AMTC IP Coverage

Online Education Provider
Transmitting Media to Personal Computers
Compared to
Yurt ‘863 Claim 10

CONFIDENTIAL

Patent 5,550,863 Claim 10:

10. A system for providing information to be transmitted to remote locations, the transmission system comprising:

identification encoding means for assigning a unique identification code to items of information;

conversion means, coupled to the identification encoding means, for placing the retrieved information into a predetermined format as formatted data;

ordering means, coupled to the conversion means, for placing the formatted data for each item of information into a sequence of addressable data blocks;

compression means, coupled to the ordering means, for compressing the formatted and sequenced data blocks;

compressed data storing means, coupled to the data compression means, for storing as files the compressed, sequenced data blocks; and

first transmitter means, coupled to the compressed data storing means, for selectively sending at least a portion of one of the files;

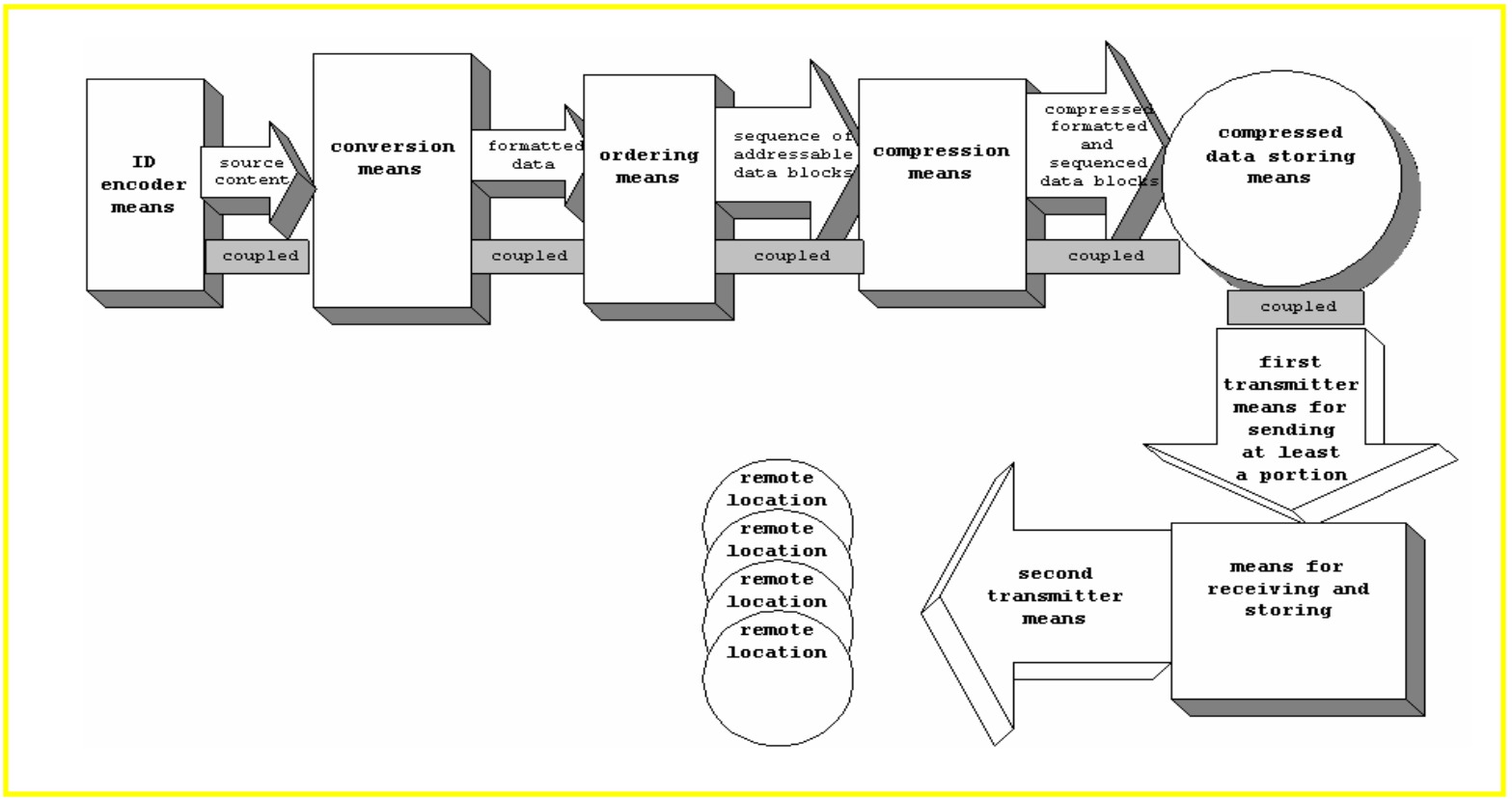
a distribution system, remote from the transmission system, the distribution system comprising:

means for receiving and storing a complete copy of the portion of one of the files sent by the first transmitter means; and

second transmitter means, responsive to the stored portion of one of the files, for transmitting a representation of the stored portion to at least one of a plurality of the remote locations.

Online Education Provider Transmitting Media to Personal Computers Compared to the '863 Patent Claim 10:

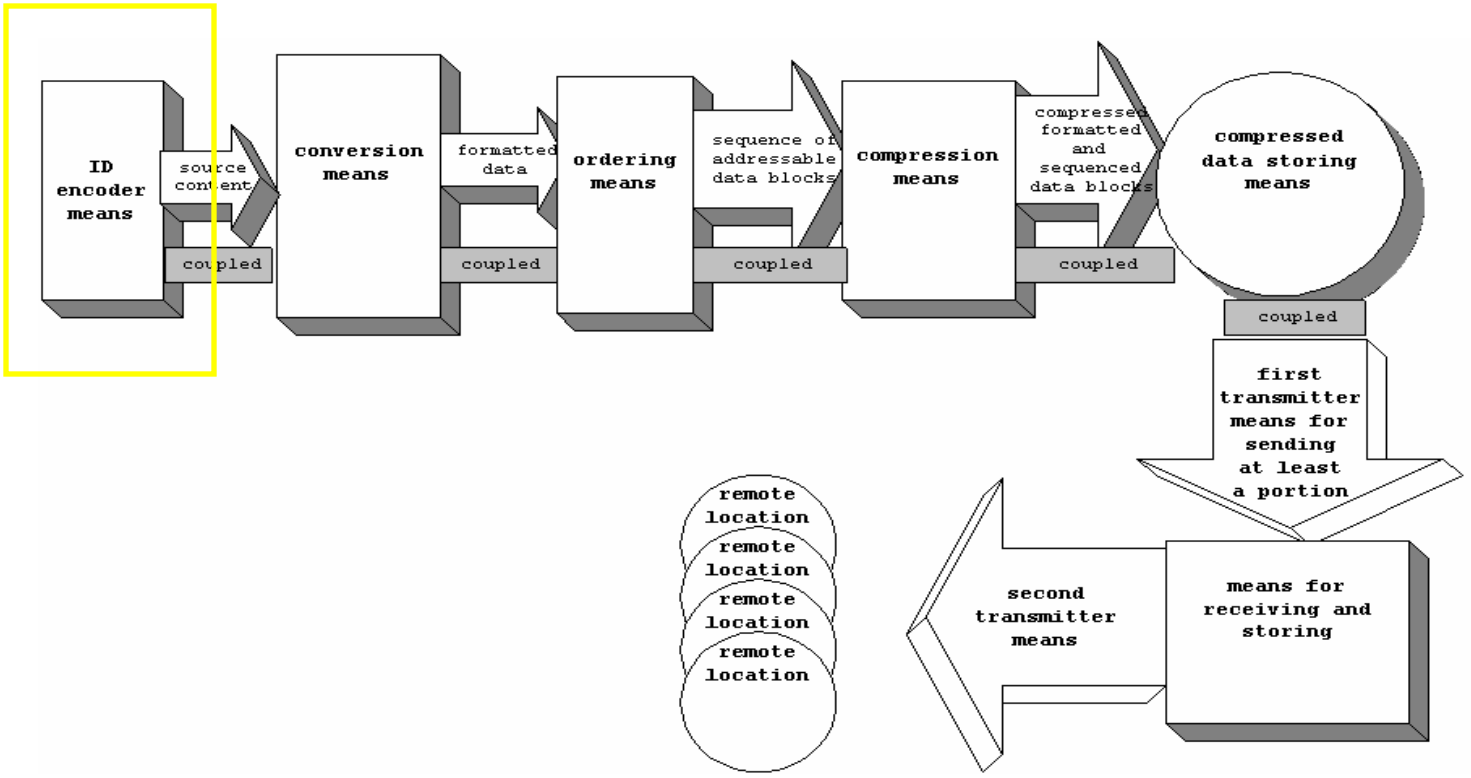
A system for providing information to be transmitted to remote locations, the transmission system comprising:



An online education provider transmits media (e.g., classroom lectures, demonstration videos) over the Internet to its students. This is an example of a system for providing information to be transmitted to remote locations.

Online Education Provider Transmitting Media to Personal Computers Compared to the '863 Patent Claim 10:

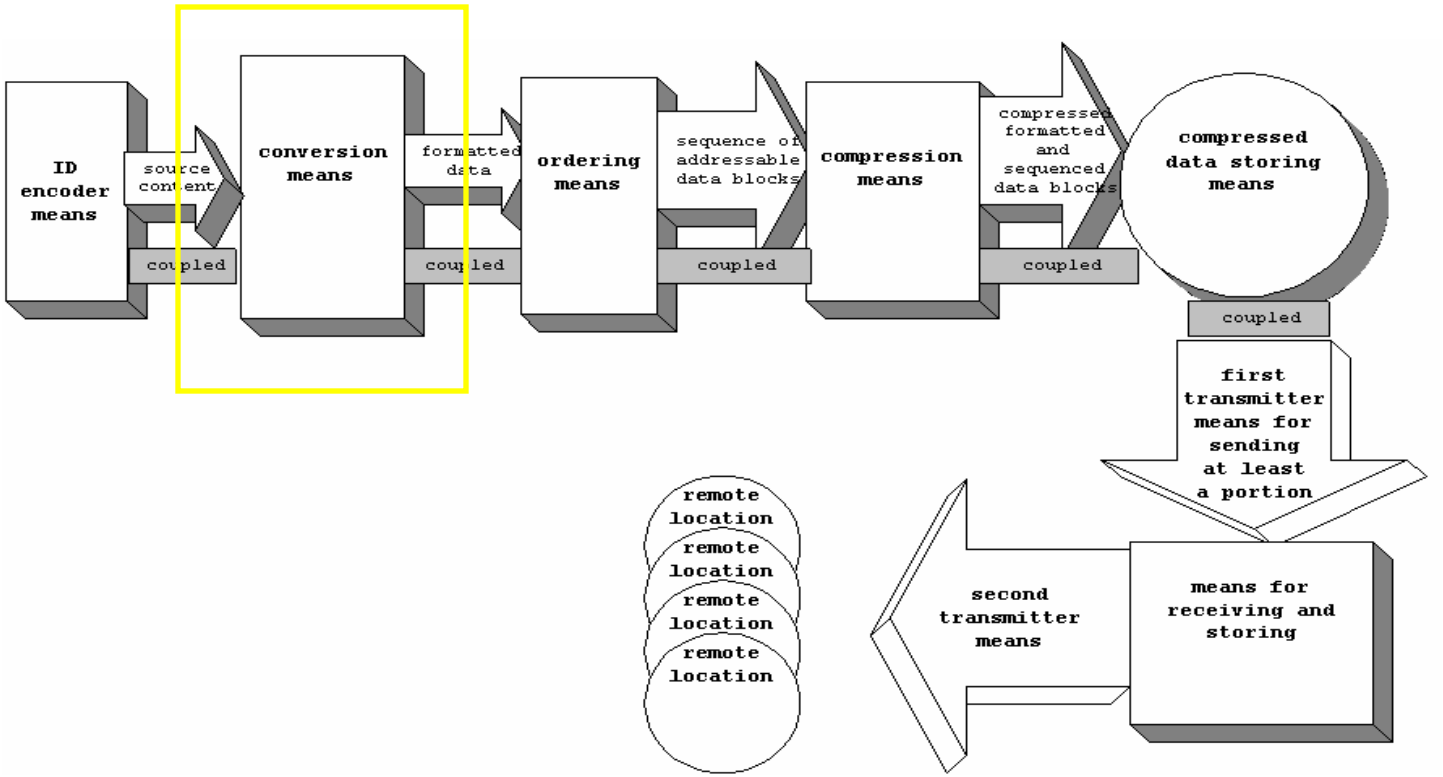
identification encoding means for assigning a unique identification code to items of information;



The media used by the online education provider is digitized and compressed prior to distribution to customers. This digitization and compression may be done by the provider or by an agent acting on behalf of the provider. A tape operator(s) retrieves physical media (e.g., a videotape) from a media content library to be encoded. A unique file name will be used to identify the encoded media on a server after it has been encoded. The tape operator(s) and encoding software are one example of an identification encoding means for retrieving information and for assigning a unique identification code to the retrieved information.

Online Education Provider Transmitting Media to Personal Computers Compared to the '863 Patent Claim 10:

conversion means, coupled to the identification encoding means, for placing the retrieved information into a predetermined format as formatted data;



Physical media (e.g., a videotape) is placed in a tape player (i.e., an input receiver) where it is output from the player in either a digital or analog form. If in an analog form, the signal is applied to an analog input and converted to a standard digital format (such as an "AVI" file format) in an analog-digital converter. If in a digital form, the signal is input to a digital formatter and converted to a predetermined format (such as an "AVI" file format). The analog and/or digital receivers, converters, and formatters represent examples of a conversion means for placing retrieved information into a predetermined format as formatted data.

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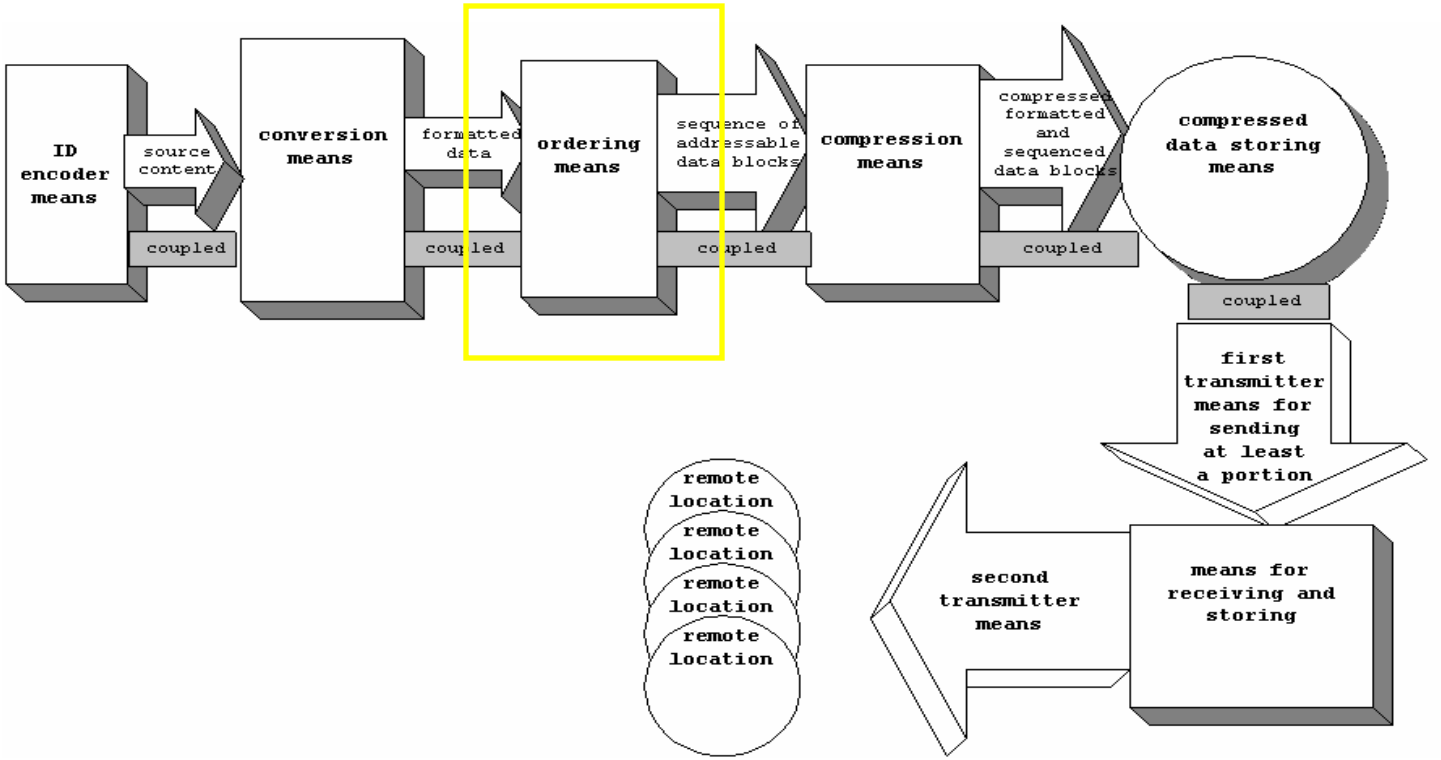
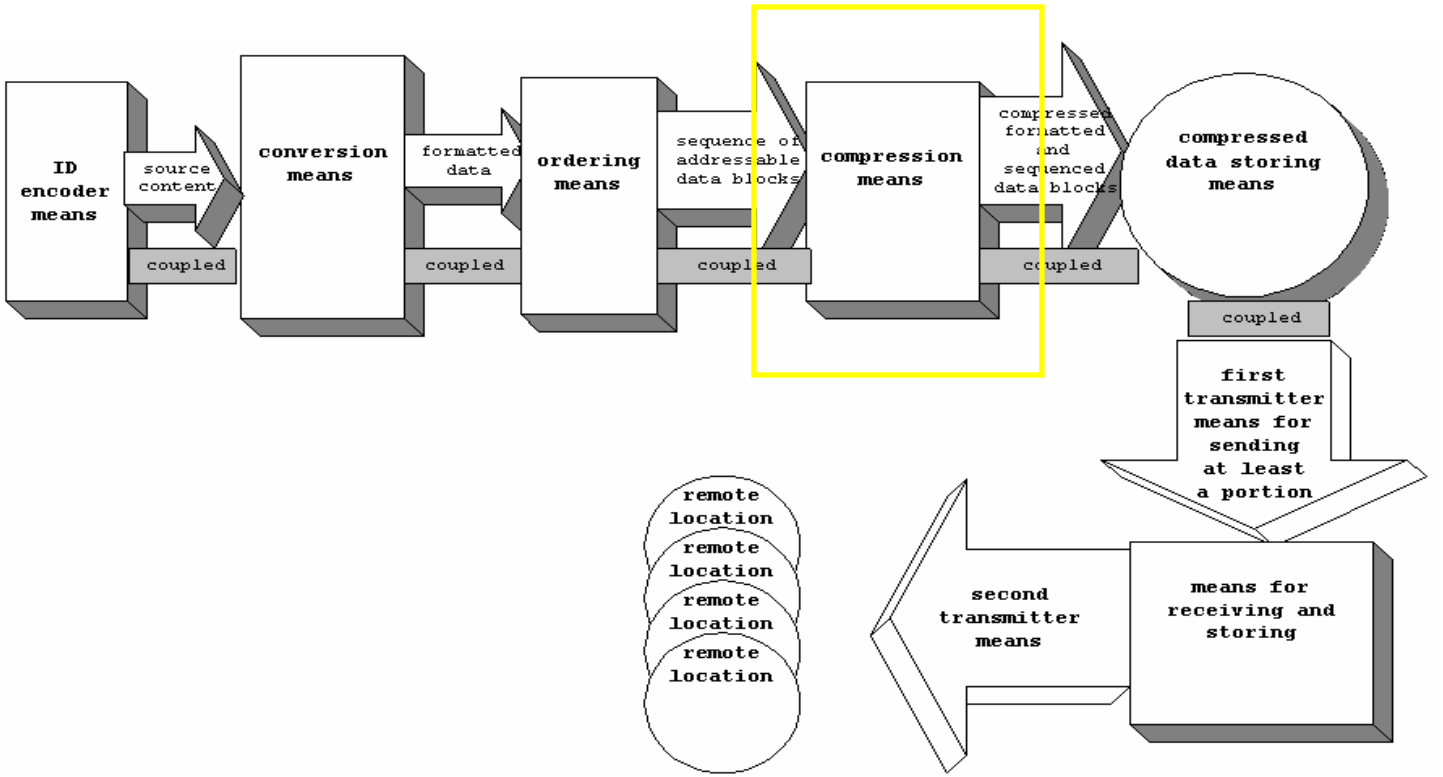
ordering means, coupled to the conversion means, for placing the formatted data for each item of information into a sequence of addressable data blocks;



Video encoding methods organize frames into sequences of frames (data blocks) prior to compression. These frames are compressed and assigned relative time markers so that they are addressable by presentation time. The portion of the encoder that organizes the frames into sequences by assigning relative time markers (e.g., presentation time) is an example of an ordering means for placing the formatted data into a sequence of addressable data blocks.

Online Education Provider Transmitting Media to Personal Computers Compared to the '863 Patent Claim 10:

compression means, coupled to the ordering means, for compressing the formatted and sequenced data blocks;



Video encoders compress video by operating on individual video frames and sequences of video frames. An online education provider, or an agent acting on their behalf, uses encoders by Apple, Microsoft, and/or Real to encode the media. Encoders are examples of compression means.

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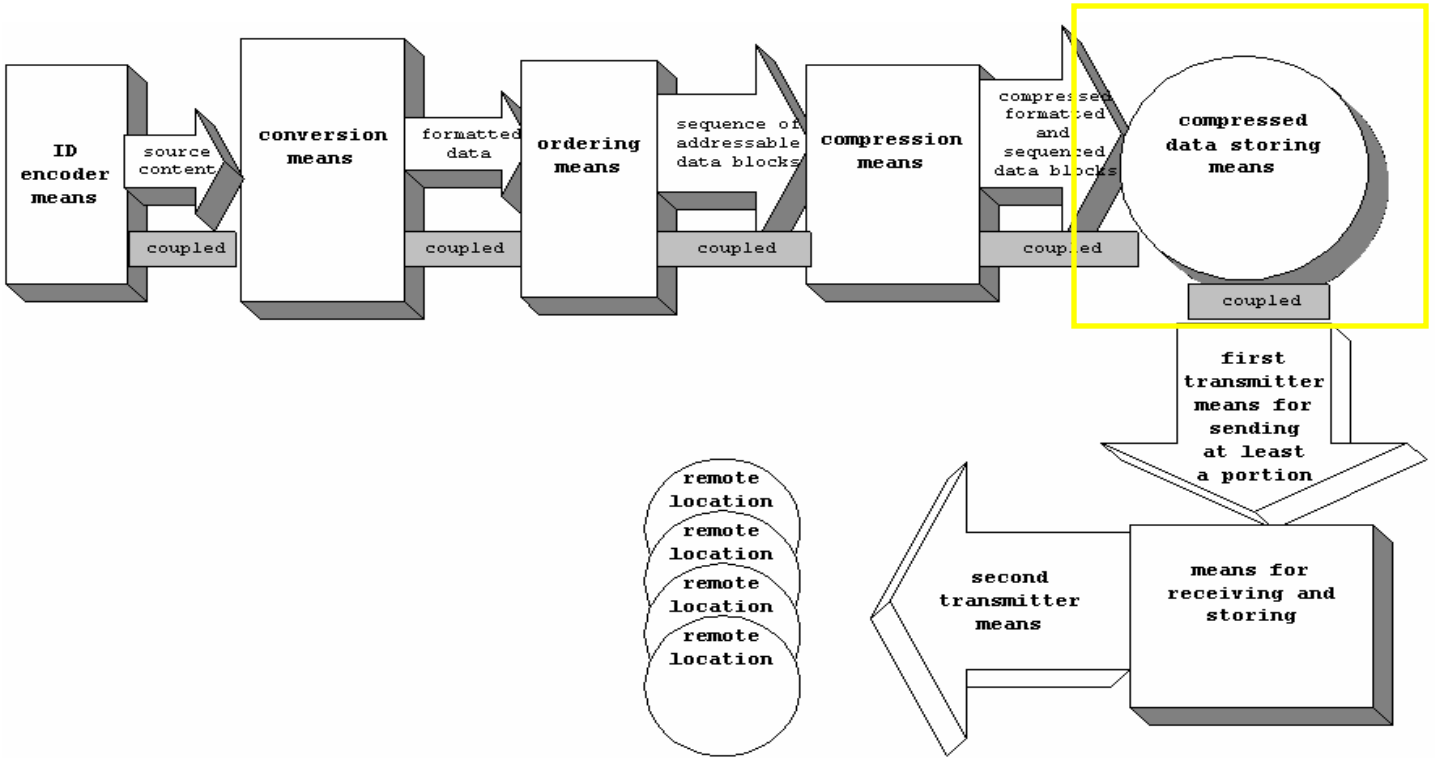
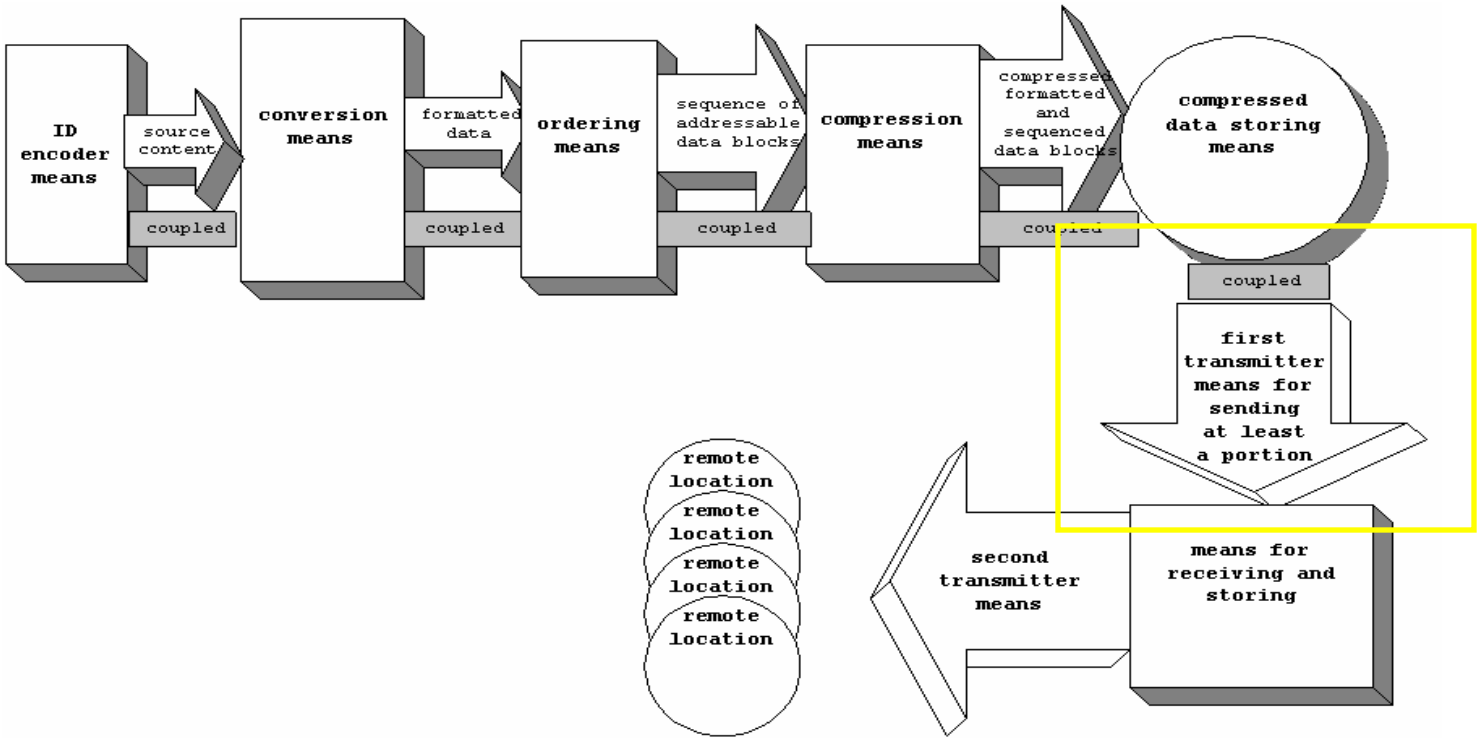
compressed data storing means, coupled to the data compression means, for storing as files the compressed, sequenced data blocks; and



Once compressed, media is stored as files on a server. Each file stored on the server is stored with its unique identification code. The server is an example of a compressed data storing means.

Online Education Provider Transmitting Media to Personal Computers Compared to the '863 Patent Claim 10:

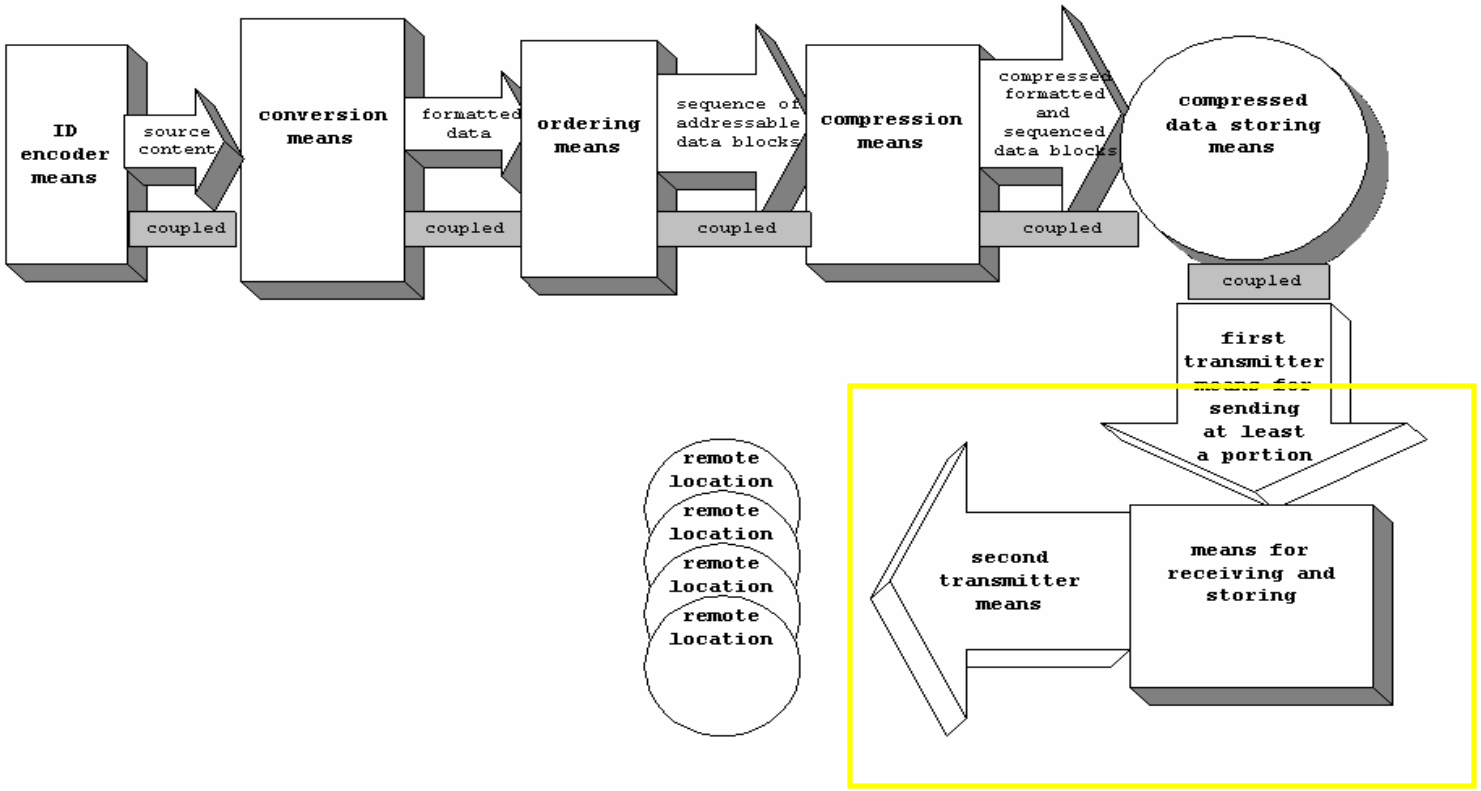
first transmitter means, coupled to the compressed data storing means, for selectively sending at least a portion of one of the files;



The compressed media is transmitted from the content encoding location via a file transfer method (e.g., FTP) over a network connection to the online education provider's distribution location. This distribution location may be managed by the online education provider or by a content delivery network (CDN) or hosting provider acting on the behalf of the online education provider. The network connection used to transfer the compressed media is an example of first transmitter means.

Online Education Provider Transmitting Media to Personal Computers Compared to the '863 Patent Claim 10:

a distribution system, remote from the transmission system, the distribution system comprising:



As an example, the compressed media is transmitted from servers and storage separate from the encoding servers.

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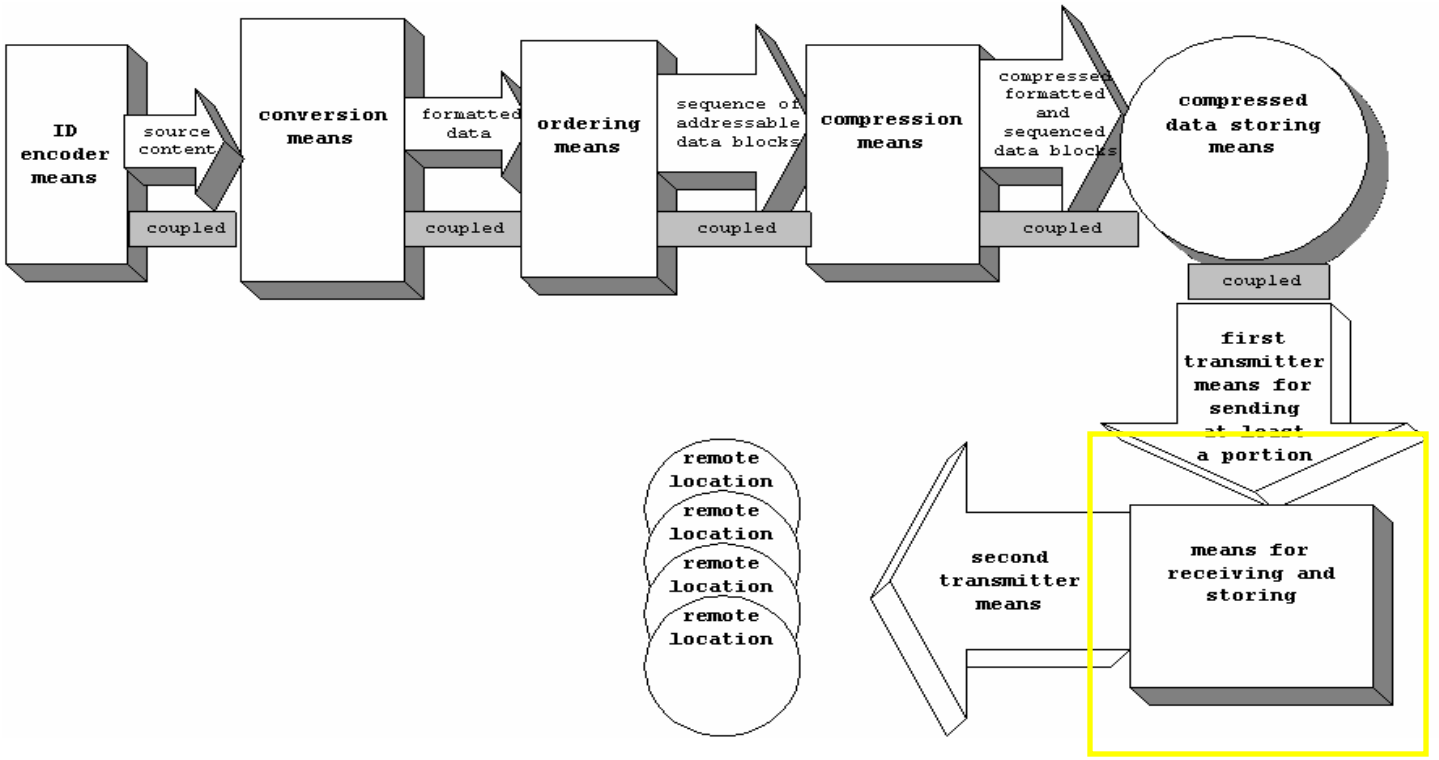
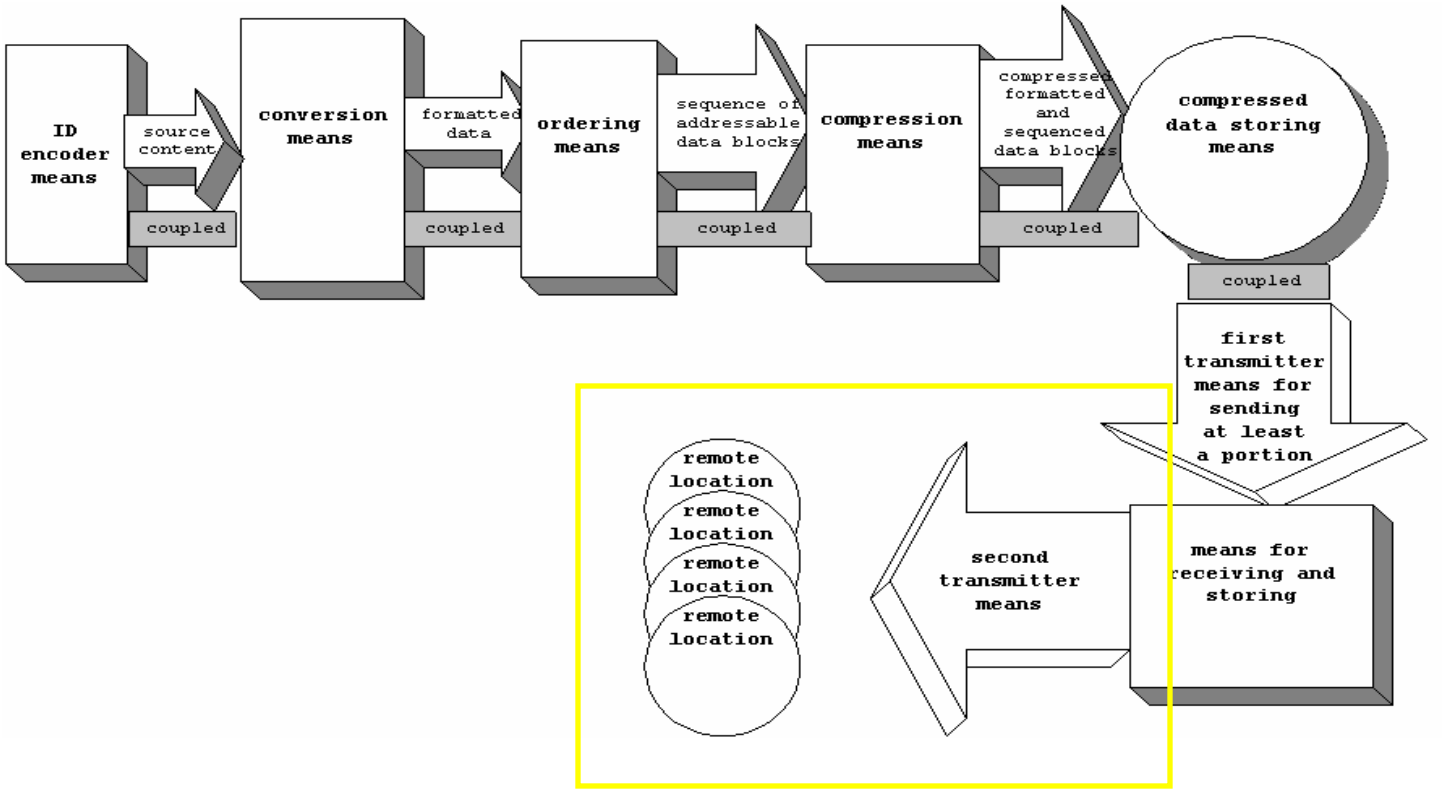
means for receiving and storing a complete copy of the portion of one of the files sent by the first transmitter means; and



The transmitted compressed media is received via a network connection and stored as files on an array of storage devices. The network connection is an example of a means for receiving and the array of storage devices is an example of a means for storing.

Online Education Provider Transmitting Media to Personal Computers Compared to the '863 Patent Claim 10:

second transmitter means, responsive to the stored portion of one of the files, for transmitting a representation of the stored portion to at least one of a plurality of the remote locations.



The online education provider transmits the media from a video server connected to the array of storage devices over the Internet to the personal computers of its students. The video server and its infrastructure is an example of a second transmitter means. The Internet connected students are an example of a plurality of remote locations.