

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DISNEY MEDIA & ENTERTAINMENT DISTRIBUTION LLC,
Petitioner

v.

DIGITAL MEDIA TECHNOLOGY HOLDINGS, LLC,
Patent Owner.

Case No. IPR2024-00736
U.S. Patent No. 7,574,725

**DECLARATION OF HENRY H. HOUH, PH.D.,
IN SUPPORT OF PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 7,574,725**

I.	INTRODUCTION	1
II.	BACKGROUND AND QUALIFICATIONS.....	1
III.	INFORMATION CONSIDERED.....	10
IV.	RELEVANT LEGAL STANDARDS	11
A.	Claim Interpretation	11
B.	Perspective of One of Ordinary Skill in the Art.....	11
C.	Obviousness.....	12
V.	RELIEF REQUESTED.....	15
VI.	THE CHALLENGED PATENT	16
A.	The '725 Patent.....	16
B.	Prosecution History of the '725 Patent.....	18
VII.	CLAIM CONSTRUCTION.....	20
VIII.	TECHNOLOGICAL BACKGROUND.....	20
A.	CATV and RBOC providers commonly use public communications systems.....	22
B.	Motion pictures, motion picture trailers, coming attraction motion picture segments, and other advertising materials associated with a movie commonly have audio and video components, including synchronized sound.	23
C.	Samples of multimedia and advertising materials are commonly provided to potential purchasers.	23
D.	Purchasers commonly market and sell multimedia material locally.....	24
E.	Purchasers and potential purchasers commonly show advertising materials at a time or in a place different from the time or place at which the associated multimedia material is displayed.....	26

F.	Theaters, distributors, producers, and owners of multimedia material commonly collect and share sales and marketing data based on actual uses of the multimedia material.....	27
IX.	BRIEF DESCRIPTION OF THE APPLIED PRIOR ART REFERENCES	28
A.	Garfinkle (Ex-1005).....	28
B.	Allen (Ex-1006)	29
C.	Kosten (Ex-1007)	31
D.	Budow (Ex-1008)	33
X.	DETAILED EXPLANATION OF THE UNPATENTABILITY GROUNDS	34
A.	Ground 1: Claims 1, 4-7, 9 Are Obvious Over Garfinkle and Kosten	34
1.	A POSITA would have been motivated to combine Garfinkle with Kosten.....	34
2.	Element 1[preamble]: A method of marketing and distributing multimedia, the method comprising:.....	39
3.	Element 1[a]: receiving, by a server, multimedia material and advertising material from a producer or owner of said multimedia material, said advertising material being associated with said multimedia material, said advertising material comprising audio and video components;	41
4.	Element 1[b]: storing said multimedia material and associated advertising material on a computer readable storage medium as correlated information in digital format;	47
5.	Element 1[c]: providing a server system accessible over a communication network, said server system accessing said correlated information in a digital format from said computer readable storage medium for transfer of said correlated information in a digital format over said communication network to potential purchasers;	49
6.	Element 1[d]: providing samples of said correlated information in a digital format from said server system	

- over said communication network to said potential purchasers, said purchasers being linked to the server system through said communication network; 52
7. Element 1[e]: downloading to said purchasers, upon request of said purchasers, over said communication network, said correlated information in a digital format corresponding to said multimedia material from said server system, said purchasers storing downloaded correlated information in a digital format corresponding to said multimedia material; and.....54
8. Element 1[f]: providing said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material to said purchasers from said server system over said communication network, allowing purchasers to locally market and sell said multimedia material, said purchasers downloading said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material, said purchasers storing the downloaded correlated information in a digital format corresponding to said advertising material; and 55
9. Element 1[g]: wherein said purchaser is an exhibitor exhibiting said multimedia material, after deriving said multimedia material from said stored correlated information in a digital format corresponding to said multimedia material, in a public theater to a number of individuals in exchange for a paid admission or a broadcast exhibitor, said advertising material, after deriving of said advertising material from said correlated information in a digital format corresponding to said stored associated advertising material, being shown to the public at a time or in a place different from the time and place at which said associated multimedia material is displayed. 60
10. Claim 4: The method of marketing and distributing multimedia of claim 1, wherein said server system is accessed over a public communications system. 67
11. Claim 5: The method of claim 1, wherein the exhibition

	of multimedia material is the public showing of a motion picture.....	67
12.	Claim 6: The method of claim 1, further comprising providing a search function for said multimedia material and said associated advertising material.....	69
13.	Claim 7: The method of claim 1, wherein said advertising material comprises a motion picture with accompanying synchronized sound.....	70
14.	Claim 9: The method of claim 1, wherein said advertising material comprises a motion picture trailer or coming attraction motion picture segment with accompanying sound.	71
B.	Ground 2: Claim 11 Is Obvious Over Garfinkle, Kosten, and Allen	72
1.	A POSITA would have been motivated to combine Garfinkle with Kosten and Allen	72
2.	Dependent Claim 11: The method of marketing and distributing multimedia of claim 1, further comprising automatically collecting sales information from exhibitor recipients of various items of said multimedia material and providing sales and marketing data, specific to said items of multimedia material, to exhibitors based upon information from said exhibitors.	77
C.	Ground 3: Claims 1, 4, 6-7, 9, 11 Are Obvious Over Allen in View of Budow	80
1.	A POSITA would have been motivated to combine Allen with Budow	80
2.	Element 1[pre]: A method of marketing and distributing multimedia, the method comprising:	85
3.	Element 1[a]: receiving, by a server, multimedia material and advertising material from a producer or owner of said multimedia material, said advertising material being associated with said multimedia material, said advertising material comprising audio and video components;	86
4.	Element 1[b]: storing said multimedia material and associated advertising material on a computer readable	

	storage medium as correlated information in digital format;	89
5.	Element 1[c]: providing a server system accessible over a communication network, said server system accessing said correlated information in a digital format from said computer readable storage medium for transfer of said correlated information in a digital format over said communication network to potential purchasers;	91
6.	Element 1[d]: providing samples of said correlated information in a digital format from said server system over said communication network to said potential purchasers, said purchasers being linked to the server system through said communication network;	95
7.	Element 1[e]: downloading to said purchasers, upon request of said purchasers, over said communication network, said correlated information in a digital format corresponding to said multimedia material from said server system, said purchasers storing downloaded correlated information in a digital format corresponding to said multimedia material; and.....	97
8.	Element 1[f]: providing said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material to said purchasers from said server system over said communication network, allowing purchasers to locally market and sell said multimedia material, said purchasers downloading said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material, said purchasers storing the downloaded correlated information in a digital format corresponding to said advertising material; and	101
9.	Element 1[g]: wherein said purchaser is an exhibitor exhibiting said multimedia material, after deriving said multimedia material from said stored correlated information in a digital format corresponding to said multimedia material, in a public theater to a number of individuals in exchange for a paid admission or a broadcast exhibitor, said advertising material, after	

	deriving of said advertising material from said correlated information in a digital format corresponding to said stored associated advertising material, being shown to the public at a time or in a place different from the time and place at which said associated multimedia material is displayed.	103
10.	Claim 4: The method of marketing and distributing multimedia of claim 1, wherein said server system is accessed over a public communications system.	106
11.	Claim 6: The method of claim 1, further comprising providing a search function for said multimedia material and said associated advertising material.	107
12.	Claim 7: The method of claim 1, wherein said advertising material comprises a motion picture with accompanying synchronized sound.	109
13.	Claim 9: The method of claim 1, wherein said advertising material comprises a motion picture trailer or coming attraction motion picture segment with accompanying sound.	110
14.	Claim 11: The method of marketing and distributing multimedia of claim 1, further comprising automatically collecting sales information from exhibitor recipients of various items of said multimedia material and providing sales and marketing data, specific to said items of multimedia material, to exhibitors based upon information from said exhibitors.	110
D.	Ground 4: Claim 5 Is Obvious Over Allen in View of Budow and Kosten.	111
1.	A POSITA would have been motivated to combine Allen with Budow and Kosten.	111
2.	Claim 5: The method of claim 1, wherein the exhibition of multimedia material is the public showing of a motion picture.	117
XI.	CONCLUSION	118

LIST OF EXHIBITS¹

Ex-1001	U.S. Patent No. 7,574,725 (“the ’725 Patent”)
Ex-1002	Declaration of Dr. Henry H. Houh
Ex-1003	Curriculum Vitae of Dr. Henry H. Houh
Ex-1004	Prosecution History of U.S. Patent No. 7,574,725 (App. No. 09/840,283)
Ex-1005	U.S. Patent No. 5,530,754 (“Garfinkle”)
Ex-1006	U.S. Patent No. 5,909,638 (“Allen”)
Ex-1007	Michael Kosten, <i>Digital Distribution: A Coming Attraction</i> , 102 Film Journal International 52 (Sept. 1999)
Ex-1008	U.S. Patent No. 5,521,631 (“Budow”)
Ex-1009	Thomas Kim Hixson, <i>The Effects of Movie Trailers as an Advertising Medium on Moviegoers’ Expected Gratifications</i> , Southern Illinois University (Feb. 17, 2000)
Ex-1010	Hal Stern, <i>Managing NFS and NIS</i> (1991)
Ex-1011	Robert Sklar & David A. Cook, <i>History of Film</i> , Encyclopedia Britannica (last updated Jan. 8, 2024), https://www.britannica.com/art/history-of-the-motion-picture
Ex-1012	Paul McFedries et al., <i>Microsoft Office 97 Unleashed</i> , SAMS Publishing (2d Ed. 1996)
Ex-1013	Lisa Devereux Kernan, <i>A Cinema of (Coming) Attractions: American Movie Trailer Rhetoric</i> , University of California, Los Angeles (2000)
Ex-1014	Declaration of June Munford
Ex-1015	ITU-T Recommendation H.262; ISO/IEC 13818-2
Ex-1016	“ARPANET – The First Internet,” LIVINGINTERNET.COM, https://www.livinginternet.com/i/ii_arpanet.htm (last visited Mar. 18, 2024)
Ex-1017	U.S. District Courts – Combined Civil and Criminal Federal Court Management Statistics (Dec. 31, 2023), available at:

¹ Four-digit pin citations that begin with 0 are the page stamps added by Petitioner in the bottom right corner of the exhibits. All other pin citations are to original page, column, paragraph, or line numbers.

	https://www.uscourts.gov/statistics-reports/federal-court-management-statistics-december-2023
Ex-1018	<i>Growing Vulnerability of the Public Switched Networks: Implications for National Security Emergency Preparedness</i> , National Academies Press (1989)
Ex-1019	First Amended Complaint, <i>Digital Media Technology Holdings, LLC v. Disney Media & Entertainment Distribution LLC</i> , No. 2:22-cv-1642-CJB (D. Del. Sept. 8, 2023)

I. INTRODUCTION

1. I have been retained by Disney Media & Entertainment Distribution LLC (“Petitioner”), as an independent expert in this proceeding before the Patent Trial and Appeal Board (“PTAB” or “Board”). I understand that Petitioner is requesting that the Board institute an *inter partes* review (“IPR”) proceeding of U.S. Patent No. 7,574,725 (“the ’725 Patent”) (Ex-1001), currently assigned to Digital Media Technology Holdings, LLC (“Patent Owner” or “PO”).

2. I am not and have never been an employee of Petitioner. I am being compensated at my usual and customary rate of \$720 per hour. No part of my compensation depends on the outcome of this proceeding, and I have no other interest in this proceeding.

3. I have been asked to provide my independent analysis of Claims 1, 4-7, 9, and 11 of the ’725 Patent in light of the prior art publications cited below. I have also been asked to consider the state of the art and prior art available as of May 2, 2000. Based on the prior art discussed in this declaration, it is my opinion that Claims 1, 4-7, 9, and 11 of the ’725 Patent are unpatentable for the reasons provided below.

II. BACKGROUND AND QUALIFICATIONS

4. I am currently employed by Houh Consulting Inc. as an independent technical consultant. Until 2022, I also worked as the co-founder and President of

Einstein's Workshop, a company that provides supplemental science, technology, engineering, and mathematics ("STEM") education to children of all ages. I also co-founded and serve on the board of BlocksCAD, Inc., which provides educational computer-aided design software used around the world.

5. My professional career has spanned more than 25 years. As set forth in my curriculum vitae, a copy of which is submitted as Ex-1004, during these years I have gained extensive experience in web sites, communications systems, networking, distributed systems, protocols and streaming audio/video communications.

6. I have multiple undergraduate and graduate degrees from the Massachusetts Institute of Technology (MIT). I have a Bachelor of Science Degree in Electrical Engineering and Computer Science from MIT which I received in June 1989. I also have a Bachelor of Science Degree in Physics from MIT which I received in February 1990. I have a Master of Science Degree in Electrical Engineering and Computer Science from MIT which I received in February 1991. I have a Ph.D. in Electrical Engineering and Computer Science from MIT which I received in February 1998. My thesis was directed to "Designing Networks for Tomorrow's Traffic," and was supervised by Professor David Tennenhouse and Professor John Guttag.

7. I first worked in the area of communications in 1987 when I worked at AT&T Bell Laboratories as part of a five-year dual degree program at MIT. At Bell Labs, I first worked in a group supporting core telephony switching functions, then later I joined the Optical Computing group. In graduate school, I joined the Advanced Network Architecture (ANA) group at the Laboratory for Computer Science (LCS) at MIT, then headed by Prof. Tennenhouse and senior research scientist David Clark. Dr. Clark is generally considered to be one of the fathers of the Internet Protocol, having acted as chief protocol architect for the development of the Internet. My research and work experience in distributed systems, networking, and network architecture dates back to around 1991 when I joined ANA.

8. Later, when Prof. Tennenhouse formed his own research group, the Telemedia Network Systems (TNS) group, I joined TNS. The TNS group built a high-speed gigabit network and applications which ran over the network, such as remote video capture, processing, and display on computer terminals. I designed the core networking hardware and software, including the high-speed data links and the device drivers for the network interface cards.

9. TNS's research activities focused on high speed networking and the types of applications that require increased network bandwidth and computing power. One of the applications I investigated was live streaming video, and real-

time processing of such video. My work was focused around the transport, switching, and routing of data (including video and audio streams), and the integration of TNS's network into the computing environment, including the protocols, IP/ATM integration, operating system software and device drivers. TNS created a computing environment where it was possible to stream audio/video live, and created software processing modules to further process video to perform advanced functions such as green screening, scene change detection, motion detection, compression, video blending and video overlay, among the many features—all in real-time while displaying the processed video live. While the Internet at the time did not have the capability for such applications to be widely deployed, my group at TNS researched what would be possible when the required network and computing power became available. As discussed above, my Ph.D. thesis work focused on studying the routing resources required to route streams of video and other data through the network, proposing several alternative labeling strategies to speed up network routing, especially for popular applications such as web traffic.

10. During the early part of my graduate studies, a time when there were perhaps a hundred or so web servers in existence, I set up a web server on one of our lab computers, and created content rich web pages for my research group and my research activities. Eventually, I, together with others I was working with,

added live video demonstrations to TNS's web site. TNS's web site was one of the first several hundred web servers to exist, and the first to offer live video demonstrations initiated from the web site to a user's remote computer. I helped to build the web pages that initiated these video sessions via a web interface. I started and maintained the "Commercial Sites Index," the first listing of all the companies on the web. I later sold this list to OpenMarket, then a leader in web servers and eCommerce servers.

11. I also started a company that provided advertising opportunities on web sites we created that targeted college students seeking jobs. We also provided consulting services to companies for setting up their web sites. Our customers included Data Communications Magazine and Wellfeet Communications (which became SynOptics Communications and was later acquired by Nortel). I investigated web site load balancing solutions as well as content delivery networks, partially to support our customers but also because I was interested in keeping up with developments in web systems as part of my research.

12. Vice President Al Gore visited our group in 1996 and received a demonstration of—and remotely drove—a radio controlled toy car with a wireless video camera mounted on it; the video was encoded by TNS-designed hardware, streamed over the TNS-designed network, and displayed using TNS-designed software.

13. I authored or co-authored at least twelve papers and conference presentations on my group's research at TNS. I also co-edited TNS's final report on its gigabit networking research effort. Some of my papers about web site development were presented at the first World Wide Web conference held in 1994 at CERN in Geneva, Switzerland. CERN is the birthplace of the Web, and the conference was chaired by Tim Berners-Lee, the inventor of the World Wide Web. When Tim Berners-Lee formed the World Wide Web Consortium at the MIT LCS in order to manage the progression of web protocols and standards, I assisted him in obtaining the consortium's domain names and setting up the consortium's web server.

14. I have extensive experience in creating web pages and commercially setting up websites during the 1993-1997 time frame, and have continued this development since then. As part of this experience, I regularly programmed using HTML and Perl programming languages. I also have experience with CGI scripts and Perl scripts as used for dynamic web pages.

15. From 1997 to 1999, I was a Senior Scientist and Engineer at NBX Corporation, a start-up that made business telephone systems for streaming packetized audio over data networks instead of using traditional telephone lines. NBX was later acquired by 3Com Corporation, and the phone system I worked on at NBX was widely used by numerous businesses. As part of my work at NBX, I

designed the core audio reconstruction algorithms for the telephones, as well as the packet transmission algorithms. I also designed and validated the core packet transport protocol used by the phone system.

16. The NBX system also supported TAPI, the Telephony Application Programming Interface, thus allowing other computer programs to integrate with our system telephony features. The NBX system was among the first to support a web-browser interface to control features of the telephone by using a remote application that issued remote controls to the central controller. The web server in the NBX system accessed a back-end database which stored all the data related to the configuration and operation of the NBX system. Accessing the system controller's web server produced a representation of the telephone and allowed users to set speed dials and other features of the user's physical telephone such as a call forwarding number. The user could also access and initiate various telephone functions through the interface, such as initiating a conference call or initiating call forwarding.

17. Two of the company founders and I obtained U.S. Patent No. 6,967,963, entitled "Telecommunication method for ensuring on-time delivery of packets containing time-sensitive data," as a result of part of the work I did at NBX.

18. From 2003-2004, I also was the architect for a next-generation web testing platform developed by Empirix, known as e-Test Suite. e-Test Suite is now owned by Oracle Corporation. e-Test provided functional and load testing for web sites. e-Test emulated a user's interaction with a web site and provided web developers with a method of creating various scripts and providing both functional testing (i.e., did the web site provide the correct response) and load testing (i.e., could the web site handle 5,000 users simultaneously). As part of this project, I co-wrote a JavaScript interpreter for e-Test so that it could understand the JavaScript code present on modern web sites.

19. I worked at BBN Technologies from 2004 to 2009. BBN Technologies, formerly known as Bolt, Beranek and Newman, was a pioneer of the Internet and a long-established leader in speech recognition and natural language processing. BBN received the first contract to build components of a packet switched network as part of the ARPANET, a U.S. Department of Defense effort funded through the Advanced Projects Research Agency (ARPA). While this effort preceded my time at BBN by many years, BBN continued to maintain a strong presence in network research and development, including in wireless networking, network security, device discovery, and protocols for a "body area network."

20. In 2006, as part of my role at BBN Technologies, I helped found PodZinger Inc., later known as RAMP Inc. PodZinger utilized BBN's speech

recognition algorithms to search through the spoken words inside audio and video. After managing the creation of the initial prototype system, PodZinger built out a full web-based streaming audio and video search solution when I was the Vice President of Operations and Technology there. The web site had a full load-balanced back end that provided search and indexing solutions for our hosted multimedia (audio and video) content.

21. I also worked on commercializing a service offered by BBN to monitor call centers and provide analytical data on each call. The business became known as AVOKE Analytics and provided call center analytics for large organizations such as Dell and the Centers for Medicare and Medicaid Services (CMMS). For a time, during the rollout of the Affordable Care Act (though I was no longer working at BBN), AVOKE Analytics gathered data and provided call-by-call analytics for every call made to the CMMS main call center.

22. I have web advertising experience as well, including starting a company in 1994 that was funded, in part, through web advertisements. Later in 2008-2009, as the CTO of a venture-funded social network start-up company, I also evaluated different ad network tools.

23. I am familiar with patents and have numerous provisional and non-provisional patent applications on which I am an inventor, including four provisional patent applications, and 20 non-provisional applications. These patent

applications deal with various areas of technology including, but not limited to: utilizing network processors, network and packet delivery systems, tagging media content, dynamic presentation of advertising and other content using enhanced metadata, methods for web site testing, and organizing and managing files that are transmitted over a network.

24. I have been asked to assume a priority date of May 2, 2000, for the '725 Patent and to opine on the state of the technology around and as of May 2, 2000. With my extensive experience in the field of web based systems, streaming multimedia systems, distributed systems, and network architectures, I am qualified to provide an opinion as to what a person of ordinary skill in the art would have understood, known, or concluded as of May 2, 2000. A copy of my current curriculum vitae is provided as Ex-1004, and it provides a comprehensive description of my academic, employment, research, and professional history.

III. INFORMATION CONSIDERED

25. In preparation for this declaration, I have considered the materials discussed in this declaration, including, for example, the '725 Patent, the references cited by the '725 Patent, the prosecution history of the '725 Patent and applications from which it derives (including the references cited therein), various background articles and materials referenced in this declaration, and the prior art references identified in this declaration.

26. In forming the opinions expressed below, I have considered: the documents listed above, any additional documents discussed below, and my education, training, experience, and knowledge in the relevant field of multimedia processing or communications networks.

IV. RELEVANT LEGAL STANDARDS

27. In forming my opinions and considering the subject matter of the '725 Patent and its claim in light of the prior art, I am relying on certain legal principles that counsel in this case explained to me. My understanding of these concepts is summarized below.

A. Claim Interpretation

28. I have been informed and understand that in an IPR proceeding, claims are to be interpreted according to the *Phillips* claim construction standard. I have been informed and understand that claim construction is a matter of law and that the final claim constructions for this proceeding will be determined by the PTAB.

B. Perspective of One of Ordinary Skill in the Art

29. I have been informed and understand that a patent is to be understood from the perspective of a hypothetical “person of ordinary skill in the art” (“POSITA”). Such an individual is considered to possess normal skills and knowledge in a particular technical field (as opposed to being a genius). I

understand that in considering what the claims of a patent require, what was known prior to that patent, what a prior art reference discloses, and whether an invention is obvious or not, one must use the perspective of such a POSITA.

30. A POSITA at the relevant time would have had a bachelor's degree in electrical engineering, computer engineering, computer science, or a related field, and at least one year of experience in the field of multimedia processing or communication networks, or the equivalent, with additional education substituting for experience and vice versa. I believe that I possessed and exceeded such experience and knowledge before and at the priority date and that I am qualified to opine on the '725 Patent.

C. Obviousness

31. I have been informed and understand that a patent claim is obvious under 35 U.S.C. § 103, and therefore invalid, if the claimed subject matter, as a whole, would have been obvious to a POSITA as of the priority date of the patent based on one or more prior art references and/or the knowledge of a POSITA.

32. I understand that an obviousness analysis must consider (1) the scope and content of the prior art, (2) the differences between the claims and the prior art, (3) the level of ordinary skill in the pertinent art, and (4) secondary considerations, if any, of non-obviousness (such as unexpected results, commercial success, long

felt but unmet need, failure of others, copying by others, and skepticism of experts).

33. I understand that a prior art reference may be combined with other references to disclose each element of the invention under 35 U.S.C. § 103. I understand that a reference may also be combined with the knowledge of a POSITA, and that this knowledge may be used to combine multiple references. I further understand that a POSITA is presumed to know the relevant prior art. I understand that the obviousness analysis may take into account the inferences and creative steps that a POSITA would employ.

34. In determining whether a prior art reference would have been combined with other prior art or other information known to a POSITA, I understand that the following principles may be considered:

- whether the references to be combined involve non-analogous art;
- whether the references to be combined are in different fields of endeavor than the alleged invention in the Patent;
- whether the references to be combined are reasonably pertinent to the problems to which the inventions of the Patent are directed;
- whether the combination is of familiar elements according to known methods that yields predictable results;

- whether a combination involves the substitution of one known element for another that yields predictable results;
- whether the combination involves the use of a known technique to improve similar items or methods in the same way that yields predictable results;
- whether the combination involves the application of a known technique to a prior art reference that is ready for improvement, to yield predictable results;
- whether the combination is “obvious to try”;
- whether the combination involves the known work in one field of endeavor prompting variations of it for use in either the same field or a different one based on design incentives or other market forces, where the variations are predictable to a POSITA;
- whether there is some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention;
- whether the combination requires modifications that render the prior art unsatisfactory for its intended use;

- whether the combination requires modifications that change the principle of operation of the reference;
- whether the combination is reasonably expected to be a success; and
- whether the combination possesses the requisite degree of predictability at the time the invention was made.

35. I understand that in determining whether a combination of prior art references renders a claim obvious, it is helpful to consider whether there is some teaching, suggestion, or motivation to combine the references and a reasonable expectation of success in doing so. I understand, however, that a teaching, suggestion, or motivation to combine is not required.

V. RELIEF REQUESTED

36. I understand that Petitioner challenges the validity of Claims 1, 4-7, 9, and 11 of the '725 Patent. In particular, I understand that Petitioner asserts the following grounds for challenging the claims of the '725 Patent:

Ground	Summary
1	Claims 1, 4-7, 9 are obvious over U.S. Patent No. 5,530,754 (“Garfinkle”) (Ex-1005) in view of Michael Kosten, <i>Digital Distribution: A Coming Attraction</i> , 102 Film Journal International 52 (Sept. 1999) (“Kosten”) (Ex-1007).
2	Claim 11 is obvious over Garfinkle in view of Kosten and U.S. Patent No. 5,909,638 (“Allen”) (Ex-1006).
3	Claims 1, 4, 6-7, 9, 11 are obvious over Allen in view of U.S. Patent No. 5,521,631 (“Budow”) (Ex-1008).
4	Claim 5 is obvious over Allen in view of Budow and Kosten.

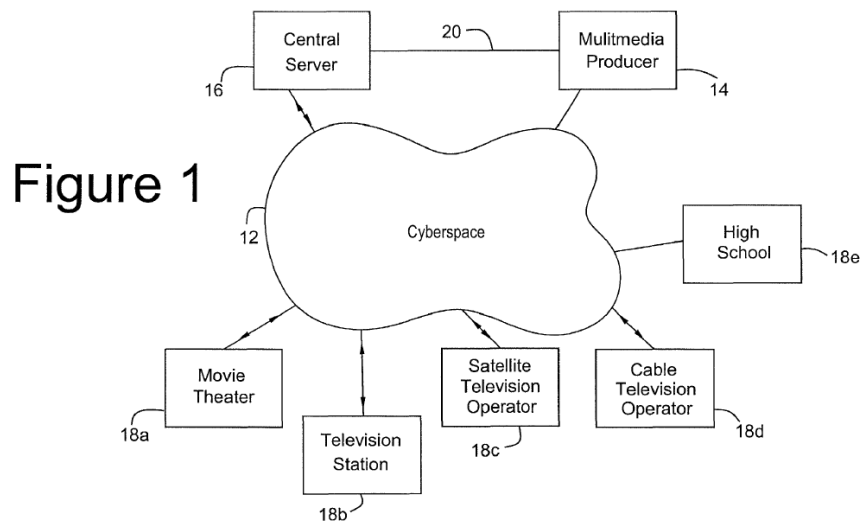
VI. THE CHALLENGED PATENT

A. The ’725 Patent

37. The ’725 Patent “relates to the marketing and distribution of multimedia material, including digitally generated film, video, graphics and audio ... and associated marketing materials for distribution over a computer network to exhibitors and broadcasters.” Ex-1001, 1:20-25. To perform this “marketing and distribution,” the patent describes “[a] central server having a computer readable storage media for storing multimedia material, such as motion pictures and

television programming, in digital format is connected to a communications network such as the Internet.” *Id.*, Abstract.

38. Figure 1 below illustrates “a computer or communications network 10 implementing the method of the present invention.” *Id.* 4:3-5.



Id., Fig. 1. “[T]he system exchanges information through the use of cyberspace 12, which may be either a private computer-based communications system or a public system, such as that known under the alleged trademark the Internet.” *Id.* 4:5-9. “In accordance with the invention, an owner of rights in a particular work, such as a multimedia producer 14, is linked through network 10 [(not shown)] to a central server 16 which functions as a distribution web site in accordance with the invention.” *Id.* 4:9-13. “Similarly, a plurality of exhibitors, including a movie theater 18a, a television station 18b, a satellite television operator 18c, a cable television operator 18d and a high school 18e, are also connected through

cyberspace 12 to central server 16.” *Id.* 4:20-23. “Multimedia producer 14, central server 16, and each of the exhibitors 18*a-e* obtain and/or send product and associated information through facilities which comprise computers with various peripheral devices, such as a communications modem, display screen, keyboard, various printers, scanners, and the like.” *Id.* 4:28-33.

39. The ’725 Patent “may be employed to deliver films, advertising, coming attraction strips, etc.” *Id.* 3:12-13. “In addition to providing multimedia to users, the server system collects data about the users and information respecting the economics and sales success of exhibitors and broadcasters.” *Id.* 3:22-25.

B. Prosecution History of the ’725 Patent

40. The ’725 Patent’s file history is submitted as Ex-1004. During more than nine years of prosecution, the Examiner rejected claims of the ’725 based on indefiniteness, anticipation, or obviousness in three Non-Final and three Final Office Actions. *See generally* Ex-1004. PO amended the claims of the ’725 Patent six times. *See id.* In allowing the application, the Examiner stated: “The state of the prior art suggested providing *static* images as advertising material (specifically movie posters) rather than *full motion video segments with associated audio* as associated advertising material which is received along with a movie.” *Id.* at 504 (emphasis added). As demonstrated in the analysis below, many prior art references disclose the use of “full motion video segments with associated audio as

associated advertising material” for movies. Indeed, PO filed an Information Disclosure Statement (“IDS”) a day after the Examiner’s first Notice of Allowance, including a reference disclosing, “The captured data representing the title may include ... a full motion video/audio portion ... stored in an item data file,” which “associates these files for each title.” *Id.* at 513, 526-27. The same reference discloses a “consumer interface terminal” allowing for the “preview of segments of the full motion video/audio portion of the same item data file, and selection of such title for purchase.” *Id.* 535. Still, the Examiner provided the same rationale in its second Notice of Allowance. *Id.* at 595.

41. None of the four references applied in Petitioner’s invalidity grounds were applied to reject a claim during prosecution. *See* Ex-1004. Garfinkle, Kosten, and Budow were not mentioned during prosecution. *Id.* Although Allen (Ex-1006) appears in the Examiner’s search history, there is no evidence that the Examiner gave it any consideration and it is not listed among the “References Cited” by the ’725 Patent. *Id.*, 138; Ex-1004. Similarly, the reference to “Budow et al.” corresponds to U.S. Patent No. 5,661,517, which is not related to the Budow reference applied in Petitioner’s invalidity grounds (Ex-1008). Ex-1004 at 90, 512. Nonetheless, there is no evidence that the Examiner gave U.S. Patent No. 5,661,517 any consideration and it is not listed among the “References Cited” by the ’725 Patent. *See generally* Ex-1004.

VII. CLAIM CONSTRUCTION

42. I do not believe that any term requires explicit construction to resolve the issues presented in the Petition. I ascribe the plain meaning to each claim term, as that plain meaning would have been understood by a POSITA.

43. I reserve the right to offer opinions on any claim constructions proposed in this proceeding or to offer opinions on additional constructions in the district court.

VIII. TECHNOLOGICAL BACKGROUND

44. The '725 Patent generally relates to using “a computer network” to distribute multimedia material, such as films. *See, e.g.*, Ex-1001, 1:20-25.

Centralized computer servers connected to remote users over public communication networks were well known before May 2000. For example, the ARPANET project was initiated in 1966 to enable resource sharing between remote computers. Ex-1016. As discussed above, BBN Technologies received the first contract to build components of a packet switched network as part of ARPANET. *Id.* The first computers were connected in 1969, the Network Control Protocol was implemented in 1970, and the network was declared operational in 1971. *Id.* Further software development enabled remote login and file transfer, which was used to provide an early form of email. ARPANET was the first wide-area packet-switched network with distributed control and one of the first computer

networks to implement the TCP/IP protocol suite. *Id.* Both technologies became the technical foundation of the Internet. BBN continued to maintain a strong presence in network research and development, including in wireless networking, network security, device discovery, and protocols for a “body area network.”

45. Further, several methods of file sharing—i.e., the practice of distributing digital media, such as multimedia files—using centralized servers were well known before May 2000. For example, by the 1980s, computers could access remote files using filesystem mounting, bulletin board systems, Usenet, and FTP servers. Network-based file systems, such as the Andrew File System (“AFS”) and the Network File System (“NFS”) were developed to allow centralized storage of a user’s files that could be accessed from numerous different client computers. Ex-1010, xviii (“NFS makes remote filesystems appear to be local, as if they were on disks attached to the local host. With NFS, all machines can share a single set of files, eliminating duplicate copies of files on different machines in the network.”), 113 (“A filesystem mounted using NFS provides two levels of transparency: The filesystem appears to be resident on a disk attached to the local system, and all of the filesystem entries—files and directories—are viewed the same way, whether local or remote. NFS hides the location of the file on the network.”), 137 (“While the NFS protocol hasn’t changed significantly in several years, its implementations

have seen near-constant improvement and extensions: ... Conversion between the NFS and Andrew File System (AFS) protocols.”).

A. CATV and RBOC providers commonly use public communications systems.

46. Cable television (CATV) head ends and regional bell operating companies (RBOCs) commonly use “Publicly Switched Networks” (PSNs), which are defined as “a national ‘network of networks’ that are interconnected and provide voice and data transmission throughout the United States.” Ex-1018, 22. “Historically, transmission technology deployment in the public networks has been diverse, that is, copper pairs, coaxial cable, microwave radio, satellites, and even waveguide. The current trend is toward consolidation of network transmission assets into optical fiber.” *Id.* at 24. “Satellites will be supplanted by optical fiber for voice service. However, satellites will remain the medium of choice for broadcasting, at least until fiber reaches most residences, sometime in the twenty-first century.” *Id.* Thus, CATV and RBOC providers using copper pairs, coaxial cable, microwave radio, satellites, waveguide, and fiber optic cables by May 2000 were commonly using public communications systems.

B. Motion pictures, motion picture trailers, coming attraction motion picture segments, and other advertising materials associated with a movie commonly have audio and video components, including synchronized sound.

47. Motion pictures, motion picture trailers, coming attraction motion picture segments, and other advertising materials associated with a movie contain both audio and video components. For example, movies are “a sight and sound medium” and “[a] cinema screen presentation provides a much larger screen than television, a higher resolution, a more vivid picture, and stereo sound” Ex-1013, 12, 28. Further, “trailers commonly utilize codes of voice-over narration, sound and sound overlapping, music, graphics, and most importantly, editing, or montage.” Ex-1013, 18. In fact, “[e]arly sound trailers, includ[e] those for *The Jazz Singer* (1927) and *The Drunkard* (1935)” *Id.* at 42. Moreover, “[b]y the late 1930s, postsynchronization and multiple-channel mixing had become standard industry procedure.” Ex-1011. Thus, by May 2000, movies and advertising materials would standardly contain both audio and video components, including synchronized sound.

C. Samples of multimedia and advertising materials are commonly provided to potential purchasers.

48. Samples of multimedia and advertising materials are commonly provided to potential purchasers. The '725 Patent's specification acknowledges that “[e]ach purchase usually involves multiple charges for each item sent, such as

trailers, sample materials, duplicates and masters.” Ex-1001, 2:7-9. Studios and movie producers have long used trailers—which constitute samples of multimedia and advertising materials—to market films, and even when that practice began, it was a business and not a technological innovation. *See generally* Ex-1009. “By their very nature of having a short ‘life-span’ in theaters, movies need heavy promotion and advertising” Ex-1009, 18. And “[m]oviegoers have rated trailers as the most useful and important source of information about a movie and have rated trailers as having the greatest impact on decision making about a movie” *Id.* at 28. Because of the history of using trailers to market movies, it was common to provide samples of multimedia and advertising materials to potential purchasers before May 2000.

D. Purchasers commonly market and sell multimedia material locally.

49. Purchasers of multimedia material commonly market and sell the multimedia material locally. For example, a local independent movie theater in a small town may purchase (or license) the rights to a movie, locally market that movie (e.g., through posters outside the theater, advertisements in local newspapers, and radio and television ads), and then charge admissions for exhibition of that movie. In fact, “[t]he increasing costs of making a motion picture ... have necessitated changes in how motion pictures are distributed, marketed, and

advertised. ... Earlier, reaching the mass audience was accomplished through advertising in newspapers and on network television.” Ex-1009, 8. “By their very nature of having a short ‘life-span’ in theaters, movies need heavy promotion and advertising” *Id.* at 18. And “[m]oviegoers have rated trailers as the most useful and important source of information about a movie and have rated trailers as having the greatest impact on decision making about a movie” *Id.* at 28. “Trailers are intended to influence the moviegoers’ movie selection process by showing exciting parts of the advertised movie to an audience that is in the theater to see some *other* film,” *Id.* at 2. “Also, movie trailers are shown to a group of people who have demonstrated their willingness to come to the locale where they have already purchased a similar ‘product.’” *Id.* at 29. Because of the necessity to market multimedia, such as a movie, purchasers and potential purchasers, such as movie theaters and broadcasters, locally marketed and sold the multimedia material using a variety of advertising materials, such as trailers, by May 2000.

50. Further, a POSITA would have understood that “purchasers” or “potential purchasers” sell the multimedia by charging a fee for viewing multimedia—such as “in a public theater to a number of individuals in exchange for a paid admission”—or charging a fee in exchange for access to a broadcast. *See, e.g.*, Ex-1006, 54 (Studios distribute films “in digital or in traditional celluloid” “to theatres across the U.S. or around the world, who then store it on

their servers for later digital projection.”); *see also, e.g.*, Ex-1008, 1:32-39 (“Typically, the selected programming is transmitted in such a manner that only the customer that selected the programming is able to receive the broadcast.”). The ’725 Patent states, “Typically, distributors through film markets, catalogue sales and long established relationships between purchasers and sellers, sell films.” Ex-1001, 1:51-53. Thus, by May 2000, purchasers and potential purchasers were selling the multimedia material and charging a fee for viewing the multimedia material.

E. Purchasers and potential purchasers commonly show advertising materials at a time or in a place different from the time or place at which the associated multimedia material is displayed.

51. Purchasers and potential purchasers typically show advertising materials associated with a multimedia material—such as a movie—at a time or in a place different from the time or place at which the associated multimedia material is displayed. For example, around the priority date of the ’725 Patent, it was common for movie theaters to show trailers for multiple other movies before the exhibition of a particular movie. Indeed, “[t]railers are an effective and powerful advertising material for several reasons. The ‘captive’ theater audience is surrounded by the sounds of the movie. The action on the big screen almost entirely fills the moviegoer’s field of vision.” Ex-1009, 29. “Also, movie trailers are shown to a group of people who have demonstrated their willingness to come

to the locale where they have already purchased a similar ‘product.’” *Id.* Thus, because “[t]railers are intended to influence the moviegoers’ movie selection process by showing exciting parts of the advertised movie to an audience that is in the theater to see some *other* film,” Ex-1009, 2 (emphasis added), purchasers and potential purchasers commonly showed advertising materials associated with a multimedia material at a time or in a place different from the time or place at which the associated multimedia material was displayed by May 2000.

F. Theaters, distributors, producers, and owners of multimedia material commonly collect and share sales and marketing data based on actual uses of the multimedia material.

52. Theaters, distributors, producers, and owners of multimedia commonly collect and share sales and marketing data based on actual uses of the multimedia material. For example, the ’725 Patent’s “Description of Related Art Including Information Disclosed under 37 CFR 1.97 and 37 CFR 1.98” acknowledges, “Another high-cost component involves responding to requests for previews, marketing materials, contract negotiations, and collecting and tracking sales data for royalties and further marketing programs.” Ex-1001, 1:58-62. Further, studios and producers commonly collect data on the success or failure of multimedia sales—e.g., box office sales of a movie—and on marketing campaigns of the movie based on information provided by individual exhibitors, such as theaters. Thus, theaters, distributors, producers, and owners of multimedia

commonly collected and shared sales and marketing data based on actual uses of the multimedia material by May 2000.

IX. BRIEF DESCRIPTION OF THE APPLIED PRIOR ART REFERENCES

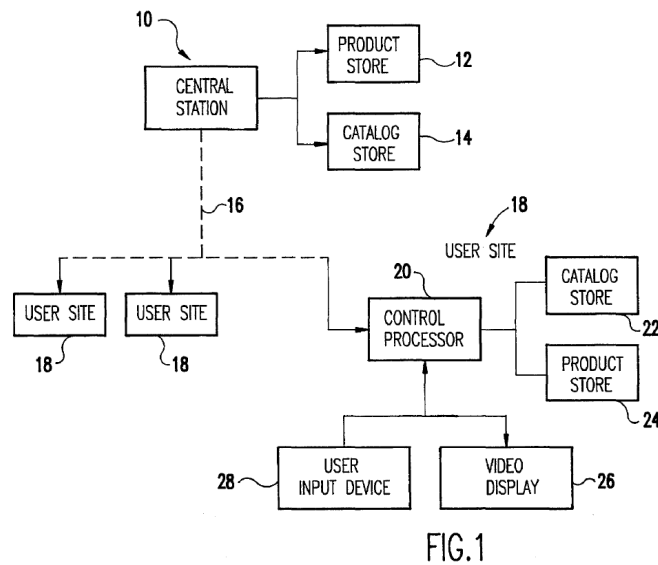
A. Garfinkle (Ex-1005)

53. Garfinkle was filed August 2, 1994, and issued June 25, 1996. Ex-1005.

54. Garfinkle discloses “a video-on-demand system that provides access at the user site to catalog data of the video products available from the central station.” Ex-1005, 1:54-57. “This catalog data includes listings of the video products available at the central station, so-called trailers or previews for certain of the video products, and lead[-]ins for the initial portions of certain products” *Id.* 2:4-8. Garfinkle’s video products and related marketing materials are correlated through catalog data fields indicating “the product name, its address in the product store 12, its price, and for certain video products related material such as a trailer to allow the user to preview the product, a header to allow immediate viewing of an ordered product, critical comments relative to the product, and catalog search keys.” *Id.* 4:39-46, 3:32-49, Fig. 2.

55. Garfinkle’s Figure 1 shows “a video-on-demand system” having central station 10 connected to a plurality of user sites 18 through data link 16. *Id.*

2:58-60, Fig. 1. Video products and related marketing materials (e.g., trailers or previews, lead-ins, and critic reviews) are downloaded from the central station 10 over data link 16 and stored by the user sites 18 where they may be displayed on video display 26. *Id.* 3:11-15, 3:20-22, 3:59-62, 2:1-12.



Id., Fig. 1.

B. Allen (Ex-1006)

56. Allen was filed August 6, 1996, and issued June 1, 1999. Ex-1006.

57. Allen discloses “a system for capturing, storing and retrieving movies recorded in a video format and stored in a compressed digital format at a central distribution site.” Ex-1006, 3:19-22. “Also captured by the video capture center are materials associated with each movie such as movie previews, movie labels, movie sell-through artwork in digital, analog and photographic forms.” *Id.* 9:16-21. “The

digitized versions of the movies, and the associated artwork and previews, are all identified and tracked through a relational database” *Id.* 9:24-29, 9:55-59.

58. Allen also discloses “accounting and transaction engine 109 [which] accounts for each transaction at the retail level including revenue accounting, customer demographic information database, support inventories and the retail outlet financial accounting.” *Id.* 10:39-43. “With this facility, studios can monitor their individual financial data, sales results and promotion results from the retail level on a real time basis. In addition, the retail outlets shall be able to monitor their own financials on a real time basis.” *Id.* 11:17-20.

59. Figure 21 illustrates a “video-on-demand architecture” in which “[a] plurality of remote distribution locations are connected through fiber optic connections to the central distribution site,” which may be a “cable television (CATV) head end” or “a regional bell operating company such as a local telephone company.” Ex-1006, 3:12-26, 27:21-22, 27:50-55. Digital movies and their associated artwork and previews are downloaded from the host data center 10 over, for example, a fiber optic connection 127 and stored by a CATV head end 2102 or RBOC 2103 where they may be delivered to subscribers 2107 and 2108.

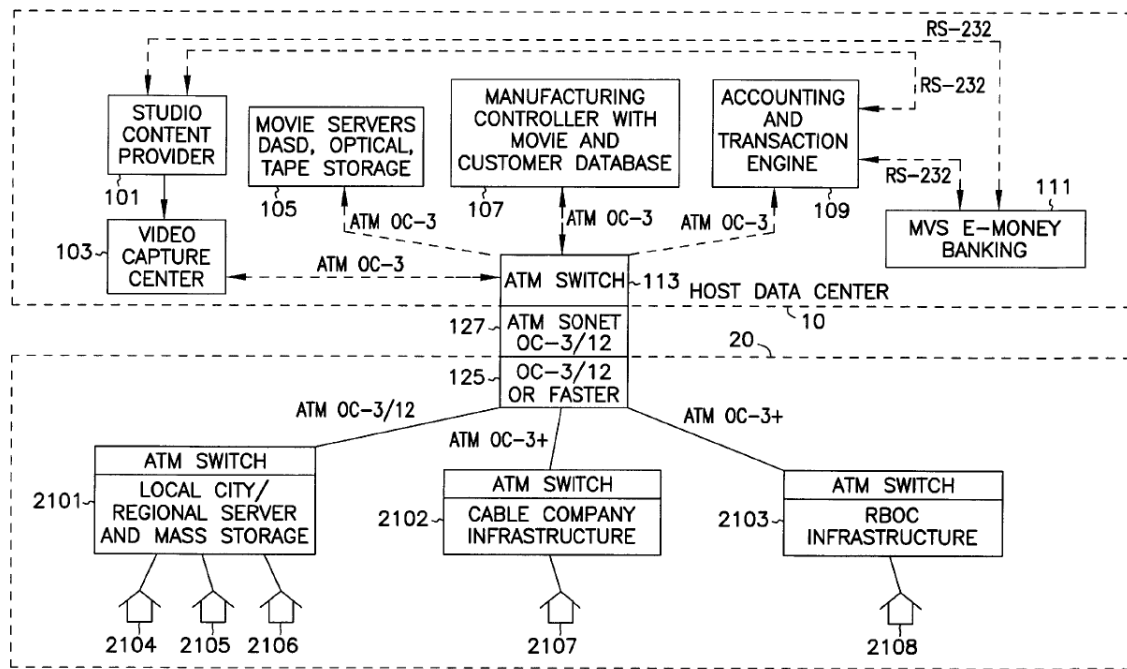


FIG. 21

Id., Fig. 21.

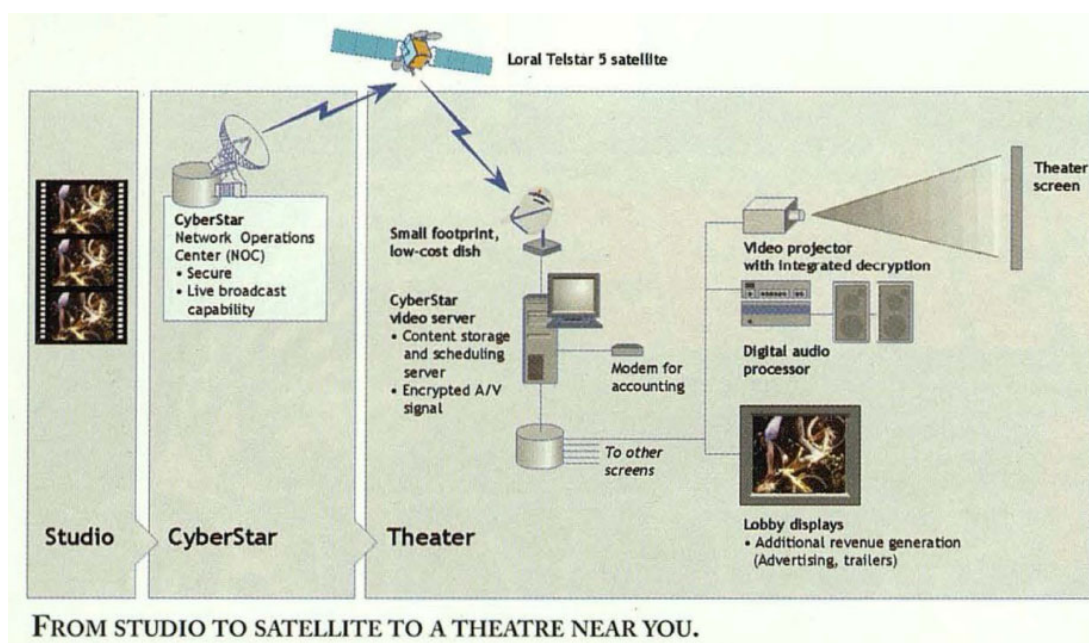
C. Kosten (Ex-1007)

60. Kosten is a trade journal article published in September 1999. Ex-1007; Ex-1014.

61. Kosten discloses “[i]mproved feature film distribution.” Ex-1007, 54. “In the digital world, films can be shot and edited entirely in digital or in traditional celluloid, which is then transferred to digital using a machine known as a telecine.” *Id.* “With a digital film ‘file’ in hand, studios will almost instantly begin to realize the distribution cost savings of not having to reprint millions of feet of celluloid” *Id.* Moreover, “[e]xhibitors can turn theatre lobbies into smart advertising networks, targeting digital trailers and ad spots based on the

demographic of their community and the film itself—no longer will they be stuck with standard trailers attached to each celluloid print.” *Id.*

62. “A digital film file is simply transferred to and stored in the secure server system of a satellite distribution company, which then ‘beams’ the film to theatres across the U.S. or around the world, who then store it on their servers for later digital projection.” *Id.* “Exhibitors then simply project the file, which is received on their network server, stored, and routed to individual screens of their choice” *Id.* Kosten’s Figure illustrates the transfer of content from “Studio” to “CyberStar” to “Theater,” where the theater locally markets “Advertising, trailers” using “Lobby displays” and exhibits films on “Theater screen.”



Id.

D. Budow (Ex-1008)

63. Budow was filed December 14, 1990, and issued February 25, 1992.
Ex-1008.

64. Budow discloses “[a]n interactive video services system for enabling store and forward distribution of digitized video programming” Ex-1008, Abstract. “[E]ncoded and compressed digital video signals are transmitted via satellite link from a centrally located uplink site to a plurality of hospitality establishments, where the digitized video programming is stored in the memory of a video server computer” *Id.* 2:62-67. “The uplink facility and satellite can transmit a variety of video signals—including ... compressed video signals for storage and subsequent retrieval and viewing by customers, and other types of digitized data, such as advertisements and barker screens.” *Id.* 3:3-8. “This data can be transmitted to customers’ rooms and broadcast on in-room TVs in the form of barker screens and advertisements, which may be transmitted from the systems control computer in place of standard broadcast advertising.” *Id.* 4:2-5. For example, “[t]he systems control computer 13 can use the internal data base information to determine what type of programming the customer prefers and then transmit advertisements for similar programming to the customer.” *Id.* 14:2-11.

**X. DETAILED EXPLANATION OF THE UNPATENTABILITY
GROUNDS**

**A. Ground 1: Claims 1, 4-7, 9 Are Obvious Over Garfinkle and
Kosten**

**1. A POSITA would have been motivated to combine
Garfinkle with Kosten**

65. A POSITA would have been motivated to combine the teachings of Garfinkle and Kosten and would have a reasonable expectation of success in doing so because they are both from the same field and address the same well-known issues. Garfinkle and Kosten provide complementary solutions for distributing digital multimedia and associated advertising materials from a centralized station to user sites, such as movie theaters, using a public communications system. *Compare* Ex-1005, Abstract, 2:39-44, 2:58-3:5, *with* Ex-1007, 54. A POSITA seeking to decrease the cost and effort of distributing multimedia and associated advertising materials would have known of and consulted these proposed solutions. Ex-1007, 52 (discussing the cost and labor intensity of shipping celluloid film), 54 (proposing digital distribution from a central server and smart advertising networks); Ex-1005, 1:34-2:12 (providing a video-on-demand system for access to a catalog of data). For example, Kosten teaches that the digital assets are beamed to user sites using a satellite. Ex-1007, 54. Garfinkle teaches that the data link between the central station and user sites “may be copper wire of the type used by the telephone company, a radio frequency wireless communications link of the

type used in satellite-to-earth communications, a coaxial cable, a fiber optic cable, cellular wireless or other suitable link, such as a local area network interconnecting personal computers and work stations at the user sites and the processor at the central station.” Ex-1005, 2:58-67. A POSITA would have recognized that the multitude of data distribution links taught by Garfinkle would allow a selection of data link that would allow for optimization of performance to cost as technologies evolved.

66. Garfinkle discloses an improved video distribution system that provides a catalog of video products in a centralized library, an interactive user display with a menu of options, and correlation of video files with related files (e.g., trailers, critical reviews, and lead-ins). *See* Ex-1005, 1:54-2:12. Kosten discloses a centralized server that aggregates films and related advertising materials and digitally distributes the content to movie theaters for marketing and exhibition. *See* Ex-1007, 54. A POSITA would have combined the teachings of these references because Kosten discloses a business application for Garfinkle’s technical implementation. A POSITA would have been motivated to use Garfinkle’s video distribution system to implement Kosten’s distribution method to achieve the improvements described therein, such as access to a large number of video products and advertising materials available at a centralized location (Ex-1007, 54; Ex-1005, 1:42-49, 1:54-2:12), improved advertising capabilities (Ex-

1007, 54; Ex-1005, 1:42-49, 1:54-2:12), as well as improved distribution processes resulting in lower shipping and handling costs and labor intensity, improved security against piracy, wider and more flexible distribution capabilities, cost reductions for movie theaters, increased control over time and locations of exhibitions by studios and distributors, an ability to scale up or down distribution based on success in theaters, and an ability to track and monitor sales and marketing data (Ex-1007, 52, 54).

67. In this combination, Garfinkle's "central station 10" (Fig. 1, yellow) would have been used to implement Kosten's "CyberStar Network Operations Center" (Kosten's Figure captioned "From Studio to Satellite to a Theater Near You," yellow), and Garfinkle's "user sites 18" (Fig. 1, blue) correspond to Kosten's "CyberStar video servers" at individual theaters (Fig., blue). In this combination, the data can be distributed over the various data link types taught by Garfinkle, including wired, satellite, coaxial cable, cellular wireless, or via local area networks. Ex-1005, 2:58-67.

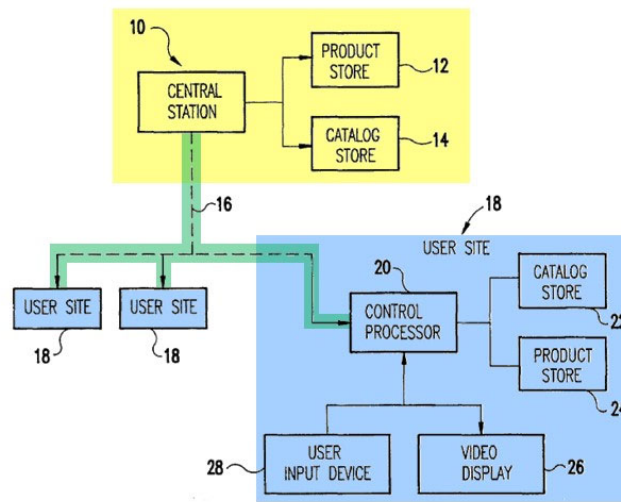
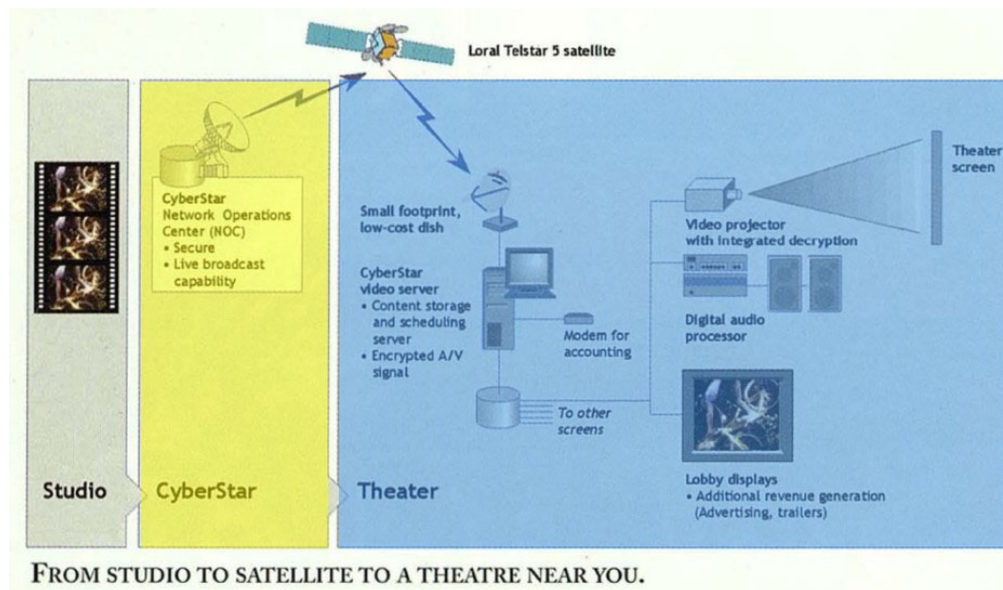
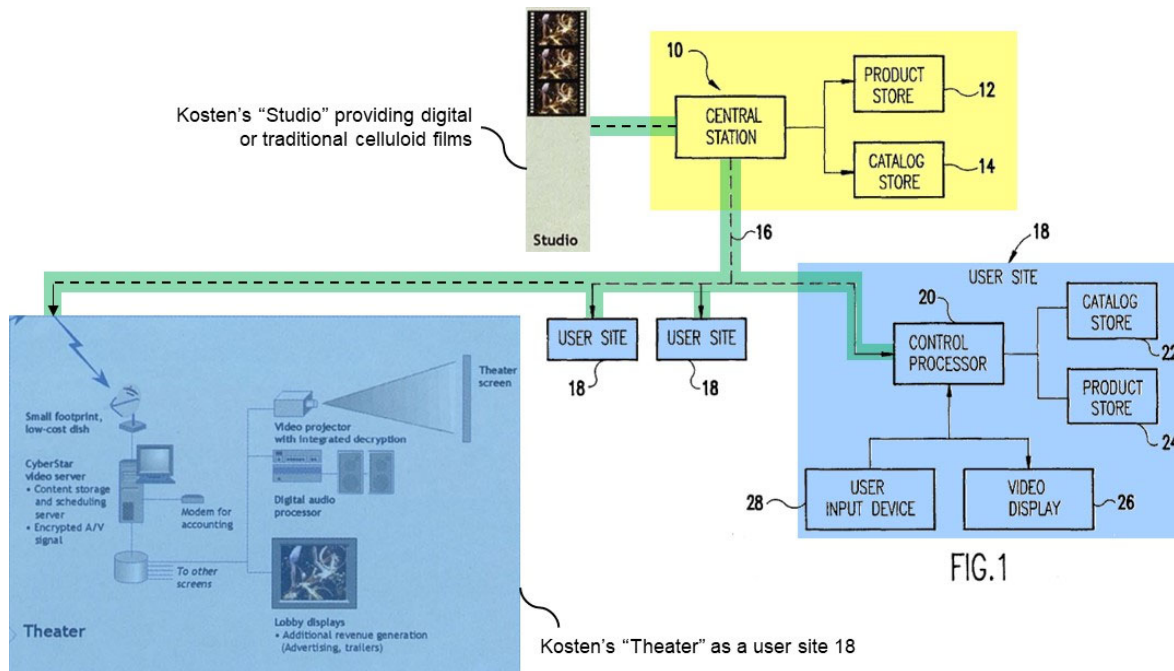


FIG.1

Ex-1005, Fig. 1 (annotated).



Ex-1007, 54 (annotated). The combined Garfinkle-Kosten system would have taken the form shown below:



68. A POSITA would have had a reasonable expectation of success in achieving the objective of efficient content distribution by combining the teachings of Garfinkle and Kosten with no change in their respective functions because both references purport to solve these problems in similar and predictable ways, such as using the well-known teachings of digitizing non-digital materials (Ex-1005, 4:37-39; Ex-1007, 54), correlating multimedia and associated advertising materials (Ex-1005, 3:32-49; Ex-1007, 54), and connecting multiple user sites to the central station through a public communications system (Ex-1005, 2:58-3:5; Ex-1007, 54). *See supra* §§IX.A, IX.C; *see also infra* §§X.A.2-X.C.3. Furthermore, the various link technologies taught by Garfinkle are known in the art and, thus, a POSITA would have had an expectation of success in using them. Ex-1005, 1:25-30.

2. Element 1[preamble]: A method of marketing and distributing multimedia, the method comprising:

69. To the extent limiting, Garfinkle discloses the preamble. Garfinkle discloses “the provision of a video-on-demand system with an interactive user display that provides the user with a menu of options to assist him or her in identifying, previewing, and ordering a video product from the central station library.” *Id.* 1:58-62; *see id.* 1:8-11, 2:1-8, Fig. 1.

70. A POSITA would have understood that previewing and transferring video products and related advertising materials constitutes marketing and distribution, respectively. For example, the '725 Patent states, “Other *marketing materials* that may be made available for the title selected in the previous screen, and having their own buttons in screen 142, may include *previews* and trailers button 156” Ex-1001, 13:33-40; *see also id.*, 2:57-59 (“The server can *provide samples* of the multimedia material to potential purchasers depending upon the *marketing strategy* employed by the producer or owner.” (emphasis added)). Because the '725 Patent describes providing previews and trailers as marketing materials, a POSITA would have understood that Garfinkle’s disclosure of previewing multimedia material describes a method of marketing multimedia. In addition, the general movie-going experience of lay persons would also be part of a POSITA’s background, and anyone who has attended a movie in a theater would

have understood that “trailers or previews,” such as those disclosed in Garfinkle, are intended to generate interest and, thus, market other movies. Ex-1005, 2:4-8. Further, the ’725 Patent states, “The inventive method of *marketing and distributing* multimedia such as motion picture films, television programming and the like comprises receiving multimedia material from a producer or owner of the material. ... The server system accesses data from the computer readable storage medium for *transfer* over the communication network to exhibitors.” Ex-1001, 2:48-57 (emphasis added). Because the ’725 Patent describes transferring data as part of the distribution process, a POSITA would have understood that Garfinkle’s disclosure of transferring multimedia describes a method of distributing multimedia. Because Garfinkle’s system supports previewing and transferring video products and related advertising materials, a POSITA would have understood that Garfinkle discloses a method of marketing and distributing multimedia.

71. Similarly, Kosten discloses a method of distributing multimedia from studio to satellite to exhibitors by describing that “[w]ith a digital film ‘file’ in hand, studios will almost instantly begin to realize the distribution cost savings of not having to reprint millions of feet of celluloid” Ex-1007, 54. Kosten also discloses the marketing of multimedia content by explaining that “[e]xhibitors could turn theatre lobbies into smart advertising networks, targeting digital trailers

and ad spots based on the demographic of their community and the film itself”

Id.; *see id.* at 52. Thus, Garfinkle and Kosten both describe a method of marketing and distributing multimedia.

3. **Element 1[a]: receiving, by a server, multimedia material and advertising material from a producer or owner of said multimedia material, said advertising material being associated with said multimedia material, said advertising material comprising audio and video components;**

72. As there is no technological distinction between multimedia audio/video material carrying advertising content and other multimedia material containing advertising or non-advertising content, any method of electronically distributing multimedia material “associated” with other multimedia material will read on this element of the claim. Garfinkle, however, not only discloses electronically distributing multimedia audio/video material “associated” with other multimedia material, it specifically discloses a server receiving multimedia material and associated audio/video material containing advertising content. Garfinkle’s annotated Figure 1 below shows “a video-on-demand system ... ha[ving] a central station indicated by the general reference numeral 10 [(i.e., server)] which includes an inventory of video products [(i.e., multimedia material)] stored ... in compressed digital data form, in a product store memory 12.” Ex-1005, 2:39-44.

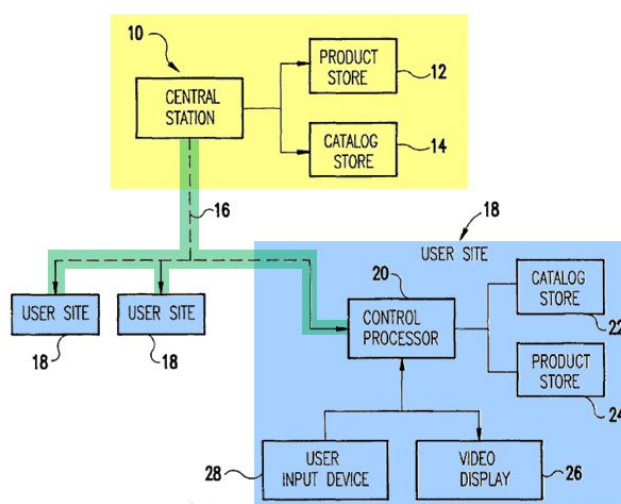


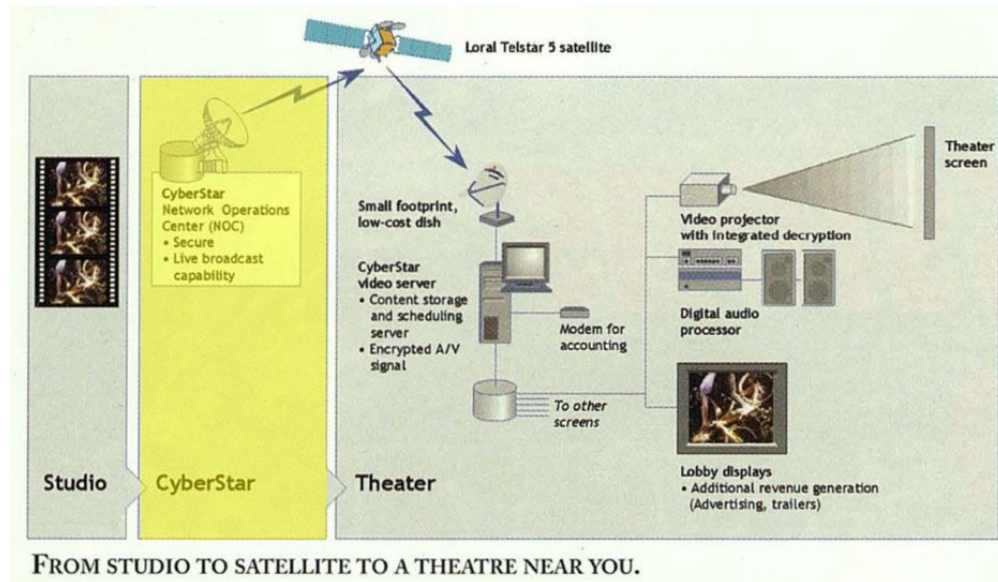
FIG.1

Id., Fig. 1 (annotated). “For each of the video products in product store 12, catalog data is prepared and stored in central station catalog store 14. This catalog data includes, for example, the product name, its address in the product store 12, its price, and for certain video products related material such as a trailer to allow the user to preview the product, a header to allow immediate viewing of an ordered product, critical comments relative to the product, and catalog search keys.” *Id.* 4:37-46; *see id.* 2:1-12, 4:37-46, 3:32-49, 3:59-62 (storing video products and related materials). The “related material,” such as “trailer” and “critical comments,” constitute audio/video advertising material associated with multimedia material. The general movie-going experience of lay persons would also be part of a POSITA’s background, and anyone who has attended a movie in a theater would have understood that “trailers or previews,” such as those disclosed in Garfinkle, are intended to generate interest and, thus, advertise other movies. Ex-1005, 2:4-8.

73. A POSITA would have understood that Garfinkle's "central station" (i.e., server) receives the "video products" (i.e., multimedia material) and "related material such as a trailer" (i.e., associated advertising material) from the content's producer or owner. Ex-1005, 4:37-46. Garfinkle teaches that "trailers or previews," are shown to generate interest and, thus, advertise movies. Thus, the trailers and previews of Garfinkle constitute associated advertising materials, which may be shown before the exhibition of another film or in another place and time to advertise the associated video product. Ex-1005, 2:4-8. For example, Garfinkle describes that "[a] large number of video products are digitized and stored in the central station product store 12, as indicated in function box 60" of Figure 5. *Id.* 4:37-39; *see id.* 4:39-46 (digitizing a large number of video products), Fig. 5. In view of this disclosure, a POSITA would have understood that such content is received from a producer or owner and digitized as needed. Garfinkle also discloses that video products may be "e.g., a movie, business report, other text or numerical reports, video game, etc." and a POSITA would have understood that items such as business and numerical reports would be provided by the producer or owner of such reports.

74. In addition, Kosten discloses this element. Kosten discloses that "[i]n the digital world, films can be shot and edited entirely in digital or in traditional celluloid, which is then transferred to digital using a machine known as a telecine."

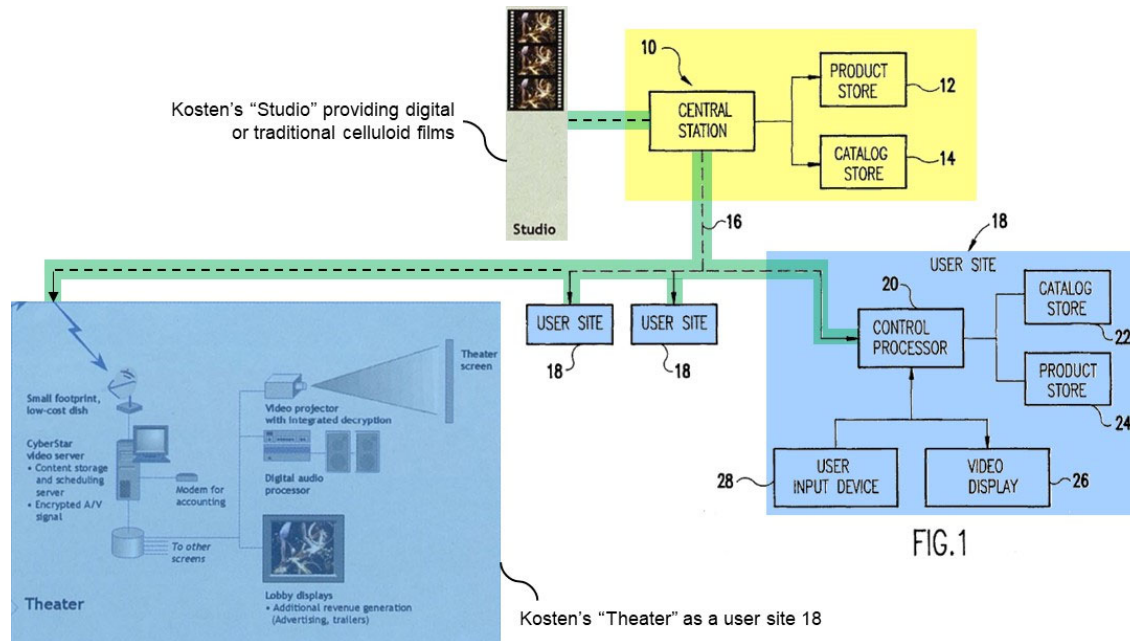
Ex-1007, 54. To reduce cost, “[a] digital film file is simply transferred to and stored in the secure server system.” *Id.* Kosten’s figure, shown below, illustrates transferring content from a “Studio” (i.e., producer or owner) to a “CyberStar” Network Operations Center (i.e., server; yellow).



Id.

75. A POSITA implementing the combined Garfinkle-Kosten teachings would have been motivated to use Kosten’s media distribution teachings with Garfinkle’s central station, and its associated “stores,” to receive the multimedia and associated advertising materials from a producer or owner of that material, such as Kosten’s “Studio.” While Kosten teaches that digital film files are stored on a server generally, Garfinkle teaches that such digital film files would be stored in a product store separate from but linked to its catalog data in the catalog store.

Such catalog data allows a user to search for available products associated with the video product stored in the product store by actress or genre, providing a convenient way for a user to locate items of interest. Ex-1005, 3:32-49.



Ex-1005, Fig. 1; Ex-1007, 54 (combined figure and annotated).

76. A POSITA would have also understood that Garfinkle's "trailer" constitutes "advertising material comprising audio and video components." Ex-1005, 2:4-8; *see generally* Ex-1009; *see also* Ex-1013. In addition, the general movie-going experience of lay persons would also be part of a POSITA's background, and anyone who has attended a movie in a theater would have understood that "trailers or previews," such as those disclosed in Garfinkle, include audio and video components. Ex-1005, 2:4-8. For example, Garfinkle discloses using "a trailer to allow the user to preview the product," Ex-1005, 4:39-46, and a

POSITA would have understood that a trailer for previewing a movie contains both audio and video excerpts of the movie or film. Ex-1013, 18 (“[T]railers commonly utilize codes of voice-over narration, sound and sound overlapping, music, graphics, and most importantly, editing, or montage.”); *see supra* §VIII.B. It would have been obvious to a POSITA that movie trailers contain both audio and video excerpts of the movie being previewed.

77. Additionally, Kosten discloses that the advertising material comprises audio and video components. In the figure above, Kosten illustrates a “Video projector” for projecting video components and “Digital audio processor” for processing audio components of multimedia and advertising materials. *See* Ex-1007, 54. Because “[t]railers are intended to influence the moviegoers’ movie selection process by showing exciting parts of the advertised movie to an audience that is in the theater to see some other film,” Ex-1009, 2, a POSITA would have understood that Kosten’s theater may be used to show advertising materials associated with a video product—e.g., a trailer for a coming attraction—that include audio and video components. *See supra* §VIII.B. The general movie-going experience of lay persons would also be part of a POSITA’s background, and anyone who has attended a movie in a theater would have understood that “trailers or previews,” such as those disclosed in Garfinkle, include audio and video

components. Ex-1005, 2:4-8. Thus, a POSITA would have understood that

Garfinkle's trailers or previews include audio and video components. *See id.*

4. Element 1[b]: storing said multimedia material and associated advertising material on a computer readable storage medium as correlated information in digital format;

78. Garfinkle discloses this element. Garfinkle discloses using “product store memory 12” to store “an inventory of video products” (i.e., multimedia material) in “compressed digital data form” (i.e., in digital format). Ex-1005, 2:42-52. Garfinkle also discloses using “digital data bank 14” or “catalog store 14” to store “materials related to these [video] products” (i.e., associated advertising material) in digital format. *Id.* 2:42-52. “[T]he catalog store and product store may physically reside in a single digital memory [(i.e., computer readable storage medium)] that is functionally addressable as catalog memory space and product store memory space.” *Id.* 3:15-19.

79. Garfinkle further discloses storing the multimedia and associated advertising materials as correlated information. “For each of the video products in product store 12, catalog data is prepared and stored in central station catalog store 14.” *Id.* 4:39-41. “This catalog data includes, for example, the product name, its address in the product store 12, its price, and ... related material such as a trailer to allow the user to preview the product, a header to allow immediate viewing of an ordered product, critical comments relative to the product, and catalog search

keys.” *Id.* 4:41-46. The ’725 Patent’s Specification does not use the term “correlated information,” but explains that “the operator of the system inputs an identifier, such as a title of a movie, associated with the material to be entered, converted, and stored on storage media.” Ex-1001, 4:59-65, 5:64-6:2. “The digitized movie is then compressed ..., and stored in RAM together with its associated other information, ... under its identifier address ... in computer readable storage 28.” *Id.* 7:15-19; *see also id.* 8:10-12. Because Garfinkle similarly assigns catalog data fields to associate a video product’s name and address with related materials, a POSITA would have understood that the catalog data correlates the video products with their related materials. *See, e.g.*, Ex-1005, 4:13-17 (“using the address associated with the selected product ... [to] fetch the lead-in”), 3:59-66.

80. Furthermore, Garfinkle’s Figure 2 “illustrates ... the data fields stored in the catalog store 14 for each video product,” which “may include a field 30 with the name of the product, such as the title of a movie which may also serve as an address of the video product in product store 12.” *Id.* 3:32-38, Fig. 2. “Fields 36, 38 and 40 may include flags to indicate whether a critique of this product is available in the catalog store, whether a lead-in is available and whether a trailer [(i.e., associated advertising material)] is available. If any of these flags are set, fields 42, 44 and 46 can be used to address the appropriate materials in the catalog

store 22.” *Id.* 3:44-49, Fig. 2; *see also id.* 2:45-57, 3:6-19. Because the data fields indicate the content associated with each video product and identify their locations, these data fields associate each video product with its related content, similar to the ’725 Patent’s use of “identifier” to associate content. Thus, Garfinkle stores multimedia material (e.g., video products) and associated advertising material (e.g., trailer and other content) on a computer readable storage medium as correlated information in digital format.

5. Element 1[c]: providing a server system accessible over a communication network, said server system accessing said correlated information in a digital format from said computer readable storage medium for transfer of said correlated information in a digital format over said communication network to potential purchasers;

81. Garfinkle discloses this element. As shown in Figure 1 below, “a suitable data link indicated by the dash line 16 [(i.e., communication network;

green)] connects the central station 10” (i.e., server system; yellow)²—including “product store 12 and catalog store 14” (i.e., computer readable storage medium)—“to a plurality of user sites 18” (i.e., potential purchasers; blue), allowing “a user ... to *order video products* from the central station interactively with displayed catalog material.” Ex-1005, 2:58-60, 2:8-12 (emphasis added).

² The ’725 Patent describes using “central server 16” for the steps of receiving multimedia and advertising materials from producers or owners (element 1[a]) and distributing these materials to potential purchasers (elements 1[c]-[f]). Ex-1005, Abstract, 4:3-37, 14:34-15:3, Figs. 1, 9. Garfinkle’s “central station” performs the same functions as the ’725 Patent’s “central server 16.” Both the ’725 Patent’s “central server” and Garfinkle’s “central station” receive content from producers or owners, and are connected to a plurality of users over the network from which requests for products are made and from which the products are delivered. Ex-1001, 11:33-40, 4:20-24; Ex-1005, 5:3-9, 2:58-67, 3:11-13.

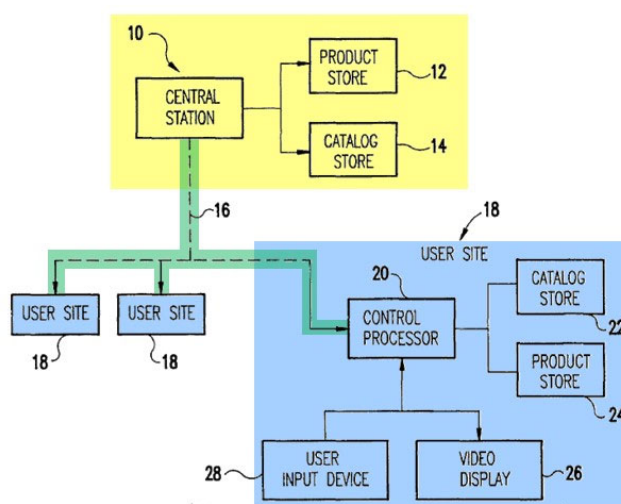


FIG.1

Id., Fig. 1 (annotated). “The link 16 may be copper wire of the type used by the telephone company, a radio frequency wireless communications link of the type used in satellite-to-earth communications, a coaxial cable, a fiber optic cable, cellular wireless or other suitable link” *Id.* 2:60-67. A POSITA would have understood that “link 16” is part of a “communication network,” and a “user” who plans to “order video products” is a potential purchaser.

82. A POSITA would have understood that “purchasers” or “potential purchasers” are paying a licensing fee to purchase a right to exhibit the movies. For example, the ’725 Patent’s specification states, “All of these materials and other types of materials that are normally transported physically from the owner, such as the producer or other owner of rights, to the person licensing the movie, are digitized and stored in storage media 28 in accordance with the invention.” Ex-1001, 5:34-38 (emphasis added); *see also id.* 9:35-40, 10:22-29, 12:59-61, 15:18-

20. Thus, Garfinkle’s user sites, which “order video products”—whether by purchasing or licensing the products—constitutes a potential purchaser.

83. Garfinkle “provides access at the user site to catalog data of the video products” (i.e., correlated information corresponding to multimedia material) that are available from the server system’s “product store 12 and catalog store 14” (i.e., computer readable storage medium) through data link 16 (i.e., communication network). *See* Ex-1005, 1:54-57. “The downloaded video product data is stored at the user site in the product store 24.” *Id.* 3:14-15. Catalog data, which includes “the product name, its address in the product store 12 [(i.e., correlated information corresponding to multimedia material)], its price, and ... related material[s]” (i.e., correlated information corresponding to associated advertising material) such as trailers, lead-ins, and critical comments—all stored in a digital memory—is “downloaded to each of the user sites 18 where it is stored in the user site catalog store 22.” *Id.* 4:41-49; *see also id.* 3:59-62, 3:44-49, 3:23-26 (storing product and catalog data).

6. Element 1[d]: providing samples of said correlated information in a digital format from said server system over said communication network to said potential purchasers, said purchasers being linked to the server system through said communication network;

84. The business status of a recipient of digital information as a “potential purchaser” provides no technological distinction from any other recipient, and any

method that provides correlated digital information from a server to a recipient would read on this element. Still, Garfinkle discloses all the business and technological aspects of this element. As discussed above, Garfinkle discloses using data link 16 (i.e., communication network) for connecting “central station 10” (i.e., server system) to “user sites 18” (i.e., potential purchasers) for transferring “video products” and related “catalog data” (i.e., correlated information). *See supra* Section X.A.5 (element 1[c]).

85. Garfinkle further discloses that a user can “preview video products available from the central station 10” by “us[ing] the catalog data stored in catalog store 22.” Ex-1005, 3:26-31. Garfinkle’s “catalog data” includes samples of the correlated information such as “trailers or previews for certain of the video products, and lead[-]ins for the initial portions of certain products,” which are “periodically transferred to the user sites, where [they are] stored.” *Id.* 2:1-7; *see id.*, Abstract, 3:59-62, 4:55-58 (storing product and catalog data). For example, the “lead-in” includes “an initial segment of the video product” “on the order of two minutes long.” *Id.* 4:17-22.

7. **Element 1[e]: downloading to said purchasers, upon request of said purchasers, over said communication network, said correlated information in a digital format corresponding to said multimedia material from said server system, said purchasers storing downloaded correlated information in a digital format corresponding to said multimedia material; and**

86. The business status of a recipient of digital information as a “purchaser” provides no technological distinction from any other recipient, and any method that provides correlated digital information from a server to a recipient in response to a request would read on this element. Yet again, Garfinkle discloses both the relevant and non-patent relevant details of this element. As discussed above, Garfinkle discloses using data link 16 (i.e., communication network) for connecting “central station 10” (i.e., server system) to “user sites 18” (i.e., purchasers) for transferring “video products” and related “catalog data” (i.e., correlated information). *See supra* Section X.A.5 (element 1[c]).

87. Garfinkle’s “system ... provides access at the user site to catalog data of the video products” (i.e., correlated information in a digital format corresponding to multimedia material) through data link 16. *See* Ex-1005, 1:54-57. “Video products [(i.e., multimedia material)] are downloaded by the central station [(i.e., server system)] from the product store 12 to a selected user site 18 [(i.e., purchaser)] in response to a download request from that particular user site.” *Id.* 3:11-14. “The downloaded video product data is stored at the user site in the

product store 24.” *Id.* 3:14-15; *see id.*, Figs. 1, 5. “Preferably, data is downloaded from the central station to the user sites in a compressed digital data stream” *Id.* 2:67-3:2. Thus, Garfinkle discloses purchasers storing downloaded correlated information in a digital format corresponding to said multimedia material. *See id.*

8. **Element 1[f]: providing said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material to said purchasers from said server system over said communication network, allowing purchasers to locally market and sell said multimedia material, said purchasers downloading said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material, said purchasers storing the downloaded correlated information in a digital format corresponding to said advertising material; and**

88. Garfinkle alone or in view of Kosten discloses this element. As discussed above, Garfinkle provides “related materials” (i.e., correlated information in a digital format corresponding to advertising material associated with multimedia material) such as a trailer, a header, and critical comments to “user sites 18” (i.e., purchasers) from “central station 10” (i.e., server system) over “link 16” (i.e., communication network) and allows the “user sites 18” to download and store the “related material” in a digital format corresponding to multimedia material. *See supra* §§X.A.5, X.A.7 (elements 1[c], 1[e]). For example, the “catalog data,” which includes advertising material such as trailers and critical

comments, is “downloaded to each of the user sites 18 where it is stored in the user site catalog store 22.” Ex-1005, 4:41-49.

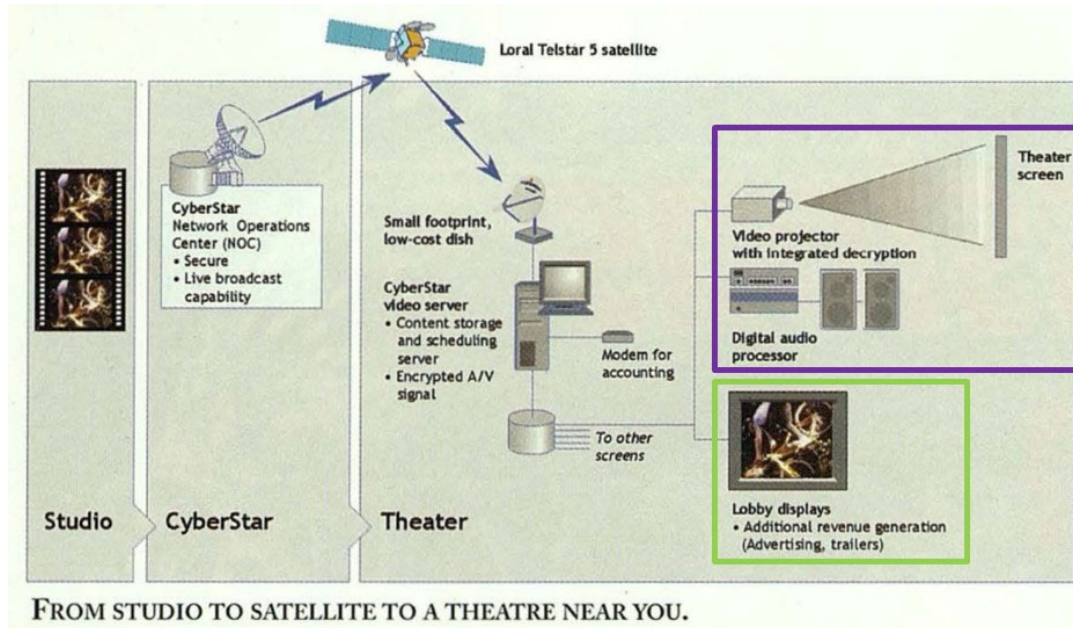
89. In view of Garfinkle’s disclosure, a POSITA would have been motivated to implement Garfinkle’s system to allow purchasers to engage in a business application of the system “to locally market and sell said multimedia material.” *See supra* §VIII.D. The ’725 Patent states that “[t]he inventive system provides for the download, upon request, from the server system over a public or private network of multimedia material and then advertising material to exhibitors purchasing rights over the inventive communications network. This allows exhibitors and broadcasters to locally use the multimedia material.” Ex-1001, 2:60-65. Thus, a POSITA would have understood that to locally market and sell said multimedia information includes exhibitors and broadcasters advertising and selling the material nearby to where it is used. “The increasing costs of making a motion picture ... have necessitated changes in how motion pictures are distributed, marketed, and advertised. ... Earlier, reaching the mass audience was accomplished through advertising in newspapers and on network television.” Ex-1009, 8. Because “[m]arketers of motion pictures are having greater difficulty reaching the mass audience now,” *id.*, a POSITA would have been motivated to allow purchasers to locally market and sell the multimedia material using a variety of advertising materials downloaded from Garfinkle’s system. *See supra* §VIII.D.

90. In addition, the general movie-going experience of lay persons would also be part of a POSITA's background, and anyone who has attended a movie in a theater would have understood that "trailers or previews," such as those disclosed in Garfinkle, are intended to generate interest and, thus, market other movies. Ex-1005, 2:4-8. Thus, the trailers or previews of Garfinkle are being shown where the feature film is being used and, thus, would be recognized by a POSITA as an example of the exhibitors and broadcasters advertising and selling the material nearby to where it is used. In addition, during prosecution, the Examiner recognized—and adopted as admitted prior art—that "it is notoriously well known in the art for patrons to pay an admission fee to attend presentations at a movie theater so that a movie theater may generate revenue and thus continue to provide screening services to patrons." Ex-1004, 229, 225, 267 (relying on official notice and MPEP Section 2144.03). Because Garfinkle discloses a system allowing a purchaser to download a movie to a "user site," such as a theater, for display, it would have been obvious for the purchaser to locally market and sell admissions to the movie's exhibition. *See, e.g.*, Ex-1009, 18 ("By their very nature of having a short 'life-span' in theaters, movies need heavy promotion and advertising."); *see supra* §VIII.D. Furthermore, a POSITA would have understood that the trailers advertise movies that will be or are currently showing at the theater.

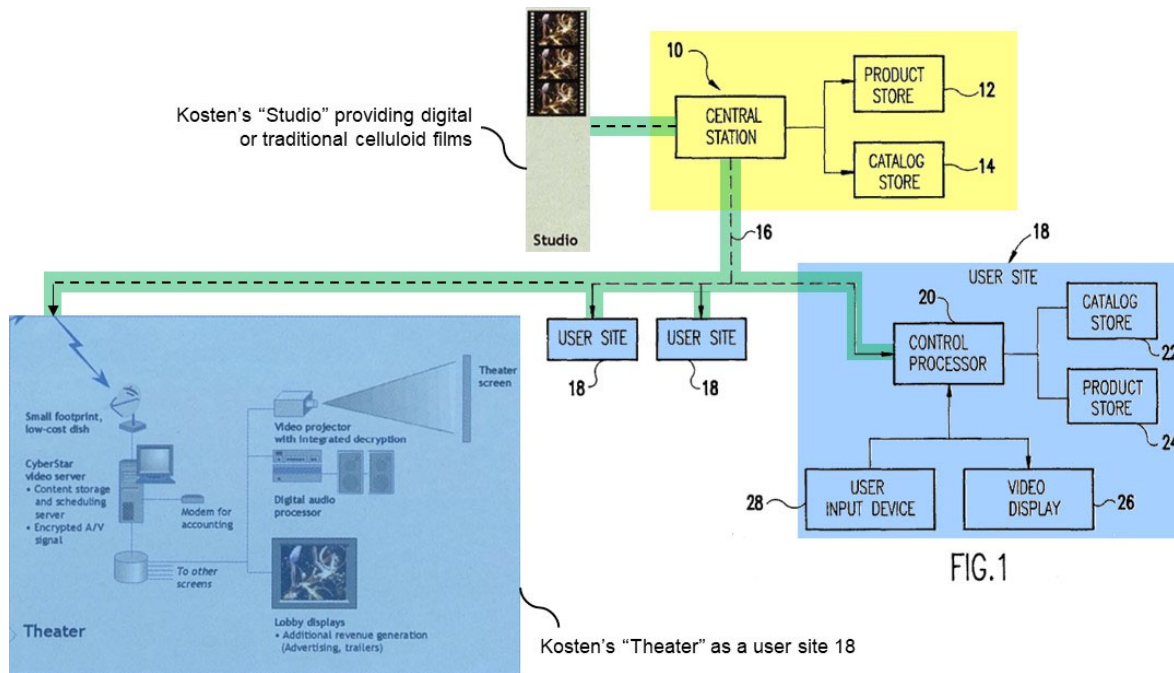
91. Moreover, this element is additionally taught by Kosten, which discloses that distribution is “not only the vital link between the studios and exhibitors and, by extension, the audience, but also a key component of the revenue stream and the business model of these industries.” Ex-1007, 52. For example, “[w]ith lower distribution costs, and the immediacy of digital release, studios can easily open many more films in simultaneous distribution around the world to capitalize on ‘buzz’ items—so filmgoers in small towns no longer have to wait a month for the film to debut at their theatre.” *Id.* But “[i]mproved feature film distribution is only one of the many benefits ushered in by this distribution process. Exhibitors could turn theatre lobbies into smart advertising networks, targeting digital trailers and ad spots based on the demographic of their community and the film itself” *Id.* at 54.

92. Because Kosten discloses that distribution is “a key component of the revenue stream and the business model,” and identifies advertising as “[a]dditional revenue generation,” a POSITA would have understood that Kosten’s theaters locally market and sell tickets to the exhibition of multimedia material. *See supra* §VIII.D; *see generally* Ex-1009; *see also* Ex-1013. Further, Kosten’s Figure shows theatres locally marketing movie trailers using lobby displays for “[a]dditional revenue generation” (green) and selling tickets to the exhibition of movies on theater screens (purple). *See supra* §VIII.D. A POSITA would recognize this as an

example of the exhibitors and broadcasters advertising the material nearby to where it is used.



Ex-1007, 54 (annotated). Thus, a POSITA would have been motivated to use Kosten's theater as a "user site" in Garfinkle's system, as shown in the annotated figure below, and allow purchasers to locally market and sell (e.g., to "filmgoers in small towns" as disclosed by Kosten) multimedia material. *See supra* §VIII.D.



Ex-1005, Fig. 1; Ex-1007, 54 (combined figure and annotated).

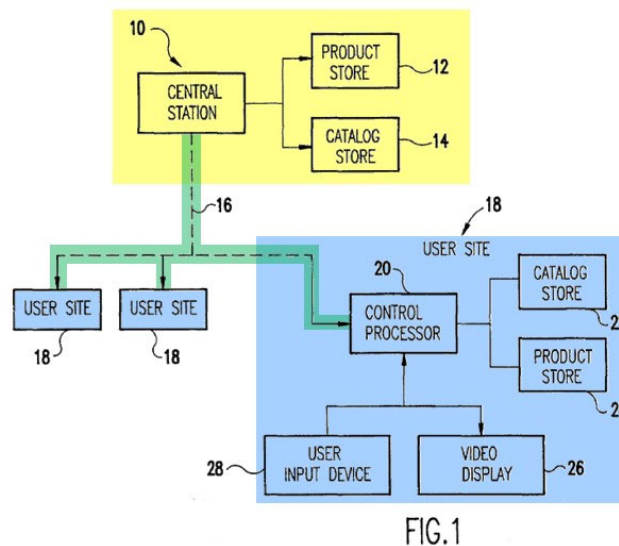
9. **Element 1[g]: wherein said purchaser is an exhibitor exhibiting said multimedia material, after deriving said multimedia material from said stored correlated information in a digital format corresponding to said multimedia material, in a public theater to a number of individuals in exchange for a paid admission or a broadcast exhibitor, said advertising material, after deriving of said advertising material from said correlated information in a digital format corresponding to said stored associated advertising material, being shown to the public at a time or in a place different from the time and place at which said associated multimedia material is displayed.**

93. Garfinkle alone or in view of Kosten discloses this element. Garfinkle discloses a purchaser exhibiting the multimedia and advertising materials after deriving the multimedia and advertising materials from the stored correlated information in a digital format. "At each user site [(i.e., purchaser)], the control

processor 20 directs downloaded catalog data to the catalog store memory 22,” including “so-called trailers or previews for certain products [(i.e., advertising material)], and lead[-]ins for the initial portions of certain products.” Ex-1005, 3:9-11, 2:1-12. Similarly, “[t]he downloaded video product data [(i.e., multimedia material)] is stored at the user site in the product store 24.” *Id.* 3:11-15.

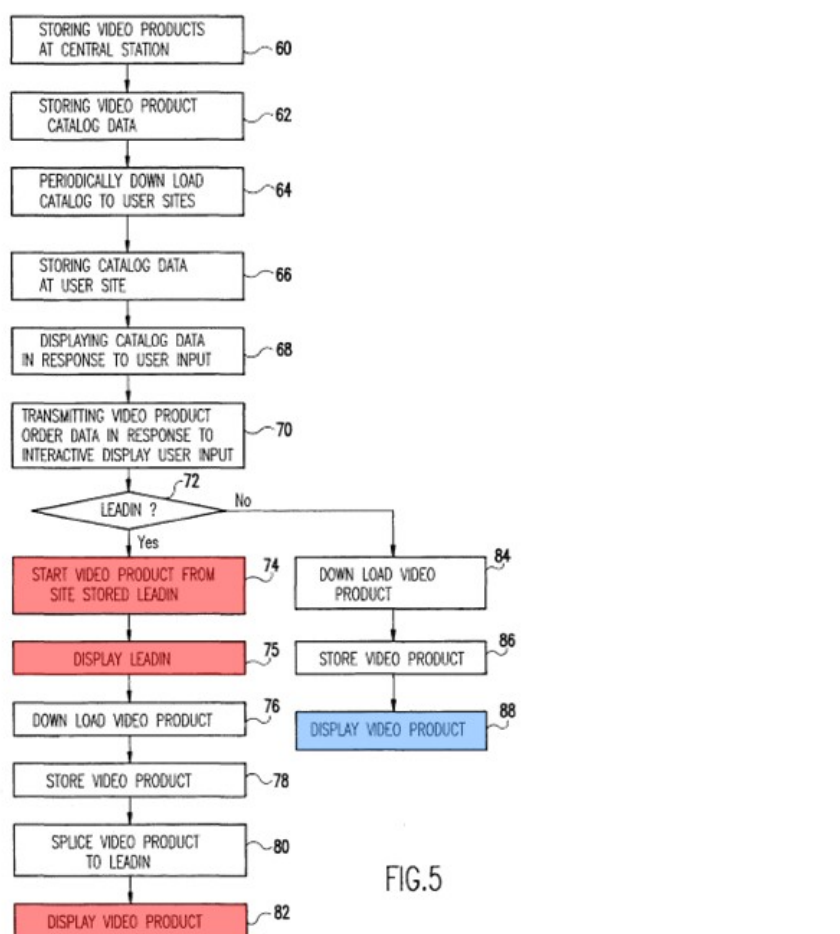
“Preferably, data is downloaded from the central station to the user sites in a compressed digital data stream” *Id.* 2:67-3:2.

94. Garfinkle also discloses exhibiting the multimedia material after deriving the material. For example, “[t]he control processor 20 couples the catalog store 22 memory and product store 24 memory to a video display 26, such as a CRT video display or a LCD video display.” *Id.* 3:20-22.



Id., Fig. 1 (annotated).

95. Figure 5 below illustrates that Garfinkle's system either "starts the display of the ordered video product from the lead-in material" at step 74 and displays the lead-in and video product in steps 75 and 82 (red) or, if there is no lead-in, simply displays the video product on video display 26 in step 88 (blue). *Id.* 4:66-5:3, 5:10-14. A lead-in "enables the display of the product (e.g., movie) to start almost immediately." *Id.* 4:17-19. Thus, Garfinkle discloses that a purchaser exhibits the multimedia and advertising materials after deriving the multimedia and advertising materials from the stored correlated information in a digital format corresponding to the multimedia and advertising materials.



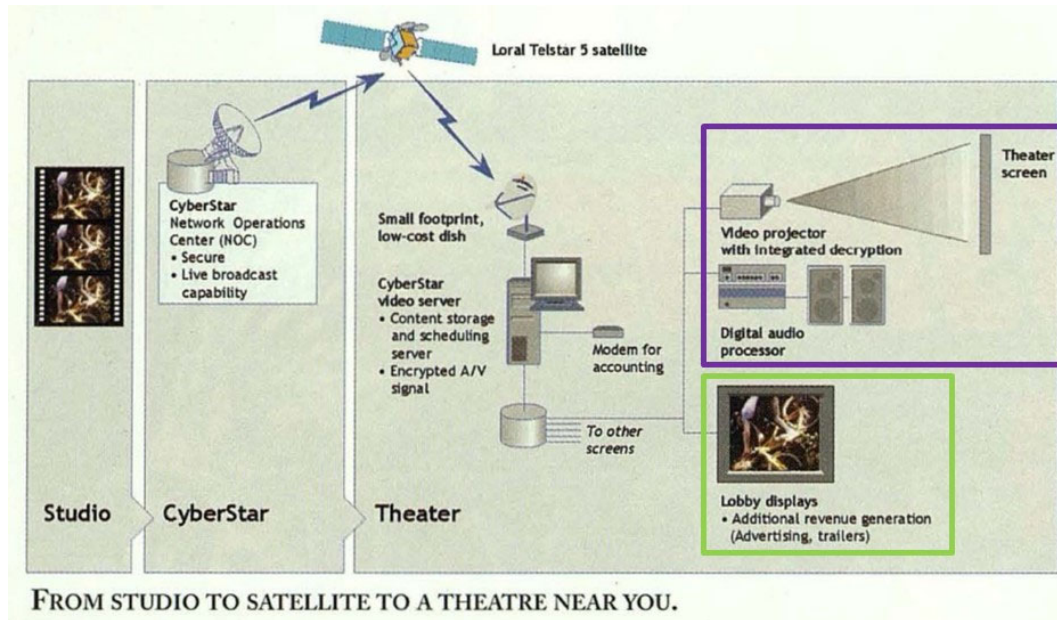
Id., Fig. 5 (annotated).

96. In view of Garfinkle's and Kosten's disclosures, a POSITA would have understood that the purchasers may include exhibitors that exhibit the multimedia material in a public theater to a number of individuals in exchange for a paid admission or broadcast exhibitors. Ex-1004, 229, 225, 267 ("[I]t is notoriously well known in the art for patrons to pay an admission fee to attend presentations at a movie theater so that a movie theater may generate revenue and thus continue to provide screening services to patrons."). A POSITA would have

understood that the projection of a movie in a theater is a form of broadcasting the content to those within visual range of the screen as the movie projector modulates light that reflects off the screen and into the eyes of the viewers.

97. Kosten discloses that “[w]ith lower distribution costs, and the immediacy of digital release, studios can easily open many more films in simultaneous distribution around the world to capitalize on ‘buzz’ items—so filmgoers in small towns no longer have to wait a month for the film to debut at their theatre.” Ex-1007, 54. “A digital film file is simply transferred to and stored in the secure server system of a satellite distribution company, which then ‘beams’ the film to theatres across the U.S. or around the world, who then store it on their servers for later digital projection.” *Id.* Because Kosten discloses that distribution is “a key component of the revenue stream and the business model,” and identifies advertising as “[a]dditional revenue generation,” a POSITA would have understood that Kosten’s theaters charge admission for the exhibition of movies to generate a “revenue stream.” *See supra* §VIII.D; *see generally* Ex-1009; *see also* Ex-1013. In addition, the general movie-going experience of lay persons would also be part of a POSITA’s background, and anyone who has attended a movie in a theater would have understood that they must purchase a ticket in order to be granted admission into the theater.

98. Kosten's Figure also illustrates a public theater exhibiting films in exchange for paid admission (purple). *Id.*; Ex-1009, 2 ("Theatrical movie going" "requires moviegoers to go to a theater, make a decision to attend a particular movie and *purchase a ticket.*" (emphasis added)).



Id. (annotated). Both Garfinkle and Kosten enable the transfer and storage of digital film files around the world, so a POSITA would have been motivated to use Kosten's movie theater as a user site in Garfinkle's system and exhibit video products, such as motion pictures, in a public theater for paid admission. Garfinkle explicitly states that the products of Garfinkle include movies (Ex-1005, 3:35-43, 4:13-19) and it would have been obvious to a POSITA that one location where movies are shown includes a public movie theater.

99. Moreover, Kosten discloses showing a movie's advertising material at a time or place different from that of the movie. For example, Kosten discloses, "Exhibitors could turn theatre lobbies into smart advertising networks, targeting digital trailers and ad spots based on the demographic of their community and the film itself—no longer will they be stuck with standard trailers attached to each celluloid print." Ex-1007, 54. Kosten's Figure above shows theatres locally marketing advertising and trailers using lobby displays for "[a]dditional revenue generation" (green) and separately exhibiting the films on theater screens in auditoriums for paid admission (purple). *Id.* Thus, a POSITA would have been motivated to use Kosten's movie theater as a user site in Garfinkle's system and exhibit advertising materials in the theater lobby or on theater screens at a different time or place than the associated movie. Ex-1009, 2 ("Trailers are intended to influence the moviegoers' movie selection process by showing exciting parts of the advertised movie to an audience that is in the theater to see some other film."). *See supra* §§VIII.D, E.

100. In addition, the general movie-going experience of lay persons would also be part of a POSITA's background, and anyone who has attended a movie in a theater would have understood that "trailers or previews," such as those disclosed in Garfinkle, that are shown before a feature film are intended to generate interest and, thus, market other movies. Ex-1005, 2:4-8. Furthermore, a POSITA would

have understood that the trailers or previews shown before a feature film would not include a trailer or preview for the feature film being shown, but would instead include trailers or previews for other movies that are either available concurrently with the film shown or are coming soon to the theater in the near future.

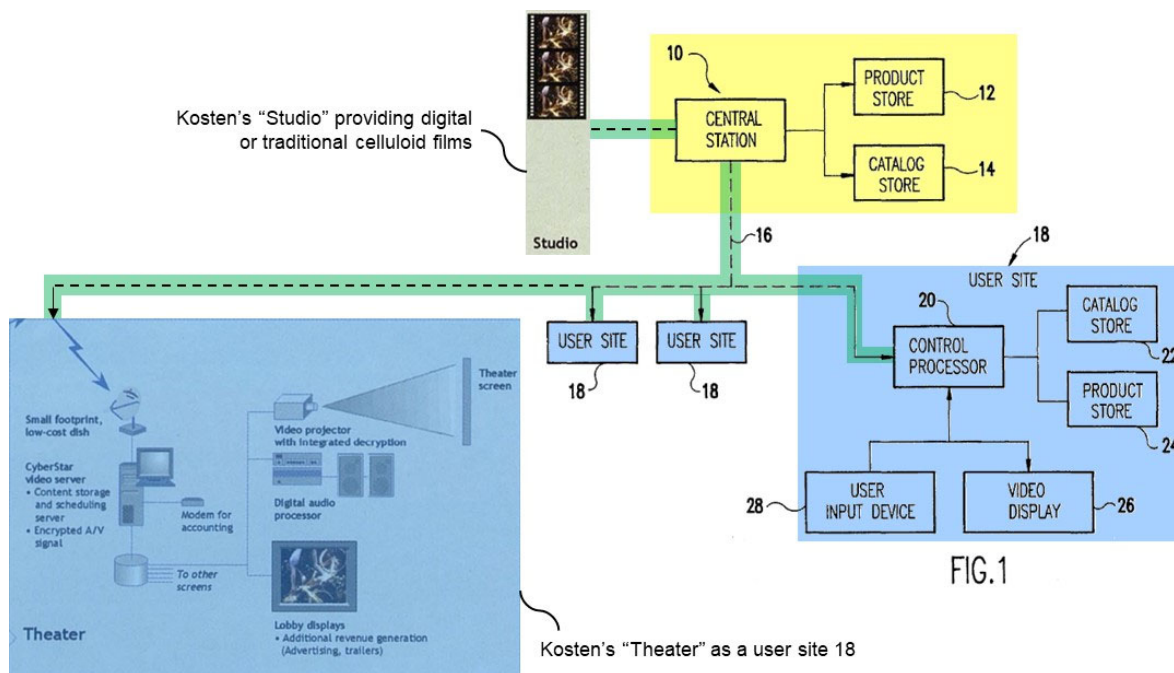
10. Claim 4: The method of marketing and distributing multimedia of claim 1, wherein said server system is accessed over a public communications system.

101. Garfinkle discloses this element. Garfinkle's "data link 16" may be "a telephone company copper wire link," "a radio frequency wireless communications link," or a "cellular wireless" network. *See supra* Section X.A.5 (claim element 1[c]); Ex-1005, 1:25-30, 2:58-67. A POSITA would have understood that a telephone company copper wire link or a cellular wireless network is a public communications system because such systems are designed and regulated as public utilities. *See supra* §VIII.A; Ex-1018, 22.

11. Claim 5: The method of claim 1, wherein the exhibition of multimedia material is the public showing of a motion picture.

102. Both Garfinkle and Kosten disclose this element. Garfinkle discloses displaying a movie (i.e., a motion picture), Ex-1005, 1:15-20, 4:17-19, 4:66-5:14, and Garfinkle alone or in view of Kosten renders it obvious to exhibit a motion picture publicly in a movie theater. *See supra* Section X.A.9 (element 1[g]). This element is also obvious over the admitted prior art recognized by the Examiner

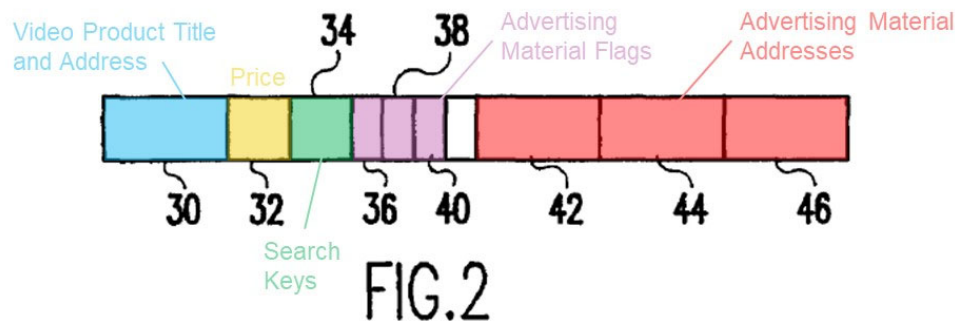
during prosecution. *See* Ex-1004, 229, 225, 267 (“[I]t is notoriously well known in the art for patrons to pay an admission fee to attend presentations at a movie theater so that a movie theater may generate revenue and thus continue to provide screening services to patrons.”). Thus, a POSITA would have been motivated to use Garfinkle’s system to exhibit a motion picture in a public theater, such as Kosten’s “Theater.” *See supra* §VIII.D. Garfinkle explicitly states that the video products of Garfinkle include movies (Ex-1005, 3:35-43, 4:13-19) and it would have been obvious to a POSITA that one location where movies are shown includes a public movie theater.



Ex-1005, Fig. 1; Ex-1007, 54 (combined figure and annotated).

12. Claim 6: The method of claim 1, further comprising providing a search function for said multimedia material and said associated advertising material.

103. Garfinkle discloses this element. Garfinkle's Figure 2 below "illustrates ... the data fields stored in the catalog store 14 for each video product and periodically downloaded for each of the video products available from the central station. This data may include a field 30 [(blue)] with the name of the product, such as the title of a movie which may also serve as an address of the video product in product store 12. A field 32 [(yellow)] may include, for example the price for a one-time viewing of the product and a field 34 [(green)] might include *catalog search keys*, such as the names of the principal actors and actresses, the type of video product (e.g., educational, movie, etc.), and the type of movie (e.g., drama, romance, comedy, etc.)." Ex-1005, 3:32-43 (emphasis added); *id.* 4:37-46.



Id., Fig. 2 (annotated). In addition, "Fields 36, 38 and 40 [(purple)] may include flags to indicate whether a critique of this product is available in the catalog store,

whether a lead-in is available and whether a trailer is available. If any of these flags are set, fields 42, 44 and 46 [(red)] can be used to address the appropriate materials in the catalog store 22.” *Id.* 3:44-49. A POSITA would have understood that these data fields, including the “catalog search keys” in field 34, provide a search function for the multimedia material (e.g., “video product”) and its associated advertising material (e.g., “trailer”).

13. Claim 7: The method of claim 1, wherein said advertising material comprises a motion picture with accompanying synchronized sound.

104. Garfinkle discloses this element. Garfinkle discloses the distribution of video products (e.g., a movie), Ex-1005, 1:15-20, “so-called trailers or previews for certain of the video products, and lead[-]ins for the initial portions of certain products.” *Id.* 2:5-7. A POSITA would have understood that a movie (i.e., a motion picture) and its lead-in would include synchronized sound and a trailer or preview would necessarily include audio and video components as part of the standard industry procedure. Ex-1011 (“By the late 1930s, postsynchronization and multiple-channel mixing had become standard industry procedure.”); Ex-1013, 18 (“[T]railers commonly utilize codes of voice-over narration, sound and sound overlapping, music, graphics, and most importantly, editing, or montage.”). *See supra* §VIII.B.

105. Kosten also discloses this element. Kosten discloses “digital film file[s],” which are stored “for later digital projection” and digital audio processing. Ex-1007, 54. In addition, “Exhibitors could turn theatre lobbies into smart advertising networks, targeting digital trailers and ad spots based on the demographic of their community and the film itself.” *Id.* A POSITA would have understood that digital film files and digital trailers, as taught by both Garfinkle and Kosten, would include synchronized sound. Ex-1005, 4:37-46; Ex-1007, 54; *see supra* §VIII.B.

14. Claim 9: The method of claim 1, wherein said advertising material comprises a motion picture trailer or coming attraction motion picture segment with accompanying sound.

106. Garfinkle alone or in view of Kosten renders this claim obvious. As discussed above, Garfinkle and Kosten disclose the distribution of motion pictures and trailers or previews of those motion pictures with accompanying sound. *See supra* §§X.A.3-.4, X.A.13 (elements 1[a]-[b], claim 7); Ex-1013, 18 (“[T]railers commonly utilize codes of voice-over narration, sound and sound overlapping, music, graphics, and most importantly, editing, or montage.”); *see supra* §VIII.B.

B. Ground 2: Claim 11 Is Obvious Over Garfinkle, Kosten, and Allen

1. A POSITA would have been motivated to combine Garfinkle with Kosten and Allen

107. A POSITA would have been motivated to combine the teachings of Garfinkle, Kosten, and Allen and would have a reasonable expectation of success in doing so because they are from the same field and address the same well-known issues. Garfinkle, Kosten, and Allen provide complementary solutions for distributing digital multimedia and associated advertising materials from a centralized station to user sites using a public communications system. *Compare* Ex-1005, Abstract, *with* Ex-1007, 54, *and* Ex-1006, Abstract. A POSITA seeking to decrease the cost and effort of distributing multimedia and associated advertising materials would have known of and consulted these proposed solutions. Ex-1007, 52 (discussing the cost and labor intensity of shipping celluloid film), 54 (proposing digital distribution from a central server and smart advertising networks); Ex-1005, 1:34-2:12 (providing a video-on-demand system for access to a catalog of data at a central server); Ex-1006, 1:56-65, 2:66-3:26, 9:65-10:30 (discussing a need and solution for a video-on-demand system accessing a large catalog of data at a central server).

108. As discussed above, Garfinkle discloses an improved video distribution system and Kosten discloses a centralized server for marketing and

exhibiting multimedia and advertising materials. *See supra* §X.A.1. Allen similarly discloses a video distribution system comprising a centralized host data center that receives multimedia and associated advertising materials from studios (Ex-1006, 9:7-30, 9:65-10:22), a movie storage facility that stores the multimedia and associated advertising material in digital format (Ex-1006, Abstract), an accounting and transaction engine for monitoring and reporting marketing and sales data of the multimedia and advertising materials (Ex-1006, 3:48-51), and remote customer servers connected to the movie storage facility via public communication links. *See* Ex-1006, 11:45-50. A POSITA would have been motivated to implement the methods described by Kosten and Allen using the video distribution system described by Garfinkle to provide the improvements described therein, such as access to a large number of video products and advertising materials available at a centralized location (Ex-1007, 54; Ex-1005, 1:42-49, 1:54-2:12; Ex-1006, 10:1-19), improved security against piracy (Ex-1007, 54; Ex-1006, 9:59-62, 11:32-39), an ability to track and monitor sales and marketing data (Ex-1006, 6:50-57, 11:15-20, Table 3 (25:25-42)), an ability to determine rights authorization (Ex-1006, 23:21-33, Table 3 (25:25-42)), electronic banking capabilities to track the payment of royalties and copyright fees to movie owners and transfer electronic funds (Ex-1006, 3:51-53, 11:4-10), interoperability between user sites by collecting and maintaining identification and demographic data for customers (Ex-1006, 10:43-

60), as well as improved advertising capabilities (Ex-1007, 54; Ex-1005, 1:42-49, 1:54-2:12; Ex-1006, 21:10-24).

109. Kosten teaches that the digital assets are beamed to user sites using a satellite. Ex-1007, 54. Allen teaches that “[m]ovies are transferred to the retail facility from the movie storage facility 105 using asynchronous transfer mode (ATM) protocol on an optical fiber network.” Ex-1006, 10:20-23. “The movie files are transferred through an ATM OC-3 fiber to an ATM switch 113 locally which then transfers the files to the retail outlet over an ATM synchronous optical network (SONET) OC-12 fiber optic connection 127.” *Id.* 10:23-26. “The manufacturing controller 107 is also connected to the retail outlet through the ATM Switch 113 using an ATM OC-3 fiber optic connection, and through the ATM synchronous optical network (SONET) OC-3 or OC-12 fiber optic connection 127.” *Id.* 10:26-30. Allen teaches that “alternate means of communicating between the host data center and the plurality of remote manufacturing centers may be through satellite communication, land-wire connection and other types of communication mediums.” *Id.* 5:28-32. Garfinkle teaches that the data link between the central station and user sites “may be copper wire of the type used by the telephone company, a radio frequency wireless communications link of the type used in satellite-to-earth communications, a coaxial cable, a fiber optic cable, cellular wireless or other suitable link, such as a

local area network interconnecting personal computers and work stations at the user sites and the processor at the central station.” Ex-1005, 2:58-67. A POSITA would have recognized that the multitude of data distribution links taught by Garfinkle would allow a selection of data link that would allow for optimization of performance to cost as technologies evolved.

110. This combination builds on the combination of Garfinkle and Kosten discussed above. *See supra* Section X.A.1. Further, Garfinkle’s “central station 10” (Fig. 1, yellow), similar to Allen’s “host data center 10” (Fig. 21, yellow), would incorporate Allen’s “accounting and transaction engine 109” to monitor, account, and report sales and marketing data related to the multimedia materials and associated advertising materials. Allen also teaches that “the accounting and transaction engine 109 can communicate with electronic money banking system to credit and debit accounts on a daily basis, if necessary, or less often if desired” and that “[e]lectronic banking is also an available option to track the payment of royalties and copyright fees to the movie owners.” Ex-1006, 6:54-60, 3:51-53. A POSITA would have recognized that these features taught by Allen are important functions for maintaining the viability of the system of the combination of Garfinkle and Kosten.

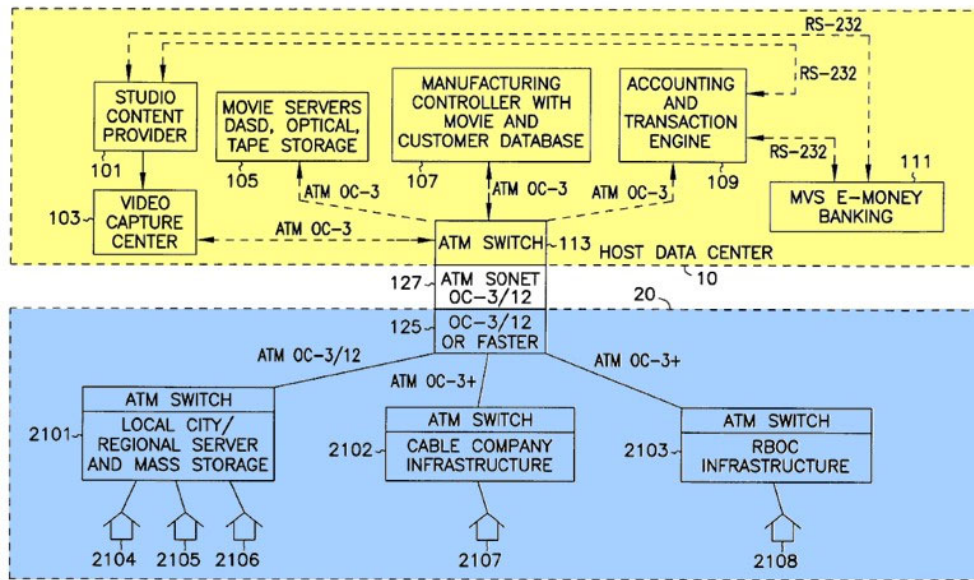


FIG. 21

Ex-1006, Fig. 21 (annotated). The combined Garfinkle-Kosten-Allen system, incorporating Allen's "accounting and transaction engine" into Garfinkle's "central station 10" (yellow), would have taken the form shown below:

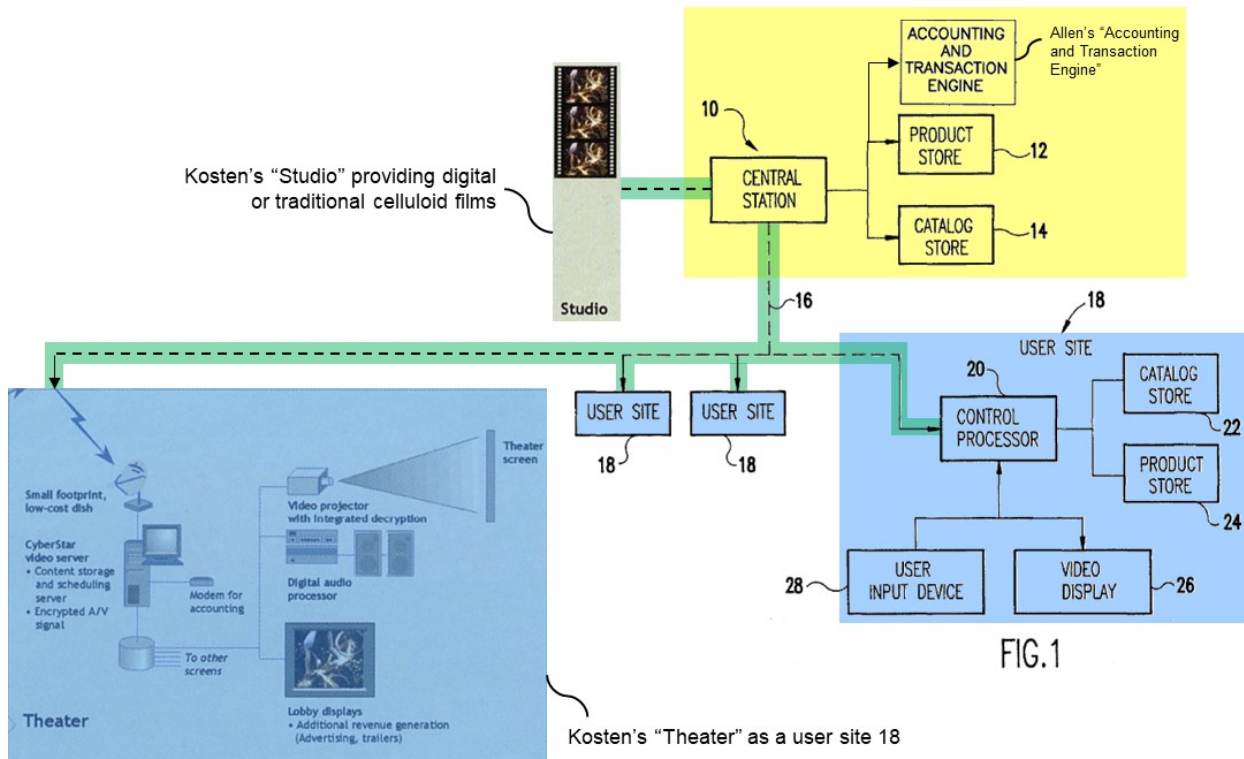


FIG. 1

111. A POSITA would have had a reasonable expectation of success in achieving the objective of efficient content distribution by combining the teachings of Garfinkle, Kosten, and Allen with no change in their respective functions because the references purport to solve these problems in similar and predictable ways, such as using the well-known teachings of digitizing non-digital materials (Ex-1005, 4:37-39; Ex-1007, 54; Ex-1006, 6:4-29), correlating multimedia and associated advertising materials (Ex-1005, 3:32-49; Ex-1007, 54; Ex-1006, 9:53-59), and connecting multiple user sites to a central station through a public communications system (Ex-1005, 2:58-3:5; Ex-1007, 54; Ex-1006, 11:45-50). *See supra* IX.A-IX.C; *see also infra* §§X.B.2-.3. The combination of Garfinkle, Kosten and Allen involves combining known elements in standard ways to produce predictable results.

2. Dependent Claim 11: The method of marketing and distributing multimedia of claim 1, further comprising automatically collecting sales information from exhibitor recipients of various items of said multimedia material and providing sales and marketing data, specific to said items of multimedia material, to exhibitors based upon information from said exhibitors.

112. Garfinkle in view of Kosten and Allen discloses this element. Allen discloses a “host data center 10” similar to Garfinkle’s “central station 10” and Kosten’s “CyberStar Network Operations Center.” *Compare* Ex-1005, Fig. 1 *and* Ex-1007, 54, *with* Ex-1006, Fig. 1.

113. “[I]ncluded at [Allen’s] host data center is the transaction engine 109 which communicates with the plurality of remote manufacturing sites to monitor the number of sales and rentals of various movies [(i.e., sales data)] distributed through the remote manufacturing outlets [(i.e., exhibitors)].” Ex-1006, 6:50-57. “The accounting and transaction engine 109 accounts for each transaction at the retail level [(i.e., exhibitor level)] including revenue accounting [(i.e., sales data)], customer demographic information database [(i.e., marketing data)], support inventories and the retail outlet financial accounting.” *Id.* 10:39-48; *see id.* 10:33-39. “The accounting and transaction engine 109 also monitors all accounts and can provide account summary and reports. With this facility, studios can monitor their individual financial data, sales results and promotion results [(i.e., sales and marketing data)] from the retail level on a real time basis. In addition, the retail outlets shall be able to monitor their own financials on a real time basis.” *Id.* 11:15-20. Allen also teaches that “the transaction engine 109 ... communicates with the plurality of remote manufacturing sites to monitor the number of sales and rentals of various movies distributed through the remote manufacturing outlets” and that “[t]he accounting and transaction engine 109 can communicate with the other components of the host data center to keep a current accounting of all transactions.” *Id.* 6:54-57. “In addition, the accounting and transaction engine 109

can communicate with electronic money banking system to credit and debit accounts on a daily basis, if necessary, or less often if desired.” *Id.* 6:57-60.

114. Because “[t]he transaction engine 109 also updates all accounting records and bills the retail outlet for the transaction,” “performs account balancing on a daily basis,” and performs automatic monitoring as disclosed above, a POSITA would have understood that it automatically collects sales information. *Id.* 10:65-67, 11:8-10; *see supra* §VIII.F. Thus, Allen’s “transaction engine 109” automatically collects sales information (e.g., “the number of sales and rentals of various movies”) from exhibitor recipients of various items of the multimedia material (e.g., “movies”) and provides sales and marketing data (e.g., “revenue accounting, customer demographic information”), specific to such items of multimedia material (e.g., “accounts for each transaction at the retail level,” including tracking all “rentals and sales or viewing of movies on-demand”), to exhibitors based upon information from said exhibitors (e.g., collecting “account summary and reports” and allowing outlets to “monitor their own financials on a real time basis”). *See supra* §VIII.F.

115. A POSITA would have been motivated to modify Garfinkle’s “central station 10” to incorporate Allen’s “accounting and transaction engine 109” to enable tracking of sales and promotional campaigns as discussed in Allen. *See supra* §VIII.F. A POSITA would have recognized that these features taught by

Allen are important functions for maintaining the viability of the system of the combination of Garfinkle and Kosten. Such a modification would provide the benefits described by Allen, such as enabling real-time tracking of financials and account data. *Id.*

C. Ground 3: Claims 1, 4, 6-7, 9, 11 Are Obvious Over Allen in View of Budow

1. A POSITA would have been motivated to combine Allen with Budow

116. A POSITA would have been motivated to combine the teachings of Allen and Budow and would have a reasonable expectation of success in doing so because they are from the same field and address the same well-known issues.

Allen and Budow provide complementary solutions for distributing digital multimedia and associated advertising materials from a centralized station to remote sites using a public communications system. *Compare* Ex-1006, Abstract, *with* Ex-1008, Abstract. A POSITA seeking to decrease the cost and effort of distributing multimedia and associated advertising materials would have known of and consulted these proposed solutions. Ex-1006, 1:56-65, 2:66-3:26, 9:65-10:30 (discussing a need and solution for a video-on-demand system accessing a large catalog of data at a central server); Ex-1008, 1:52-2:12, 2:59-3:11, 4:59-63, 5:20-26 (providing a video-on-demand system for improved distribution of media and advertising materials).

117. Allen discloses a video distribution system comprising a centralized host data center that receives multimedia and associated advertising materials from studios (Ex-1006, 9:7-30, 9:65-10:22), a movie storage facility that stores the multimedia and associated advertising material in digital format (Ex-1006, Abstract), an accounting and transaction engine for monitoring and reporting marketing and sales data of the multimedia and advertising materials (Ex-1006, 3:48-51), and remote customer servers connected to the movie storage facility via public communication links, including fiber optic links, high speed wire links, and satellite links. *See* Ex-1006, 10:20-30, 11:45-50, Abstract. Budow similarly discloses a video-on-demand system for connecting a centrally located uplink site to a plurality of hospitality establishments (Ex-1008, Abstract) via satellite link (Ex-1008, 2:62-3:12, 4:59-63) to distribute multimedia and advertising materials to be locally marketed and sold by the hospitality establishments. Ex-1008, 1:32-39, 4:6-19, 13:22-35. Budow also discloses methods of locally marketing and selling multimedia material, including advertisements shown at a time or in a place different from the time or place at which the multimedia material is displayed. *Id.* 13:22-35. A POSITA would have been motivated to use Allen's video distribution system to implement the methods and processes described by Budow to provide the improvements described therein, such as access to a large number of video products and advertising materials available at a centralized location (Ex-1006,

10:1-19; Ex-1008, 4:6-19), wider distribution capabilities (Ex-1008, 4:59-63), increased control over the timing and type of advertising presented (Ex-1008, 5:21-26), targeted advertising capabilities (Ex-1008, 14:2-10), improved functionality for end-customer interaction (Ex-1008, 5:35-39), improved management and distribution processes resulting in lower shipping and handling costs and labor intensity (Ex-1008, 1:52-2:12), improved security against piracy (Ex-1006, 9:59-62, 11:32-39; Ex-1008, 5:6-10), as well as improved advertising capabilities (Ex-1006, 21:10-24; Ex-1008, 5:20-26, 13:60-14:10).

118. Allen's "central site"/"host data center 10" (Fig. 21, yellow) operates similarly to Budow's "distribution center 2a" (Fig. 1, yellow), and Allen's "retail outlets 20" (Fig. 21, blue) correspond to Budow's "hospitality establishments," such as hotels #1 through #N (Fig. 1, blue). Budow teaches that the digital videos are transmitted from the central site to customer sites using a satellite. Ex-1008, Abstract, 2:62-65. Allen teaches that "[m]ovies are transferred to the retail facility from the movie storage facility 105 using asynchronous transfer mode (ATM) protocol on an optical fiber network" but further teaches "alternate means of communicating between the host data center and the plurality of remote manufacturing centers may be through satellite communication, land-wire connection and other types of communication mediums." Ex-1006, 10:20-30, 5:28-32.

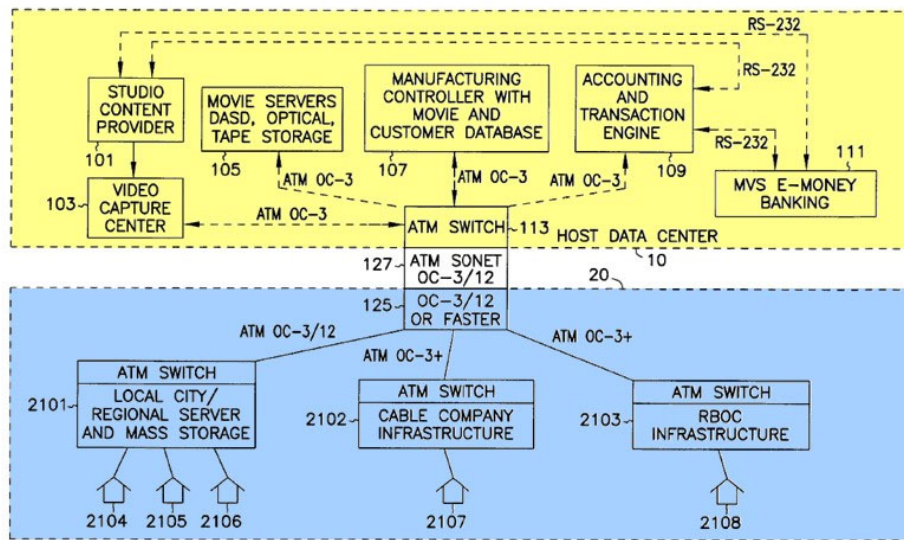


FIG. 21

Ex-1006, Fig. 21 (annotated).

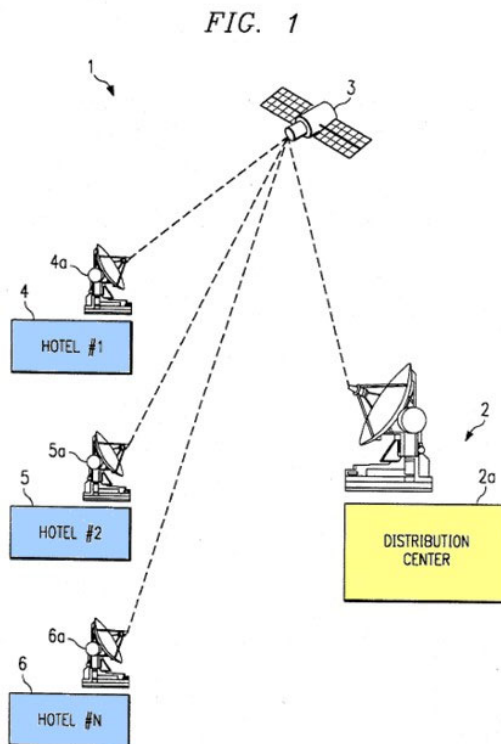


FIG. 1

Ex-1008, Fig. 21 (annotated).

119. A POSITA would have had a reasonable expectation of success in achieving their objectives, e.g., distributing digital multimedia and associated advertising materials through a central station, promoting and selling the multimedia material, and tracking sales and marketing data, by combining the teachings of Allen and Budow with no change in their respective functions because the references purport to solve these problems in similar and predictable ways, such as using the well-known teachings of digitizing non-digital materials (Ex-1006, 6:4-29; Ex-1008, 2:59-3:12, 4:6-19), correlating multimedia and associated advertising materials (Ex-1006, 9:53-59; Ex-1008, 3:67-4:5, 4:6-19, 6:40-67), and connecting multiple user sites to a central station through a public communications system (Ex-1006, 11:45-50; Ex-1008, 3:51-4:5, 6:33-39, 7:1-10). *See supra* IX.B, IX.D; *see also infra* §§X.C.2-.18. Indeed, Allen states that its disclosed system can be applied to “adaptations or variations” as “appreciated by those of ordinary skill in the art.” Ex-1006, 28:7-14. Thus, adapting Allen’s system to incorporate Budow’s methods and processes related to marketing and distributing multimedia materials would be well within the capability of a POSITA. The combination of Budow and Allen involves combining known elements in standard ways to produce predictable results.

2. Element 1[pre]: A method of marketing and distributing multimedia, the method comprising:

120. To the extent limiting, Allen discloses the preamble. Allen “relates to video compression, distribution, and manufacturing and in particular to systems and methods of remote to local video distribution” Ex-1006, 1:5-8. For example, Allen “utiliz[es] the central repository in the movie storage facility 105 to store and dispense digital copies of movies in an electronic form rather than the current ‘hard copy’ distribution system,” i.e., distributing multimedia. *Id.* 10:1-10. “The movie storage facility 105 will also store movie previews, sell-through artwork, label data and database header information in a digital format for downloading with the movie to the retail level for generation of artwork when the movie is manufactured or for previews,” i.e., marketing multimedia. *Id.* 1:13-19. Allen further discloses tracking revenue and marketing data such as “customer demographic information.” *Id.* 10:33-48.

121. Budow also discloses the preamble. Budow discloses “an interactive video services system for enabling store and forward distribution of digitized video programming,” i.e., distributing multimedia. Ex-1008, 1:8-11. Further, Budow’s “uplink facility and satellite can transmit a variety of video signals—including video signals for real-time viewing by customers, compressed video signals for storage and subsequent retrieval and viewing by customers, and other types of

digitized data, such as advertisements and barker screens.” *Id.* 3:3-8. “This data can be transmitted to customers’ rooms and broadcast on in-room TVs in the form of barker screens and advertisements,” i.e., marketing multimedia. *Id.* 4:2-5. A POSITA would have understood that a barker screen would be part of a hospitality system’s barker channel that displays the various services offered by the location and its entertainment system, including pay-per-view and video-on-demand services. *Id.* 1:20-24 (“[H]otels and motels often have video services systems that offer pay-per-view and video-on-demand services, as well as a variety of interactive services.”). Thus, Allen and Budow disclose a method of marketing and distributing multimedia.

3. Element 1[a]: receiving, by a server, multimedia material and advertising material from a producer or owner of said multimedia material, said advertising material being associated with said multimedia material, said advertising material comprising audio and video components;

122. Allen discloses a server receiving multimedia material and associated advertising material from a producer or owner of the multimedia material. “The process begins with the studio content provider [(i.e., producer or owner)] in which the movie [(i.e., multimedia material)] may be provided in a film form or in an analog video format or in an already digitized version.” Ex-1006, 6:4-7; *see also id.* 9:7-15, Fig. 1. “The video capture center 103,” (i.e., server), which is part of host data center 10, “is required to put the digitized image of the movie into a

modified MPEG-2 format.” *Id.* 6:7-12, Fig. 21. “Also captured by the video capture center are materials associated with each movie such as movie previews, movie labels, movie sell-through artwork [(i.e., advertising material associated with the multimedia material)] in digital, analog and photographic forms.” *Id.* 9:16-19; *see also id.* 9:25-30. “All this additional material is also transferred to a digital format and stored in files associated with the movie.” *Id.* 9:19-21. “Once encoded, the entire f[u]ll motion video with audio is stored in a data file This file is then stored and cataloged, along with any associated files containing artwork, movie trailers, previews and the like, into the movie server storage system.” *Id.* 9:53-59, 6:17-19.

123. Allen’s “movie previews” constitute “advertising material comprising audio and video components.” Ex-1006, 9:7-30. For example, Allen discloses storing an “entire f[u]ll motion video with audio” “along with any associated files containing artwork, movie trailers, previews and the like, into the movie server storage system [105].” Ex-1006, 9:53-59. Allen also discloses “preview[ing] 30 to 60 second movie trailers of the movie selected for potential purchase or rental,” *id.* 21:40-42, so a POSITA would have understood that movie previews and trailers contain excerpts of a movie or film and, thus, include audio and video components. Ex-1013, 18 (“[T]railers commonly utilize codes of voice-over narration, sound and sound overlapping, music, graphics, and most importantly, editing, or

montage.”); *see supra* §VIII.B. The general movie-going experience of lay persons would also be part of a POSITA’s background, and anyone who has attended a movie in a theater would have understood that “movie trailers” or “movie previews” include audio and video components, and are typically shown before a feature film to generate interest in and, thus, advertise other movies. Moreover, Allen discloses using MPEG-2 encoding for trailers (Ex-1006, 1:43-46, 21:48-50), which is a standard for “the generic coding of moving pictures and associated audio information.” *See* Ex-1015.

124. Budow also discloses this element. Budow discloses that “[i]f the data being processed is ... for barker screens or audio/video advertisements, the data is transmitted to a systems control computer 13,” which “is capable of storing digitized audio, video and graphic data.” Ex-1008, 6:57-59, 3:67-4:5; *see id.* 11:13-17, 11:37-40. “This data can be transmitted to customers’ rooms and broadcast on in-room TVs in the form of barker screens and advertisements, which may be transmitted from the systems control computer in place of standard broadcast advertising.” *Id.* 4:2-5. Thus, a POSITA would have understood or found obvious that Allen’s movie previews and trailers include audio and video components. *See supra* §VIII.B.

4. Element 1[b]: storing said multimedia material and associated advertising material on a computer readable storage medium as correlated information in digital format;

125. Allen discloses this element. Allen's "video capture facility receives the content [(i.e., multimedia material)] in its source format and transfers it to the specific compressed and encoded MPEG-2 format used by the present invention." Ex-1006, 9:7-15. "Also captured by the video capture center are materials associated with each movie such as movie previews, movie labels, movie sell-through artwork [(i.e., associated advertising material)] in digital, analog and photographic forms. All this additional material is also transferred to a digital format and stored in files associated with the movie [(i.e., correlated information)]." Ex-1006, 9:16-21; *id.* 6:17-28. "Once encoded, the entire f[u]ll motion video with audio [(i.e., multimedia)] is stored in a data file This file is then stored and cataloged, along with any associated files containing artwork, movie trailers, previews and the like [(i.e., associated advertising material)], into the movie server storage system [105]." *Id.* 9:53-59, Fig. 1; *id.* 10:13-19. "The movie in its digitized, parallelized and compressed format is stored at the movie servers 105 on high-speed rotating mass storage (fixed disk drives), optical storage or archived in tape storage [(i.e., computer readable storage medium)]." *Id.* 6:24-29. Thus, Allen discloses associating multimedia material (e.g., a "movie") and its related advertising material (e.g., "movie previews, movie labels, movie sell-

through artwork,” “artwork, movie trailers, previews and the like”), and storing them on a computer readable storage medium as correlated information in digital format.

126. Because “[t]he digitized versions of the movies, and the associated artwork and previews, are all identified and tracked through a relational database” and are “stored and cataloged,” the multimedia and associated advertising materials are stored as “correlated information in digital format.” Ex-1006, 9:26-30, 9:53-59; *see also id.* 9:16-21 (“additional material is ... stored in files associated with the movie”). A POSITA would have understood that a relational database as used in Allen is designed to track relationships between entries in various database tables, and utilizes identifiers of database table rows as a “foreign key” to record relationships between elements of various tables. *See* Ex-1012 at 584-88. When foreign keys are present in a table entry, that entry is correlated with another entry in another database table. *Id.* at 584 (“When a table includes a primary key field from a related database, the field is called a *foreign key*. Foreign keys are the secret to successful relational database design.”). The use of foreign keys in a relational database would be a common way of correlating a movie in a “movie table” with artwork in an “artwork table” and previews in a “preview table.” Such relationships are commonly created in a one-to-one fashion, a one-to-many fashion, or a many-to-many fashion. *Id.* at 584-88. These methods of

utilizing a relational database are consistent with the '725 Patent's discussion of identifiers. Ex-1001, 4:59-65, 5:64-6:2, 6:10-14. Allen's relational database associates each movie with its related content, similar to the '725 Patent's use of "identifier" to associate content, which further confirms that Allen stores the multimedia material (e.g., movies) and associated advertising material (e.g., artwork and previews) on a computer readable storage medium as correlated information in digital format.

5. Element 1[c]: providing a server system accessible over a communication network, said server system accessing said correlated information in a digital format from said computer readable storage medium for transfer of said correlated information in a digital format over said communication network to potential purchasers;

127. Allen discloses this element. As discussed above, Allen discloses storing the multimedia and associated advertising materials on a computer readable storage medium as "correlated information in a digital format." *See supra* Section X.C.4 (element 1[b]). Allen further discloses, "Movies are transferred to the retail facility [(i.e., potential purchasers)] from the movie storage facility 105," (i.e., server system), which is part of host data center 10, "using asynchronous transfer mode (ATM) protocol on an optical fiber network [(i.e., communication network)]." Ex-1006, 10:20-26, 11:45-50, Fig. 21.

128. Allen's Figure 21 shows that "[m]ovies are delivered to the cable head end 2102 [(i.e., a potential purchaser)] from the manufacturing controller 107 for realtime playing over a dedicated channel at the subscriber's location 2107, being delivered by fiber optic cable or standard CATV cable." *Id.* 27:46-49.

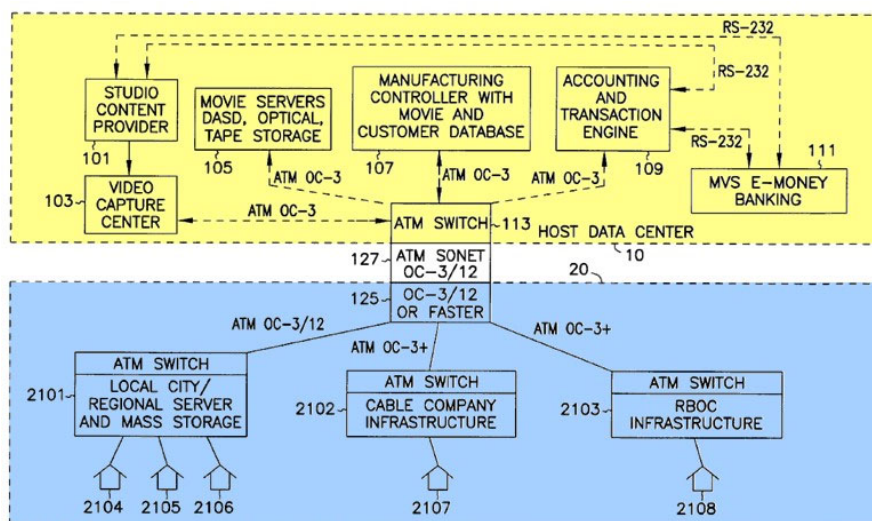


FIG. 21

Id., Fig. 21 (annotated). A POSITA would have understood that advertising material associated with each movie would similarly be delivered to the cable head end 2102 from the manufacturing controller 107 over a communication network. *See* Ex-1006, 23:7-11; *see supra* §VIII.A. Allen teaches that “[e]ach kiosk is interfaced to the host data center 10 through the manufacturing controller 121 over the ATM network.” *Id.* 21:15-17. Allen further teaches that “[t]he present invention, both in the host data center 10 and in the retail manufacturing site 20, require high bandwidth communications of a reliable nature. Fiber optic communication is used throughout both sites in the form of [a]synchronous transfer

mode (ATM) network.” *Id.* 20:45-49. A POSITA would have understood that the ATM network is the communications network utilized for all communications from the servers as well. Thus, Allen’s server system is accessible over a communication network for transferring movies and associated advertisements (as “correlated information in a digital format”) to potential purchasers over said network. *See supra* §VIII.A.

129. Allen’s server system further “access[es] said correlated information in a digital format from said computer readable storage medium.” Because Allen’s movies and associated advertisements are “stored and cataloged” and “identified and tracked through a relational database,” a POSITA would have understood that the server system accesses the multimedia and associated advertising materials as “correlated information in a digital format” on a computer readable storage medium for transfer to potential purchasers. Ex-1006, 9:26-30, 9:53-59. A POSITA would have understood that a relational database as used in Allen is designed to track relationships between entries in various database tables, and utilizes identifiers of database table rows as a “foreign key” to record relationships between elements of various tables. *See* Ex-1012 at 584-88. When foreign keys are present in a table entry, that entry is correlated with another entry in another database table. *Id.* at 584 (“When a table includes a primary key field from a related database, the field is called a *foreign key*. Foreign keys are the secret to

successful relational database design.”). The use of foreign keys in a relational database would be a common way of correlating a movie in a “movie table” with artwork in an “artwork table” and previews in a “preview table.” Such relationships are commonly created in a one-to-one fashion, a one-to-many fashion, or a many-to-many fashion. *Id.* at 584-88. These methods of utilizing a relational database are consistent with the ’725 Patent’s discussion of identifiers. Ex-1001, 4:59-65, 5:64-6:2, 6:10-14.

130. A POSITA would have understood that a “retail facility,” such as “a cable television (CATV) head end” offering “full motion movies in a video format to remote locations for on-demand purchase or rental” constitutes a potential purchaser. *Id.* 3:24-26, 2:66-3:6. And a POSITA would have understood that “purchasers” or “potential purchasers” are paying a licensing fee to purchase a right to exhibit the movies. For example, the ’725 Patent’s specification states, “All of these materials and other types of materials that are normally transported physically from the owner, such as the producer or other owner of rights, to the person *licensing* the movie, are digitized and stored in storage media 28 in accordance with the invention.” Ex-1001, 5:34-38 (emphasis added); *see also id.* 9:35-40, 10:22-29, 12:59-61, 15:18-20. Allen’s CATV provider licenses, downloads, and offers movies “for on-demand purchase or rental,” Ex-1006, 3:24-26, 2:66-3:6, thus, a POSITA would have understood that Allen’s CATV provider

constitutes a potential purchaser. Therefore, Allen discloses a server system accessible over a communication network, which accesses and transfers correlated information in a digital format from a computer readable storage medium to potential purchasers.

6. Element 1[d]: providing samples of said correlated information in a digital format from said server system over said communication network to said potential purchasers, said purchasers being linked to the server system through said communication network;

131. Allen discloses providing samples of correlated information in a digital format from a server system over a communication network. As discussed above, Allen discloses potential purchasers (e.g., “retail outlets” or “retail facilities”) linked to a server system through a communication network. *See supra* X.C.5 (element 1[c]).

132. Allen further discloses “[t]he movie storage facility 105 [(i.e., server system)] will store movie previews [(i.e., samples of correlated information)] ... in a digital format for downloading with the movie to the retail level [(i.e., potential purchasers)] ... for previews when the customer accesses the movie preview kiosks 123.” Ex-1006, 10:13-19. Thus, Allen’s server system provides samples of the correlated information (e.g., “movie previews” associated with movies) in a digital format over a communication network to potential purchasers. *See supra* §VIII.C.

133. Moreover, because Allen’s “invention is readily adaptable to a video-on-demand architecture,” Ex-1006, 27:21-27, a POSITA would have understood that the movie previews could be downloaded with the movie to the retail level—e.g., a cable head end or regional bell operating company—for previewing the content and further providing the previews to customers accessing the real-time video-on-demand feeds. *Id.* 27:40-58. “For example, a local or regional service center 2101 contains the equivalent of a retail outlet manufacturing controller 121 to interface with the manufacturing controller 107 of the host data center 10.” *Id.* 27:27-31; *see id.* 27:50-58, Fig. 21. “Movies requested from a home 2104, a business 2105 or a school library 2106 could be downloaded to local cache memory within the server 2101 and delivered to, for example, the home 2104 via an ATM fiber optic connection, standard cable or twisted pair wires, depending on the necessary bandwidth needed for real-time viewing of video.” *Id.* 27:31-36. Thus, a POSITA would have been motivated to provide samples of the correlated information (e.g., movie previews) to the CATV and RBOC providers, who then offer the multimedia and associated materials to end-customers through a video-on-demand system. *See supra* §§VIII.A, C. Because a POSITA would have understood that previews are much smaller than a movie, the cost in bandwidth and time of sending the previews to the providers is minimal yet provides the user with

a preview that may spur them to purchase the previewed content in the future, which would generate more revenue.

7. **Element 1[e]: downloading to said purchasers, upon request of said purchasers, over said communication network, said correlated information in a digital format corresponding to said multimedia material from said server system, said purchasers storing downloaded correlated information in a digital format corresponding to said multimedia material; and**

134. Allen discloses purchasers (e.g., “retail outlets” or “retail facilities”) downloading, over the communication network, the correlated information in a digital format corresponding to the multimedia material (e.g., a movie) from the server system. As discussed above, Allen discloses that purchasers linked to a server system through a communication network access multimedia and associated advertising materials as correlated information in a digital format. *See supra* X.C.5 (element 1[c]). Further, Allen’s server system “utiliz[es] the central repository in the movie storage facility 105 to store and dispense digital copies of movies in an electronic form rather than ... the current ‘hard copy’ distribution system.” Ex-1006, 10:1-6. “Movies are transferred to the retail facility [(i.e., purchaser)] from the movie storage facility 105 using asynchronous transfer mode (ATM) protocol on an optical fiber network.” *Id.* 10:20-22; *see id.* 11:45-50. “The movie storage facility 105 will also store movie previews, sell-through artwork, label data and

database header information in a digital format for downloading with the movie to the retail level.” *Id.* 10:13-19; *see id.* 5:43-60, 7:29-34.

135. Figure 21 illustrates Cable Company Infrastructure 2101 (also called “cable head end” or “CATV head end”) as a type of retail facility. *Id.* 27:41-49, Fig. 21. “In the case of a CATV head end, cable subscribers can request a movie title which is downloaded to the CATV head end. The CATV head end then decompresses the movie, converts it into an analog format and transmits the movie over a dedicated channel to the requester.” *Id.* 3:27-31; *see id.* 27:41-49, 27:50-58. Because movies are “downloaded to local cache memory within the server 2101,” a POSITA would have understood that the purchaser stores the downloaded correlated information. *Id.* 27:31-36; *see id.* 5:43-46, 26:30-34. Because a POSITA would have understood that previews are much smaller than a movie, the cost in storage by the providers is minimal yet provides the opportunity to preview the movie that may spur users to purchase the previewed content in the future, which would generate more revenue for the provider. Thus, in this scenario, the purchaser (“CATV head end”) requests, downloads, and stores correlated information in a digital format corresponding to said multimedia material (e.g., “a movie title”) from Allen’s server system.

136. Allen discloses or suggests downloading correlated information corresponding to multimedia material “upon request of said purchasers.” Allen

discloses that “cable subscribers can request a movie title which is downloaded to the CATV head end,” Ex-1006, 3:27-31, and “[i]f the movie is not locally available, the server 117 will request the downloading of the movie from the manufacturing controller 107.” *Id.* 8:9-11, 23:7-12; *see also id.* 27:41-45, Fig. 21. Thus, in this scenario, a “purchaser” (e.g., a cable operator as a “retail facility”) will request to download “multimedia material” (e.g., a movie) based on a request from its downstream customer (e.g., a cable subscriber). Thus, Allen’s retail facilities (i.e., purchasers) download correlated information corresponding to multimedia material from Allen’s server system “upon request of said purchasers.”

137. Further, Allen’s system “enables the distribution of a very large number of popular movies and hard to find titles currently unavailable to most video outlets and cable television distributors of video-on-demand.” Ex-1006, 10:6-10. A POSITA would have been motivated to have Allen’s CATV and RBOC providers (i.e., purchasers) anticipate popular movies sought by end-customers and request to download those titles from the server system even before end-customers request them.

138. Budow further teaches this element. Budow’s “systems control computer is connected to a plurality of TVs located in customer rooms of the hospitality establishment” and “receives programming requests from customers and transmits commands to the video server or some other video source.” Ex-1008,

3:29-35. “The systems control computer 13 processes the request and issues commands to the video server 12 via the Ethernet LAN 202.” *Id.* 11:67-12:2.

“Upon request of a particular command from the systems control computer 13, the video server 12 begins downloading the selected programming from the appropriate disk drives (not shown).” *Id.* 12:17-20, Fig. 2. Because Budow’s “systems control computer” is part of the hospitality establishment (e.g., purchaser), a POSITA would have understood that the correlated information corresponding to multimedia material is downloaded at the request of the purchaser. *See id.* 3:12-16. In this scenario, as in Allen, a “purchaser” (e.g., a hospitality establishment) may request to download “multimedia material” (e.g., a movie) based on a request from its downstream customers or do so preemptively to make the multimedia available to customers immediately. *See id.* 7:64-8:4, 4:6-10, 4:32-35 (providing “pay-per-view” and “video-on-demand” programming). Thus, a POSITA would have understood that Allen and Budow’s potential purchasers request the download of correlated information corresponding to multimedia material.

8. **Element 1[f]: providing said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material to said purchasers from said server system over said communication network, allowing purchasers to locally market and sell said multimedia material, said purchasers downloading said correlated information in a digital format corresponding to said advertising material that is associated with said multimedia material, said purchasers storing the downloaded correlated information in a digital format corresponding to said advertising material; and**

139. Allen and Budow disclose this element. As discussed above, Allen discloses providing, in a digital format over a communications network, correlated information corresponding to advertising material associated with multimedia material to purchasers, who download and store the correlated information in a digital format. *See supra* §§X.C.5, X.C.7 (elements 1[c], 1[e]). For example, Allen’s “movie storage facility 105 [(i.e., server system)] will also store movie previews, sell-through artwork, label data and database header information in a digital format for *downloading with the movie to the retail level*.” Ex-1006, 10:13-19 (emphasis added).

140. Allen discloses and suggests using advertisement materials to enable purchasers to locally market and sell the multimedia material. *See supra* §§VIII.D, E. Allen discloses “materials associated with each movie such as movie previews, movie labels, sell-through artwork in digital, analog and photographic forms” and further provides uses for those advertising materials. Ex-1006, 9:16-21. For

example, Allen discloses “reproducing the artwork for the jackets or covers on the videotape shells and cases,” “display[ing] graphic advertisements [and] talking head information,” and allowing customers to “preview 30 to 60 second movie trailers of the movie selected for potential purchase or rental.” *Id.* 9:21-24, 21:17-19, 21:40-42. Allen’s system also enables “studios to monitor their ... sales results and promotion results from the retail level on a real time basis.” Ex-1006, 11:17-20.

141. Moreover, Budow renders this element obvious. Budow discloses that its “systems control computer is capable of storing digitized audio, video and graphic data. This data can be transmitted to customers’ rooms and broadcast on in-room TVs in the form of barker screens and advertisements, which may be transmitted from the systems control computer in place of standard broadcast advertising.” Ex-1008, 3:67-4:5; *id.* 5:21-26. “Not only does the system 9 provide the flexibility for the systems control computer 13 to instruct the video server 12 to preempt cable and broadcast television commercials by inserting commercials for pay-per-view and video-on-demand services, the systems control computer 13 can selectively insert commercials based on the viewing habits of each particular customer.” *Id.* 13:29-35; *id.* 11:13-17. Because Budow recognizes the benefit of showing advertisements—including targeted advertisements, Ex-1008, 14:2-10—for the movies in its pay-per-view and video-on-demand systems to the customers

in its hospitality establishments, a POSITA would have been motivated to have Allen's retail outlets, including its CATV and RBOC providers, similarly market and sell multimedia material using the associated advertising materials.

9. **Element 1[g]: wherein said purchaser is an exhibitor exhibiting said multimedia material, after deriving said multimedia material from said stored correlated information in a digital format corresponding to said multimedia material, in a public theater to a number of individuals in exchange for a paid admission or a broadcast exhibitor, said advertising material, after deriving of said advertising material from said correlated information in a digital format corresponding to said stored associated advertising material, being shown to the public at a time or in a place different from the time and place at which said associated multimedia material is displayed.**

142. Allen and Budow disclose this element. Allen discloses that the purchaser is a broadcast exhibitor exhibiting the multimedia and advertising materials after deriving them from the stored correlated information in a digital format. Allen's "present invention is readily adaptable to a video-on-demand architecture as shown in FIG. 21. The host manufacturing center is as described in FIG. 1 but in addition to the retail outlets 20 of FIG. 1, separate ATM switches and local or regional service centers could be established for providing real-time video-on-demand feeds to homes, businesses, offices, libraries and the like," including "a school library 2106." Ex-1006, 27:21-27, 27:31-39, Fig. 21. "In the case of a CATV head end [(e.g., purchaser)], cable subscribers can request a movie title

which is downloaded to the CATV head end. The CATV head end then decompresses the movie [(i.e., multimedia material)], converts it into an analog format and transmits the movie over a dedicated channel to the requester,” i.e., broadcaster exhibiting multimedia. *Id.* 3:27-31; *id.* 27:41-49. Allen also discloses that “a regional bell operating company such as a local telephone company [(i.e., purchaser)] could also have the equivalent of a retail outlet infrastructure 20 within the RBOC (regional bell operating company) infrastructure 2103 for the delivery of video on demand to the subscriber location 2108, also shown in FIG. 21.” *Id.* 27:50-55. “Once again, the RBOC infrastructure 2103 operates similarly to the retail outlet 20 in completing transaction orders and delivery of video [(i.e., multimedia material)] on demand to the subscriber 2108,” i.e., exhibiting multimedia as a broadcast exhibitor. *Id.* 27:55-58. Thus, Allen’s CATV and RBOC embodiments describe broadcast exhibitors exhibiting the multimedia material.

143. Similarly, Allen discloses exhibiting advertising materials associated with the multimedia material. Allen discloses “materials associated with each movie such as movie previews, movie labels, sell-through artwork in digital, analog and photographic forms” and further provides uses for those advertising materials. Ex-1006, 9:16-21. For example, Allen discloses “reproducing the artwork for the jackets or covers on the videotape shells and cases” and providing kiosks for customers to “preview 30 to 60 second movie trailers of the movie

selected for potential purchase or rental.” *Id.* 9:21-24, 21:40-42. A POSITA would also have been motivated to have Allen’s CATV and RBOC providers exhibit advertising materials over a dedicated channel at subscribers’ locations to promote the multimedia materials and assist end-customers in previewing and selecting a movie before renting or buying it. *See supra* §§VIII.C, D. Doing so may spur subscribers to purchase the previewed content in the future, which would generate more revenue.

144. A POSITA would have understood that Allen’s and Budow’s advertising materials are exhibited to the public at a time or in a place different from the time or place at which said associated multimedia material is exhibited. *See supra* §VIII.E. In addition, the general movie-going experience of lay persons would also be part of a POSITA’s background, and anyone who has attended a movie in a theater would have understood that trailers that are shown before a feature film are intended to generate interest in and, thus, advertise other movies. For example, Allen discloses kiosks for previewing movie trailers for potential purchase or rental and later viewing. Ex-1006, 21:40-42. Budow similarly discloses, “The graphics engines are utilized for generating audio/visual prompts, barker screens, and other advertisements and similar applications, which the systems control computer 13 can cause to be displayed on the TV 16 in place of broadcast advertising.” Ex-1008, 11:13-17. A POSITA would have understood that

Budow exhibits advertising materials at a different time or place from the associated movie at least by showing advertising on free cable channels and transmitting movies via pay-per-view or video-on-demand programming on separate, transmission channels. *Id.* 8:4-6, 10:2-7, 15:6-12; *see supra* §VIII.E. A POSITA would have also understood that the trailers or previews shown before a feature film would not include a trailer or preview for the feature film being shown. Because a POSITA would have recognized the benefits of showing advertising material at a time or in a place different from the time or place at which said associated multimedia material is displayed, it would have been obvious for Allen's CATV and RBOC providers to exhibit advertising materials over a dedicated channel at subscribers' locations (i.e., a different time and place) to promote the multimedia materials. *See supra* §§VIII.C-.E.

10. Claim 4: The method of marketing and distributing multimedia of claim 1, wherein said server system is accessed over a public communications system.

145. Allen discloses this element. As discussed above, Allen discloses “using asynchronous transfer mode (ATM) protocol on an optical fiber network,” which connects the host data center 10, including movie storage facility 105, to retail facilities such as CATV and RBOC infrastructure. *See supra* Section X.C.5 (element 1[c]); Ex-1006, 10:20-26, Fig. 21. Further, Allen discloses that “separate ATM switches and local or regional service centers could be established for

providing real-time video-on-demand feeds to homes, businesses, offices, libraries and the like.” Ex-1006, 27:21-27, Fig. 21. A POSITA would have understood that it would have been prohibitively expensive to create a private network that reached venues such as homes, businesses, offices, libraries, and the like and, thus, would have utilized a public network to provide real-time video-on-demand feeds to these venues. Thus, Allen discloses a server system accessed over a public communications system.

146. In addition, Allen discloses that “[t]hose skilled in the art will readily recognize that alternate communication links are possible including satellite links and high speed wire connections.” Ex-1006, 11:45-50; *id.* 5:28-33. A POSITA would have understood that an optical fiber network may be used by telecommunications companies to transmit telephone signals, internet communication, and cable television signals and would have recognized that broadcast, cable, and satellite transmissions constitute public communications systems. *See supra* §VIII.A; Ex-1018, 22.

11. Claim 6: The method of claim 1, further comprising providing a search function for said multimedia material and said associated advertising material.

147. Allen discloses this element. Allen discloses that “[a] personal preference screen can be invoked by the user to either search and select movies of their particular tastes or request suggestions based upon their statistical past history

of selections.” Ex-1006, 21:29-33; *see id.* 9:55-59 (cataloging motion video and associated artwork, movie trailers, and previews). Allen’s “kiosk is capable of displaying a *search screen* to locate movies based upon a fuzzy logic search criteria to assist a customer locating a movie based upon some obscure references.

... In addition, the kiosk can be used to preview 30 to 60 second movie trailers of the movie selected for potential purchase or rental.” *Id.* 21:34-42 (emphasis added); *id.* 22:63-66. A POSITA would have been motivated to implement a similar search function in its CATV and RBOC embodiments to assist both retail providers and end-customers in locating a movie and previewing movie trailers before renting or buying them. For example, Allen discloses that the server system contains a central repository in the movie storage facility 105 with “a very large number of popular movies and hard to find titles currently unavailable to most video outlets and cable television distributors of video-on-demand,” which would be difficult for retail providers and end-customers alike to navigate without search functionality. Ex-1006, 10:1-19. Thus, a POSITA would have been motivated to provide a search function in Allen’s CATV and RBOC embodiments, similar to the kiosk’s search function, to assist customers with locating a movie as doing so presents potential revenue opportunities.

12. Claim 7: The method of claim 1, wherein said advertising material comprises a motion picture with accompanying synchronized sound.

148. Allen and Budow disclose this element. Allen discloses the distribution of “motion video with audio” and “materials associated with each movie such as movie previews.” Ex-1006, 9:53-55, 9:12-19. Allen further discloses that “[t]he digital video and audio information for a movie is encoded and compressed in an MPEG-2 format using a compression engine.” *Id.* 9:31-34; *see id.* 21:48-50 (using “stereo adapter” and MPEG-2 for trailers). A POSITA would have understood that a movie (i.e., a motion picture) would include synchronized sound and a movie trailer or preview necessarily includes audio and video components as part of the standard industry procedure. Ex-1011 (“By the late 1930s, postsynchronization and multiple-channel mixing had become standard industry procedure.”); Ex-1013, 18 (“[T]railers commonly utilize codes of voice-over narration, sound and sound overlapping, music, graphics, and most importantly, editing, or montage.”); *see supra* §VIII.B. A POSITA would also have understood that Allen teaches advertising material comprising a motion picture with accompanying synchronized sound because MPEG-2 is a standard for “the generic coding of moving pictures and associated audio information.” *See* Ex-1015.

149. Moreover, Budow renders this claim obvious because Budow discloses “audio/video advertisements” and a POSITA would have understood that digital film files and digital movie previews, as taught by both Allen and Budow, would include synchronized sound. Ex-1008, 6:57-59; *see supra* §VIII.B.

13. Claim 9: The method of claim 1, wherein said advertising material comprises a motion picture trailer or coming attraction motion picture segment with accompanying sound.

150. Allen and Budow disclose this element. As discussed above, Allen and Budow disclose the distribution of “motion video with audio” and “materials associated with each movie such as movie previews,” which necessarily include accompanying sound. *See supra* Section X.C.12 (claim 7); Ex-1006, 9:12-19. Because a POSITA would have recognized that a “movie preview” is a type of motion picture trailer, Allen and Budow disclose a motion picture trailer with accompanying synchronized sound. *See supra* §VIII.B.

14. Claim 11: The method of marketing and distributing multimedia of claim 1, further comprising automatically collecting sales information from exhibitor recipients of various items of said multimedia material and providing sales and marketing data, specific to said items of multimedia material, to exhibitors based upon information from said exhibitors.

151. As discussed above, Allen’s accounting and transaction engine automatically collects and provides sales and marketing data, specific to the

multimedia material, to exhibitors based on information collected from exhibitors.

See supra Section X.B.2 (Claim 11 in Ground 2). *See supra* §VIII.F.

D. Ground 4: Claim 5 Is Obvious Over Allen in View of Budow and Kosten

1. A POSITA would have been motivated to combine Allen with Budow and Kosten

152. A POSITA would have been motivated to combine the teachings of Allen, Budow, and Kosten and would have a reasonable expectation of success in doing so because they are from the same field and address the same well-known issues. Allen, Budow, and Kosten provide complementary solutions for distributing digital multimedia and associated advertising materials from a centralized station to remote sites, such as movie theaters, using a public communications system. *Compare* Ex-1006, Abstract, *with* Ex-1008, Abstract, *and* Ex-1007, 54. A POSITA seeking to decrease the cost and effort of distributing multimedia and associated advertising materials would have known of and consulted these proposed solutions. Ex-1006, 1:56-65, 2:66-3:26, 9:65-10:30 (discussing a need and solution for a video-on-demand system accessing a large catalog of data at a central server); Ex-1008, 1:52-2:12, 2:59-3:11, 4:59-63, 5:20-26 (providing a video-on-demand system for improved distribution of media and advertising materials); Ex-1007, 52 (discussing the cost and labor intensity of

shipping celluloid film), 54 (proposing digital distribution from a central server and smart advertising networks).

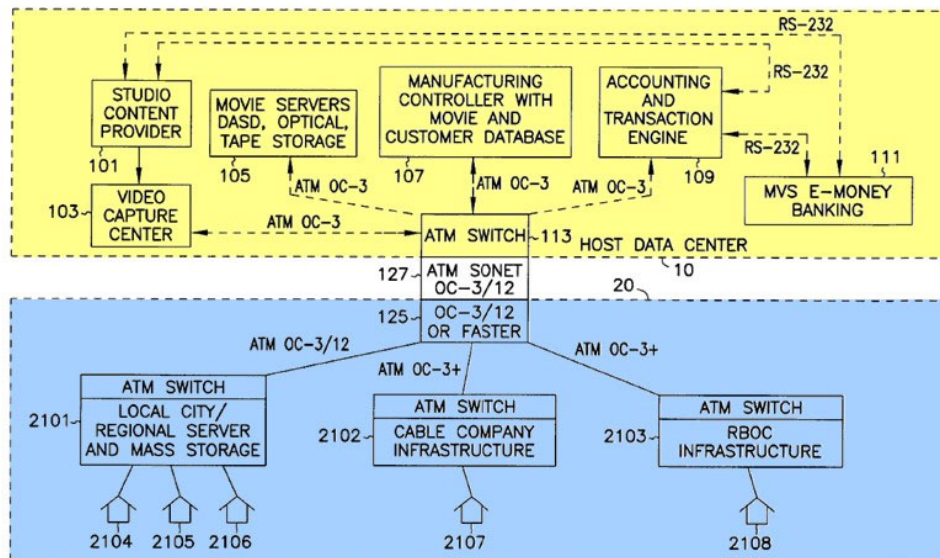
153. As discussed above, Allen discloses a centralized video distribution system and Budow discloses an interactive video-on-demand system to distribute multimedia and advertising materials in hospitality establishments via links including fiber optic links, high speed wire links, and satellite links. *See supra* §X.C.1. Kosten similarly discloses using a centralized server to aggregate films and related advertising materials from studios and digitally transmit the content to movie theaters for marketing and exhibition via satellite. *See* Ex-1007, 54. A POSITA would have been motivated to use Allen's video distribution system to implement the methods and processes described by Budow and Kosten to provide the improvements described therein, such as access to a large number of video products and advertising materials available at a centralized location (Ex-1006, 10:1-19; Ex-1008, 4:6-19; Ex-1007, 54), improved management and distribution processes resulting in lower shipping and handling costs and labor intensity (Ex-1008, 1:52-2:12; Ex-1007, 52, 54), improved security against piracy (Ex-1006, 9:59-62, 11:32-39; Ex-1008, 5:6-10; Ex-1007, 54), an ability to track and monitor sales and marketing data (Ex-1006, 6:50-57, 11:15-20, Table 3 (25:25-42); Ex-1007, 54), improved advertising capabilities based on local demographics (Ex-1006, 21:10-24; Ex-1008, 5:20-26, 13:60-14:10; Ex-1007, 54), as well as wider

and more flexible distribution capabilities, cost reductions for movie theaters, increased control over time and locations of exhibitions by studios and distributors, and an ability to scale up or down distribution based on success in theaters (Ex-1007, 54).

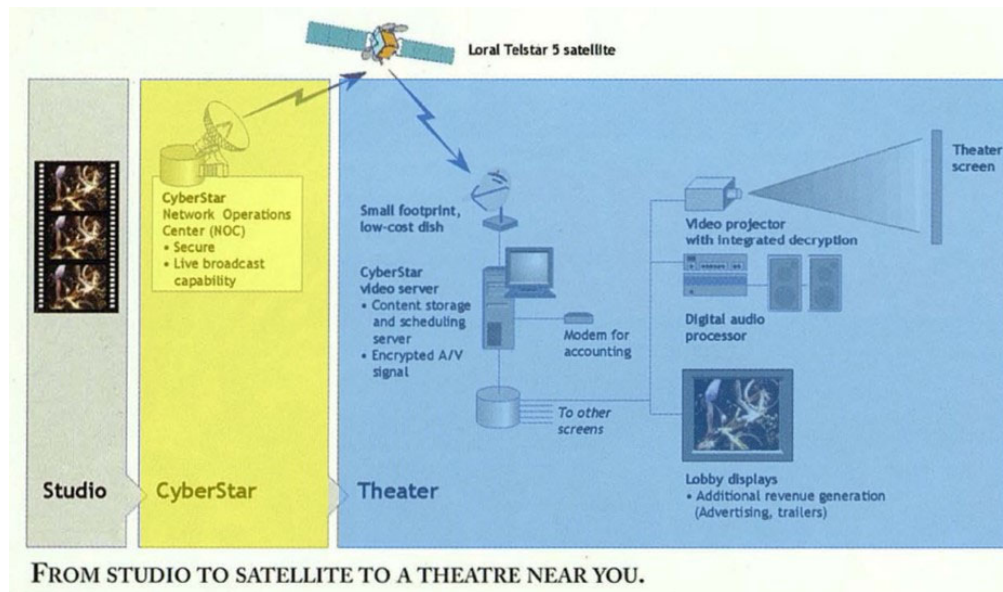
154. This combination builds on the combination of Allen and Budow discussed above. *See supra* Section X.C.1. Allen discloses that “separate ATM switches and local or regional service centers could be established for providing real-time video-on-demand feeds to homes, businesses, offices, libraries, and the like.” Ex-1006, 27:21-27. However, these additional retail outlets connect to the same host data center as described with respect to Allen’s other retail outlets. *See id.* In fact, once the host data center is in place, a POSITA would recognize that it could be used to serve a variety of retail distribution channels, such as a movie theater.

155. In this combination, Allen’s “central site”/“host data center 10” (Fig. 21, yellow) would be used to implement Kosten’s “CyberStar Network Operations Center” (Fig., yellow), and Allen’s “retail outlets 20” (Fig. 21, blue) would include Kosten’s “CyberStar video servers” at individual theaters (Fig., blue), in addition to the existing outlets 2101-2103. Budow teaches that the digital videos are transmitted from the central site to customer sites using a satellite. Ex-1008, Abstract, 2:62-65. Allen teaches that “[m]ovies are transferred to the retail facility

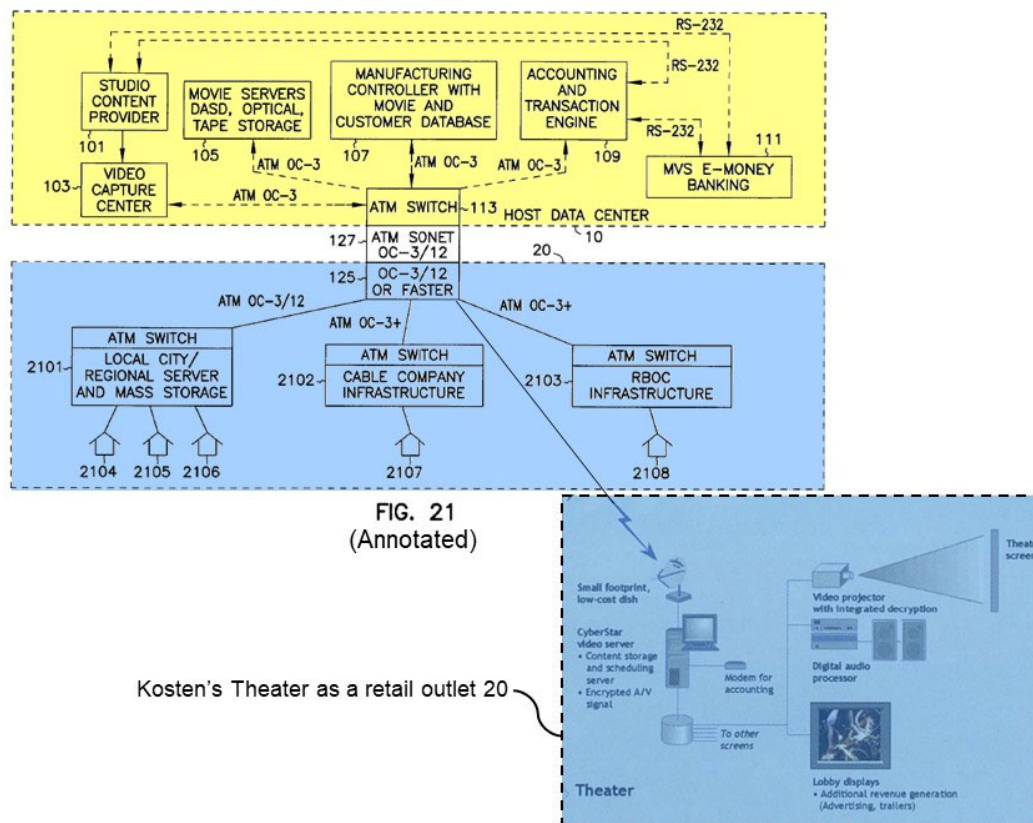
from the movie storage facility 105 using asynchronous transfer mode (ATM) protocol on an optical fiber network” but further teaches “alternate means of communicating between the host data center and the plurality of remote manufacturing centers may be through satellite communication, land-wire connection and other types of communication mediums.” Ex-1006, 10:20-30, 5:28-32.



Ex-1006, Fig. 21 (annotated).



Ex-1007, 54 (annotated). The combined Allen-Budow-Kosten system would have taken the form shown below:



156. A POSITA would have had a reasonable expectation of success in achieving their objectives, e.g., distributing digital multimedia and associated advertising materials through a central station and tracking sales and marketing data, by combining the teachings of Allen, Budow, and Kosten with no change in their respective functions because the references purport to solve these problems in similar and predictable ways, such as using the well-known teachings of digitizing non-digital materials (Ex-1006, 6:4-29; Ex-1008, 2:59-3:12, 4:6-19; Ex-1007, 54), correlating multimedia and associated advertising materials (Ex-1006, 9:53-59; Ex-1008, 3:67-4:5, 4:6-19, 6:40-67; Ex-1007, 54), and connecting multiple user sites to a central station through a public communications system (Ex-1006, 11:45-50; Ex-1008, 3:51-4:5, 6:33-39, 7:1-10; Ex-1007, 54). *See supra* §§IX.B-.D; *see also infra* §X.D.2. Moreover, a POSITA would have recognized that Allen's host data center would have had a reasonable expectation of success in connecting Kosten's theater to Allen's host data center because Allen discloses that "separate ATM switches ... could be established for providing real-time video-on-demand feeds to homes, businesses, offices, libraries, and the like." Ex-1006, 27:21-27. Indeed, Allen states that its disclosed system can be applied to "adaptations or variations" as "appreciated by those of ordinary skill in the art." *Id.* 28:7-14. Thus, adapting the Allen system to include Kosten's theater sites would be well within the capability of a POSITA.

2. Claim 5: The method of claim 1, wherein the exhibition of multimedia material is the public showing of a motion picture.

157. Allen discloses or renders obvious this claim. Allen discloses that “separate ATM switches and local or regional service centers could be established for providing real-time video-on-demand feeds to homes, businesses, offices, libraries, and the like,” including “a school library 2106.” Ex-1006, 27:21-39. The ’725 Patent discloses that “exhibitors” may include “a movie theater 18*a*, a television station 18*b*, a satellite television operator 18*c*, a cable television station 18*d* and a high school 18*e*.” Ex-1001, 4:20-23 (emphasis added). Indeed, the ’725 Patent discloses that “[o]lder films and ‘B’ movies may be available to some users, such as schools, libraries, and other non-profit organizations” and “even feature films” may be “distributed to a relatively small venue for a single showing.” *Id.* 12:38-44. Thus, the ’725 Patent recognizes that schools, libraries, and other small venues may exhibit multimedia materials publicly. And because Allen discloses providing a video-on-demand feed to “a school library,” Ex-1006, 27:31-39, Fig. 21, Allen discloses or renders obvious the public exhibition of a motion picture, such as at a school, in the same manner as the ’725 Patent.

158. In addition, Allen in view of Budow and Kosten renders this claim obvious. As discussed above, Allen discloses displaying a movie (i.e., a motion picture), Ex-1006, 27:40-58, and Kosten discloses using a movie distribution

system to transfer multimedia materials to a public movie theater for exhibition.

Ex-1007, 54. Because Allen's host data center services a variety of retail outlets, it would have been obvious to include Kosten's movie theater as a retail outlet in the same manner as the "homes, businesses, offices, libraries, and the like" to which Allen distributes multimedia material. Ex-1006, 27:21-39. Thus, Allen in view of Budow and Kosten also renders it obvious to exhibit a motion picture publicly such as in a movie theater. *See supra* §§VIII.D, E. This element is also obvious over the admitted prior art recognized by the Examiner during prosecution. *See* Ex-1004, 229, 225, 267. Thus, a POSITA would have been motivated to add a public theater as one of Allen's retail outlets to exhibit a motion picture in a public theater according to the above stated advantages. *See supra* §§VIII.A, D, E.

XI. CONCLUSION

159. For at least these reasons, Claims 1, 4-7, 9, and 11 of the '725 Patent are invalid over the prior art.

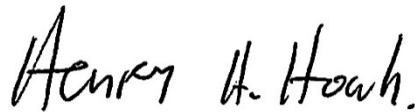
160. In signing this declaration, I understand that the declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of the United States Patent and Trademark Office. I acknowledge that I may be subject to cross-examination in this case and that cross-examination will take place within the United States. If cross-examination is required of me, I will appear for

cross-examination within the United States during the time allotted for cross-examination.

161. I declare that all statements made herein of my knowledge are true, that all statements made on information and belief are believed to be true, and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code.

162. I declare under penalty of perjury that the foregoing is true and correct.

Respectfully Submitted,

A handwritten signature in black ink that reads "Henry H. Houh". The signature is written in a cursive style with a horizontal line underneath it.

Dr. Henry H. Houh