

CLAIMS

1. A method for fast startup of video playback of encoded media content using at least two video streams, where the media is encoded as at least a first video stream and a second video stream, the method comprising:

receiving information for a plurality of encrypted alternative streams and a quick start-up stream of media content in the playback device from a content provider system over a network, where the plurality of encrypted alternative streams are encoded at various bitrates, resolutions, and frame rates and the media content in each particular stream of the plurality of encrypted alternative streams has a particular quality based upon at least one of the bitrate, resolution of, and frame rate of the particular stream and the quality of media content in the quick start-up stream has a lesser quality than the video content of each of the plurality of encrypted alternative streams;

requesting a decryption key for decrypting at least one encrypted alternative stream of the plurality of encrypted alternative streams from an authentication system over the network using the playback device in response to receiving the information for the plurality of encrypted alternative streams;

commencing streaming of the media content in the quick start-up stream from the content provider system over the network using the playback device;

determining a metric has been met using the playback device upon receiving the decryption key for the decryption process from the authentication system; and

commencing streaming of media content in one of the plurality of encrypted alternative streams from the content provider system over the network using the playback device in response to a determination that the metric has been met.

2. The method of claim 1, wherein at least one stream of the plurality of encrypted alternative streams is encrypted using a first encryption process and the quick start-up stream is encrypted using a second encryption process that is less secure than the first encryption process and the method further comprises:

obtaining a decryption key for the second encryption process in response to receiving the information for the quick start-up stream using the playback device; and

decoding the media content from the quick start-up stream with the second decryption key using the playback device in response to receiving the media content in the quick start-up stream.

3. The method of claim 2, wherein the second decryption key is read from the information received for the quick start-up stream by the playback device.

4. The method of claim 2, wherein obtaining the second decryption key comprises:
reading decryption information for the second encryption process from the information received for the quick start-up key using the playback device;
requesting the decryption key from the second encryption process from a content provider system over the network using the playback device; and
receiving the decryption key for the second decryption process from the content provider system in the playback device.

5. The method of claim 1, wherein determining that the metric is met further comprises determining at least one of a specified amount of video content is received using the quick start-up stream, and a certain amount of time has elapsed.

6. The method of claim 1 further comprising:
determining a specific portion of the media content is a start position for playback of the media content using the playback device; and
wherein the playback device commences streaming the media content from the determined specific portion in the quick start-up stream.

7. A playback device comprising:
a memory;
a network interface; and
a processor that reads instructions stored in the memory that direct the processor to:

request information for media content from a content provider system over the network;

receive information for a plurality of encrypted alternative streams and a quick start-up stream of media content from the content provider system over the network where the plurality of encrypted alternative streams are encoded at various bitrates, resolutions, and frame rates and the media content in each particular stream of the plurality of encrypted alternative streams has a particular quality based at least one of the bitrate, resolution of, and frame rate of the particular stream and the quality of media content in the quick start-up stream has a lesser quality than the video content of each of the plurality of encrypted alternative streams, wherein the plurality of encrypted alternative streams are encrypted using an encryption process;

request a decryption key for an encryption process from an authentication system over the network using the playback device in response to receiving the information for the plurality of encrypted alternative streams;

commence streaming of the media content in the quick start-up stream from a content provider system over the network;

determine a metric has been met upon receiving the decryption key for the decryption process from the authentication system; and

commence streaming of media content in one of the plurality of encrypted alternative streams from a content provider system over the network using the playback device in response to a determination that the metric has been met.

8. The playback device of claim 7, wherein at least one stream of the plurality of encrypted alternative streams is encrypted using a first encryption process and the quick start-up stream is encrypted using a second encryption process that is less secure than the first encryption process and the method further comprises:

obtaining a decryption key for the second encryption process in response to receiving the information for the quick start-up stream; and

decoding the media content from the quick start-up stream using the second decryption key in response to receiving the media content in the quick start-up stream.

9. The playback device of claim 8, wherein the second decryption key is read from the information received for the quick start-up stream.

10. The playback device of claim 8, wherein the instructions direct the processor to obtain the second decryption key by:

reading decryption information for the second encryption process from the information received for the quick start-up key;

requesting the decryption key from the second encryption process from a content provider system over the network; and

receiving the decryption key for the second decryption process from the content provider system.

11. The playback device of claim 7, wherein determining that the metric is met further comprises determining at least one of a specified amount of video content is received using the quick start-up stream, and a certain amount of time has elapsed.

12. The playback device of claim 7 wherein the instructions further direct the processor to:

determine a specific portion of the media content is a start position for playback of the media content; and

wherein the playback device commences streaming the media content from the determined specific portion in the quick start-up stream.

13. A non-transitory machine readable medium containing processor instructions, where execution of the instructions by a processor causes the processor to perform a process comprising:

receiving information for a plurality of encrypted alternative streams and a quick start-up stream of media content from a content provider system over a network, where the plurality of encrypted alternative streams are encoded at various bitrates, resolutions, and frame rates and the media content in each particular stream of the

plurality of encrypted alternative streams has a particular quality based at least one of the bitrate, resolution of, and frame rate of the particular stream and the quality of media content in the quick start-up stream has a lesser quality than the video content of each of the plurality of encrypted alternative streams, wherein the plurality of encrypted alternative streams are encrypted using an encryption process;

request a decryption key for an encryption process from an authentication system over the network using the playback device in response to receiving the information for the plurality of encrypted alternative streams;

commencing streaming of the media content in the quick start-up stream from a content provider system over the network;

determining a metric has been met upon receiving the decryption key for the decryption process from the authentication system; and

commencing streaming of media content in one of the plurality of encrypted alternative streams from a content provider system over the network in response to a determination that the metric has been met.

14. The non-transitory machine readable medium of claim 13, wherein at least one stream of the plurality of encrypted alternative streams is encrypted using a first encryption process and the quick start-up stream is encrypted using a second encryption process that is less secure than the first encryption process and the process further comprises:

obtaining a decryption key for the second encryption process in response to receiving the information for the quick start-up stream; and

decoding the media content from the quick start-up stream using the second decryption key in response to receiving the media content in the quick start-up stream.

15. The non-transitory machine readable medium of claim 14, wherein the second decryption key is read from the information received for the quick start-up stream.

16. The non-transitory machine readable medium of claim 14, wherein obtaining the second decryption key comprises:

reading decryption information for the second encryption process from the information received for the quick start-up key;

requesting the decryption key from the second encryption process from a content provider system over the network; and

receiving the decryption key for the second decryption process from the content provider system.

17. The non-transitory machine readable medium of claim 13, wherein determining that the metric is met further comprises determining at least one of a specified amount of video content is received using the quick start-up stream, and a certain amount of time has elapsed.

18. The non-transitory machine readable medium of claim 13, wherein the process further comprises:

determining a specific portion of the media content is a start position for playback of the media content; and

wherein the streaming the media content commences from the determined specific portion in the quick start-up stream.