to cause the server to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

10. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

11. (Original) The server for providing media streaming via a data communications network, as recited in claim 10, wherein the processing unit is further configured to cause the server to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

12. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to obtain the timing information of the stream of data by:

sending a request for the timing information; and

Petitioner Disney Ex-1027, 0214

receiving a response to the request, the response including the timing information.

13. (Original) The server for providing media streaming via a data communications network, as recited in claim 12, wherein the processing unit is further configured to cause the server to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

14. (Original) The server for providing media streaming via a data communications network, as recited in claim 8, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

15. (Previously Presented) A non-transitory computer-readable medium having instructions embedded thereon for providing media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving a request to stream the live media content;

creating a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and

sending the manifest file.

Petitioner Disney Ex-1027, 0215

16. (Original) The computer-readable medium, as recited in claim 15, further comprising instructions for causing the computer to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

17. (Original) The computer-readable medium, as recited in claim 15, wherein the instructions for creating the manifest file further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

18. (Original) The computer-readable medium, as recited in claim 17, further including instructions for causing the computer to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

19. (Original) The computer-readable medium, as recited in claim 15, wherein the instructions for obtaining the timing information of the stream of data further include instructions for causing the computer to:

send a request for the timing information; and

receive a response to the request, the response including the timing information.

20. (Original) The computer-readable medium, as recited in claim 19 further comprising instructions for causing the computer to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

Petitioner Disney Ex-1027, 0216

REMARKS/ARGUMENTS

Prior to entry of this Amendment, claims 1-20 were pending for examination. No claims have been amended, added or canceled. Hence, after entry of this amendment, claims 1-20 will be pending for examination. Claims 1, 10 and 16 are independent claims. No new matter is added by these amendments.

DOUBLE PATENTING

Claims 1-20 are provisionally rejected on the ground of non-statutory double patenting over claims of the co-pending Application No. 14/086,822. To further expedite prosecution, Applicants have filed a terminal disclaimer over U.S. Patent Application No. 14/086,822. For at least these reasons, Applicants request withdrawal of the double-patenting rejection.

CONCLUSION

In view of the foregoing, the Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

It is believed that all of the pending claims have been addressed in this paper. However, failure to address a specific rejection, issue, or comment, does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above are not intended to be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Petitioner Disney Ex-1027, 0217

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,

/Scott L. McMillan/

Scott L. McMillan
Registration No. 62,079

KILPATRICK TOWNSEND & STOCKTON LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 415-576-0300
SLM:aj
67463689V.1

Petitioner Disney Ex-1027, 0218

PTO/AIA/80 (07-12)
Approved for use through 11/30/2014. OMB 0651-0035
U.S. Patent and Trademark Office; U.S DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

☒ Practitioners associated with Customer Number: 20350

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

☒ The address associated with Customer Number: 20350

OR

☐	Firm or Individual Name			
	Address			
	City		State	Zip
	Country			
	Telephone		Email	

Assignee Name and Address: BRIGHTCOVE INC.
290 CONGRESS STREET
4TH FLOOR
BOSTON, MASSACHUSETTS 02210

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	[signature]	Date	2/3/2015
Name	[illegible]	Telephone	
Title	VP, GC		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office;U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of1995, no persons arerequired to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Brightcove Inc.

Application No./Patent No.: 14/086,801 Filed/Issue Date: November 21, 2013

Titled: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Brightcove Inc., a Corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☑ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel 034745, Frame 0158, or for which a copy thereof is attached.

B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

   1. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

   2. From: _____ To: _____

      The document was recorded in the United States Patent and Trademark Office at

      Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by37 CFR3.73(b). The information is required toobtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentialityis governed by35 U.S.C. 122and 37 CFR1.11 and1.14. Thiscollection is estimated to take 12 minutes to complete, including gathering, preparing, and submittingthe completed application form to the USPTO.Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent tothe Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.**SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Scott L. McMillan/	06/30/2015
Signature	Date
Scott L. McMillan	62,079
Printed or Typed Name	Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that yoube given certain informationin connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, pleasebe advised that: (1) the general authority forthe collection of thisinformation is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and(3) the principal purpose forwhich the information isused by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent applicationor patent. If you do not furnish the requested information,the U.S. Patent and Trademark Office may not be able to process and/or examineyour submission,which may result in termination of proceedings or abandonment of the applicationor expiration of the patent.

The informationprovided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the informationin order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an InternationalApplication filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, arecord may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from thissystem of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	22794145
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Andrew Joseph
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	30-JUN-2015
Filing Date:	21-NOV-2013
Time Stamp:	19:38:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		92853_882531_AMD.pdf	85982 2c27dae58ea2f3b1d280c525addd0c37321 9b833	yes	8

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	8

Warnings:					
Information:					
2	Power of Attorney	BrightcovePOA.pdf	685717 9234f720d1beb82ee47e35310836b5c6c7838b22	no	2
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
3	Assignee showing of ownership per 37 CFR 3.73	Brightcove_373.pdf	118326 a96ded3694d630caaaa4e107783c94b77ea1802b	no	3
Warnings:					
Information:					
		Total Files Size (in bytes):	890025		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/086,801	Filing Date 11/21/2013	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **06/30/2015**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/SUSAN HAY/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)

CONFIRMATION NO. 6031

IMPROPER CPOA LETTER

20350
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

OC000000076149547

Date Mailed: 07/09/2015

NOTICE REGARDING POWER OF ATTORNEY

This is in response to the power of attorney filed 06/30/2015. The power of attorney in this application is not accepted for the reason(s) listed below:

- The power of attorney has not been accepted because the party who is giving power has not been identified. Power of attorney may only be signed by the applicant for patent (37 CFR 1.42) or the patent owner. A party who is not the applicant must become the applicant in accordance with 37 CFR 1.46(c) and appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. For a reissue application, reexamination proceeding, or supplemental examination proceeding, a patent owner who was not the applicant under 37 CFR 1.46 must appoint any power of attorney in compliance with 37 CFR 3.71 and 3.73. See 37 CFR 1.32(b)(4).

/tlulu/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Petitioner Disney Ex-1027, 0227

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)

CONFIRMATION NO. 6031

IMPROPER CFR REQUEST

20350
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

OC000000076149576

Date Mailed: 07/09/2015

RESPONSE TO REQUEST FOR CORRECTED FILING RECEIPT

Power of Attorney, Claims, Fees, System Limitations, and Miscellaneous

In response to your request for a corrected Filing Receipt, the Office is unable to comply with your request because:

- Any request to correct or update the name of the applicant must include an application data sheet (ADS) in compliance with 37 CFR 1.76 specifying the correct or updated name of the applicant in the applicant information section. Any request to change the applicant after an original applicant has been specified under 37 CFR 1.46(b) must include a new ADS in compliance with 37 CFR 1.76 specifying the applicant in the applicant information section and comply with 37 CFR 3.71 and 3.73. See 37 CFR 1.46(c).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/tlulu/

Petitioner Disney Ex-1027, 0228

PTO/AIA/80 (07-12)
Approved for use through 11/30/2014. OMB 0651-0035
U.S. Patent and Trademark Office; U.S DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

☒ Practitioners associated with Customer Number: 20350

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignments documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

☒ The address associated with Customer Number: 20350

OR

☐	Firm or Individual Name			
	Address			
	City		State	Zip
	Country			
	Telephone		Email	

Assignee Name and Address: BRIGHTCOVE INC.
290 CONGRESS STREET
4TH FLOOR
BOSTON, MASSACHUSETTS 02210

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be Filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of The practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature	[signature]	Date	2/3/2015
Name	[illegible]	Telephone	
Title	VP, GC		

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	22881994
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Andrew Joseph
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	10-JUL-2015
Filing Date:	21-NOV-2013
Time Stamp:	13:18:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	882531_SADS.pdf	277173 12a262cc51c1d2cb7e1c8f8c044b436bcc903267	no	7

Warnings:	
Information:	

This is not an USPTO supplied ADS fillable form					
2	Assignee showing of ownership per 37 CFR 3.73	882531_373.pdf	300322 69b2a1a88c3115e3895a909c4f1222411f4015c4	no	3
Warnings:					
Information:					
3	Power of Attorney	POA.pdf	200911 82a862608e5cb53029227141c27ce4d60722ffbf	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	778406		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

SUPPLEMENTAL **Application Data Sheet 37 CFR 1.76**	Attorney Docket Number	92853-882531 (004100US)
	Application Number	14/086,801
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Albert	John	McGowan	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Phoenix	State/Province	AZ	Country of Residence i	US

Mailing Address of Inventor:

Address 1	4201 E. Camelback Road, No. 101		
Address 2			
City	Phoenix	State/Province	AZ
Postal Code	85018	Country i	US

Inventor 2 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Nicholas		Maultsby	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Phoenix	State/Province	AZ	Country of Residence i	US

Mailing Address of Inventor:

Address 1	19239 N. 30th Pl.		
Address 2			
City	Phoenix	State/Province	AZ
Postal Code	85050	Country i	US

Inventor 3 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Jared		Marshall	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

SUPPLEMENTAL **Application Data Sheet 37 CFR 1.76**	Attorney Docket Number	92853-882531 (004100US)
	Application Number	14/086,801
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

City	Tempe	**State/Province**	AZ	**Country of Residence** i	US

Mailing Address of Inventor:

Address 1	21 E 6th Street #414		
Address 2			
City	Tempe	**State/Province**	AZ
Postal Code	85281	**Country** i	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	20350		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE		
Attorney Docket Number	92853-882531 (004100US)	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	8	**Suggested Figure for Publication (if any)**	

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

SUPPLEMENTAL **Application Data Sheet 37 CFR 1.76**	Attorney Docket Number	92853-882531 (004100US)
	Application Number	14/086,801
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Customer Number	20350

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this information in the application data sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)
	non provisional of	61884709	2013-09-30

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button. Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55(d). When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) [i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(h)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Remove

Application Number	Country [i]	Filing Date (YYYY-MM-DD)	Access Code [i] (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button. Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

SUPPLEMENTAL **Application Data Sheet 37 CFR 1.76**	Attorney Docket Number	92853-882531 (004100US)
	Application Number	14/086,801
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Authorization to Permit Access:

☐ Authorization to Permit Access to the Instant Application by the Participating Offices

If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application.

In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◉ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
○ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor :

If the Applicant is an Organization check here. ☒

Organization Name ~~UNICORN MEDIA, INC.~~ BRIGHTCOVE INC.

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

SUPPLEMENTAL **Application Data Sheet 37 CFR 1.76**	Attorney Docket Number	92853-882531 (004100US)
	Application Number	14/086,801
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Mailing Address Information:			
Address 1	~~24 West 5th Street~~ 290 CONGRESS STREET		
Address 2			
City	~~Tempe~~ BOSTON	**State/Province**	~~AZ~~ MA
Country i US		Postal Code	~~85281~~ 02210
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Non-Applicant Assignee Information:

Providing assignment information in this section does not subsitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee 1

Complete this section only if non-applicant assignee information is desired to be included on the patent application publication in accordance with 37 CFR 1.215(b). Do not include in this section an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest), as the patent application publication will include the name of the applicant(s).

Remove

If the Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information:			
Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee Data may be generated within this form by selecting the Add button. Add

PTO/AIA/14 (03-13)
Approved for use through 01/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

SUPPLEMENTAL **Application Data Sheet 37 CFR 1.76**	Attorney Docket Number	92853-882531 (004100US)
	Application Number	14/086,801
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE	

Signature:

Remove

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications

Signature	/Scott L. McMillan/			Date (YYYY-MM-DD)	2015-07-10
First Name	Scott	Last Name	McMillan	Registration Number	62079

Additional Signature may be generated within this form by selecting the Add button. Add

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office;U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of1995, no persons arerequired to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Brightcove Inc.

Application No./Patent No.: 14/086,801 Filed/Issue Date: November 21, 2013

Titled: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Brightcove Inc., a Corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

B. ☒ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:
MCGOWAN, ALBERT JOHN; MAULTSBY, NICHOLAS;

1. From: MARSHALL, JARED To: UNICORN MEDIA, INC

   The document was recorded in the United States Patent and Trademark Office at

   Reel 031984, Frame 0384, or for which a copy thereof is attached.

2. From: UNICORN MEDIA. INC. To: CACTI ACQUISITION LLC

   The document was recorded in the United States Patent and Trademark Office at

   Reel 032792, Frame 0728, or for which a copy thereof is attached.

This collection of information is required by37 CFR3.73(b). The information is required toobtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentialityis governed by35 U.S.C. 122and 37 CFR1.11 and1.14. Thiscollection is estimated to take 12 minutes to complete, including gathering, preparing, and submittingthe completed application form to the USPTO.Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent tothe Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.**SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: CACTI ACQUISITION LLC To: BRIGHTCOVE INC.

The document was recorded in the United States Patent and Trademark Office at

Reel 034745, Frame 0158, or for which a copy thereof is attached.

4. From: ..... To: .....

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: ..... To: .....

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: ..... To: .....

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Scott L. McMillan/	July 10, 2015
Signature	Date
Scott L. McMillan	62,079
Printed or Typed Name	Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that yoube given certain informationin connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, pleasebe advised that: (1) the general authority forthe collection of thisinformation is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and(3) the principal purpose forwhich the information isused by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent applicationor patent. If you do not furnish the requested information,the U.S. Patent and Trademark Office may not be able to process and/or examineyour submission,which may result in termination of proceedings or abandonment of the applicationor expiration of the patent.

The informationprovided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the informationin order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an InternationalApplication filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, arecord may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from thissystem of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

UNITED STATES PATENT AND TRADEMARK OFFICE
COMMISSIONER FOR PATENTS
P.O.BOX 1450
ALEXANDRIA VA 22313-1451

PRESORTED
FIRST-CLASS MAIL
U.S. POSTAGE PAID
POSTEDIGITAL
NNNNN

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

Courtesy Reminder for
Application Serial No: 14/086,801

Attorney Docket No: 92853-882531 (004100US)
Customer Number: 20350
Date of Electronic Notification: 07/09/2015

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:

ipefiling@kilpatricktownsend.com
jlhice@kilpatrick.foundationip.com

To view your correspondence online or update your email addresses, please visit us anytime at **https://sportal.uspto.gov/secure/myportal/privatepair.** If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)

CONFIRMATION NO. 6031

POA ACCEPTANCE LETTER

20350
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

OC000000076368342

Date Mailed: 07/20/2015

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/10/2015.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/dtdinh/

Petitioner Disney Ex-1027, 0244

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
14/086,801	11/21/2013	2452	1030	92853-882531 (004100US)	20	3

CONFIRMATION NO. 6031

REPLACEMENT FILING RECEIPT

20350
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

OC000000076368345

Date Mailed: 07/20/2015

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Albert John McGowan, Phoenix, AZ;
Nicholas Maultsby, Phoenix, AZ;
Jared Marshall, Tempe, AZ;

Applicant(s)

BRIGHTCOVE INC., BOSTON, MA;

Power of Attorney: The patent practitioners associated with Customer Number 20350

Domestic Priority data as claimed by applicant

This appln claims benefit of 61/884,709 09/30/2013

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

If Required, Foreign Filing License Granted: 12/05/2013

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 14/086,801**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No
** **SMALL ENTITY** **

Petitioner Disney Ex-1027, 0245

Title

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Preliminary Class

709

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

Petitioner Disney Ex-1027, 0246

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

20350 7590 07/22/2015

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER
HUSSAIN, TAUQIR

ART UNIT	PAPER NUMBER
2452	

DATE MAILED: 07/22/2015

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

TITLE OF INVENTION: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	10/22/2015

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 02/11)

Petitioner Disney Ex-1027, 0248

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20350 7590 07/22/2015
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

TITLE OF INVENTION: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	10/22/2015

EXAMINER	ART UNIT	CLASS-SUBCLASS
HUSSAIN, TAUQIR	2452	709-232000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.
1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. The following fee(s) are submitted:
- ❑ Issue Fee
- ❑ Publication Fee (No small entity discount permitted)
- ❑ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ❑ A check is enclosed.
- ❑ Payment by credit card. Form PTO-2038 is attached.
- ❑ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ❑ Applicant certifying micro entity status. See 37 CFR 1.29 — NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- ❑ Applicant asserting small entity status. See 37 CFR 1.27 — NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- ❑ Applicant changing to regular undiscounted fee status. — NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Petitioner Disney Ex-1027, 0249

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

20350 7590 07/22/2015

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
HUSSAIN, TAUQIR	

ART UNIT	PAPER NUMBER
2452	

DATE MAILED: 07/22/2015

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Petitioner Disney Ex-1027, 0250

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 14/086,801	Applicant(s) MCGOWAN ET AL.	
	Examiner TAUQIR HUSSAIN	Art Unit 2452	AIA (First Inventor to File) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *07/15/2015*.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on_____.
2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.
3. ☒ The allowed claim(s) is/are *1-20*. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov .
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some *c) ☐ None of the:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
5. ☐ Examiner's Amendment/Comment
6. ☐ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/TAUQIR HUSSAIN/
Primary Examiner, Art Unit 2452

Petitioner Disney Ex-1027, 0252

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	Art Unit
	TAUQIR HUSSAIN	2452

CPC- SEARCHED		
Symbol	Date	Examiner
H04L65/60	7/16/2015	TH
H04N21/23424	7/16/2015	TH
H04N21/44016	7/16/2015	TH
H04N21/812	7/16/2015	TH

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
709	232	2/10/2014	TH
	Search Updated.	7/1/2014	TH
	Search Updated.	10/20/2014	TH

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (USPAT, USPGPUB, EPO, USOCR, FERS, JPO, DERWENT, IBM_TDB) - See East Search history printout.	2/10/2014	TH
Search of Obviousness type DP was conducted in East Search History printout.	2/10/2014	TH
Inventor and assignee search in east- see east search history printout.	2/10/2014	TH
Inventor and assignee search in Palm.	2/10/2014	TH
709/232 text search, see East Search History printout.	2/10/2014	TH
Search Updated.	7/1/2014	TH
Search Updated.	10/20/2014	TH

INTERFERENCE SEARCH

US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
709	Please see attached east search history for interference search.	2/10/2014	TH
	Search Updated.	7/1/2014	TH
	Search Updated.	10/20/2014	TH

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1129	stream$3 with (tim$3 timpe near2 stamp) with (manifest metadata attribute preference) with (segment portion frame)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L2	5823	709/232.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L3	35	rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L4	3	(on$1demand stream$3 media content) with rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L5	18	(on$1demand stream$3 media content) same rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L6	15	L5 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L7	36	dynamic$4 and rewrit$3 near8 timestamp and (media near2 content live near3 stream$3 video VOD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L8	32	L7 and (@rlad<"20130930"	US-PGPUB;	OR	ON	2015/07/16

Petitioner Disney Ex-1027, 0255

		@ad<"20130930")	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			12:42
L9	0	(API "application programing interface") with stream$3 with rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L10	5	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L11	5	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp and dynamic$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L12	0	meida near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L13	0	meida near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L14	351	media near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L15	183	media near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L16	2	media near3 content with manifest near4 file and dynamic$5 and rewrit$5 near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0256

			IBM_TDB			
L17	49	media near3 content with manifest near4 file and dynamic$5 and timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L18	4	media near3 content with manifest near4 file and dynamic$5 and timestamp and rewrit$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L19	46	L17 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L20	2	"20110264506".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L21	25	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L22	6	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L23	60	("20060015637" | "20110246659" | "20070078712" | "8165343" | "20050193205" | "7877511" | "7925849" | "8027787" | "20030229900" | "20040022391" | "20070168542" | "20080141027" | "20080207182" | "20090022172" | "20090031424" | "20090172197" | "20100118973" | "20110029999" | "20120005312" | "7958007" | "8027878" | "20110246603" | "20020046404" | "20100138892" | "20100161425" | "7925549" | "20080215620" | "20090063280" | "20110238507" | "20060114985" | "20070162571" | "20070168416" | "20090217316" | "20100057926" | "20110264506" | "20120005313" | "6912315" | "7788581" | "7827298" | "7992165" | "20020150239" | "20030004804" | "20060288112" | "20080005349" | "20100100742" | "20100129057" | "5612742" | "20020122430" | "20060122882" |	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0257

		"20080059310" | "20090257435" | "20090327896" | "20100095121" | "8145782" | "20020073084" | "8099473" | "20070233891" | "20090287841" | "20110287748" | "6505169").PN.				
L24	51	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L25	21	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L26	1	"8145782".pn.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L27	1	"20120254431".pn. and integration and specification	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L28	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L29	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L30	10	(manifest playlist) near3 file with (time duration length) with (offset replacement alternat$3 additional) near3 (segment advertisement announcement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L31	10	L30 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L32	2	(manifest playlist) near3 file with live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L33	117	live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT;	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0258

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
L34	2	(manifest playlist) near3 file same live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L35	31	(manifest playlist) near3 file and (live near3 stream$3 same (continuity discontinuity))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L36	29	L35 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L37	2	"20100169303".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L38	1129	stream$3 with (tim$3 timpe near2 stamp) with (manifest metadata attribute preference) with (segment portion frame)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L39	5823	709/232.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L40	35	rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L41	3	(on$1demand stream$3 media content) with rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0259

L42	18	(on$1demand stream$3 media content) same rewrite near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L43	15	L42 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L44	36	dynamic$4 and rewrit$3 near8 timestamp and (media near2 content live near3 stream$3 video VOD)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L45	32	L44 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L46	0	(API "application programing interface") with stream$3 with rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L47	5	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L48	5	(API "application programing interface") and stream$3 and rewrit$5 near4 timestamp and dynamic$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L49	0	meida near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L50	0	meida near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0260

			DERWENT; IBM_TDB			
L51	351	media near3 content with manifest	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L52	183	media near3 content with manifest near4 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L53	2	media near3 content with manifest near4 file and dynamic$5 and rewrit$5 near5 timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L54	49	media near3 content with manifest near4 file and dynamic$5 and timestamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L55	4	media near3 content with manifest near4 file and dynamic$5 and timestamp and rewrit$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L56	46	L54 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L57	2	"20110264506".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L58	25	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L59	6	("20130317919" | "8327013" | "8301733" | "20110264506" | "8145782" | "20130219425").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0261

L60	60	("20060015637" | "20110246659" | "20070078712" | "8165343" | "20050193205" | "7877511" | "7925849" | "8027787" | "20030229900" | "20040022391" | "20070168542" | "20080141027" | "20080207182" | "20090022172" | "20090031424" | "20090172197" | "20100118973" | "20110029999" | "20120005312" | "7958007" | "8027878" | "20110246603" | "20020046404" | "20100138892" | "20100161425" | "7925549" | "20080215620" | "20090063280" | "20110238507" | "20060114985" | "20070162571" | "20070168416" | "20090217316" | "20100057926" | "20110264506" | "20120005313" | "6912315" | "7788581" | "7827298" | "7992165" | "20020150239" | "20030004804" | "20060288112" | "20080005349" | "20100100742" | "20100129057" | "5612742" | "20020122430" | "20060122882" | "20080059310" | "20090257435" | "20090327896" | "20100095121" | "8145782" | "20020073084" | "8099473" | "20070233891" | "20090287841" | "20110287748" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L61	51	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L62	21	("20080207182" | "20060015637" | "20110246659" | "20070162571" | "7877511" | "20070168542" | "20100161425" | "20090217316" | "20100057926" | "7788581" | "7992165" | "7827298" | "20100129057" | "20060122882" | "20090172197" | "20090287841" | "20090327896" | "20100151425" | "20100138892" | "20090257435" | "6505169").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L63	1	"8145782".pn.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L64	1	"20120254431".pn. and integration and specification	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L65	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L66	8	("8327013" | "20130219428" | "8301733" | "20100169303" | "20110264506" | "20130317919" | "8145782" | "20120047542").PN.	US-PGPUB; USPAT	OR	ON	2015/07/16 12:42
L67	10	(manifest playlist) near3 file with (time	US-PGPUB;	OR	ON	2015/07/16

Petitioner Disney Ex-1027, 0262

		duration length) with (offset replacement alternat$3 additional) near3 (segment advertisement announcement)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			12:42
L68	10	L67 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L69	2	(manifest playlist) near3 file with live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L70	117	live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L71	2	(manifest playlist) near3 file same live near3 stream$3 same (continuity discontinuity)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L72	31	(manifest playlist) near3 file and (live near3 stream$3 same (continuity discontinuity))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L73	29	L72 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L74	2	"20100169303".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L75	399	(stream$3 near2 media multimedia) with (segment portions frames) with offset	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0263

			IBM_TDB			
L76	91	(stream$3 near2 media multimedia) with (segment portions frames) with time$1stamp and offset	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L77	231	(stream$3 near2 media multimedia) with manifest near2 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L78	2	L76 and L77	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L79	88	L76 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L80	0	manifest near2 file with time$1stamp with offset	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L81	51	manifest near2 file with offset	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L82	16	manifest near2 file with offset and time$2stamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L83	0	manifest near2 file with offset with time$2stamp	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L84	14	L82 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2015/07/16 12:42

Petitioner Disney Ex-1027, 0264

			EPO; JPO; DERWENT; IBM_TDB			
L85	5	"2013080579".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L86	3	"20130080579".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L87	4	"7203758".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L88	3	"20030018966".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L89	3	"20130083859".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L90	26	stream$3 near3 download$3 with (collect$3 acquir$3 retriev$3 strip$4) near8 (metrics time$1stamp metadata header attribut)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L91	15	stream$3 near3 download$3 with (collect$3 acquir$3 retriev$3 strip$4) near8 (metrics time$1stamp metadata header attribut) and (chunks frame segment portion)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L92	14	L91 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:42
L93	4229	H04L65/60.cpc.	US-PGPUB; USPAT;	OR	ON	2015/07/16 12:52

Petitioner Disney Ex-1027, 0265

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
L94	6801	H04N21/44016.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:52
L95	5888	H04N21/23424.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:52
L96	22798	H04N21/812.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:52
L97	103	H04N21/812.cpc. and manifest near2 file	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:53
L98	15	H04N21/812.cpc. and manifest near2 file and off$1set	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:53
L99	15	H04N21/812.cpc. and manifest near2 file and off$1set and time	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:53
L100	12	99 and (@rlad<"20130930" @ad<"20130930")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:54
L101	189	93 and 96	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:55

Petitioner Disney Ex-1027, 0266

L102	1	93 and 96 and 100	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/07/16 12:55

EAST Search History (Interference)

< This search history is empty>

7/ 16/ 2015 12:56:37 PM
C:\ Users\ thussain1\ Documents\ EAST\ Workspaces\ 14086801.wsp

Petitioner Disney Ex-1027, 0267

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	**Art Unit**
	TAUQIR HUSSAIN	2452

CPC						
Symbol					**Type**	**Version**
H04L		65	/	60	F	2013-01-01
H04N		21	/	23424	I	2013-01-01
H04N		21	/	44016	I	2013-01-01
H04N		21	/	812	I	2013-01-01
			/			
			/			
			/			
			/			
			/			
			/			
			/			
			/			
			/			
			/			
			/			

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
			/					
			/					

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/TAUQIR HUSSAIN/ Primary Examiner.Art Unit 2452	07/16/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	4

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	**Art Unit**
	TAUQIR HUSSAIN	2452

US ORIGINAL CLASSIFICATION		INTERNATIONAL CLASSIFICATION	
CLASS	SUBCLASS	CLAIMED	NON-CLAIMED
709	232	G 0 6 F 15 / 16	

CROSS REFERENCE(S)					
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)				

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/TAUQIR HUSSAIN/ Primary Examiner.Art Unit 2452	07/16/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	4

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	**Art Unit**
	TAUQIR HUSSAIN	2452

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		17												
	2		18												
	3		19												
	4		20												
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/TAUQIR HUSSAIN/ Primary Examiner.Art Unit 2452	07/16/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	4

Doc Code: DIST.E.FILE **Document Description: Electronic Terminal Disclaimer - Filed**	PTO/SB/25 U.S. Patent and Trademark Office Department of Commerce

Electronic Petition Request	**TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION**
Application Number	14086801
Filing Date	21-Nov-2013
First Named Inventor	Albert McGowan
Attorney Docket Number	92853-882531 (004100US)
Title of Invention	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

☒ Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action

☒ This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent Interest
Brightcove Inc.	100%

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

14086822 filed on 11/21/2013

as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

◉ Terminal disclaimer fee under 37 CFR 1.20(d) is included with Electronic Terminal Disclaimer request.

○	I certify, in accordance with 37 CFR 1.4(d)(4), that the terminal disclaimer fee under 37 CFR 1.20(d) required for this terminal disclaimer has already been paid in the above-identified application.

Applicant claims the following fee status:

- ◉ Small Entity
- ○ Micro Entity
- ○ Regular Undiscounted

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

THIS PORTION MUST BE COMPLETED BY THE SIGNATORY OR SIGNATORIES

I certify, in accordance with 37 CFR 1.4(d)(4) that I am:

- ◉ An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

  Registration Number 62079
- ○ A sole inventor
- ○ A joint inventor; I certify that I am authorized to sign this submission on behalf of all of the inventors as evidenced by the power of attorney in the application
- ○ A joint inventor; all of whom are signing this request

Signature	/Scott L. McMillan/
Name	Scott L. McMillan

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

Electronic Patent Application Fee Transmittal

Application Number:	14086801
Filing Date:	21-Nov-2013
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Filer:	Scott Lee McMillan/Andrew Joseph
Attorney Docket Number:	92853-882531 (004100US)

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Statutory or Terminal Disclaimer	1814	1	160	160
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**160**

Doc Code: DISQ.E.FILE
Document Description: Electronic Terminal Disclaimer – Approved

Application No.: 14086801

Filing Date: 21-Nov-2013

Applicant/Patent under Reexamination: McGowan et al.

Electronic Terminal Disclaimer filed on July 22, 2015

☒ APPROVED

This patent is subject to a terminal disclaimer

☐ DISAPPROVED

Approved/Disapproved by: Electronic Terminal Disclaimer automatically approved by EFS-Web

U.S. Patent and Trademark Office

Electronic Acknowledgement Receipt

EFS ID:	22987853
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Andrew Joseph
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	22-JUL-2015
Filing Date:	21-NOV-2013
Time Stamp:	16:14:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$160
RAM confirmation Number	2754
Deposit Account	201430
Authorized User	KILPATRICK TOWNSEND & STOCKTON, LLP

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Electronic Terminal Disclaimer-Filed	eTerminal-Disclaimer.pdf	34134 1df5a77fe493f4783bfaa911021087ebc8b9e76d	no	2
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31003 4b089f7b27146b8d716f11484f8fe3d809c64957	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	65137		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	14/086,801
	Filing Date	November 21, 2013
	First Named Inventor	Albert John McGowan
	Art Unit	2452
	Examiner Name	Tauqir Hussain
	Attorney Docket Number	092853-0882531 004100US

U.S. PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear

U.S. PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	2015-0095511	A1	04-02-2015	McGowan et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages, Columns, Lines where Relevant Passages or Relevant Figures Appear	T[5]
	B1	2015/047959	WO	A1	04-02-2015	CACTI ACQUISITION LLC		

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.
[4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

Electronic Acknowledgement Receipt

EFS ID:	23483291
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Tina Bello
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	14-SEP-2015
Filing Date:	21-NOV-2013
Time Stamp:	15:19:12
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Foreign Reference	WO15047959.pdf	8148311 7ced82062d42cdc47fb8cab49bb37d30f914a9d9	no	46

Warnings:	
Information:	

2		2015_09_14_92853_882531_IDS.pdf	188149 0eafa9abbfaa00fc68c76e8af686dfee83478386	yes	3

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Transmittal Letter	1	2
	Information Disclosure Statement (IDS) Form (SB08)	3	3

Warnings:	
Information:	
Total Files Size (in bytes):	8336460

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
2 April 2015 (02.04.2015)

WIPO | PCT

(10) International Publication Number
WO 2015/047959 A1

(51) International Patent Classification:
H04N 21/234 (2011.01) *H04N 21/81* (2011.01)
H04N 21/44 (2011.01)

(21) International Application Number:
PCT/US2014/056823

(22) International Filing Date:
22 September 2014 (22.09.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/884,709 30 September 2013 (30.09.2013) US
14/086,801 21 November 2013 (21.11.2013) US
14/086,822 21 November 2013 (21.11.2013) US

(71) Applicant: **CACTI ACQUISITION LLC** [US/US]; 290 Congress Street, 4th Floor, Boston, Massachusetts 02210 (US).

(72) Inventors: **MCGOWAN, Albert John**; 4201 E. Camelback Rd., #101, Phoenix, Arizona 85018 (US). **MAULTSBY, Nicholas**; 19239 N. 30th Pl., Phoenix, Arizona 85050 (US). **MARSHALL, Jared**; 21 E. 6th Street, #414, Tempe, Arizona 85281 (US).

(74) Agents: **MCMILLAN, Scott, L.** et al.; Kilpatrick Townsend & Stockton LLP, Two Embarcadero Center, Eighth Floor, San Francisco, California 94111 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

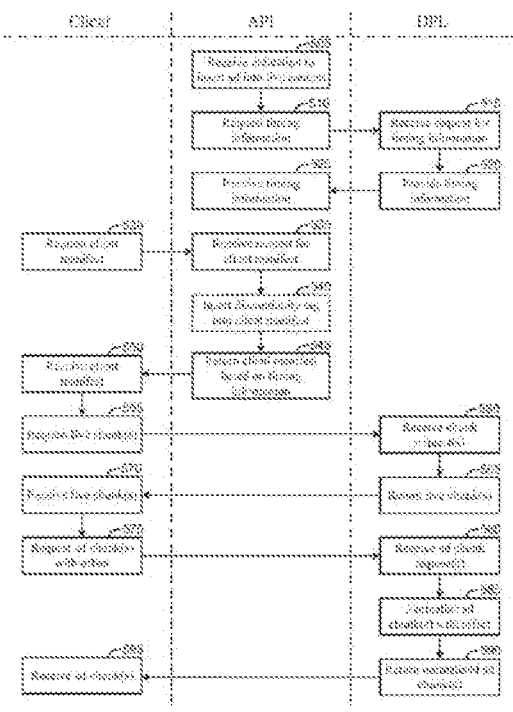


FIG. 5

(57) Abstract: Timestamps for streams of media that transition from one media source to another (such as from live content to on-demand content, and vice versa) can be rewritten by a server to help ensure error-free streaming by the client. Embodiments can coordinate the creation of a client manifest with the dynamic creation of a requested segment of media (i.e., "chunk") to determine how to rewrite timestamps of requested chunks such that they are continuous through the transition.

WO 2015/047959 A1

Petitioner Disney Ex-1027, 0281

Declarations under Rule 4.17:

- *as to the identity of the inventor (Rule 4.17(i))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(ii))*

Published:

- *with international search report (Art. 21(3))*
- *with amended claims (Art. 19(1))*

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

BACKGROUND OF THE INVENTION

[0001] The delivery of media over data networks such as the Internet is in high demand. This is due, in large part, to much of the media being advertisement ("ad") supported. This even applies to streamed live content.

[0002] The insertion of ads and other on-demand content into a stream of live content can be difficult. The unpredictable nature of live content can result in corresponding unpredictability of points in the live content at which ads may be shown. Furthermore, because live content can be generated for hours, weeks, or longer, the timestamps associated with live will not be synchronized with the timestamps of ads (or other on-demand content) inserted into the stream of live content. This can cause problems for some clients during playback.

BRIEF SUMMARY OF THE INVENTION

[0003] Techniques disclosed herein provide for dynamically rewriting the timestamps in streams of media that transition from one source to another (such as from live content to on-demand content, and vice versa). Embodiments can coordinate the creation of a client manifest with the dynamic creation of a requested segment of media (i.e., "chunk") to determine how to rewrite timestamps of requested chunks are continuous through the transition.

[0004] An example method of providing media streaming via a data communications network, according to the disclosure, includes receiving a stream of data representing live media content, obtaining timing information of the stream of data, and receiving, via the data communications network, a request to stream the live media content. The method further includes creating, with a processing unit, a manifest file where the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file,

Petitioner Disney Ex-1027, 0283

the offset information based on the timing information of the stream of data. The method further includes and sending, via the data communications network, the manifest file.

[0005] The method of providing media streaming via a data communications network can include one or more of the following features. The method can include providing an application programming interface (API), where request to stream the live media content is received via the API. Creating the manifest file further can include providing, in the manifest file, an indication of a discontinuity in the stream of the live media content. The method can also include determining a type of client associated with the request to stream the live media content, where providing the indication of the discontinuity is based on the determination of the type of client. Obtaining the timing information of the stream of data can include sending a request for the timing information, and receiving a response to the request, the response including the timing information. The method can also include receiving an indication of a period of time in the live media content designated for advertising, where sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising. The timing information of the stream of data can include one or more timestamps associated with one or more segments of the stream of data.

[0006] An example server for providing media streaming via a data communications network, according to the disclosure, includes a communications interface, a memory, and a processing unit coupled to the communications interface and the memory. The processing unit is configured to cause the server to receive a stream of data representing live media content, obtain timing information of the stream of data, and receive, via the communications interface, a request to stream the live media content. The processing unit is further configured to create a manifest file where the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data. The processing unit is also configured to send, via the communications interface, the manifest file.

[0007] The server for providing media streaming via a data communications network can include one or more of the following features. The processing unit can be further configured to cause the server to provide an application programming interface (API), wherein request to

Petitioner Disney Ex-1027, 0284

stream the live media content is received via the API. The processing unit can be configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content. The processing unit can be further configured to cause the server to determine a type of client associated with the request to stream the live media content where providing the indication of the discontinuity is based on the determination of the type of client. The processing unit can be configured to cause the server to obtain the timing information of the stream of data by sending a request for the timing information, and receiving a response to the request, the response including the timing information. The processing unit can be further configured to cause the server to receive an indication of a period of time in the live media content designated for advertising where sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising. The timing information of the stream of data can include one or more timestamps associated with one or more segments of the stream of data.

[0008] An example non-transitory computer-readable medium, according to the disclosure, has instructions embedded thereon for providing media streaming via a data communications network. The instructions, when executed by a computer, cause the computer to perform functions including: receiving a stream of data representing live media content, obtaining timing information of the stream of data, and receiving a request to stream the live media content. The functions further include creating a manifest file, where the manifest file includes information for streaming one or more segments of the live media content via the data communications network, the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data. The functions also include sending the manifest file.

[0009] The computer-readable medium can include one or more of the following features. The computer-readable medium can include instructions for causing the computer to provide an application programming interface (API), wherein request to stream the live media content is received via the API. The instructions for creating the manifest file can further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content. The computer-readable medium can include instructions for causing the computer to determine a type of client associated with the request to stream the

Petitioner Disney Ex-1027, 0285

live media content, where providing the indication of the discontinuity is based on the determination of the type of client. The instructions for obtaining the timing information of the stream of data can further include instructions for causing the computer to send a request for the timing information, and receive a response to the request, the response including the timing information. The computer-readable medium can include instructions for causing the computer to receive an indication of a period of time in the live media content designated for advertising where sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

[0010] An example method of providing media streaming via a data communications network, according to the disclosure, includes receiving, via the data communications network, a request for a segment of media. The request includes offset information for the segment of the media. The method further includes determining, based on the request for the segment of the media, one or more files to use for creating the segment of media, obtaining the one or more files from a data storage, and creating, with a processing unit, the segment of media from the one or more files. Creating the segment of media further includes providing a timestamp for the segment of media based on the offset information included in the request for the segment of media. The method also includes sending, via the data communications network, the segment of media.

[0011] The method of providing media streaming via a data communications network, can include one or more of the following features. The method can include receiving a request for timing information related to a stream of data representing live media content, obtaining the timing information by examining one or more segments of the stream of data, and sending, in response to the request for the timing information, the timing information. The timing information can include the offset information and/or a presentation timestamp (PTS) value. The data storage can include an advertising server.

[0012] An example server for providing media streaming via a data communications network, according to the disclosure, includes a communications interface, a memory, and a processing unit coupled to the communications interface and the memory. The processing unit is configured to cause the server to receive, via the communications interface, a request for a segment of media, where the request includes offset information for the segment of the media. The processing unit is further configured to determine, based on the request for the segment of the media, one or more files to use for creating the segment of media, obtain the one or more files from a data storage, and create the segment of media from the one or more

Petitioner Disney Ex-1027, 0286

files. Creating the segment of media further includes providing a timestamp for the segment of media based on the offset information included in the request for the segment of media. The processing unit is also configured to send, via the communications interface, the segment of media.

[0013] The server for providing media streaming via a data communications network can include one or more of the following features. The processing unit can further be configured to receive a request for timing information related to a stream of data representing live media content, obtain the timing information by examining one or more segments of the stream of data, and send, in response to the request for the timing information, the timing information. The timing information can include the offset information and/or a presentation timestamp (PTS) value. The processing unit can be configured to obtain the one or more files from a data storage by communicating with an advertising server.

[0014] An example non-transitory computer-readable medium, according to the disclosure, has instructions embedded thereon for providing media streaming via a data communications network. The instructions, when executed by a computer, cause the computer to perform functions including receiving a request for a segment of media, where the request includes offset information for the segment of the media. Functions also include determining, based on the request for the segment of the media, one or more files to use for creating the segment of media, obtaining the one or more files from a data storage, and creating the segment of media from the one or more files. Creating the segment of media further includes providing a timestamp for the segment of media based on the offset information included in the request for the segment of media. Functions also include sending the segment of media.

[0015] The computer readable medium can further include one or more of the following features. The computer readable medium may include instructions for causing the computer to receive a request for timing information related to a stream of data representing live media content, obtain the timing information by examining one or more segments of the stream of data, and send, in response to the request for the timing information, the timing information. The timing information comprises the offset information. The instructions for obtaining the timing information can include instructions for obtaining the offset information and/or a presentation timestamp (PTS) value. The instructions obtaining the one or more files from the data storage comprise obtaining the one or more files from an advertising server

Petitioner Disney Ex-1027, 0287

[0016] Items and/or techniques described herein may provide one or more of the following capabilities, as well as other capabilities not mentioned. Techniques allow for a client to transition from one source of streaming media to another without incurring errors due to inconsistencies in the timestamps of chunks between the two sources of media. Techniques can be dynamically executed on the fly and customized for each client. These and other embodiments, along with many of its advantages and features, are described in more detail in conjunction with the text below and attached figures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The present disclosure is described in conjunction with the appended figures:

[0018] FIG. 1 is a block diagram illustrating a media servicing system, according to some embodiments of the present invention.

[0019] FIG. 2 is a functional block diagram illustrating a system configured to provide dynamic chunk manipulation according one embodiment.

[0020] FIG. 3 is a functional block diagram of a system, similar to the system of FIG. 2, incorporating ad server(s).

[0021] FIG. 4 is a simplified block diagram illustrating an example of how timestamps can be rewritten.

[0022] FIG. 5 is a swim-lane diagram illustrating example interactions between a client, API, and DPL.

[0023] FIG. 6 is a simplified flow chart illustrating an example method of providing a manifest file in accordance techniques described herein.

[0024] FIG. 7 is a simplified flow chart illustrating an example method of creating media chunks using offset information included in a request, in accordance with techniques described herein.

[0025] FIG. 8 illustrates an embodiment of a computer system.

[0026] In the appended figures, similar components and/or features may have the same reference label. Further, various components of the same type may be distinguished by following the reference label by a dash and a second label that distinguishes among the similar components. If only the first reference label is used in the specification, the

Petitioner Disney Ex-1027, 0288

description is applicable to any one of the similar components having the same first reference label irrespective of the second reference label.

DETAILED DESCRIPTION OF THE INVENTION

[0027] The ensuing description provides preferred exemplary embodiment(s) only, and is not intended to limit the scope, applicability or configuration of the disclosure. Rather, the ensuing description of the preferred exemplary embodiment(s) will provide those skilled in the art with an enabling description for implementing various embodiments of the invention. It is understood that various changes may be made in the function and arrangement of elements without departing from the spirit and scope as set forth in the appended claims.

[0028] The terms "ad" and "advertisement," including alternate forms thereof, refer to marketing content distinct from user-requested media content. Although the techniques described herein discuss obtaining and providing advertising data, they also can be applied to data for content other than advertising, such as other on-demand content. Furthermore, although techniques described herein are often provided in the context of video streaming, they can be applied to other forms of media content (e.g., audio streaming) as well. A person of ordinary skill in the art will recognize many alternate applications.

[0029] It can be noted that, although embodiments disclosed herein describe techniques as implemented by a cloud-hosted integrated multi-node pipelining system (CHIMPS), embodiments are not so limited. Other systems may be configured to implement the techniques disclosed.

[0030] The increased availability of media content over data communications networks such as the Internet has mirrored the increased bandwidth for these networks. Because media has recently taken a more prominent role in data communications, the distribution of media and the data associated with such distribution has become increasingly important, particularly to media content providers. Much of this media is ad-supported, allowing media content providers to receive advertising revenue from media content, while often allowing end users to consume the media content free of charge.

[0031] Advertisements are often stored and maintained separate from the primary media content. The distribution of ad-supported media via the Internet can therefore involve a variety of entities. **FIG. 1** is a block diagram illustrating a media servicing system 100, according to some embodiments of the present invention. The system may deliver media content to a client 145, executed by an end user device 140 providing media playback to an

Petitioner Disney Ex-1027, 0289

end user. The client 145 can be, for example, a media player, browser, or other application adapted to request and/or play media files. The media content can be provided via a network such as the Internet 170 and/or other data communications networks, such as a distribution network for television content. The end user device 140 can be one of any number of devices configured to receive media over the Internet 170, such as a mobile phone, tablet, personal computer, portable media device, set-top box, video game system, etc. Although only one client 145 and one end user device 140 are shown in FIG. 1, it will be understood that the media servicing system 100 can provide media to many (hundreds, thousands, millions, etc.) of clients 145 on many (hundreds, thousands, millions, etc.) of end user devices 140.

[0032] For on-demand content (e.g., requested media that is stored in its entirety), a media file provided by one or more media providers 130 can be processed and indexed by cloud-hosted integrated multi-node pipelining system (CHIMPS) 110. The media file may be stored on media file delivery service provider (MFDSP) 150, such as a content delivery network, media streaming service provider, cloud data services provider, or other third-party media file delivery service provider. Additionally or alternatively, the CHIMPS 110 may also be adapted to store the media file. On-demand content can be provided to the client 145 via progressive downloading and/or streaming.

[0033] For purposes of this disclosure, advertising content can be considered a form of on-demand content that is distributed much the same way. (As previously mentioned, techniques for interleaving live and on-demand content apply not only to inserting ads into live content, but can apply to inserting any form of on-demand content, including non-advertisement content as well.) Rather than media providers, however, ad content can come from ad networks 160. Furthermore, the ad networks 160 may determine what ads to provide at a given point in time for a given client 145 by implementing business rules.

[0034] For live content (e.g., requested content that is sent to one or more end user devices 140 as it is received from media provider(s) 130, that is, in real time or near-real time, depending on processing times and/or other buffer times), a similar process can take place. For example, media provider(s) 130 can provide a media stream (e.g., live video), which is processed and indexed by the CHIMPS 110. Encoded segments of the media stream can be stored as files (i.e., "chunks"), on the media file delivery service provider (MFDSP) 150 and/or the CHIMPS 110. Embodiments may have a delay from the time the media stream is received to the time the associated content is stored and available for streaming to the one or more end user devices 140. The delay can be due to transcoding and/or other types of

Petitioner Disney Ex-1027, 0290

processing for making the received media stream available for downloading. This delay can create a buffer period of time in which one or more of the techniques described herein can take place, such as processing cue tones and/or placing ads in the content. (These techniques are described in greater detail below.)

[0035] Both on-demand and live content can utilize any of a variety of forms of streaming media. One such method is chunk-based media streaming in which a media file or live stream is processed into smaller chunks and stored (e.g., in a server of the CHIMPS 110 or Media File Delivery Service Provider 150) for serving to a client 145. The client 145 can make a URL request to the CHIMPS 110, which can provide a manifest file (also known as an index file) indicating the locations of each of the chunks of media using, for example, Uniform Resource Indicators (URIs) (e.g., Universal Resource Locators (URLs)) or other indicators. The client 145 can then use the information in the manifest file to stream the media content, following one location after the other to download each chunk of media. The client may sequentially request and receive multiple manifest files to stream requested media content. This is especially true for live media, where the live stream might still be received and processed by the CHIMPS 110 when the client makes the request for the manifest file. Additional detail regarding such chunking and indexing, as well as techniques for dynamically creating chunks and manifest files, can be found in U.S. Patent Nos. 8,327,013 entitled "Dynamic Index File Creation for Media Streaming" and 8,145,782, entitled "Dynamic Chunking For Media Streaming," both of which are incorporated by reference herein in their entirety.

[0036] The CHIMPS 110 can further manage the processing and syndication of media (live or on-demand) received from the media provider(s) 130. For example, the CHIMPS 110 can provide transcoding and other services to enable media provided by the media provider(s) to be distributed in a variety of formats to a variety of different device types in a variety of locations. Furthermore, the CHIMPS 110 provide feedback to the media provider(s) 130 regarding the media's syndication, including user behavior during media playback. For example, the CHIMPS 110 can provide a media provider 130 with information indicating that end users tend to stop watching a video at a certain point in playback, or that users tend to follow links associated with certain advertisements displayed during playback. With this data, media provider(s) 130 can adjust factors such as media content, advertisement placement and content, etc., to increase revenue associated with the media content and provide the end user device 140 with a more desirable playback experience. Additionally or

Petitioner Disney Ex-1027, 0291

alternatively, the CHIMPS 110 can dynamically provide a customized playback experience on the end user device 140 according to aspects of the context associated with the content at the time of the request, aspects of the content request itself, or both. It can be noted that although embodiments herein may utilize media files and live streams explicitly, other embodiments may utilized other forms of media assets, such as dynamic web pages, and may incorporate multiple media elements, including players, user interface components, user controls and control components, images, and other media content, objects, or types. Additionally, it can be noted that various functions, operations, processes, or other aspects that are described in this example, and other examples, as being performed by or attributable to the CHIMPS 110 can be performed by another system operating in conjunction with the CHIMPS 110, loosely or tightly synchronized with the CHIMPS 110, or independently; for example, collecting data from other digital services to be combined and reported with data collected by the CHIMPS 110 can, in some implementations, be performed by a system other than the CHIMPS 110. Additional detail regarding the functionality of the CHIMPS 110 can be found in in U.S. Patent No. 8,301,733, entitled "Dynamic Chunking for Delivery Instances," which is incorporated by reference herein in its entirety.

[0037] A content owner 120 can utilize one or more media provider(s) 130 to distribute media content owned by the content owner 120. For example, a content owner 120 could be a movie studio that licenses distribution of certain media through various media providers 130 such as television networks, Internet media streaming websites and other on-demand media providers, media conglomerates, and the like. In some configurations, the content owner 120 also can operate as a media provider 130.

[0038] The content owner 120 and/or media provider(s) 130 can enter into an agreement with one or more ad network(s) 160 to provide advertisements to numerous clients 145 on numerous end user devices 140. In this manner, the ad network(s) 160 allow companies to show advertisements to end users viewing the media content from the media provider(s) 130. Because ad network(s) 160 can maintain advertisements and/or advertisement data separate from media content, the advertisements can be updated and—as previously indicated—subject to business rules such that, two users viewing the same media content at different times and/or in different locations may see different advertisements.

[0039] Advertisements may be inserted directly into content consumed by the client, depending on the streaming techniques utilized. In such cases, a Live Advertising Processing Engine Service (APES) can be utilized to provide the client with advanced functionality for

Petitioner Disney Ex-1027, 0292

advertising during the consumption of live content by a client. Additional details regarding Live APES can be can be found in in U.S. Patent App. No. 14/069,961 entitled "Live Advertising Processing Engine Service," which is incorporated by reference herein in its entirety.

[0040] The insertion of ads directly into content consumed by the client can cause playback issues in at least some types of clients. One such issue can arise from the mismatch between timestamps of the live media (e.g., presentation timestamp (PTS) values) and those of the ad. Some clients will incur playback errors when encountering such mismatches. Techniques disclosed herein can provide for dynamically re-writing timestamps for on-demand (e.g., ad) content into stream of live content, which can prevent these playback errors from occurring.

[0041] Although embodiments provided herein discuss dynamically re-writing timestamps for inserting on-demand media into live content, embodiments are not so limited. Principles provided herein can be extended to embodiments that insert live content into on-demand media, a first on-demand media into a second on-demand media, first live content into second live content, and so forth. A person of ordinary skill in the art will recognize many substitutions, additions, omissions, and other variations to the embodiments provided herein.

[0042] **FIG. 2** is a functional block diagram illustrating a system 200 configured to provide dynamic chunk manipulation, including timestamp rewriting techniques provided herein, according one embodiment. The system 200 can comprise a client 145, MFDSP 150, application programming interface (API) 260, dynamic permutation layer (DPL) 270 origin 240, transcode module 230, clock 250, ingest module 220, and encoder 210, and one or more ad servers 310. As shown, these components can be executed by and/or incorporated into larger systems, such as the end user device 140, CHIMPS 110, and/or media provider(s) 130 as shown in FIG. 1. In other embodiments, however, the illustrated components may be incorporated differently into a larger system and/or may be stand-alone components. Furthermore, other embodiments may combine, separate, add, omit, substitute, and/or modify components of the system 200, while providing the same overall functionality as described herein. A person of ordinary skill in the art will recognize many substitutions, additions, omissions, and other variations to the embodiments provided herein.

[0043] In this embodiment, a live stream is provided by the encoder 210 in chunks (i.e., segments), each of which can each have a PTS value and/or other timing information as dictated by the encoder. Because live media can vary widely in duration, PTS values for the

Petitioner Disney Ex-1027, 0293

live stream can vary correspondingly. To help keep track of PTS values of the live stream received by the ingest module 220, a local clock 250 can be used. For example, a "source manifest" can be created by recording the times at which chunks (having unique PTS values) of the live stream are received from the live stream source (i.e., the encoder 210). This source manifest can then be used by other components, such as the API 260, to determine which chunk was received at a given local time.

[0044] Ingested chunks are then provided to the transcode module 230, which transcodes the chunks into various formats according to a variety of different media profiles. Media profiles can determine bit rate, resolution, frame rate, and other media characteristics that can accommodate the various types of networks, clients, and/or end user devices used to stream the live content. For example, chunks with lower bit rates are generally used to stream the live content to an end user device 140 that has a poor network connection or low-resolution display, whereas chunks with higher bit rates are generally used to stream the live content to an end user device 140 that has a good network connection or high-resolution display.

[0045] The various chunks are stored in the origin 240. The origin 240 can be a data storage comprising one or more physical storage devices, which can be distributed geographically, and may be local to and/or remote from the transcode module 230 and/or DPL, depending on desired functionality. The origin 240 can further store and/or manage an "origin manifest" that records information regarding the available media profiles of the stored chunks and their corresponding PTS values. Thus, together with the source manifest, the origin manifest can be used to track the time at which each chunk of the live stream is received and determine the available media profiles of the corresponding chunks stored in the origin 240.

[0046] The client 145 can request to stream content of the live stream from the API 260 by, for example, following a URL received from the media provider(s) 130. (This URL, or other URI, may be provided to the media provider(s) 130 by the CHIMPS 110, indicating an Internet location at which the live stream may be accessed.) The API 260, upon receiving the client's request, can create a client manifest (also known as an index file), comprising a list of links (e.g., URLs) to chunks of the live content. Once it receives the client manifest from the API 260, the client 145 can request the chunks from the MFDSP 150. If a chunk is not already cached at the MFDSP 150, the chunk request can be relayed to the DPL, which can dynamically create the requested chunk (e.g., at runtime) by retrieving one or more corresponding chunks stored at the origin 240, relaying it back to the MFDSP 150, which can

Petitioner Disney Ex-1027, 0294

then provide the requested chunk to the client 145. Because the DPL can create requested chunks on the fly, the requested chunks can be customized according to each request. For example, although chunks stored at the origin 240 may comprise a five-second segment of the live content, a client may request a 20-second chunk, in which case the DPL 270 can retrieve a plurality of five-second chunks from the origin corresponding to the requested 20-second chunk and dynamically create the requested chunk and provide the requested chunk to the MFDSP 150. (Additional detail regarding such chunking can be found in in U.S. Patent No. 8,145,782, which is incorporated herein above.) Because the API 260 creates the client manifest used by the client 145 to request chunks, it is the API 260 that determines which chunks are requested and when. The API 260 can therefore craft client manifests to dictate at what point in the live content clients will begin streaming and the length of the chunks each client requests.

[0047] This ability to dynamically create both client manifests and requested chunks can also enable the system 200 to rewrite timestamps on the requested chunks to help ensure a client 145 receives a stream of chunks with continuous time stamps when streaming live content containing interleaved on-demand content, such as advertisements.

[0048] **FIG. 3** illustrates how a system 300, similar to the system 200 of FIG. 2, can incorporate ad server(s) 310 to determine which ads to insert into a stream of live content. Here, the ad server(s) 310 can be maintained by one or more ad network(s) 160, which may have an agreement with the media provider(s) 130 regarding which ads to run during an ad break of a live stream. In some embodiments, the DPL 270 may communicate with the ad server(s) 310 to obtain the ad content for the ads to run.

[0049] A typical live stream can consist of continuous data including one or more "content" segments (e.g. a sporting event, a news report, etc.), followed by a first advertising "break" during which advertising is intended to be shown. After the first advertising break, there can be a second set of one or more content segments, a second advertising break, and so forth. Advertising breaks can be determined by the media provider(s) 130 and indicated by "cue tones," which are analog or digital signals which indicate in a first form that a break is about to begin. Cue tones can also indicate in a second form that the break is about to end. These cue tones can occur at any point in the stream, and in many circumstances the timing of the breaks is not known before the live stream is initiated.

Petitioner Disney Ex-1027, 0295

[0050] The API 260 can determine when advertisements are needed (e.g., by receiving a cue tone) and generate a manifest file accordingly. As previously indicated, the processing of a live stream (e.g., ingest and transcode) can take time, causing a buffer period between when a live stream is ingested to when the live content is provided to the client. This buffer period can provide the API 260 with enough time to determine that a cue tone has been detected at a certain point in the live stream and generate the client manifest which inserts advertisements at corresponding points in the live content provided to the client 145. Ad server(s) 310 can indicate to the API 260 which ad(s) to insert and, optionally, provide additional metadata regarding the ad(s). The ad content may also be provided by the ad server(s) 310 and previously stored as chunks at the origin 240 and/or other data storage, enabling the DPL 270 to dynamically manipulate requested ad chunks.

[0051] In some embodiments, when the API 260 determines an ad is to be inserted into live content provided to the client 145, it can request timing information from the DPL 270 for a corresponding chunk, such as a PTS value. The API 260 can therefore determine what PTS value corresponds to the point in the live stream at which an ad is to be inserted, and include offset information in the client manifest. When using the client manifest to request a chunk, the request provided by the client 145 to the MFDSP 150 (relayed to the DPL 270) can include metadata, including the offset information, signaling to the DPL 270 to rewrite the timestamps of the requested ad chunks so that the chunks provided to the client have continuous timestamps, despite changes between the live content and ad chunks.

[0052] **FIG. 4** is a simplified block diagram provided to help illustrate an example of how timestamps can be rewritten. In this illustration, the chunks of the live stream 410 have PTS (timestamp) values of 11111, 11112, etc. Cue tones associated with the live stream may be received, indicating to the API 260 a starting point 412 and ending point 413 for an advertisement. To replace the chunks of live content 415 between the starting point 412 and ending point 413 with ad chunks 420 (or other on-demand content), the API 260 can request information from the DPL 270 regarding the PTS value of the chunk 411 before the starting point 412, for example. (In other embodiments, the API 260 may receive timing information regarding other chunks.)

[0053] Using this timing information, the API 260 can create a client manifest with URLs that include offset information in parameter strings that reflects this timing information. For example, the offset information can include an indication of the PTS value and/or an indication of a number by which ad chunks 420 should be offset to match the PTS values of

Petitioner Disney Ex-1027, 0296

the live stream 410. When these URLs are used by the client 145 to request ad chunks from the DPL 270 (via the MFDSP 150), the DPL 270 can then determine, from the parameter strings, the offset information. The DPL 270 can then, each time an ad chunk is requested, retrieve the ad chunk from the origin 240, dynamically offset the ad chunks according to the offset information (as shown by chunk sequence 430) and provide the requested chunk to the client 145 (via the MFDSP 150). This ultimately results in the client 145 receiving a mixed stream of chunks 440 with continuous timestamps that includes both live and on-demand (e.g., ad) content.

[0054] It can be noted that the example provided in FIG. 4 is a simplified one. In practice, systems may employ variations on this basic technique to accommodate different scenarios. For example, ad chunks 420 may differ in length the chunks of the live stream 410. However, because the DPL 270 is able to dynamically create requested chunks from the ad chunks 420, it is also able to provide chunks of a requested length. The API 260 can ensure that the client manifest provided to the client 145 indicates the proper length of requested chunks so that they match the chunk length of the live stream 410.

[0055] Also, although an ending point 413 in the example of FIG. 4 is known at the time the API 260 creates the corresponding client manifest, this may not always be the case. Depending on ad break length, client manifest size, buffer times, and/or other factors, the client manifest may not include a transition back from ad content to live content. However, this information may simply be provided in a subsequent client manifest.

[0056] Additionally, although the example of FIG. 4 suggests matching PTS values of chunks of a live stream 410 as received from an encoder 210, this may not always be the case. PTS values may be modified (or replaced entirely) when transcoded by the transcode module 230. However, because the DPL 270 can provide timing information regarding the transcoded chunks as they are stored in the origin 240, this is not an issue. The chunks of the live stream 410 with modified PTS values are provided to the client 145, and the timestamp values of the ad chunks 420 are rewritten to match these modified PTS values.

[0057] In some embodiments, the API 260 may additionally include a discontinuity tag (or other indicator) in the client manifest to flag the transition from live to on-demand content (and/or vice versa). This can indicate to the client 145 to clear their video buffer, enabling the client 145 to make the transition without any playback errors. Because some clients may require the discontinuity tag while others may not, the API 260 can first determine the type of

Petitioner Disney Ex-1027, 0297

client 145 consuming the live content and provide a discontinuity tag if the determined client is of a type that would need such a tag.

[0058] **FIG. 5** is a swim-lane diagram illustrating example interactions between a client, API, and DPL, such as the client 145, API 260, and DPL 270 illustrated in FIGS. 2 and 3. As with all other figures provided herein, FIG. 5 is provided as a non-limiting example. Embodiments of the invention may employ entities other than the client, API, and/or DPL, and/or may add, omit, substitute and/or otherwise alter the interactions illustrated in FIG. 5.

[0059] At block 505, the API receives an indication to insert an ad into a live content. The indication can be, for example, a cue tone in and/or related to a live stream of media and/or an indication that such a cue tone has been detected by another component (e.g., an ingest module). As described in previous embodiments, the API may maintain and/or have access to a database, list, or other data structure, enabling the API to determine a time in the live media an ad break in the live content begins.

[0060] At block 510, the API requests timing information from the DPL, and the request is received at block 515. Timing information can include information regarding the PTS value of a chunk and/or other information that can be used to determine an offset needed to ensure continuity in the timestamps of chunks when transitioning to and from live content to ad content. The timing information is provided by the DPL at block 520 and received at block 525.

[0061] At block 530 the client request a client manifest. Due to the nature of live content, which is being received and processed by a CHIMPS or other system at the same (or substantially the same) time it is being sent to the client, the client manifest typically contains only a portion of the live content available. Thus, in order to consume all or a larger portion of the live content, a client can request multiple client manifests in succession, requesting a new client manifest when the live content corresponding to a previous manifest is or soon will be completely consumed. Thus, the client manifest requested by the client at block 530 may be one of a series of client manifests requested by the client over a period of time while consuming the live content.

[0062] At block 535, the request for the client manifest is received by the API. Because the DPL is capable of dynamically manipulating chunks to accommodate chunk requests, the API can provide URLs (or other URIs) in the client manifest with parameter strings and/or other information that can be relayed to the DPL to dictate how the DPL manipulates the

Petitioner Disney Ex-1027, 0298

chunks that are ultimately provided to the client. Thus, the API can utilize the timing information received at block 525 to provide offset information in the client manifest to cause the DPL to rewrite timestamps of ad chunks inserted into the live content to ensure the timestamps received by the client are continuous. At block 545, the API can then return client manifest based on the timing information, which is received by the client at block 550.

[0063] Optionally, the API may insert a discontinuity tag into the client manifest, as shown at block 540. The location of the discontinuity tag may vary, depending on factors such as the streaming protocol and/or format of the client manifest. In some embodiments, for example, the discontinuity tag may simply be placed in between URLs on a sequential list of URLs in the client manifest that correspond to chunks to be consumed by a client. Thus, for transitions from live content to ad content, the discontinuity tag can follow URLs for chunks of live content and precede URLs for chunks of ad content. Depending on the needs of the client a discontinuity tag may additionally or alternatively be used in the transition back from ad content to live content, in a similar manner.

[0064] At block 555, the client uses the client manifest at block 550 to send a request for live chunk(s) (i.e., chunks of live content) from the DPL, which is received by the DPL at block 560. The DPL then prepares the live chunk(s), as detailed herein above, and returns the live chunk(s) at block 565, which are received by the client at block 570. (It will be understood that, where multiple chunks are requested, the process shown in blocks 555-570 is repeated for each chunk. That is, the client sends a separate request for each chunk requested.)

[0065] At block 575 the client uses the client manifest to send a request for ad chunk(s) (i.e., chunks of ad content) from the DPL, which is received by the DPL at block 580. (Again, It will be understood that, where multiple chunks are requested, the process shown in blocks 575-595 is repeated for each requested ad chunk.) Here, each chunk request can include offset information provided in the client manifest to indicate to the DPL how the timestamps should be rewritten to ensure the timestamps of the ad chunks provided to the client are continuous with the timestamps of the live chunks previously received by the client at block 570. At block 585, the DPL normalizes ad chunks accordingly, using the offset information to rewrite the timestamps of the ad chunks. At block 590 the DPL returns the normalized ad chunks, which are received by the client at block 595.

Petitioner Disney Ex-1027, 0299

[0066] It can be noted that the manifest file provided by the API can accommodate various other scenarios. For example, a manifest file may cause the client to initially request ad chunk(s), rather than live chunk(s).

[0067] **FIG. 6** is a simplified flow chart illustrating an example method 600 of providing a manifest file in accordance with the techniques described above. The method 600 can be implemented, for example, by an API 260 and/or other components shown in FIGS. 2 and 3 above. As with all other figures provided herein, FIG. 6 is provided as an example and is not limiting. Various blocks may be combined, separated, and/or otherwise modified, depending on desired functionality. Furthermore, different blocks may be executed by different components of a system and/or different systems. Such systems can include the computer system, described herein below with regard to FIG. 8.

[0068] At block 605, a stream of data representing live media content is received. The stream of data can include a live stream received by an encoder of a media provider, and may be processed according to previously-described techniques.

[0069] At block 615, timing information of the stream of data is obtained. The timing information can include a PTS value or other information sufficient to determine offset information for timestamps of chunks of on-demand content inserted into the live media content.

[0070] At block 625 a request to stream the live media content is received. A request can include, for example, a request for a manifest file (e.g., a "client manifest" as described above).

[0071] The manifest file is created at block 635. Here, the manifest file includes information for streaming one or more segments of live media content via a data communications network, such as the Internet. Such information can include, for example, a list of URLs that can be used to request chunks of the live media content. The manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content. The media file can include, for example, an advertisement or other on-demand content with timestamps that differ from the timestamps of the live media content. The manifest file further includes offset information for streaming the one or more segments of the media file. This offset information can be embedded in or otherwise associated with the URLs themselves, and can relay offset information to an entity, such as a DPL, when used by a client. Finally, the manifest file is sent at block 645.

Petitioner Disney Ex-1027, 0300

[0072] **FIG. 7** is a simplified flow chart illustrating an example method 700 of creating media chunks using offset information included in a request, in accordance with the techniques described above. The method 700 can be implemented, for example, by a DPL 270 and/or other components shown in FIGS. 2 and 3 above. Different blocks may be executed by different components of a system and/or different systems. Such systems can include the computer system, described herein below with regard to FIG. 8.

[0073] At block 705, a request for a segment of media is received. The request includes offset information for the requested segment of media. As indicated above, the offset information can be any information that enables the timestamp of a requested chunk (i.e., segment of media) to be rewritten, allowing for continuity in the timestamps of chunks of the media being streamed.

[0074] Block 715 includes determining one or more files to use for creating the segment of media, based on the request for the segment of media. As described above, chunks may be dynamically crafted to accommodate requests. Because the contents (e.g., start/end times, lengths, etc.) of requested chunks may vary from the content of files (e.g., stored chunks) used to create the requested chunks, more than one files may be used to create the requested chunk.

[0075] At block 725, the one or more files are obtained from a data storage. The files may be stored at a local system, or may be retrieved from a remote system, such as an advertisement server, for example.

[0076] Block 735 includes creating the segment of media from the one or more files by providing at least one timestamp for the segment of media based on the offset information. Rewriting timestamps in this manner allows for continuity in the timestamps of chunks of the media being streamed when transitioning from one type of media (e.g., live) to another (e.g., on-demand). The segment of media is then sent at block 745.

[0077] **FIG. 8** illustrates an embodiment of a computer system 800, which may be configured to execute various components described herein using any combination of hardware and/or software. For example, one or more computer systems 800 can be configured to execute components of the CHIMPS 110 shown in systems 200 and 300 if FIGS. 2 and 3, including the API 260 and DPL 270, as well as the encoder 210, end user device 140, and/or other components of the systems described in relation to FIGS. 1-3. FIG. 8 provides a schematic illustration of one embodiment of a computer system 800 that can

Petitioner Disney Ex-1027, 0301

perform the methods provided by various other embodiments, such as the methods described in relation to FIGS. 5-7. It should be noted that FIG. 8 is meant only to provide a generalized illustration of various components, any or all of which may be utilized as appropriate. FIG. 8, therefore, broadly illustrates how individual system elements may be implemented in a relatively separated or relatively more integrated manner. In addition, it can be noted that components illustrated by FIG. 8 can be localized to a single device and/or distributed among various networked devices, which may be disposed at different physical locations.

[0078] The computer system 800 is shown comprising hardware elements that can be electrically coupled via a bus 805 (or may otherwise be in communication, as appropriate). The hardware elements may include processing unit(s) 810, which can include without limitation one or more general-purpose processors, one or more special-purpose processors (such as digital signal processors, graphics acceleration processors, and/or the like), and/or other processing structure, which can be configured to perform one or more of the methods described herein, including the methods described in relation to FIGS. 5-7, by, for example, executing commands stored in a memory. The computer system 800 also can include one or more input devices 815, which can include without limitation a mouse, a keyboard, and/or the like; and one or more output devices 820, which can include without limitation a display device, a printer, and/or the like.

[0079] The computer system 800 may further include (and/or be in communication with) one or more non-transitory storage devices 825, which can comprise, without limitation, local and/or network accessible storage. This can include, without limitation, a disk drive, a drive array, an optical storage device, a solid-state storage device, such as a random access memory ("RAM"), and/or a read-only memory ("ROM"), which can be programmable, flash-updateable, and/or the like. Such storage devices may be configured to implement any appropriate data stores, including without limitation, various file systems, database structures, and/or the like.

[0080] The computer system 800 can also include a communications interface 830, which can include wireless and wired communication technologies. Accordingly, the communications interface can include a modem, a network card (wireless or wired), an infrared communication device, a wireless communication device, and/or a chipset (such as a Bluetooth™ device, an IEEE 802.11 device, an IEEE 802.15.4 device, a WiFi device, a WiMax device, cellular communication facilities, UWB interface, etc.), and/or the like. The

Petitioner Disney Ex-1027, 0302

communications interface 830 can therefore permit the computer system 800 to be exchanged with other devices and components of a network.

[0081] In many embodiments, the computer system 800 will further comprise a working memory 835, which can include a RAM or ROM device, as described above. Software elements, shown as being located within the working memory 835, can include an operating system 840, device drivers, executable libraries, and/or other code, such as one or more application programs 845, which may comprise computer programs provided by various embodiments, and/or may be designed to implement methods, and/or configure systems, provided by other embodiments, as described herein. Merely by way of example, one or more procedures described with respect to the method(s) discussed above, such as the methods described in relation to FIGS. 5-7, might be implemented as code and/or instructions executable by a computer (and/or a processing unit within a computer); in an aspect, then, such code and/or instructions can be used to configure and/or adapt a general purpose computer (or other device) to perform one or more operations in accordance with the described methods.

[0082] A set of these instructions and/or code might be stored on a non-transitory computer-readable storage medium, such as the storage device(s) 825 described above. In some cases, the storage medium might be incorporated within a computer system, such as computer system 800. In other embodiments, the storage medium might be separate from a computer system (e.g., a removable medium, such as an optical disc), and/or provided in an installation package, such that the storage medium can be used to program, configure, and/or adapt a general purpose computer with the instructions/code stored thereon. These instructions might take the form of executable code, which is executable by the computer system 800 and/or might take the form of source and/or installable code, which, upon compilation and/or installation on the computer system 800 (e.g., using any of a variety of generally available compilers, installation programs, compression/decompression utilities, etc.), then takes the form of executable code.

[0083] It will be apparent to those skilled in the art that substantial variations may be made in accordance with specific requirements. For example, customized hardware might also be used, and/or particular elements might be implemented in hardware, software (including portable software, such as applets, etc.), or both. Further, connection to other computing devices such as network input/output devices may be employed.

Petitioner Disney Ex-1027, 0303

[0084] As mentioned above, in one aspect, some embodiments may employ a computer system (such as the computer system 800) to perform methods in accordance with various embodiments of the invention. According to a set of embodiments, some or all of the procedures of such methods are performed by the computer system 800 in response to processing unit(s) 810 executing one or more sequences of one or more instructions (which might be incorporated into the operating system 840 and/or other code, such as an application program 845) contained in the working memory 835. Such instructions may be read into the working memory 835 from another computer-readable medium, such as one or more of the storage device(s) 825. Merely by way of example, execution of the sequences of instructions contained in the working memory 835 might cause the processing unit(s) 810 to perform one or more procedures of the methods described herein. Additionally or alternatively, portions of the methods described herein may be executed through specialized hardware.

[0085] It should be noted that the methods, systems, and devices discussed above are intended merely to be examples. It must be stressed that various embodiments may omit, substitute, or add various procedures or components as appropriate. For instance, it should be appreciated that, in alternative embodiments, the methods may be performed in an order different from that described, and that various steps may be added, omitted, or combined. Also, features described with respect to certain embodiments may be combined in various other embodiments. Different aspects and elements of the embodiments may be combined in a similar manner. Also, it should be emphasized that technology evolves and, thus, many of the elements are examples and should not be interpreted to limit the scope of the invention.

[0086] Terms, "and" and "or" as used herein, may include a variety of meanings that also is expected to depend at least in part upon the context in which such terms are used. Typically, "or" if used to associate a list, such as A, B, or C, is intended to mean A, B, and C, here used in the inclusive sense, as well as A, B, or C, here used in the exclusive sense. In addition, the term "one or more" as used herein may be used to describe any feature, structure, or characteristic in the singular or may be used to describe some combination of features, structures, or characteristics. However, it should be noted that this is merely an illustrative example and claimed subject matter is not limited to this example. Furthermore, the term "at least one of" if used to associate a list, such as A, B, or C, can be interpreted to mean any combination of A, B, and/or C, such as A, AB, AA, AAB, AABBCCC, etc.

[0087] Having described several embodiments, it will be recognized by those of skill in the art that various modifications, alternative constructions, and equivalents may be used without

Petitioner Disney Ex-1027, 0304

departing from the spirit of the invention. For example, the above elements may merely be a component of a larger system, wherein other rules may take precedence over or otherwise modify the application of the invention. Also, a number of steps may be undertaken before, during, or after the above elements are considered. Accordingly, the above description should not be taken as limiting the scope of the invention.

Petitioner Disney Ex-1027, 0305

WHAT IS CLAIMED IS:

1. A method of providing media streaming via a data communications network, the method comprising:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving, via the data communications network, a request to stream the live media content;

creating, with a processing unit, a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

sending, via the data communications network, the manifest file.

2. The method of providing media streaming via a data communications network, as recited in claim 1, further comprising providing an application programming interface (API), wherein the request to stream the live media content is received via the API.

3. The method of providing media streaming via a data communications network, as recited in claim 1, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

4. The method of providing media streaming via a data communications network, as recited in claim 3, further comprising:

determining a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

Petitioner Disney Ex-1027, 0306

5. The method of providing media streaming via a data communications network, as recited in claim 1, wherein obtaining the timing information of the stream of data comprises:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

6. The method of providing media streaming via a data communications network, as recited in claim 5, further comprising:

receiving an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

7. The method of providing media streaming via a data communications network, as recited in claim 1, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

8. A server for providing media streaming via a data communications network, the server comprising:

a communications interface;

a memory; and

a processing unit coupled to the communications interface and the memory, the processing unit configured to cause the server to:

receive a stream of data representing live media content;

obtain timing information of the stream of data;

receive, via the communications interface, a request to stream the live media content;

create a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

Petitioner Disney Ex-1027, 0307

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

send, via the communications interface, the manifest file.

9. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is further configured to cause the server to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

10. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

11. The server for providing media streaming via a data communications network, as recited in claim 10, wherein the processing unit is further configured to cause the server to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

12. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to obtain the timing information of the stream of data by:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

13. The server for providing media streaming via a data communications network, as recited in claim 12, wherein the processing unit is further configured to cause the server to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

Petitioner Disney Ex-1027, 0308

14. The server for providing media streaming via a data communications network, as recited in claim 8, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

15. A non-transitory computer-readable medium having instructions embedded thereon for providing media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving a request to stream the live media content;

creating a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data; and

sending the manifest file.

16. The computer-readable medium, as recited in claim 15, further comprising instructions for causing the computer to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

17. The computer-readable medium, as recited in claim 15, wherein the instructions for creating the manifest file further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

18. The computer-readable medium, as recited in claim 17, further including instructions for causing the computer to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

Petitioner Disney Ex-1027, 0309

19. The computer-readable medium, as recited in claim 15, wherein the instructions for obtaining the timing information of the stream of data further include instructions for causing the computer to:

send a request for the timing information; and

receive a response to the request, the response including the timing information.

20. The computer-readable medium, as recited in claim 19 further comprising instructions for causing the computer to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

Petitioner Disney Ex-1027, 0310

AMENDED CLAIMS

received by the International Bureau on 09 February 2015 (09.02.2015)

1. A method of providing a manifest file for media streaming via a data communications network, the method comprising:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving, via the data communications network, a request to stream the live media content;

creating, with a processing unit, a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and

sending, via the data communications network, the manifest file.

2. A method of providing a manifest file for media streaming via a data communications network, as recited in claim 1, further comprising providing an application programming interface (API), wherein the request to stream the live media content is received via the API.

3. A method of providing a manifest file for media streaming via a data communications network, as recited in claim 1, wherein creating the manifest file further includes providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

4. A method of providing a manifest file for media streaming via a data communications network, as recited in claim 3, further comprising:

determining a type of client associated with the request to stream the live media content;

Petitioner Disney Ex-1027, 0311

wherein providing the indication of the discontinuity is based on the determination of the type of client.

5. A method of providing a manifest file for media streaming via a data communications network, as recited in claim 1, wherein obtaining the timing information of the stream of data comprises:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

6. A method of providing a manifest file for media streaming via a data communications network, as recited in claim 5, further comprising:

receiving an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

7. A method of providing a manifest file for media streaming via a data communications network, as recited in claim 1, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

8. A server for providing a manifest file for media streaming via a data communications network, the server comprising:

a communications interface;

a memory; and

a processing unit coupled to the communications interface and the memory, the processing unit configured to cause the server to:

receive a stream of data representing live media content;

obtain timing information of the stream of data;

receive, via the communications interface, a request to stream the live media content;

create a manifest file, wherein:

Petitioner Disney Ex-1027, 0312

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and

send, via the communications interface, the manifest file.

9. A server for providing a manifest file for media streaming via a data communications network, as recited in claim 8, wherein the processing unit is further configured to cause the server to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

10. A server for providing a manifest file for media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to create the manifest file by providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

11. A server for providing a manifest file for media streaming via a data communications network, as recited in claim 10, wherein the processing unit is further configured to cause the server to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

Petitioner Disney Ex-1027, 0313

12. A server for providing a manifest file for media streaming via a data communications network, as recited in claim 8, wherein the processing unit is configured to cause the server to obtain the timing information of the stream of data by:

sending a request for the timing information; and

receiving a response to the request, the response including the timing information.

13. A server for providing a manifest file for media streaming via a data communications network, as recited in claim 12, wherein the processing unit is further configured to cause the server to:

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

14. A server for providing a manifest file for media streaming via a data communications network, as recited in claim 8, wherein the timing information of the stream of data includes one or more timestamps associated with one or more segments of the stream of data.

15. A non-transitory computer-readable medium having instructions embedded thereon for providing a manifest file for media streaming via a data communications network, the instructions, when executed by a computer, cause the computer to perform functions including:

receiving a stream of data representing live media content;

obtaining timing information of the stream of data;

receiving a request to stream the live media content;

creating a manifest file, wherein:

the manifest file includes information for streaming one or more segments of the live media content via the data communications network,

the manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and

Petitioner Disney Ex-1027, 0314

the manifest file further includes offset information for streaming the one or more segments of the media file, the offset information based on the timing information of the stream of data and indicative of a value by which at least one timestamp of the one or more segments of the media file is to be offset; and

sending the manifest file.

16. The computer-readable medium, as recited in claim 15, further comprising instructions for causing the computer to provide an application programming interface (API), wherein the request to stream the live media content is received via the API.

17. (Original) The computer-readable medium, as recited in claim 15, wherein the instructions for creating the manifest file further include instructions for providing, in the manifest file, an indication of a discontinuity in the stream of the live media content.

18. The computer-readable medium, as recited in claim 17, further including instructions for causing the computer to:

determine a type of client associated with the request to stream the live media content;

wherein providing the indication of the discontinuity is based on the determination of the type of client.

19. The computer-readable medium, as recited in claim 15, wherein the instructions for obtaining the timing information of the stream of data further include instructions for causing the computer to:

send a request for the timing information; and

receive a response to the request, the response including the timing information.

20. The computer-readable medium, as recited in claim 19 further comprising instructions for causing the computer to:

Petitioner Disney Ex-1027, 0315

receive an indication of a period of time in the live media content designated for advertising;

wherein sending the request for the timing information is based on the receipt of the indication of the period of time in the live media content designated for advertising.

Petitioner Disney Ex-1027, 0316

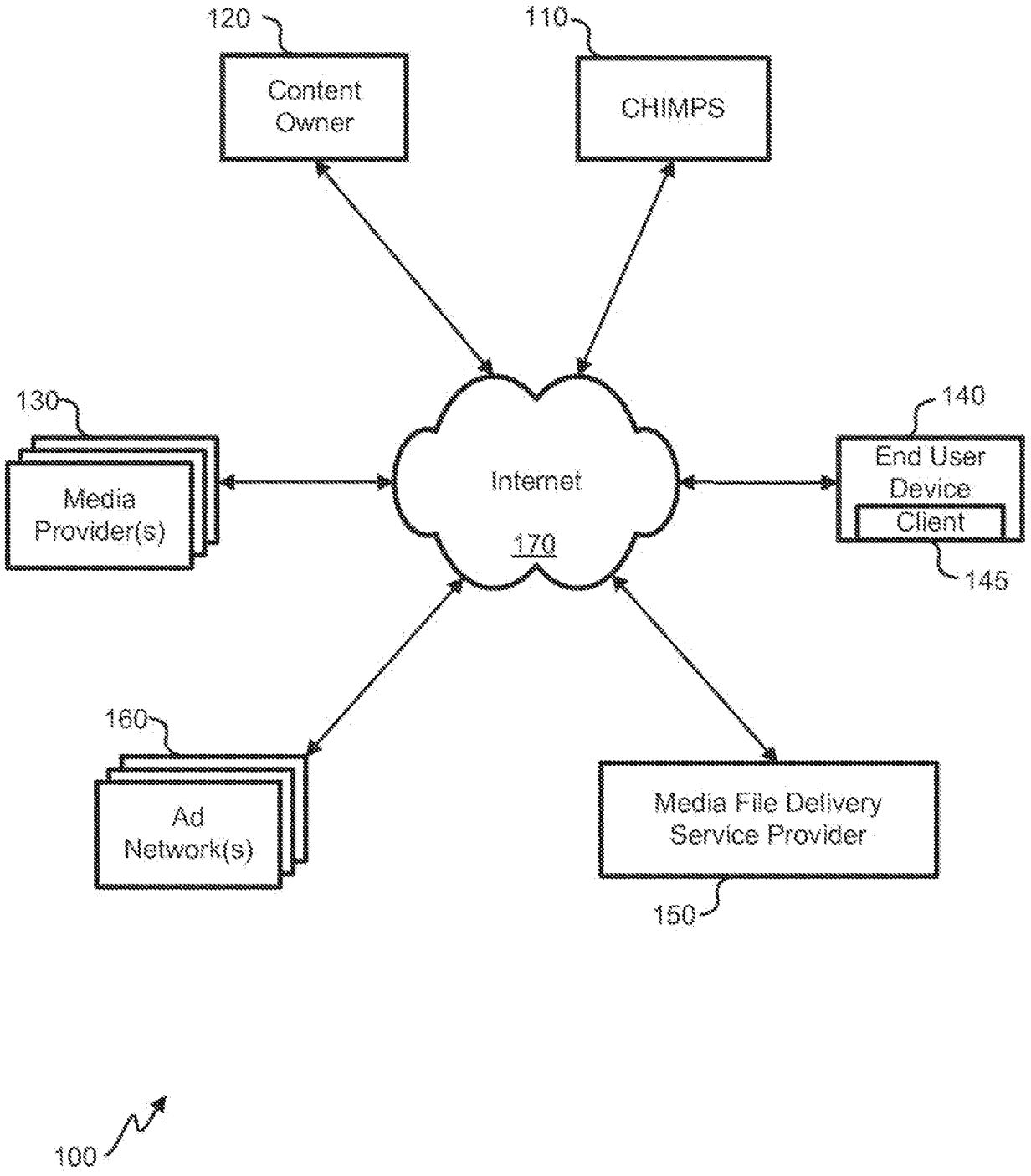

120
Content Owner
110
CHIMPS
130
Media Provider(s)
Internet
170
140
End User Device
Client
145
160
Ad Network(s)
Media File Delivery Service Provider
150
100

FIG. 1

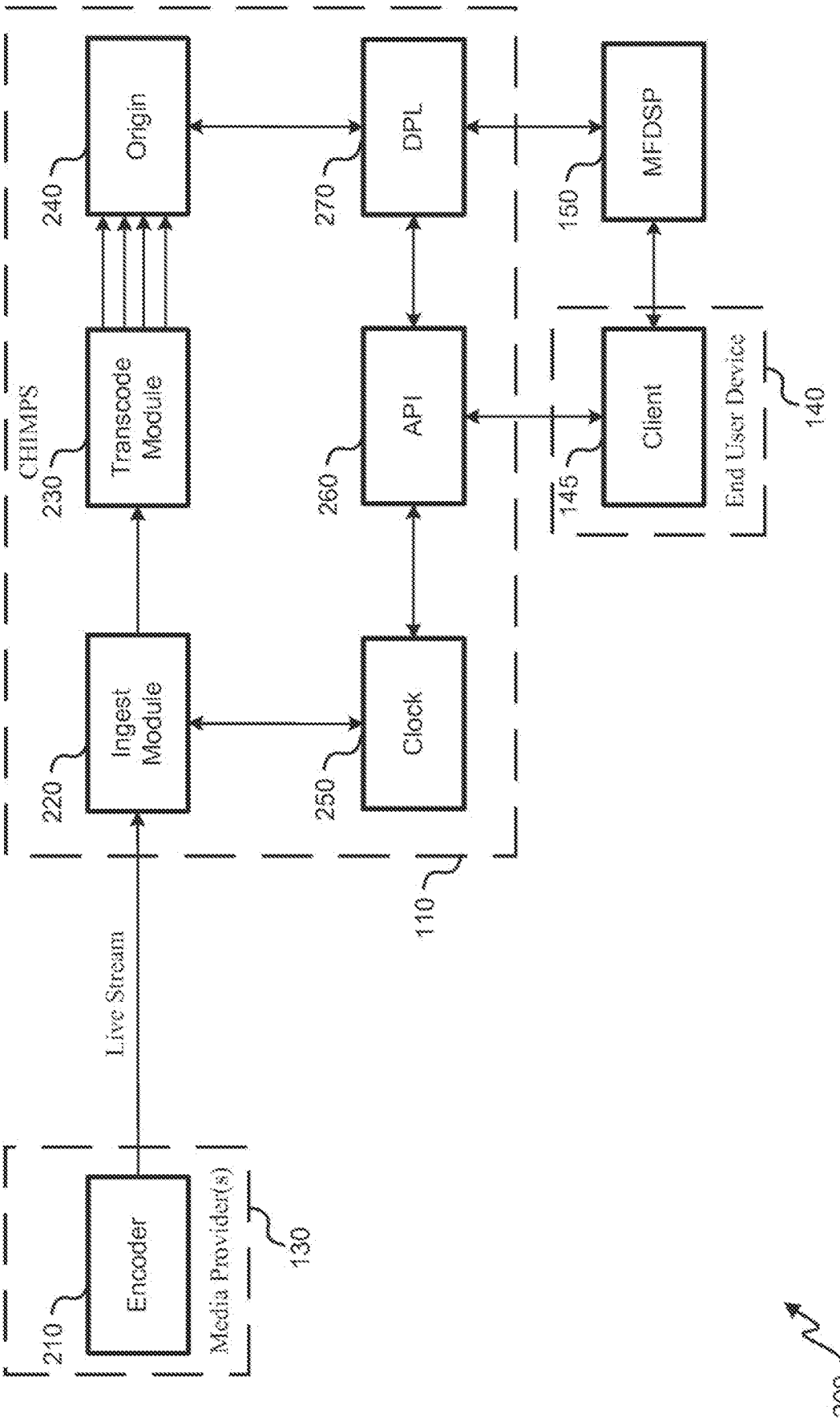

Origin
240
DPL
270
MFDSP
160
CHIMPS
Transcode Module
230
API
260
Client
145
End User Device
140
Ingest Module
220
Clock
250
110
Live Stream
Encoder
210
Media Provider(s)
130
200

FIG. 2

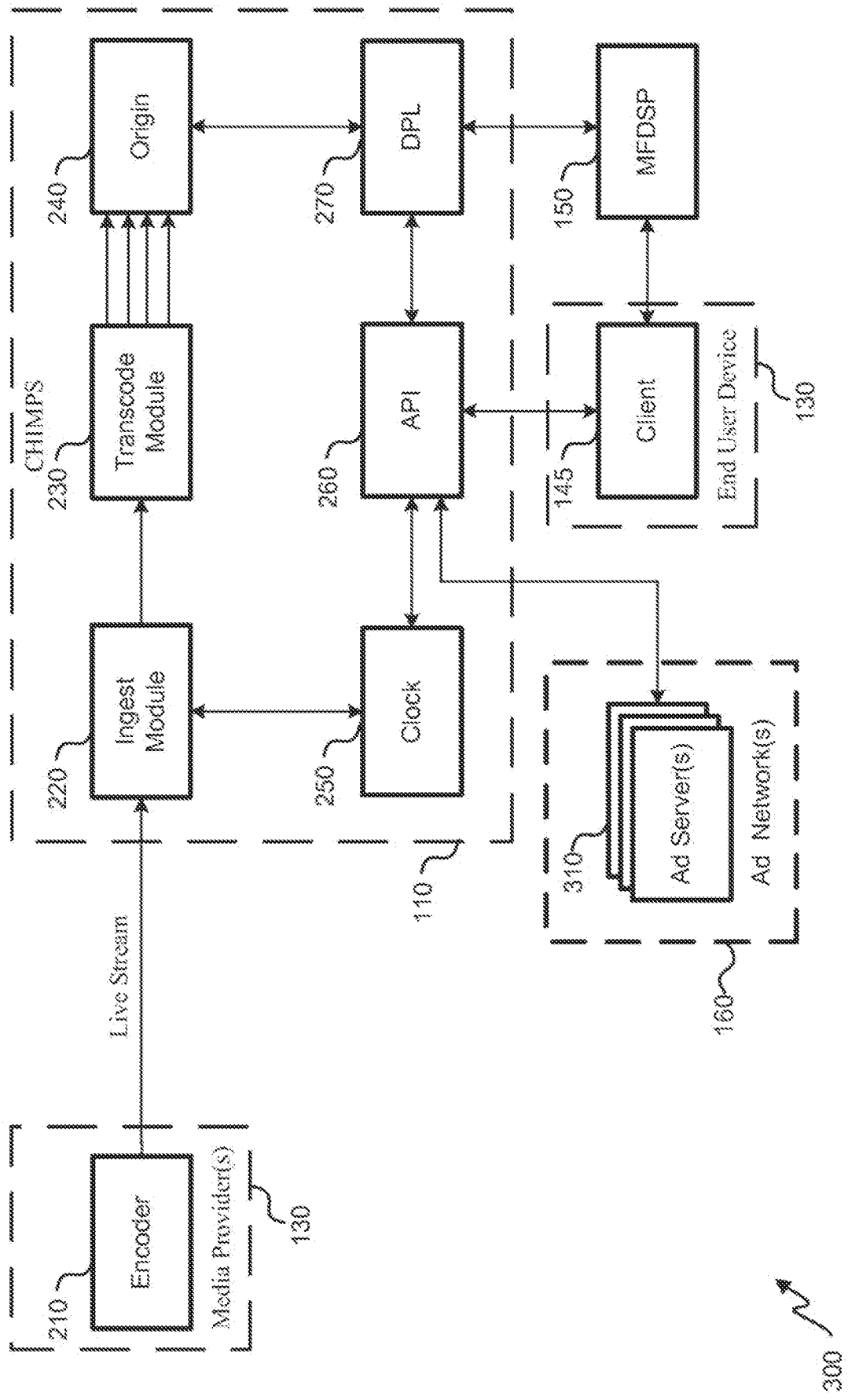

Origin
240
DPL
270
MFDSP
150
CHIMPS
230
Transcode Module
260
API
Client
145
End User Device
130
220
Ingest Module
250
Clock
110
310
Ad Server(s)
Ad Network(s)
160
Live Stream
210
Encoder
Media Provider(s)
130
300

FIG. 3

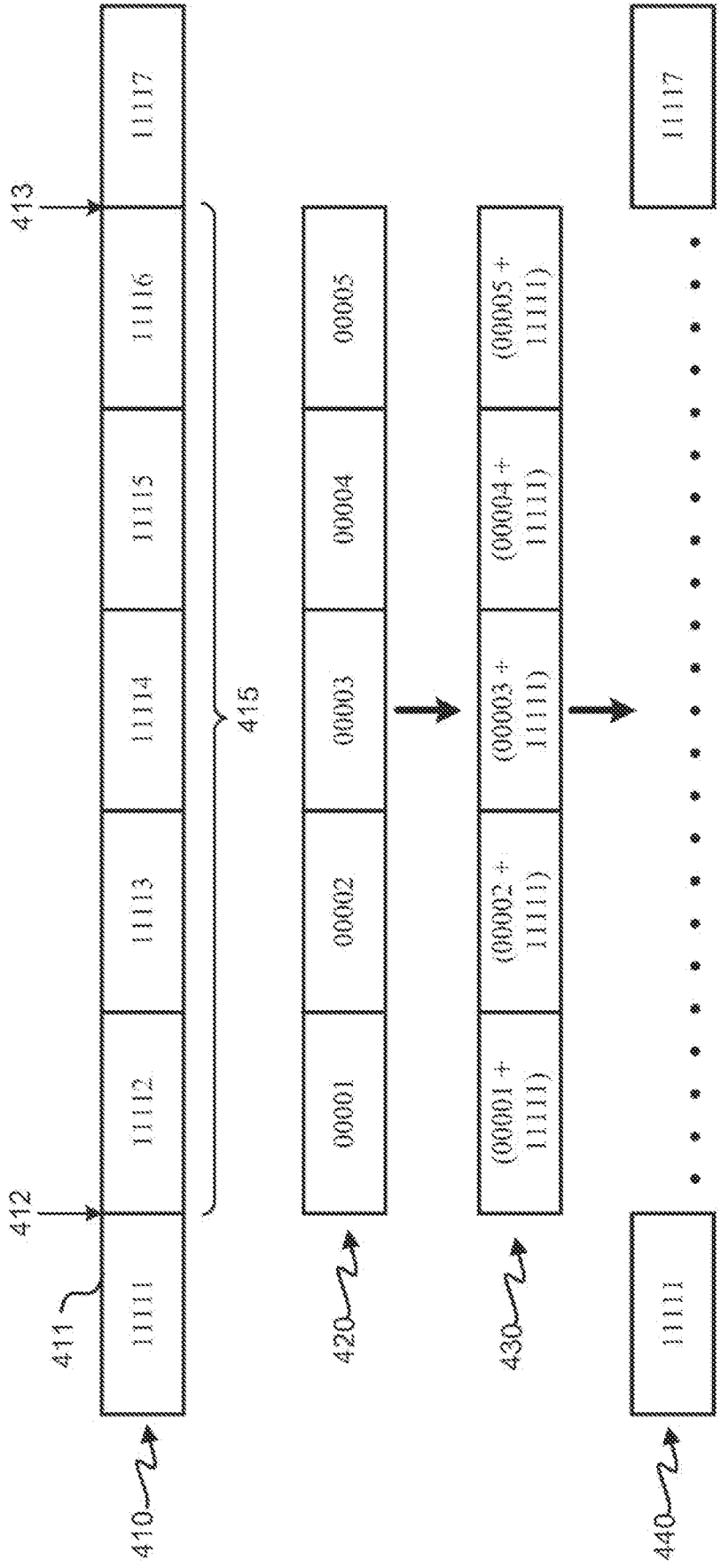

410
411
412
413
415
420
430
440
11111
11112
11113
11114
11115
11116
11117
00001
00002
00003
00004
00005
(00001 + 11111)
(00002 + 11111)
(00003 + 11111)
(00004 + 11111)
(00005 + 11111)

FIG. 4

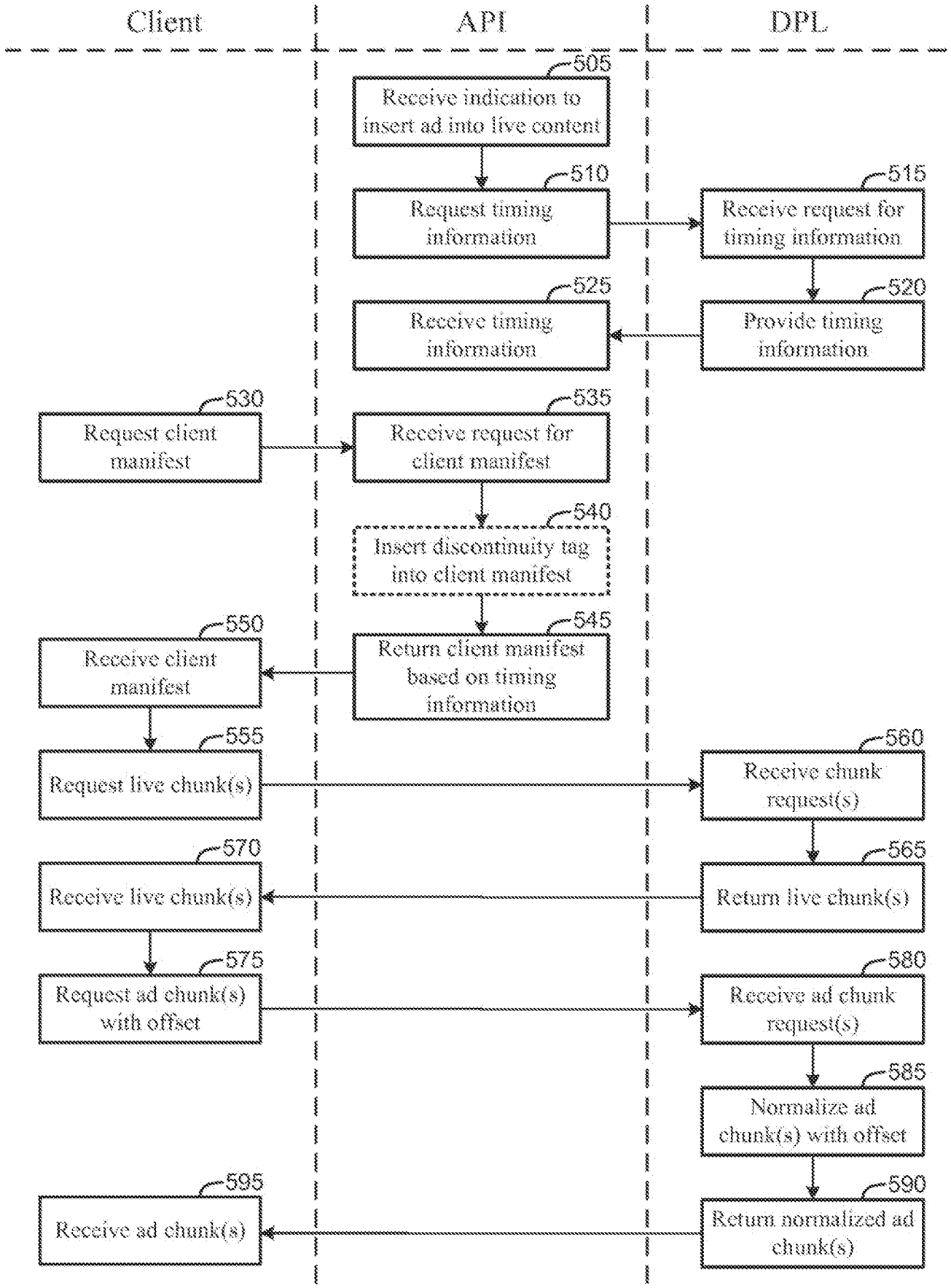

Client
API
DPL
505
Receive indication to insert ad into live content
510
Request timing information
515
Receive request for timing information
520
Provide timing information
525
Receive timing information
530
Request client manifest
535
Receive request for client manifest
540
Insert discontinuity tag into client manifest
545
Return client manifest based on timing information
550
Receive client manifest
555
Request live chunk(s)
560
Receive chunk request(s)
565
Return live chunk(s)
570
Receive live chunk(s)
575
Request ad chunk(s) with offset
580
Receive ad chunk request(s)
585
Normalize ad chunk(s) with offset
590
Return normalized ad chunk(s)
595
Receive ad chunk(s)

FIG. 5

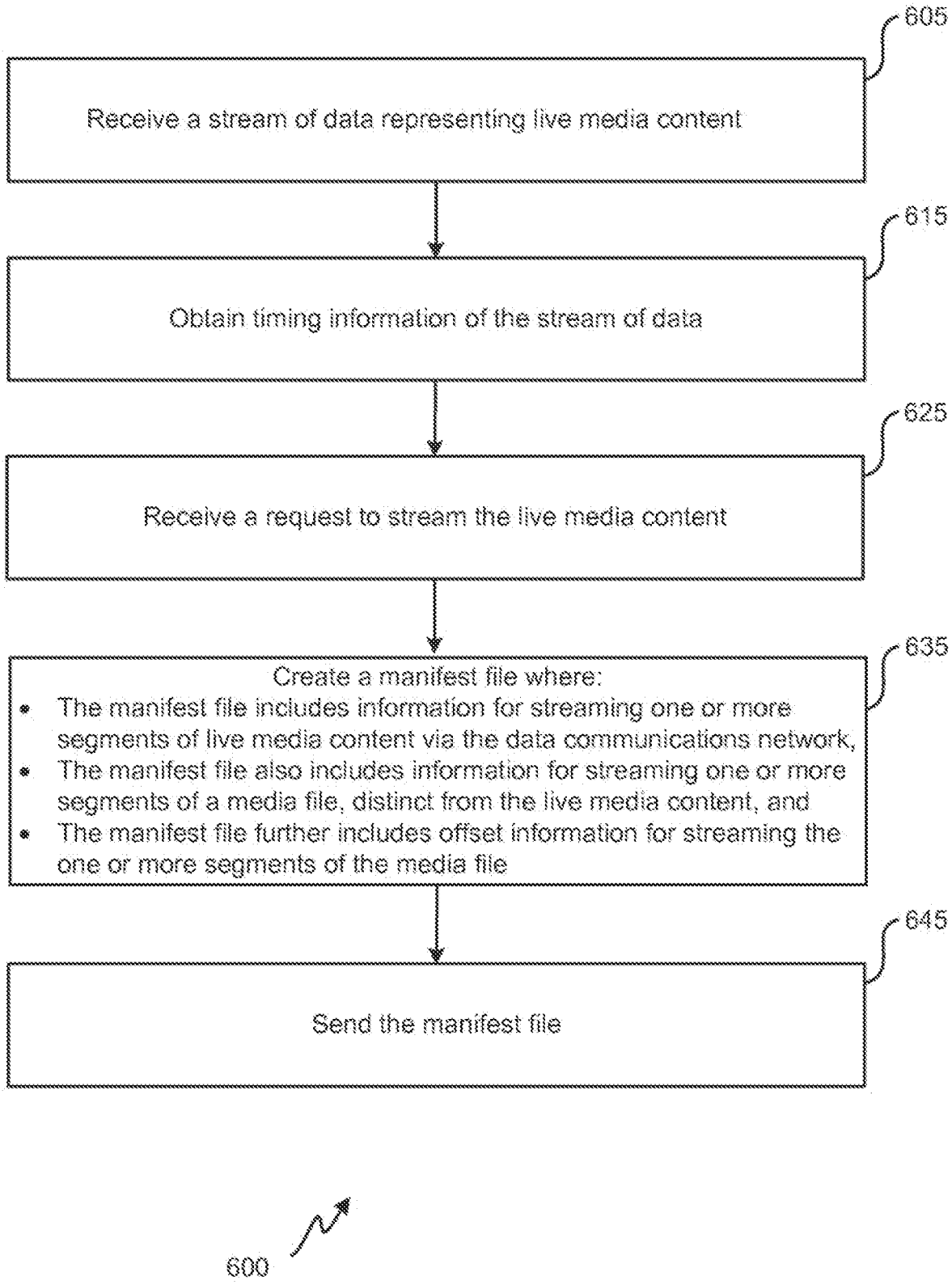

605
Receive a stream of data representing live media content
615
Obtain timing information of the stream of data
625
Receive a request to stream the live media content
635
Create a manifest file where:
The manifest file includes information for streaming one or more segments of live media content via the data communications network,
The manifest file also includes information for streaming one or more segments of a media file, distinct from the live media content, and
The manifest file further includes offset information for streaming the one or more segments of the media file
645
Send the manifest file
600

FIG. 6

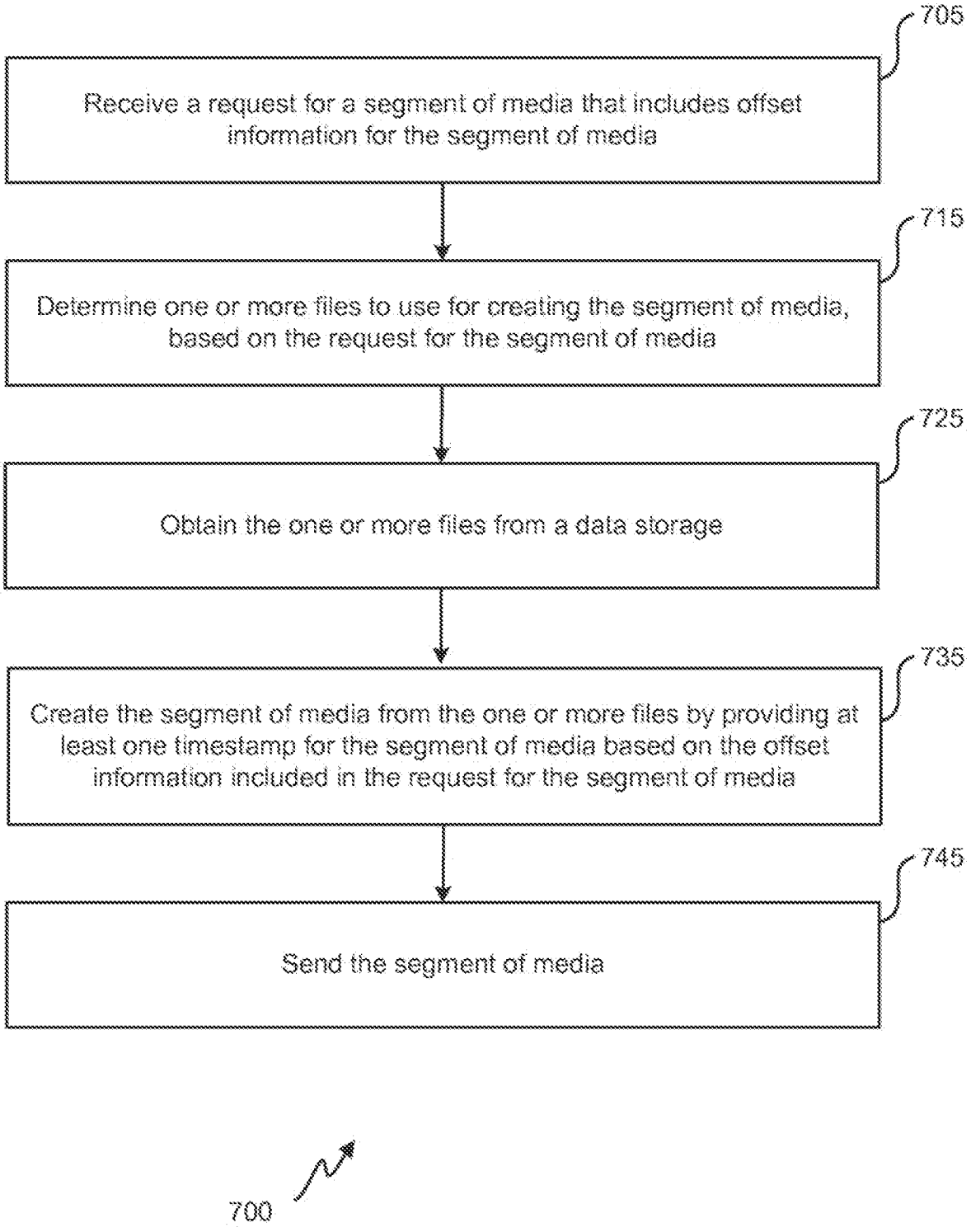

705
Receive a request for a segment of media that includes offset information for the segment of media
715
Determine one or more files to use for creating the segment of media, based on the request for the segment of media
725
Obtain the one or more files from a data storage
735
Create the segment of media from the one or more files by providing at least one timestamp for the segment of media based on the offset information included in the request for the segment of media
745
Send the segment of media
700

FIG. 7

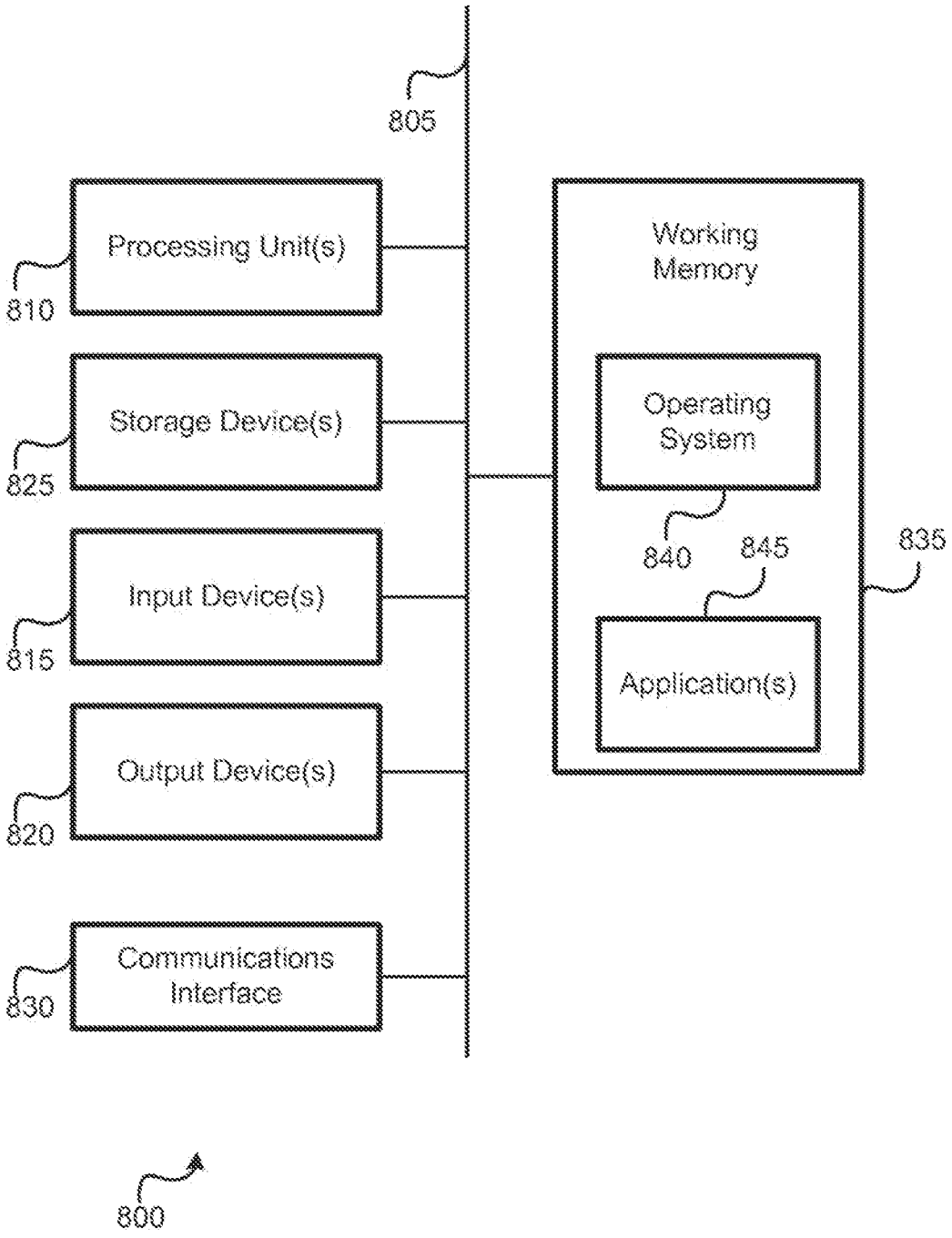

805
Processing Unit(s)
810
Storage Device(s)
825
Input Device(s)
815
Output Device(s)
820
Communications Interface
830
Working Memory
Operating System
840
845
Application(s)
835
800

FIG. 8

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2014/056823

A. CLASSIFICATION OF SUBJECT MATTER
INV. H04N21/234 H04N21/44 H04N21/81
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2013/080579 A1 (GORDON MICHAEL M [US] ET AL) 28 March 2013 (2013-03-28) paragraphs [0003] - [0008], [0045] - [0053], [0110] - [0121]; claims; figures	1-20
X	US 7 203 758 B2 (COOK DAVID H [US] ET AL) 10 April 2007 (2007-04-10) the whole document	1-20
X	US 2013/083859 A1 (NEMIROFF ROBERT S [US] ET AL) 4 April 2013 (2013-04-04) the whole document	1-20

☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
2 December 2014	09/12/2014

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	D'Attilia, Marco

Form PCT/ISA/210 (second sheet) (April 2005)

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2013080579 A1	28-03-2013	AU 2012362500 A1	17-07-2014
		CA 2861811 A1	04-07-2013
		GB 2514027 A	12-11-2014
		US 2013080579 A1	28-03-2013
		WO 2013101841 A1	04-07-2013
US 7203758 B2	10-04-2007	AU 3774802 A	21-05-2002
		US 2003018966 A1	23-01-2003
		WO 0239718 A2	16-05-2002
US 2013083859 A1	04-04-2013	CN 103959807 A	30-07-2014
		EP 2752023 A1	09-07-2014
		US 2013083859 A1	04-04-2013
		WO 2013052265 A1	11-04-2013

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on September 14, 2015.

KILPATRICK TOWNSEND & STOCKTON LLP

By: /Tina Bello/
Tina Bello

PATENT
Attorney Docket No.: 092853-0882531
(004100US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Albert John McGowan, et al. Application No.: 14/086,801 Filed: November 21, 2013 For: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE Customer No.: 20350	Confirmation No.: 6031 Examiner: Tauqir Hussain Technology Center/Art Unit: 2452 SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

The references cited on attached form PTO/SB/08A are being called to the attention of the Examiner. Copies of the references are enclosed in compliance with the requirements of 37 CFR § 1.98(a)(2).

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR § 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no

Petitioner Disney Ex-1027, 0327

representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

Applicant believes that no fee is required for submission of this statement. However, if any additional fees are due for the submission of this Information Disclosure Statement, please deduct those fees from Deposit Account No. 20-1430.

Respectfully submitted,

/Scott L. McMillan/

Scott L. McMillan
Registration No. 62,079

KILPATRICK TOWNSEND & STOCKTON LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 303-571-4000
Fax: 415-576-0300
SLM/tmb
Attachments

Petitioner Disney Ex-1027, 0328

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

7590 09/18/2015

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
HUSSAIN, TAUQIR	

ART UNIT	PAPER NUMBER
2452	

NOTIFICATION DATE	DELIVERY MODE
09/18/2015	ELECTRONIC

NOTICE OF NON-COMPLIANT INFORMATION DISCLOSURE STATEMENT

An Information Disclosure Statement (IDS) filed 09-14-15 in the above-identified application fails to meet the requirements of 37 CFR 1.97(d) for the reason(s) specified below. Accordingly, the IDS will be placed in the file, but the information referred to therein has not been considered.

The IDS is not compliant with 37 CFR 1.97(d) because:

☒ The IDS lacks a statement as specified in 37 CFR 1.97(e).

☐ The IDS lacks the fee set forth in 37 CFR 1.17(p).

☐ The IDS was filed after the issue fee was paid. Applicant may wish to consider filing a petition to withdraw the application from issue under 37 CFR 1.313(c) to have the IDS considered. See MPEP 1308.

Almon Gelaher for

571-272-4200 or 1-888-786-0101
Application Assistance Unit
Office of Data Management

FORM PTOM327-B (Rev. 02/08)

Petitioner Disney Ex-1027, 0329

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

20350 7590 07/22/2015
KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Andrew Joseph	(Depositor's name)
/Andrew Joseph/	(Signature)
10-19-2015	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)	6031

TITLE OF INVENTION: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$480	$0	$0	$480	10/22/2015

EXAMINER	ART UNIT	CLASS-SUBCLASS
HUSSAIN, TAUQIR	2452	709-232000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Kilpatrick Townsend &
2 Stockton LLP
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: Brightcove, Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Boston, Massachusetts

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:
- ☒ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ☐ A check is enclosed.
- ☒ Payment by credit card. Form PTO-2038 is attached.
- ☒ The director is hereby authorized to charge the required fee(s), any deficiency, or credits any overpayment, to Deposit Account Number 201430 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
  NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
  NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
- ☐ Applicant changing to regular undiscounted fee status.
  NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Scott L. McMillan/ Date October 19, 2015

Typed or printed name Scott L. McMillan Registration No. 62,079

PTOL-85 Part B (10-13) Approved for use through 10/31/2013. OMB 0651-0033 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Petitioner Disney Ex-1027, 0330

PTO/SB/47 (03-09)
Approved for use through 05/31/2015. OMB 0651-0016
U.S. Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

"FEE ADDRESS" INDICATION FORM

Address to:
Mail Stop M Correspondence
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

- OR -

Fax to:
571-273-6500

INSTRUCTIONS: The issue fee must have been paid for application(s) listed on this form. In addition, only an address represented by a Customer Number can be established as the fee address for maintenance fee purposes (hereafter, fee address). A fee address should be established when correspondence related to maintenance fees should be mailed to a different address than the correspondence address for the application. **When to check the first box below**: If you have a Customer Number to represent the fee address. **When to check the second box below**: If you have no Customer Number representing the desired fee address, in which case a completed Request for Customer Number (PTO/SB/125) must be attached to this form. For more information on Customer Numbers, see the Manual of Patent Examining Procedure (MPEP) § 403.

For the following listed application(s), please recognize as the "Fee Address" under the provisions of 37 CFR 1.363 the address associated with:

☑ Customer Number: 00197

OR

☐ The attached Request for Customer Number (PTO/SB/125) form.

PATENT NUMBER (if known)	APPLICATION NUMBER
	14/086,801

Completed by (check one):

☐ Applicant/Inventor — /Scott L. McMillan/ (Signature)

☑ Attorney or Agent of record 62,079 (Reg. No.) — Scott L. McMillan (Typed or printed name)

☐ Assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) — 303-571-4000 (Requester's telephone number)

☐ Assignee recorded at Reel _____ Frame_____ — 10-19-2015 (Date)

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more that one signature is required, see below*.

☐ *** Total of _____forms are submitted.**

This collection of information is required by 37 CFR 1.363. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1. 11 and 1.14. This collection is estimated to take 5 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313- 1450. DO NOT SEND COMPLETED FORMS TO THIS ADDRESS.
SEND TO: Mail Stop M Correspondence, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	14086801
Filing Date:	21-Nov-2013
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Filer:	Scott Lee McMillan/Andrew Joseph
Attorney Docket Number:	92853-882531 (004100US)

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Utility Appl Issue Fee	2501	1	480	480

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**480**

Electronic Acknowledgement Receipt

EFS ID:	23828031
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Andrew Joseph
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	20-OCT-2015
Filing Date:	21-NOV-2013
Time Stamp:	18:39:37
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$480
RAM confirmation Number	5252
Deposit Account	201430
Authorized User	KILPATRICK TOWNSEND & STOCKTON, LLP

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	92853_882531_IF.pdf	90598 c02d3a7524b00ce01f7402ee5b1564eab937ba5f	no	1
Warnings:					
Information:					
2	Maintenance Fee Address Change	Fee_Address_Form.pdf	203962 6790c503248c9ee119962c23b13a41dca014c100	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	31085 d974367c2ad05209f148c35b014cc1eec5dc7374	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	325645		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14086801	MCGOWAN ET AL.
	Examiner	**Art Unit**
	TAUQIR HUSSAIN	2452

☒ **Claims renumbered in the same order as presented by applicant** ☐ **CPA** ☒ **T.D.** ☐ **R.1.47**

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		17												
	2		18												
	3		19												
	4		20												
	5														
	6														
	7														
	8														
	9														
	10														
	11														
	12														
	13														
	14														
	15														
	16														

Change(s) applied
to document,
/J.L.B./
8/6/2015

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/TAUQIR HUSSAIN/ Primary Examiner.Art Unit 2452	07/16/2015	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	4

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

[0001] This application claims the benefit of U.S. Provisional Application No. 61/884,709, entitled "DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA," filed September 30, 2013. The above-listed application is hereby incorporated by reference in its entirety for all purposes.

CROSS-REFERENCES TO RELATED APPLICATIONS

[0002] The following regular U.S. patent applications (including this one) are being filed concurrently, and the entire disclosure of the other applications are incorporated by reference into this application for all purposes:

Change(s) applied to document, /J.L.B./15 8/6/2015

- Application No. 14/086,801, filed November 21, 2013, entitled " DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE " (Attorney Docket No. 92853-882531 (004100US); and
- Application No. 14/086,822, filed November 21, 2013, entitled " DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: DYNAMIC PERMUTATION LAYER " (Attorney Docket No. 92853-882532 (004200US)).

BACKGROUND OF THE INVENTION

[0003] The delivery of media over data networks such as the Internet is in high demand. This is due, in large part, to much of the media being advertisement ("ad") supported. This even applies to streamed live content.

[0004] The insertion of ads and other on-demand content into a stream of live content can be difficult. The unpredictable nature of live content can result in corresponding unpredictability of points in the live content at which ads may be shown. Furthermore, because live content can be

Petitioner Disney Ex-1027, 0338

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/086,801	11/24/2015	9197688	92853-882531 (004100US)	6031

20350 7590 11/04/2015

KILPATRICK TOWNSEND & STOCKTON LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Albert John McGowan, Phoenix, AZ;
BRIGHTCOVE INC., BOSTON, MA;
Nicholas Maultsby, Phoenix, AZ;
Jared Marshall, Tempe, AZ;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

PATENT
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

December 28, 2017

Patent No. 9,197,688

Issue Date: November 24, 2015

Title: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Application No.: 14/086,801

Filed: November 21, 2013

Inventor(s): Albert John McGowan; Nicholas Maultsby; Jared Marshall

Attorney Docket No. 092853-004100US-0882531

Notification of Loss of Entitlement to Small Entity Status Pursuant to 37 C.F.R. §1.27(g)(2)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This communication hereby notifies the United States Patent and Trademark Office that small entity status is no longer applicable for the above-identified patent; the correct status for the referenced patent is **large**. The current owner of the subject patent, Brightcove, Inc., now meets the requirements for large entity status. Accordingly, Applicant requests the Office update its records to reflect the change of entity status from small to large for the instant U.S. Patent.

Date: December 28, 2017

Respectfully submitted,

/Scott L. McMillan/
Scott L. McMillan
USPTO Reg. No. 62079

Electronic Acknowledgement Receipt

EFS ID:	31359922
Application Number:	14086801
International Application Number:	
Confirmation Number:	6031
Title of Invention:	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
First Named Inventor/Applicant Name:	Albert John McGowan
Customer Number:	20350
Filer:	Scott Lee McMillan/Shannon Serrano
Filer Authorized By:	Scott Lee McMillan
Attorney Docket Number:	92853-882531 (004100US)
Receipt Date:	28-DEC-2017
Filing Date:	21-NOV-2013
Time Stamp:	18:20:18
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Notification of loss of entitlement to small entity status	092853-0882531_Notification.pdf	85139 e14c599b2f9ead24434c5ab936e74be153164e68	no	1

Warnings:

Information:	
Total Files Size (in bytes):	85139

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY.DOCKET NO./TITLE	REQUEST ID
14/086,801	11/21/2013	BRIGHTCOVE INC.	92853-882531 (004100US)	54143

Acknowledgement of Loss of Entitlement to Entity Status Discount

The entity status change request below filed through Private PAIR on 12/29/2017 has been accepted.

CERTIFICATIONS:

Change of Entity Status:

X Applicant changing to regular undiscounted fee status.

NOTE: Checking this box will be taken to be notification of loss of entitlement to small or micro entity status, as applicable.

This portion must be completed by the signatory or signatories making the entity status change in accordance with 37 CFR 1.4(d)(4).

Signature:	/Scott L. McMillan/
Name:	Scott L. McMillan
Registration Number:	62079

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	14/086,801
Filing Date	2013-11-21
First Named Inventor	Albert John McGowan
Title	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
Art Unit	2452
Examiner Name	Tauqir Hussain
Attorney Docket Number	40BC41US-NP

SIGNATURE of Applicant or Patent Practitioner

Signature	/Thomas D. Franklin/	Date (Optional)	2023-04-18
Name	Thomas D. Franklin	Registration Number	43616
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82B (07-13)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 191546

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Brightcove Inc.

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature	/ Shakir Hussaini /	Date (Optional)	02/07/2023
Name	Shakir Hussaini		
Title	Commercial Counsel		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc ID: c3dd6e3f22d4c3018a8efa9bd29780087b43b552

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Doc ID: c3dd6e3f22d4c3018a8efa9bd29780087b43b552

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
14/086,801	**04/19/2023 11:50:16 AM ET**	**92853-882531 (004100US)**

Title of Invention

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	9197688
CONFIRMATION #	6031	FILED BY	Dana Montgomery
PATENT CENTER #	61943508	FILING DATE	11/21/2013
CUSTOMER #	20350	FIRST NAMED INVENTOR	Albert John McGowan
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Thomas Franklin

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
40BC41US-NP_CoverSheetPOA.pdf	3	Power of Attorney	1959 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
40BC41US-NP_CoverSheetPOA.pdf	C90C0145D1CA307501895635E04A70ED4F9AE3800619BFED87A9354B0892A14633A57EB8463AD679F7FBBA2F2D1E79ACF033619132F35BE9268E77B1A3373D25

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	92853-882531 (004100US)

CONFIRMATION NO. 6031

POWER OF ATTORNEY NOTICE

20350
Kilpatrick Townsend & Stockton LLP - West Coast
Mailstop: IP Docketing - 22
1100 Peachtree Street
Suite 2800
Atlanta, GA 30309

OC000000137817410

Date Mailed: 04/27/2023

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/19/2023.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/tmwilliams/

Petitioner Disney Ex-1027, 0349

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	40BC41US-NP

CONFIRMATION NO. 6031

191546
Mughal IP P.C.
1500 NW Bethany Blvd Ste 200
Beaverton, OR 97006-5208

POA ACCEPTANCE LETTER

OC000000137817411

Date Mailed: 04/27/2023

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/19/2023.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/tmwilliams/

Petitioner Disney Ex-1027, 0350

UNITED STATES
PATENT AND TRADEMARK OFFICE

P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
14/086,801	**07/11/2024 01:17:05 PM Z ET**	**40BC41US-NP**

Title of Invention

DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	9197688
CONFIRMATION #	6031	FILED BY	Carolina Rodriguez
PATENT CENTER #	66305863	FILING DATE	11/21/2013
CUSTOMER #	191546	FIRST NAMED INVENTOR	Albert John McGowan
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	Kevin Rieffel

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
001511-0005-101 373c Statement.pdf	2	Assignee showing of ownership per 37 CFR 3.73	120 KB
001511-0005-101 Power of Attorney.pdf	2	Power of Attorney	151 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
001511-0005-101 373c Statement.pdf	BDB20EB19CC1C5DC7185D7AABE5387092990D0D017396ACE E3E919353B6D9982DEF2074FD751F4EA934FA15F2015534D39

	D0DC5A450DEAA1822FD993FA8B8C76
001511-0005-101 Power of Attorney.pdf	9A986FDBD307FE482F70B6956F1983A677B20B9AB1234A6189814CDF8FAA6AE09805943F85B930383B17A5AB557EB20819264EFC13B0C06344C7785C33C8E376

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/AIA/96 (11-23)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

First Named Inventor/Patent Owner: ADEIA MEDIA HOLDINGS LLC

Application No./Patent No.: 14/086,801 (Patent No. 9,197,688) Filed/Issue Date: November 21, 2013 (Issue Date November 24, 2015)

Titled: DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE

ADEIA MEDIA HOLDINGS LLC, a Limited Liability Company

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached*.

B. ☑ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: McGowan, Maultsby, Marshall To: UNICORN MEDIA, INC.

   The document was recorded in the United States Patent and Trademark Office at
   Reel 031984, Frame 0384, or for which a copy thereof is attached*.

2. From: UNICORN MEDIA, INC. To: CACTI ACQUISITION LLC

   The document was recorded in the United States Patent and Trademark Office at
   Reel 032792, Frame 0728, or for which a copy thereof is attached*.

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995, unless the information collection has a currently valid OMB Control Number. The OMB Control Number for this information collection is 0651-0031. Public burden for this form is estimated to average 12 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the Chief Administrative Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 or email InformationCollection@uspto.gov. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/96 (11-23)
Approved for use through 05/31/2024. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: CACTI ACQUISITION LLC To: BRIGHTCOVE INC.

The document was recorded in the United States Patent and Trademark Office at
Reel 034745, Frame 0158, or for which a copy thereof is attached*.

4. From: BRIGHTCOVE INC. To: ADEIA MEDIA HOLDINGS LLC

The document was recorded in the United States Patent and Trademark Office at
Reel 067609, Frame 0435, or for which a copy thereof is attached*.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached*.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ *As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Kevin A. Rieffel/	2024-07-02
Signature	Date
Kevin A. Rieffel	71,318
Printed or Typed Name	Title or Registration Number

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
Approved for use through 09/30/2025. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	14/086,801 (Patent No. 9,197,688)
Filing Date	November 21, 2013 (Issue Date November 24, 2015)
First Named Inventor	Albert John McGowan
Title	DYNAMIC CHUNK MANIPULATION FOR STREAMING MIXED LIVE AND ON-DEMAND MEDIA: APPLICATION PROGRAMMING INTERFACE
Art Unit	2452
Examiner Name	Tauqir Hussain
Attorney Docket Number	001511-0005-101

SIGNATURE of Applicant or Patent Practitioner

Signature	/Kevin A. Rieffel/	Date (Optional)	2024-07-02
Name	Kevin A. Rieffel	Registration Number	71,318
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ *Total of 1 forms are submitted.

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995, unless the information collection has a currently valid OMB Control Number. The OMB Control Number for this information collection is 0651-0035. Public burden for this form is estimated to average 3 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the Chief Administrative Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 or email InformationCollection@uspto.gov. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.** If filing this completed form by mail, send to: **Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

DocuSign Envelope ID: 5AF4592C-C9DF-4A2E-9294-7B998C9EB2A0

Document Description: Power of Attorney

PTO/AIA/82B (07-13)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 75563

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

ADEIA MEDIA HOLDINGS LLC

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature	Paul Rodriguez	Date (Optional)	4/25/2024
Name	Paul Rodriguez		
Title	Senior Vice President, Head of IP Portfolio Management		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	001511-0005-101

CONFIRMATION NO. 6031

75563
Haley Guiliano LLP (Adeia)
75 Broad Street
Suite 1000
New York, NY 10004-3226

POA ACCEPTANCE LETTER

OC000000075451173

Date Mailed: 07/24/2024

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/11/2024.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/sleutchit/

Petitioner Disney Ex-1027, 0357

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
14/086,801	11/21/2013	Albert John McGowan	40BC41US-NP

CONFIRMATION NO. 6031

191546
MUGHAL GAUDRY & FRANKLIN PC
1500 NW Bethany Blvd Ste 200
Beaverton, OR 97006-5208

POWER OF ATTORNEY NOTICE

OC000000075451094

Date Mailed: 07/24/2024

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/11/2024.

- The Power of Attorney to you in this application has been revoked by the applicant. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/sleutchit/

Petitioner Disney Ex-1027, 0358