plurality of data units are then processed based upon information contained within the second data unit.

[0020a] In view of the above, in accordance with a first aspect of the present invention, there is provided a method of packetizing an encoded representative of a video sequence. The method comprises packetizing a plurality of data units into a first packet, wherein a first data unit of the plurality of data units comprises at least a portion of the encoded video, wherein a second data unit of the plurality of data units comprises information summarizing the contents of the portion of the encoded video, and wherein the second data unit is placed before any of the other data units of the plurality of data units in the first packet; and providing, in the second data unit, an indication indicative of a characteristic of encoded representative of a video sequence, wherein the indication comprises at least one of an indication of redundant coded pictures within the plurality of data units; an indication of temporal level switching points within the plurality of data units; an indication of gradual decoding access points within the plurality of data units; an indication of views to which the plurality of data units belong; and an indication of view random access pictures within the plurality of data units.

[0020b] In view of the above, in accordance with a second aspect of the present invention, there is provided a computer-readable medium, comprising computer code which when executed in a computer performs the method as described herein.

[0020c] In view of the above, in accordance with a third aspect of the present invention, there is provided an apparatus for packetizing an encoded representative of a video sequence. The apparatus comprises a processor; and a memory unit communicatively connected to the processor and the processor being configured to cause the apparatus to: packetize a plurality of data units into a first packet, wherein a first data unit of the plurality of data units comprises at least a portion of the encoded video, wherein a second data unit of the plurality of data units comprises information summarizing the contents of the portion of the encoded video, and wherein the second data unit is placed before any of the other data units of the plurality of data units in the first packet; and provide, in the second data unit, an indication indicative of a characteristic of encoded representative of a video sequence, wherein the indication comprises at least one of an indication of redundant coded pictures within the plurality of data units; an indication of temporal level switching points within the plurality of data units; an indication of gradual decoding access points within the plurality of data units; an indication of views to which the plurality of data units belong; and an indication of view random access pictures within the plurality of data units.

[0020d] In view of the above, in accordance with a fourth aspect of the present invention, there is provided a method of processing a packetized bitstream representative of a video sequence. The method comprises retrieving a plurality of data units from a first packet, wherein a first data unit of the plurality of data units comprises at least a portion of the encoded video, wherein a second data unit of the plurality of data units comprises information summarizing the contents of the portion of the encoded video, and wherein the second data unit is located before any of the other data units of the plurality of data units in the first packet; retrieving, from the second data unit, an indication indicative of a characteristic of encoded representative of a video sequence, wherein the indication comprises at least one of an indication of redundant coded pictures within the plurality of data units; an indication of temporal level switching points

within the plurality of data units; an indication of gradual decoding access points within the plurality of data units; an indication of views to which the plurality of data units belong; and an indication of view random access pictures within the plurality of data units; and processing the plurality of data units based upon information contained within the second data unit.

[0020e] In view of the above, in accordance with a fifth aspect of the present invention, there is provided a computer-readable medium, comprising computer code which when executed in a computer performs the method as described herein.

[0020e] In view of the above, in accordance with a sixth aspect of the present invention, there is provided an apparatus for processing a packetized bitstream representative of a video sequence. The apparatus comprises a processor; and a memory unit communicatively connected to a processor and the processor being configured to cause the apparatus to: retrieve a plurality of data units from a first packet, wherein a first data unit of the plurality of data units comprises at least a portion of the encoded video, wherein a second data unit of the plurality of data units comprises information summarizing the contents of the portion of the encoded video, and wherein the second data unit is located before any of the other data units of the plurality of data units in the first packet; retrieve, from the second data unit, an indication indicative of a characteristic of encoded representative of a video sequence, wherein the indication comprises at least one of an indication of redundant coded pictures within the plurality of data units; an indication of temporal level switching points within the plurality of data units; an indication of gradual decoding access points within the plurality of data units; an indication of views to which the plurality of data units belong; and an indication of view random access pictures within the plurality of data units; and process the plurality of data units based upon information contained within the second data unit.

[0021] These and other advantages and features of the invention, together with the organization and manner of operation thereof, will become apparent from the following detailed description when taken in conjunction with the accompanying drawings, wherein like elements have like numerals throughout the several drawings described below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] Figure 1 shows a generic multimedia communications system for use with the present invention;

[0023] Figure 2 is a perspective view of an electronic device that can be used in the implementation of the present invention; and

[0024] Figure 3 is a schematic representation of the device circuitry of the electronic device of Figure 2.

DETAILED DESCRIPTION OF VARIOUS EMBODIMENTS

[0025] Various embodiments of the present invention provide a system and method for conveying information that is helpful for a network middlebox or a media player to decide which coded data units to forward or process within an RTP payload or in a file format data unit in an easy-to-access manner. In various embodiments of the present invention, this mechanism can be used to provide indications of at least the following items:

[0026] Indication of redundant coded pictures. This indication can be accompanied with a list of reference pictures required for decoding of the aggregated redundant coded slices and indication of the spatial coverage of the aggregated redundant coded slices. There are times where slices of only one redundant coded picture would be aggregated and characterized.

[0027] Indication of temporal level switching points. Starting from a temporal level switching point, the decoder can correctly decode all of the following coded pictures with the same temporal level, if before the temporal level switching point only