

Meta Platforms, Inc., Roku, Inc., and Samsung
Electronics Co., Ltd.,

v.

AlmondNet, Inc., and Intent IQ, LLC

IPR2023-01281
Patent 10,715,878 B2

Petitioner's Demonstratives

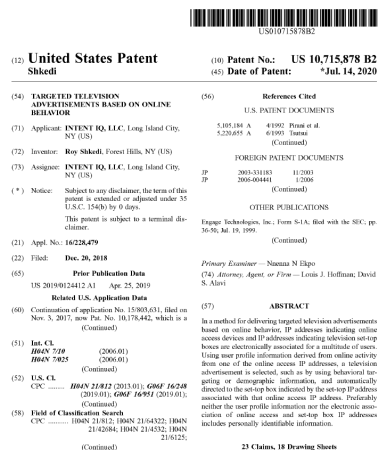
November 22, 2024

Before Kristen L. Droesch, Stacey G. White, and Scott B. Howard,

Administrative Patent Judges

Meta Exhibit 1027
IPR2023-01281

Claim 1 of the '878 Patent



1. A method for identifying an association among multiple electronic devices of a group of devices connected through a common local area network (LAN) and using the association for cross-device action, the method comprising:

(a) with a computer system, determining an association between device identifiers of two or more Internet-accessing electronic devices based on electronically stored association-detection information about a plurality of Internet-accessing electronic devices, wherein the stored association-detection information for each of the plurality of Internet-accessing electronic devices includes:

- (i) a device identifier;
- (ii) at least one dynamically assigned IP address assigned to a modem that connects a router of the LAN to the Internet; and
- (iii) at least one timestamp specifying a time when the Internet-accessing electronic device accessed the Internet via the router of the LAN;

(b) wherein determining the association in part (a) is done by using the stored association-detection information to determine that the two or more Internet-accessing electronic devices have separately accessed the Internet through a router of the LAN during a predetermined period of time via a common IP address;

(c) wherein the computer system determining the association in part (a) is outside the LAN and is connected to the LAN through the Internet; and

(d) with the computer system, using the association determined in part (a) to utilize user profile information associated with the device identifier of a first of the associated Internet-accessing electronic devices, and comprising behavioral or demographic data collected via the first of the associated Internet-accessing electronic devices, to take an automatic action with respect to a second of the associated Internet-accessing electronic devices using the device identifier of the second of the associated Internet-accessing electronic devices.

U.S. Patent 10,715,878 B2
Ex. 1001

Instituted Grounds

Ground	Claims	Basis for Challenge under §103
1	1-2, 8-10, 13-14, 19, 22	Baig (EX1003/1004), Laidlaw (EX1006), Sitaraman (EX1007), and Hahn (EX1008)
2	3-4, 15-16	Ground 1 Prior Art + Xu (EX1009)
3	6-7, 17-18	Ground 1 Prior Art + Gerace (EX1010)
4	11-12, 20-21, 23	Ground 1 Prior Art in view of Xu and Gerace

- Ground 2 adds Xu for storing user preferences
- Ground 3 adds Gerace for selecting an ad based on profile information of other users
- Ground 4 adds Xu and Gerace

Prior Art



US 20080113674A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2008/0113674 A1**

Baig (43) **Pub. Date: May 15, 2008**

(54) **VICINITY-BASED COMMUNITY FOR WIRELESS USERS**

Publication Classification

(51) **Int. Cl.**
H04Q 7/20 (2006.01)
(52) **U.S. Cl.** 455/456.3

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(21) **Appl. No.:** 11/982,005

(22) **Filed:** Oct. 31, 2007

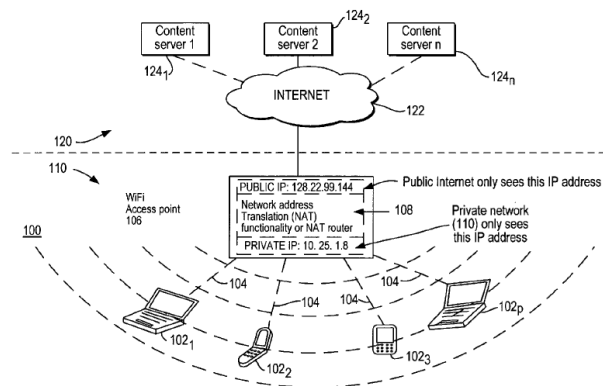
Related U.S. Application Data

(60) Provisional application No. 60/858,204, filed on Nov. 10, 2006.

ABSTRACT

A method and apparatus for providing vicinity-based community services at a wireless access location by a public network service provider. The method includes the steps of receiving over a public network, at least one request for vicinity-based community services from at least one end-user accessing the wireless access point, grouping end-users accessing common wireless access points, and providing the vicinity-based community services in real time to end-users accessing the public network service provider from the wireless access point. The apparatus includes devices for carrying out the method described above.

The access point acts as a bridge between the internal /private network and the public network / internet



Meta's Exhibit 1003
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[0038] In particular, the present invention is directed to a method and apparatus for creating vicinity-based communities over the Internet by a vicinity-based community service provider (VCSP) for wireless mobile devices of end-users that have accessed the VCSP via a wireless access point at a wireless hotspot. A vicinity-based community service is a service provided by the VCSP which discovers (i.e., identifies) and connects wireless users within physical vicinity of each other at a WiFi hotspot. Once a “vicinity-based community” at a physical location (i.e., a hotspot) is created, the users can potentially interact physically or non-physically with each other. The VCSP identifies a group of users at a wireless hotspot based upon their common public IP address and interconnects them, thereby creating a vicinity-based user group. The VCSP may also request the

Identify devices on common local area network

The access point acts as a bridge between the **internal /private network** and the public network / internet

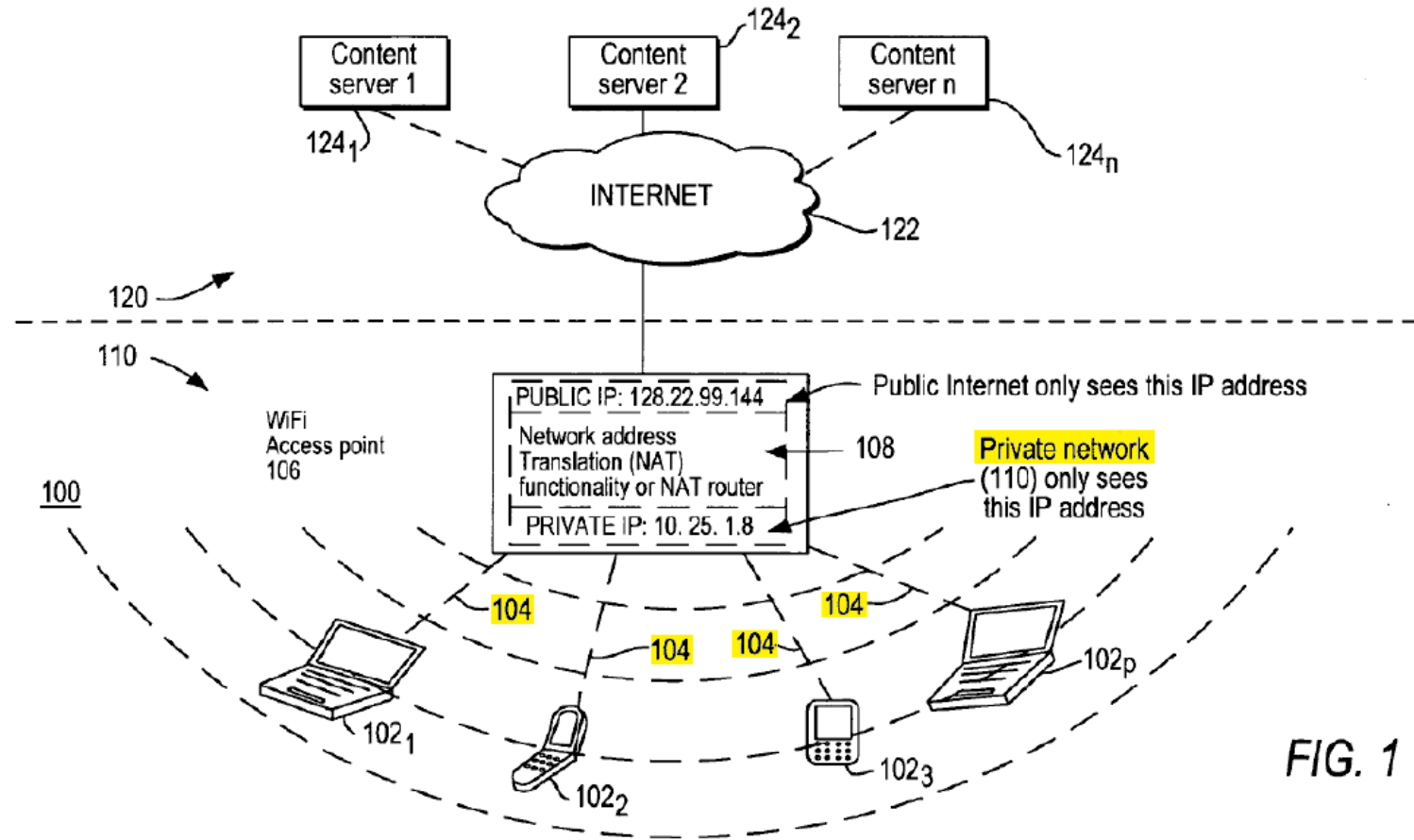


FIG. 1

(Baig, Fig. 1)
(Petition at 11-12)

Identify devices on common local area network

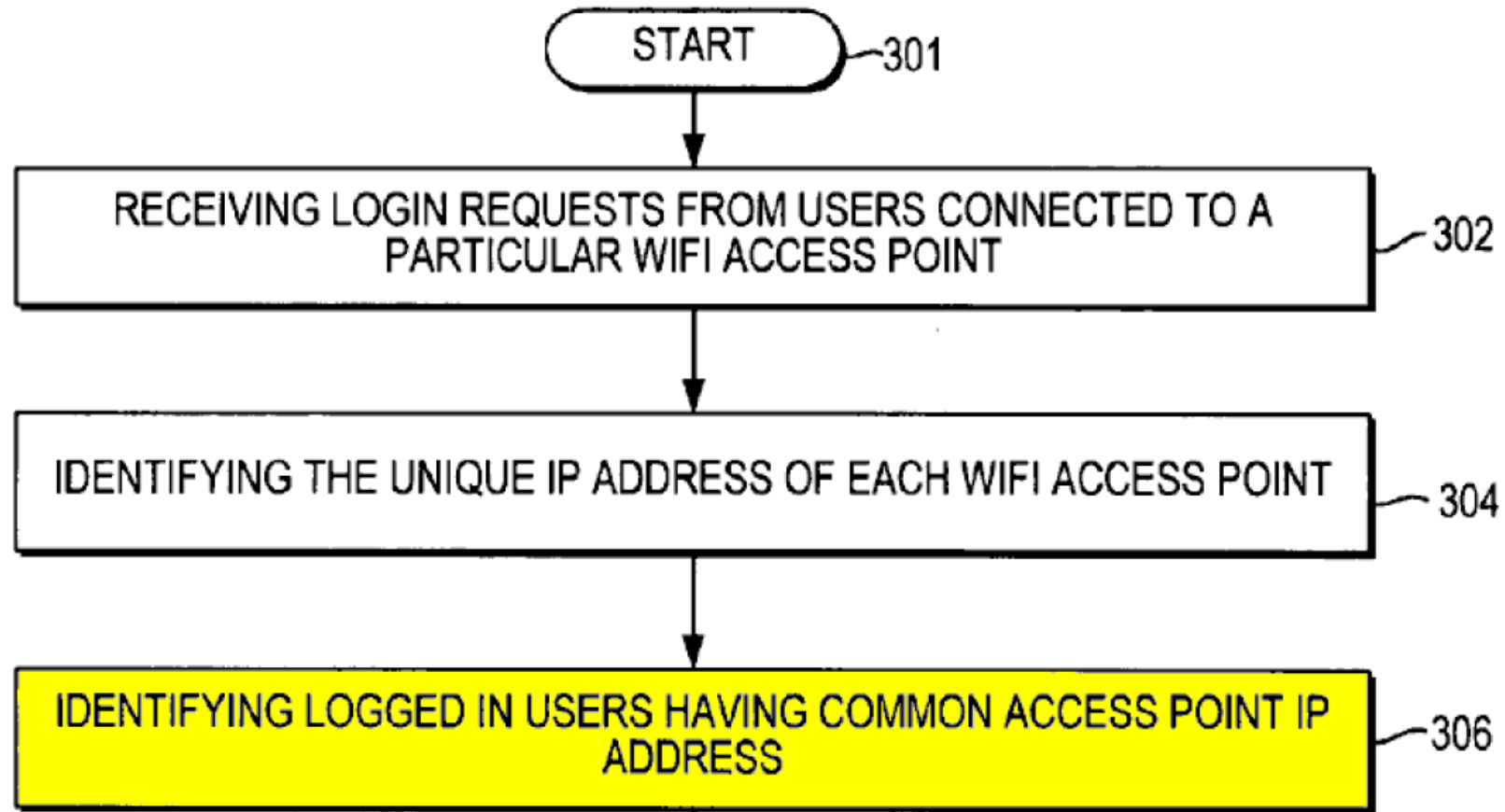
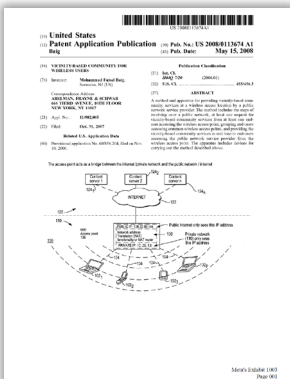


FIG. 3

(Baig, Fig. 3)
(Petition at 14-15)



Use association among devices for cross-device action

[0076] The web page 600 also displays a list 606 of other users at the present hotspot 110. In one embodiment, the list includes the user names associated with users that have logged into the VCSP website. In another embodiment, the list 606 includes the total number of mobile devices having wireless connectivity at the present hotspot 110. Optionally, a link 608 is provided to invite other others at the hotspot 110 to join the VCSP website. If link 608 is selected, then a pop-up window 610 will be displayed to allow the user to invite another user to the VCSP website by entering the invitee's name or email address.

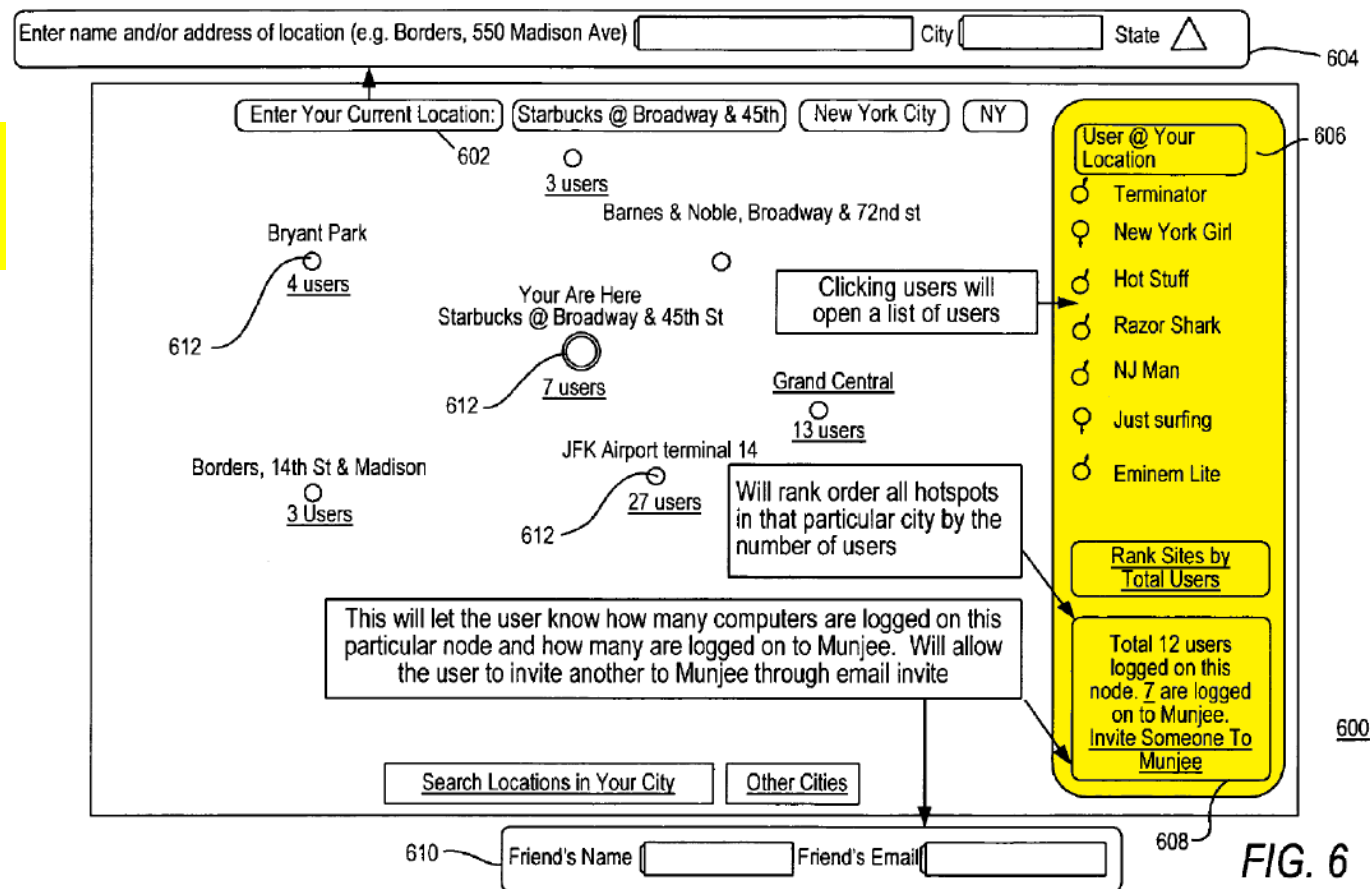


FIG. 6

(Baig, Fig. 6, ¶0076)
(Petition at 15-16)


 US 20040128547A1

(19) **United States**
 (12) **Patent Application Publication** (10) **Pub. No.: US 2004/0128547 A1**
 Laidlaw et al. (43) **Pub. Date: Jul. 1, 2004**

(54) **METHOD AND SYSTEM FOR MODULAR AUTHENTICATION AND SESSION MANAGEMENT**

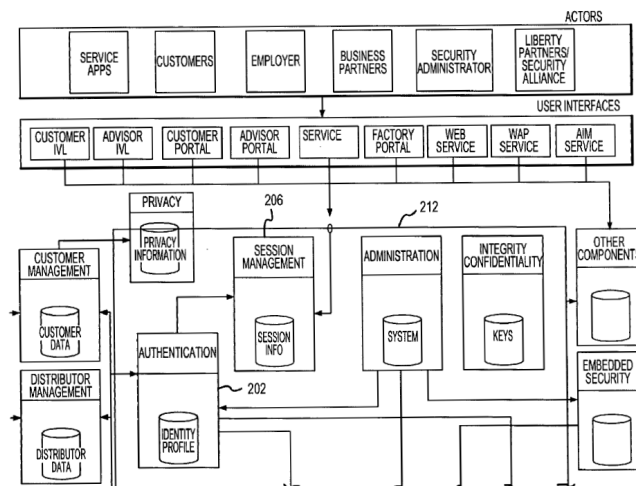
(76) **Inventors:** Robert Laidlaw, Tempe, AZ (US); Coby Royer, St. Louis, MO (US); Rick D. Johnson, Phoenix, AZ (US); Scott More, Maple Grove, MN (US)

Publication Classification
 (51) **Int. Cl.?** H04L 9/32
 (52) **U.S. Cl.** 713/201

(57) **ABSTRACT**
 Modular authentication and session management involves the use of discrete modules to perform specific tasks in a networked computing environment. There may be a separate authentication server that verifies the identity of the user and an authorization client that grants various levels of access to users. There may also be an authentication client that receives an initial request from a requesting application and forwards the request to the authentication server to verify the identity of the user. The authorization client may then be invoked to provide the necessary level of access. The use of discrete modules allows multiple business applications to use the same modules to perform user authentication tasks, thus alleviating the unnecessary multiplication of code.

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(21) **Appl. No.:** 10/334,615
 (22) **Filed:** Dec. 31, 2002



Meta's Exhibit 1006
Page 001

Session token/cookie device identifier

like to identify a user. A cookie is a sequence of binary information that a web server may send to a client system, and which the client system sends back to the web server with each subsequent request, assuming the user employs a web browser client with cookie support present and enabled. A web application may inspect the value of cookies, and search for cookies that it previously issued in order to determine that a given web request is from a user who had previously been sent a cookie. Secure session management

[0016] An embodiment of the present invention provides a method to perform session management using HTTP, which is typically employed by web applications. When the user authenticates at a login screen, the session token is placed into a cookie. When a subsequent request is received from the same client system, the session token is extracted from the cookie, and the token is obtained from a session table that is keyed by session token. In one embodiment, a

Dynamic IP addresses and DHCP

The Dynamic Host Configuration Protocol (DHCP) has been developed to provide an automated assignment of IP addresses and to help solve the shortage of IP addresses. Conventional DHCP operation is as follows: When a DHCP client computer attempts an Internet connection, it broadcasts a DHCP request asking for any DHCP server on the network to provide it with an IP address and configuration parameters. A DHCP server on the network that is authorized to configure this client will offer an IP address by sending a reply to the client. Upon receiving this offer, the client may decide to accept it or wait for additional offers from other DHCP servers on the network. At the end, the client chooses and accepts one offer, and the chosen DHCP server sends an acknowledgement with the offered IP address having an associated “lease” time (and any other configuration parameters the client might have requested). During the lifetime of the lease, the client will repeatedly ask the server to renew. If the client chooses not to renew or if the client machine is shut down, the lease eventually expires. Once the lease expires, the IP address can be “recycled” and given to another machine.

(12) **United States Patent**
Sitaraman et al.
(10) **Patent No.:** **US 6,427,170 B1**
(45) **Date of Patent:** **Jul. 30, 2002**

(54) **INTEGRATED IP ADDRESS MANAGEMENT**
(75) **Inventors:** **Aravind Sitaraman**, Santa Clara;
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Zhang, San Mateo; **Sampath Kumar**
Sithothra Bhasham, Santa Clara, all of
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(73) **Assignee:** **Cisco Technology, Inc.**, San Jose, CA
(US)
(*) **Notice:** Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

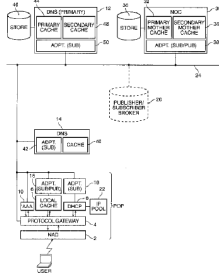
(21) **Appl. No.:** **09/208,608**
(22) **Filed:** **Dec. 8, 1998**
(51) **Int. Cl.:** **G06F 15/173**
(52) **U.S. Cl.:** **709/226; 709/228**
(58) **Field of Search:** **709/224, 223,**
709/225, 226, 219, 229, 228, 227

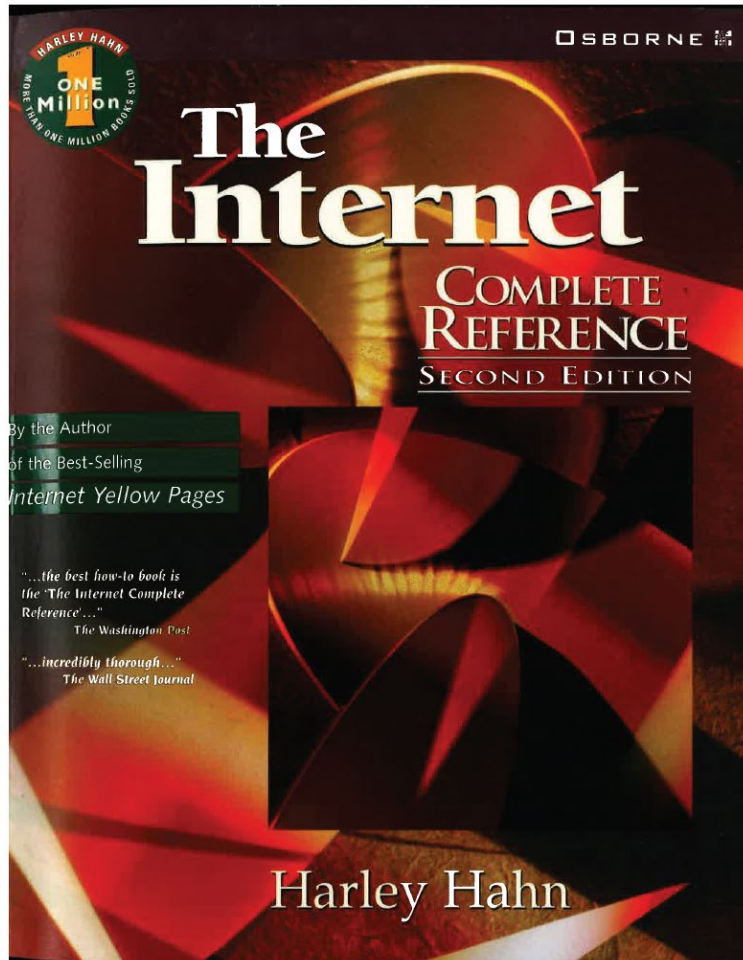
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145 Claims, 10 Drawing Sheets





Meta's Exhibit 1008
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Automatic webpage actions – CLIENT PULL and SERVER PUSH

Updating Information Automatically

Once you tell your browser to load a web page, you must wait for the information to be sent from the web server to your computer. As the information arrives, your browser (the web client) displays it for you. However, once the page is displayed, it does not change.

Nevertheless, there are times when it is desirable to display information which can be updated automatically. There are two ways in which this can be done.

First it is possible for a web page to be set up so that it tells your browser to reload itself (or a different web page) automatically. For example, a web page might tell the browser to reload the page every 30 seconds. This facility is called **CLIENT PULL**, because the client program (your browser) is told to "pull" information from the server without your intervention.

An alternate system allows the server to send new data on its own, without your browser having to make a request. This facility is called **SERVER PUSH**.

With client pull, the connection between the server and your computer is dropped as soon as the web page is finished loading (which is what happens normally). When your browser is ready to ask for more data, it reconnects to the server and issues the request.

With server push, the connection between the server and your computer is kept open indefinitely. This allows the server to send more data whenever it wants.



US007730030B1

(12) **United States Patent**
Xu

(10) **Patent No.:** **US 7,730,030 B1**
(45) **Date of Patent:** **Jun. 1, 2010**

(54) **RESOURCE BASED VIRTUAL COMMUNITIES**

(76) **Inventor:** **Yongyong Xu**, 630 Santa Cruz Ter., Sunnyvale, CA (US) 94085

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 194 days.

(21) **Appl. No.:** **10/710,964**

(22) **Filed:** **Aug. 15, 2004**

(51) **Int. CL**
G06F 7/00 (2006.01)
G06F 17/00 (2006.01)

(52) **U.S. CL** **707/617; 707/627; 707/636; 707/758; 707/802**

(58) **Field of Classification Search** **707/1**
See application file for complete search history.

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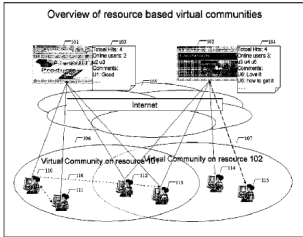
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(57) **ABSTRACT**

This invention disclosed a system and method for resource based virtual communities. Any resources that can be shared or used by multiple people, including Internet resources, software or other resources can be the basis for the community, whose members are users of the resource. Web resources include web sites, web pages, news groups or discussion forums. Other types of resources include software products, bulletin boards, games or other products. The community composes of the current resource users such as web page readers, bulletin board posters, game players, software users. Whenever a person accesses or uses the resource, the user is automatically joined as part of the community. At the same time they are using the resource, they can access all services provide by the community, such as talking with other members, collaborating with others, publishing comments, or even adding new community services.

56 Claims, 8 Drawing Sheets



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Store user preferences, including visibility to other community members

response (408) back to the user. Meanwhile, the proxy can also send the current community server information (402) through separate channel (409) to the browser, this can be either a separate browser window, separate frame or another pop-up window. During this process, unless feature being turned off, the current user is automatically added to the virtual community so other users can see that a new user has just joined unless the user choose anonymous or invisible mode. Meanwhile, the statistical information such as hit

such as cookies. The global user database maintains such a mapping from user ID to its real data. User preferences or settings such as privacy, security settings can also be stored there. For example, the system uses them to determine if the user should be anonymous or invisible to the rest of the community. The implementation of user database is not lim-

Gerace (EX1010) (Grounds 3 & 4)



US 20060282328A1

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2006/0282328 A1
Gerace et al. (43) Pub. Date: Dec. 14, 2006

(54) COMPUTER METHOD AND APPARATUS
FOR TARGETING ADVERTISING

Publication Classification

(75) Inventors: Thomas A. Gerace, Boston, MA (US);
Russell G. Barbour, Natick, MA (US)

(51) Int. Cl.
G07G 1/14 (2006.01)
G06F 17/30 (2006.01)
G07G 1/00 (2006.01)
(52) U.S. Cl. 705/14; 707/3; 705/10

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ABSTRACT

In a global network of computers, a method ad system of profiling a user for targeting advertisements is disclosed. The method and system obtains and/or infers demographic information from end-users using on-line means. The invention next monitors end user activity and determines keywords therefrom. The system and method profiles an end user as a function of the determined end-user activity keywords and obtained/inferred end-user demographic information. Profiles of end-users are matched against targeted profiles of advertisements which are defined by the respective advertisers. This results in targeting advertisements to end-users based on end user profiles. Advertisers bid for advertisement placement with the system. In some embodiments, the system employs Vickrey auction type bidding. Using observed user behavior and the auction results, ads are prioritized for selection and viewing placement in a manner that provides the greatest potential value to the system.

(73) Assignee: Gather Inc., Boston, MA

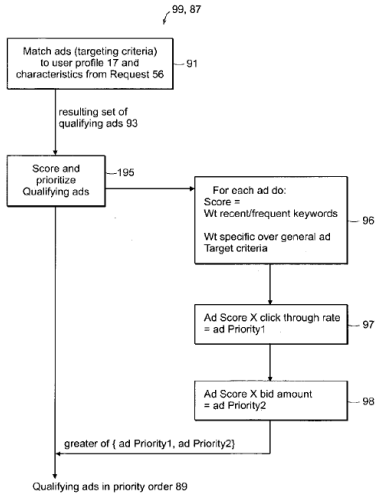
(21) Appl. No.: 11/451,995

(22) Filed: Jun. 12, 2006

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/371,462, filed on Mar. 9, 2006.

(60) Provisional application No. 60/690,005, filed on Jun. 13, 2005. Provisional application No. 60/734,690, filed on Nov. 8, 2005.



Meta's Exhibit 1010
Page 001

Targeting ads for a user based on profile information of *other* users

the query he enters and the ads he clicks, etc. This profile information is used to better target the known user with advertisement. The system 100 deduces demographic information (city, state, etc.) from a user's IP address, the type of article the user reads, search query he enters, shared behavior with other users (behavior or activities in common with) or shared relationships to other users. In one embodiment, the system 100 (a) assumes a zip code for a given user based on zip codes detected in the user's activities, (b) assumes age of the given user based on ages of others detected in the user's activities, and (c) assumes gender of the given user based on gender of others detected in the user's activities. In

(Gerace, ¶0083)
(Petition at 64-65)

Key Disputes

Key Disputes

- “determining an association between device identifiers of two or more Internet-accessing electronic devices”
- “predetermined period of time”
- Claim 6 – “automatic action...”

1. A method for identifying an association among multiple electronic devices of a group of devices connected through a common local area network (LAN) and using the association for cross-device action, the method comprising:

(a) with a computer system, determining an association between device identifiers of two or more Internet-accessing electronic devices based on electronically stored association-detection information about a plurality of Internet-accessing electronic devices, wherein the stored association-detection information for each of the plurality of Internet-accessing electronic devices includes:

- (i) a device identifier;
- (ii) at least one dynamically assigned IP address assigned to a modem that connects a router of the LAN to the Internet; and
- (iii) at least one timestamp specifying a time when the Internet-accessing electronic device accessed the Internet via the router of the LAN;

(b) wherein determining the association in part (a) is done by using the stored association-detection information to determine that the two or more Internet-accessing electronic devices have separately accessed the Internet through a router of the LAN during a predetermined period of time via a common IP address;

(c) wherein the computer system determining the association in part (a) is outside the LAN and is connected to the LAN through the Internet; and

(d) with the computer system, using the association determined in part (a) to utilize user profile information associated with the device identifier of a first of the associated Internet-accessing electronic devices, and comprising behavioral or demographic data collected via the first of the associated Internet-accessing electronic devices, to take an automatic action with respect to a second of the associated Internet-accessing electronic devices using the device identifier of the second of the associated Internet-accessing electronic devices.

6. The method of claim 1 wherein the automatic action comprises selecting an advertisement, from among a plurality of possible advertisements, based at least in part on at least a portion of the user profile information associated with the device identifier of the first device.

“determining an association between device identifiers of two or more Internet-accessing electronic devices”

“determining an association between device identifiers...” - Petition

Baig: Identify logged-in devices on common local area network (LAN)

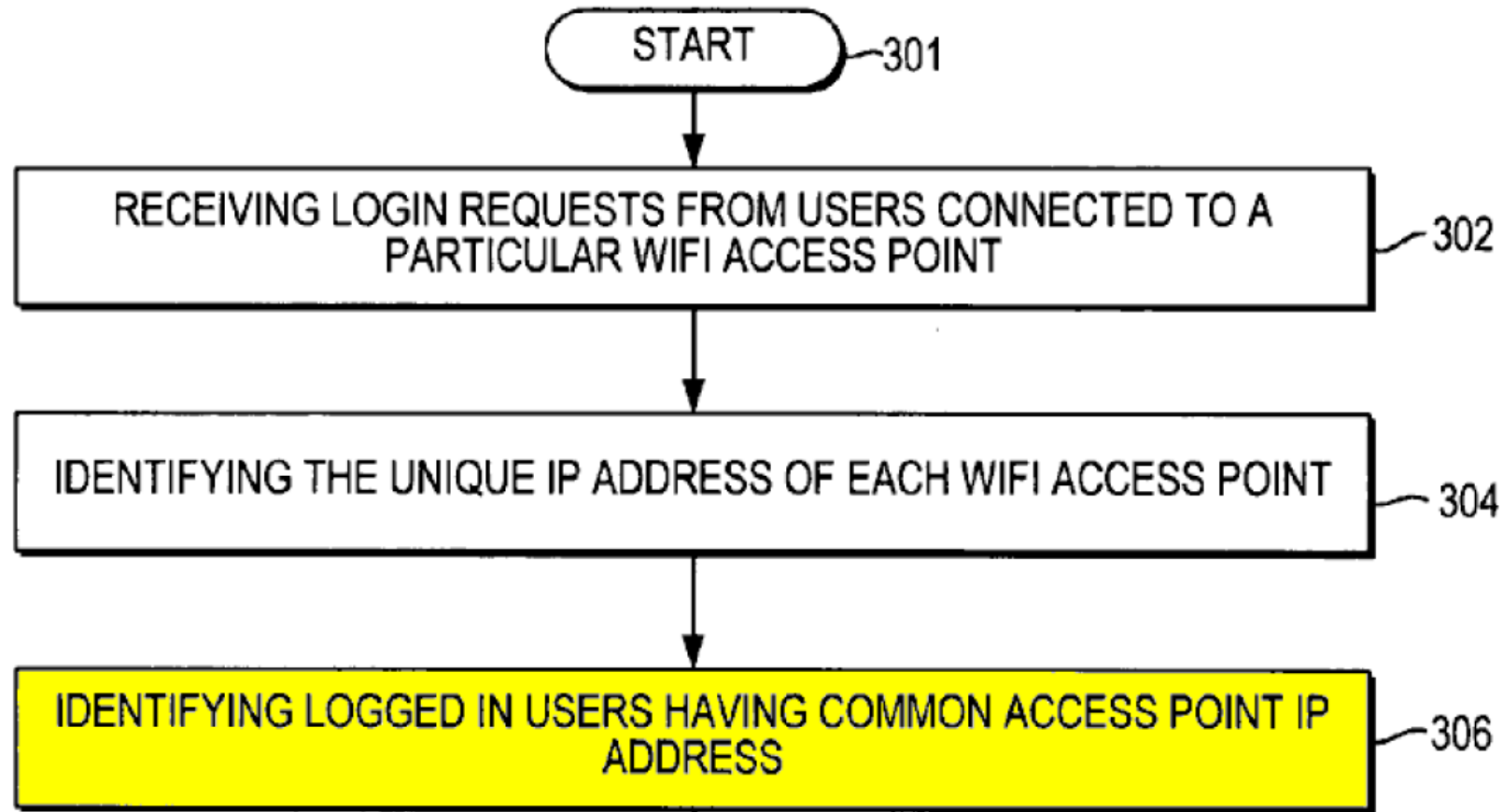
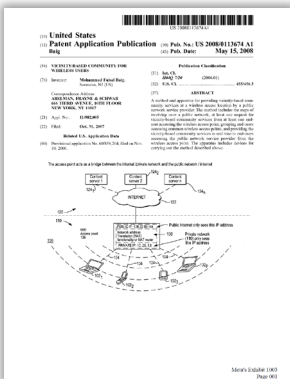


FIG. 3

(Baig, Fig. 3)
(Petition at 14-15, 18-19)



“determining an association between device identifiers...” - Petition

Laidlaw: Session token/cookie device identifier

US 20040128547A1

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2004/0128547 A1
Laidlaw et al. (43) Pub. Date: Jul. 1, 2004

(54) METHOD AND SYSTEM FOR MODULAR AUTHENTICATION AND SESSION MANAGEMENT

(51) Int. Cl. H04L 9/32
(52) U.S. Cl. 713/201

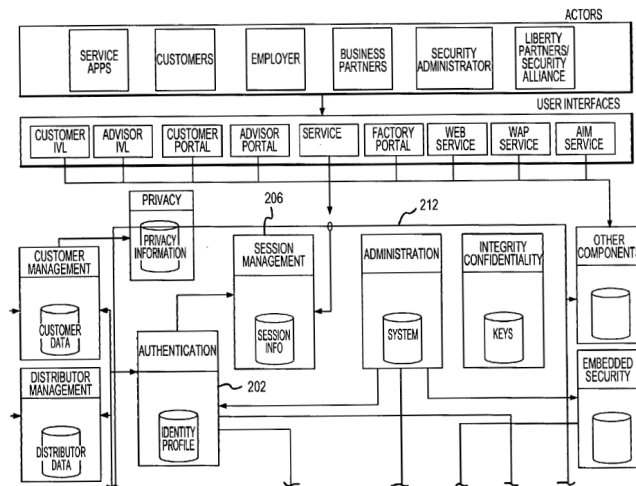
(76) Inventors: Robert Laidlaw, Tempe, AZ (US); Coby Royer, St. Louis, MO (US); Rick D. Johnson, Phoenix, AZ (US); Scott More, Maple Grove, MN (US)

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(21) Appl. No.: 10/334,615
(22) Filed: Dec. 31, 2002

Publication Classification
(51) Int. Cl. H04L 9/32
(52) U.S. Cl. 713/201

(57) ABSTRACT
Modular authentication and session management involves the use of discrete modules to perform specific tasks in a networked computing environment. There may be a separate authentication server that verifies the identity of the user and an authorization client that grants various levels of access to users. There may also be an authentication client that receives an initial request from a requesting application and forwards the request to the authentication server to verify the identity of the user. The authorization client may then be invoked to provide the necessary level of access. The use of discrete modules allows multiple business applications to use the same modules to perform user authentication tasks, thus alleviating the unnecessary multiplication of code.



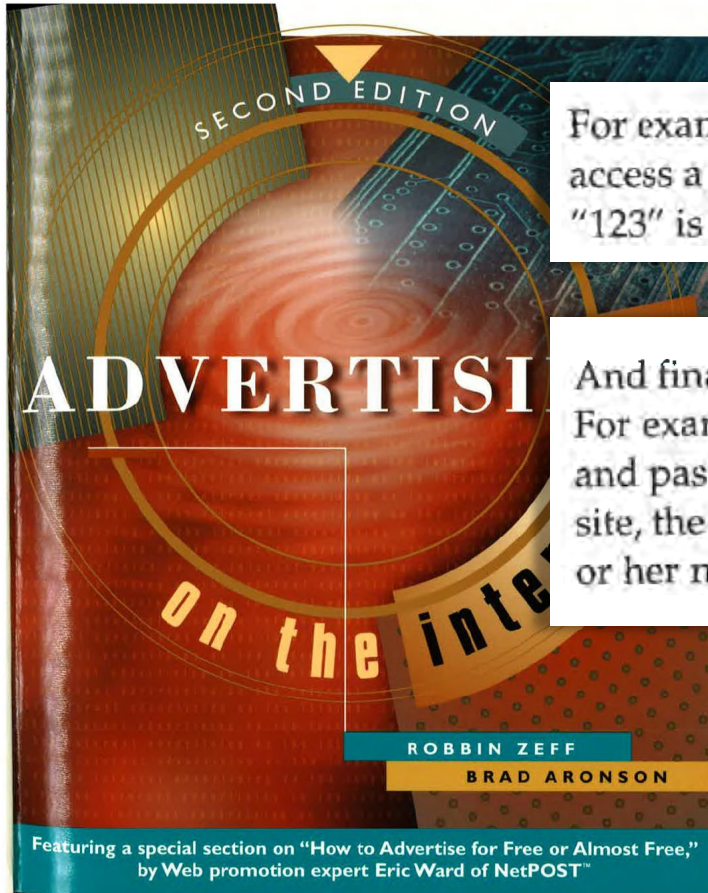
Meta's Exhibit 1006
Page 001

like to identify a user. A cookie is a sequence of binary information that a web server may send to a client system, and which the client system sends back to the web server with each subsequent request, assuming the user employs a web browser client with cookie support present and enabled. A web application may inspect the value of cookies, and search for cookies that it previously issued in order to determine that a given web request is from a user who had previously been sent a cookie. Secure session management

[0016] An embodiment of the present invention provides a method to perform session management using HTTP, which is typically employed by web applications. When the user authenticates at a login screen, the session token is placed into a cookie. When a subsequent request is received from the same client system, the session token is extracted from the cookie, and the token is obtained from a session table that is keyed by session token. In one embodiment, a

(Laidlaw, ¶¶0006, 0016)
(Petition at 20-23)

“determining an association between device identifiers...” - Petition



For example, a site may assign you a cookie with the text string “123.” Every time you access a page on the site, the server can request the cookie it placed and recognize that “123” is back again and track where “123” goes on the site. Maximum information can

And finally, cookies can also retain other information about users that might be useful. For example, when a user registers at a Web site, the cookie can retain the user name and password so that registration is required only once. When the user returns to that site, the server will automatically check the cookie it gave to that user to determine his or her name and password. A cookie can also remember the items a user placed in a

Petition for Inter Partes Review of
U.S. Patent No. 10,713,879 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner

v.

ALMONDNET, INC. and INTENT IQ, LLC,
Patent Owner

Case IP2023-01281
Patent 10,713,879 B2
Issue Date: July 14, 2020

Title: TARGETED TELEVISION ADVERTISEMENTS BASED ON ONLINE BEHAVIOR

PETITION FOR INTER PARTES REVIEW
OF U.S. PATENT NO. 10,713,879 B2

Meta's Exhibit 1011
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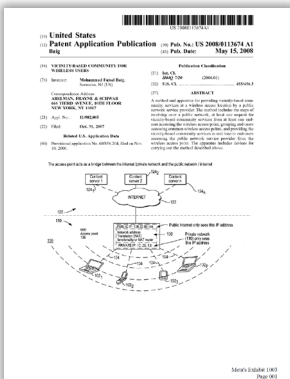
(EX1011, pp.0026, 0028)
(Petition at 21, 28)

“determining an association between device identifiers...” - Petition

Baig: Ability to “Remember” Username / Password

[0068] Referring to FIG. 4, the home page 400 of the VCSP website is shown. The home page 400 allows a registered user to login or a new user to register and then log in for accessing the VCSP website and services. The home page 400 includes a first window 402 having a username field 404 and password field 406 for entering the registered user name and password of the person logging in. The user name can be any name the user desires to either identify the user or provide anonymity. The password can be any string of characters, as conventionally known in the art. A check field 408 is provided for optionally remembering the user name and user password. Once the user enters the proper user name and password and selects (e.g., by clicking with a mouse) the “Enter” link 410, the user can access other pages of the VCSP website.

(Baig, ¶0068)
(Petition at 28)



“determining an association between device identifiers...” - Petition

Baig + Laidlaw: session token cookie is “device identifier”

Based on the combination of Baig and Laidlaw, each mobile device **102** under would have had a “**device identifier**” corresponding to a cookie stored by the content server (as part of the “**electronically stored association-detection information**”), which would have been used by the content server to identify the mobile device as having logged in. Laidlaw discloses a system for managing “sessions” in a network-

Petition for Inter Partes Review of
U.S. Patent No. 10,713,879 B2

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner

v.

ALMONDNET, INC. and INVENT IQ, LLC,
Patent Owner

Case IPRT2023-01281
Patent 10,713,879 B2
Issue Date: July 14, 2020

Title: TARGETED TELEVISION ADVERTISEMENTS BASED ON ONLINE BEHAVIOR

PETITION FOR INTER PARTES REVIEW
OF U.S. PATENT NO. 10,713,879 B2

(Petition at 18-20)

“determining an association between device identifiers...” - Petition

Session token/cookie: consistent with '878 patent

8. The method of claim 1 wherein the device identifier of at least one of the first device and the second device is a cookie readable by the computer system.

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PETITION FOR INTER PARTES REVIEW
OF U.S. PATENT NO. 10,713,878 B2

(Petition at 22-23)

“determining an association between device identifiers...” - Petition

Baig + Laidlaw: “Determining” occurs when cookie used to identify device as logged in and to place in vicinity-based community

0017.) Second and relatedly, the content server under the proposed combination “**determin[es] an association**” between the “**device identifiers**” because it uses the cookie assigned to each device to identify the device as being logged into the server, in order to place it into a vicinity-based community. (Baig, ¶0056 (“At step 306, the

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(Petition at 18-20)

“determining an association between device identifiers...” - Petition

Baig: Vicinity community of devices logged in at common access point

[0076] The web page 600 also displays a list 606 of other users at the present hotspot 110. In one embodiment, the list includes the user names associated with users that have logged into the VCSP website. In another embodiment, the list 606 includes the total number of mobile devices having wireless connectivity at the present hotspot 110. Optionally, a link 608 is provided to invite other others at the hotspot 110 to join the VCSP website. If link 608 is selected, then a pop-up window 610 will be displayed to allow the user to invite another user to the VCSP website by entering the invitee's name or email address.

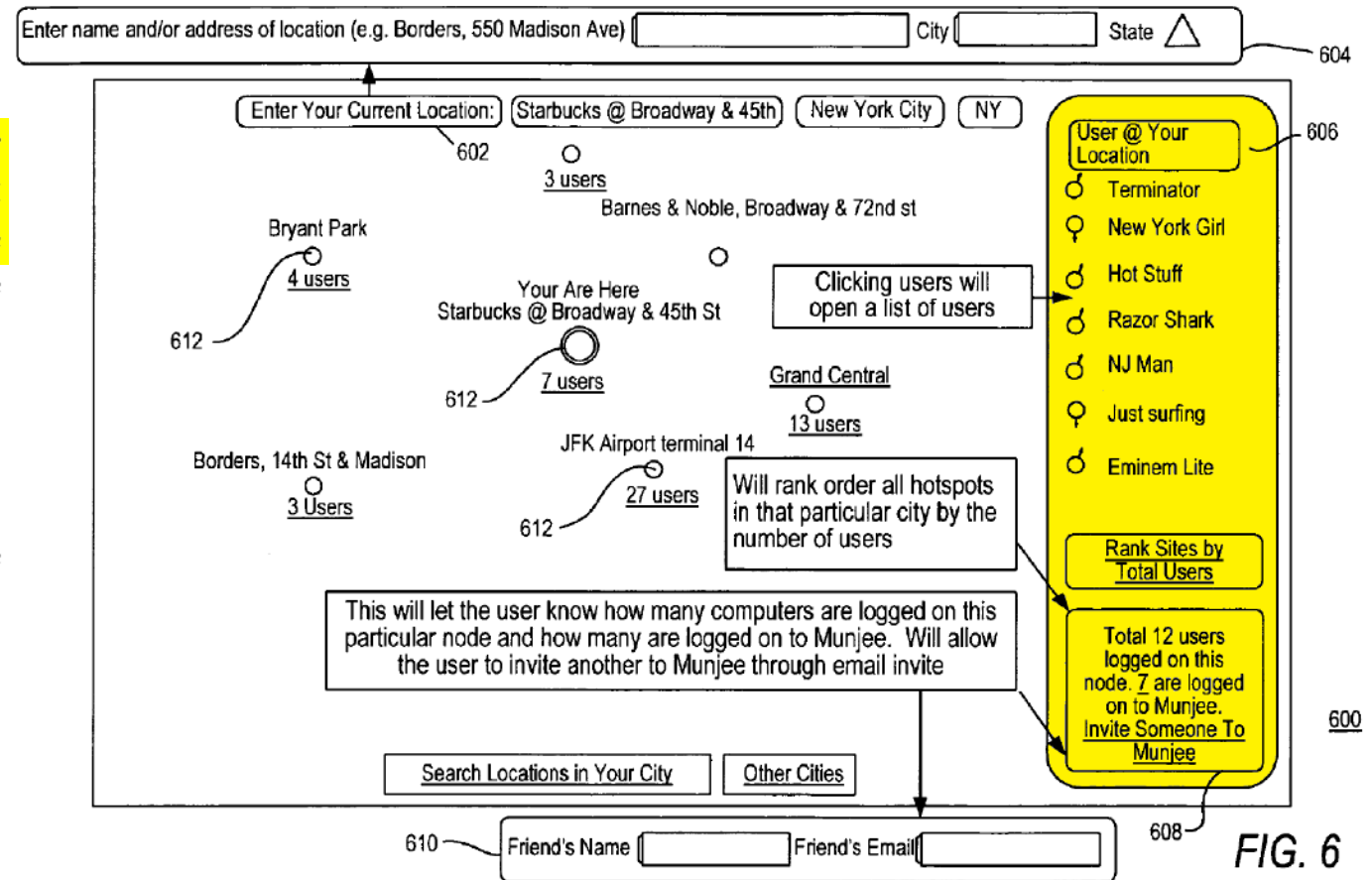


FIG. 6

(Baig, Fig. 6, ¶0076)
(Petition at 14-16, 19-20)

“determining an association between device identifiers...” – PO Arguments

- **Patent Owner:**

1. Baig places **users**, not **devices**, into communities
2. Association between **devices** is not association between device **identifiers**
3. Using cookies to place devices into a community does not equate to determining an association between the **cookies**
4. No evidence users identified by anything other than respective **usernames** for placing users into a community

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PATENT OWNER'S RESPONSE

(PO Resp. at 9-13)

“determining an association between device identifiers...” – Petitioner Reply

1. Patent Owner: Baig places **users** into communities, not **devices**

- **Petitioner:** Baig places users' **devices** – not actual users – into those communities

[0038] In particular, the present invention is directed to a method and apparatus for **creating vicinity-based communities over the Internet** by a vicinity-based community service provider (VCSP) **for wireless mobile devices** of end-users that have accessed the VCSP via a wireless access point at a wireless hotspot. A vicinity-based community

[0063] The server **224** of the VCSP **202** includes programming which **determines that WiFi mobile devices** accessing a single hotspot are connected to the same WiFi access point, and therefore **must be in close vicinity to one-another.** Accordingly, **all devices 102 originating from the same WiFi access point are clustered in the same vicinity-based group.**

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¹ Roku, Inc. filed a petition in IP2021-00066 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2021-00701 and was joined as a petitioner in this proceeding.

(Baig, ¶¶0038, 0063)
(Reply at 2-3)

“determining an association between device identifiers...” – Petitioner Reply

1. Patent Owner: Baig places **users** into communities, not **devices**

- **Petitioner:** Baig places users’ **devices** – not actual users – into those communities

Petitioner’s expert:

7. To the extent Baig may at times casually refer to “users” being placed into vicinity-based groups, this is a mere shorthand for their mobile devices that are used to access the content server. For example, Mr. de la Iglesia refers to Paragraph 0056 of Baig, which explains that “[a]t step 306, the server 224 identifies all the users who have logged in from a common hot spot as having the same access point IP address.” (EX2001, ¶42 (quoting Baig, ¶0056) (emphasis added).) But users obviously do not have IP addresses – their devices do. (Baig, *e.g.*, ¶0044 (“An IP address is necessary because all data communications takes place in form of data packets. Each packet must contain the IP address of the source device and the IP address of the destination device.”) (emphasis added).) The same is true for cookies.

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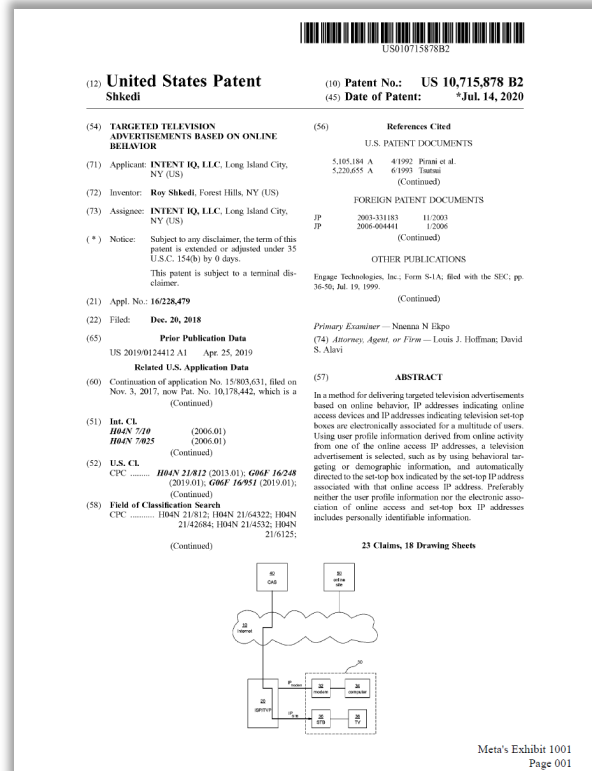
¹ Roku, Inc. filed a petition in IP2021-00966 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2021-00701 and was joined as a petitioner in this proceeding.

(EX1022 at ¶7)

“determining an association between device identifiers...” – Petitioner Reply

2. Patent Owner: Association between **devices** is not an association between device **identifiers**

- **Petitioner:** association between **devices** is based on association between underlying **device identifiers**, consistent with '878:



simpler. Once a STB is confirmed to have been using a certain IP address at a certain date and time (for example by having a uniquely tagged STB consecutively communicate with the CAS using the same IP address or by the STB reporting the common IP address recorded by it as used by the online access device), the CAS database can be searched to find all the computers, mobile devices, and other STBs that used the same IP address at the same date and time, and those will be assumed to be devices that are part of the same household and using the same LAN. Then, an association or link is created among the devices, by linking the device identifiers or tags with the STB's identifier in the CAS database or by placing linking codes or information identifying the linked devices within the identifiers (cookies) of each of the devices along with the date and time the association was created. The association is kept for no more

('878, 18:57-19:5)
(Reply at 3-4)

2. Patent Owner: Association between **devices** is not association between device **identifiers** (see *Yahoo! v. Intent IQ*, IPR2017-01299)

- **Petitioner:** *Yahoo!* involved different prior art, different claims
 - Device identifiers in *Yahoo!* associated simply because underlying devices were associated:

Although Petitioner demonstrates that Julia teaches an electronic association between devices that interconnected to a home network or local area network, claim 13, however, requires an electronic association between the first device *identifier* and the second device *identifier*. Consistent with Petitioner’s identification of Julia’s disclosure of make, type, or model of computer, cell phone, or television as teaching the claimed device identifiers, Petitioner does not establish sufficiently that Julia teaches or otherwise suggests a second device indicated by an electronic identifier electronically associated with the first device’s make, type, or model, and an electronic association between the first device’s make, type, or model and the second device’s make, type, or model. See Pet. 51–57; Ex. 1003

¶¶ 141–147.

(EX1024, 19)
(Reply at 4-6)

3. Patent Owner: Social Security Number (SSN) analogy:

To use an analogy, students may apply to a particular college using a social security number, which is used to enroll the students, each of whom are thereafter identified by a *different* student ID (analogous to Baig’s username). Then, the students are sorted into dorm rooms based on some methodology such as date of birth or common interests. A determination that two students are assigned to the same dorm room may equate to a determination those two students are associated together. But it is *not* a determination that their social security numbers have been associated together, even though their social security numbers were used previously in the process that led to the two students being associated. If the dorm room assignment system does not use (or even know) the students’ social security numbers, for example, then there is no determination of an association between SSNs. *See* Ex. 2001 ¶50.

(PO Resp. at 12-13)

“determining an association between device identifiers...” – Petitioner Reply

- Petitioner: PO’s analogy is unclear / flawed**

But my -- my question really isn't about Mr. Schmandt's opinions. It's more like, when you built this analogy, were you just trying to, you know, make a broader point or are you arguing that the Social Security number, which is the key piece of information, is equivalent or analogous to or serves the same purpose of something in the prior art that you're saying isn't being associated?

THE WITNESS: Again, we may have to go back to Mr. Schmandt's specific -- specific mapping and combination description. What I'm saying in this paragraph is that if you are making an association or you're determining an association between something, it is not sufficient that the -- that something simply exist in the ether. You actually have to show that there is a determination of an association. And so to the extent that Mr. Schmandt ma- -- attempts to -- attempts to show determinations of associations where none exist, I think this a -- this is an appropriate analogy to show that, you know, determining an association has meaning.



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v.

ALMONDNET, INC. and EXTENT IQ, LLC,
Patent Owners.

Case IP2024-01281¹
Patent No. 10,715,878 B2

PETITIONER'S REPLY IN SUPPORT OF ITS
PETITION FOR INTER PARTES REVIEW

¹ Roku, Inc. filed a petition in IP2024-00966 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2024-00791 and was joined as a petitioner in this proceeding.

(EX1023 at 46:14-47:14)
(Reply at 7)

“determining an association between device identifiers...” – Petitioner Reply

- Petitioner: PO’s analogy is unclear / flawed**

Nevertheless, if it is assumed that the “social security numbers” in Patent Owner’s analogy represent the cookies under the Baig-Laidlaw combination, the analogy fails for several reasons. A student may not need to present their social security number each time to gain entry into their dorm room, but under the Baig-Laidlaw combination, a mobile device must present the cookie to the content server each time it attempts to access the server. This is a fundamental characteristic of cookies. (Petition, 20-21; EX1002, ¶¶89-90.) Laidlaw explains that a cookie is a

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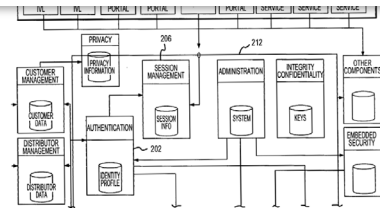
¹ Roku, Inc. filed a petition in IP2021-00966 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2021-00791 and was joined as a petitioner in this proceeding.

“determining an association between device identifiers...” – Petitioner Reply

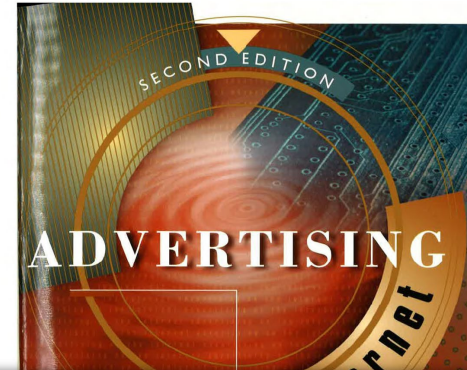
- Petitioner: Cookie presented to server with every access**

each time it attempts to access the server. This is a fundamental characteristic of cookies. (Petition, 20-21; EX1002, ¶¶89-90.) Laidlaw explains that a cookie is a

like to identify a user. A cookie is a sequence of binary information that a web server may send to a client system, and which the client system sends back to the web server with each subsequent request, assuming the user employs a web browser client with cookie support present and enabled.



Meta's Exhibit 1006
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For example, a site may assign you a cookie with the text string "123." Every time you access a page on the site, the server can request the cookie it placed and recognize that "123" is back again and track where "123" goes on the site. Maximum information can

Meta's Exhibit 1011
Page 002

(Laidlaw, ¶¶0006; EX1011, p.0026)
(Reply at 7)

“determining an association between device identifiers...” – Petitioner Reply

- **Petitioner:**

29; EX1002, ¶¶105-107; EX1022, ¶15.) Transmission of the cookie with each request is essential to overcome the “stateless” nature of the Web, which would otherwise have prevented the system from remembering prior requests by the mobile device and thus prevented the system from being able to identify the mobile device and recognize that it is logged-in. (EX1002, ¶¶90, 105.)

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(Reply at 7-8)

“determining an association between device identifiers...” – Petitioner Reply

- **Petitioner:** cookies critical to placing mobile devices into vicinity-based communities under Baig-Laidlaw combination

combination. Baig repeatedly states that identifying users who are in a vicinity-based community depends on the ability to identify devices connected through the same access point and who are currently logged-in to the content server website. (Baig, e.g., ¶¶0056 (“At step 306, the server 224 identifies all the users who have logged in from a common hot spot as having the same access point IP address.”), 0059 (“Thus, users accessing a hotspot and who have logged into the website of the VCSP 202 can receive and participate in the services offered by the VCSP 202, as well as communicate with each other (e.g., chat room).”) (emphasis added to all); *see also id.*, ¶¶0069, 0076-0078.) As explained in the Petition, therefore, “the

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“determining an association between device identifiers...” – Petitioner Reply

4. Patent Owner: No evidence users identified by anything other than respective *usernames* for placing users into a community

- **Petitioner:** PO focuses only on Baig, ignores proposed combination with Laidlaw

references.”) (citation omitted). This argument overlooks the fact that, under the proposed Baig-Laidlaw combination, the system would have used the cookie to identify a mobile device accessing the server and to determine whether the device is currently logged-in – prerequisites to placement in a vicinity-based community.

(Petition, 19-20, 28-29; EX1002, ¶¶105-107.) Moreover, with respect to the

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“determining an association between device identifiers...” – Petitioner Reply



“A finding of obviousness... cannot be overcome ‘by attacking references individually where the rejection is based upon the teachings of a combination of references.’”

Bradium Techs. LLC v. Iancu, 923 F.3d 1032, 1050 (Fed. Cir. 2019) (citation omitted)

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“predetermined period of time”

“predetermined period of time”

1. A method for identifying an association among multiple electronic devices of a group of devices connected through a common local area network (LAN) and using the association for cross-device action, the method comprising:

(a) with a computer system, determining an association between device identifiers of two or more Internet-accessing electronic devices based on electronically stored association-detection information about a plurality of Internet-accessing electronic devices, wherein the stored association-detection information for each of the plurality of Internet-accessing electronic devices includes:

(i) a device identifier:

(ii) at least one dynamically assigned
assigned to a modem that connects a
LAN to the Internet; and

- (iii) at least one timestamp specifying a time when the Internet-accessing electronic device accessed the Internet via the router of the LAN;

(b) wherein determining the association in part (a) is performed by using the stored association-detection information to determine that the two or more Internet electronic devices have separately accessed the LAN through a router of the LAN during a particular period of time via a common IP address;

(c) wherein the computer system determining the association in part (a) is outside the LAN and is connected to the LAN through the Internet; and

(d) with the computer system, using the association determined in part (a) to utilize user profile information associated with the device identifier of a first of the associated Internet-accessing electronic devices, and comprising behavioral or demographic data collected via the first of the associated Internet-accessing electronic devices, to take an automatic action with respect to a second of the associated Internet-accessing electronic devices using the device identifier of the second of the associated Internet-accessing electronic devices.

(b) wherein determining the association in part (a) is done by using the stored association-detection information to determine that the two or more Internet-accessing electronic devices have separately accessed the Internet through a router of the LAN during a predetermined period of time via a common IP address;



('878, Claim 1)

“predetermined period of time” - Petition

Baig + Sitaraman: DHCP lease time for network access point

DHCP servers are used, for example, by Internet Service Providers (ISPs) who typically maintain a “pool” of available IP addresses that can be dynamically assigned to clients upon request. (Sitaraman, 3:64-4:1, 6:63-66.) If the client accepts the offered IP address, “the chosen DHCP server sends an acknowledgement with the offered IP address having an associated ‘lease’ time,” which can be renewed by the client upon request. (Sitaraman, 3:42-47.) “Once the lease expires, the IP address can be ‘recycled’ and given to another machine.” (Sitaraman, 3:49-51.)

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(Petition at 31-32)

“predetermined period of time” - Petition

Baig + Sitaraman: DHCP lease time for network access point

It would have been obvious to combine Baig and Laidlaw with Sitaraman, predictably resulting in the Baig-Laidlaw system described above with the further ability of access point **106** to have a “**dynamically assigned**” IP address, for example using known DHCP techniques. Under the proposed combination, therefore, the IP address of access point **106** (which includes the router and modem) would have been dynamically assigned by a DHCP server, and thus, the “**stored association-detection information**” for each mobile device **102** would have also included “**at least one dynamically assigned IP address assigned to a modem that connects a router of the LAN to the Internet.**” (Schmandt, ¶114.) Sitaraman is

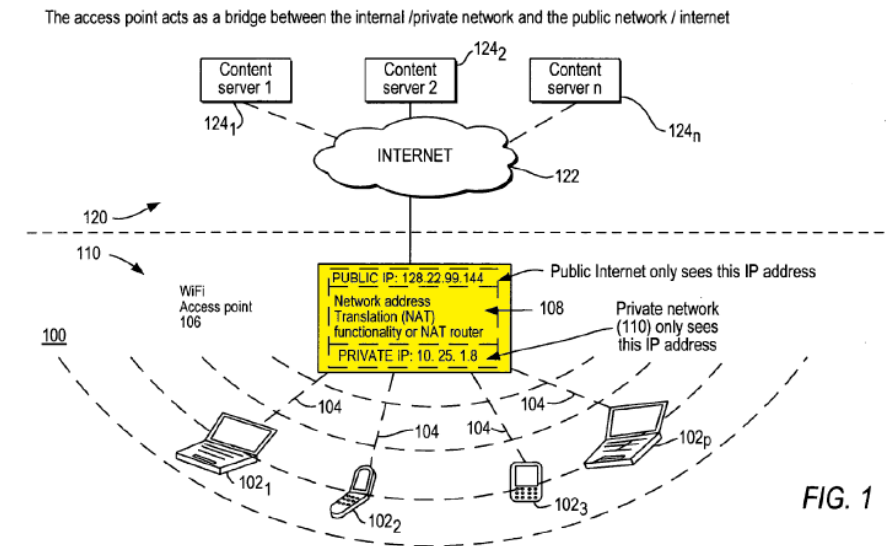


FIG. 1

(Petition at 24, 32)

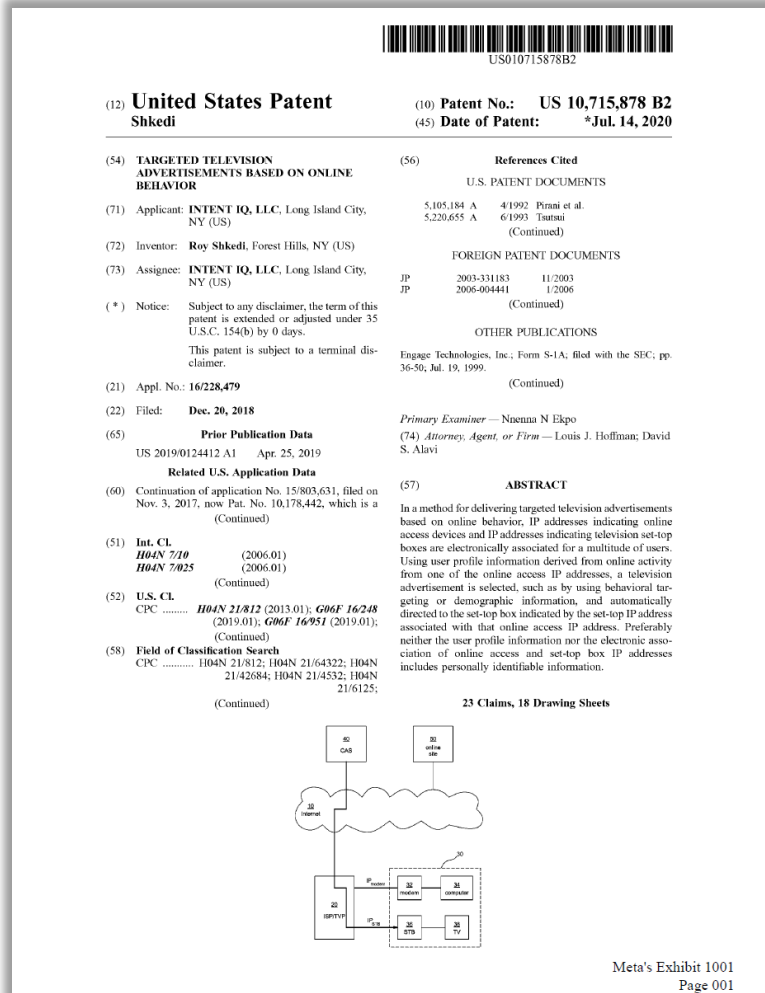
“predetermined period of time” - Petition

Mobile devices 102 would thus have accessed the Internet via access point 106 during “a predetermined period of time via a common IP address,” *i.e.*, during the lease time that the dynamic IP address assigned to access point 106 remains valid. (Schmandt, ¶125.) This period “predetermined” because the lease time was provided by the DHCP server when it assigned the dynamic IP address to access point 106, which would have been before mobile devices logged into the content server using that access point. (Schmandt, ¶126.) This mapping of DHCP lease times to the claimed “predetermined period of time” is entirely consistent with the ’878 patent, which expressly references DHCP expiry times in describing the claimed predetermined time period. (’878, 4:22-26.)

(Petition at 37-38)

“predetermined period of time” - Petition

'878 patent: DHCP lease time can be a predetermined period of time



communication with other hosts. The **DHCP** server then replies to the client with its assigned IP address, subnet mask, domain name server (DNS), and default gateway information (referred to as “stateful” assignment). **The assignment of the IP address usually expires after a predetermined period of time**, at which point the DHCP client and server renegotiate a new IP address from the DHCP server’s predefined pool of IP addresses. Because, under DHCP, the

(’878, 4:22-26)

“predetermined period of time”

Patent Owner Agrees: DHCP lease time can be a predetermined period of time

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PATENT OWNER'S RESPONSE

² Notably, Patent Owner does not contest, as the '878 Patent makes clear, that a DHCP lease period can be a “predetermined period of time.” Ex. 1001 at 4:22-26.

(PO Resp. at 20 n. 2)

“predetermined period of time” – PO Arguments

- Patent Owner:

1. Petition does not allege Baig combination determines whether accesses by two devices occurred within DHCP lease time
2. Baig’s content server is not an ISP and would have been unable to determine whether two devices accessed the Internet via a common access point during a DHCP lease period

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PATENT OWNER'S RESPONSE

(PO Resp. at 15-17)

“predetermined period of time” – PO Arguments

1. Petition does not allege Baig combination determines whether accesses by two devices occurred within DHCP lease time

Notably, the question of whether two devices *happen to* access the Internet via an access point during a DHCP lease period is a different and separate question from the question of whether Baig’s content server would *determine* that those two devices accessed the Internet via access point 106 during a DHCP lease period. For example, if Baig’s content server makes no effort to determine whether two Internet accesses were within a DHCP lease period, a POSITA would readily understand that even if two Internet accesses happened to be within the DHCP lease period, Baig would not *determine* that the two accesses were within the DHCP lease period. Ex. 2001 ¶¶54-58.

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(PO Resp. at 16)

“predetermined period of time” – Petitioner Reply

- **Petitioner:** Computer system can make claimed determination without having to “know” DHCP lease time

time. The claim language requires that a determination be made that a particular condition exists, but that determination can be made without the computer system having knowledge of the claimed predetermined period of time. (EX1022, ¶19.) In the context of the proposed combination, determining that access by the two or more electronic devices occurred “during a predetermined period of time” is subsumed by the computers system’s determination that the access occurred “via a common IP address.” This is because the predetermined period of time under the proposed combination is the lease time for the dynamic IP address assigned using DHCP, which would have had an expiration date and time. (Petition, 31-32, 37-38; EX1002, ¶¶112-113, 116.) Once the IP address expires, the two or more mobile devices in Baig could no longer communicate with the server through the access point via that IP address. (Petition, 37-38 (“Once the lease expires the IP address can be ‘recycled’

(Reply at 11-12)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC., ROBU, INC., and
SAMSUNG ELECTRONICS CO., LTD.,
Petitioners,

v.

ALMONDNET, INC. and EXTENT IQ, LLC,
Respondents.

Case IP2021-01281¹
Patent No. 10,715,878 B2

PETITIONER'S REPLY IN SUPPORT OF ITS
PETITION FOR INTER PARTES REVIEW

¹ Robu, Inc. filed a petition in IP2020-00066 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2020-00701 and was joined as a petitioner in this proceeding.

“predetermined period of time” – Petitioner Reply

- **Petitioner:**

IP address. (EX1022, ¶19.) In other words, when the system determines that two or more mobile devices have accessed the Internet “via a common IP address,” that also determines that the access occurred during a DHCP lease time. Moreover, it does not matter whether the system knows the precise period of the DHCP lease time (and the claim imposes no such requirement) – because the common IP address was dynamically assigned using DHCP under the proposed combination, the access through that IP address by the two or more mobile devices is sufficient to have determined that the access occurred during “a predetermined period of time.” The use of DHCP-assigned IP addresses is part of the design of the system itself under the proposed combination, applicable to the access point and all mobile devices through which it is connected. (Petition, 32-34; EX1002, ¶114; EX1022, ¶20.)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC., ROKU, INC., and
SAMSUNG ELECTRONICS CO., LTD.,
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v.

ALMONDNET, INC. and EXTENT IQ, LLC,
Patent Owners.

Case IP2021-01281¹
Patent No. 10,715,878 B2

PETITIONER'S REPLY IN SUPPORT OF ITS
PETITION FOR INTER PARTES REVIEW

¹ Roku, Inc. filed a petition in IP2021-00966 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2021-00791 and was joined as a petitioner in this proceeding.

“predetermined period of time” – Petitioner Reply

- Petitioner:**

The proposed combination does not present a case in which the “predetermined period of time” was mapped to a time period having no relationship with access via the common IP address. This is not a case, for example, in which the predetermined period of time was mapped to Lent, Passover, or Ramadan, with no relationship to a device’s ability to connect to a server. Under the proposed combination, two mobile devices communicating through an access point via a common DHCP-assigned IP address cannot reach the computer system in Baig unless they do so during the lease period, as explained. (EX1022, ¶¶24-26.)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC., ROKU, INC., and
SAMSUNG ELECTRONICS CO., LTD.,
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v.

ALMONDNET, INC. and EXTENT IQ, LLC,
Respondents.

Case IP2024-01281¹
Patent No. 10,715,878 B2

PETITIONER'S REPLY IN SUPPORT OF ITS
PETITION FOR INTER PARTES REVIEW

¹ Roku, Inc. filed a petition in IP2024-00666 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2024-00791 and was joined as a petitioner in this proceeding.

“predetermined period of time” – Petitioner Reply

- **Petitioner:** '878 patent does not require computer system to “know” the claimed predetermined period of time. PO-cited '878 embodiment:

addresses. STB 36 can be configured to periodically (e.g., every 4, 6, 12, or 24 hours, or some other suitable time interval) report to CAS 40 all of the common IP addresses assigned to modem 32 and the corresponding dates and times they were used for some preceding span of time (e.g., 1, 7, 14, 30, or 90 days, or some other suitable interval).

Only includes points of time IP address used in the past; **tells nothing about any period after any particular point**

reset by CAS 40. CAS 40 also can be configured to receive IP addresses and corresponding access times and dates for all visitors to an online site 50 that wishes to deliver television advertisements based on online user behavior. Online site 50 periodically reports to CAS 40 (as in FIG. 10) all IP addresses from which the online site was accessed during some preceding period, along with the corresponding times and dates. The frequency and time periods of the

desired. The two lists (one from the online site, one from the STB) of IP addresses are compared, and delivery of a television advertisement is requested if any matches are found, i.e., whenever it is found that the STB was connected to a modem that was assigned an IP address at a time and date when the online site was accessed from that IP address.

Determination does not take into consideration a “predetermined” “period” of time

('878, 16:22-27, 16:30-37, 16:40-45)
(Reply at 13-14)

“predetermined period of time” – PO Arguments

2. Baig’s content server is not an ISP and would have been unable to determine whether two devices accessed the Internet via a common access point during a DHCP lease period

As explained by Patent Owner’s expert, a content server such as Baig’s would have had no insight into the operations of an access point, including when the lease period was first assigned, the duration of that lease period, or even whether there *is* a lease period in the first place (because Baig would not know whether a particular access point is assigned a static or dynamic IP address, and lease periods are only applicable to dynamic IP addresses). *Id.* Baig’s content server is a typical server hosting a website, and there would be no capability for such a server to obtain information from an Internet service provider (“ISP,” such as, e.g., Comcast) regarding which IP addresses are dynamically assigned. *Id.* ¶¶60, 65. Nor would such a server be able to obtain the duration and starting times of DHCP leases applicable to any particular IP address. Ex. 2001 ¶¶60-65, 75-76.

(PO Resp. at 17)

“predetermined period of time” – Petitioner Reply

- **Petitioner:** Argument depends on assertion that Baig computer system is not an ISP
 - Patent Owner’s expert:

60. A POSITA would understand that DHCP lease periods for an access point would have been determined by an internet service provider (“ISP”), and Baig’s content server is not an ISP and would have no reason to use data from ISPs in running its content server (and would have also had no ability to obtain information from ISPs regarding access point lease duration).

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
META PLATFORM, INC., ROKU, INC., and
SAMSUNG ELECTRONICS CO., LTD.,
Petitioners,
v.
ALMONDNET, INC. and EXTENT IQ, LLC,
Patent Owners.
Case IP2021-01281¹
Patent No. 10,715,878 B2
PETITIONER'S REPLY IN SUPPORT OF ITS
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(EX2001, ¶60; see also PO Resp. at 17 (paraphrasing))
(Reply at 14-15)

“predetermined period of time” - Petition

- **Petitioner:** Internet Service Provider (ISP) uses DHCP server to dynamically assign IP addresses to clients upon request

DHCP servers are used, for example, by Internet Service Providers (ISPs) who typically maintain a “pool” of available IP addresses that can be dynamically assigned to clients upon request. (Sitaraman, 3:64-4:1, 6:63-66.) If the client accepts the offered IP address, “the chosen DHCP server sends an acknowledgement with the offered IP address having an associated ‘lease’ time,” which can be renewed by the client upon request. (Sitaraman, 3:42-47.) “Once the lease expires, the IP address can be ‘recycled’ and given to another machine.” (Sitaraman, 3:49-51.)

(Petition at 31-32)

“predetermined period of time” - Petition

- **Petitioner:** Internet Service Provider (ISP) uses DHCP server to dynamically assign IP addresses to clients upon request

- Sitaraman:

Currently, the only solution for Telcos and ISPs to manage the shortage of IP addresses is to configure a Network Access Server (NAS) in each PoP (point of presence) so as to implement DHCP-like functionality with IP address pools so as to dynamically allocate IP addresses.

- '878 patent:

to act as DHCP servers for home networks. A computer can also be used as a DHCP server. Internet Service Providers (ISPs) generally use DHCP to assign individual IP addresses to subscribers. DHCPv6, which is the Dynamic Host Con-

(Sitaraman, 3:64-4:1; '878, 4:36-39)
(Petition at 31-32)

Petition for Inter Partes Review of
U.S. Patent No. 10,713,878 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner

v.

ALUMINUM, INC. and INVENT IQ, LLC,
Patent Owner

Case IP2023-01281
Patent 10,713,878 B2
Issue Date: July 14, 2020

Title: TARGETED TELEVISION ADVERTISEMENTS BASED ON ONLINE BEHAVIOR

PETITION FOR INTER PARTES REVIEW
OF U.S. PATENT NO. 10,713,878 B2

“predetermined period of time” – Petitioner Reply

- **Petitioner:** Nothing in Petition requires DHCP server/ISP to be separate from Baig computer system — Baig confirms that its computer system does belong to an ISP:

A method and apparatus for providing vicinity-based community services at a wireless access location by a **public network service provider**. The method includes the steps of

points, and creating a vicinity-based community in real time allowing end-users accessing the **public network service provider** from the wireless access point to connect to other users in their vicinity. The apparatus includes means for

physical location of the hotspot after logging into the website hosted by the **public network service provider**.

[0016] FIG. 4 illustrates a graphical user interface of a home webpage for logging into a **service provider** for providing services in accordance with the principles of the present invention;

Once the users log into the website of the **online service provider 202**, the users can engage in various activities with other users in their vicinity (i.e., physical location), such as

1. A method for providing vicinity-based community services at a wireless access location by a **public network service provider**, comprising the steps of:

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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v.

ALMONDNET, INC. and EXTENT IQ, LLC,
Respondents.

Case IP2021-01281¹
Patent No. 10,715,878 B2

PETITIONER'S REPLY IN SUPPORT OF ITS
PETITION FOR INTER PARTES REVIEW

¹ Roku, Inc. filed a petition in IP2021-00066 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2021-00701 and was joined as a petitioner in this proceeding.

(Baig, Abstract, ¶¶0006, 0007, 0016, 0054, claim 1)
(Reply at 16-17)

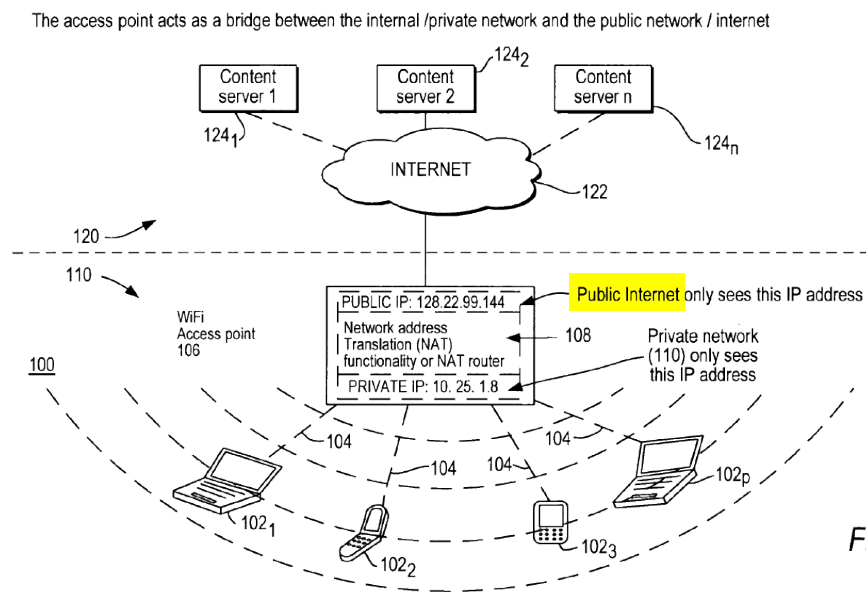
“predetermined period of time” – Petitioner Reply

- **Petitioner:** “Public network” in Baig refers to the Internet:

[0003] Wireless “hotspots” are locations with wireless connectivity where users having mobile devices, such as laptops, PDA, mobile phones and the like, can connect to a public network (e.g., the Internet) using standard WiFi technology (often referred to as Wireless LAN or WLAN technology). Other wireless technologies which enable wireless connectivity can include WiMax, among other wireless technology standards.

Internet 122 via the access point 106. Thus, the mobile devices 102 at the hotspot 110 form a local network 104 with the access point 106. The access point 106 includes a network address translation device 108, and provides network address translations (NAT). The mobile devices 102 form a “local network” 104 with the access point 106, while everything outside of (i.e., external to) the hotspot 110, i.e., all servers & computers residing on the public Internet, is considered the “public” network 120.

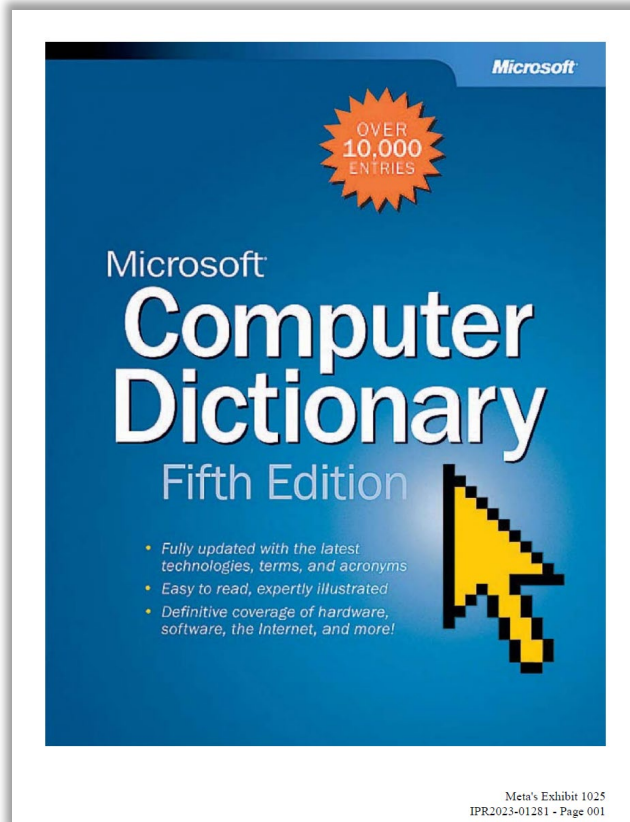
[0045] Whenever a mobile device 102 that is connected to a hotspot 110 requests information from the public network (e.g., the Internet) 120, the mobile device 120 sends data packets containing a “local” IP address to the access point 106. All devices on the internal network 104 use local IP addresses (these local IP addresses are not visible to the public networks). On the other hand, the access point 106 interacts with the public network 120 with a public IP address, which is visible to all devices on the public internet 122.



(Baig, ¶¶0003, 0044, 0045, Fig. 1)
(Reply at 16-17)

“predetermined period of time” – Petitioner Reply

- **Petitioner:** POSITA understanding of “service provider” / ISP



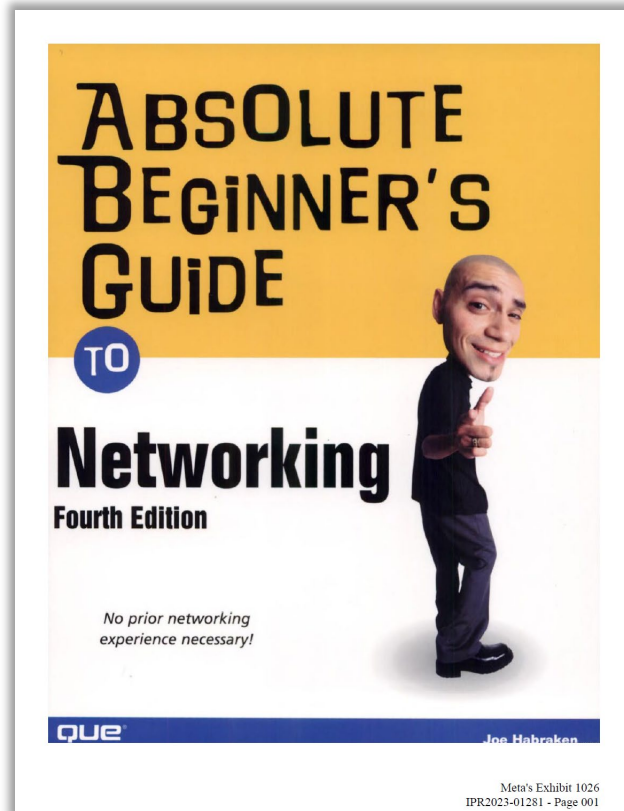
service provider *n.* See ISP.

ISP *n.* Acronym for **Internet service provider**. A business that supplies Internet connectivity services to individuals, businesses, and other organizations. Some ISPs are large national or multinational corporations that offer access in many locations, while others are limited to a single city or region. *Also called:* access provider, **service provider**.

(EX1025, pp.004, 007)
(Reply at 16-17)

“predetermined period of time” – Petitioner Reply

- **Petitioner:** POSITA understanding of “service provider” / ISP

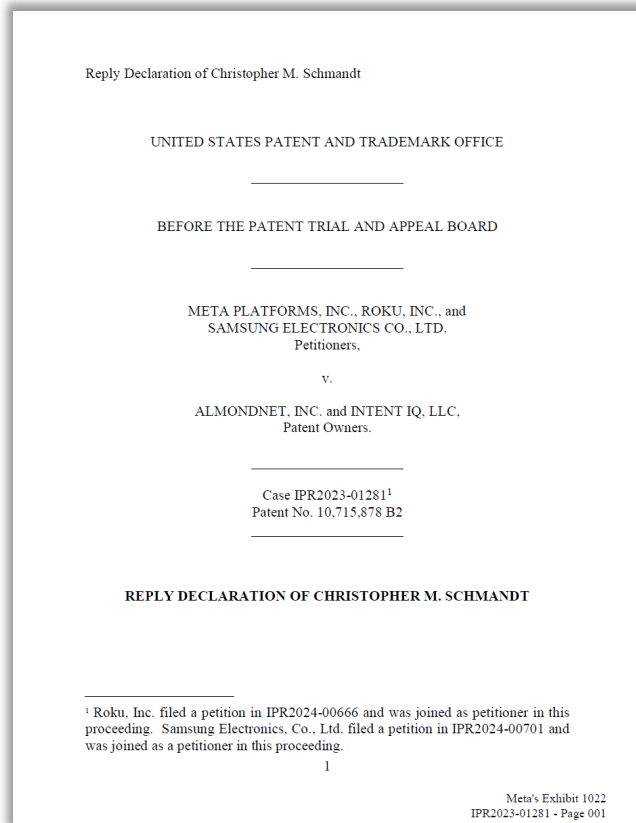


Internet service provider (ISP) A provider of Internet-based services. An ISP provides an Internet connection to users or companies in addition to other services, such as Internet email, Web browsing, FTP, and news-groups. An ISP also typically offers space on its Web server for personal or corporate Web sites.

(EX1026, p.003)
(Reply at 19)

“predetermined period of time” – Petitioner Reply

- **Petitioner:** Nothing in Petition requires DHCP server/ISP to be separate from Baig computer system — Baig confirms that its computer system does belong to an ISP:

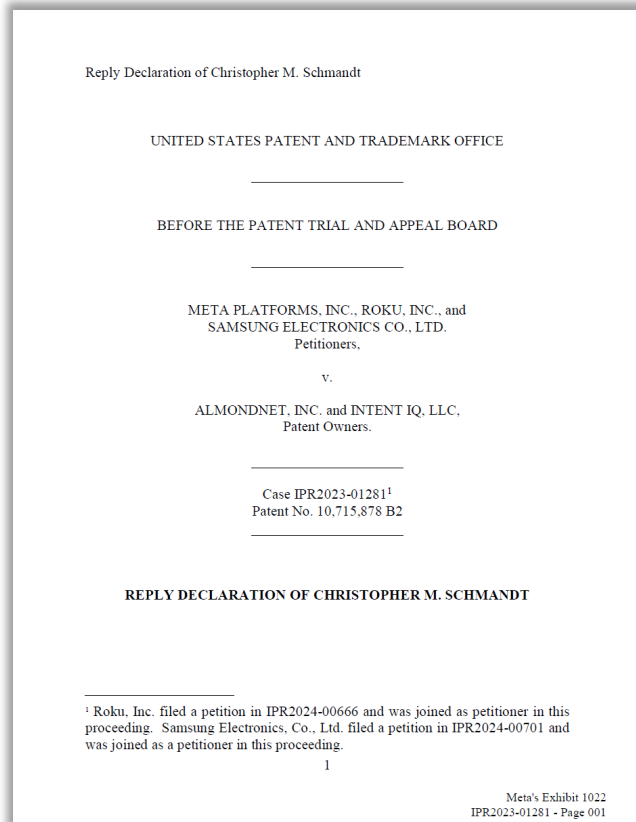


public network service provider...”), claim 14 (same).) The term “public network” in Baig refers to the Internet. (Baig, e.g., ¶0003 (“... mobile phones and the like, can connect to a public network (e.g., the Internet)”), 0045 (“Whenever a mobile device 102 that is connected to a hotspot 110 requests information from the public network (e.g., the Internet) 120...”); see also *id.*, ¶¶0043-0044.) This is consistent with the understanding of persons of ordinary skill in the art who commonly referred to the Internet as a “public” network. (Baig, Fig. 1 (“The access point acts as a bridge between the internal/private network and the public network / internet”); see also, e.g., *Microsoft Computer Dictionary* (5th ed. 2002) (EX1025), p.411 (defining point-to-point tunneling which refers to “an open, public network such as the Internet”), p.470 (defining secure wide area network as “[a] set of computers that communicate over a public network, such as the Internet...”).) Baig also uses the term “online service provider,” which is another synonym for an ISP. (Baig, ¶0054

(EX1022, ¶29)
(Reply at 16-17)

“predetermined period of time” – Petitioner Reply

- **Petitioner:** Nothing in Petition requires DHCP server/ISP to be separate from Baig computer system — Baig confirms that its computer system does belong to an ISP:



30. It would therefore have been obvious to a person of ordinary skill in the art that the “public network service provider” in Baig, who operates the content server and provides the disclosed vicinity-based community service, would have been understood as referring to an Internet Service Provider (ISP). This is also consistent with the plain and ordinary meaning of “**service provider**” in the field of the Internet and computer networking, which was understood as a shorthand to refer to an ISP. (*See Microsoft Computer Dictionary* (5th ed. 2002) (EX1025), p.475 (“**service provider** *n.* See ISP.”), p.291 (“**ISP** *n.* Acronym for **Internet** service provider. A business that supplies Internet connectivity services to individuals, businesses, and other organizations... *Also called:* access provider, service provider.”) (bold and italics in original; underlining added); *see also id.* at p.281 (definition of Internet).)

(EX1022, ¶30)
(Reply at 17)

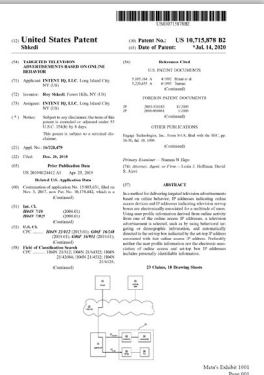
Claim 6: “automatic action...”

Claim 6 – “automatic action”

6. The method of claim 1 wherein the automatic action comprises selecting an advertisement, from among a plurality of possible advertisements, based at least in part on at least a portion of the user profile information associated with the device identifier of the first device.

Antecedent basis (claim 1):

(d) with the computer system, using the association determined in part (a) to utilize user profile information associated with the device identifier of a first of the associated Internet-accessing electronic devices, and comprising behavioral or demographic data collected via the first of the associated Internet-accessing electronic devices, to take an automatic action with respect to a second of the associated Internet-accessing electronic devices using the device identifier of the second of the associated Internet-accessing electronic devices.



('878 claims 1, 6)

“automatic action” (claim 1) - Petition

Automatically send updated/refreshed webpage when users added to group

It would have been obvious to implement Baig such that list 606 gets automatically updated, for example by the server automatically sending an updated or refreshed version of the webpage when users are added to the access point vicinity group. This is confirmed by Hahn (EX1008), which describes well-known features for automatically updating webpages:

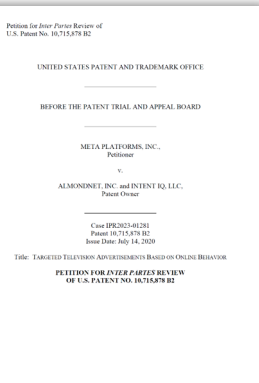
Updating Information Automatically

Once you tell your web browser to load a web page, you must wait for the information be sent from the web server to your computer...

Nevertheless, there are times in which it is desirable to display information which can be updated automatically. There are two ways which this can be done.

(Hahn, p.0048 (bold in original).) Hahn goes on to describe these “two ways.” The first technique, “CLIENT PULL,” involves the web browser automatically requesting that the page be reloaded at periodic intervals, for example every 30 seconds. (*Id.*) With the second technique, “SERVER PUSH,” the server automatically sends new data without the browser making a request. (*Id.*) Both techniques independently qualify as “automatic,” as they occur without requiring user action. (Schmandt, ¶¶141-142.)

(Petition at 46-47)



“automatic action” (claim 6) - Petition

Select and deliver ad in automatically sent updated/refreshed webpage

And as explained for claim 1(d), it would have been obvious that such action would have been “**automatic**” because the advertisement would have been selected and delivered to the second device using the automatic website update techniques in Hahn discussed above. (Schmandt, ¶¶141-147, 183.) Alternatively, the advertisement could have been selected and delivered automatically as part of the creation and transmission of the webpage sent to the second device, after the second device logs into the content server. (Baig, Fig. 6, ¶0074; Provisional, 0017.)

Petition for Inter Partes Review of
U.S. Patent No. 10,713,479 B2

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

META PLATFORMS, INC.,
Petitioner

v.

ALMUNDINET, INC. and INTENT IQ, LLC,
Patent Owner

Case IPR2023-01281
Patent 10,713,479 B2
Issue Date: July 14, 2020

Title: TARGETED TELEVISION ADVERTISEMENTS BASED ON ONLINE BEHAVIOR

PETITION FOR INTER PARTES REVIEW
OF U.S. PATENT NO. 10,713,479 B2

(Petition at 63-64)

“automatic action” (claim 6) - Petition

Ad selected from plurality of possible ads

Baig discloses a vicinity-based community service that includes, in addition to the features described for **Ground 1**, an advertising service in which advertisers can target advertisements to users at a particular hotspot based on (among other things) demographic information such as age and gender. (Baig, ¶¶0095, 0093; Provisional, 0022; Schmandt, ¶182.) Advertisements are selected based on a competitive bidding system. (Baig, ¶0062; Provisional, 0015.) As Baig explains in discussing one example, “[t]he winner of the bidding contest receives exclusive rights to advertise on the VCSP website for the selected hotspot at a particular time of day, for example between 6-8 pm to female end-users who are 18-25 years old at a particular location.” (Baig, ¶0104; Provisional, 0024.)

[0104] Through the VCSP, the advertisers can select individual hotspots or hotspots in a particular city or particular zip code. The advertisers can view the traffic patterns, for example, the age/gender distribution for particular geographical locations, and then select the time during which they want their advertisements to appear to users. An advertiser can then log on to the VCSP website and bid against other advertisers for rights. The winner of the bidding contest receives exclusive rights to advertise on the VCSP website for the selected hotspot at a particular time of day, for example, between 6-8 pm to female end-users who are 18-25 years old at a particular geographical location.

(Petition at 63)

“automatic action” (claim 6) - Petition

Baig + Gerace: Ad selected based in part on profile information of other users

(19) United States
(12) Patent Application Publication (10) Pub. No.: US 2006/0282328 A1
Gerace et al. (43) Pub. Date: Dec. 14, 2006

(54) COMPUTER METHOD AND APPARATUS
FOR TARGETING ADVERTISING

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(73) Assignee: Gather Inc., Boston, MA

(21) Appl. No.: 11/451,995

(22) Filed: Jun. 12, 2006

Related U.S. Application Data

(63) Continuation-in-part of application No. 11/371,462,
filed on Mar. 9, 2006.

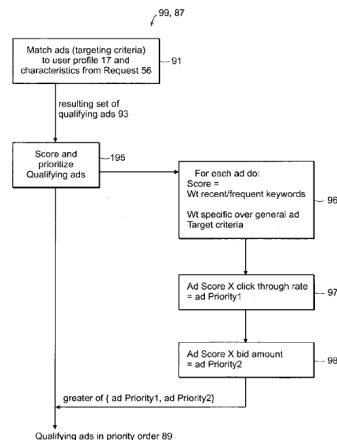
(60) Provisional application No. 60/690,005, filed on Jun.
13, 2005. Provisional application No. 60/734,690,
filed on Nov. 8, 2005.

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G07G 1/00 (2006.01)
(52) U.S. Cl. 705/14; 707/3; 705/10

ABSTRACT

In a global network of computers, a method ad system of profiling a user for targeting advertisements is disclosed. The method and system obtains and/or infers demographic information from end-users using on-line means. The invention next monitors end user activity and determines keywords therefrom. The system and method profiles an end user as a function of the determined end-user activity keywords and obtained/inferred end-user demographic information. Profiles of end-users are matched against targeted profiles of advertisements which are defined by the respective advertisers. This results in targeting advertisements to end-users based on end user profiles. Advertisers bid for advertisement placement with the system. In some embodiments, the system employs Vickrey auction type bidding. Using observed user behavior and the auction results, ads are prioritized for selection and viewing placement in a manner that provides the greatest potential value to the system.



Meta's Exhibit 1010
Page 001

Gerace:

the query he enters and the ads he clicks, etc. This profile information is used to better target the known user with advertisement. The system 100 deduces demographic information (city, state, etc.) from a user's IP address, the type of article the user reads, search query he enters, shared behavior with other users (behavior or activities in common with) or shared relationships to other users. In one embodiment, the system 100 (a) assumes a zip code for a given user based on zip codes detected in the user's activities, (b) assumes age of the given user based on ages of others detected in the user's activities, and (c) assumes gender of the given user based on gender of others detected in the user's activities. In

(Gerace, ¶0083)
(Petition at 64-65)

“automatic action” – PO Arguments

- Patent Owner:
 1. Petition relies on different “automatic action” for claims 1 and 6
 2. Petition’s mapping selects an advertiser, not an advertisement
 3. No selection “based on...user profile information”

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Patent Owner.

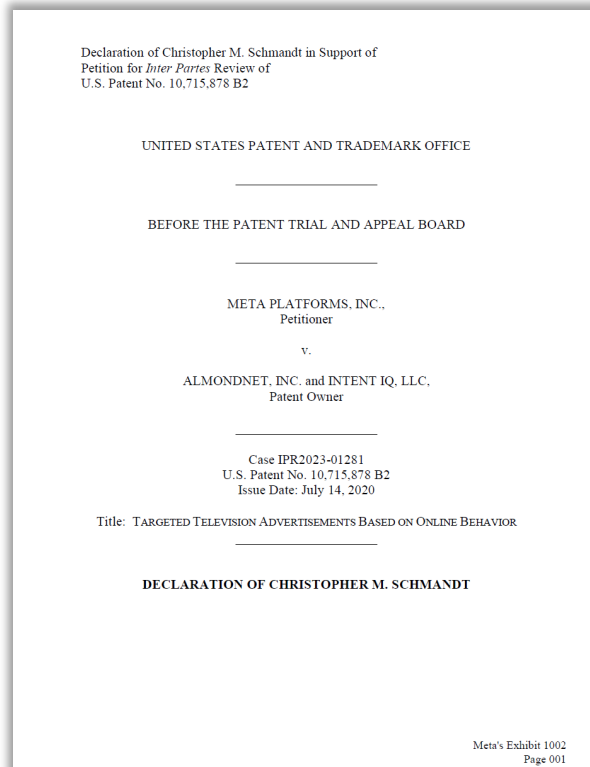
Case No.: IPR2023-01261
Patent No.: 10,715,878

PATENT OWNER'S RESPONSE

(PO Resp. at 26-35)

“automatic action” – Petitioner Reply

1. **PO: Petition relies on different “automatic action” for claims 1 and 6**
 - **Petitioner:** Petition and opening expert declaration clear that selected advertisement delivered as part of same webpage that presents user list **606**



such the users age and/or gender. And as explained for claim 1(d), these actions would have been “**automatic**” because the advertisement would have been selected and delivered to the second device via the automatic website update techniques described in Hahn, as discussed. Alternatively, the advertisement could have been selected and delivered to the second device automatically, as part of the webpage (Figure 6) sent to the second device, upon the second device user logging on to the content server. (Baig, Fig. 6, ¶0074; Baig Provisional, 0017.)

(EX1002, ¶183)
(Reply at 20-21)

“automatic action” – Petitioner Reply

2. PO: Petition’s mapping selects an advertiser, not an advertisement

- **Petitioner:** Baig confirms that VCSP—not advertisers—responsible for delivering advertisements to users

[0099] At step 2208, the VCSP provides advertisements from advertisers (e.g., local businesses or other entities). In

- Consistent with Gerace:

interest, category being viewed, etc). The system selects which advertisements to show to a user based on the bid amount showing the advertisements with the highest bids first. The system projects the likelihood of the user clicking

(Baig, ¶0099; Gerace, ¶0021)
(Reply at 21)

“automatic action” – Petitioner Reply

2. PO: Petition’s mapping selects an advertiser, not an advertisement

- **Petitioner:**

Patent Owner’s argument also makes no sense from an operational standpoint because Baig discloses a targeted advertising system in which advertisement selection is based on a user profile. (Baig, *e.g.*, ¶0061.) The user profile information used to perform targeted advertisement is collected, and securely stored, by the VCSP. (Baig, ¶0093 (“As users register online on the VCSP website, profile information about our users, such as age, gender, occupation, interests and the like are requested during the registration process and securely stored by the VCSP 202.”).) It therefore would have been obvious that selecting the advertisement would have been performed by the VSCP because the VSCP holds the profile information on which the selection of the targeted advertisement is based. (EX1022, ¶40.)

UNITED STATES PATENT AND TRADEMARK OFFICE

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Case IP2024-01281¹
Patent No. 10,715,878 B2

PETITIONER’S REPLY IN SUPPORT OF ITS
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¹ Roku, Inc. filed a petition in IP2024-00066 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2024-00701 and was joined as a petitioner in this proceeding.

“automatic action” – Petitioner Reply

3. PO: No selection “based on...user profile information”

- **Petitioner:**

auction based solely on ‘the highest bid.’” (Response, 34.) This argument overlooks that selection of an advertisement is based on both the profile information and the highest bid. In fact, the bids themselves include desired profile information of users to whom the advertisement is targeted. (Baig, *e.g.*, ¶¶0103 (“In one embodiment, multiple advertisers can bid against each other to have their advertisements displayed... based on some other end-user profile.”) (emphasis added), 104 (“The winner of the bidding contest receives exclusive rights to advertise... to female end-users who are 18-25 years old at a particular geographical location.”).) Patent

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
META PLATFORM, INC., ROKU, INC., and
SAMSUNG ELECTRONICS CO., LTD.,
Petitioners,
v.
ALMONDNET, INC. and INSTENT IQ, LLC,
Patent Owners.
Case IP2024-01281¹
Patent No. 10,715,878 B2
PETITIONER'S REPLY IN SUPPORT OF ITS
PETITION FOR INTER PARTES REVIEW

¹ Roku, Inc. filed a petition in IP2024-00666 and was joined as petitioner in this proceeding. Samsung Electronics Co., Ltd. filed a petition in IP2024-00701 and was joined as a petitioner in this proceeding.

Thank you