AMTC IP Coverage

Hotel VOD System Transmitting
Media to In-Room Users
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

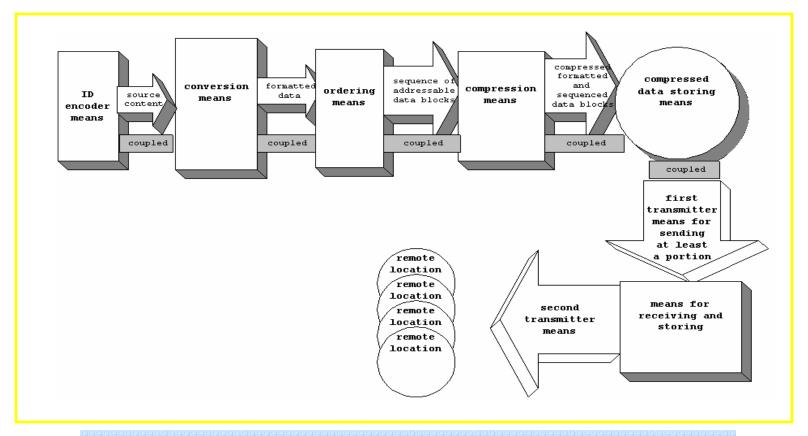
first transmitter means, coupled to the compressed data storing means, for selectively sending at least a portion of one of the files;

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

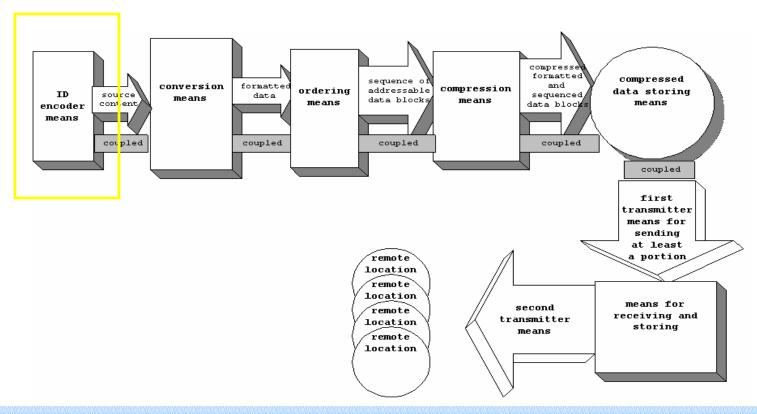
second transmitter means, responsive to the stored portion of one of the files, for transmitting a representation of the stored portion to at least one of a plurality of the remote locations.

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



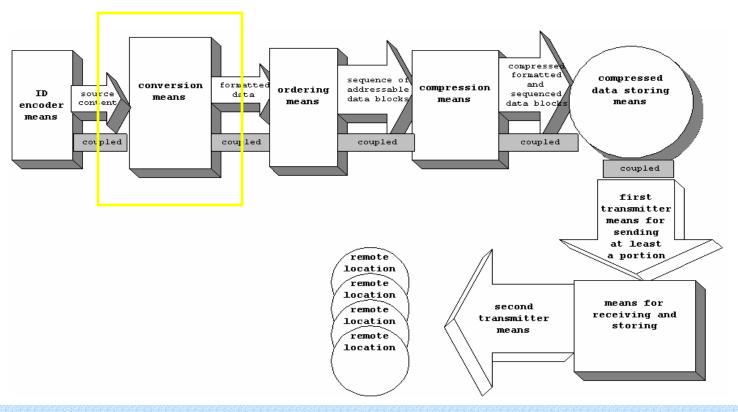
A hotel video on demand system receiving media (e.g., movies) from content providers and subsequently delivering media to in-room users is an example of a transmission system for providing information to be transmitted to remote locations.

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



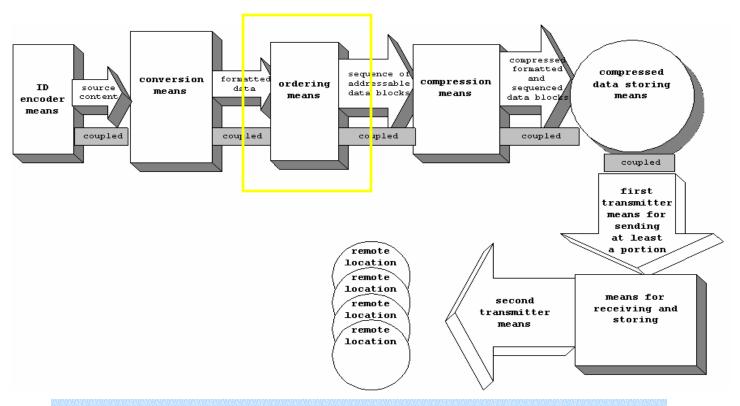
Prior to distribution to the in-room users, media is digitized and compressed by an encoding lab acting on behalf of the content provider. The encoding lab receives physical media (e.g., videotape) from the content provider. A tape operator(s) retrieves the physical media to be encoded. A unique file 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 assigning a unique identification code to the retrieved information.

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



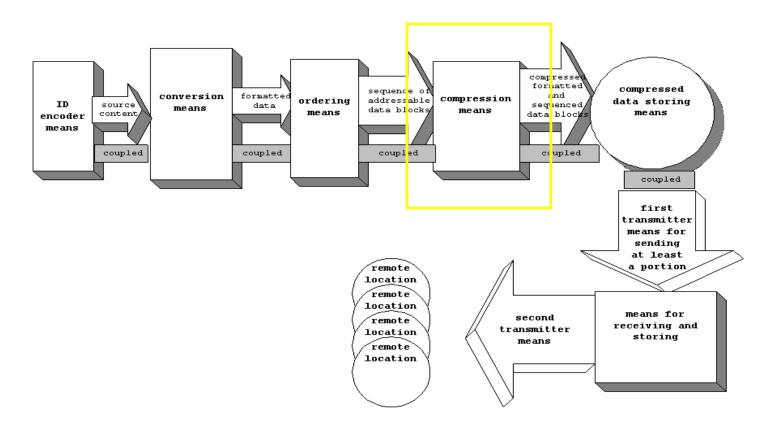
Physical media (e.g., a videotape) is placed in a tape player (i.e., an input receiver) where it is output from the player in either a digital or analog form. If in an analog form, the signal is applied to an analog input and converted to a standard digital format (such as an "AVI" file format) in an 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.

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



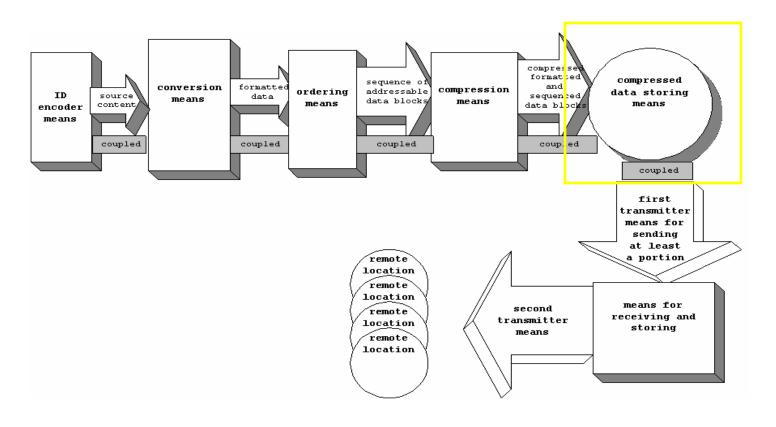
Video encoding methods organize frames into sequences of frames (data blocks) prior to compression. These frames are compressed and assigned relative time markers so that they are addressable by presentation time. The portion of the encoder that organizes the frames into sequences by assigning relative 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.

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



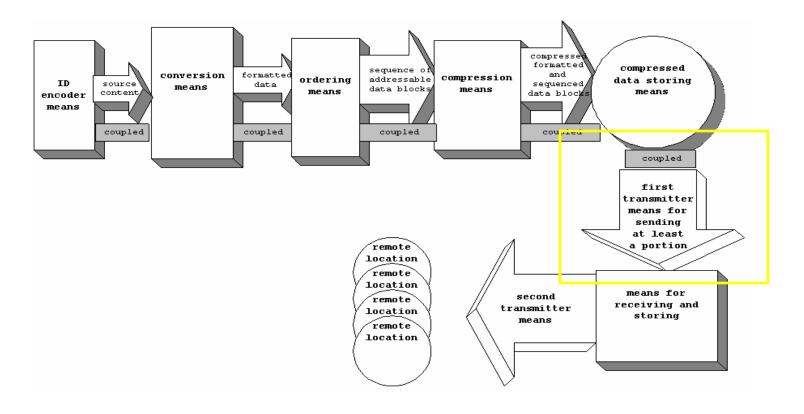
Video encoders, such as MPEG-2 encoders, compress video by operating on individual video frames and sequences of video frames. MPEG-2 encoders are examples of compression means.

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



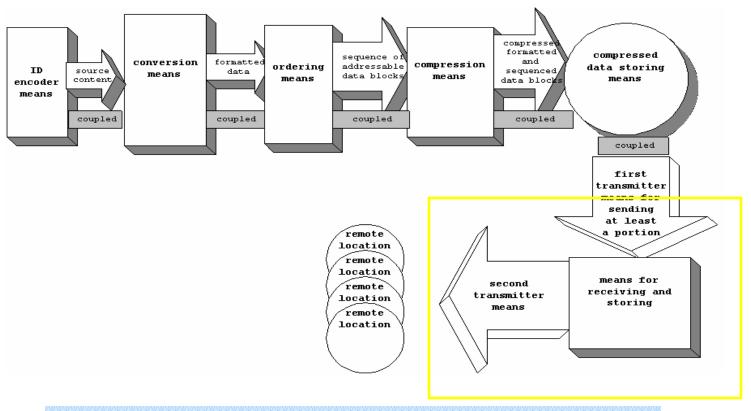
Once compressed, the media is delivered to the Hotel VOD system operator where it is stored on an array of storage devices. Each file stored on the storage device is stored with its unique identification code. An array of storage devices is an example of a compressed data storing means.

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



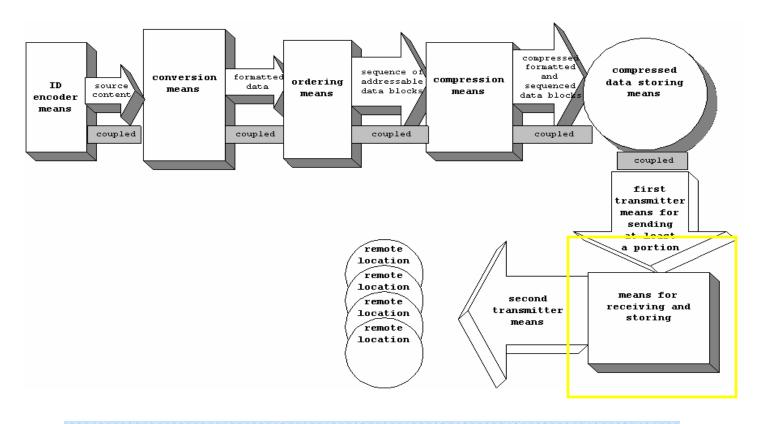
The compressed media is transmitted from the Hotel VOD system operator to the hotel either over satellite via a satellite dish or over a network (e.g., the Internet) connection via a network interface card (NIC). Both the satellite dish and the network interface card are examples of first transmitter means.

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



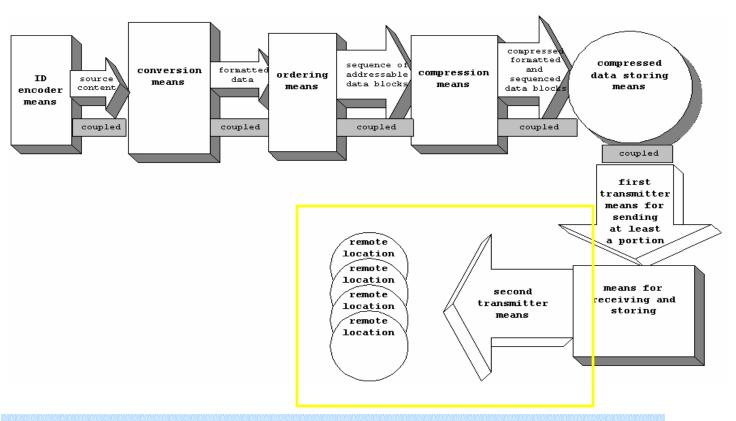
As an example, the encoding lab is separate from the hotel.

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 media is received by the Hotel VOD satellite receiver or via a network interface card and then stored on the VOD server. The satellite receiver and network interface card are examples of means for receiving. The VOD server is an example of means for storing.

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.



A copy of the media that has been stored can now be delivered by the VOD server to the in-room equipment, which is remote from the video closet containing the VOD server. The media can be sent in compressed MPEG format, or may be decompressed and NTSC encoded, and sent as a standard television signal. The modulator for either type of transmission is an example of second transmitter means.