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Paper 11
Date Entered: August 18, 2014

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAP AMERICA, INC.,
Petitioner,

v.

PI-NET INTERNATIONAL, INC.,
Patent Owner.

Case IPR2014-00414
Patent 8,346,894 B2

Before KARL D. EASTHOM, WILLIAM V. SAINDON and BRIAN J. McNAMARA, *Administrative Patent Judges*.

McNAMARA, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

BACKGROUND

SAP America, Inc. ("Petitioner") filed a petition ("Pet.") requesting *inter partes* review of claims 1-16 of U.S. Patent No. 8,346,894 B2 ("the '894 Patent") pursuant to 35 U.S.C. §§ 311-319 Pet. 1. Pi-Net International, Inc. ("Patent Owner") filed a Patent Owner's Preliminary Response ("Prelim. Resp.") under 37 C.F.R. §42.107(b). We have jurisdiction under 35. U.S.C. § 314.

An *inter partes* review may be instituted only if "the information presented in [the Petition and the Preliminary Response] shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a).

Petitioner challenges the patentability of claims 1–19 as obvious under 35 U.S.C. § 103. We grant the Petition challenging claims 1–19.

PENDING LITIGATION

Patent Owner notes that the '894 Patent is involved in the following current proceedings that may affect or may be affected by a decision in this proceeding: In the Eastern District of Texas: *Pi-Net International, Inc. v. Aeropostale, Inc.*, 2-13-cv-01037-JRG-RSP; *Pi-Net International, Inc. v. American Eagle Outfitters, Inc.*, 2-13-cv-01023-JRG-RSP; *Pi-Net International, Inc. v. CVS Caremark Corp.*, 2-13-cv-01043-JRG-RSP; *Pi-Net International, Inc. v. Staples, Inc.*, 2-13-cv-01016-JRG-RSP; *Pi-Net International, Inc. v. Wal-Mart Stores, Inc.*, 2-13-cv-01018-JRG-RSP; *Pi-Net International, Inc. v. AutoZone, Inc.*, 2-13-cv-01041-JRG-RSP; *Pi-Net International, Inc. v. Office Depot, Inc.*, 2-13-cv-01019-JRG-RSP; *Pi-Net International, Inc. v. Sears Brands, LLC and Sears, Roebuck and Co.*, 2-13-cv- 01024-JRG-RSP; *Pi-Net International, Inc. v. Chico's FAS, Inc.*, 2-13-

cv-01025- JRG-RSP; *Pi-Net International, Inc. v. BestBuy.com, LLC*, 2-13-cv-01022-RGRSP; *Pi-Net International, Inc. v. Dillard's Inc.*, 2-13-cv-01029-JRG-RSP; *Pi-Net International, Inc. v. OfficeMax, Inc.*, 2-13-cv-01027-JRG-RSP; *Pi-Net International, Inc. v. W.W. Grainger, Inc.*, 2-13-cv-01028-JRG-RSP; *Pi-Net International, Inc. v. Edible Arrangements Int'l LLC*, 2-13-cv-01026-JRG-RSP; *Pi-Net International, Inc. v. Victoria's Secret Direct, LLC*, 2-13-cv-01031-JRGRSP; *Pi-Net International, Inc. v. Bath & Body Works, LLC*, 2-13-cv-01033-JRGRSP; *Pi-Net International, Inc. v. The Finish Line, Inc.*, 2-13-cv-01030-JRG-RSP; *Pi-Net International, Inc. v. JC Penney Co., Inc.*, 2-13-cv01035-JRG-RSP; *Pi-Net International, Inc. v. Target Corp.*, 2-13-cv-01038-JRG-RSP; *Pi-Net International, Inc. v. Foot Locker, Inc.*, 2-13-cv-01020-JRG-RSP; *Pi-Net International, Inc. v. Kohl's Corp.*, 2-13-cv-01040-JRG-RSP; *Pi-Net International, Inc. v. Toys 'R' Us, Inc.*, 2-13-cv-01042-JRG-RSP; *Pi-Net International, Inc. v. GameStop Corp.*, 2- 13-cv-01021-JRG-RSP; *Pi-Net International, Inc. v. Walgreen Co.*, 2-13-cv- 01044-JRG-RSP; *Pi-Net International, Inc. v. The Home Depot, Inc.*, 2-13-cv- 01045-JRG-RSP; *Pi-Net International, Inc. v. The Jones Group Inc.*, 2-13-cv- 01032-JRG-RSP; *Pi-Net International, Inc. v. Jos. A. Bank Clothiers Inc.*, 2-13-cv- 01034-JRG-RSP; *Pi-Net International, Inc. v. Lowes Co., Inc.*, 2-13-cv-01017- JRG-RSP; *Pi-Net International, Inc. v. Macys.com, Inc.*, 2-13-cv-01036-JRG-RSP; and *Pi-Net International, Inc. v. PETCO Animal Supplies, Inc.*, 2-13-cv-01039- JRG-RSP.

In the District of Delaware: *Pi-Net International Inc. v. Kronos* 1-14-cv- 00091-RGA, *Arunachalam v. Enova Int'l, Inc.*, et al., 1-13-cv-01334; *Arunachalam v. Axcess Financial Service Inc.*, 1-13-cv-01335-RGA;

Arunachalam v. Acquisition Media LLC, et al., 1-13-cv-01336-RGA; and *Arunachalam v.Payday One LLC*, et al., 1-13-cv-01351.

The ’894 Patent is also the subject of CBM2014-00097, CBM2014-00101, and IPR2014-00413.

THE ’894 PATENT (EXHIBIT 1001)

The ’894 Patent contains the same disclosure as U.S. Patent 8,108,492 B2 (“the ’492 Patent”), which is the subject of related proceeding IPR2013-00194. The references to the column and line numbers in this section of the Decision only are to those of the ’492 Patent. Elsewhere in this Decision, references to Exhibit 1001 in this proceeding refer to the column and line numbers of the ’894 Patent.

The invention purports to facilitate real-time two-way transactions, as opposed to deferred transactions, e.g., e-mail. ’492 Patent, col. 1, ll. 39-48. The invention also purports to be an improvement over browse-only transactions, *id* at col. 1, ll. 49-64, and limited two-way services on the Web through Common Gateway Interface (CGI) applications customized for particular types of applications or services. *Id.* at col. 1, l. 65-col. 2, l. 45.

The patent describes a service network running on top of the Internet having five interacting components: an exchange agent, an operator agent, a management agent, a management manager, and a graphical user interface (GUI). *Id.* at col. 6, ll. 1-5. As shown in Figure 8, a user connects to a Web server. *Id.* at col. 9, ll. 25-26. The Web server runs the exchange component. *Id.* Exchange 501 creates and allows for the management or distributed control of the service network, operating within the boundaries on an internet protocol (IP) facilities network. *Id.* at col. 6, ll. 28-30.

A user connected to the Web server running the exchange component issues a request for a transactional application. *Id.* at col. 9, ll. 25-26. The Web server receiving the user's request to perform a real-time transaction hands the request over to the exchange agent the Web server is running. *Id.* at col. 6, ll. 8-11, col. 9, ll. 27-29. The exchange 501 includes a Web page 505 that uses a GUI to display a list of point-of-service (POSvc) applications 510 accessible to the user by the exchange. *Id.* at col. 6, ll. 18-20, ll. 39-41, col. 9, ll. 28-30. The POSvc applications are transactional applications that can execute the type of transaction the user is interested in performing. *Id.* at col. 6, ll. 22-23, ll. 41-44. Exchange 501 also includes a switching component and an object routing component. *Id.* at col. 6, ll. 20-22. When the user selects a POSvc application, the switching component in the exchange switches the user to the selected POSvc application. *Id.* at col. 9, 32-33. The object routing component executes the user's request. *Id.* at col. 9, ll. 34-35. The exchange and a management agent thus perform the switching, object routing, application, and service management functions. *Id.* at col. 6, ll. 30-38, col. 9, ll. 32-34.

The exchange 501 and management agent together constitute a value-added network (VAN) switch, which provides multi-protocol object routing via a proprietary TransWeb™ Management Protocol (TMP), depending upon the services chosen. *Id.* at col. 7, ll. 52-54, ll. 62-65, col. 8, ll. 41-42. In one embodiment, TMP and distributed on-line service information data bases (DOLSIBs) perform object routing. *Id* at col. 8, ll. 3-5, col. 9, ll. 34-37. In DOLSIBs, which are described as virtual information stores optimized for networking, information entries and attributes are associated with a networked object identity that identifies the information entries and

attributes in the DOLSIB as networked objects. *Id.* at col. 8, ll. 7-13. Each networked object is assigned an internet address based on the IP address of the node at which the networked object resides. *Id.* at col. 8, ll. 13-15. As a result, networked objects branch from a node in a hierarchical tree structure that establishes the individual object as an "IP-reachable" node on the internet, so that TMP can use this address to access the object from the DOLSIB. *Id.* at col. 8, ll. 16-26. Each object in the DOLSIB has a name, which is an administratively assigned object ID specifying an object type. *Id.* at col. 8, ll. 27-29. The object type together with the object instance uniquely identifies a specific instantiation of the object, e.g., an instance of an object about car models, provides the user with specific information about a particular model. *Id.* at col. 8, ll. 31-35. Each object in the DOLSIB also has a syntax, which defines the abstract data structure corresponding to that object type, and an encoding that defines how the object is represented by the object type syntax while being transmitted over the network. *Id.* at col. 8, ll. 36-39.

The disclosed VAN switch 520 has a layered architecture, as shown in Figure 7. Boundary service 701 provides the interface between the VAN switch, the Internet and the Web, multi-media end user devices and the interface to an on-line service provider. *Id.* at col. 8, ll. 42-48. Switching service 702, which is described as an OSI application layer switch, represents the core of the VAN switch. *Id.* at col. 8, ll. 52-54. Interconnected application layer switches form the application network backbone and are described as a significant aspect of the Subject Patents. *Id.* at col. 8, ll. 60-63. Switching service 702 routes user connections to remote VAN switches and facilitates connectivity with the Internet (a public

switched network) and private networks, including back office networks, such as banking networks. *Id.* at col. 8, ll. 57-60. Management service 703 contains tools used by the end users to manage network resources, including VAN switches, and provides applications that perform OAM&P functions, such as security management, fault management, performance management, and billing management. *Id.* at col. 8, l. 64-col. 9, l. 8. Application service 704 contains application programs that deliver customer services, including POSvc applications for banking, multi-media messaging, conferencing, financial services. *Id.* at col. 9, ll. 9-14. Depending upon the type of VAN service, the characteristics of the network elements will differ. *Id.* at col. 9, ll. 19-20.

ILLUSTRATIVE CLAIM

1. A computer-implemented method for completing a real-time Web transaction from a Web application in an on-line service over a digital network on the Web, the method comprising:

displaying at least one Web application specific to an online service over a digital network on the Web, wherein the Web application is a point-of-service (POSvc) Web application, and further wherein the digital network is an overlay service network running on top of an IP-based facilities network selected from a group consisting of the physical TCP/IP-based Internet, the Web and email networks, wherein the facilities network is a physical network;

accepting a first signal comprising a request from the point-of-service (POSvc) Web application for a real-time Web transaction specific to a Web merchant's value-added network service on the Web offered as the online service over the digital network on the Web;

utilizing one or more objects in the Web application and the information entries and the attributes of the one or more objects, wherein the one or more objects are one or more individual data structures in and specific to the POSvc Web application in said request, wherein the individual data structure in the POSvc Web application is an object identity with the information entries and

attributes specific to the Web transaction request from the Web application, to connect in real-time to the value-added network service of the Web merchant without executing Common Gateway Interface (CGI) scripts;

executing said connection at the OSI application layer, utilizing application layer routing of the object identity with the information entries and attributes over the service network on the Web, and further wherein the object in the POSvc Web application is not an SNMP object;

routing the one or more individual data structures in the POSvc Web application together with said information entries and attributes from said Web application over the service network on the Web, wherein the routing the one or more individual data structures in the POSvc Web application together with said information entries and attributes from said Web application over the service network on the Web is object routing on the World Wide Web performed as OSI application layer routing, distinct from routing at the transport layer of the OSI model or network layer of the OSI model or lower layers of the OSI model;

managing the connection between said Web transaction request from the POSvc Web application and the Web merchant's services from end-to-end in real-time; and

completing a real-time Web transaction from said Web application, wherein the online service is a loan Web application.

BASIS OF PETITION

Reference	Basis	Claims Challenged
'779 Application,[1] Chaterjee[2]	§103	1-6, 8-12, 15-18
'779 Application, Chaterjee, Drumm[3]	§103	7, 13

[1] Lakshminarayanan (US 2008/0275779 A1, published Nov. 6, 2008, filed Feb. 7, 2008. (Ex. 1004).

[2] Sandeep Chaterjee, James Webber, Developing Enterprise Web Services (Prentice Hall PTR)(2004). (Ex. 1005).

'779 Application; Chaterjee, Le[4]	§103	14
'779 Application, Chaterjee, Amstutz[5]	§103	19

CLAIM CONSTRUCTION

We construed the terms of the claims in the '894 Patent in our Decision to Institute in *SAP America, Inc. v. Pi-Net Int'l, Inc.* , Case IPR2014-00413, which is being entered simultaneously with this decision. In this decision, we do not repeat our analysis, but list the constructions we have adopted. We construe:

"Web transaction" to mean *any type of commercial or other type of interaction a user may wish to perform using the Web*;

"real-time" as *non-deferred*;

"Web application", to mean *a computer program to perform a certain type of work using the Web*;

"point-of-service (POScv) Web application" to mean *a computer program that can execute the type of transaction the user may be interested in performing*;

"facilities network" to mean a *one or more interconnected elements built or installed to establish underlying communications needed to carry out a function*;

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[3]Drumm et al. (US 2006/0161513 A1, published Jul. 20, 2006, filed Dec. 21, 2005).(Ex. 1006).
[4] Le et al. (US 2009/0006614 A1, published Jan. 1, 2009, filed Jun. 27, 2008). (Ex. 1007).
[5] Amstutz et al. (US 2004/0054610 A1, published Mar. 18, 2004, filed Nov. 26, 2002). (Ex. 1008).

"service network" to mean *a network on which services, other than underlying network communication services, are provided*;

"[overlay] service network running on top of an IP-based facilities network" to mean *a network on which services are provided using one or more interconnected elements built or installed to establish communications using an internet protocol*;

"Service network on the Web" and "service network atop the web," both, to mean *a network on which services other than underlying network communication services are provided using the Web*;

"value added network service" to mean *a service other than underlying network communication services on network*;

"Internet cloud application" to mean *a software application that is never installed on a local computer, and instead is accessed via the Internet*;

"Web merchant" to mean *a provider of goods and services using the Web*;

"object" to mean *an identifiable information element having a structure defined by a syntax*;

"Information entries and attributes of an object" to mean the *characteristics of an object*;

"object routing" to mean *the use of individual networked objects to route a user from a selected transactional application to the processing provided by the service provider*;

"application layer routing of the object identity with the information entries and attributes" to mean *routing that creates an open channel for the management and selective flow of data identified by information entries and attributes from remote databases on a network*;

"Exchange" to require no further construction of the term;

"back-end application" to mean *a computer program executed using a computer system or database accessed by a user via an application*.

ANALYSIS OF PETITIONER'S PRIOR ART CHALLENGES

Priority Date for Claims 1-19 of the '894 Patent

Petitioner contends that the earliest possible priority date for each of the claims of the '894 Patent is the actual filing date of the application that matured into the '894 Patent, i.e., November 30, 2009. Pet. 4. Petitioner notes that the '894 Patent issued from an application filed on November 30, 2009, as a division of U.S. No. 8,037,158 ("the '158 Patent"). Petitioner argues that, because the subject matter of claims 1-19 of the '894 Patent is not disclosed in the manner required by the first paragraph of 35 U.S.C. § 112 in the parent '158 Patent application, the claims of the '894 Patent are not entitled to the priority claimed in the '158 Patent. *Id.* Specifically, Petitioner contends that independent claims 1 and 2 and corresponding dependent claims 4-19 each recite negative limitations not mentioned in the specification. *Id.* at 4-6.

The first of these negative limitations recites "wherein the object of the POSvc Web application is not an SNMP object." *Id.* at 4. Petitioner points out that the term SNMP is mentioned only once in the specification, when describing that object routing is provided via a proprietary protocol, i.e., the TransWeb™ Management Protocol (TMP), which incorporates the same security features as SNMP. *Id.* at 4-5. Petitioner contends that rather than disclose excluding SNMP, the specification implies that object routing with TMP actually incorporates SNMP concepts. *Id.* at 5. Thus, according

to Petitioner, the first disclosure of excluding SNMP is in the claims of the application filed on November 30, 2009.

Petitioner raises a similar issue concerning the limitation "utilizing an object in the Web application . . . to connect in real time to the value added-network service off the Web merchant without executing Common Gateway Interface (CGI) scripts." *Id.* at 5. This limitation is found in all the claims of the '849 Patent. Petitioner notes that the specification implies reasons to exclude the use of CGI scripts for processing transactions for each service, but argues that in such cases CGI scripts are executed after the connection to the Web server is established. *Id.* at 6. Citing the disclosure of activating a Bank POSvc application to connect to bank services and utilize the application to perform banking transactions, Petitioner argues that the disclosure does not describe any reason why a CGI script would be excluded from the process of setting up a connection. *Id.* at 5-6. Petitioner notes that the written description provides no examples of how such a connection is actually achieved. *Id.*

Patent Owner does not address the merits of Petitioner's arguments concerning the priority date at this time.[6] Instead, Patent Owner argues that the Petition improperly exceeds the scope of *inter partes* review under 35 U.S.C. § 102 and § 103 by incorporating an improper analysis of compliance with written description requirements under 35 U.S.C. § 112. Prelim. Resp. 3.

[6] However, Patent Owner does not concede the merits of Petitioner's assertion. Prelim Resp. 2. Although Patent Owner "may file a preliminary response," 37 C.F.R. § 42.107(a), Patent Owner is not required to do so, and Petitioner has the burden to show a reasonable likelihood of prevailing based on its Petition, *see* 35 U.S.C. § 314(a).

We note the difference between compliance with the requirements of 35 U.S C. § 112 and assessing the earliest priority date for a claim. Petitioner's argument that there is no disclosure of the claimed feature precluding an SNMP object is persuasive. Petitioner does not argue that the claims of the '894 Patent are unpatentable for failure to comply with the written description requirement of 35 U.S.C. § 112, nor do we reach that issue. Petitioner argues only that, because the feature of precluding an SNMP object appears for the first time in the application filed on November 30, 2009, the claims, which may constitute their own disclosure, are entitled to claim November 30, 2009, as their earliest priority date.

Patent Owner cites Petitioner's references to *LizardTech, Inc. v. Earth Resource Mapping, Inc*., 424 F.3d 1336 (Fed. Cir. 2005), and *Santarus, Inc. v. Par Pharmaceutical, Inc*., 694 F.3d 1344 (Fed. Cir. 2012) as evidence of an analysis under 35 U.S.C. § 112 that is improper in an *inter partes* review. Prelim. Resp. 3. Petitioner cites *LizardTech* for the proposition that the specification must convey to one of ordinary skill in that art that the patentee had possession of the claimed invention at the time of the application. Pet. 4-5. Petitioner does not assert that Patent Owner never had possession of the claimed preclusion of SNMP. Petitioner argues only that there is no description of this feature until the application filed on November 30, 2009. *Id*. Petitioner cites *Santarus* for the proposition that support for a negative limitation such as the one precluding SNMP requires at least a description of a reason to exclude the relevant limitation. *Id*. at 4. Petitioner argues that the specification discloses the desirability of including the SNMP security features in the proprietary TransWeb™ protocol. *Id*. at 4-5. At this time, Patent Owner has identified no disclosure in the specification of a reason for

excluding the relevant limitation. Thus, we are persuaded by Petitioner's argument that the limitation precluding SNMP first appeared in the application that Patent Owner filed on November 30, 2009. The limitation precluding SNMP objects is found in claims 1 and 2 of the '894 Patent, but is not in claim 3. All other claims in the '894 Patent depend from claims 1 and 2. On this basis, at this preliminary stage, absent possible further input by Patent Owner, we agree with Petitioner that claims 1, 2, and 4–19 of the '894 Patent, are entitled to the November 30, 2009 priority date.

All of the claims in the '894 Patent recite a limitation that requires connecting in real-time to the value-added network service of the Web merchant using objects, without executing Common Gateway interface (CGI) scripts. Claim 1 recites "utilizing objects…to connect in real-tine to the value-added network service" and that objects are one or more individual data structures specific to the POSvc Web application. Claim 1 also recites that the individual data structure in the POSvc Web application is an object identity with information entries and attributes specific to the Web transaction request. Thus, the limitation "without executing CGI scripts" in claim 1 recites that an "object" is used to connect in real-time to the Web merchant's value added network service without executing CGI scripts.[7] There is no discussion in the specification specifically addressing whether the objects, as further limited by the claim language describing the objects and the individual data structures, can use CGI scripts to connect to a Web merchant's value added network service.

[7] Claim 1 does not specify what connects in real-time to the Web merchant's value added network service.

The background of the invention at column 2, lines 1-49 of the ’849 Patent discusses CGI scripts and their purported disadvantages and appears to suggest that there is a need for something other than CGI scripts. Ex. 1001, col 2, ll. 19-26 & 41-49. The text at column 5, lines 51-56, of the ’849 Patent, which discusses prior art Fig. 4A, states that CGI scripts lack a robust mechanism by which real-time transactions can be performed, and that a bank using CGI scripts cannot be a true “Web merchant” capable of providing transactional services on the web. Although the ’894 Patent appears to disparage the use of CGI scripts for processing transactions, Petitioner notes that the ’894 Patent does not affirmatively state or imply that the recited connection is performed without using CGI scripts. Pet. 6.

The ’894 Patent states that CGI is a standard interface for running external programs on a Web server and that when the server receives a request for a document, the server dynamically executes the CGI script and transmits the output of the execution back to the Web browser. Ex. 1001, col. 2, ll. 3-10. Petitioner argues that the purportedly disadvantageous CGI scripts are executed after the connection to the Web server has been established, and that there is no explicit statement in the ’894 Patent that CGI scripts cannot be used to set up the connection to the Web server. Pet. 6. In addition, the declaration of Dr. Sirbu (“Sirbu Decl.”) states that, when a user desires to make a purchase, e.g., of an automobile, the purchase signal can cause a dealer’s server, via CGI, to launch an external program that can communicate with a bank’s computer in many ways, such as by using HTTP or CORBA.

Although not conceding Petitioner’s assertions, and although not required to rebut the assertions at this preliminary stage (*see* note 7), Patent

Owner offers no substantive response to Petitioner's argument. In view of the above, on the present record, we agree with Petitioner that the '894 Patent Specification does not describe the negative portion of the limitation in claim 1 that recites "utilizing one or more objects in the Web application . . . to connect in real-time to the value-added network service of the Web merchant without executing Common Gateway Interface (CGI) scripts." Applying the same analysis to independent claims 2 and 3, all of the claims of the '894 Patent are entitled to claim priority to the November 30, 2009 filing date.

Claims 1-6, 8-12, 15-18

Petitioner challenges claims 1-6, 8-12, and 15-18 as unpatentable over the combination of the '779 Application and Chatterjee. The '779 Application discloses a wireless device accessible payment processing system in which a transaction handler processes a transaction characterized by a consumer and a merchant engaging in the transaction upon an account that has been issued to the consumer by an issuer. Ex. 1004 ¶ 31. In one embodiment, the wireless financial transaction system in the '779 Application includes a Java 2 Enterprise Edition (J2EE) enabled server executing a Java software product to provide a financial transaction Web service to Web enabled clients. *Id.* ¶ 7. Each client executes a Java language software product to conduct a financial transaction between a merchant and a consumer. *Id.*

Petitioner highlights the loan transaction described in Figure 11 of the '779 Application as illustrative of the type of transaction recited in claim 1 as a loan Web application. Pet. 23. This type of transaction constitutes a Web transaction as we have construed the term. Petitioner's annotated

version of Figure 11 identifies the consumer wireless client in the '779 Application as corresponding to the client in the '894 Patent and the display on the user interface (UI) that allows a user to select an issuer and receive a display of a loan offer in the '779 Application as corresponding to the POSvc Web application in the '894 Patent. *Id.* Thus, Petitioner contends that the '779 Application discloses claim element 1.1.

Petitioner labels the Payment Gateway described in the '779 Application as a server that receives and respond to a request from the POSvc Web application and communicates with the Transaction Handler/Payment Processor in the '779 Patent, which corresponds to the back-end, as described in the '894 Patent. Petitioner labels the combination of the Payment Gateway (Server) and Transaction Handler/Payment Processor (back-end) in the '779 Application as corresponding to the "value-added network service" in the '894 Patent. Petitioner next identifies the combination of these elements with the display to select an issuer and request a loan in the '779 Application (POSvc application) as corresponding to the "service network on the Web" described in the '894 Patent. We agree with Petitioner that the '779 Application discloses the "service network on the Web," as we have construed that term. Thus, on this record, we are persuaded that the '779 Application discloses elements 1.0 through 1.3 of claim 1 of the '894 Patent.

Petitioner cites Chatterjee's disclosure of the Simple Object Access Protocol (SOAP) as disclosing a number of the claimed "object" features recited in claim elements 1.4- 1.12. In its analysis of claim elements 1.5, 1.6 and 1.10, Petitioner cites Chaterjee and notes that SOAP is an XML-based mechanism for exchanging information between applications within the

distributed environment. Pet. 28. Petitioner notes that a SOAP message object is an individual data structure containing three parts: an envelope that defines a framework for describing what is in the message and how to process it, a set of encoding rules for expressing instances of application-defined data types, and a convention for representing remote procedure calls and responses. *Id*. at 28-29. According to Petitioner, because the SOAP message is used to communicate with the Payment Gateway in the '779 Application, the SOAP message constitutes an individual data structure that is specific to the POSvc Web application in the request for a real-time Web transaction. *Id.* at 29. Petitioner further notes that Figure 3-5 of Chatterjee illustrates a SOAP message object used in a banking Web services environment to debit and credit a bank account (conductor funds transfer). *Id.* at 29-30. Citing the loan service method of Figure 11 of the '779 Application in which the user enters information via interfaces 1120 and 1122, Petitioner argues that the data structure of the SOAP message object includes information attributes specific to the Web transaction request from the Web application. *Id.* at 30.

Petitioner contends that the claimed "object identity" is disclosed by Chatterjee because a SOAP message object includes a reference to a Namespace URI (Uniform Resource Identifier), while the body of the SOAP message can include data elements defined in an XML schema file called the Namespace. *Id.* at 31. Thus, the Namespace URI is a URL that specifies the location on the web where the object class definition can be found and the SOAP message is an object to find at the Namespace URI. *Id.* Citing paragraph 99 of the Sirbu Decl., Petitioner notes that SOAP message objects used in the '779 Application are specific to the Web application and that

persons of ordinary skill would understand that they are not SNMP objects. *Id.*

Thus, on this record, in which the ’779 Application discloses using the use of SOAP/HTTP to communicate with the Payment Gateway, Pet. 32, and Chatterjee describes SOAP messages in detail, we are persuaded by Petitioner’s arguments that one of ordinary skill would be motivated to combine the ’779 Application and Chatterjee and that the combination of the ’779 Application and Chatterjee renders obvious elements 1.5, 1.6, and 1.10 of claim 1.

Turning to elements 1.4, 1.7, and 1.8, Petitioner argues that SOAP message objects are utilized in the ’779 Application to connect in real time to the value-added network service of the Web merchant. Noting that the communication with the Payment Gateway is via SOAP/HTTPS, Petitioner points out that the connection accommodates instantaneous loan processing and is in real-time, which we have construed to mean non-deferred. *Id.* at 32. Because the connection is established with SOAP message objects generated based on the client request from the user, the connection is established without executing CGI scripts. *Id.* Petitioner’s explanation persuasively argues that Petitioner is reasonably likely to succeed in demonstrating that the combination of the ’779 Application and Chatterjee renders obvious elements 1.4, 1.7, and 1.8 of claim 1.

Petitioner designates the first part of the “executing limitation” of claim 1 as limitation 1.9. Pet. 58–59. We have previously addressed the second portion of the “executing limitation,” i.e., limitation 1.10. Limitation 1.9 recites “executing said connection at the OSI application layer, utilizing application layer routing of the object identity with the information entries

and attributes over the services network on the Web." Petitioner maps the HTTP protocol in the application layer of the five-layer TCP/IP-based web protocol stack to the application layer of the seven-layer OSI model. Pet. 33. Petitioner also relies on this analysis to argue that the application layer routing is distinct from routing at the transport layer, network layer or lower layers of the OSI model, as recited in the limitation designated as limitation 1.12. Pet. 34.

Although element 1.12 recites that the application layer routing is distinct from routing at the transport layer or lower levels of the OSI model, the '894 Patent specification does not describe how such routing occurs solely at the application level without communication taking place using standard protocols on the underlying network facilities. Claim 1 itself recites that the service network runs on top of an IP-based facilities network which may include the physical TCP/IP-based Internet or the web.

Consistent with the '894 Patent specification, we have construed the term "application layer routing of the object identity with the information entries and attributes" to mean routing that creates an open channel for the management and the selective flow of data identified by information entries and attributes from remote databases on a network. Petitioner notes that a SOAP message object is routed to the Payment Gateway of the'779 Application using SOAP/HTTPS. *Id.* at 34. We are persuaded by Petitioner's argument that such routing is distinct from routing at the transport layer, the network layer, or lower layers of the OSI model, and constitutes application layer routing. The routing is performed in conjunction with the POSvc application, i.e., using the Payment Gateway. Thus, we are persuaded that Petitioner has shown a reasonable likelihood of

successfully demonstrating that the combination of the ’779 Application and Chatterjee disclose elements 1.9, 1.11, and 1.12 of claim 1 of the ’894 Patent.

We are also persuaded by Petitioner’s arguments that Petitioner is reasonably likely to succeed in demonstrating that the ’779 Application discloses elements 1.13, 1.14, and 1.15 of the ’894 Patent. As Petitioner notes, Figure 11 of Chatterjee illustrates that Payment Gateway 1108 manages the connection established upon the user’s submission of information via interfaces 1120 and 1122 and that the connection is managed in real-time using SOAP message objects. *Id.* at 35. The online service in the ’779 Application is a loan application which can be processed instantaneously, i.e. in real-time.

In consideration of the above, on this record, Petitioner has established that there is a reasonable likelihood that Petitioner would prevail with respect to claim 1 of the ’894 Patent, and we institute a trial on Petitioner’s challenge to claim 1 as unpatentable under 35 U.S.C. § 103 over the combination the ’779 Application and Chatterjee.

Claims 2 and 3

Claim 1, discussed above, is drawn to a computer implemented method. Claim 2 is drawn to an apparatus comprising a processor and a machine readable storage device including instructions executable by the processor. Claim 3 is drawn to a machine-readable storage device including instructions executable by a processor. Claims 2 and 3 recite individual limitations drawn to instructions that carry out certain steps. In Appendix A of the Petition, Petitioner persuasively demonstrates a correspondence between the limitations of claims 2 and 3 and the limitations of claim 1. Pet.

55–59. The recitation of a processor and/or a machine-readable storage device in the preamble of claims 2 and 3 does not change our analysis of the claim limitations. In view of the correspondence between the limitations of claims 1 and 3, for the reasons discussed above, Petitioner shows a reasonable likelihood of prevailing, and we institute a trial on Petitioner's challenge to claim 3 as unpatentable under 35 U.S.C. § 103 as obvious over the combination of the '779 Application and Chatterjee

Claim 2 does not recite the limitation wherein the online service is a loan Web application. Therefore, in view of the correspondence between the remaining limitations of claims 1 and 2, Petitioner shows a reasonable likelihood of prevailing, and we institute a trial on Petitioner's challenge under 35 U.S.C. § 103 to the patentability of claim 2 as obvious over the combination of the '779 Application and Chatterjee

Claims 4-6, 8-12, 15, and 17-18

Petitioner also challenges claims 4-6, 8-12, 15 and 17-18, which all depend from claim 2, as unpatentable over the combination of the '779 Application and Chaterjee. Turning to claim 4, Petitioner contends that SOAP defined program objects such as those illustrated in Figure 3-2 of Chatterjee are identifiable and encapsulated entities that provide one of more services requested by client, such that any SOAP object can be sent as a client request message when a user hits the "next" button from user interface 1122. *Id*. at 38. The client request message encapsulates or bundles the institution selected by the user at the interface 1120 and the user's acceptance of the loan terms at the user interface 1122. *Id.* The information is encapsulated in the SOAP message body with the object identity, i.e. Namespace URI. *Id.* Further, Petitioner notes that Chatterjee discloses that

the SOAP header and SOAP body are encapsulated in the SOAP object's envelope. *Id.* at 39. We are persuaded by Petitioner's arguments and evidence. On this record, Petitioner is reasonably likely to prevail in demonstrating that claim 4 is unpatentable over the combination of the'779 Application and Chatterjee.

Claim 5 recites that the value-added network application is a real-time business banking on-line service on the Web that resides at the transaction network entry point on the Web. Petitioner notes that the server in the network of the '779 Application is a network entry point and hosts a loan service that allows a user to perform transactions over the Web. Thus, Petitioner has argued persuasively and shows that it is reasonably likely to prevail in demonstrating that claim 5 is unpatentable over the combination of the '779 Application and Chatterjee.

Claim 6 recites providing real-time access for multimedia devices to any Web application specific to the Web merchant's services. Petitioner notes that the banking services disclosed by the banking applications in the '779 Application can be accessed from various multi-media devices, such as a PDA, a personal computer using an HTML browser, a laptop computer and a cell phone. *Id.* at 41. As previously discussed, the combination of the '779 Application and Chatterjee renders obvious services accessed in real-time. Petitioner's argument is persuasive, and shows that it is likely to prevail in demonstrating that claim 6 is unpatentable over the combination of the '779 Application and Chatterjee. For similar reasons, we similarly are persuaded with respect to claim 11, which recites utilizing as an Internet communication device a cellular device accessing a Web application on a value-added service network atop the Web.

Claim 8 recites that the value-added network service is an online banking Web application for the transfer of funds in real-time between accounts on the Web. Petitioner points out that Chatterjee discloses that a consumer handheld communications device can be used make person-to-person money transfers, an online purchase, to maintain accounts, or to perform a money transfer. *Id.* at 42.

Claim 9 enumerates the types of participants that can interact with each other in a real-time Web transaction to a Web application in a real-time exchange. Petitioner cites Chatterjee as disclosing that a consumer, i.e. a participant with a device, can interact with a lender using a personal computer to apply for and accept a loan through the Payment Gateway 1180 that manages and arranges for the execution of the loan in real-time. *Id.* at 42-43.

Claim 10 recites that, in utilizing a distributed control, the Web transaction request is handed over to an Exchange. As discussed earlier, no further construction of the term "Exchange" is required. Petitioner contends that the online services disclosed in the '779 Application, which include executing a Java software product to provide a financial transaction Web service to Web enable clients, discloses that the services operate across a digital network that is a value added service network atop the Web. *Id.* at 44. Petitioner further contends that Payment Gateway in the '779 Application provides the connection management for distributed control, as recited in claim 10.

Petitioner's arguments persuade us that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenges to claims 8, 9 and 10 of the '894 Patent.

Claim 12 recites that the object identity in the Web Application in the real-time Web transaction is a networked object. We have discussed previously the disclosure of a SOAP message, which includes the Namespace URI, corresponding to the claimed object identity. Claim 12 further defines a networked object as an individual data structure connecting between a point-of-service Web application and a back-end application over an OSI application layer network, which is the service network running on top of the facilities network. We have construed a back-end application to mean a computer program executed using a computer system or database access by a user via an application. Noting that the SOAP message, which includes the Namespace URI, constitutes the claimed networked object, Petitioner argues that the loan information from the SOAP-based client request message passes from the loan service of the on-line banking application to the back-end application (transaction handler/payment processor 1106) via Payment Gateway 1108. *Id.* at 45-46. Thus, Petitioner has shown a reasonable likelihood of prevailing in its contention that claim 12 of the '894 Patent is rendered obvious by the combination of the '779 Application and Chatterjee.

Claim 16 recites that the Web application is an Internet cloud application, which we have construed to mean a software application that is never installed on the local computer and instead is accessed via the Internet. Petitioner contends that in the '779 Application the computing resources at the client and the SOAP-based objects operating at the Payment Gateway (server) provide merchant services through a distributed computing environment, so that a customer at the client can interact with merchant services provided by the server running as a set of distributed objects over

the Web to complete real-time Web transactions. *Id.* at 48-49. Petitioner has shown a reasonable likelihood of prevailing in its contention that claim 16 of the '894 Patent is rendered obvious by the combination of the '779 Application and Chatterjee.

Claim 15 recites that the value-added network services a commercial loan Web application. Claim 17 recites that the value-added network service is a retail banking Web application. Claim 18 recites that the real-time web applications perform by one of a group of financial Web applications. We have discussed each of these features above and are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing in showing that claims 15, 17, and 18 are unpatentable over the combination of the'779 Application and Chatterjee.

For the reasons discussed above, we are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claims 1-6, 8-12, and 15-18 as unpatentable under 35 U.S.C. § 103 over the combination of the '779 Application and Chatterjee. Therefore, we institute a trial on this ground.

Claims 7 and 13

Claim 7, which depends from claim 2, recites that the value-added network service is a travel reservation Web application for completing real-time Web transactions on the service network on the Web. Claim 13 recites that the real-time, on-line service on the Web is offered by a car rental Web application. Petitioner notes that Drumm discloses such services. *Id.* at 49-52. Petitioner notes that similar to the combination of the '779 Application and Chatterjee the system of Drumm operates with Web services based on a common program-to program communication model that builds on existing

and emerging standards such as HTTP and SOAP. *Id.*at 49-50. Thus, Petitioner has argued persuasively that the combination of the Web-based computer architecture disclosed in the ’779 Application, Chatterjee's explanation of SOAP, as referenced in the ’779 Application, and the disclosures in Drumm constitutes the combination of prior art elements according to known methods to yield predictable results. *Id.* at 51.

Claim 14

Claim 14 recites that the Web application is a real-time insurance Web application offered by an online service by a financial services company. Petitioner notes that Le discloses a Web service transaction performed utilizing the SOAP protocol for processing a car insurance application. Petitioner has argued persuasively that the combination of the Web-based computer architecture disclosed in the ’779 Application, Chatterjee’s explanation of SOAP, as referenced in the ’779 Application, and the disclosures in Le constitutes the combination of prior art elements according to known methods to yield predictable results

Claim 19

Claim 19 depends from claim 2 and recites that the real-time Web transaction is performed from an asset and wealth management point-of-service Web application in an on-line Web banking service from a cellular device. We have addressed each of these individual elements previously in this decision. Petitioner cites Amstutz as disclosing a Wealth Management Platform system that supports delivery of financial services through call centers, branch kiosks, and directly to the customers through the Internet and PDAs. *Id.* at 53-54. Petitioner argues that the combination of Amstutz with the ’779 Application and Chatterjee is motivated because they all seek to

provide real-time transactions and that the result is predictable. *Id.* at 53-54. We are persuaded that Petitioner has demonstrated a reasonable likelihood of prevailing in its challenge to claim 19 under 35 U.S.C. § 103 as unpatentable over the combination of the '779 Application, Chatterjee and Amstutz.

SUMMARY

The Petition is GRANTED as to the following grounds asserted under 35 U.S.C. § 103:

Claims 1-6, 8-12, and 15-18 as unpatentable under 35 U.S.C. § 103 over the combination of the '779 Application and Chatterjee;

Claims 7 and 13 as unpatentable under 35 U.S.C. § 103 over the combination of the '779 Application, Chatterjee, and Drumm;

Claim 14 as unpatentable under 35 U.S.C. § 103 over the combination of the '779 Application, Chatterjee, and Le; and

Claim 19 as unpatentable under 35 U.S.C. § 103 over the combination of the '779 Application, Chatterjee and Amstutz.

ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is granted

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(a) an *inter partes* review of the '894 Patent is hereby instituted, commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

FURTHER ORDRED that the trial is limited to the grounds identified in the above Summary, and no other grounds are authorized.

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