



US009639876B1

(12) **United States Patent**
Ross, Jr. et al.

(10) **Patent No.:** **US 9,639,876 B1**
(45) **Date of Patent:** ***May 2, 2017**

(54) **METHOD AND COMPUTER SYSTEM FOR SERVING COMMERCE INFORMATION OF AN OUTSOURCE PROVIDER IN CONNECTION WITH HOST WEB PAGES OFFERING COMMERCIAL OPPORTUNITIES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 128 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **14/719,009**

(22) Filed: **May 21, 2015**

Related U.S. Application Data

(63) Continuation of application No. 13/970,515, filed on Aug. 19, 2013, now Pat. No. 9,043,228, which is a (Continued)

(51) **Int. Cl.**
G06Q 30/06 (2012.01)
G06Q 30/02 (2012.01)

(52) **U.S. Cl.**
CPC **G06Q 30/0613** (2013.01); **G06Q 30/0274** (2013.01)

(58) **Field of Classification Search**

CPC . G06Q 30/0631; G06Q 30/06; G06Q 30/0274
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,319,542 A 6/1994 King, Jr. et al.
5,515,270 A 5/1996 Weinblatt
(Continued)

FOREIGN PATENT DOCUMENTS

WO WO 99/46709 9/1999

OTHER PUBLICATIONS

PCT International Search Report; PCT/US99/21656; Jan. 25, 2000.
(Continued)

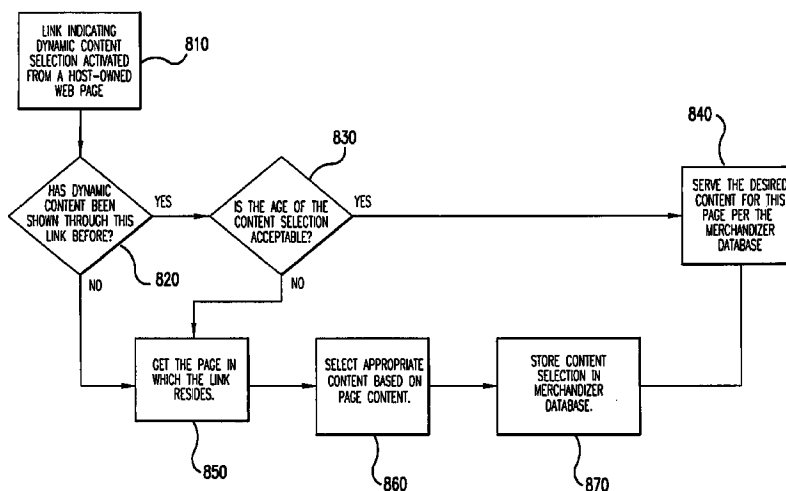
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(57) **ABSTRACT**

An ecommerce outsourcing system and method provides hosts with transparent, context-sensitive e-commerce supported pages. The look and feel of a target host is captured for future use. The host is provided with one or more links for inclusion within a page on the host website that correlates with a selected commerce object, which may be contextually related to material in the page. The commerce object can be a product, a product category, or a dynamic selection indicator. Upon activation of the provided link, a visitor computer is served with a page with the look and feel of the host website and with content based upon the associated commerce object. Where the commerce object is a dynamic selection indicator, the content is selected at the time of activation based upon an analysis of the page containing the activated link.

20 Claims, 24 Drawing Sheets



Related U.S. Application Data

continuation of application No. 12/906,979, filed on Oct. 18, 2010, now Pat. No. 8,515,825, which is a continuation of application No. 11/343,464, filed on Jan. 30, 2006, now Pat. No. 7,818,399, which is a continuation of application No. 10/461,997, filed on Jun. 11, 2003, now Pat. No. 6,993,572, which is a continuation of application No. 09/398,268, filed on Sep. 17, 1999, now Pat. No. 6,629,135.

- (60) Provisional application No. 60/100,697, filed on Sep. 17, 1998.

(58) Field of Classification Search

USPC 705/26.1, 26.41
See application file for complete search history.

(56) References Cited**U.S. PATENT DOCUMENTS**

5,537,314 A 7/1996 Kanter
5,590,197 A 12/1996 Chen et al.
5,596,702 A 1/1997 Stucka et al.
5,600,778 A 2/1997 Swanson et al.
5,630,125 A 5/1997 Zellweger
5,699,528 A 12/1997 Hogan
5,710,887 A 1/1998 Chelliah et al.
5,712,979 A 1/1998 Graber et al.
5,715,314 A 2/1998 Payne et al.
5,717,860 A 2/1998 Graber et al.
5,721,827 A 2/1998 Logan et al.
5,724,424 A 3/1998 Gifford
5,724,521 A 3/1998 Dedrick
5,727,159 A 3/1998 Kikinis
5,737,538 A 4/1998 Wilhite
5,745,681 A 4/1998 Levine et al.
5,768,528 A 6/1998 Stumm
5,778,367 A 7/1998 Wesinger, Jr. et al.
5,793,368 A 8/1998 Beer
5,796,393 A 8/1998 MacNaughton et al.
5,796,952 A 8/1998 Davis et al.
5,802,299 A 9/1998 Logan et al.
5,809,481 A 9/1998 Baron et al.
5,812,769 A 9/1998 Graber et al.
5,818,446 A 10/1998 Bertram et al.
5,819,285 A 10/1998 Damico et al.
5,825,884 A 10/1998 Zdepski et al.
5,848,396 A 12/1998 Gerace
5,850,442 A 12/1998 Muftic
5,860,068 A 1/1999 Cook
5,862,325 A 1/1999 Reed et al.
5,870,717 A 2/1999 Wiecha
5,878,219 A 3/1999 Vance, Jr. et al.
5,884,033 A 3/1999 Duvall et al.
5,884,045 A 3/1999 Kurihara
5,890,171 A 3/1999 Blumer et al.
5,890,175 A 3/1999 Wong et al.
5,893,091 A 4/1999 Hunt et al.
5,894,554 A 4/1999 Lowery et al.
5,895,468 A 4/1999 Whitmyer, Jr.
5,897,622 A 4/1999 Blinn et al.
5,898,836 A 4/1999 Freivald et al.
5,907,830 A 5/1999 Engel et al.
5,913,040 A 6/1999 Rakavy et al.
5,913,202 A 6/1999 Motoyama
5,915,243 A 6/1999 Smolen
5,918,010 A 6/1999 Appleman et al.
5,918,239 A 6/1999 Allen et al.
5,926,798 A 7/1999 Carter
5,930,765 A 7/1999 Martin
5,930,777 A 7/1999 Barber
5,933,811 A 8/1999 Angles et al.
5,937,392 A 8/1999 Alberts
5,940,834 A 8/1999 Pinard et al.
5,940,843 A 8/1999 Zucknovich et al.

5,948,061 A 9/1999 Merriman et al.
5,956,709 A 9/1999 Xue
5,963,915 A 10/1999 Kirsch
5,970,472 A 10/1999 Allsop et al.
5,978,766 A 11/1999 Luciw
5,983,227 A 11/1999 Nazem et al.
5,983,270 A 11/1999 Abraham et al.
5,987,498 A 11/1999 Athing et al.
5,991,735 A 11/1999 Gerace
5,991,740 A 11/1999 Messer
6,012,098 A 1/2000 Bayeh et al.
6,014,638 A 1/2000 Burge et al.
6,016,494 A 1/2000 Isensee et al.
6,016,504 A 1/2000 Arnold et al.
6,023,714 A 2/2000 Hill et al.
6,029,141 A 2/2000 Bezos et al.
6,032,130 A 2/2000 Alloul et al.
6,035,281 A 3/2000 Crosskey et al.
6,073,124 A 6/2000 Krishnan et al.
6,128,655 A 10/2000 Fields et al.
6,141,006 A 10/2000 Knowlton et al.
6,141,666 A 10/2000 Tobin
6,151,601 A 11/2000 Papierniak et al.
6,209,007 B1 3/2001 Kelley et al.
6,230,173 B1 5/2001 Ferrel et al.
6,247,047 B1 6/2001 Wolff
6,249,773 B1 6/2001 Allard et al.
6,253,188 B1 6/2001 Witek et al.
6,330,575 B1 12/2001 Moore et al.
6,345,239 B1 2/2002 Bowman-Amuah
6,490,567 B1 12/2002 Gregory
6,564,320 B1 5/2003 de Silva et al.
6,572,662 B2 6/2003 Manohar et al.
6,615,259 B1 9/2003 Nguyen et al.
6,629,135 B1 9/2003 Ross et al.
6,763,343 B1 7/2004 Brooke et al.
6,886,013 B1 4/2005 Beranek
7,058,597 B1 6/2006 Ronning et al.
7,337,133 B1 2/2008 Bezos et al.
7,565,308 B1 7/2009 Bollay
7,930,207 B2 4/2011 Merriman et al.
8,046,255 B2 10/2011 Bistriceanu et al.
2002/0065772 A1 5/2002 Saliba et al.
2002/0194337 A1 12/2002 Knight et al.
2004/0042432 A1 3/2004 Riaz et al.
2004/0117442 A1 6/2004 Thielen
2004/0165007 A1 8/2004 Shafron
2008/0201488 A1 8/2008 Kenner et al.
2016/0232566 A1* 8/2016 Bonalle G06Q 30/0255

OTHER PUBLICATIONS

Widyantoro, Dwi, et al.; "An Adaptive Algorithm for Learning Changes in User Interests"; Proceedings of Conference on Knowledge and Information Management; pp. 405-412; Nov. 1999.
Ciminoo, J.J. et al.; "Architecture for a Web-Based Clinical Information System that Keeps the Design Open and the Access Closed"; Proc. AMIA Symp. 1998; pp. 121-125; Nov. 1998.
"Worldres Teams Up With Yahoo!"; news release from <http://www.wiredhotelier.com>; Sep. 16, 1998.
Form S-1, Amendment No. 4, filed with Securities and Exchange Commission by Digital River, Inc.; Aug. 11, 1998.
Nwana, Hyacinth et al.; "Agent-Medicated Electronic Commerce: Issues, Challenges and Some Viewpoints"; Proceedings of the 2nd International Conference on Autonomous Agents; pp. 189-196; May 1998.
"Technology Solutions to Electronic Transactions: A White Paper"; Digital River, Inc.; 1998.
"Marketing Software in the Internet: A White Paper"; Digital River, Inc.; 1998.
Hudson, S. et al.; "Supporting Dynamic Downloadable Appearances in an Extensible User Interface Software and Technology"; pp. 159-168; Oct. 1997.
"San Diego's CVB is First to Implement internet Reservations Through Worldres"; news release from <http://www.wiredhotelier.com>; Sep. 20, 1997.

(56)

References Cited**OTHER PUBLICATIONS**

- "Worldres Provides CVBs Free Internet Technology for Web/Voice Hotel Bookings"; news release from <http://www.wiredhotelier.com>; Jul. 22, 1997.
- "Places to Stay, Now WorldRes, Completes \$4 Million 1st-Round Venture"; news release from <http://www.wiredhotelier.com>; Mar. 4, 1997.
- Balabanovic, M. and Shophanm, Y.; "Fab: Content-Based Collaborative Recommendation"; Communications of the ACM, vol. 40, No. 3; pp. 66-73; Mar. 1997.
- Yergeau, F. et al.; "Internationalization of the Hypertext Markup Language"; RFC 2070; pp. 1-43; Jan. 1997.
- "A Multilevel Approach to Intelligent Information Filtering: Model, System, and Evaluation"; ACM Transactions on Information Systems; vol. 15, Issue 4; 1997.
- "About WorldRes"; web page printout; URL: <http://web.archive.org/web/19970702032337/www.worldres.com>; 1997.
- Chistensen, Eric; "Mapping a More Complete Internet Strategy"; web page printout, URL: <http://web.archive.org/web/19970702032753/www.worldres.com>; 1997.
- Dukay, Kristin; "Unifying a large corporate Web site: A case study of www.microsoft.com"; Proc. IEEE Int'l Professional Communication Conference; pp. 321-327; 1997.
- Web Pages at <http://www.broadvision.com>; 1996.
- Dialog file 16 (database PROMT®), No. 6016914; "BookSite launches version 3.0 of the popular electronic commerce web site"; Business Wife; 2 pp.; Feb. 23, 1996.
- Dialog file 16 (database PROMT (R)), No. 6296727; "Amazon.com introduces "Amazon.com Associates—a new model for internet-based commerce"; Business Wife"; 3 pp.; Jul. 18, 1996.
- "Can Mixing 'Cookies' with Online Marketing be a Recipe for Heartburn?"; Infoworld; vol. 18, No. 30; Jul. 22, 1996.
- "RealTime Travel Info Available Online"; Dialog database file 9, document 01107096; Jan. 17, 1995.
- "Online Growth Virtually Untapped; PC Vendors Taking More Advantage of Booming Sales"; Computer Retail Week, vol. 4, No. 64; p. 160; Jun. 6, 1994.
- Resnick, P. et al.; "GroupLens: An Open Architecture for Collaborative Filtering of Netnews"; Proceedings of ACM 1994 Conference on Computer Supported Cooperative Work, Chapel Hill, NC; pp. 175-186; 1994.
- "World Choice Travel, Inc.-Affiliate Program Overview", date not specified.
- Viescas; "The Official Guide to the Prodigy Service"; Microsoft Press; (certain pages); 1991.
- "Real-Time Travel Information Is Available Online"; Newsbytes News Network; Jan. 17, 1995.
- Sarkar et al.; "Intermediaries and Cybermediaries: A Continuing Role for Mediating Players in the Electronic Marketplace"; JCMC, vol. 1 No. 3; Dec. 1995.
- Hoffman et al.; "Commercial Scenarios for the Web: Opportunities and Challenges"; <http://sloan.ucr.edu/1995/12/24/hoffman-novak-and-chatterjee-december-1995/>; Dec. 24, 1995.
- Wilson; "The Link Site Marketing Strategy"; Web Marketing Today, Issue 13; May 11, 1996.
- "The Weather Channel Predicts Sunny Skies for Two New Online Advertisers"; PR Newswire Association, Inc.; May 14, 1996.
- "AT&T Business Network Launches Personal Business Services"; PR Newswire Association, Inc.; Sep. 9, 1996.
- Novak and Hoffman; "New Metrics for New Media: Toward the Development of Web Measurement Standards"; Project 2000: elab. vanderbilt.edu, Vanderbilt University; Sep. 26, 1996.
- Deighton; "The Future of Interactive Marketing"; Harvard Business Review, pp. 4-16; Nov. 1996.
- "MyWay Teams with Lycos, MTV, Others on Push Technology"; Post-Newsweek Business Information Inc.; Feb. 10, 1997.
- "WavePhone Inc.; WavePhone Signs Top Content Partners for WaveTop Home PC Data Broadcasting Service"; M2 Communication Ltd.; Apr. 9, 1997.
- Williams; "Site Can Help the Infrequent Flier in Planning Trips"; Richmond Times-Dispatch; Apr. 28, 1997.
- Woods; "Booking Your Trip Online; Web Sites Can Be Fast, Frugal—and Frustrating"; Kiplinger's Personal Finance Magazine; pp. 128-132; May 1997.
- Web pages from www.books.com; Jun. 20-23, 1997.
- "Time Inc. New Media and WavePhone Inc. to Broadcast Internet Content over the WaveTop Wireless Home PC Service"; Business Wire, Inc.; Jul. 21, 1997.
- Carmichael; "Net Marketing: Survey of Developers Shows How Much It Costs to Add Personalization to Sites: Marketers Use Registration Data to Target their Messages"; Crain Communications, Inc.; Sep. 1, 1997.
- Deighton; "Commentary on Exploring the Implications of the Internet for Consumer Marketing"; Journal of the Academy of Marketing Science; pp. 347-351; 1997.
- Archived web page at www.hyatt.com; Dec. 10, 1997.
- Wilson; "How Does Store-Building Software Work?"; Web Commerce Today, Issue 5; Dec. 15, 1997.
- "CBS New Media Announces Strategic Partnership with Razorfish"; Business Wire, Inc.; Jan. 20, 1998.
- Schwartz; "Sellers Get a Hand with Affiliate Commerce"; Internet Week; Aug. 6, 1998.
- "USAHotelGuide.com Brings Focused Approach to Online Hotel Reservations"; MacMillan Communications; 1999.
- Curtis; "Affiliate Programs: Why They're Going to Last"; archived web page www.oneandonlynetwork.com; Sep. 15, 1999.
- "Must See Sites"; Family PC; pp. 102, 104; Jun. 1997.
- "Preview Travel, Inc. S.E.C. Form 10-K"; pp. 1-14; Dec. 31, 1997.
- "Preview Travel, Inc., 10K405—EX-10.16, Agreement dated as of Mar. 15, 1998"; Mar. 15, 1998.
- Archived web page at www.city.net; May 14, 1998.
- "Preview Travel; 1998 Annual Report"; Preview Travel; 1998.
- Archived web page at www.CyberSexToys.com; Jun. 7, 1997.
- Archived web page at www.CyberSexToys.com; Oct. 19, 1997.
- Archived web page at www.SexToyFun.com; Dec. 5, 1998.
- Archived web page at www.SexToy.com; Dec. 12, 1998.
- Archived web page at www.SexToy.com; Feb. 3, 1999.
- Perdue; "EroticaBiz; How Sex Shaped the Internet"; IdeaWorx, Chapter 4; Oct. 2002.
- Levine; "dave david levine sextoys sex toys hollywood party parties religion money"; www.davelevine.com; Aug. 11, 2006.
- "WHOIS Search Results for SexToy.com"; Network Solutions, record created on May 2, 1995.
- "WHOIS Search Results for SexToyFun.com"; Network Solutions, record created on Sep. 9, 1998.
- Archived web page at TechWave.com; Feb. 1, 1998.
- Baker; "TechWave Boosted by \$25M"; Puget Sound Business Journal; Apr. 24, 1998.
- Lang; "Product Review; TechWave PersonalStore"; <http://sellitontheweb.com>; Aug. 15, 1998.
- Various white papers from www.broadvision.com; Jan. 22, 1996.
- Screenshots of archived web page at <http://HardRock.com>; Dec. 21, 1997.
- Screenshots of "AIG SunAmerica.com; Helping You . . . Achieve Your Vision of Retirement"; <https://www.sunamerica.com>; 1997.
- "SunAmerica.com Market Summary; Terms and Conditions"; <http://fast.quote.com>; 1997.
- "SunAmerica.com Market Summary; Quotes and News"; <http://fast.quote.com>; Aug. 7, 2006.
- "The Harvard Crimson Online; Quotes, Charts, Portfolio & Reports"; <http://www.dbc.com>; 1996.
- "Data Broadcasting's Real-Time Quotes on Internet"; Post-Newsweek Business Information, Inc.; Apr. 29, 1996.
- Archived web page at www.dbc.com; Nov. 2, 1996.
- Archived web page at www.dbc.com; Dec. 19, 1996.
- Archived web page at www.dbc.com; Jul. 5, 1997.
- Sample Business Contracts—Contribution agreement among CBS Inc., Data Broadcasting Corporation and Marketwatch.com, LLC; <http://contracts.onecle.com>; Oct. 29, 1997.
- "Cnet; Quotes, Charts, Portfolio & Reports"; <http://www.dbc.com>; 1996.

(56)

References Cited**OTHER PUBLICATIONS**

- Archived web page www.ibm.com; Oct. 26, 1996.
- "IBM Customer Financing; Worldwide Customer Financing"; IBM Corp.; 1995.
- "IBM Planetwide Direct"; IBM Corp.; 1996.
- "WHOIS Search Results for IBM.com"; Network Solutions, record created Mar. 19, 1986.
- Archived web page www.one-and-only.com; Jun. 12, 1997.
- "WHOIS Search Results for oneandonlynetwork.com"; Network Solutions, record created Sep. 15, 1998.
- Archived web page www.onandonlynetwork.com; Sep. 13, 1999.
- Wilson; "Adding Value: The Key to Securing Links to Your Site"; Web Marketing Today, Issue 43; Apr. 1, 1998.
- "WHOIS Search Results for one-and-only.com"; Network Solutions, record created Nov. 30, 1995.
- Archived web page www.one-and-only.com; Aug. 31, 1999.
- Archived web page www.oneandonlynetwork.com; Sep. 8, 1999.
- "Internet Travel Network; Half a million hits daily"; 1997.
- "GetThere.com—Private Label Service"; 1997-2001.
- "ITN Announces Internet Package for Agencies"; Aug. 26, 1995.
- "Reply to RFP; Internet Travel Network"; www.itn.net; Nov. 7, 1995.
- "About the Internet Travel Network / Future Directions; Internet Travel Network"; www.itn.net; 1996.
- "A Quote to Meetings and Sports; Internet Travel Network"; www.itn.com; Nov. 27, 1995.
- "Greetings; If you haven't taken the time to look at becoming a member . . ."; Internet Travel Network News; 1997.
- Elliott; "Point of Sale; Taming the Wild Web; The ATA Issues Recommendations for Online Booking"; Travel Agent; p. 24; May 19, 1997.
- "Internet Travel Network's Guide to Online Marketing; Successful Online Strategies"; Jun. 21, 1996.
- "Car and Hotel Functionality; Internet Travel Network Becomes First Full-Service Travel Site to Go Online with Car & Hotel Reservations"; Business Wire; Jun. 24, 1996.
- "Travel Industry Embraces Internet Travel Network as a Leading Web-Based Solutions"; Business Wire; Jul. 22, 1996.
- "Internet Travel Network Announces Internet Travel Manager; Customized Service Supports Corporate Travel Management with Special Functionality"; Business Wire; Aug. 5, 1996.
- "Preview Travel; Ticket to Ride, Net Style"; The Red Herring; pp. 52, 54, 56; Fall 1996.
- "Internet Travel Network Becomes First Web-Based Travel Booking Service to Access All 4 Major Computer Reservation Systems"; Oct. 7, 1996.
- "Global Discount Travel Services with Internet Travel Network Release First Discount Travel Reservation Service Available to Consumers on the Internet"; Oct. 26, 1996.
- "Internet Travel Network Pricing"; Nov. 8, 1996.
- Archived web page www.ticketmaster.com; Mar. 20, 1997.
- "Internet Travel Network Releases New Technology for New Year"; Jan. 1, 1997.
- "New Alliances Further Geoworks' Plan to Deliver Valuable Content, Interactive Services to Smart Phone Customers"; Feb. 3, 1997.
- "Internet Leader Recognized by Travel Industry"; Business Wire; Feb. 25, 1997.
- "Internet Travel Network Releases Policy-Compliant Low-Fare Search Module for Internet Travel Manager"; Business Wire; Feb. 28, 1997.
- "Excite and Preview Travel Join Forces to Offer Reservations Service"; Preview Travel; Apr. 7, 1997.
- "CNN Interactive and Internet Travel Network Partner on CNN's Travel Guide"; Business Wire; Apr. 16, 1997.
- "Worldview Systems and Internet Travel Network Team-Up to Launch Outtahere: A Private-Label Online Travel Planning and Reservation Product"; Apr. 8, 1997.
- "Internet Travel Network and Pegasus Systems / TravelWeb Announces Partnership for Online Air and Hotel Bookings"; Business Wire; Apr. 21, 1997.
- Levere; "Cuts in Commissions Prompt Fear that Online Travel Options May Thin"; New York Times; CyberTimes; May 30, 1997.
- Bush; "Interview of Ken Orton; President, Preview Travel"; Electronic Retailing; pp. 32-36; May/Jun. 1997.
- "Sabre Travel Information Network"; date not specified.
- "User's Guide; Eeasy Sabre"; Dec. 1988.
- "Reference Guide; Easy Sabre"; 1991.
- "The Communication Medium of the 90's Arrives Oct. 1st"; Jaguar Magazine; vol. 1, No. 1; circa 1990.
- Schepp et al.; "The Complete Guide to CompuServe"; Osborn McGraw-Hill, 1990.
- "SpeakEeasy; A Newsletter for Eeasy Sabre Subscribers"; vol. VI, No. 1; May 1992.
- SabreVision Brochure, Sabre Travel Information Network; 1993.
- Moad; "Sabre Rattled; New Strategy for AMR Corp's Sabre CRS Real-Time Database; Includes Related Article on Sabre's Mainframe Computers; Company Business and Marketing"; PC Week, vol. 13, No. 4; Jan. 29, 1996.
- "Sabre Business Travel Solutions Announces Expense Management Portfolio"; Sabre Business Travel Solutions; Aug. 6, 1996.
- "Sabre and IBM to Jointly Develop Notes-Enabled Travel Management Product"; Sabre Business Travel Solutions; Aug. 6, 1996.
- Wilkinson; "Intranets Ease Travel Booking"; Business Travel News; Aug. 19, 1996.
- Rosen; "Industry Goes Intranet"; Business Travel News, Issue 353; pp. 1, 26; Aug. 19, 1996.
- NG; "Choosing A System; The Increasing Availability and Sophistication of Software Systems Makes Travel Management a snap"; Travel Agent; p. 78; Aug. 26, 1996.
- Elliott; "Enter the Giant; Microsoft Unveils a Three-pronged Plan to Become a Powerhouse in Online Travel"; Travel Agent; pp. 84-86; Sep. 9, 1996.
- Rosen and O'Connor; "BTS Signs Up Partners"; Business Travel News; Sep. 9, 1996.
- Rosen; "Early Birds Get Tools"; Business Travel News, Issue 355; pp. 1, 36-37; Sep. 16, 1996.
- NG; "Looking for New Electronic Products to Help Manage Your Business? Sabre May Have the Answer"; Travel Agent; p. 62; Sep. 16, 1996.
- Bittle; "Andersen: On-Line Booking a Natural Progression"; Travel Weekly; Sep. 19, 1996.
- Andrews; "Cisco Tests Travel Service on Its Intranet"; www.iworld.com, reprinted from Web Week, vol. 2, Issue 14; Sep. 23, 1996.
- Maddox; "Traveling on the Web; Travelocity refines its Web site to better compete for travel reservations"; Information Week; pp. 63-65 Jan. 20, 1997.
- "Sabre; BTI Americas Create Alliance; ManTIS Architecture Gains Strength of Sabre Business Travel Solutions"; PRNewswire; Feb. 24, 1997.
- Foley; "Sabre's Challenge; Reservations group adds new apps to its mainframe core to win customers"; Information Week; pp. 83-85; Aug. 18, 1997.
- "US Airways and the Sabre Group Sign Letter of Intent for a Multi-Billion Dollar Long-Term Technology Relationship"; The Sabre Group; Aug. 28, 1997.
- "The Future Belongs to Those with the Vision to See It"; PhoCus Wright the Online Travel Conference; Nov. 3, 1997.
- "Life with the Internet"; Internet Magazine; Digital Reprint Edition; pp. 108-112; Oct. 1994.
- "Quote.com Network Provides Online Advertisers with High-Volume Impressions, Valued Demographics; Leading Internet Network Gains Momentum with Premier Co-Branded Sites"; PR Newswire; Dec. 3, 1996.
- "Quote.com to Provide Business Week Online with Up-To-The-Minute Financial Market Data; The Web's Premier Financial News and Information Service Now Integrated with Business Week Online's Web Site"; PR Newswire; Dec. 3, 1996.
- "Excite and Quote.Com Partner to Deliver Stock Quotes and Business News to Excite Network; Leading Brands Provide Consumers Stock Quotes, Business Updates, News and Information"; PR Newswire; Mar. 3, 1997.
- "Quote.com Further Levels Playing Field for Independent Investors with Powerful New Ver . . ."; www.quote.com; May 11, 1998.

(56)

References Cited**OTHER PUBLICATIONS**

- "A Letter from Stock-Trak to Quote.com"; Jul. 13, 1998. Archived web page <http://fast.quote.com>; Dec. 6, 1998. Archived web page <http://fast.quote.com>; Dec. 7, 1998. Archived web page www.stocktrak.com; Jan. 27, 1999. Archived web page <http://fast.quote.com>; Jan. 28, 1999. Archived web page <http://fast.quote.com>; Feb. 9, 1999. Archived web page <http://fast.quote.com>; Feb. 19, 1999. Archived web page <http://fast.quote.com>; May 8, 1999.
- "TeamWARE"; TeamWARE Group; pp. 1-25; 1996.
- "TeamWARE and the Internet; Synergies for a Comprehensive Computing Environment"; TeamWARE Group; pp. 1-15; Mar. 13, 1996.
- "Tech Squared Announces That New Web Site Is Operational; Expects Digital River Site Up and Running by Mid-June"; Business Wire, Inc.; Jun. 5, 1996.
- "Digital River Announces First Encrypted Software Sale"; PR Newswire Association, Inc.; Aug. 12, 1996.
- Woollacott, et al.; "Web Spoofing Poses New Security Threat"; Info World, vol. 19, Issue 1, pp. 33-34; Jan. 6, 1997. Archived web page www.digitalriver.com; Apr. 12, 1997. Archived web page www.qfx.com; Jul. 7, 1997.
- "Claw (Physical Shipment) 1st software"; www.3digitalriver.com; Jan. 5, 1998.
- "Electronic Software Distribution Agreement"; Digital River, Inc. and Fujitsu Software Corp.; pp. 1-14; Jul. 16, 1997.
- "Welcome to Blue Byte Software, Inc. Electronic Ordering!!"; www.3digitalriver.com; Aug. 11, 1997.
- "Corel Teams with Digital River to Expand Online Shopping Centre"; PR Newswire Associate, Inc.; Aug. 14, 1997.
- "Digital River Signs 500th Client for Internet Software Delivery"; PR Newswire Association, Inc.; Aug. 20, 1997.
- "Tympani Development Store"; www.4digitalriver.com; Aug. 24, 1997.
- "Lucida Font Family; Please select from the following."; www.3digitalriver.com; Aug. 25, 1997.
- "DTP Direct"; www.4digitalriver.com; Aug. 28, 1997.
- "Digital River to Offer Symantec Products to Its Online Dealer Network"; PR Newswire Association, Inc.; Sep. 10, 1997.
- Kistner, et al.; "Lets Go Shopping"; PC Magazine; certain pages; Nov. 18, 1997.
- "2ask Software Store"; www.3digitalriver.com; Nov. 24, 1997. Archived web page digitalriver.com; Dec. 21, 1997.
- Giombetti; "Avant-Garde Entrepreneur; Joel Ronning of Digital River Is Racing to Keep His Online Software Delivery Company out in Front in What He Believes Will Eventually Be a Global Oligopoly"; Minnesota Business & Opportunities; Dec. 1997. Email exchange between Scott Platt of Digital River and Steve Estv Anik re: "Status of changes"; Jan. 2, 1998.
- Digital River Press Release; "Digital River Signs Online Partnership with J&R Computer World"; Jan. 19, 1998.
- "Ron Scott, Inc.; QFX The Ultimate Image Editing Solution"; www.digitalriver.com; Mar. 14, 1998.
- "SFS Software Store"; www.digitalriver.com; Mar. 14, 1998.
- "North Beach Labs Software Store; Disk Duplicator"; www.digitalriver.com; Mar. 14, 1998.
- "Sapient Software Store"; www.digitalriver.com; Mar. 16, 1998.
- "Auto F/X Corporation Software Store"; www.digitalriver.com; Mar. 31, 1998.
- "The Ultimate Directory—InfoSpace"; www.infospace.com; Apr. 10, 1998.
- "Integratech Software Store"; www.digitalriver.com; Mar. 30, 1998.
- "DTP Direct Software Store"; www.digitalriver.com; May 28, 1998.
- "Innovation Multimedia Software Store"; www.digitalriver.com; May 29, 1998.
- "MicroProse, Inc. Software Store"; www.digitalriver.com; Jun. 24, 1998.
- "MicroProse, Inc. Software Store"; www.digitalriver.com; Jun. 30, 1998.
- "MicroProse Games List"; www.microprose.com; Mar. 10, 1998. Screen shots of BuyComp web site hosted on both buycomp.com and digitalriver.com.
- "Digital River; The Journey Continues"; 1998.
- "Corporate Backgrounder"; Traveling Software; Jun. 22, 1998.
- "PIM Sari Software Store"; www.digitalriver.com; Mar. 26, 1998.
- "Extended Help Center; 1st stop"; www.1stopsoft.com; Nov. 14, 1997.
- "Visual Office: The best personal productivity tool; Drowning in Infoglut? Spending Too Much Time Searching?"; visualoffice.pair.com; Oct. 9, 1997.
- Archived web page www.bistream.com; Jan. 17, 1997.
- Bitstream Typeface Library; Online Ordering; date not specified. Archived web page www.2.digitalriver.com; Oct. 19, 1996.
- "Arrow Publishing Software Store"; www.digitalriver.com; May 14, 1998.
- "Osis Software Store"; www.digitalriver.com; Apr. 3, 1998.
- "Net Nanny Software Store"; www.digitalriver.com; Apr. 14, 1998.
- "Sunbow International, Inc Software Store"; www.digitalriver.com; Mar. 14, 1998.
- "Bizplan Bulder interactive"; www.digitalriver.com; Mar. 11, 1998.
- "Adaptec, Inc. Software Store"; www.digitalriver.com; Jul. 21, 1998.
- "Valley of Fire Software Online Store"; www.digitalriver.com; Dec. 22, 1999.
- "Jan's Journeys"; www.3.digitalriver.com; Aug. 26, 1997.
- "Welcome to Whirlwind Technologies Electronic Ordering System"; www.3.digitalriver.com; Jun. 18, 1997.
- "Peach System Software Store; MVP Software, Inc."; www.digitalriver.com; Mar. 14, 1998.
- "Olympus America Inc. Software Store"; www.digitalriver.com; Jun. 22, 1998.
- "Peak Technology Ltd. Software Store"; www.digitalriver.com; Feb. 15, 1999.
- "PY Software, Inc Software Store"; www.digitalriver.com; Mar. 14, 1998.
- "RBC, Inc. Software Store"; www.digitalriver.com; May 11, 1998.
- "Welcome to QRS Music, Inc. Electronic ordering"; www.digitalriver.com; Mar. 14, 1998.
- "Welcome to Global Majic Software, Inc. Electronic ordering"; www.3.digitalriver.com; Aug. 11, 1998.
- "InterDimensions Corp Software Store"; www.digitalriver.com; May 5, 1998.
- "Intelligent Technologies Software Store"; www.digitalriver.com; May 5, 1998.
- "Global Majic Software, Inc. Software Store"; www.digitalriver.com; May 20, 1998.
- "Lateral Technologies Software Store"; www.digitalriver.com; Apr. 30, 1998.
- "Internet Neighborhood; KNOWARE, Inc."; www.3.digitalriver.com; Feb. 9, 1998.
- "KH Software Development Online Store"; www.digitalriver.com; Dec. 1, 1999.
- "Open Window Software Store"; www.digitalriver.com; May 11, 1998.
- "Welcome to the Live Picture Online Store"; www.3.digitalriver.com; Aug. 15, 1997.
- "WinSite Software Store"; www.digitalriver.com; Feb. 4, 1998.
- "Apple Mountain Software Store"; www.digitalriver.com; Apr. 10, 1998.
- "DTP Direct Software Store"; www.digitalriver.com; May 12, 1998.
- "M. Casco Associates Software Store"; www.digitalriver.com; May 26, 1998.
- "Mach5 Software Store"; www.digitalriver.com; May 11, 1998.
- "Cyber 411"; www.3.digitalriver.com; Feb. 4, 1998.
- "Matchup Sports Software Store"; www.digitalriver.com; May 6, 1998.
- "Markus Friberg Data Software Store"; www.digitalriver.com; May 6, 1998.
- "ARCAINE Technology"; inv1.digitalriver.com; May 12, 1997.
- "ARCAINE Technology"; www.4.digitalriver.com; May 9, 1997.
- "Artbeats Software Store"; www.digitalriver.com; Jan. 28, 1998.

(56)

References Cited

OTHER PUBLICATIONS

- "Author Direct Shareware Software Store"; www.digitalriver.com; Apr. 14, 1998.
- "Best Effort Software Store"; www.digitalriver.com; Apr. 13, 1998.
- "BuenSoft Co. Software Store"; www.digitalriver.com; Apr. 30, 1998.
- Archived web page www.1stsoftware.com; Apr. 21, 1998.
- Century Technology Group Summary; Apr. 17, 1998.
- "Microshops Proposal"; Jan. 22, 1998.
- Letter to Unicoil from Del Ross; Feb. 3, 1998.
- Century Technology Group—A Nexchange Proposal for Dunwoody Gourmet; Mar. 11, 1998.
- Archived webpage at www.e-merchant-group.com; May 16, 1998.
- Archived web page at www.statenisland.com; Apr. 18, 1997.
- Archived web page at www2.travelnow.com; Sep. 21, 1999.
- Archived web pages at www.sextoy.com; May 17, 1998.
- Andrews; "Partners in Affiliate Marketing Struggle with Branding Issues"; *Internet World*; Apr. 13, 1998.
- Marciano; "Are Affiliate Programs for You?"; *Web Marketing Today*; Apr. 1, 1998.
- Archived web pages at www.one-and-only.com; Apr. 1999.
- Archived web page at www.financing.hosting.ibm.com; Dec. 27, 1996.
- Archived web page at www.ibm.com; Dec. 20, 1996.
- Archived web page at www.dbc.com; (NYSE); 1996.
- "Data Broadcasting to Offer Real-time Internet Quote Service for \$29.95 a Month"; *M2 PRESSWIRE*; Jan. 3, 1996.
- "Data Broadcasting Real-time Stock Market Quote Service Begins; \$29.95 Monthly Fee Includes Mandatory Exchange Fees"; *Business Wire*; Apr. 26, 1996.
- Archived web page at www.dbc.com; Nov. 15, 1996.
- Quote.com Provides Seven High-Profile Web Sites with Financial News and Information; *PR Newswire*; Jun. 10, 1996.
- BPAI decision; *Ex parte* DDR HOLDING, LLC; Appeal 2009-0013987; Reexamination Control 90/008,374; U.S. Pat. No. 6,993,572; Apr. 16, 2010.
- BPAI decision; *Ex parte* DDR HOLDINGS, LLC; Appeal 2009-0013988; Reexamination Control 90/008,375; U.S. Pat. No. 6,629,135; Apr. 16, 2010.
- Defendants' Invalidity Contentions from Civil Action No. 2-06CV-42 (DF); Jun. 6, 2011.
- ASPAIance.com Sample Book Chapters, Chapter 1: Foundation Concepts; Taken from "Cascading Style Sheets: Separating Content from Presentation"; Glasshaus; believed first published Apr. 1, 2004.
- Sugiura and Koseki; "Internet scrapbook: automating Web browsing tasks by demonstration"; Proceedings of the 11th Annual ACM symposium on User Interface Software and Technology; pp. 9-18, 1998.
- Archived web pages at Lycos.com and Newsalert.com, with page source; Dec. 11, 1997.
- Internet Archive FAQ; archived web page; Mar. 10, 2001.
- Archived web pages at REI.com and Mammut.ch, with page source; Feb. 22, 1997.
- Conway, et al.; "Net.Commerce for OS/390"; IBM International Technical Support Organization; Jul. 1998.
- Ellsworth; "Using Compuserv—The Comprehensive Guide to All the Online Services and Resources Available!"; 1994.
- Bowen & Peyton; "How to Get the Most Out of Compuserv"; 5th Edition; 1993.
- DPP-Build Program Usage Guide for Version 2; Jun. 26, 1992.
- Combined Mall Product Analysis; week of Jul. 14, 1996 through Jul. 20, 1996.
- Hubbard; "E-commerce firm lands \$9 million"; *Atlanta Business Chronicle*; Aug. 20, 1999.
- Archived web page at Teachnet.com/Brainstorm of the Day; Apr. 29, 1999.
- Archived web page at Talkcity.com; Apr. 29, 1999.
- Dunn; "Winning the Affiliate Game: A Ten-Step Master Plan for Maximizing Your Profits"; 1998.
- "e-business case studies Recreational Equipment, Inc., An Internet retaining innovator"; IBM; 1999.
- "e-business Solutions Leading retailer makes Internet shopping a personal experience"; IBM; 1998.
- "IBM Launches Global Small Business Initiative Backed by \$100 Million Marketing Campaign"; IBM / Business Wire; May 4, 1999.
- Vestal; "Electronic Commerce Environments: Corporate Obstacles and Opportunities to Competitiveness"; INSS 690 Thesis; Bowie State University; Aug. 1, 1999.
- Sawhney & Kaplan; "The Emerging Landscape of Business to Business Ecommerce"; *Business 2.0 Magazine*; Sep. 1999.
- Klein & Lindermann; "New Architecture for Webenabled EDI-Applications and their Impact on VANS"; Research Paper; Apr. 26, 1999.
- Yarden; "Evaluating the Performance of Electronic Commerce Systems"; Proceedings 1997 Winter Simulation Conference; 1997.
- Zwass; "Structure and Macro-Level Impacts of Electronic Commerce: From Technological Infrastructure to Electronic Marketplaces"; Emerging Information Technologies/Sage Publications; 1998.
- Bakos; "The Emerging Role of Electronic Marketplaces on the Internet"; Communications of the ACM; Aug. 1998.
- Bailey & Bakos; "An Exploratory Study of the Emerging Role of Electronic Intermediaries"; *International Journal of Electronic Commerce*; vol. 1, No. 3, Spring 1997.
- Burton & Mooney; "The Evolution of Electronic Marketplaces: An Exploratory Study of Internet-Based Electronic Commerce Within the American Independent Insurance Agency System"; *AJIS*; Nov. 1998.
- Dogac et al.; "An Electronic Marketplace Architecture"; Idea Group Publishing; 1999.
- Claim Construction ORDER; Civil Action No. 2:06-CV-00042 (DF); Nov. 21, 2011.
- ORDER on Defendants' Rule 72 Objections and Motion for Resconsideration; Civil Action No. 2:06-CV-00042 (DF); Feb. 21, 2012.
- Defendants' Amended Invalidity Contentions Pursuant to Local Rule 3-6; Civil Action No. 2-06CV-42 (DF); Feb. 6, 2012.
- Claim Charts from Defendants' Amended Invalidity Contentions; Civil Action No. 2-06CV-42 (DF), comparing claims of Ross et al. U.S. Pat. No. 6,629,135 to various references; Feb. 6, 2012.
- Claim Charts from Defendants' Amended Invalidity Contentions; Civil Action No. 2-06CV-42 (DF), comparing claims of Ross et al. U.S. Pat. No. 6,993,572 to various references; Feb. 6, 2012.
- Claim Charts from Defendants' Amended Invalidity Contentions; Civil Action No. 2-06CV-42 (DF), comparing claims of Ross et al. U.S. Pat. No. 7,818,399 to various references; Feb. 6, 2012.
- Edwards, et al.; "Making Money in Cyberspace"; Sep. 1998.
- Archived web pages at www.wilsonweb.com; Feb. 7, 1998.
- Archived web page at www.wilsonweb.com; Jun. 26, 1998.
- Wilson, Ralph; "Review of ShopSite Manager 3.1"; *Web Commerce Today*; Issue 2; Sep. 15, 1997.
- Screen images from www.wilsonweb.com, showing "Review of ShopSite Manager 3.1"; from *Web Commerce Today*; Issue 2; Sep. 15, 1997.
- Wilson, Ralph; How ViaWeb and ShopSite Pro Incorporate Affiliate Program Software; *Web Commerce Today*; Issue 8, Mar. 15, 1998 (as posted on www.wilsonweb.com).
- Archived web page at astrology.net; Oct. 29, 1996.
- Archived web pages at www.viamall.com; Mar. 29, 1997.
- Archived web page at www.austads.com; May 20, 1998.
- "The CDnow Story", pp. 172-176, referring to history in Nov. 1994, Mar. 1997, and "early in 1998."
- Screen image from Barry's Temple of Godzilla: www.godzillalatemple.com, showing CDnow.com; Sep. 24, 1998.
- Screen image from rollingstone.com, showing links to CDnow, Sep. 24, 1998.
- Halper, Mark; Archived web page at www.businessweek.com, dated Jun. 15, 1997, showing "Cyberstorefronts for Rookies"; Oct. 12, 2008.

(56)

References Cited**OTHER PUBLICATIONS**

Archived web page at www.fredericks.com; Jul. 21, 1997.
 Pages from Publishers Weekly, U.S. Copyright Office, and Phoenix Public Library, showing publication of Edwards' "Marketing Money in Cyberspace"; Aug. 10, 1998.
 Archived web page at www.fredericks.com; Apr. 18, 1997.
 Archived web page at www.thespace.com; Dec. 12, 1998.
 Archived web page at www.kennedyspacecenter.com; Jan. 30, 1998.
 Archived web page at nasa.viamall.com; Dec. 22, 1997.
 Trademark Electronic Search System (TESS) record of MarketplaceMCI; Reg. No. 1,940,267, filed Aug. 19, 1994.
 Messmer, E.; "MCI opens electronic mall on 'Net'; Network World; Apr. 3, 1995.
 "Nordstrom E-Mail Shopping Expanded to MarketplaceMCI"; The Seattle Times; Oct. 5, 1995.
 "News Corp./MCI Online Venture adds Nordstrom to marketplaceMCI"; Business Wire; Oct. 5, 1995.
 "News Corp./MCI Online Ventures Offers Innovations in Online Shopping"; Business Wire; Dec. 5, 1995.
 "News Corp./MCI Online Ventures adds greater shopping variety to marketplaceMCI with six new stores"; Business Wire; Nov. 2, 1995.
 "News Corp./MCI Online Ventures Announces Grand Opening of Online Shopping Mall"; Business Wire; Sep. 7, 1995.
 "MCI unveils internetMCI; new MCI-branded software, nationwide access, content and shopping services"; Business Wire; Mar. 27, 1995.
 "Viaweb's First Business Plan"; from webpage <http://www.paulgraham.com/vwplan.html>; referring to document dated Aug. 24, 1995.
 Archived web page at www.rollingstone.com; Dec. 10, 1997.
 Wilson, Ralph F.; "Shopping Carts for Small Sites"; Web Commerce Today; Issue 6; Jan. 15, 1998.
 Archived web page at shopsite.com; Dec. 28, 1996.
 Archived web pages at www.shopsite.com; Jan. 10, 1997.
 United States Copyright Office, Certificate of Registration of Edwards' "Making Money in Cyberspace", submitted Sep. 8, 1998, registered Oct. 13, 1998.
 Wikipedia page for RTML, <http://en.wikipedia.org/wiki/RTML>, Apr. 4, 2011.
 "Digital River: Plumbing the Web"; The Digital River Review; Feb. 1998.
 Web pages from www3.digitalriver.com; May 1998.
 Web pages from www.sdcorp.com with related source code; May 14, 1998.
 Breimhurst, Henry; "Digital River plans an IPO this year"; CityBusiness; Apr. 24, 1998.
 Archived web pages at www.viaweb.com; "Press Quotes"; Jun. 6, 1997.
 Archived web pages at www.austads.com with related source code; May 20, 1998.
 Archived web pages at www.fredericks.com; Nov. 4, 1996.
 Archived web pages at www.fredericks.com, with related source code; Feb. 4, 1997.
 Altaner, David; "Interest in Internet Retailing Sites Slows to a Trickle"; <http://articles.sun-sentinel.com>; Sep. 25, 1997.
 "Yahoo to Acquire Viaweb"; Press Release found at <http://docs.yahoo.com/docs/pr/release184.html>; Jun. 8, 1998.
 ForeFront releases WebWhacker 1.0; CNET News; Jan. 4, 1996.
 ForeFront-WebWhacker User's Guide; 1995-1996.
 "Offline Web browsing: It's like surfing in Ohio"; infoworld.com; vol. 18, Issue 32; Aug. 5, 1996.
 "You can take it with you with ForeFront's WebWhacker"; infoworld.com; vol. 19, Issue 18; May 5, 1997.
 Archived webpage at www.ffg.com regarding WebWhacker 3.0; Apr. 1, 1997.
 Archived webpage at www.ffg.com regarding WebWhacker; Dec. 31, 1996.
 Expert Report of Peter Kent Regarding Invalidity of the '135, '572, and '399 Patents; Civil Action No. 2-06CV-42 (DF); May 18, 2012.

Select exhibits from Expert Report of Peter Kent Regarding Invalidity of the '135, '572, and '399 Patents; Civil Action No. 2-06CV-42 (DF); May 18, 2012.
 Selected pages from Incognito Café Web site describing Book Stacks Unlimited links partner program, 1996.
 Nexchange Merchant Internet Distributed Commerce Network Agreement, for Dunwoody Gourmet; Sep. 1, 1998.
 MicroShops Business Plan, Century Technology Group, MicroShops, version 0.2, Mar. 1998.
 Digital River, Inc. Dealer Agreement with Octal Publications Limited, Jan. 1, 1997.
 Online Decision Strategies presentation to Syntellect Interactive Communications; 1996.
 Screenshots from a video clip dated Mar. 31, 2012, of a Digital River employee showing certain archived webpages from www.ffg.com (Dec. 31, 1996) and www.miramarsys.com (Nov. 11, 1996) and reconstructions of pages served by Digital River for ForeFront and Miramar Systems, Inc.
 Screenshots from a video clip dated Mar. 15, 2012, of a Digital River employee showing certain archived webpages from www.digfrontiers.com (Nov. 2, 1996) and reconstructions of pages served by Digital River for Digital Frontiers.
 "Firm does placement"; St. Paul Pioneer Press; Tuesday, Apr. 28, 1998.
 Output files of Web Whacker software used in the DR Secure Sales System; allegedly used with respect to certain 1996 websites; cited in Defendants' Amended Invalidity Contentions Pursuant to Local Rule 3-6; Civil Action No. 2-06CV-42 (DF); Feb. 6, 2012.
 Archived webpage at <http://ego.net/>; Dec. 22, 1997.
 Archived webpage at www2.travelnow.com; Sep. 30, 1999.
 Archived webpage at www.newyorknews.com; Feb. 4, 1998.
 Archived webpage at www.newyorknews.com; Jul. 12, 1998.
 Archived webpage at www.newyorknews.com; Feb. 19, 1999.
 Archived webpage at www2.travelnow.com; Sep. 11, 1999.
 Archived webpage at www.travlang.com; Feb. 27, 1997.
 Archived webpage at www.travelnow.com; May 12, 2000.
 Archived webpage at <http://travel.yahoo.com>; Dec. 6, 1998.
 Archived webpage at www.statenislandonline.com; Apr. 18, 1997.
 Archived webpage at www2.travelnow.com; Nov. 13, 1999.
 The Sabre Group Holdings, Inc., SEC Form 10K for Fiscal Year 1996; Mar. 31, 1997.
 The Sabre Group Holdings, Inc., SEC Form 10K for Fiscal Year 1997; Mar. 30, 1998.
 The Sabre Group Holdings, Inc., SEC Form 10K for Fiscal Year 1998; Mar. 19, 1999.
 "Netscape and the Sabre Group Launch Innovative Travel Booking Service on Netscape Netcenter; Travelocity Featured as Exclusive Travel Partner for Netcenter's Marketplace"; Jan. 26, 1998.
 Yahoo! Media Relations press release, "Yahoo! and the Sabre Group Team Up to Bring Users Travel Booking Services"; Nov. 10, 1997.
 Yahoo! Media Relations press release, "The Sabre Group Renews Contract Between Travelocity.com and Yahoo!"; Jan. 24, 1999.
 Memorandum Opinion and Order on Defendants' Renewed Motions for Judgment as a Matter of Law, and Digital River, Inc.'s Motion for New Trial; Civil Action No. 2:06-CV-00042 (DF); Jun. 20, 2013.
 Memorandum Opinion and Order on DDR Holdings, LLC's Motion for Entry of Judgment; Civil Action No. 2:06-CV-00042 (DF); Jun. 20, 2013.
 Judgment in favor of DDR Holdings, LLC; Civil Action No. 2:06-CV-00042 (DF); Jun. 20, 2013.
 Keech, Ellen S.; "Infonautics provides the Atlanta Journal and Constitution with full service archives"; PR Newswire, New York; Feb. 25, 1997; hereinafter Infonautics was extracted from Proquest database on Jun. 25, 2012.
 Joint Claim Construction and Prehearing Statement; Civil Action No. 2:06-CV-00042 (DF); filed Sep. 9, 2011.
 Definitions of "hyperlink" and "links" from: Barron's Dictionary of Computer and Internet Terms; 7th Ed.; 2000; pp. 227, 273.
 Definitions of "look and feel" from: PCMag.com encyclopedia; 2010.
 Definition of "third party" from: The Compact Oxford English Dictionary, 2nd Ed.; p. 956; 1989.

(56)

References Cited

OTHER PUBLICATIONS

Keller, Arthur M.; "Smart Catalogs and Virtual Catalogs"; Proceedings of the First Conference on Usenix Workshop on Electronic Commerce; 1995.

Laufmann, Steve; "The Information Marketplace; Achieving Success in Commercial Applications"; Lecture Notes in Computer Science 1028; pp. 115-147; 1996.

Jacobs, Marcia A.; "Microsoft Details Merchant Plans"; CommunicationsWeek; Feb. 26, 1996.

"Now Software redefines calendar and address book publishing on the World Wide Web; New products enable Atlantic Records, Wall Street Journal, Sports Illustrated, and other top Web sites to publish 'State-of-the-Art' calendars and address books"; Business Wire; Apr. 8, 1996.

"Microsoft Makes It Simple to Sell on the Web; Release of Merchant Server Expected to Ignite Internet Commerce"; Microsoft Corporation; Oct. 30, 1996.

Arden, Ronald K.; "Safe Internet Shopping with Microsoft Merchant System"; WindowsITPro.com; Oct. 31, 1996.

Asfar, Roy; "Supersite makes browsing easier"; Computer Reseller News; p. 359; Nov. 11, 1996.

Spring, Greg; "Warner CityWeb seekd online affiliates"; Electronic Media; Jan. 6, 1997.

"About Vicinity Corporation/Infnet and Vicinity Announce Partnership to Provide Vicinity's Premier Local Content and Services to Infnet's Newspaper Customers Nationwide"; archived webpages at www.vicinity.com; Feb. 4, 1997.

"Customer Management on the Internet—Building a Community of Customers"; The Ragens; Apr. 1997.

"Microsoft Internet Commerce Strategy: A Foundation for Doing Business on the Internet"; Microsoft Corporation; May 1997.

Pereira, Pedro; "Online ordering takes off"; Computer Reseller News; May 5, 1997.

Blake, Paul; "Unobscured objects of desire"; Information World Review; Sep. 30, 1997.

"World Media Network Launches Shopping Network"; Worldwide Videotex Update; Oct. 1997.

Chronister, Kristian; "Is Agentics the sourcing solution? —Co. to introduce new approach to online purchasing dilemma"; Electronic Buyers' News 1087; Dec. 8, 1997.

"Kicking Tires, Virtually, Via Cars.com"; Newsbytes; Dec. 17, 1997.

Be Free Technology; archived webpage from www.befree.com; Jan. 24, 1998.

Be Free Sites; archived webpage from www.befree.com; Jan. 24, 1998.

Be Free Affiliate Management Service Chosen by Electronic Newsstand, Inc.; archived webpage from www.befree.com; Jan. 24, 1998.

"The Daily News Surges Toward \$100,000 in New Annual Revenues Using AdOne Online Classified Ad Solution"; Ad-One Classified Network; archived webpage from www.adone.com; Feb. 4, 1998.

PC Order—Who We Are/Web Storefront 3.0; archived webpages from www.pccorder.com; Feb. 18, 1998.

"DataMark's Books Now Division to Provide Virtual Bookstores for ElectricVillage's Network of Radio Station Web Sites"; Business Wire; Apr. 7, 1998.

"The Opportunity: Affiliate Networks: A Revolution in Retail"; archived webpage from www.befree.com; May 12, 1998.

Kuchinskas, Susan; "Floating a Website"; Web Review—Cross-Training for Web Teams; May 29, 1998.

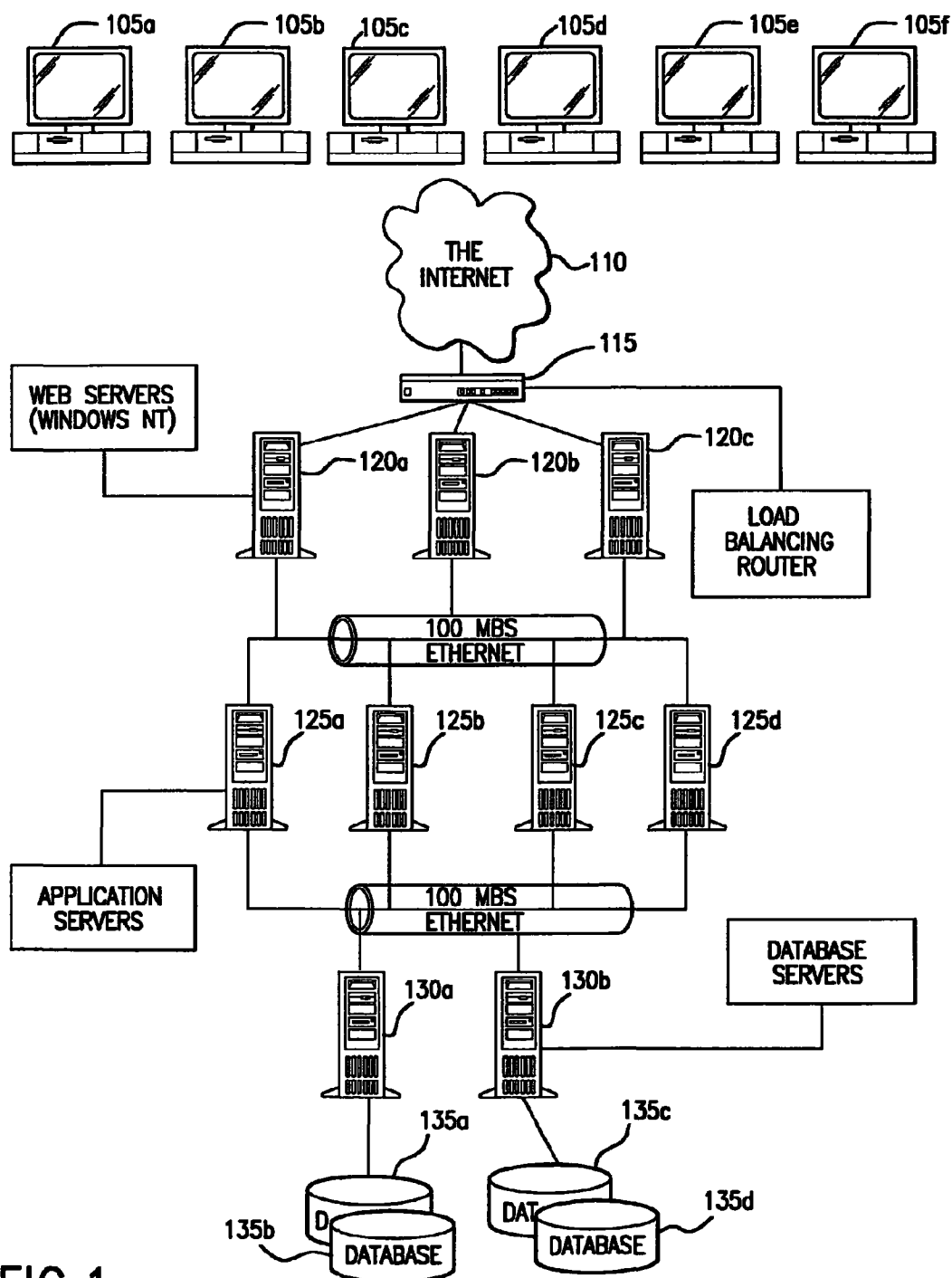
"LinkShare Corporation Launches Software to Link Merchants to Internet's Most Advanced Affiliate Program"; PR Newswire; Aug. 10, 1998.

NewsEdge for Extranets Program Lets Customers 'News Enable' Web Sites, Private Networks; NewsEdge; Sep. 1, 1998.

"Mecklermedia's Internet.com Enhances No-Cost Internet News Affiliate Program with News Harvester 3.0"; Mecklermedia; Sep. 3, 1998.

Opinion and Judgment; *DDR Holdings, LLC v. Hotels.com, L.P.*; U.S. Court of Appeals for the Federal Circuit, Case No. 2013-1505; Dec. 5, 2014.

* cited by examiner



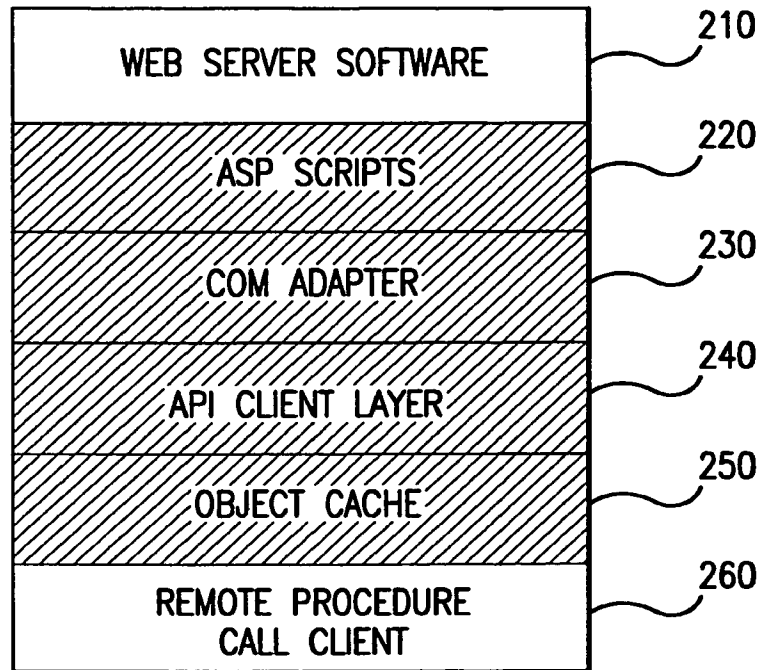


FIG. 2

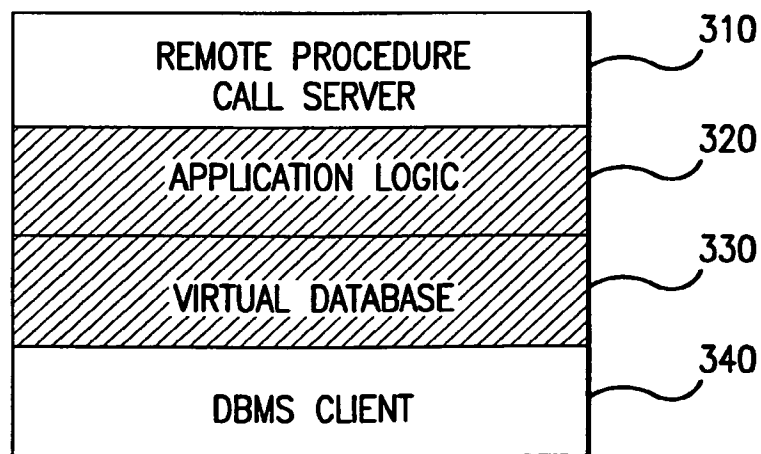


FIG. 3

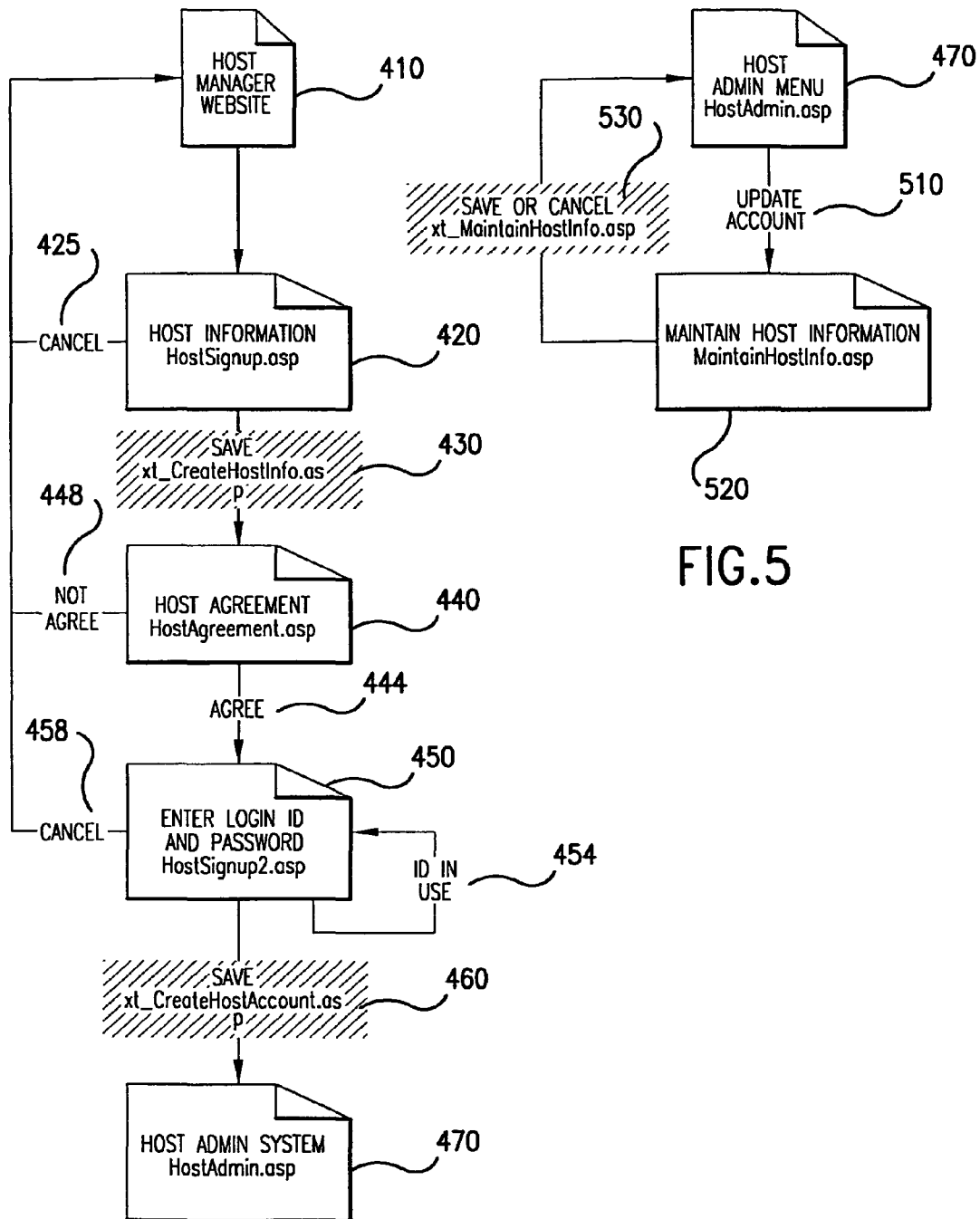


FIG.5

FIG.4

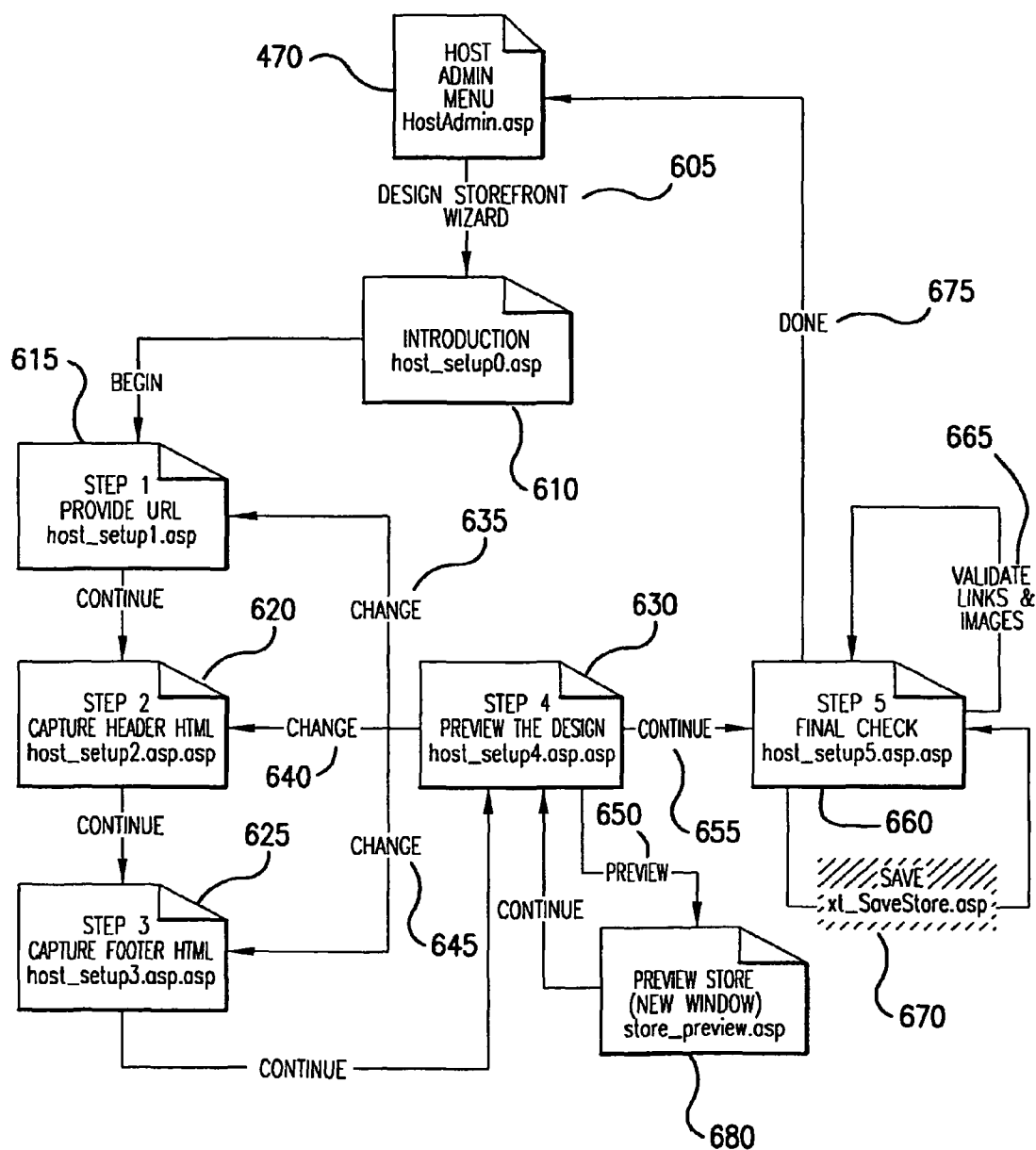


FIG. 6

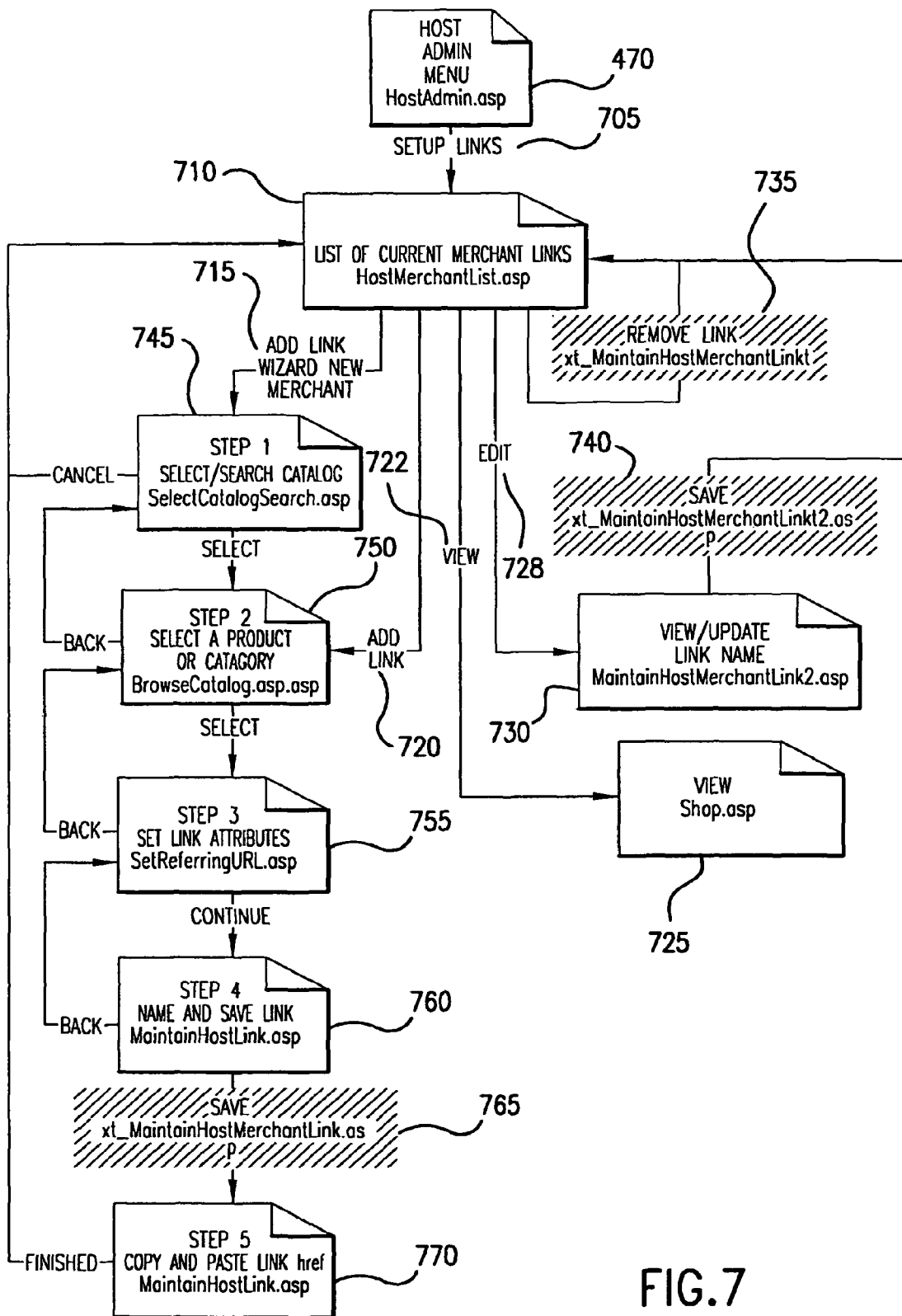


FIG.7

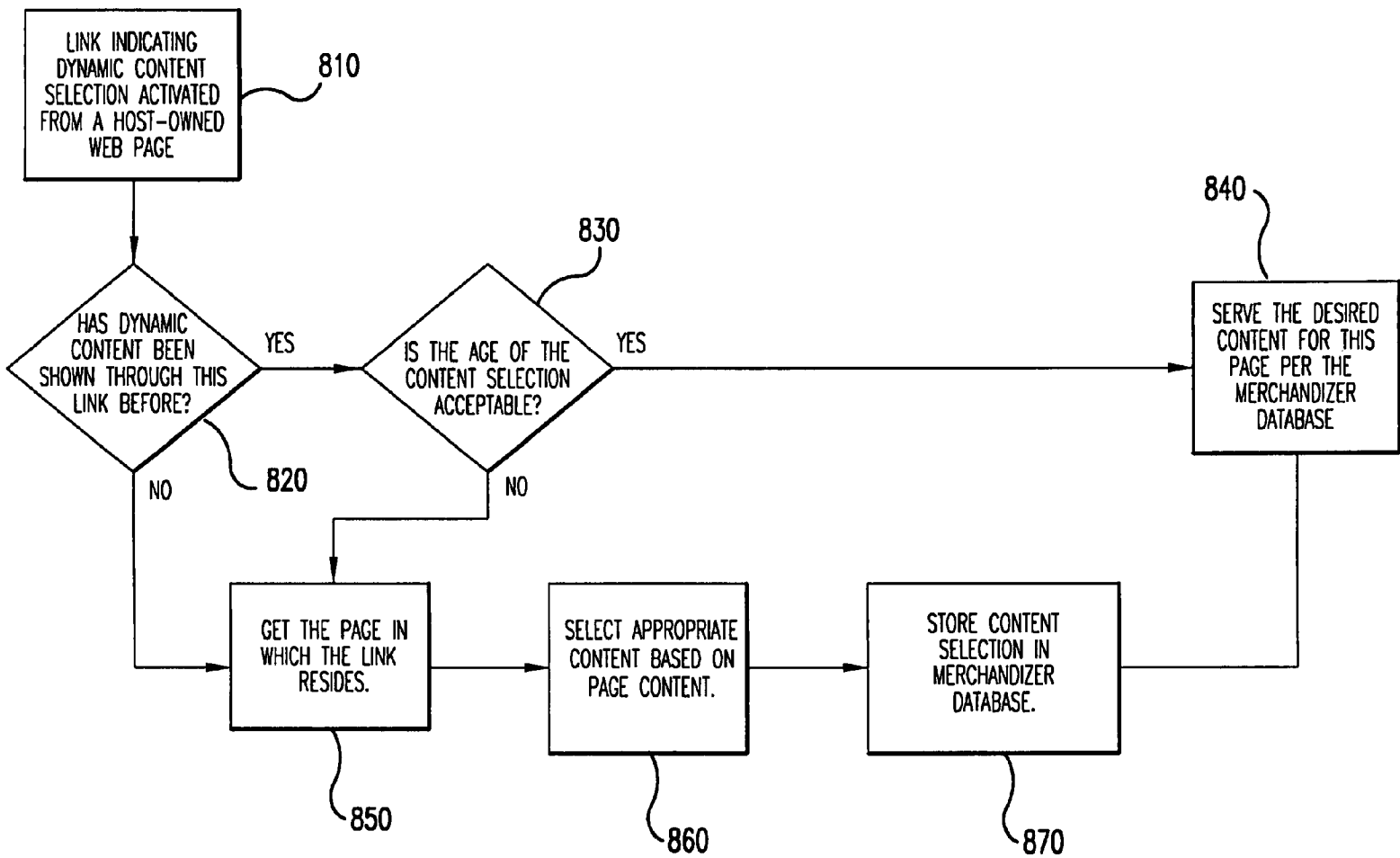
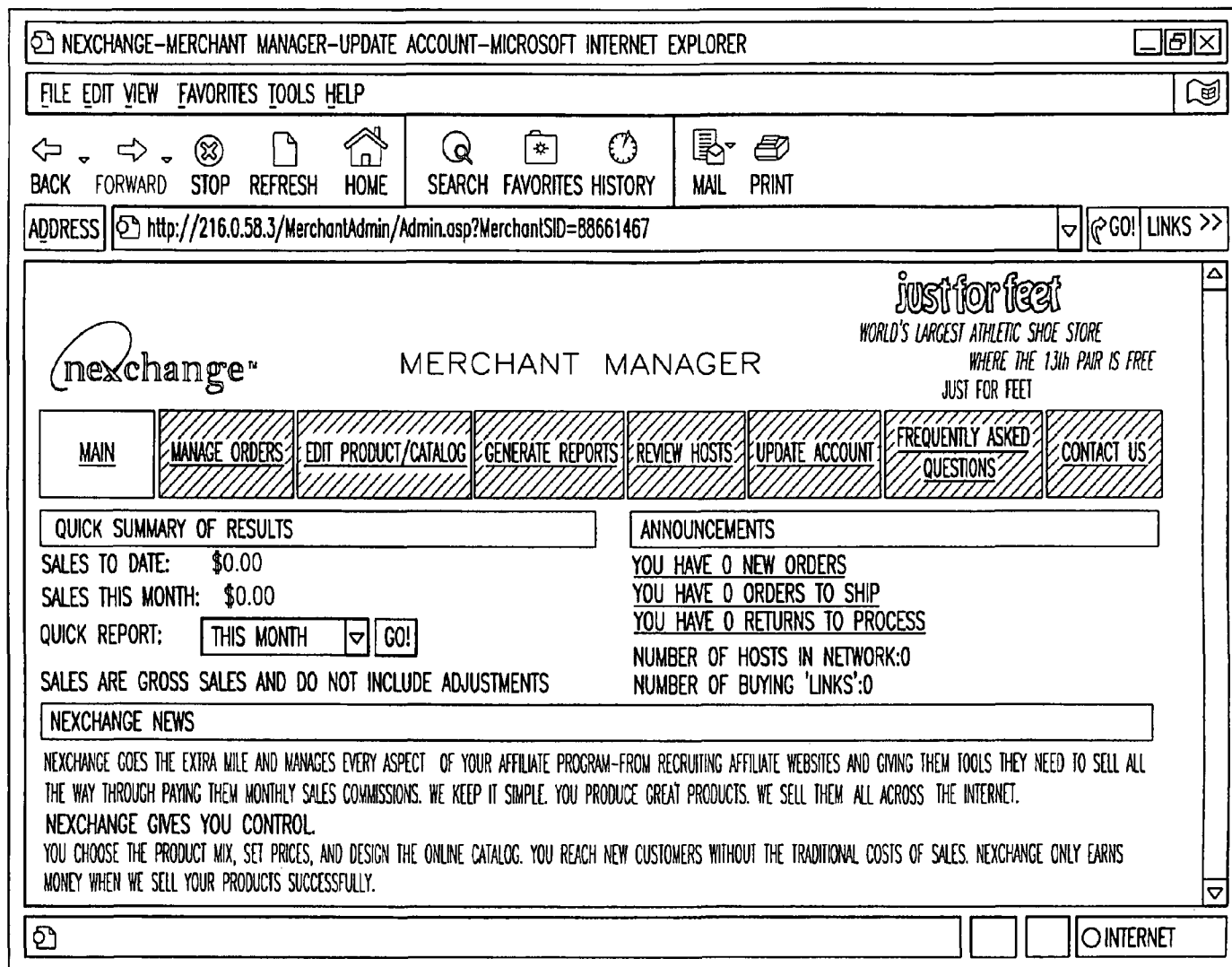


FIG. 8

FIG. 9



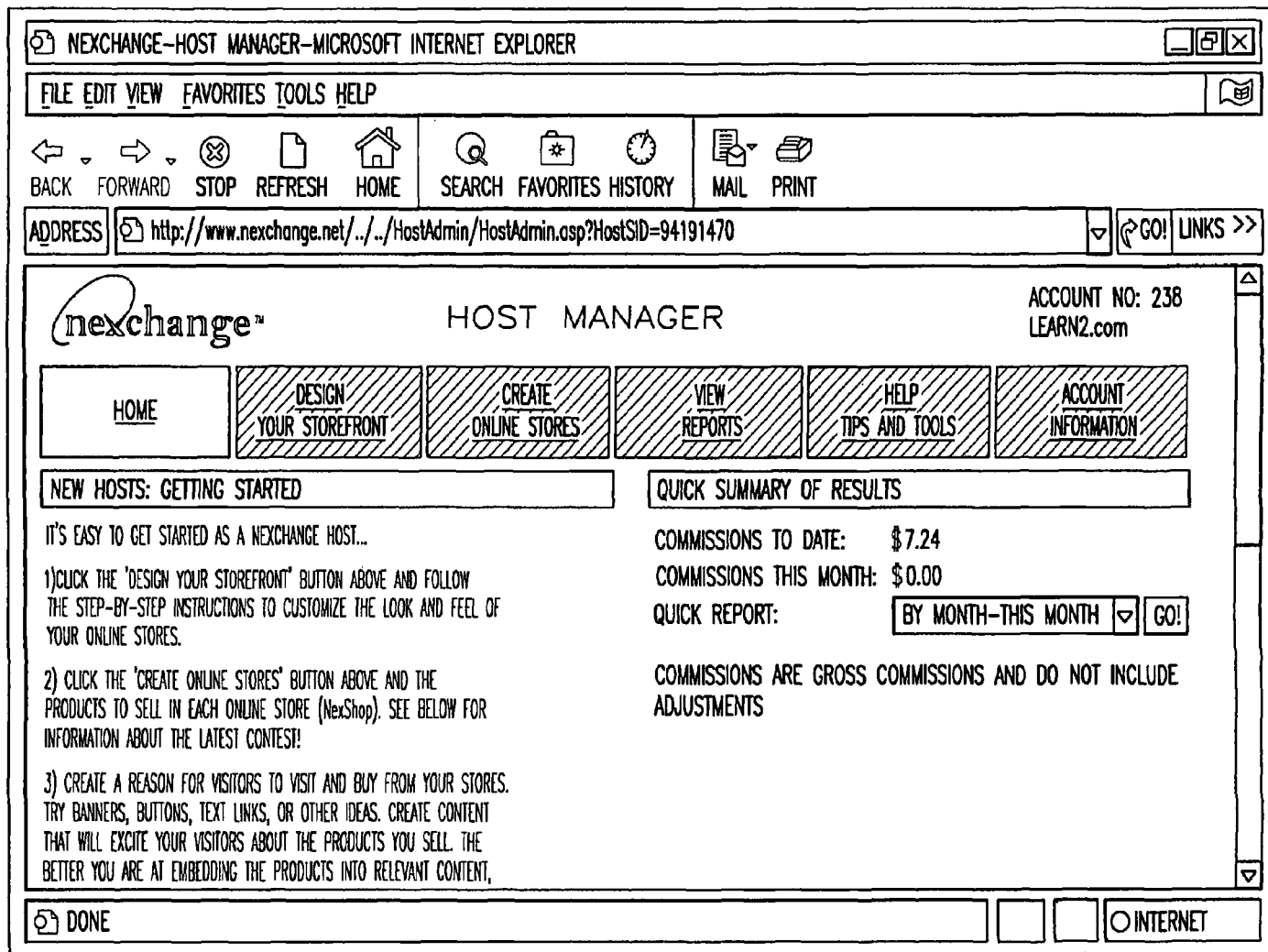


FIG.10

FIG. 11

HOST MANAGER

ACCOUNT NO: 2765
ABOUT.Com

HOME

DESIGN
YOUR STOREFRONT

CREATE
ONLINE STORES

VIEW
REPORTS

HELP
TIPS AND TOOLS

ACCOUNT
INFORMATION

▶ STEP 1: PROVIDE URL
STEP 2: CAPTURE HEADER HTML
STEP 3: CAPTURE FOOTER HTML
STEP 4: PREVIEW YOUR NexShop
STEP 5: FINAL CHECK

DESIGN YOUR STOREFRONT

HERE YOU WILL ENTER THE URL OF THE PAGE WE USE TO CAPTURE TEXT, IMAGES, AND LINKS THAT COMPRISE THE LOOK AND FEEL OF YOUR STOREFRONT

YOUR WEBSITE HOMEPAGE URL IS ALREADY ENTERED BELOW. IF THIS IS THE DIRECTORY THAT CONTAINS THE TEXT, IMAGES AND LINKS WE WILL USE TO DESIGN YOUR STOREFRONT, CLICK THE CONTINUE BUTTON.

IF YOU WILL BE USING THE TEXT, IMAGES, AND LINKS FROM ANOTHER PAGE ON YOUR WEBSITE, PLEASE ENTER THE BASE URL OF THAT WEBSITE PAGE. THE BASE URL IS THE DIRECTORY IN WHICH THAT SPECIFIC PAGE RESIDES. FOR EXAMPLE, IF YOUR WEBSITE IS LOCATED AT <http://www.website.com/>, BUT YOU WANT TO CAPTURE THE TEXT, IMAGES, AND LINKS LOCATED ON THE PAGE <http://www.website.com/directory/page.html>, THEN THE BASE URL IS <http://www.website.com/directory/>. IF THE PAGE YOU ARE USING CONTAINS AN HTML BASE TAG, THEN YOU WILL NEED TO ENTER THE URL OF THAT HTML BASE TAG.

PLEASE MAKE SURE YOU ENTER THE EXACT BASE URL, INCLUDING ALL DIRECTORIES. INCLUDE THE HTTP://AT THE BEGINNING, AND END WITH A SLASH. WHEN YOU ARE FINISHED, CLICK THE CONTINUE BUTTON.

<http://www.about.com/>

CONTINUE

FIG. 12

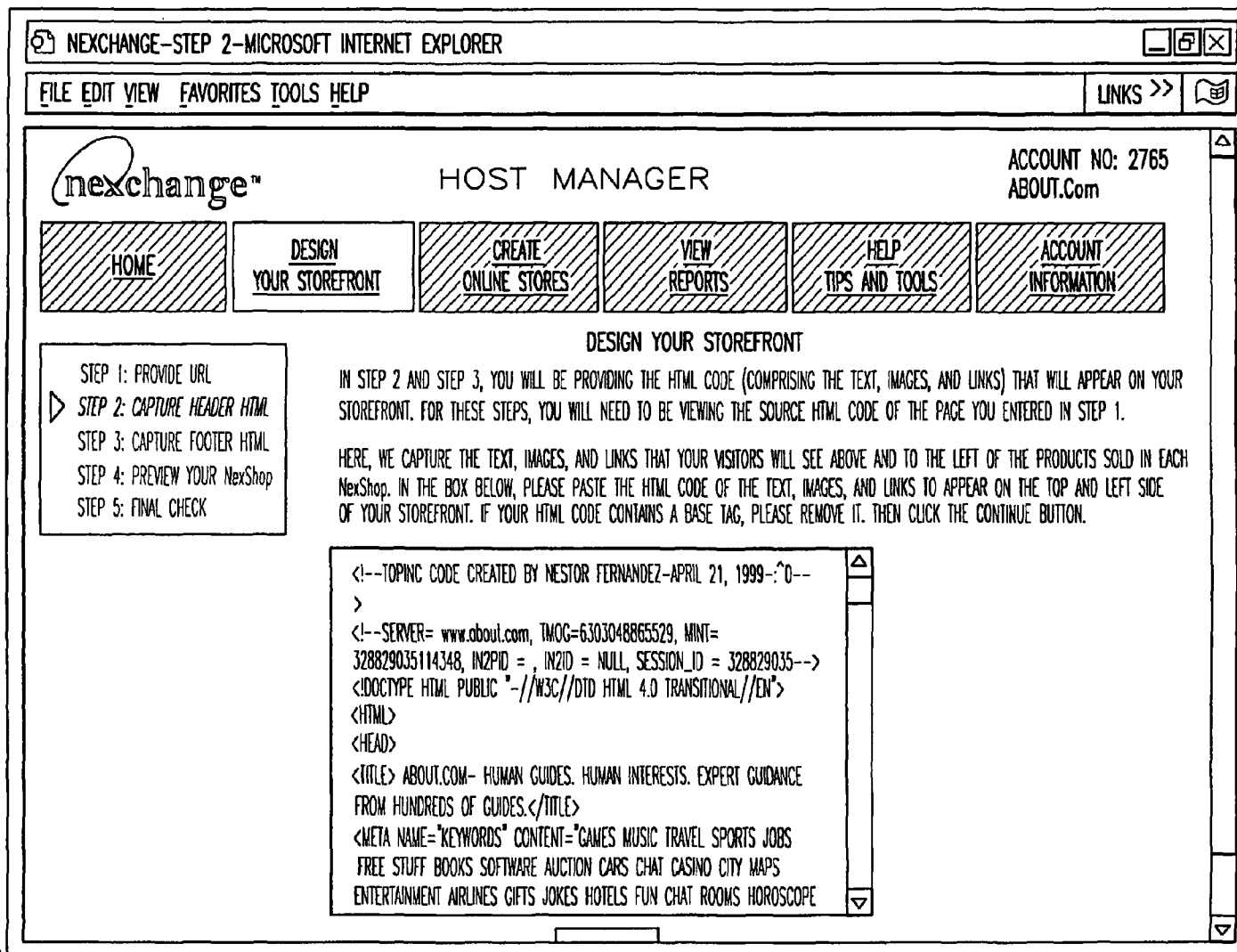
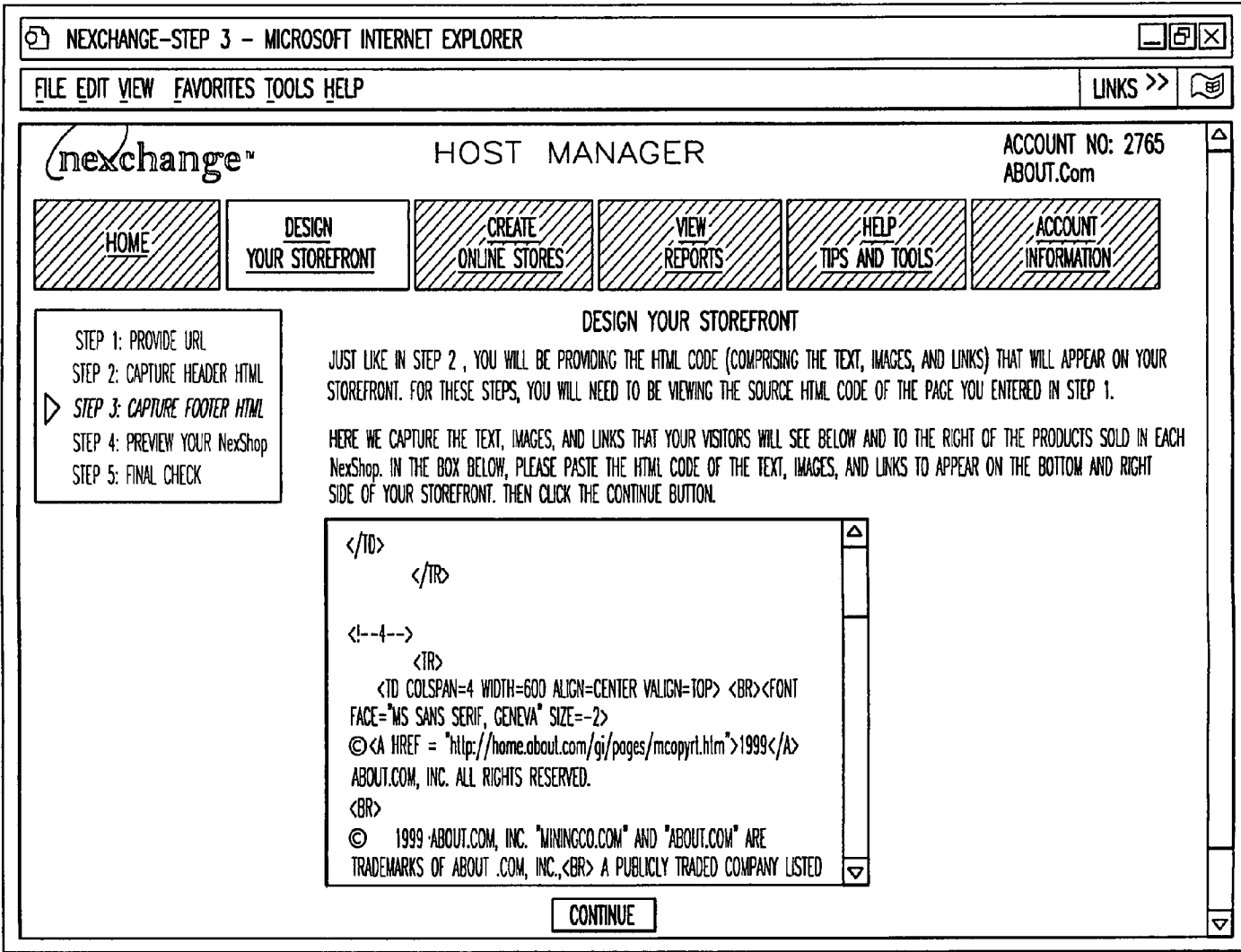


FIG.13



NEXCHANGE-STEP 4-MICROSOFT INTERNET EXPLORER

FILE EDIT VIEW FAVORITES TOOLS HELP LINKS >>

nexchange™ HOST MANAGER ACCOUNT NO: 2765 ABOUT.Com

HOME	DESIGN YOUR STOREFRONT	CREATE ONLINE STORES	VIEW REPORTS	HELP TIPS AND TOOLS	ACCOUNT INFORMATION
------	---------------------------	-------------------------	-----------------	------------------------	------------------------

DESIGN YOUR STOREFRONT

STEP 1: PROVIDE URL
STEP 2: CAPTURE HEADER HTML
STEP 3: CAPTURE FOOTER HTML
▶ STEP 4: *PREVIEW YOUR NexShop*
STEP 5: FINAL CHECK

YOU'RE ALMOST DONE! CLICK THE PREVIEW BUTTON TO VIEW WHAT THIS STORE WILL LOOK LIKE. A NEW BROWSER WILL OPEN. PLEASE CAREFULLY REVIEW THE TEXT, IMAGES, AND LINKS. IF EVERYTHING IS CORRECT, AND THE SAMPLE "CELEBRATE THE SEASONS" BOOK IS LOCATED IN THE APPROPRIATE PLACE IN THE PAGE, CLOSE THE STORE PREVIEW WINDOW AND CLICK THE CONTINUE BUTTON BELOW.

IF CHANGES NEED TO BE MADE, CLICK ONE OF THE BUTTONS IN THE CENTER COLUMN BELOW, MAKE THE APPROPRIATE CHANGES, THEN CLICK THE CONTINUE BUTTON UNTIL YOU GET BACK TO THIS PAGE. FOR EXAMPLE, IF NONE OF YOUR WEBSITE IMAGES SHOW UP IN THE STORE PREVIEW, CLICK THE CHANGE THE BASE URL BUTTON AND CONFIRM THAT YOU ENTERED A WEBSITE DIRECTORY, NOT A SPECIFIC PAGE (.htm). IF YOU WANT TO MAKE CHANGES TO THE DESIGN ABOVE THE "CELEBRATE THE SEASONS" STORE, CLICK THE CHANGE THE HEADER BUTTON WHEN YOU ARE DONE, CLICK THE CONTINUE BUTTON.

IF YOU WOULD LIKE TO HELP DESIGNING YOUR STOREFRONT, JUST SEND AN EMAIL TO hosthelp@nexchange.com AND WE WILL DESIGN YOUR STOREFRONT FOR FREE. PLEASE INCLUDE YOUR NAME, ACCOUNT NUMBER, AND WEBSITE URL IN THE MESSAGE.

PREVIEW YOUR STOREFRONT, THEN...	CLICK ONE OF THE BUTTONS BELOW TO MAKE CORRECTIONS	OR CLICK BELOW TO CONTINUE
	CHANGE THE BASE URL	
PREVIEW	CHANGE THE HEADER	CONTINUE
	CHANGE THE FOOTER	

FIG.14

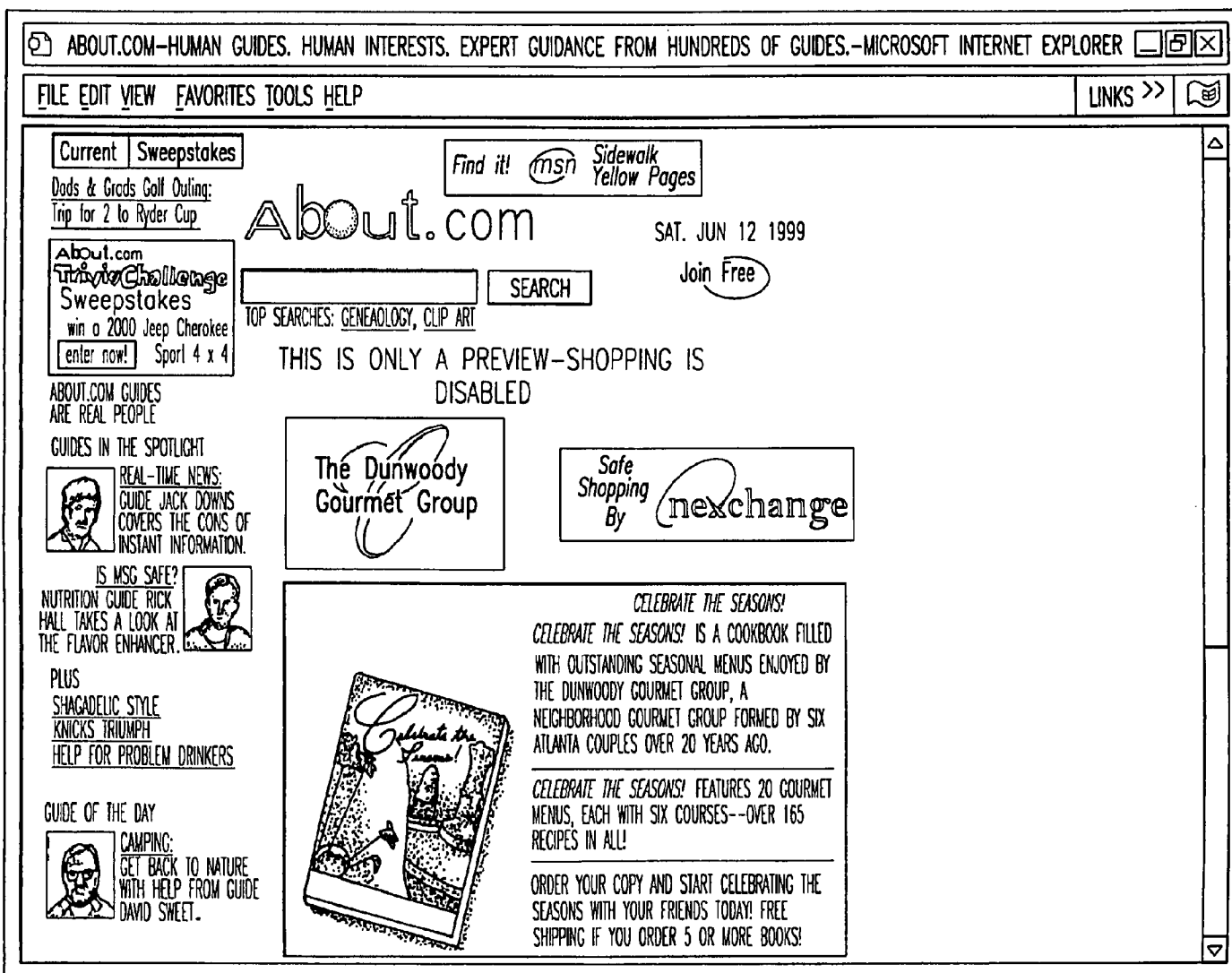


FIG.15

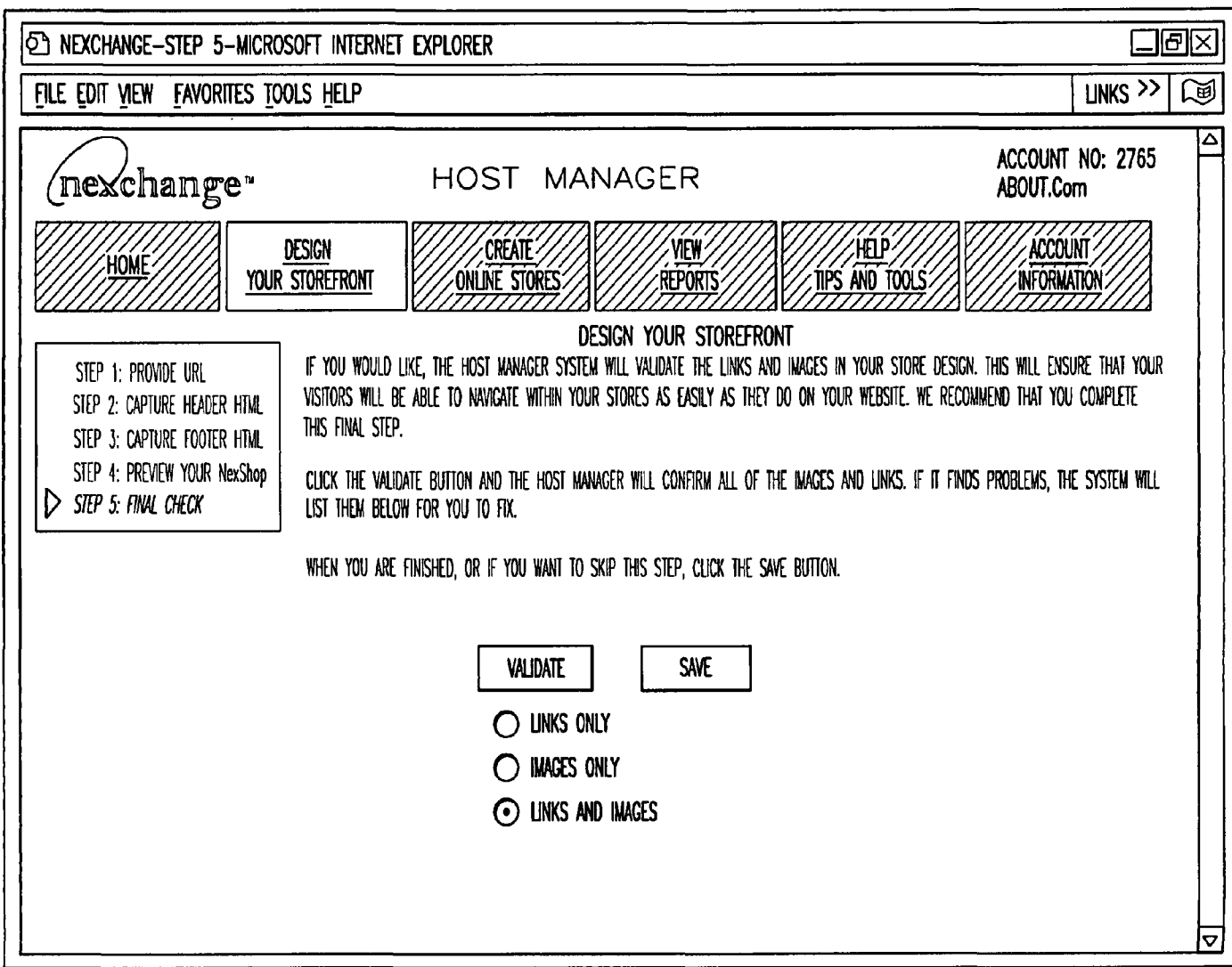


FIG.16

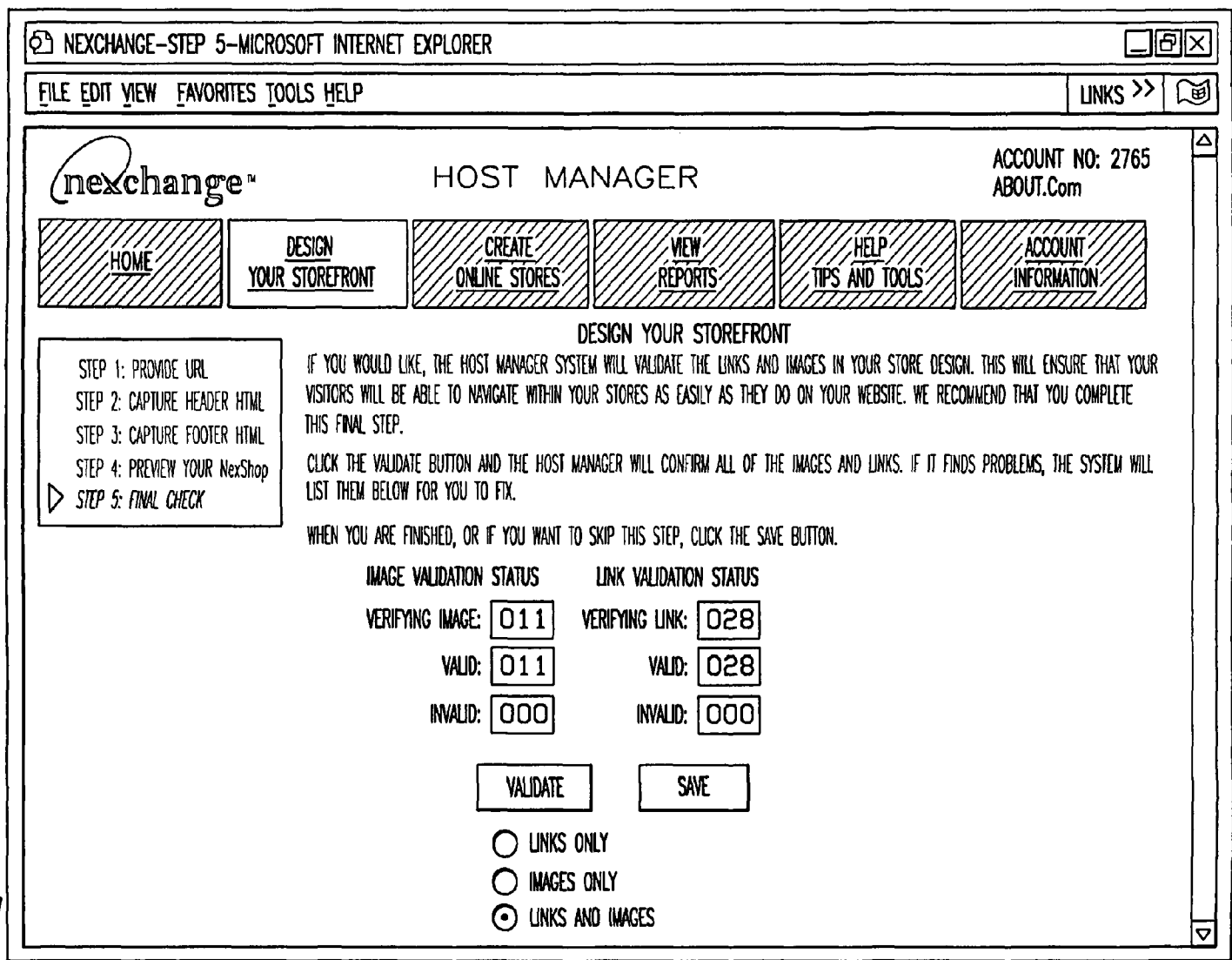


FIG.17

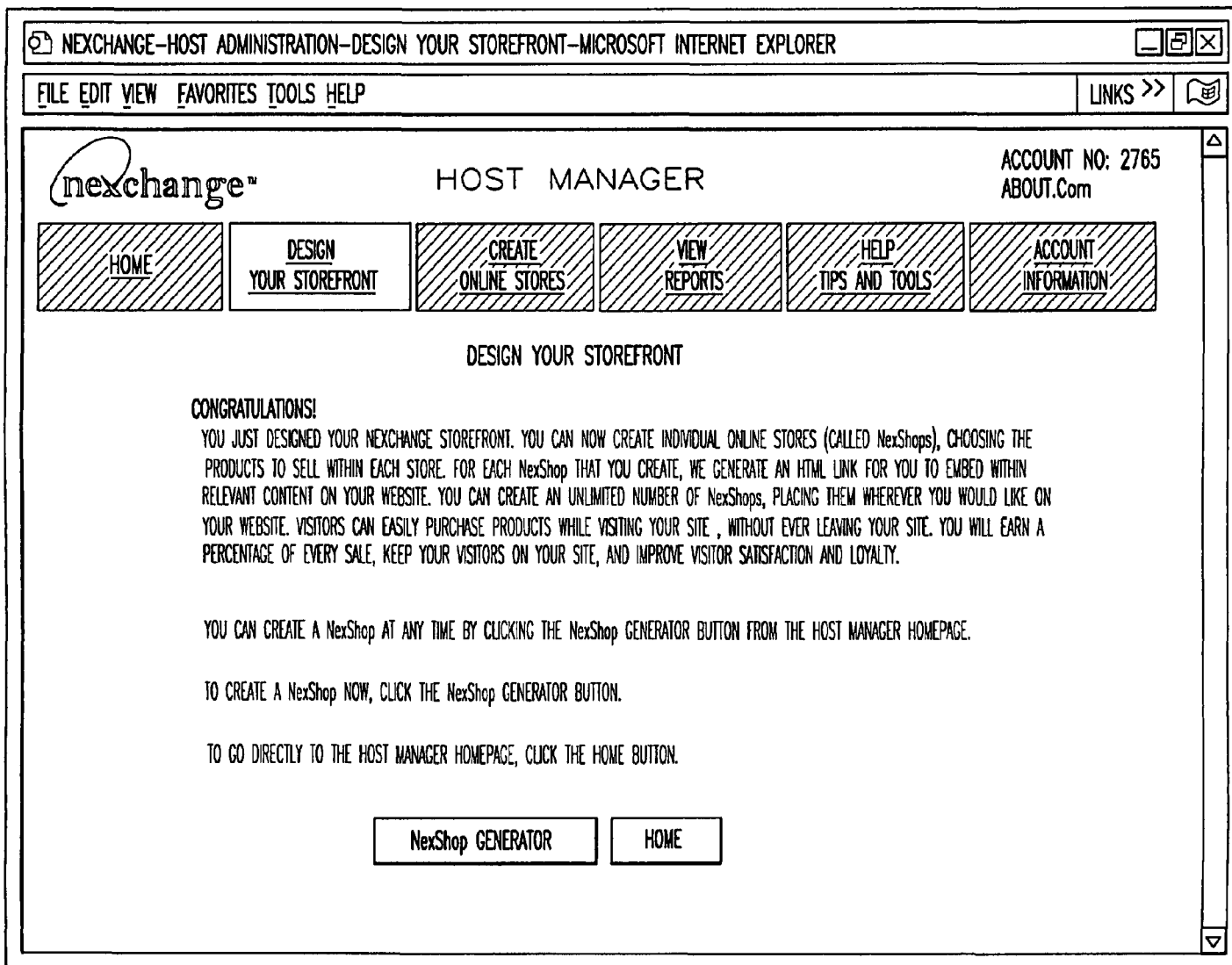
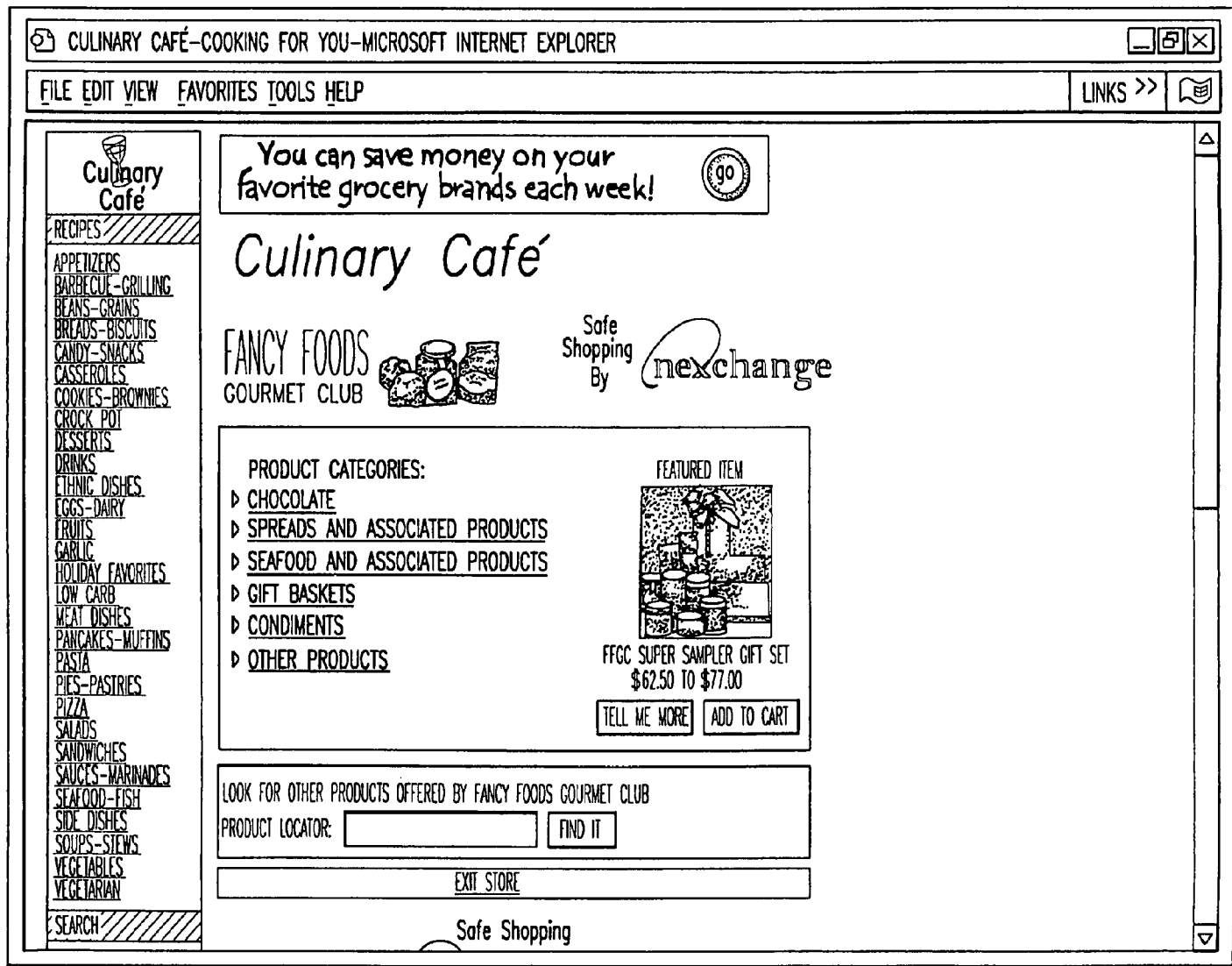


FIG.18

FIG.19



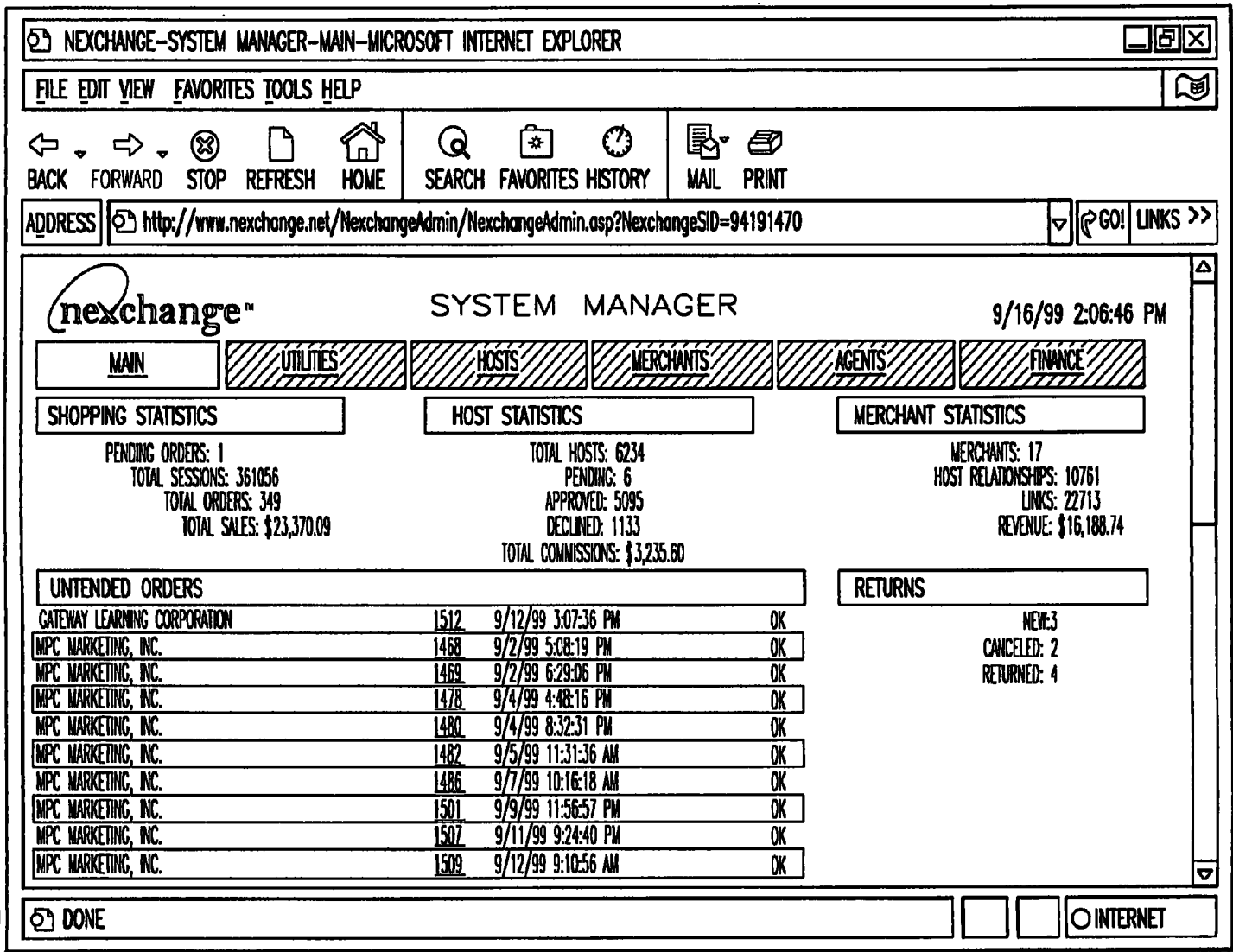


FIG.20

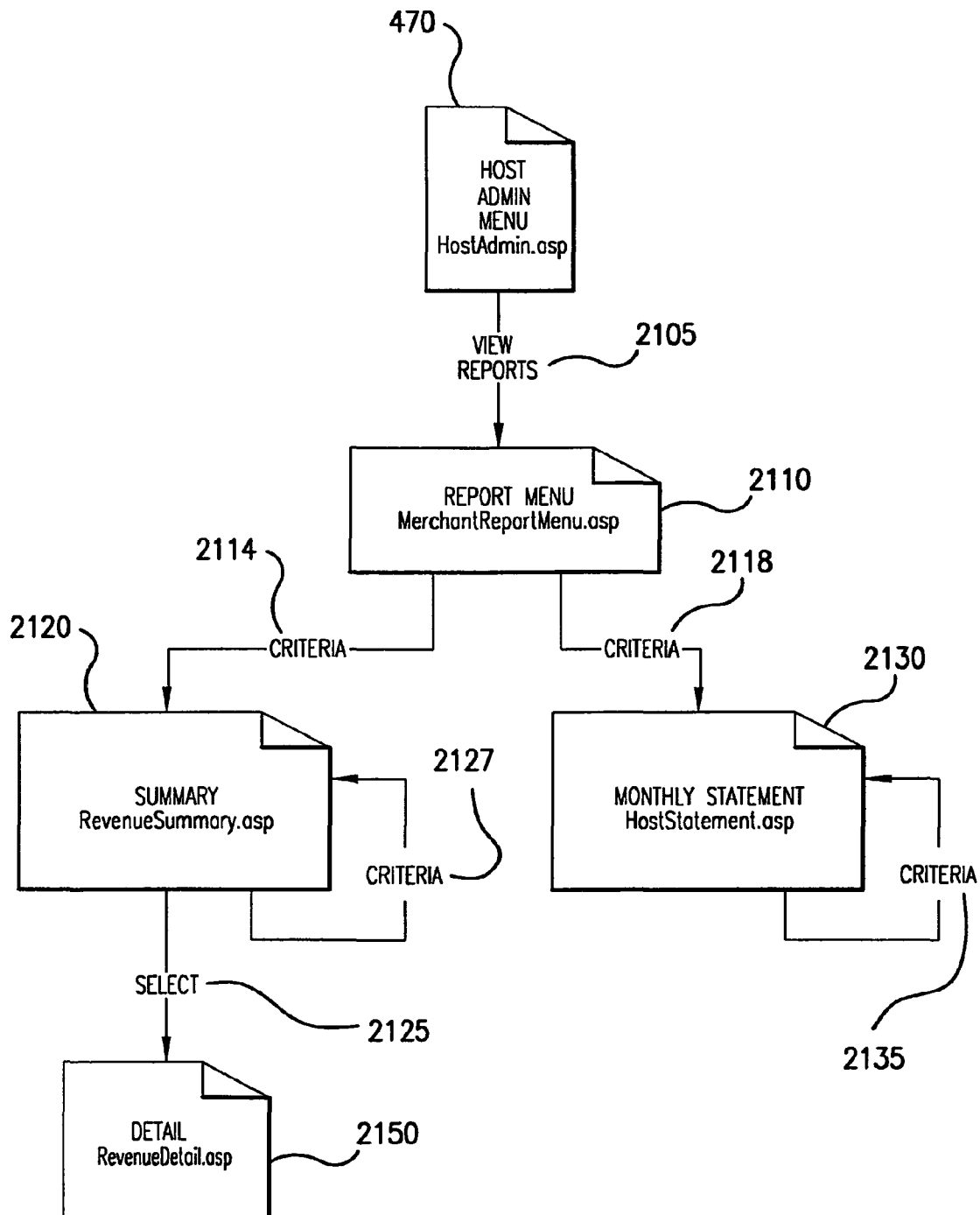


FIG.21

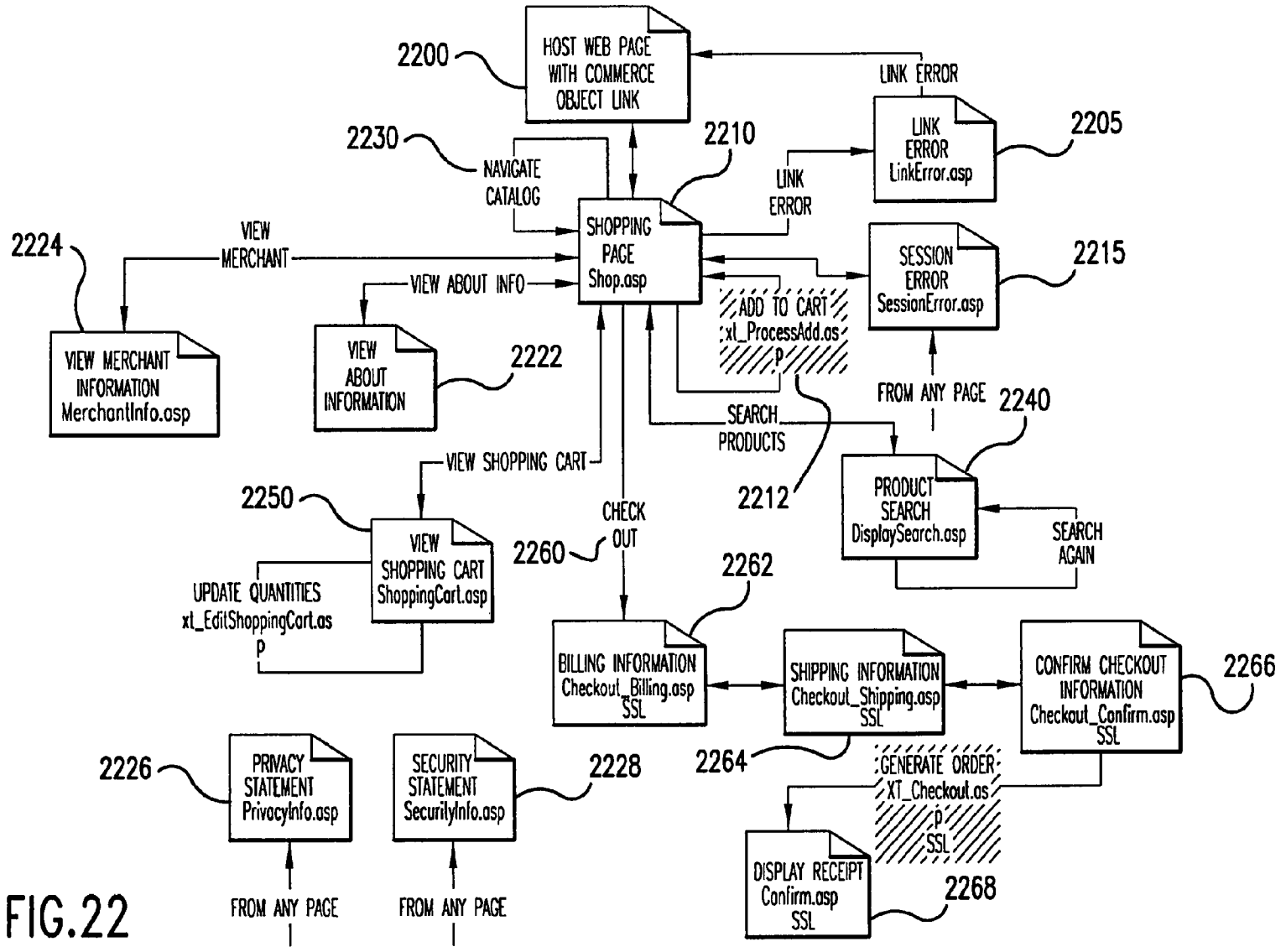
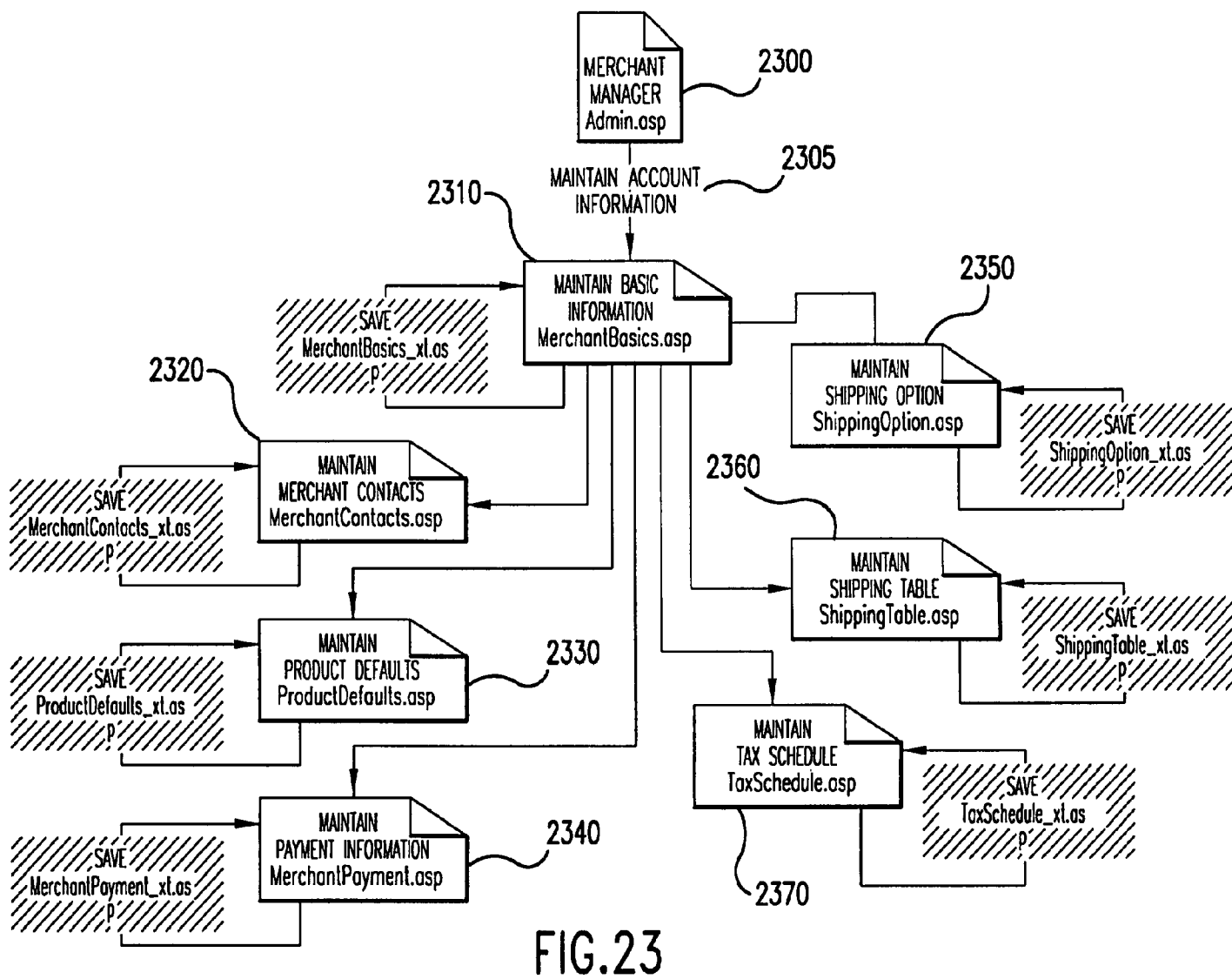


FIG. 22



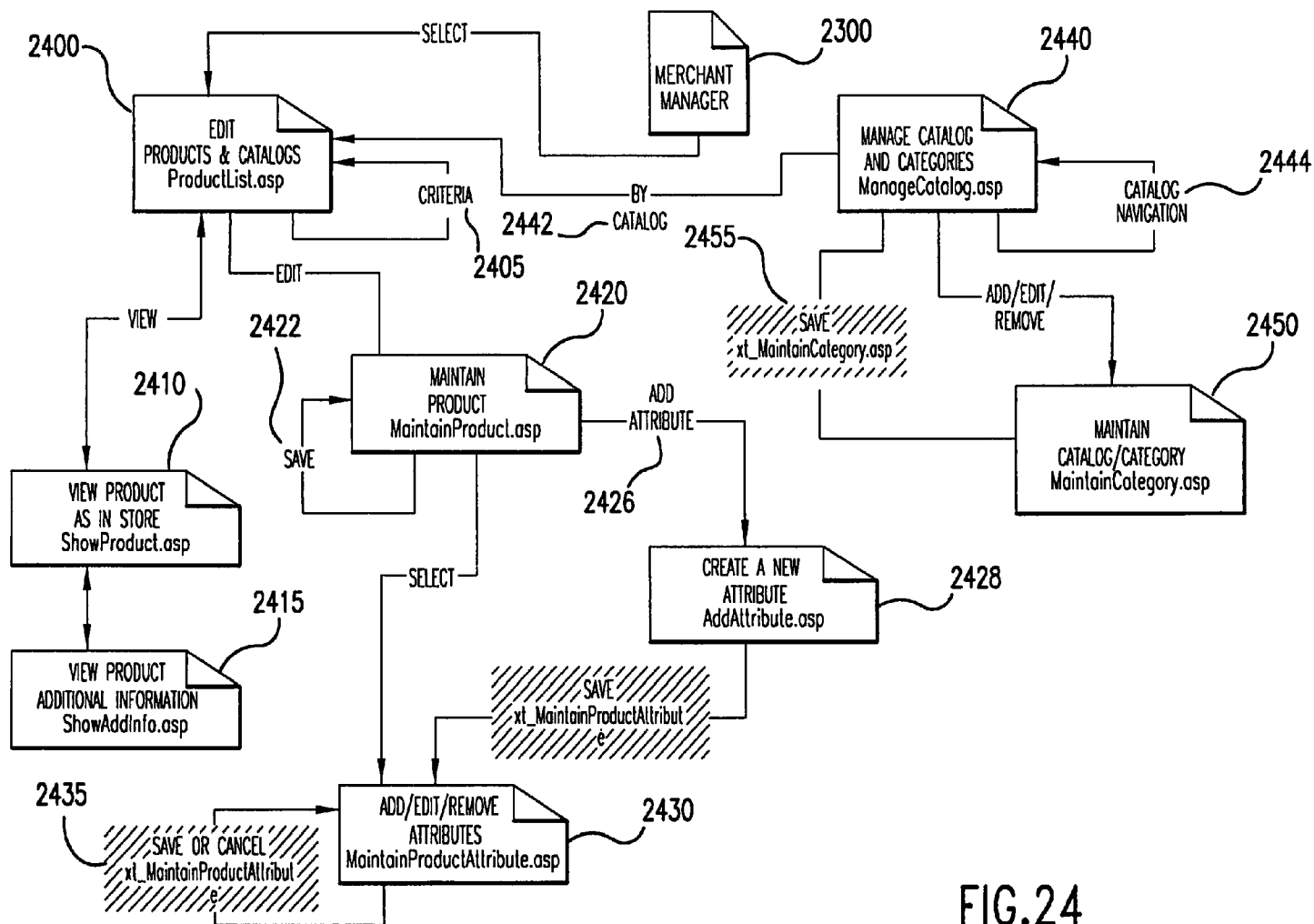


FIG.24

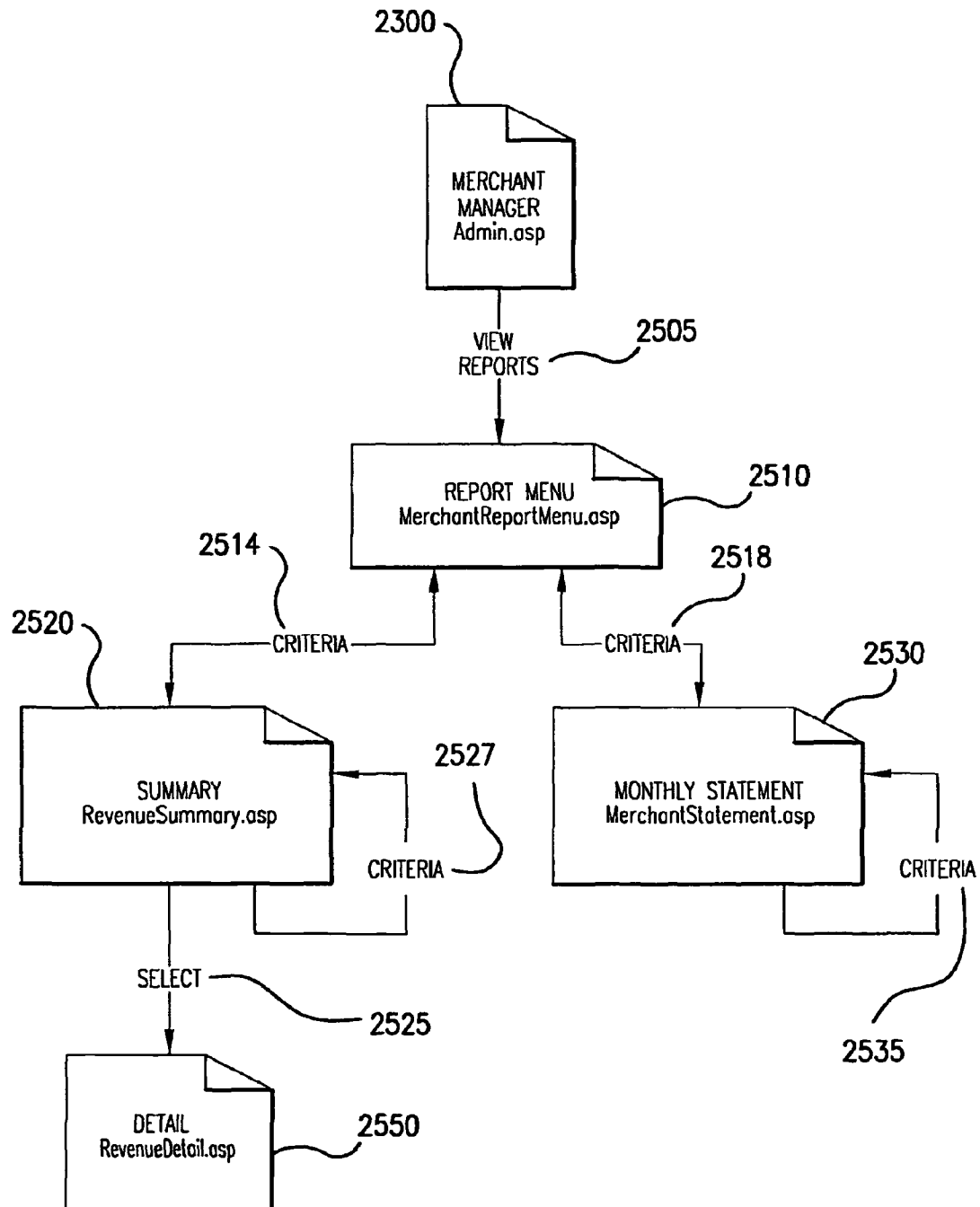


FIG.25

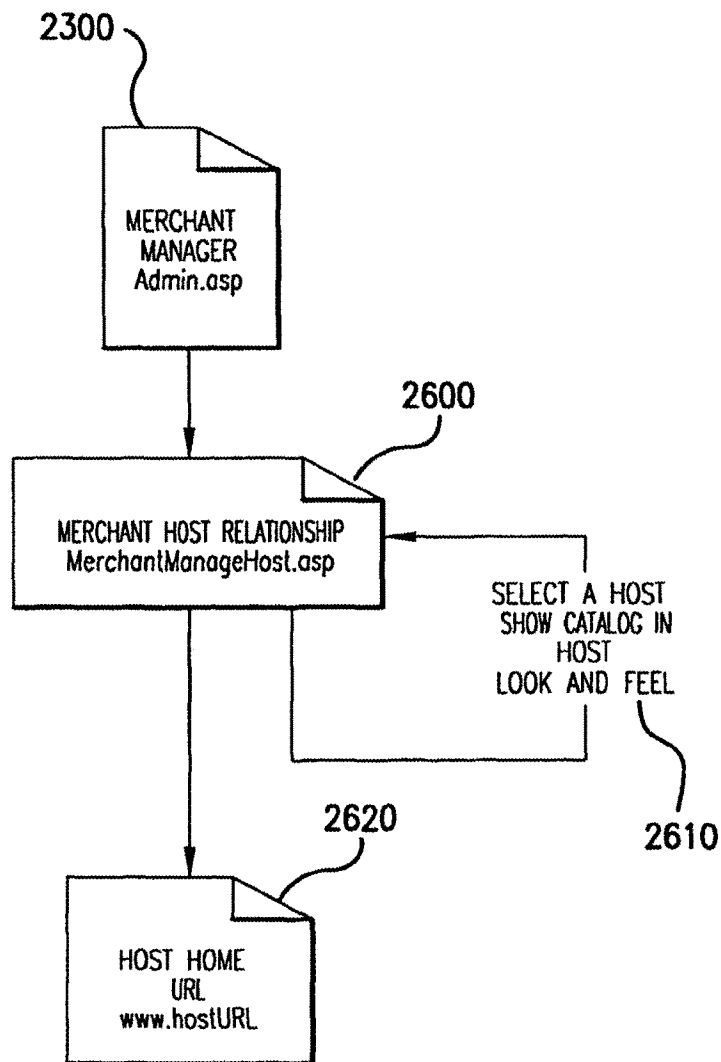


FIG.26

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**METHOD AND COMPUTER SYSTEM FOR
SERVING COMMERCE INFORMATION OF
AN OUTSOURCE PROVIDER IN
CONNECTION WITH HOST WEB PAGES
OFFERING COMMERCIAL
OPPORTUNITIES**

**CROSS-REFERENCE TO RELATED
APPLICATIONS**

This application is a continuation of application Ser. No. 13/970,515, filed Aug. 19, 2013, now U.S. Pat. No. 9,043,228, which is a continuation of application Ser. No. 12/906,979, filed Oct. 18, 2010, now U.S. Pat. No. 8,515,825, which is a continuation of application Ser. No. 11/343,464, filed Jan. 30, 2006, now U.S. Pat. No. 7,818,399, which is a continuation of application Ser. No. 10/461,997, filed Jun. 11, 2003, now U.S. Pat. No. 6,993,572, which is a continuation of application Ser. No. 09/398,268, filed Sep. 17, 1999, now U.S. Pat. No. 6,629,135, which claims the benefit of application Ser. No. 60/100,697, filed Sep. 17, 1998, which applications are hereby incorporated by reference.

BACKGROUND OF INVENTION

1. Field of Invention

The invention relates to a system and method supporting commerce syndication. More specifically, the invention relates to a system and method for computer based information providers to receive outsourced electronic commerce facilities in a context sensitive, transparent manner.

2. Description of Prior Art

The World Wide Web began as a simple interface to the Internet using HTML (hypertext markup language) as a means of linking documents together. This allowed a researcher, for example, to embed "active" references in his or her documents that, if selected, would enable the reader to review the source of the reference first-hand. Programmers quickly capitalized on this technology, creating "web sites" which reflected less staid purposes, laying the groundwork for the literal "web" of content and interactive applications that exists today. In the early stages, website programmers increased visitor traffic by placing "links" within their websites to other websites, usually related in content or function, in exchange for a reciprocal link. Additionally, directories of websites, such as Yahoo, and search engines, such as WebCrawler, began to appear in an attempt to organize the content of the Internet so that its users could create "custom links pages" related to specific topics.

In these early days, the Web was mostly trafficked by programmers and "techies," and a commune-type "share and share alike" mindset prevailed. As a result, people were happy to litter their sites with links, knowing that, odds were, others would do the same for them and the traffic gain/loss would probably balance out. So, despite the fact that by including and promoting a "links" page, website operators were effectively encouraging people to leave their website, link sharing developed into a standard practice.

Then, entrepreneurs and other business-oriented individuals came along and introduced capitalism to the Internet. Profit-oriented website operators began to seek visitors wherever they could find them, and opportunistic owners of popular sites began to realize that they had an increasingly scarce resource—visitors. Such website owners began to sell the links they had previously offered for free in the form of paid advertisements. Search engines and directories became increasingly popular for two main reasons. First, the number

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of websites was growing astronomically, so it was becoming harder for users to find what they wanted. Second, since reciprocal links were either going away or were being replaced by links exclusively to non-competing websites, search engines and directories were the only way to find multiple resources for a single topic.

Amid frantic efforts on the part of corporate websites to get noticed, the sale of banner ads blossomed into a large industry called Internet advertising. Thousands of websites created space for banner ads and called the space "inventory." At first, they priced ads as a print ad might be priced: by CPM, or cost per thousand "impressions" each ad made on website visitors. Over time this pricing model gave way to arrangements more favorable to advertisers such as Cost Per Click-through and Cost Per Inquiry (meaning the advertiser only needs to pay when a visitor sees a banner ad and clicks on it and completes an information request form on the advertiser's site).

Some of the most successful Internet commerce websites, led by online bookseller Amazon.com, have begun to take an even more results-driven approach to the purchase of banner ads. They have offered to pay only for ads that, when clicked, result in a product sale. To provide a stronger incentive than a simple banner ad, these companies let third-party website owners list a subset of their goods (e.g., 10 of Amazon.com's millions of books, selected by the website owner) and promote them as they choose within their websites. Initiatives such as these have come to be described as "affiliate programs", "associate programs" or "commission based advertising programs".

The benefits of affiliate programs are significant. To the website owner, they constitute revenue-generating web content without requiring an investment in product inventory or additional infrastructure. They also create new revenues without necessarily reducing the website's available ad inventory. However, the greater benefit almost always accrues not to the affiliate, but to Amazon.com and other online stores. Not only do these sites benefit from the marketing resources of the affiliate operators, they are also able to lure the visitor traffic away from the affiliate. Once a visitor clicks on an affiliate ad and enters an online store, that visitor has left the affiliate's site and is gone. At best, affiliates are able to use "frames" to keep a shell of their own website around the vendor's site, but this is only a marginally effective solution. No alternatives have been able to address a fundamental drawback of the affiliate programs—the loss of the visitor to the vendor. At best, some Internet affiliate sales vendors have begun placing "return to referring website" links on their order confirmation screens, an approach that is largely ineffective. This limitation of an affiliate program restricts participation to less trafficked websites that are unconcerned about losing visitors. Meanwhile, search engines and directories continue to increase in their usefulness and popularity, while banner ads and old-style links continue their rapid loss of effectiveness and popular usage.

The present invention overcomes these limitation of present affiliate commerce systems and provides other benefits as will become clearer to those skilled in the art from the foregoing description.

SUMMARY OF THE INVENTION

The affiliate commerce system and method of the present invention represents a new paradigm of co-marketing on the Internet. Not only does the present invention provide its Hosts with the added value and incremental revenues of

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traditional affiliate programs, but the company also enables Hosts to control the customer experience before, during, and after the purchase transaction. At the same time, Merchants receive the same benefits as with older affiliate programs, i.e., increased marketing potential, incremental sales, and new customer relationships, but without the restrictive limitations of affiliate programs—the loss of hard-won visitor traffic.

Additionally, the present invention can actually obviate the need for some merchants to invest in their own unique Internet presence. By using the present invention as their primary online sales channel, these Merchants can focus on product development, production, and order fulfillment and leave the exploration of the Internet to experts. The resulting ongoing cost savings and operational efficiencies magnify the potential benefits of the Internet while reducing the initial costs.

According to the present invention the look and feel of each participating Host is captured and stored. Hosts may include links to selected products or product categories within pages residing on the Hosts' website. Upon actuation of such a link by a visitor of the Host website, a page is presented to the visitor incorporating a replica of the Host's look and feel directed to the sale of the selected products or product categories.

The look and feel of a host is captured and stored by receiving an identification of an example page of a target host. The identified page is retrieved. The look and feel elements of the page are identified, and these elements are stored for future use in generating outsourced transparent pages, pages served by a server other than the host but with the host's look and feel. Such pages give the viewer of the page the impression that she is viewing pages served by the host.

The links included by the host directed to the outsource provider need not be statically linked to a particular product or product category. Such links may direct the outsource provider to dynamically select content to serve within the host's look and feel. This content may be selected based upon a contextual analysis of the page which includes the link. Further, the dynamic content need not be limited to products or product categories but may include any content within the system's data store that is amenable to contextual correlation with content in the page containing the link.

A cost effective, scalable architecture may be used to serve dynamically constructed pages such as those served by the e-commerce outsource provider. This architecture includes three levels: a Web server layer, an application server layer and a database server layer.

The Web server layer provides a front end presentation layer for interacting with end users. This layer may consist of one or more interchangeable low cost server systems. Any request from an end user may be fielded by any system within the layer. The selected system can contact any application server within the application layer to provide processed data for use in responding to the end user request.

The application layer supports interacting with the database server level to acquire needed data and processing it prior to presentation by the Web server layer. As with the Web server layer, this layer may consist of one or more interchangeable low cost server systems. Any Web server system may submit a request to any application server. The application server includes processing functionality suitable for the types of pages to be dynamically constructed.

The database server layer supports low level management of data used in dynamic page construction. The data store across the one or more low cost server systems is seamlessly

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viewed as an integrated whole. As a consequence, any database server within the layer can field any request for data submitted by an application server.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 depicts a typical hardware architecture implementing the present invention.

FIG. 2 illustrates the software architecture of the Web server layer.

FIG. 3 illustrates the software architecture of the application server layer.

FIG. 4 is a flow chart of the pages and procedures in the host signup process.

FIG. 5 is a flow chart of the pages and procedures in the host account information maintenance process.

FIG. 6 is a flow chart of the pages and procedures in the host look and fee capture process.

FIG. 7 is a flow chart of the pages and procedures in the host link generation process.

FIG. 8 is a flow chart of the dynamic content selection and presentation process.

FIG. 9 is a screen capture of a Merchant Manager page in a preferred embodiment.

FIG. 10 is a screen capture of a Host Manager page in a preferred embodiment.

FIGS. 11-18 are screen captures of the page in a preferred embodiment of a look and feel capture process.

FIG. 19 is a screen capture of a typical e-commerce supported page served in a preferred embodiment.

FIG. 6 is a screen capture of a System Manager page in a preferred embodiment.

FIG. 21 is a flow chart of the pages and procedures in the host view reports process.

FIG. 22 is a flow chart of the pages and procedures in the shopping process.

FIG. 23 is a flow chart of the pages and procedures in the merchant account maintenance process.

FIG. 24 is a flow chart of the pages and procedures in the merchant catalog maintenance process.

FIG. 25 is a flow chart of the pages and procedures in the merchant view reports process.

FIG. 26 is a flow chart of the pages and procedures in the merchant view hosts process.

DETAILED DESCRIPTION OF THE INVENTION

A preferred embodiment of the invention is now described in detail. Referring to the drawings, like numbers indicate like parts throughout the views. As used in the description herein and throughout the claims that follow, the meaning of "a," "an," and "the" includes plural reference unless the context clearly dictates otherwise. Also, as used in the description herein and throughout the claims that follow, the meaning of "in" includes "in" and "on" unless the context clearly dictates otherwise.

A typical embodiment of the present invention will include a data store including a look and feel description associated with a host website, a communications link to a visitor computer, and a processor. The processor performs the tasks of capturing a look and feel description associated with a host website, storing the captured look and feel description in the data store, providing the host website with a link that link correlates the host website with a commerce object for inclusion within a page on the host website and which, when activated, causes the processor to serve an

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e-commerce supported page via the communication link with a look and feel corresponding to the captured look and feel description of the host website associated with the provided link and with content based on the commerce object associated with the provided link. The Internet serves as the communication link to visitor computers.

In a preferred embodiment as exhibited by FIG. 1, the duties of the processor are split among several computer systems **120a-120c**, **125a-125d**, **130a-130b**. The data store may be implemented through a database system **130a-130b**, **135a-135d**. The Internet **110** serves as the communication link to visitor computers **105a-105f**. In this preferred embodiment, the system utilizes multiple inexpensive computer systems at every level of the architecture. Routing between levels will automatically distribute the load amongst the functioning computers. Increasing throughput becomes a matter of adding more computers, not scaling up the existing ones. This arrangement also provides fault tolerance since the failure of one server will not incapacitate the system as long as another server providing the same service is alive. This approach also permits the distribution of servers geographically. A router **115** may also provide further load balancing.

The tasks performed by the processor may utilize a variety of underlying software technology. In a preferred embodiment, the software architecture can be divided into 3 tiers: web server, application-server and database-server. Each tier is comprised of a number of software layers.

Web Server Tier

The Web Server tier accesses application functionality by calling a single "Request" Application Programming Interface (API). The API will take a Document Object Model (DOM) (as specified by W3C in <http://www.w3.org/TR/REC-DOM-Level-1>, which is expressly incorporated herein by reference in its entirety) object as a parameter and return a DOM object as the response. The request will be relayed to the application server tier where a dispatching method will unpack the request object, inspect it, invoke the desired method, and send back the response object. This approach means that new functionality becomes available as soon as the application server is upgraded. It is not necessary to develop a set of "stubs" that mirror the new API call. This is a major advantage because new functionality in the application tier can be exploited immediately simply by modifying the Active Server Page (ASP) scripts. No web server resident Dynamic Link Libraries (DLLs) need to be upgraded so the server does not need to be shut down. The web server tier will typically run on server computers **120a-120c** having a multitasking operating system such as Windows NT from Microsoft or other suitable operating system software. The Web Server tier contains the following layers as illustrated in FIG. 2:

- Web Server Software **210**. In a preferred embodiment, IIS by Microsoft is the server software. It supports serving side scripting using the VBScript scripting language.
- ASP Scripts **220**. All HTML content is rendered by ASP server scripts. The ASP scripting environment can interact with software modules written to Microsoft's COM specification.
- COM Adapters **230**. A set of COM wrappers provides the bridge between the ASP scripts and other elements of the system. The wrappers provide the necessary data conversions but do not contain any substantial functionality. The wrappers are not application specific.
- API Client Layer **240**. The API Client Layer consists of the very thin "request" API described above. This layer cooperates with the Object Cache layer. For example,

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before retrieving a catalog from the application layer, this layer may check to see if the requested catalog is already in the object cache.

- Object Cache **250**. The object cache contains the responses to previously submitted requests. All items in the cache are marked with an expiration time that is set at the time they are originally retrieved. The purpose of this layer is to reduce the load on the application tier.
- Remote Procedure Call Client **260**. The Remote Procedure Call Client provides connectivity to the application tier. It also provides request routing. In the event of application server failure, this client will automatically reconnect to a working server. This piece of software is not application dependent. In a preferred embodiment, the DBMS Component Server Client is the Objectstore Component Server Client (OCSC).

In a preferred embodiment, the Web server layer supports the following four Web interface modules. In a preferred embodiment, these modules are encoded with ASP to generate appropriate HTML Javascript. The four modules are as follows:

1. Merchant Manager

The Merchant Manager is the "Control Center" for Merchants. This module allows the merchant to maintain their products, catalogs, contact information, track orders, process returns, run reports, etc.

A merchant representative must login before performing any system activities. Any valid merchant user will be able to perform all possible actions on the merchant to which it is related. Only registered merchants will have a valid account. An account for a merchant is established when the merchant registers with the system. A merchant representative may initiate registration via a web interface. The signup process must collect basic merchant information, including the information necessary to pay the merchant, and a password, which will be used to create a user account for the merchant. Once the merchant is approved (this may be automatic), the merchant will be sent an email containing a unique user id which can be used to login to the system.

When a representative logs in, she is taken directly to the Merchant Manager as seen in FIG. 9 and assigned a Merchant Session ID (Merchant SID). All pages within the merchant system must retrieve the MerchantSID from the HTTP request and validate it. If the session does not validate, the representative is taken back to the Login screen. This module contains the following submodules:

Account Information

A merchant representative will be able to maintain the basic merchant profile, which includes the information needed to pay the merchant, the merchant's password, and the merchant's shipping policy information. FIG. 23 depicts the pages and procedures in a typical merchant account maintenance process. The representative selects to maintain account information **2305** from the Merchant Manager page **2300** leading to the display of the a basic information modification page **2310**. Each modifiable information type could be altered through a designated page available through the basic information page **2310**. Each such page could provide functionality to save any changes made to the particular page.

This sub-module allows a merchant to maintain the following types of information:

- Basic information **2310**—name, description, address, logo
- Contacts **2320**—for admin, finance, returns, support, order notification

Product Defaults **2330**—price labels, unit of weight, display options

Payment Info **2340**—check or ACH, payee info, bank info

Shipping Option **2350**—by price, items, weight, other or NA 5

Shipping Table **2360**—maintain shipping methods and prices

Tax Schedule **2370**—set tax rate for states in which taxes are collected. This may be automated in the future. 10

Products and Catalogs

Here the merchant can both maintain products and arrange them into catalogs. Example product attributes include: 15

name

description

attributes—such as size, color, etc.

price(s)—normal, sale, competitor's and the price can be set or changed by an attribute 20

small image—used in most places

large image—used for zoom-in in shopping

The merchant can also maintain their catalogs and categories. A catalog is the top level category. A merchant can have one or more catalogs. Each catalog will be presented to Hosts as a separate entity. However, it is still tied back to the merchant. The merchant logo can be assigned to the catalog or a different image selected. 25

A catalog is considered a commerce object. Further, a catalog is populated with product or product category commerce objects. An indicator for dynamic selection of a product or product category may also be considered a commerce objects; however, such objects would not appear in a catalog. 30

Categories are then placed in the catalog(s). Categories can also be placed into other categories. A catalog or category can contain an infinite number of categories but really should be kept to less than 10 at any given level for presentation purposes. The bottom level categories contain products. The product node is actually a pointer to the product in the inventory table. This allows for a product to be placed into multiple categories. 35

A catalog, category or a product can be set to be inactive. If it is set as inactive, it will not be available to the hosts to browse or sell. It will also not be available to customers in the shopping area. If a catalog or category is set as inactive, then every item beneath it (categories or products) is also inactive. 40

A product also has a flag to indicate it is out of stock. When a product is no longer going to be sold by the merchant, it should be set to inactive. If the product is simply out of stock, thus temporarily unavailable, the out of stock flag should be used. 50

If a host has an existing link that points to an inactive or out of stock product or an inactive catalog or category, the customer will be taken to the first level above that is active. For example, if a customer clicks on a Link that points to coffee pot A, and coffee pot A has been set to inactive, the shopping page will display the entire coffee pot category (all the active coffee pots). If the coffee pot category was set to inactive, then the shopping page would go to the next level up (such as Kitchen Appliances). In this case the shopper will be given a message indicating the selected product or category is not available. If a host has a link associated with a dynamic selection indicator commerce object, 65

the triggering of such a link will cause the dynamic selection of a product or product category.

FIG. 24 depicts pages and procedures used in a merchant catalog and product maintenance process. When a merchant representative logs into the system, she is presented with the merchant manager page **2300**. From this page, she may choose to proceed to the edit products and catalogs page **2400**. On this page, she may elect to search for a product through entering criteria **2405**. She may elect to preview a particular product **2410** and, from the preview, view additional information associated with the particular product **2415**.

From the edit products and catalogs page **2400**, she may also choose to edit a particular product **2420** or edit by catalog or category **2442**. In editing a particular product **2420**, she may elect to save the information associated with the product **2422**, select a current attribute to edit **2424** leading to the attribute edit page **2430** or create a new attribute associated with the product **2426**. An attribute includes a collection of options such as sizes or colors. If she selects to add a new attribute **2426**, a new attribute creation page is presented **2428**. Upon creation of the new attribute, the new attribute is saved, and the representative proceeds to the attribute edit page **2430**. From this page, she may choose to save or cancel the current attribute edit **2435**.

If the representative chooses to edit by catalog or category **2442**, she is presented a page allowing selection of catalogs or categories **2440** through navigating the catalog/category hierarchies **2444**. Once a particular catalog or category is identified, she may edit it via a catalog/category edit page **2450**. After editing, the alterations are saved **2455** returning her to the catalog or category selection page **2440**.

Reports

A merchant representative may request on-demand reports. Such reports include an account statement that details all payments to the merchant, and statistics about catalog visits and sales. Statistics can be correlated to hosts, links, products and time periods.

As illustrated in FIG. 25, a merchant representative begins at the Merchant Manager page **2300**. She selects the view reports option **2505** to view the report menu page **2510**. From the reports menu page **2510**, she may enter criteria **2514**, **2518** leading respectively to a revenue summary page **2520** or a monthly statement page **2530**. From the monthly statement page **2530**, she may change criteria **2535** to view a revised monthly statement **2530** or return to the report menu **2510**. From the revenue summary page **2520**, she may select a specific item **2525** for receiving a detailed revenue page **2550**, alter the criteria **2527** to receive a revised revenue summary **2520**, or return to the reports menu page **2510**. From the detailed revenue page **2550**, she may return to the revenue summary page **2520**.

The following reports are available for the merchants to track their results:

Revenue Summary by Month

This report provides sales and traffic information summarized by month. Data includes number of sessions, number of orders, gross and net sales, etc. Summarizes at the month level and allows 'Drill Down' to daily information.

Revenue Summary by Host

This report provides sales and traffic information summarized by host. Data includes number of sessions, number of orders, gross and net-sales, etc.

HEADER	<pre> <ManageOrders specification='http://www.nexchange.net/ automated/xml/ManageOrders.01.01.dcd'> <RequestHeader> <Authentication username='xxx' password='xxx' scope='xxx' /> <Instructions OnFail='HALT' /> </RequestHeader> </pre>
Response	<pre> <Receipt Processor='xxx' Date='xxx' Number='xxx' /> <ResponseSummary Status='SUCCESS'> Error Message Here </ResponseSummary> </ManageOrders> </pre>
BODY	<pre> <RequestHeader> <RequestBody> <Command status='SUCCESS'> <QueryNewOrders/> <QueryNewOrdersResponse> Query Results Here </QueryNewOrdersResponse> </Command> </RequestBody> </RequestHeader> </pre>
	<pre> </ManageOrders> </pre>

-continued

```

Operation      <Command status='SUCCESS'>
                <AcknowledgeOrder order_id='xxx'
item_price_total='xxx'>/>
                </Command>
              </RequestBody>
            </ManageOrders>

```

All responses contain the original request with status information and query results appended. The table above shows a response to a Manage Orders request. The response is divided into a header and a body section ("RequestHeader" & "RequestBody" respectively).

The RequestHeader element contains authentication information and global instructions. When the request is returned, the request header will also contain a receipt and a response summary. The authentication element carries the information needed to identify and authenticate the requesting party. The global instruction element contains instruction on how the request is to be processed if an error is received. The remainder of the commands in the request can be processed or the request can be discontinued. In a response, the receipt element is added to the request header. Information in the receipt can be used to recover the response. The response summary element contains a status code, which will be set to "SUCCESS" if all commands were completed successfully.

The RequestBody element contains one or more command elements. The exact content of a command element depends on the interface being used. When a command is submitted, its status attribute will always be "REQUESTED". When the command has been processed, the response will echo back the command with the status changed to "SUCCESS", "FAILURE" or "SKIP". In the case of a query command, the response will contain a query response in addition to the status.

If the request conforms to the DCD, the response will contain the original request with the status and query results embedded. The command status codes must be inspected to determine what has been done.

If the request did not conform to the specification, two possible error types can occur:

XML Parsing Error

DCD Validating Error

Errors are returned as NexError node. If a NexError is returned, the XML document has not been processed. The returned XML should always be examined for a NexError.

If the request document is not valid XML, an XML Parsing Error will be returned. A NexError node will be added around the entire document. It will look similar to the following:

```

<NexError Msg="XML Parsing Error" . . . >
  <XMLParseError errorcode="" reason="" line="" line-
pos="" >
    offending section of document
  </XMLParseError>
</NexError>

```

The errorcode, reason, line and linepos will contain information explaining what the error is and the location in the file.

If the request document is valid XML but does not match the published Interface DCD, a DCD Validating Error will be returned. A NexError node will be added around the entire document. A DCDError node will be embedded in the document at the location of the error. It will look similar to the following:

```

<NexError Msg="XML Validating Error" . . . >
  <XMLValidateError msg="Find the DCDError Node in
the document for detailed error information."/>
  . . . Valid Portion of document . . .

```

```

<DCDError message="" >
  offending section of document
</DCDError>
  . . . Valid Portion of document . . .
</XMLValidateError >
</NexError>

```

The following is an example request attempt to add one new product and to update the price of an existing product.

```

<ManageInventory
specification='http://automation.nexchange.net/dcd/Manage
Inventory.01.02.dcd.xml'>
  <RequestHeader>
    <Authentication username='xxxxx'
password='xxxx' scope='MNNN'>/>
    <Instructions onfail='CONTINUE'>/>
  </RequestHeader>
  <RequestBody>
    <Command status='REQUESTED'>
      <AddProductDef updateifexists='1'>
        <ProductDef
          id='saw'
          skumask='saw'
          name='saw'
          description='A Circular Saw From Festo'
          shortdescription='Festo Circular Saw'
          info='no comment'
          image='http://216.0.58.242/rmtools/fw132saw.jpg'
          largeimage='http://216.0.58.242/rmtools/fw132saw.jpg'
          usualprice='145.00'
          saleprice='135.00'
          compareprice='215.00'
          salelabel='HOT PRICE'
          instock='1'
          commplan='default'
        >
          <AttributeDefList/>
          <KeywordList/>
        </ProductDef>
      </AddProductDef>
    </Command>
    <Command status='REQUESTED'>
      <UpdateProductDef
        id='saw'
        image='http://216.0.58.242/rmtools/fw132saw.jpg'
      >/>
    </Command>
  </RequestBody>
</ManageInventory>

```

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2. Host Manager

The Host Manager is the “Control Center” for Hosts. Here, a Host can track sales, design their store front, generate links to merchant products, get traffic/order reports, update account information, etc

For a host to gain access to the host manager system, the host must be registered. FIG. 4 depicts a flow chart for a typical registration process. A host representative may initiate contact 410 with the system via a web interface. The signup process must collect basic host information 420, including the information necessary to pay the host a commission for purchases through his site, which is saved by the system 430. Optionally, a click agreement containing terms of use 440 may be presented requiring agreement 444 to proceed. If at some point the representative elects to cancel 425, 458 or reject the use agreement 448, he or she is returned to her point of entry 410. The system may then request the representative to select a user identification and a password 450. If the selected user identification is already in use 454, the representative may be prompted to select a user identification 450. The information associated with the host is stored 460, and the representative may proceed to the host manager system page 470.

When a host logs in, they are taken directly to the Host Manager, as seen in FIG. 10, and assigned a Host Session ID (Host SID). All pages within the host system must request the Host Sid and call the ValidateHostSessionID function. If the session does not validate, the user is taken back to the Login screen.

This module contains the following submodules:

Account Information

This sub-module allows a host to maintain the following types of information:

Administrative Contact—name, address, phone

Payee Contact—name, address, phone, SSN

Site Information—site name, URL, description

Site Demographics—# of visitors, type of visitors, comments

A host representative will be able to maintain basic host information, including the information needed to pay the host, and the host’s password. FIG. 5 depicts a flow chart of the pages and actions in a typical maintenance process. The representative has previously logged into the system to reach the host manager system page 470. From the host manager system, the representative selects to update her account 510 leading to a host information maintenance page 520. The representative can modify host information and, then choose to save or cancel the modification 530. In either case, the representative is returned to the host manger system page 470.

Store Front Design

The store front design is where the host’s look and feel is captured. The look and feel is captured by selecting an example page the host, retrieving the sample page from the host, identifying the look and feel elements from the sample page and saving the identified look and feel elements. “Look and feel elements” include logos, colors, page layout, navigation systems, frames, ‘mouse-over’ effects, or other elements that are consistent through some or all of a Host’s website. A typical system for accomplishing this task would include a data store for storing look and feel descriptions, a communication channel to the host whose look and feel is to be captured and a processor for executing the capture.

When a customer clicks on a host buying opportunity (link), the next page loaded will be a shopping page.

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However, this shopping page should retain the host’s look and feel. This is accomplished by capturing the HTML text and images that comprise their look and feel and embed within it the shopping HTML content. Any relative URLs in the host look and feel may be changed to absolute URLs back to the host system.

In a preferred embodiment, there are five steps to a process capturing the host’s look and feel, converting relative URLs to absolute URLs and validation of links.

A host representative will be able to capture host look and feel information and to update host look and feel information through recapture. FIG. 6 depicts a flow chart of the pages and actions in a typical look and feel capture process. The representative has previously logged into the system to reach the host manager system page 470. From this page, the representative selects to initiate host look and feel capture through a design storefront wizard 605. An introduction page is presented explaining the process 610 from which the representative proceeds in the following manner:

Base URL 615—the URL used to convert relative links to absolute links, as seen in FIG. 11

header 620—the HTML to be rendered BEFORE the shopping html. Selection may be made by code, as seen in FIG. 12, by graphical point and click selection or other suitable selection method.

footer 625—the HTML to be rendered AFTER the shopping html. Selection may be made by code, as seen in FIG. 13, by graphical point and click selection or other suitable selection method.

preview 630—shows what the shopping page will look like (nothing has been captured yet). From this preview page 630, as seen in FIG. 14, the representative may elect to return to earlier stage to perform a change 635, 640 or 645 of base URL, header or footer respectively. The user may also have access to a preview 650 with example content included to demonstrate a typical page with both content and look and feel 680, as seen in FIG. 15. From the generic preview page 630, the representative may choose to continue 655 with finalizing the look and feel 660.

final check 660—finalize the captured look and feel, as seen in FIG. 16, this page may allow validation of links and images and offer to save the captured look and feel. Once validation, if any has been performed, and the look and feel has been saved, the process completes 675.

validation 665—validate the link and image URLs in the header and footer HTML. FIG. 17 displays the screen capture of page that could be used to display validation progress.

save 670—Actually captures, processes and saves the storefront information. A completion page such as seen in FIG. 18 may be displayed.

For security reasons, javascript is accepted but applets are stripped out in the preferred embodiment.

Link Generator

The Link Generator allows host to create and maintain the shopping opportunities that they can then place on their site. Each Link is assigned a unique Link ID. The Link ID identifies who the host is, who the merchant is, and what commerce object (catalog, category, product or dynamic selection) is linked to.

The first time a host builds a Link to a merchant’s product, category or catalog, an approval of that host for that

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merchant may be made. Until the host is approved, they cannot see the Link ID that has been assigned to the newly created Link.

The code the host embeds on their web site is as follows:

```
<!--BEGIN NEXCHANGE LINK-->
<!--For more information go to http://www.
nexchange.com-->
<!--The following 2 lines MUST NOT BE CHANGED to
ensure proper crediting-->
<IMG BORDER='0' SRC='http://www.nexchange.net/
img.asp?LinkID=xxxx'>
<a href='http://www.nexchange.net/
route.asp?LinkID=xxxx'>
<!--Substitute your own text or image below-->
**YOUR TEXT OR IMAGE HERE**</a>
<!--END NEXCHANGE LINK-->
```

There are several points to note here:

The image src (img.asp) is actually an ASP program that returns a single transparent pixel. This is used to track impressions (how many times the link was displayed on the host site).

The route.asp page is a page that routes the customer to the shopping page. As additional servers are added, this will become very important for load balancing.

The 'xxxx' for the LinkID='xxxx' is the Link ID assigned to the Link in the Link Generator.

A host representative will be able to generate links to commerce objects. FIG. 7 depicts a flow chart of the pages and actions in a typical link generation process. The representative has previously logged into the system to reach the host manager system page 470. From this page, the representative selects to generate links 705, which transfers her to a page containing a list of all previously generated links for that host 710.

From this page, the representative may choose among several options: view an existing link 722, remove an existing link 735, edit an existing link 728 or add a new link to either a merchant with whom a link already exists 720 or a merchant without an existing link 715. In viewing an existing link 722, the page containing the link may optionally displayed in a separate window 725; as a consequence, the representative could continue to interact with the list of available links page 710 in the primary window. The representative could select a link for removal 735 and, upon removal, return to the list of links page 710. The representative may choose to edit an existing link 728 leading to a link modification page 730. After modifying the link, the new link information would be saved 740, and the representative would return to the list of available links 710.

In adding a new link, a distinction may be made whether a link is made to a merchant to whom the host has previously linked 720 or to a merchant to whom a previous link does not exist 715. In the latter case, an extra optional step may be involved to approve the host with respect to the new merchant as part of the catalog selection process 745. In other embodiments, such a distinction need not be made. In linking to a merchant to whom a previous link does exist 720, a catalog may implicitly be selected. In either situation, the creation process continues by allowing the representative to choose a commerce object to associate with the link 750. Such a commerce object will be a product, a product category, a catalog or an indication that a product, product category or catalog should be chosen dynamically. From this page, the representative may go back to the catalog selection page 745 or proceed with

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setting link attributes 755 such as the destination upon return from the link (e.g. the point of departure into the e-commerce page or a destination designated by the representative). From this page 755, the representative can return to the commerce object selection page 750 or continue forward with naming and saving the new link 760. Upon completion of naming and saving page 760, the link is saved to the system database 765, and the representative is provided with a link to include within a page on the host website 770. After cancellation at any time, or upon completion, the representative is returned to the list of available links page 710.

Where a host representative chooses a dynamic indicator as the commerce object, the specific content will be chosen contextually based upon the content of the page that includes the link. In a preferred embodiment, keywords in the page are cross-reference with available catalogs, product categories and products to choose the appropriate content for the destination page associated with the link. FIG. 8 is a flow chart of the selection process in such a preferred embodiment.

A visitor is viewing the host page including a link associated with a dynamic selection commerce object 810. The visitor activates the link. Receiving the activation, a determination is made as to whether content has previously been dynamically selected for the activated link 820. If yes, a second determination is made as to whether the previously dynamically selected content is current 830. If this is answered in the affirmative, a page is constructed with the previously dynamically selected content along with the look and feel associated with the host from which the link originated 840.

If either determination is negative, the host page including the link is retrieved 850. The page content is analyzed, and based upon the analysis, content for the link destination is selected 860. The selected content is cached for potential future use 870. Finally, a page is constructed with the dynamically selected content along with the look and feel associated with the host from which the link originated 840. The analysis in 860 may take a variety of forms including, in a preferred embodiment, identification of marked keywords. In another embodiment, keywords may be dynamically determined using word count statistics.

In a more elaborate system, the retrieval process might encompass not only the page containing the link but also other pages linked to the page of link origin. Keywords or word count analysis could be used to determine context based upon the aggregation of pages retrieved. In a further embodiment, differing weights could be given based upon the source of the keyword identified; keywords from the page of origin would have a greater weight than keywords derived from pages one link away.

Reports

A valid host representative will have on-demand access to a report showing visits to their links and sales. The report will be scoped by date range. Visits can be summarized by merchant and by link. Sales can be summarized by merchant and by link.

As illustrated in FIG. 21, a host representative begins at the Host Manager page 470. She selects the view reports option 2105 to view the report menu page 2110. From the reports menu page 2110, she may enter criteria 2114, 2118 leading respectively to a revenue summary page 2120 or a monthly statement page 2130.

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From the monthly statement page **2130**, she may change criteria **2135** to view a revised monthly statement **2130** or return to the report menu **2110**. From the revenue summary page **2120**, she may select a specific item **2125** for receiving a detailed revenue page **2150**, alter the criteria **2127** to receive a revised revenue summary **2120**, or return to the reports menu page **2110**. From the detailed revenue page **2150**, she may return to the revenue summary page **2120**.

The following reports are available for the hosts to track their results:

Revenue Summary by Month

This report provides sales and traffic information summarized by month. Data includes number of sessions, number of orders, gross and net sales, etc. Allows 'Drill Down' to daily totals.

Revenue Summary by Merchant

This report provides sales and traffic information summarized by merchant. Data includes number of sessions, number of orders, gross and net sales, etc.

Revenue Summary by Link

This report provides sales and traffic information summarized by Link. Data includes number of sessions, number of orders, gross and net sales, etc.

3. Shopping

The shopping module is the part of the application that allows customers to find, to search, select and buy a product. There is also a return product section accessible to the customer after the order has been placed.

Shopping is the part of the application that the general public will encounter. FIG. **19** displays a screen capture of a typical shopping page in a preferred embodiment FIG. **22** depicts pages and procedures in a shopping process as implemented in a preferred embodiment.

The customer was on a host site and saw a link to buy something created via the Link generator **2200**. When he or she clicks on the link, he or she is taken to the shopping page parameterized with the Link ID **2210**. If an error occurs during this transition, the visitor is routed to a link error page **2205**.

A variety of generic information may be available from any shopping page within the system. Such information could include information about the e-commerce outsource provider **2222**, information about the merchant offering the current commerce object **2224**, information about an involved party's privacy policy **2226**, or information about an involved party's security policy **2228**.

Customers will be able to browse a merchant's catalogue and place items in their shopping cart **2212**. When the customer is ready to checkout **2260**, the system will acquire payment information **2262** and shipping information **2264** from the user, confirm this information **2266**, and execute the transaction. The receipt including a URL that can be used to track the order status (e.g.—it could be bookmarked) will be displayed to the customer **2268**. By visiting the URL provided upon checkout from the shopping experience, the customer can check the status of their order, initiate returns, and check on their return status.

This module contains the following submodules:

Session

Each time a new shopping session is started, a customer session is created for the shopper. This Customer Session is assigned a Session ID (SID). All pages within the shopping system must request the SID and call the ValidateSessionID function. At any time if a session error occurs, a session error page **2215** may be presented.

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Unlike the merchant and host sessions, the shopping session is persistent. The session information retained is what the customer has placed in the cart and if they have checked out. The SID is also written back to the customers browser as a cookie. If a customer returns to the Shopping page an attempt will be made to use the last session they had. It will only be reused if the ALL of the following are true:

The host the customer is coming from now is the same host as in the previous session

The merchant for the current link is the same as the merchant in the previous session

The previous session was not "Checked Out"

The session is not older than a certain age.

Product Search and Selection

The main shopping page begins at the entry point that the host used to build the Link. This can be to a specific product, a category of products, a category of sub-categories, a complete catalog or a dynamically selected destination. However, no matter what entry point was chosen, the customer can navigate to every item contained in the merchant catalog used for the Link serving as the customer's entry point to the shopping. The customer may browse the catalog **2230** or search for a specific product or product category **2240**.

Shopping Cart

The Shopping Cart is the main information saved in a customer session. As a customer places products in the shopping cart, we retain information such as:

name of the product

price of the product

any attributes (size, color, etc)

host commission rate

merchant revenue percent

This information must be stored redundantly in the shopping cart because the price, name, etc may change later and the values at the time of purchase need to be retained. The shopping cart interface also allows the shopper to remove a product and/or change the quantity through a view shopping cart page **2250**.

Check Out

The check out process is separated into two distinct pieces.

Order Capture

Credit Validation

Order capture is the process of obtaining the customers billing and shipping information and creating a pending order. The credit card information is checked to make sure it is a valid number for the card type but it is not actually processed with a credit card authorization service (i.e. CyberCash). The order is accepted, assigned an order id and the customer is given an on screen and email confirmation. The pending order has a status of new.

The credit validation process happens sometime after the order capture has occurred. The customer's billing information is sent to the authorization service. The pending order now has the status of authorized.

If the card is validated, the order is accepted and placed into the TheOrder table. The pending order has a status of accepted. If the billing information fails validation, the pending order status is set to rejected and an email is sent to the customer informing that the credit card information could not be validated.

4. System Manager

The System Manager is the “Control Center” for administrators. The administrator can monitor the day-to-day activities and status of the system. When an administrator logs in, he or she is taken directly to the System Manager and assigned a Nexchange Session ID (NexchangeSID). All pages within the System Manager system must request the NexchangeSID and call the ValidateNexchangeSessionID function. If the session does not validate, the user is taken back to the Login screen. Access to administration functions will require authentication using the name and password for a valid administration account.

The home/main page of the System Manager provides a quick summary of the current system status; a screen capture of a typical main page in a preferred embodiment is seen in FIG. 20. This summary includes pending orders, orders, host statistics, merchant statistics and an unattended orders list.

An administrator will be able to configure a hosts or merchant’s payment policy. This includes specifications for any holdbacks, and a method for calculating commission/ payment. At the request of a merchant, an administrator will be able to configure the system to reject all shopping traffic from a particular host-merchant arrangement. The host and merchant contacts will be notified via email. An administrator will also be able to activate or deactivate a host. The system will reject shopping traffic from inactive hosts. When a host’s status is changed, the host contact will be notified via email. An administrator will configure the system to enforce system-wide policies. System-wide policies include the number of days allowed for returns.

The system will periodically run an audit process and report on situations of concern. For example, an audit could search for orders that have not been serviced for a certain period of time. The system may also report on possible security situations such as an inordinate number of account lockout incidents.

This module contains the following submodules:

Utilities

The following utilities are available:

- List Pending Orders
- List Orders
- List Rejected Orders
- List Returns

Host

The following actions are available:

- List Promos
- List Hosts
- Maintain Host Tiers
- Host with Pending Merchants

Merchant

The following actions are available:

- List Merchants
- Copy a Category
- Find Category Links
- Add a New Merchant
- Maintain Brands

Application Server Tier

The business functionality is provided via “application servers”. An application server will consist of one or more of the business modules, wrapped with an appropriate middleware adapter. This arrangement allows delivery of services via many different mechanisms. For example, if it becomes desirable to serve some functions to a Java client, a Java Remote Method Invocation (RMI) version of an application server could be built. The new server could be developed rapidly because only an RMI “wrapper” would need to be developed, while the application logic would be

reused. In a preferred embodiment, this layer consists of a set of core C++ software modules that encapsulate business functions.

The Application Server tier may run on one or more application server computers. The application servers are stateless. This means that, for two application servers serving the same functionality, “one is as good as another”. In the event of failure, a client’s requests may be handled by a different server than before the failure. Since it does not matter which server services a request, routing is greatly simplified. The stateless server approach also provides excellent fault tolerance since all application servers can back each other up. Use of a combination of “sticky routing” and caching to significantly ameliorate any detrimental performance implications of the stateless approach, while preserving most of the benefit. Once a client begins using a particular service, the system will show a preference for routing future requests from that client to the same server. The servers maintain a cache recently used data and will only access the database if the desired item cannot be used in cache. Since the routing is sticky, the client’s data will often be in cache, and in many cases, no database access will be required. Should the client be routed to a new server, the session data can be retrieved from the database as occurs in the “vanilla” stateless model. In a preferred embodiment, the functionality of this layer utilizes one or more low cost server systems 125a-125d running a suitable operating system such as Microsoft Windows NT. This tier is also composed of several software layers as illustrated in FIG. 3:

Remote Procedure Call Server 310. This software provides connectivity to the Web Server layer and is not application dependent. In a preferred embodiment, this software layer is the Objectstore Component Server.

Application Logic 320. This software encapsulates the business functionality. The design of this software layer and the various application servers is more fully described below.

Virtual Database 330. The virtual database layer allows the application data to be distributed across multiple Database servers while insulating the application layer from the physical storage configuration. The virtual database contains a table that maps object types to physical databases. All database objects or records of a given type are distributed across the permissible databases. Databases can be added while the system is live to permit expansion onto new servers. Overburdened databases can be closed to prevent assignment of new data to them. Databases can be moved to different physical servers. All stored objects are referenced by a handle which is unaffected by the physical location of the referenced data. The virtual database layer also permits a collection of objects distributed across multiple servers to be indexed and searched.

DBMS Client 340. This software provides access to data stored in the databases. In a preferred embodiment, the DBMS client is Object Design’s Objectstore client. All Objectstore clients contain a cache of recently used database pages. An optimistic locking scheme is used to ensure cache consistency. The caching scheme is very effective in the present invention because it is optimized for many readers and few writers.

In a preferred embodiment, the application server layer includes the following eight application servers:

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1. Cashier—Collects checkout information: billing info, shipping preferences, etc.

The Cashier server is analogous to a cashier in a “bricks and mortar” store. The cashier’s responsibilities are listed below:

Collecting Information Necessary To Complete a Sale.

This information will include billing information, shipping address(s) and preferred shipping methods. In some cases, the information to be collected may depend on the contents of the order. The cashier will also access the appropriate merchant policy information to assist in determining what data should be collected.

Providing an Itemized Account of the Total. Upon receiving the necessary data, the cashier will compute the applicable taxes, shipping charges, etc, and provide an itemized account of the order total.

Execute the Sale. Upon request, the cashier will execute the sale. A copy of the relevant information will be sent to the credit processor. When the credit processor approves the orders, the cashier will break the customer’s order into individual merchant orders and forward them to the Merchants’ Order Tracking server. The cashier will also post a record to the Ledger at this time.

2. Catalog—Houses product hierarchies. Conducts product searches.

The catalog is an arrangement of product information. The catalog server supports a hierarchical browsing mode and various searching functions. Its responsibilities are listed below:

Retrieve a catalog upon request. The catalog will include all content for a shopping experience. For products, the information will include the product description, price and options.

Retrieve a list of products matching a query. This will initially support simple keyword searching, but may be expanded to more sophisticated searching techniques.

3. Credit Processor—Conducts card validation and fraud screening.

The credit processor takes a candidate order and performs card authorization and fraud screening. The card processor cooperates with the order tracker to keep the status of the order updated.

Perform Credit Card Authorization. Contact the card processing vendor and authorize the card. Retrieve the Address Verification System (AVS) code for use in fraud screening.

Perform Fraud Screening. The system performs a fraud screening analysis based on the following factors: dollar amount of the order, AVS code, whether the billing and shipping address match, and whether the email address given is a free e-mail account.

4. Notifier—Sends messages.

The Notifier keeps track of who wants to be notified of what and how they should be notified. The notifier receives notification of various system events and takes the appropriate course of action. The appropriate course of action will depend upon the event and the party to be notified. For example, a merchant that does a high volume of sales and is already integrated with the system may not wish to receive email notification of every order.

5. Ledger—Records and reports on all financial events.

The Ledger is a record of all financial events. The ledger contains interfaces for posting events and interfaces querying and inspecting the ledger. Responsibilities include:

Post an Order Event. The order event happens when the shopper confirms an order.

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Post a Sale Event. The sale event occurs when a merchant marks the last item in an order shipped.

Post an Return Merchandise Authorization (RMA) Open Event/Post an RMA Completed Event/Post an RMA Canceled Event

Post a Journal Entry. This interface will be used to record non-standard events. The posted ledger entries must collectively have an equal number of debits and credits.

6. Order Tracker—Records and reports on order status.

This is the repository of order information. The order tracker includes a cashier’s interface for creating a new order, a Merchant’s interface for keeping the order status updated, and a Customer Service interface for checking on the status of the order and making relevant annotations.

Query Order Status. This method is used by purchaser to check on the status of a pending order.

Ship Order. This method is used by a merchant to document the parceling of an order into shipments.

7. Shopping Cart—Holds products that have been selected for purchase.

The shopping cart is simply a collection of Inventory Reservation documents that represent the items that have been selected by the shopper. The shopping cart includes methods for adding and removing Inventory Reservations and for inspecting the contents of the cart.

8. Warehouse—Inventory availability information. Product configuration interfaces.

The Warehouse represents a collection of physical items that are in stock.

Responsibilities of the Warehouse are listed below:

Provide Information on Stock Levels of a Particular Item/Order Items Having Low Inventory Levels. This is an advanced capability by which inventory may be dynamically reserved from a merchant, based on the current inventory levels.

Provide Information on Product Configuration Options. The warehouse will provide a blank Inventory Reservation document that will specify all of the product’s configuration options.

Issue Reservations Against Inventory. A shopper will fill out an Inventory Reservation (which includes all configuration options) and submit it to the warehouse. If the item, as configured, is available, the reservation will be issued. This will serve to reserve the inventory for a fixed period of time.

Database Server Tier

Finally, the Database server tier is composed of a single software layer. This layer is responsible for low level manipulation of the data in the one or more databases. This tier may consist of multiple database servers. Using multiple servers is a major advantage for obvious reasons. The system’s database chores can be distributed to many different servers. In a preferred embodiment, the database server is Object Design’s Objectstore server. Objectstore supports a “warm failover” mode which allows a backup server to take over automatically if the primary should fail. An Microsoft SQL server is also used in the preferred embodiment to maintain financial records although properly configured another DBMS such as Objectstore or a commercially available accounting package could provide capability suitable for financial record keeping.

The foregoing discussion describes the primary actors interacting with a system according to the present invention. After identifying these actors, typical transaction flows through the system are presented.

There are three main parties in the outsourced e-commerce relationship, excluding the end consumer. These

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parties include Merchants, Hosts, and the e-commerce outsource provider. This folds into two parties where one party plays the dual role of Host and Merchant.

Merchants

Merchants are the producers, distributors, or resellers of the goods to be sold through the outsource provider. The primary responsibilities of a Merchant are to:

Maintain an up-to-date catalog within the system including all products that are available for sale in storefronts served by the outsource provider

Create approval standards for passively recruited Host applicants based upon website profiles and target audience characteristics

Fulfill all orders received from the e-commerce outsource provider

Provide assistance to outsource provider regarding promotional strategies. This can be accomplished by supplying marketing literature and materials, as well as any sales incentives. The Merchant owns the marketing literature and materials, and may access and modify these items as necessary.

Provide service and support to customers generated via the outsource e-commerce provider

Maintain internal records of orders filled through the outsource provider and process payments from the outsource provider for these orders

Inform the e-commerce outsource provider of any backlogs, fulfillment delays, product changes, or other significant situations

Hosts

A Host is the operator of a website that engages in Internet commerce by incorporating one or more link to the e-commerce outsource provider into its web content. The responsibilities of a Host are to:

Use the outsource provider Host Manager service bureau to select the Merchants and products that will be offered from the Host's website

Promote transactions through the e-commerce outsource provider hosted by the website

Regularly review the Merchant offerings for which they have been approved in order to take advantage of new products and to review sales and promotional strategies made available to them by the Merchant

E-commerce Outsource Provider

The role of outsource provider is to:

Develop and maintain the outsource provider service bureau—the systems and software which provide the platform for e-commerce support services

Identify and recruit target Host websites and monitor/manage these relationships

Create customer-transparent Host processing “pages” on a secure server to receive order and payment information

Create, maintain, and update the “look & feel capture” process through which consumers are able to shop in a Merchant-controlled storefront within the design and navigational context of the Host website, preserving the ownership of the visit experience by the Host

Authorize credit card transactions (in most cases)

Process credit card payments for orders received (in most cases)

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Pay periodic commissions to Hosts for orders shipped during a prior period

Transmit orders to Merchants

Pay Merchants for orders filled

Manage the commission structure for Merchant-Host relationships to maximize sales and revenues

Screen and approve Host applications

Support and monitor the merchandise return/refund process and other customer service functions

This following describes the order entry and settlement process from the initial promotion on a Host website all the way through to fulfillment, payment processing, commission payment, and Merchant payment.

Order Placement, Fulfillment, and Settlement Overview

The overall transaction process is very straightforward. The following is a list of the steps involved in receiving and processing an order request.

a) A customer visits a Host website and, through contextually relevant content, becomes interested in a product offered.

b) The customer selects the item(s) that she wishes to purchase by clicking a product image, banner-style link, or text link, or other offer format taking her to a dynamically generated web pages which retain the look and feel of the referring Host and are served by the e-commerce outsource provider.

c) The customer browses through the products offered, indicating which items are to be purchased and in what quantities via forms on-screen. Selected items appear within the shopping cart at the top of the shopping interface. The user remains on the product screen without ever being involuntarily removed to a detailed shopping cart-only screen, representing a significant enhancement over most shopping cart technology in place today. When all desired products are selected, the customer initiates the checkout procedure, never leaving the Host website.

d) The secure checkout interface appears, still consistent in look and feel with the Host's referring website. The customer completes the order form, provides all billing and shipping information required, confirms the items selected for purchase, and remits credit card information for payment processing.

e) Assuming the payment method is authorized, the customer is returned to another section of the Host's website, possibly just returning to the page in which the offer was placed, as determined by the Host.

f) The e-commerce outsource provider passes the order to the Merchant in real time. The credit card may be charged at this point or upon confirmation of shipment

g) The Merchant receives and logs the order.

h) The Merchant then assembles and ships the order to the customer, keeping the outsource provider apprised of the order status.

i) Periodically, the outsource provider will remit payment to the Merchant for that period's filled orders.

j) Periodically, the outsource provider will remit payment to Hosts for all commissions earned in the prior period.

Host Process Flow

The process flow for a prospect to become a Host and be fully able to endorse/promote/offer Merchant products is as follows:

a) Hosts are recruited from three sources: direct recruiting, in which the Host prospect is identified by and approached by an e-commerce outsource provider representative; passive recruiting, in which the Host has been referred to the outsource provider by other Hosts, relevant meta-sites (sites that contain lists of and links to other

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sites/services), or other sources; and Host Agent recruits, in which a specialized third party Agent identifies and approaches Host prospects. In many cases, the use of online signup forms and brochures may be a factor in recruitment

- b) Prospect completes the Host application form (except where preapproved), providing information about the type of website(s) operated by the Host, some traffic statistics about these websites and general visitor demographics, and complete contact information. The prospect also selects an outsource provider system user ID and password which will later be used to access the system, retrieve important Hosting information and programming, and modify the custom materials in the outsource provider transaction processing engine.
- c) The application is received and the information therein is reviewed, and the application is either approved or rejected (unless this is a preapproved Host). If approved, the Host's ID and password are activated, and an automated message is sent to the new Host informing them of their approval. This message will also contain instructions for accessing the e-commerce outsource provider system, setting up their links to the outsource provider, and inserting outsource provider data into their website(s). Preapproved Hosts will be immediately able to access this system upon submission of their application.
- d) Host accesses e-commerce outsource provider system to begin the step-by-step setup process. The Host first identifies a page from their own website which will provide the look and feel to be replicated. Following this, the Host configures product selections for each of its approved Merchants and downloads product images, text, and CGI/HTML code for their own website. Host then completes changes to website and activates new content. Hosts are free to promote their use of the outsource provider as they feel is suitable to the product at any time and with any frequency, subject to reasonable limitations.
- e) Hosts will be able to access real-time reports about transaction volume including number of users, average purchase amount per user, number of purchases on specified days or within specified date ranges. Hosts can create customized reports to determine conversion rates, top selling products, commissions earned, paid, and due, and other pertinent information. This information can be leveraged by the e-commerce outsource provider and the Host to improve the efficacy of targeted marketing efforts on the Host's website.

Internal System Transaction Flow

The e-commerce outsource provider system acts as a clearinghouse for all orders. The system maintains a real-time interface with a credit card authorization and processing service and a robust database engine which is able to process transactions, record all transaction activities, generate reports used for commission payments and auditing of Merchant invoices, and track order status. The transaction flow for the outsource provider service bureau is directly related to the structure of the underlying database.

This flow can be described as follows:

- a) Customer, visiting Host, activates link to commerce object within context of Host's website. This activation is typically accomplished by clicking on a hyperlink of some kind within a webpage of the Host's website.
- b) The e-commerce outsource provider launches new storefront featuring specific products or product category for Merchant, as determined by Host, with the look and feel

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of the Host's site. The user is not made aware of the fact that this shopping experience is taking place on an out-sourced server.

- c) As customer browses through featured items in the Merchant's catalog, the outsource provider serves additional pages while maintaining the look and feel of the Host. The system maintains a dynamic record of customers activities including products reviewed, items selected for purchase (placed into shopping cart), and time spent shopping. The e-commerce outsource provider uses a highly reliable and accurate tracking technology throughout the shopping experience.
 - d) Upon checkout, the system processes customer billing, shipping, and order information via secure (encrypted) data transmission (unless the consumer opts for non-encrypted transmission). This process includes an order confirmation process and a process by which a non-approved credit card transaction may be corrected and resubmitted.
 - e) Upon approval, the outsource provider performs several simultaneous functions:
 - Thank you screen is displayed to customer
 - Customer is prompted to "continue" browsing Host's website.
 - E-mail confirmation is sent to customer detailing order information, fulfillment process, customer service terms and procedures, and other relevant information.
 - Order is transmitted to the Merchant electronically, via e-mail or direct link to order entry system.
 - Order is logged into transaction database and logged by system in conjunction with Host referral information.
 - Host is notified that a sale has been made and commission dollars have been earned.
- The second part of the e-commerce outsource provider service bureau transaction process pertains to reconciliation and settlement with the Merchants.
- a) Orders are transmitted to each Merchant as received and are logged into the system for future reference and reporting.
 - b) Periodically, the outsource provider will pay each Merchant for orders processed during the prior period. Payment will be driven by shipped orders as recorded within the system. Merchants can view their accumulated sales within the system at any time during the period, and historical information will be available as well.
- The final part of the e-commerce outsource provider Service Bureau transaction process pertains to the payment of commissions to Hosts.
- c) Periodically, the e-commerce outsource provider will calculate the accumulated commissions due to each Host from the prior period's results. Hosts will be able to review their earnings on a real-time basis at any point during a period.
 - d) The outsource provider will then pay each Host the appropriate commission amount via electronic payment or check along with a copy of the transactions and total report for the period being settled.

Merchant Transaction Flow

Each Merchant will be required to fulfill every order received through the e-commerce outsource provider within a designated time frame. Merchants must also be able to track certain information regularly and accurately. Merchants will be monitored to ensure timely fulfillment in order to provide the best quality customer service.

The steps of the Merchants transaction flow after they have been established within the system are as follows:

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- a) The designated recipient of orders within the Merchant organization will check for new orders at least on a daily basis, if not more frequently. Orders are received by the Merchant via e-mail or other electronic notification, including automated direct input to legacy order management systems owned or operated by the Merchant. These orders include all pertinent customer data required for fulfillment of each order. Merchants may also view all orders online, sorted by date, status (new/viewed), or other criteria, and download orders in bulk form directly from the outsource provider.
- b) After receiving the order, the Merchant will ship the order to the Customer within a reasonable time period for the type of merchandise ordered. Merchant will have the ability to modify the shipping status of the orders within the system. Merchants are obligated to provide timely shipping of their products. If any item ordered is out of stock or discontinued, the Merchant must update their catalog on the e-commerce outsource provider immediately and notify any affected customers immediately via e-mail or regular mail. Orders should be processed according to whatever internal process flow has been established by the Merchant.
- c) Upon receipt of payment for the prior month's orders, the Merchant is responsible for reconciling the amount remitted with their own fulfillment records. Any disputes should be addressed by accessing the Merchant interface and querying/updating records.

The embodiments described above are given as illustrative examples only. It will be readily appreciated that many deviations may be made from the specific embodiment disclosed in this specification without departing from the invention. Accordingly, the scope of the invention is to be determined by the claims below rather than being limited to the specifically described embodiment above.

The invention claimed is:

1. A method of serving commerce information of an outsource provider in connection with host web pages offering commercial opportunities, the method comprising: with a computer system of an outsource provider: upon receiving over the Internet an electronic request generated by an Internet-accessible computing device of a visitor in response to selection of a uniform resource locator (URL) within a source web page that has been served to the visitor computing device when visiting a website of a host that is a third party to the outsource provider, wherein the URL correlates the source web page with a commerce object associated with at least one buying opportunity of a merchant that is a third party to the outsource provider, automatically serving to the visitor computing device first instructions directing the visitor computing device to display commerce object information associated with the commerce object associated with the URL that has been activated, which commerce object includes at least one product available for sale through the computer system of the outsource provider after activating the URL; wherein the commerce object information is displayed to the visitor computing device on a composite web page visually corresponding to the source web page; wherein the visual correspondence relates to overall appearance of the composite web page as compared to the source web page, but excluding the commerce object information and the URL; and wherein second instructions directing the visitor computing device to download data defining the overall

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appearance of the composite web page are accessible to the visitor computing device through the Internet.

2. The method of claim 1 wherein the composite web page further contains a purchase URL associated with the commerce object information, which purchase URL, when selected, places data representing the commerce object into a virtual shopping cart managed by the computer system of the outsource provider.

3. The method of claim 2 further comprising, automatically with the computer system of the outsource provider, accepting inputted payment information from the visitor computer, recording the payment information, and using the payment information to facilitate payment to the merchant for the commerce object when the computer system of the outsource provider detects selection of a checkout URL associated with the virtual shopping cart.

4. The method of claim 3 wherein the host and the outsource provider are parties to a contract providing for payment to the host of a commission based on the level of sales made through activation of URLs displayed on the source web page, and further comprising, automatically with the computer system of the outsource provider, recording data to facilitate payment of the commission to the host following selection of the checkout URL.

5. The method of claim 1 wherein the computer system further serves a website of the outsource provider.

6. The method of claim 1 wherein some of the data defining the overall appearance of the composite web page defines the appearance of respective of a plurality of URLs, each of which URLs also are present on at least some of the web pages of the host website, and which URLs point to respective web pages of the host website.

7. The method of claim 1 wherein the commerce object correlated with the source web page is an electronic catalog listing a multitude of products offered for sale by the merchant through a website of an outsource provider, and wherein the composite web page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the electronic catalog.

8. The method of claim 7 further comprising, automatically with the computer system, (i) using search parameters inputted at the visitor computing device to search for specific products within the catalog, and (ii) serving to the visitor computing device additional instructions directing the visitor computing device to display the results of the search.

9. The method of claim 8 wherein the composite web page further contains a purchase URL associated with the commerce object information, which purchase URL, when selected, places data representing the commerce object into a virtual shopping cart managed by the computer system of the outsource provider.

10. The method of claim 1 wherein automatically serving to the visitor computing device the first instructions comprises serving the first instructions via an Internet communication link directly to the visitor computing device.

11. An apparatus for serving commerce information of an outsource provider in connection with host web pages offering commercial opportunities, the apparatus comprising:

a computer system of an outsource provider programmed to,

upon receiving over the Internet an electronic request generated by an Internet-accessible computing device of a visitor in response to selection of a uniform

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resource locator (URL) within a source web page that has been served to the visitor computing device when visiting a website of a host that is a third party to the outsource provider, wherein the URL correlates the source web page with a commerce object associated with at least one buying opportunity of a merchant that is a third party to the outsource provider, automatically serve to the visitor computing device first instructions directing the visitor computing device to display commerce object information associated with the commerce object associated with the URL that has been activated, which commerce object includes at least one product available for sale through the computer system of the outsource provider after activating the URL; wherein the commerce object information is displayed to the visitor computing device on a composite web page visually corresponding to the source web page; wherein the visual correspondence relates to overall appearance of the composite web page as compared to the source web page, but excluding the commerce object information and the URL; and wherein second instructions directing the visitor computing device to download data defining the overall appearance of the composite web page are accessible to the visitor computing device through the Internet.

12. The apparatus of claim 11 wherein the composite web page further contains a purchase URL associated with the commerce object information, which purchase URL, when selected, places data representing the commerce object into a virtual shopping cart managed by the computer system of the outsource provider.

13. The apparatus of claim 12 wherein the computer system is further programmed to automatically (i) accept inputted payment information from the visitor computer, (ii) record the payment information, and (iii) use the payment information to facilitate payment to the merchant for the commerce object when the computer system detects selection of a checkout URL associated with the virtual shopping cart.

14. The apparatus of claim 13 wherein the host and the outsource provider are parties to a contract providing for payment to the host of a commission based on the level of

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sales made through activation of URLs displayed on the source web page, and wherein the computer system is further programmed to automatically record data to facilitate payment of the commission to the host following selection of the checkout URL.

15. The apparatus of claim 11 wherein the computer system further is programmed to serve a website of the outsource provider.

16. The apparatus of claim 11 wherein some of the data defining the overall appearance of the composite web page defines the appearance of respective of a plurality of URLs, each of which URLs also are present on at least some of the web pages of the host website, and which URLs point to respective web pages of the host website.

17. The apparatus of claim 11 wherein the commerce object correlated with the source web page is an electronic catalog listing a multitude of products offered for sale by the merchant through a website of an outsource provider, and wherein the composite web page contains one or more selectable URLs connecting a hierarchical set of additional web pages of the outsource provider website, each pertaining to a subset of the product offerings in the electronic catalog.

18. The apparatus of claim 17 wherein the computer system is further programmed to automatically (i) use search parameters inputted at the visitor computing device to search for specific products within the catalog, and (ii) serve to the visitor computing device additional instructions directing the visitor computing device to display the results of the search.

19. The apparatus of claim 18 wherein the composite web page further contains a purchase URL associated with the commerce object information, which purchase URL, when selected, places data representing the commerce object into a virtual shopping cart managed by the computer system of the outsource provider.

20. The apparatus of claim 11 wherein the computer system being programmed to automatically serve the first instructions to the visitor computing device comprises the computer system being programmed to serve the first instructions via an Internet communication link directly to the visitor computing device.

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