

# Appendix A

**A. Claim Chart For Walter**

Asserted U.S. Patent No. 4,963,995	Walter
<p><b>995-1.</b> An audio/video transceiver apparatus comprising:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that can compress and transmit audio/video programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter does not expressly state where the “circuitry” that performs compression is located, saying only that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. This suggests that the compression process occurs in the central data station. Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. To the extent that compression occurs outside the central data station, it would have been obvious that this circuitry could have been housed inside the “central data station.”</p> <p>Also disclosed is a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>
<p>input means for receiving audio/visual source information;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter explains that “the electrical data representing each video program is converted into compressed digital form,” and discloses that this compression is performed in (unspecified) circuitry. [2:16-19; 7:25-34]. While not expressly mentioned, this circuitry inherently has an input that receives audio/video source information and is coupled to the circuitry for compressing audio/video data, and thus is the claimed “input means.”</p>

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<p>compression means, coupled to said input means, for compressing said audio/video source information into a time compressed representation thereof having an associated time period that is shorter than a time period associated with a real time representation of said audio/video source information;</p>	<p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>
<p>random access storage means, coupled to said compression means, for storing the time compressed representation of said audio/video source information; and</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p>

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<p>output means, coupled to said random access storage means, for receiving the time compressed audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus.</p>	<p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>
<p><b>995-2.</b> An audio/video transceiver apparatus as in claim 1 further comprising editing means, coupled to said random access storage means, for editing the time compressed representation of said audio/video source information stored in said random access storage means; and for restoring the edited time compressed representation of said audio/video source information in said random access storage means;</p>	
<p>and wherein said output means is operative for receiving the edited time compressed representation of said audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus.</p>	
<p><b>995-3.</b> An audio/video transceiver apparatus as in claim 2 further comprising monitor means for enabling the user to selectively identify the time compressed representation of said audio/video source information stored in said random access storage means during editing.</p>	

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<p><b>995-7.</b> An audio/video transceiver apparatus as in claim 1 wherein said random access storage means comprises a semiconductor memory.</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] The random access storage means of Walter included semiconductor memory. In any event, random access memories comprising semiconductor memories were well-known and obvious to those of ordinary skill in the art at the time, as shown for example by the statements in Burst’s patents.</p>
<p><b>995-8.</b> An audio/video transceiver apparatus as in claim 1 wherein:</p>	<p>See cites above for claim 1.</p>
<p>said audio/video source information comprises analog audio/video source information;</p>	<p>“[T]he electrical data representing each video program is converted into compressed digital form.” [2:15-17]</p>
<p>said audio/video transceiver apparatus further comprises analog to digital converter means for converting said analog audio/video source information to corresponding digital audio/video source information;</p>	<p>The data receiving station of Walter has a digital-to-analog converter. [9:45-54; 11:11-15]</p> <p>“[T]he electrical data representing each video program is converted into compressed digital form.” [2:15-17] It would have been obvious to include an analog-to-digital converter in the central data station, if one was not already present.</p>
<p>said compression means is operative for compressing said corresponding digital audio/video source information into a digital time compressed representation thereof having an associated time period that is shorter than a time period associated with a real time representation of said digital audio/video source information; and</p>	<p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>

Asserted U.S. Patent No. 4,963,995	Walter
<p>said random access storage means is operative for storing said digital time compressed representation of said corresponding digital audio/video source information.</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p>
<p><b>995-9.</b> An audio/video transceiver apparatus as in claim 1 wherein:</p>	<p>See cites above for claim 1.</p>
<p>said audio/video source information comprises digital audio/video source information;</p>	<p>“[T]he electrical data representing each video program is converted into compressed digital form.” [2:15-17]</p> <p>One of ordinary skill would be equally capable of designing a system with analog audio/video source information that was then converted to digital audio/video information as a system with digital audio/video data source information.</p>

Asserted U.S. Patent No. 4,963,995	Walter
<p>said compression means is operative for compressing said digital audio/video source information into a digital time compressed representation thereof having an associated time period that is shorter than a time period associated with a real time representation of said digital audio/video source information; and</p>	<p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>
<p>said random access storage means is operative for storing said digital time compressed representation of said digital audio/video source information;</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p>

Asserted U.S. Patent No. 4,963,995	Walter
<p><b>995-15.</b> An audio/video transceiver apparatus is in claim 9 wherein said input means is coupled to an external computer and said digital audio/video source information comprises computer-generated audio/video information.</p>	
<p><b>995-17.</b> An audio/video transceiver apparatus comprising:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that can compress and transmit audio/video programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>Alternatively, Walter discloses a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>



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<p>input means for receiving audio/video source information as a time compressed representation thereof, said time compressed representation of said audio/video source information being received over an associated burst time period that is shorter than a real time period associated with said audio/video source information;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>Alternatively, the Walter patent discloses a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4] The customer’s data receiving station receives the program through a set of input ports whose structure is shown in detail in Figure 4. [6:48-7:11; 8:2-11]</p> <p>Both the data receiving station and the central data station use identical memory modules. Accordingly, the same circuitry described for receiving programs in the data receiving station and loading its memory modules could be used to receive programs at a central data station in order to load identical memory modules.</p> <p>It would have been obvious to transmit compressed video programs to “central data station 12” just as the patent describes the transfer of such programs to “data receiving station 14.” [See 7:48-8:16]</p>

Asserted U.S. Patent No. 4,963,995	Walter
<p>random access storage means, coupled to said input means, for storing the time compressed representation of said audio/video source information received by said input means; and</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p> <p>The Walter patent discloses the use of memory module 102 in the receiving station that stores the received programs. [7:25-34]</p> <p>This memory module is “arranged identically to memory modules 24-34 with sixteen parallel cells for containing the data.” [7:8-11]</p>
<p>output means, coupled to said random access storage means, for receiving the time compressed representation of said audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus</p>	<p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>

Asserted U.S. Patent No. 4,963,995	Walter
<p><b>995-19.</b> An audio/video transceiver apparatus as in claim 17 in combination with a video library, coupled via a communication link with said audio/video transceiver apparatus, said video library storing a multiplicity of items of audio/video source information in said time compressed representation for selective retrieval, in said associated burst time period over said communication link.</p>	<p>See cites above for claim 17</p> <p>Walter expressly discloses a video library. <i>See, e.g.</i>, [3:59-61 (“The electronic switching system 22 is electrically connected to a library of memory modules 24, 26, 28, 30, 32, 34 . . .”) and 4:7-10 (“In this particular embodiment, only six such memory modules 24-34 are illustrated, and each one contains a specific program for broadcasting.”)]</p> <p>The Walter patent discloses a system in which “any one of a plurality of individual users to request anyone [sic] of a plurality of video programs they wish to view from a library of programs.” [Abstract]</p> <p>The Walter patent discloses storage of compressed video files. Memory modules 24-34 are the modules located the “central data station,” which store the compressed video prior to transmission to the customer’s “data receiving station.” [7:8-11; 7:25-34]</p> <p>The programs are sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p>

<b>995-20.</b> An audio/video transceiver apparatus as in claim 1 further comprising:	See cites above for claim 1.
decompression means, coupled to said random access storage means, for selectively decompressing said time compressed representation of said audio/video source information stored in said random access storage means; and	Walter expressly discusses decompression. [7:26-36]
editing means, coupled to said random access storage means and decompression means, for editing said selectively decompressed time compressed representation of said audio/video source information, and for storing said edited selectively decompressed time compressed representation of said audio/video source information in said random access storage means.	
<b>995-22.</b> An audio/video transceiver apparatus as in claim 1 further comprising:	See cites above for claim 1.
decompression means, coupled to said random access storage means, for selectively decompressing the time compressed representation of said audio/video source information stored in said random access storage means; and	Walter expressly discusses decompression. [7:26-36]
monitor means for enabling the user to view the selectively decompressed time compressed representation of said audio/video source information.	
<b>995-23.</b> An audio/video transceiver apparatus as in claim 8 further comprising:	See cites above for claim 8.

<p>decompression means, coupled to said random access storage means, for selectively decompressing the digital time compressed representation of said corresponding digital audio/video source information stored in said random access storage means; and</p>	<p>Walter expressly discusses decompression. [7:26-36]</p>
<p>editing means, coupled to said random access storage means and decompression means, for editing the decompressed digital time compressed representation of said corresponding digital audio/video source information and for then storing the edited decompressed digital time compressed representation of said corresponding digital audio/video source information in said random access storage means.</p>	
<p><b>995-44.</b> An audio/video transceiver apparatus as in claim 1 further comprising recording means, including a removable recording medium coupled to said random access storage means, for storing the time compressed representation of said audio/video source information stored in said random access storage means onto said removable recording medium.</p>	
<p><b>995-47.</b> An audio/video transceiver apparatus as in claim 17 further comprising recording means, including a removable recording medium, coupled to said random access storage means, for storing the time compressed representation of said audio/video source information stored in said random access storage means onto said removable recording medium.</p>	

<b>995-51.</b> An audio/video transceiver apparatus as in claim 9 further comprising CD-ROM means for providing said digital audio/video source information.	
<b>995-52.</b> An audio/video transceiver apparatus as in claim 9 further comprising erasable optical disc means for providing said digital audio/video source information.	
<b>995-80.</b> An audio/video transceiver apparatus as in claim 1 further comprising editing means, coupled to said random access storage means, for editing said time compressed representation of said audio/video source information and for then storing the edited time compressed representation of said audio/video source information in said random access storage means.	

**B. Claim Chart Showing Anticipation and Obviousness of the '839 Patent Asserted Claims By Walter**

Asserted U.S. Patent No. 5,164,839	Walter
<p><b>839-1.</b> A method for handling audio/video source information, the method comprising:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that can compress and transmit audio/video programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter does not expressly state where the “circuitry” that performs this compression is located, saying only that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. This suggests that the compression process occurs in the central data station. Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. To the extent that compression occurs outside the central data station, it would have been obvious that this circuitry could have housed the “central data station.”</p> <p>Also disclosed is a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>
<p>receiving audio/video source information;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter explains that “the electrical data representing each video program is converted into compressed digital form,” and discloses that this compression is performed in (unspecified) circuitry. [2:16-19; 7:25-34]. While not expressly mentioned, this circuitry inherently has an input that receives audio/video source information and is coupled to the circuitry for compressing audio/video data, and thus is the claimed “input means.”</p>

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<p>compressing the received audio/video source information into a time compressed representation thereof having an associated burst time period that is shorter than a time period associated with a real time representation of the received audio/video source information;</p>	<p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter does not expressly state where the “circuitry” that performs this compression is located, saying only that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. This suggests that the compression process occurs in the central data station. Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. To the extent that compression occurs outside the central data station, it would have been obvious that this circuitry could have been housed inside the “central data station.”</p> <p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>



Asserted U.S. Patent No. 5,164,839	Walter
<p>storing said time compressed representation of the received audio/video source information; and</p>	<p>The Walter patent discloses the use of memory module 102 in the receiving station that stores the received programs. [7:25-34]</p> <p>This memory module is “arranged identically to memory modules 24-34 with sixteen parallel cells for containing the data.” [7:8-11]</p> <p>Memory modules 24-34 are the modules located the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p> <p>The memory modules store data using “bit rotation” “to permit memory module 102 . . . in data receiving station 14 to permit a lower data rate during playback.” [6:45-47]</p>
<p>transmitting, in said burst time period, the stored time compressed representation of the received audio/video source information to a selected destination.</p>	<p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>
<p><b>839-2.</b> A method as in claim 1 further comprising the steps of:</p>	<p>See cites above for claim 1.</p>
<p>editing the stored time compressed representation of said audio/video source information; and</p>	
<p>storing the edited time compressed representation of said audio/video source information.</p>	

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<p><b>839-3.</b> A method as in claim 2 further comprising the step of monitoring the stored, time compressed representation of said audio/video source information during editing.</p>	
<p><b>839-9.</b> A method as in claim 1 wherein:</p>	<p>See cites above for claim 1.</p>
<p>said audio/video source information comprises digital audio/video source information;</p>	<p>“[T]he electrical data representing each video program is converted into compressed digital form.” [2:15-17]</p> <p>One of ordinary skill would be equally capable of designing a system with analog audio/video source information that was then converted to digital audio/video information as a system with digital audio/video data source information.</p>
<p>said step of compressing comprises compressing said digital audio/video source information into a digital time compressed representation thereof having an associated burst time period that is shorter than a time period associated with a real time representation of said digital audio/video source information; and</p>	<p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>

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<p>said step of storing comprises storing said digital time compressed representation of said digital audio/video source information.</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p>
<p><b>839-15.</b> A method as in claim 9 wherein said audio/video source information comprises information received from a computer.</p>	

Asserted U.S. Patent No. 5,164,839	Walter
<p><b>839-17.</b> A method for handling audio/video source information, the method comprising:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that can compress and transmit audio/video programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>Alternatively, Walter discloses a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p>receiving audio/video source information as a time compressed representation thereof, said time compressed representation of said audio/video source information being received over an associated burst time period that is shorter than a real time period associated with real time playback of said audio/video source information;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>Alternatively, the Walter patent discloses a “data receiving station” that receives compressed video from the “central data station” and stores the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p> <p>The customer’s data receiving station receives the program through a set of input ports whose structure is shown in detail in Figure 4. [6:48-7:11; 8:2-11]</p> <p>Both the data receiving station and the central data station use identical memory modules. Accordingly, the same circuitry described for receiving programs in the data receiving station and loading its memory modules could be used to receive programs at a central data station in order to load identical memory modules.</p> <p>It would have been obvious to transmit compressed video programs to “central data station 20” just as the patent describes the transfer of such programs to “data receiving station 14.” [See 7:48-8:16]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p>storing the time compressed representation of said received audio/video source information; and</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p> <p>The Walter patent discloses the use of memory module 102 in the receiving station that stores the received programs. [7:25-34]</p> <p>This memory module is “arranged identically to memory modules 24-34 with sixteen parallel cells for containing the data.” [7:8-11]</p>
<p>transmitting, in said burst time period, the stored time compressed representation of said received audio/video source information to a selected destination.</p>	<p>The Walter patent discloses a “central data station” that reads compressed video data from the memory module and transmits it to the “data receiving station” at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p><b>839.19.</b> A method as in claim 17 wherein said audio/video source information comprises information received over a communications link from a video library storing a multiplicity of programs of audio/video source information as time compressed representations thereof for selective retrieval by a user in an associated burst time period.</p>	<p>See cites above for claim 17</p> <p>Walter expressly discloses a video library. <i>See, e.g.</i>, [3:59-61 (“The electronic switching system 22 is electrically connected to a library of memory modules 24, 26, 28, 30, 32, 34 . . .”) and 4:7-10 (“In this particular embodiment, only six such memory modules 24-34 are illustrated, and each one contains a specific program for broadcasting.”)]</p> <p>The Walter patent discloses a system in which “any one of a plurality of individual users to request anyone [sic] of a plurality of video programs they wish to view from a library of programs.” [Abstract]</p> <p>The Walter patent discloses storage of compressed video files. Memory modules 24-34 are the modules located the “central data station,” which store the compressed video prior to transmission to the customer’s “data receiving station.” [7:8-11; 7:25-34]</p> <p>The programs are sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p>
<p><b>839-20.</b> A method as in claim 1 further comprising the steps of:</p>	<p>See cites above for claim 1.</p>
<p>selectively decompressing the stored time compressed representation of said audio/video source information;</p>	<p>Walter expressly discusses decompression. [7:26-36]</p>
<p>editing the selectively decompressed time compressed representation of said audio/video source information; and</p>	

Asserted U.S. Patent No. 5,164,839	Walter
storing the edited selectively decompressed time compressed representation of said audio/video source information.	
<b>839-28.</b> A method as in claim 9 further comprising the steps of:	See cites above for claim 9.
selectively decompressing the stored digital time compressed representation of said digital audio/video source information; and	Walter expressly discusses decompression. [7:26-36]
visually displaying the selectively decompressed digital time compressed representation of said digital audio/video source information for selective viewing by a user.	Walter transmits the decompressed digital information to a monitor for selective viewing by a user. [5:16-19; 6:14-17; 7:12-16; 7:57-63; 8:16-19; 8:26-30; Fig. 1]
<b>839-44.</b> A method as in claim 1 further comprising the step of recording the stored time compressed representation of said audio/video source information onto a removable recording medium.	
<b>839-45.</b> A method as in claim 2 further comprising the step of recording the edited time compressed representation of said audio/video source information onto a removable recording medium.	
<b>839-47.</b> A method as in claim 17 further comprising the step of recording the time compressed representation of said audio/video source information onto a removable recording medium.	



Asserted U.S. Patent No. 5,164,839	Walter
<p><b>839-51.</b> A method as in claim 9 wherein said digital audio/video source information is received from a CD-ROM.</p>	
<p><b>839-76.</b> A method for handling audio/video source information, the method comprising:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that transmits compressed programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>The Walter patent discloses a “central data station” that reads compressed video data from the memory module and transmits it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Also disclosed is a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p>receiving audio/video source information comprising a multiplicity of video frames in the form of one or more full motion video programs;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter does not expressly state where the “circuitry” that performs this compression is located, saying only that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. This suggests that the compression process occurs in the central data station.</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. To the extent that compression occurs outside the central data station, it would have been obvious that this circuitry could have housed the “central data station.”</p> <p>The Walter patent discloses a “data receiving station” that receives compressed video from the “central data station” and stores the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4] The customer’s data receiving station receives the program through a set of input ports whose structure is shown in detail in Figure 4. [6:48-7:11; 8:2-11]</p> <p>Both the data receiving station and the central data station use identical memory modules. Accordingly, the same circuitry described for receiving programs in the data receiving station and loading its memory modules could be used to receive programs at a central data station in order to load identical memory modules.</p> <p>It would have been obvious to transmit compressed video programs to “central data station 12” just as the patent describes the transfer of such programs to “data receiving station 14.” [See 7:48-8:16]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p>compressing said received audio/video source information into a time compressed representation thereof having an associated burst time period that is shorter than a time period associated with a real time representation of said received audio/video source information;</p>	<p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>
<p>storing the time compressed representation of said received audio/video source information on one or more magnetic disks; and</p>	<p>Walter describes “suitable high density memory devices.” [2:13-18] Storage on magnetic disks was well-known and routine at the time to one of ordinary skill, as evidenced by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. Magnetic disks were certainly “suitable high density memory devices.” Moreover, known magnetic disks could have been used in the normal manner in combination with the apparatus described in Walter to provide permanent storage of the compressed digital video information with entirely predictable results. Accordingly, Walter at least renders obvious claim 76 of the ‘839 patent.</p> <p>Memory modules 24-34 are the modules located the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p>

<b>Asserted U.S. Patent No. 5,164,839</b>	<b>Walter</b>
<p>transmitting, in said burst time period, the stored time compressed representation of said received audio/video source information to a selected destination.</p>	<p>The Walter patent discloses a “central data station” that reads compressed video data from the memory module and transmits it to the “data receiving station” at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p><b>839-77.</b> A method for handling audio/video source information, the method comprising:</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter does not expressly state where the “circuitry” that performs this compression is located, saying only that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. This suggests that the compression process occurs in the central data station.</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. To the extent that compression occurs outside the central data station, it would have been obvious that this circuitry could have housed the “central data station.”</p> <p>Alternatively, Walter discloses a “data receiving station” that receives compressed video from the “central data station” and stores the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4] The customer’s data receiving station receives the program through a set of input ports whose structure is shown in detail in Figure 4. [6:48-7:11; 8:2-11]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p>receiving audio/video source information as a time compressed digital representation thereof, said audio/video source information comprising a multiplicity of video frames in the form of one or more full motion video programs selected from a video library storing a multiplicity of full motion video programs in a time compressed digital representation thereof for selective retrieval, said time compressed digital representation of the received audio/video source information being received in an associated burst time period that is shorter than a time period associated in an associated burst time period that is shorter than a time period associated with a real time representation of said received audio/video source information;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>Alternatively, the Walter patent discloses a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4] Both the data receiving station and the central data station use identical memory modules. Accordingly, the same circuitry described for receiving programs in the data receiving station and loading its memory modules could be used to receive programs at a central data station in order to load identical memory modules.</p> <p>Walter expressly discloses a video library. <i>See, e.g.</i>, [3:59-61 (“The electronic switching system 22 is electrically connected to a library of memory modules 24, 26, 28, 30, 32, 34 . . .”) and 4:7-10 (“In this particular embodiment, only six such memory modules 24-34 are illustrated, and each one contains a specific program for broadcasting.”)]</p>

Asserted U.S. Patent No. 5,164,839	Walter
<p>storing the time compressed digital representation of said received audio/video source information; and</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p> <p>The Walter patent discloses the use of memory module 102 in the receiving station that stores the received programs. [7:25-34]</p> <p>This memory module is “arranged identically to memory modules 24-34 with sixteen parallel cells for containing the data.” [7:8-11]</p>
<p>transmitting, in said burst time period, the stored time compressed digital representation of said received audio/video source information to a selected destination.</p>	<p>The Walter patent discloses a “central data station” that reads compressed video data from the memory module and transmits it to the “data receiving station” at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>

<b>Asserted U.S. Patent No. 5,164,839</b>	<b>Walter</b>



**C. Claim Chart Showing Anticipation and Obviousness of the '932 Patent Asserted Claims By Walter**

Asserted U.S. Patent No. 5,057,932	Walter
<p><b>932-4.</b> An audio/video transceiver apparatus comprising:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that can compress and transmit audio/video programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter does not expressly state where the “circuitry” that performs compression is located, saying only that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. This suggests that the compression process occurs in the central data station. Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. To the extent that compression occurs outside the central data station, it would have been obvious that this circuitry could have been housed inside the “central data station.”</p> <p>Also disclosed is a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>

Asserted U.S. Patent No. 5,057,932	Walter
<p>input means for receiving audio/video source information, said audio/video source information comprising a multiplicity of video frames in the form of one or more full motion video programs;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter explains that “the electrical data representing each video program is converted into compressed digital form,” and discloses that this compression is performed in (unspecified) circuitry. [2:16-19; 7:25-34]. While not expressly mentioned, this circuitry inherently has an input that receives audio/video source information and is coupled to the circuitry for compressing audio/video data, and thus is the claimed “input means.”</p> <p>Walter explains that “the electrical data representing each video program is converted into compressed digital form,” and discloses that this compression is performed in (unspecified) circuitry. [2:16-19; 7:25-34]. While not expressly mentioned, this circuitry inherently has an input that receives audio/video source information and is coupled to the circuitry for compressing audio/video data.</p>
<p>compression means, coupled to said input means, for compressing said audio/video source information into a time compressed representation thereof having an associated time period that is shorter than a time period associated with a real time representation of said audio/video source information;</p>	<p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>

Asserted U.S. Patent No. 5,057,932	Walter
<p>random access storage means, coupled to said compression means, for storing the time compressed representation of said audio/video source information, said random access storage means comprising one or magnetic disks; and</p>	<p>Walter describes “suitable high density memory devices.” [2:13-18] Storage on magnetic disks was well-known and routine at the time to one of ordinary skill, as evidenced by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. Magnetic disks were certainly “suitable high density memory devices.” Moreover, known magnetic disks could have been used in the normal manner in combination with the apparatus described in Walter to provide permanent storage of the compressed digital video information with entirely predictable results. Accordingly, Walter at least renders obvious claim 76 of the ‘839 patent.</p> <p>Memory modules 24-34 are the modules located the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p>
<p>output means, coupled to said random access storage means, for receiving the time compressed audio/video source information stored in said random access storage means for transmission away from said audio/video transceiver apparatus;</p>	<p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>

**D. Claim Chart Showing Anticipation and Obviousness of the '705 Patent Asserted Claims By Walter**

Asserted U.S. Patent No. 5,995,705	Walter
<p><b>705-12.</b> A method for handling audio/video source information, the method comprising the steps of:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that can compress and transmit audio/video programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter does not expressly state where the “circuitry” that performs this compression is located, saying only that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. This suggests that the compression process occurs in the central data station. Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. To the extent that compression occurs outside the central data station, it would have been obvious that this circuitry could have housed the “central data station.”</p> <p>Also disclosed is a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>

Asserted U.S. Patent No. 5,995,705	Walter
<p>receiving audio/video source information, said audio/video source information comprising a multiplicity of video frames collectively constituting at least one full motion video program;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p> <p>The customer’s data receiving station receives the program through a set of input ports whose structure is shown in detail in Figure 4. [6:48-7:11; 8:2-11]</p> <p>Both the data receiving station and the central data station use identical memory modules. Accordingly, the same circuitry described for receiving programs in the data receiving station and loading its memory modules could be used to receive programs at a central data station in order to load identical memory modules.</p> <p>It would have been obvious to transmit compressed video programs to “central data station 12” just as the patent describes the transfer of such programs to “data receiving station 14.” [See 7:48-8:16]</p>

Asserted U.S. Patent No. 5,995,705	Walter
<p>compressing the received audio/video source information into a digital time compressed representation thereof, the digital time compressed representation of said audio/video source information having an associated burst transmission time period that is substantially shorter than a time period associated with real time viewing by a receiver of said audio/video source information;</p>	<p>The Walter patent discloses the use of compressed audio and video data whose bit rate is reduced by using an “inter-frame differential pulse code modulation” technique, which according to the Walter patent was “known in the art.” [7:25-34] “The bit rate requirement may be reduced even further by means of other similar but more complicated procedures.” [7:34-36] “Additional circuitry may be added to avoid problems caused by rapid motion in the picture.” [7:32-34] “Each video program is converted to compressed digital form and stored in suitable high density memory devices.” [2:15-18] These compressed video programs can be sent from a “central data station” to a customer’s “data receiving station” at a faster-than-real-time rate. Specifically, “a two hour movie can be transmitted in about 31 seconds” from the “central data station” to the customer’s “data receiving station.” [Abstract; 7:44-47]</p>
<p>storing the digital time compressed representation of said audio/video source information; and</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because as explained previously storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5]. Moreover, known magnetic disks could have been used in the normal manner in combination with the apparatus described in Walter ‘387 to provide permanent storage of the compressed digital video information with entirely predictable results.</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p>

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<p>transmitting, in said burst transmission time period, the stored digital time compressed representation of said audio/video source information to a selected destination.</p>	<p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>
<p><b>705-13.</b> The method of claim 12, further comprising the steps of:</p>	
<p>editing the stored time compressed representation of said audio/video source information; and</p>	
<p>storing the edited time compressed representation of said audio/video source information.</p>	

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<p><b>705-21.</b> A method for handling audio/video source information, the method comprising the steps of:</p>	<p>The Walter patent describes an “on-demand cable system” that is comprised of a “central data station” that can compress and transmit audio/video programs to a “data receiving station.” [Abstract; Fig. 1]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>Alternatively, Walter discloses a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p>



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<p>receiving audio/video source information as a digital time compressed representation thereof, said audio/video source information comprising a multiplicity of video frames collectively constituting at least one full motion video program selected from a video library storing a plurality of video programs in a digital time compressed representation thereof for selective retrieval;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “central data station” that houses circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2] Walter also states that the “video programs are preprogrammed into respective memory modules 24-24.” [4:10-13]. This suggests that compression occurs before information is sent to the central data station, and that the central data station receives compressed information. However, Walter also suggests that the “circuitry” that performs this compression is located in the central data station by saying that “the digital data is compressed in memory modules 24-34 [which are in the central data station] by a technique known as inter-frame differential pulse code modulation.” [7:28-30]. To the extent that compression occurs inside the central data station, it would have been obvious that this circuitry could be located outside the “central data station.”</p> <p>Alternatively, the Walter patent discloses a “data receiving station” that houses circuitry and devices for receiving compressed video from the “central data station” and for storing the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4] Both the data receiving station and the central data station use identical memory modules. Accordingly, the same circuitry described for receiving programs in the data receiving station and loading its memory modules could be used to receive programs at a central data station in order to load identical memory modules.</p> <p>Walter expressly discloses a video library. <i>See, e.g.</i>, [3:59-61 (“The electronic switching system 22 is electrically connected to a library of memory modules 24, 26, 28, 30, 32, 34 . . .”) and 4:7-10 (“In this particular embodiment, only six such memory modules 24-34 are illustrated, and each one contains a specific program for broadcasting.”)]</p>

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<p>said at least one video program being received by a receiver in a burst transmission time period that is substantially shorter than a time period associated with real-time viewing by a receiver of said at least one video program;</p>	<p>The Walter patent discloses a “central data station” that receives the video data which is compressed and stored in the memory module and then transmitted to the “data receiving station.” [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses a “data receiving station” that receives compressed video from the “central data station” and stores the program to be viewed at a later date or prior to “the complete transmission thereof.” [6:48-7:11; 8:2-11; 8:40; Fig. 4]</p> <p>The customer’s data receiving station receives the program through a set of input ports whose structure is shown in detail in Figure 4. [6:48-7:11; 8:2-11]</p> <p>Both the data receiving station and the central data station use identical memory modules. Accordingly, the same circuitry described for receiving programs in the data receiving station and loading its memory modules could be used to receive programs at a central data station in order to load identical memory modules.</p> <p>It would have been obvious to transmit compressed video programs to “central data station 12” just as the patent describes the transfer of such programs to “data receiving station 14.” [See 7:48-8:16]</p>

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<p>storing the digital time compressed representation of said audio/video source information; and</p>	<p>Walter discloses storing the compressed video in “suitable high density memory devices.” [2:17-19] Magnetic disks and optical disks were certainly “suitable high density memory devices” and are also random access storage devices, and are thus disclosed by implication. At a minimum, Walter makes obvious the use of random access storage such as magnetic disks, because storage on magnetic disks was well-known and routine at the time to one of ordinary skill. This is shown by Mr. Lang’s testimony that he used existing storage devices, and by the disclosure of such disks in the “Peripheral Storage” article Burst referenced in its patent application and submitted to the Patent Office. [‘995 patent at 4:2-5].</p> <p>Memory modules 24-34 are the modules located at the “central data station,” which store the compressed video prior to transmission to the customer. [7:8-11; 7:25-34]</p> <p>The Walter patent discloses the use of memory module 102 in the receiving station that stores the received programs. [7:25-34]</p> <p>This memory module is “arranged identically to memory modules 24-34 with sixteen parallel cells for containing the data.” [7:8-11]</p>
<p>transmitting, in said burst transmission time period, the stored digital time compressed representation of said audio/video source information to a selected destination.</p>	<p>The Walter patent discloses a “central data station” that reads compressed video data from the memory module and transmits it to the “data receiving station” at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>The Walter patent discloses the circuitry and devices for reading compressed video data from the memory module and transmitting it to the “data receiving station.” The program is sent through the central data station’s “output ports or terminals” which are shown in Figure 2 and sent across fiber optic lines at a faster-than-real-time rate. [6:6-31; 7:38-47; Fig. 2]</p> <p>Specifically, “a two hour movie can be transmitted in about 31 seconds.” [Abstract; 7:44-47]</p>