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(54) Title: OPTIMIZING ENCODING OPERATIONS WHEN GENERATING A BUFFER-CONSTRAINED VERSION OF A MEDIA TITLE

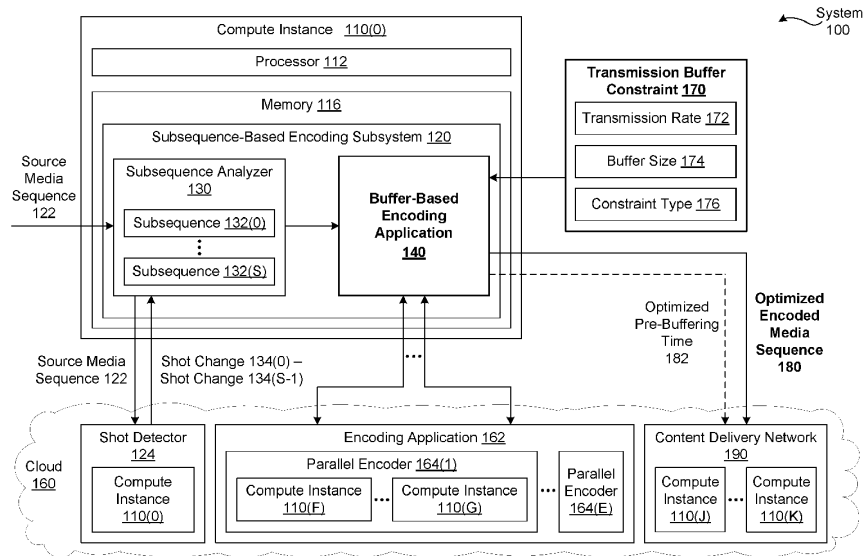


FIGURE 1

(57) Abstract: In various embodiments, a buffer-based encoding application generates a first convex hull of subsequence encode points based on multiple encoding points and a first subsequence associated with a media title. The buffer-based encoding application then generates a first global convex hull of media encode points based on a transmission buffer constraint, the first convex hull, and a second global convex hull of media encode points. Notably, the second global convex hull is associated with a portion of the media title that occurs before the first subsequence in a playback order for the media title. Subsequently, the subsequence-based encoding application selects a first media encode point included in the first global convex hull based on a media metric and determines a first encoded media sequence based on the selected media encode point. The first encoded media sequence is subsequently streamed to an endpoint device during playback of the media title.

[Continued on next page]

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