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EXAMINER
SORRELL, ERON J

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

REEXAMINATION CONTROL NO. 90/014,624 & 90/014,827

PATENT UNDER REEXAMINATION 10484511 .

ART UNIT 3992 .

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).



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***EX PARTE* REEXAMINATION COMMUNICATION TRANSMITTAL FORM**

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Office Action in Ex Parte Reexamination	Control No. 90/014,624 & 90/014,827	Patent Under Reexamination 10484511	
	Examiner ERON J SORRELL	Art Unit 3992	AIA (FITF) Status No

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

- a. ☒ Responsive to the communication(s) filed on 29 March 2022.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

b. ☒ This action is made FINAL.

c. ☐ A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c)**. If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. ☐ Notice of References Cited by Examiner, PTO-892. | 3. ☐ Interview Summary, PTO-474. |
| 2. ☒ Information Disclosure Statement, PTO/SB/08. | 4. ☐ _____. |

Part II SUMMARY OF ACTION

- 1a. ☒ Claims 1-30 are subject to reexamination.
- 1b. ☐ Claims _____ are not subject to reexamination.
2. ☒ Claims 31-66 have been canceled in the present reexamination proceeding.
3. ☒ Claims 6-8,10,13,15-16,18-19 and 23 are patentable and/or confirmed.
4. ☒ Claims 1-5,9,11-12,14,17,20-22 and 24-30 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ The drawings, filed on _____ are acceptable.
7. ☐ The proposed drawing correction, filed on _____ has been (7a) ☐ approved (7b) ☐ disapproved.
8. ☐ Acknowledgment is made of the priority claim under 35 U.S.C. 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the certified copies have
 - 1 ☐ been received.
 - 2 ☐ not been received.
 - 3 ☐ been filed in Application No. _____.
 - 4 ☐ been filed in reexamination Control No. _____.
 - 5 ☐ been received by the International Bureau in PCT application No. _____.
- * See the attached detailed Office action for a list of the certified copies not received.
9. ☐ Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. ☐ Other: _____

cc: Requester (if third party requester)

DETAILED ACTION

Brief Summary of the Proceeding

A Third Party filed a Request for *Ex Parte* Reexamination of claims 1-5, 9, 11, 12, 14, 17, 20-22, and 25-30 of U.S. Patent No. 10,484,511 to Shribman et al. ("the '511 Patent"), said Request being granted the filing date of December 4, 2020 and assigned control number 90/014,624.

The Request raised at least one substantial new question of patentability and an Order Granting Request for *Ex Parte* Reexamination was mailed on January 21, 2021 in which it was determined that claims 1-30 would be subject to reexamination.

A non-final Office action was mailed on May 24, 2021 in which claims 1-5, 9, 11, 12, 14, 17, 20-22, and 25-30 were rejected under 35 USC § 102(b) and/or 35 USC § 103(a).

The Patent Owner filed a response to the May 24, 2021 Office action on July 22, 2021. The response included arguments toward the outstanding rejections and new claims 31-66.

Another Third Party filed a Request for *Ex Parte* Reexamination of claims 1-5, 9, 14, 17, 20-22, 25, and 27-30 of the '511 Patent, said Request being granted a filing date of August 11, 2020 and assigned control number 90/014,827.

The second Request also raised at least one substantial new question of patentability and an Order Granting Request for *Ex Parte* Reexamination was mailed on September, 2021.

On November 8, 2021 a Decision Merging Proceedings
90/014,624 and 90/014,827 was mailed.

On February 7, 2022 a non-final Office action was mailed in
which 1-5,9,11-12,14,17,20-22, and 24-66 were rejected under 35
USC § 102(b) and/or 35 USC § 103(a).

On March 29, 2022 the Patent Owner filed their response to
the February 7, 2022 Office action. That response included an
amendment to the claims canceling claims 31-66 and Remarks
directed toward the outstanding Rejections.

Prior Art Listing

The following patents/printed publications were cited in
90/014,624:

- i. Luotonen A., "Web Proxy Servers," Prentice Hall PTR,
1998 (ISBN 0-13-680612-0) ("Luotonen");
- ii. Michael K. Reiter and Avid D, Rubin,
"Crowds: Anonymity for Web Transactions," ACM
Transactions on Information and System Security, Vol.
1, No, 1, Pages 66-92 (November 1998) ("Crowds") (also
cited in 90/014,827);
- iii. Wessels et al., RFC 2187, "Application of
Internet Cache Protocol (ICP), version 2" (National
Laboratory for Applied Network Research, University
of California, San Diego, September 1997) ("RFC
2187");
- iv. U.S. Patent No. 6,701,374 to Gupta et al, ("Gupta");
- v. Postal, J., "Internet Protocol", STD 5, RFC 791,
DOI 10.1 7487/ RFC0791, September 1981 ("RFC 791");

- vi. D. Wessels and K. Claffy, "ICP and the Squid Web Cache," in IEEE Journal on Selected Areas in Communications, vol. 16, no. 3, pp. 345-357, April 1998, doi: 10.1109/49.669043 ("Wessels");
- vii. Wessels, "Squid; The Definitive Guide," ISBN 10: 9780596001629, ISBN-13: 978-0596001629, O'Reilly Media; 1st Ed. (January 1, 2004) ("The Squid Book").

The following patents/printed publications were cited in
90/014,827:

- viii. U.S. Patent No. 6,389,462 to Cohen et al. which issued on May 14, 2002 ("Cohen");
- ix. U.S. Patent No. 6,785,705 to Rocherlakota which issued on August 21, 2004 ("Kockerlakota"); and
- x. Network Working Group, Request for Comments (RFC) 2616 HTTP/1.1 (RFC 2616).

Information Disclosure Statement(s)

With respect to the Information Disclosure Statements (PTO/SB/08A and 08B or its equivalent) filed on March 29, 2022, the material has been considered with this action, the information cited thereon has been considered to the extent suggested in the MPEP. Note that MPEP §§ 2256 and 2656 indicate that degree of consideration to be given to such information will be normally limited by the degree to which the party filing the information citation has explained the content and relevance of the information.

Any duplicate citations noticed by the examiner have been lined through.

Status of the Claims

I. Claims 1-5, 9, 11, 12, 14, 17, 21, 22, 24, 29, and 30 are rejected under 35 USC § 103(a) as being obvious over RFC 2187 in view of Wessels; Claims 25-27 are rejected under 35 USC § 103(a) as being obvious over RFC 2187 in view of Wessels and further in view and RFC 791; Claim 28 is rejected under 35 USC § 103(a) as being obvious over RFC 2187 in view of Wessels and further in view of The Squid Book; and Claim 20 is rejected 35 USC § 103(a) as being obvious over RFC 2187 in view of Wessels and further in view of RFC 791 and The Squid Book.

II. Claims 1-5, 9, 14, 17, 20-22, 25, and 27-30 are rejected under 35 USC § 102(b) as being anticipated by Crowds. Claim 26 is rejected under 35 USC 103(a) as being obvious over Crowds in view of RFC 791.

III. Claims 1, 14, 20-22, 23, and 27-29 are rejected under 35 USC § 103(a) as being obvious over Kocherlakota in view of AAPA and RFC 2616.

Claim Interpretation

The claims of the '511 will be given their broadest reasonable interpretation pursuant to MPEP 2258(I)(G).

Statutory Basis for Prior Art Rejections

35 USC § 102

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim Rejections

I. ICP-based Rejections

Claim 1-5, 9, 11, 12, 14, 17, 21, 22, 24, 29, and 30 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over RFC 2187 in view of "*ICP and the Squid Web Cache*" by Wessels and Claffy (hereinafter "Wessels").

Referring to **claim 1**, RFC 2187 teaches **a method for fetching, by a first client device** (see local cache in the figure on page 4 reproduced below), **a first content identified by a first content identifier** (see "URLs" at page 4) **and stored in a web server** (see "origin server" at page 4, for use with a first server, the method by the first server comprising:

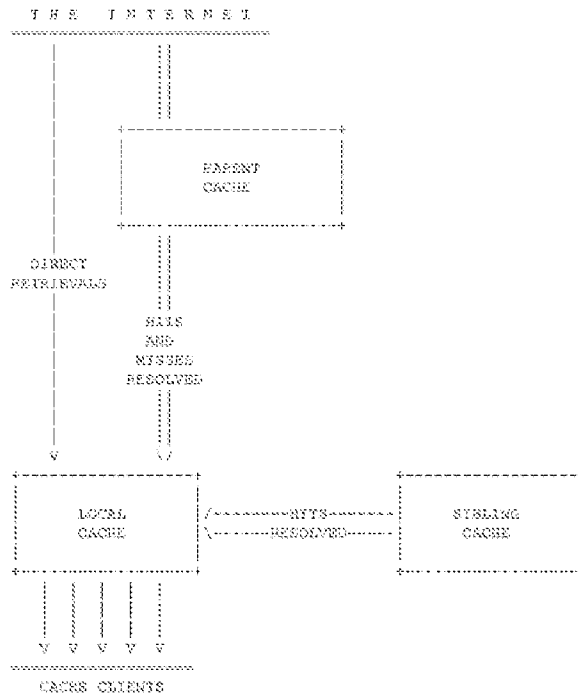


FIGURE 1: A Simple Web cache hierarchy. The local cache can retrieve hits from sibling caches, hits and misses from parent caches, and some requests directly from origin servers.

receiving, from the first client device, the first content identifier;

RFC 2187 discloses, "Local cache receives an HTTP[1] request from a cache client." See page 7. See also page 4 which discloses the requests are URLs.);

selecting, in response to the receiving of the first content identifier from the first client device, a cache in the network

RFC 2187 discloses that if none of the other peer caches have the requested content, a cache is selected to forward the request to and the selected cache is used to fetch the content. See page 13 at § 5.3.9., "Since MISS replies were received from

all peers, we must either select a parent cache or the origin server... ..we forward the request to the peer with the lowest RTT to the origin server."

sending, in response to the selecting, the first content identifier to the web server using the selected cache;

RFC 2187 teaches forwarding the request to the selected cache which is used to fetch the content. See page 13 at § 5.3.9., "Since MISS replies were received from all peers, we must either select a parent cache or the origin server... ..we forward the request to the peer with the lowest RTT to the origin server." See page 11 at § 5.2.5 "*If the replying cache is a parent of the querying cache, the ICP_OP_MISS indicates an invitation to fetch the URL through the replying cache.*"

receiving, in response to the sending, the first content from the web server

RFC 2187 teaches the content is fetched through the parent cache or the origin server. See page 11 at § 5.2.5; and

sending the received first content to the first client device

RFC 2187 discloses ICP is used to select a location from which to retrieve an object (see abstract) and further discloses ICP adds delay to HTTP transactions. See page 5. See also page 7, "*Local cache receives an HTTP[1] request from the cache client.*" As described by RFC 2187, an HTTP transaction starts

with the HTTP request and would end with the requested object being returned to the requesting client.

wherein the first content comprises a web document or object and wherein the first content identifier comprises a Uniform Resource Locator (URL).

RFC 2187 discloses "*...the general flow of document requests... when a cache does not hold the requested object...*" See page 3. See page 4 which discloses the requests are URLs.

RFC 2187 fails to explicitly disclose **the first server stores a group of IP addresses and selecting an IP address from the group of IP addresses in response to receiving the first content identifier from the first client device.** RFC 2187, however, discloses that hosts are identified by their IP address (See page 14, "*...inside hosts can be specified by their IP addresses as well.*") and further discloses the first server performing an ICP query/response process whereby at the conclusion the first server determines where to forward the request (See page 7 at § 5, "Applying the Protocol").

RFC 2187 also fails to explicitly disclose the retrieved web objects being a web-page, audio, or video.

Wessels, a paper further describing ICP and its specific application in software called 'Squid' which is software designed to run on web caches, teaches **selecting, in response to**

the receiving of the first content identifier from the first client device, an IP address from the group.

Wessels teaches, *"The cache originating the ICP_QUERY collects the reply messages and then chooses a peer cache to retrieve an object."* See page 6. See also figure 2 which shows the structure of ICP messages including the SENDER HOST ADDRESS. Note that collecting the query responses would include collecting the host address of the responding peers, one of which is selected to retrieve the object.

Wessels is analogous to the claimed invention because Wessels discloses a method sending and receiving HTTP requests and replies between web clients and servers like the claimed invention. (See section 1.1). Wessels discloses reducing the time it takes to process the requests through the use of web caches or proxy caches that may store a copy of the requested content locally (see section 1). Increasing the speed of requested content is the problem described in the abstract of the '511 Patent.

Wessels is properly combinable with RFC 2187 as they by the same authors, published around the same time, and describe the same subject matter, namely the internet caching protocol and its application with different levels of detail. Wessels provides a greater level of detail and/or specificity with respect to certain features mentioned in RFC 2187. A POSITA

having possession of both references would recognize they could use Wessels to determine specific implementation details of the general steps disclosed by RFC 2187.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention combine the teachings of RFC 2187 and Wessels such that the first server stores a group of IP addresses from which one IP address is selected in response to receiving the first content identifier in RFC 2187. A POSITA having possession of both references would recognize they describe the same subject matter, namely the internet caching protocol and its application with different levels of detail. A POSITA would readily recognize they could use Wessels to determine specific implementation details of the general steps disclosed by RFC 2187.

Referring to **claim 2**, RFC 2187 in view of Wessels teaches **the method according to claim 1** (as shown above), and Wessels further teaches **each of the IP addresses in the group is associated with a respective client device that is identified over the Internet using a respective IP address**. See page 6 at § 3.1 the cache queries its peers and collects their responses which include their respective IP address. See figure 2 on page

5. The peers are clients with respect to other web caches higher up the hierarchy.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to modify RFC 2187 such that the first server stores a group of IP addresses wherein each of the IP addresses in the group is associated with a respective client device that is identified over the Internet using a respective IP address. A POSITA having possession of both references would recognize they describe the same subject matter, namely the internet caching protocol and its application with different levels of detail. A POSITA would readily recognize they could use Wessels to determine specific implementation details of the general steps disclosed by RFC 2187.

Referring to **claim 3**, RFC 2187 in view of Wessels teaches **the method according to claim 2** (as shown above), and RFC 2187 further teaches **sending of the first content identifier to the web server comprises sending, by the first server, the first content identifier to the client device addressed by the selected IP address**. RFC 2187 discloses, *"If the peers are using ICP_FLAG_SRC_RTT feature, we forward the request to the peer*

with the lowest RTT to the origin server." See page 13 at § 5.3.9. Note the peer with the lowest RTT is a client with respect to the origin server.

Referring to **claim 4**, RFC 2187 in view of Wessels teaches **the method according to claim 3** (as shown above), and RFC 2187 further teaches **wherein the sending of the first content identifier to the web server further comprises sending, by the client device addressed by the selected IP address, the first content identifier to the web server, and receiving, from the web server, the first content.** RFC 2187 discloses *"If the peers are using ICP_FLAG_SRC_RTT feature, we forward the request to the peer with the lowest RTT to the origin server."* See page 13 at § 5.3.9. Note one of the caches is selected to which to forward the request. That selected cache is then used to fetch the requested content from the origin server.

Referring to **claim 5**, RFC 2187 in view of Wessels teaches **the method according to claim 3** (as shown above), and RFC 2187 further teaches **wherein the receiving of the first content from the web server comprises receiving the first content from the client device addressed by the selected IP address.** See also

page 11 at § 5.2.5. "fetching the URL through the replying caches. See also page 13 at § 5.3.9, "*If the peers are using ICP_FLAG_SRC_RTT feature, we forward the request to the peer with the lowest RTT to the origin server.*"

Referring to **claim 9**, RFC 2187 in view of Wessels teaches the **method according to claim 2** (as shown above), and Wessels further teaches **wherein each of the IP addresses in the group is associated with a respective client device that is identified over the Internet using a respective IP address and is currently online.**

Wessels teaches a cache queries its peers and collects their responses which include the responding peer's respective IP address. See figure 2 on page 5. See also page 6 at § 3.1. The peers are clients with respect to the web cache higher up the hierarchy. See also page 14, "*...hosts can be specified by IP addresses as well.*" See also Wessels § 4.4 at page 9, Note that only the alive peers respond.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to include the first server storing a group of IP addresses wherein each of the IP addresses in the group is associated with a respective client

device that is identified over the Internet using a respective IP address and is currently online. A POSITA having possession of both references would recognize they describe the same subject matter, namely the internet caching protocol and its application with different levels of detail. A POSITA would readily recognize they could use Wessels to determine specific implementation details of the general steps disclosed by RFC 2187.

Referring to **claim 11**, RFC 2187 in view of Wessels teaches **the method according to claim 1** (as shown above), and Wessels further teaches **by the first server:**

sending, a 'keep alive' message to each of the client devices that are identified over the Internet using by the stored IP addresses; and waiting for a response to the 'keep alive' message from each of the client devices.

Wessels teaches using the ICP_QUERY message is used determine if peers are reachable or 'alive' and the first server waits for 20 consecutive queries without a response before determining a peer to be 'dead' and marking it as such. See § 4.4 at page 9.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to incorporate sending keep alive messages to each client and wait for responses to the messages into the process performed by the first server of RFC 2187 in order to reduce the possibility of incurring a two-second timeout while implementing ICP as suggested by RFC 2817. See page 9 at § 5.1.4.

Referring to **claim 12**, RFC 2187 in view of Wessels teaches **the method according to claim 11** (as shown above), and Wessels further teaches that **responsive to not receiving, by the first server, a response to the 'keep alive' message from a client device, removing the IP address of the non-responsive third client device from group of IP addresses**

Wessels discloses that after 20 consecutive queries without a reply, the server removes the peer from the list of peers it expects replies from. See § 4.4 at page 9.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to incorporate sending keep alive messages to each client and wait for responses to the messages into the process performed by the first server of RFC 2187 in order to reduce the possibility of

incurring a two-second timeout while implementing ICP as suggested by RFC 2817. See page 9 at § 5.1.4.

Referring to **claim 14**, RFC 2187 in view of Wessels discloses **the method according to claim 1** (as shown above), and RFC 2187 further discloses **the method is for use with a criterion stored in the first server, wherein the selecting is according to, or based on, the criterion.**

RFC 2187 discloses, "*We essentially always choose the peer with the lowest RTT.*" See page 9 at § 4.3. The determined round trip time to the origin server is used as the selection criterion.

Referring to **claim 17**, RFC 2187 in view of Wessels discloses **the method according to claim 14** (as shown above), and RFC 2187 further discloses wherein the criterion is based on, or comprises, a response time when communicating.

RFC 2187 discloses, "*We essentially always choose the peer with the lowest RTT.*" See page 9 at § 4.3. The determined round trip time is a response time.

Referring to **claim 21**, RFC 2187 in view of Wessels teaches **the method according to claim 1** (as shown above), and RFC 2187 further teaches **the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates over the Internet with client devices based on, according to, or using, TCP/IP protocol or connection.**

RFC 2187 discloses the first server being a TCP server. RFC 2187 discloses marking a peer down "when a TCP connection fails, and up again when a diagnostic TCP connection succeeds." See § 5.1.3 at page 9.

Referring to **claim 22**, RFC 2187 in view of Wessels teaches **the method according to claim 1** (as shown above), and RFC 2187 further teaches **the first server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP#, SMTP, or SQL standards.**

RFC 2187 discloses, "*...ICP uses UDP as an underlying transport...*". See page 9 at § 5.1.4

Referring to **claim 24**, RFC 2178 in view of Wessels teaches **the method according to claim 1** (as shown above), and Wessels further teaches for use with a second client device (sibling cache), the method further comprising, by the first server:

receiving a message from the second client device and responsive to the receiving of the message from the second client device, adding the IP address of the second device to the group of IP addresses.

Wessels discloses, *"The cache originating the ICP_QUERY collects the reply messages and then chooses a peer cache."* See page 6 at § 3.1. The sibling or peer caches would be considered a client with respect to a higher-level cache or origin server it makes requests from.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to include the receiving a message from the second client device and responsive to the receiving of the message from the second client device, adding the IP address of the second device to the group of IP addresses. A POSITA having possession of both references would recognize they describe the same subject matter, namely the internet caching protocol and its application with different levels of detail. A POSITA would readily recognize they could

use Wessels to determine specific implementation details of the general steps disclosed by RFC 2187.

Referring to **claim 29**, RFC 2187 in view of Wessels teaches the method according to **claim 1** (as shown above), and RFC 2187 further teaches the method is for use with a software application that includes computer instructions that, when executed by a computer processor, cause the processor to perform the steps of the claim 1.

RFC 2187 discloses, "*Squid and Harvest allow for complex hierarchical configurations.*" See page 4 at § 2. Note that Squid is a software package.

Referring to **claim 30**, RFC 2817 in view of Wessels teaches the method according to **claim 1**, and RFC 2187 further teaches wherein the web server comprises a web server that is a Hypertext Transfer Protocol (HTTP) server responding to HTTP and addressed in the Internet using a web server Internet Protocol (IP) address.

RFC 2187 discloses when the local cache ('first server') receives an HTTP request from a client it can send the request

directly to the origin server. See the figure on page 4. RFC 2187 further describes the HTTP transactions which include HTTP request and HTTP replies. See page 5. HTTP transactions use IP addresses.

Claims 25, 26, and 27 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over RFC 2187 in view of Wessels as applied to claim 1 above, and further in view of RFC 791.

Referring to **claim 25**, RFC 2187 in view of Wessels teaches the method according to **claim 1** (as shown above), and RFC 2187 further teaches forwarding the request to a parent cache with the lowest RTT to the origin server. See § 5.3.9. at page 13. The request is forwarded to the parent cache with the lowest RTT to the origin server so the parent cache issue the request using the content identifier to the origin server and such a request would have the parent cache as the source.

RFC 2187 in view of Wessels fails to explicitly disclose using the **selected IP address as the source address** when sending the first content identifier to the web server.

RFC 791 is the Internet Program Protocol (IP Protocol) Specification which sets forth the manner of transmitting data between sources and destinations on interconnected systems. RFC 791 is analogous to the claims because the claims are directed toward requesting and receiving data over a network making use of IP Protocol addresses.

RFC 791 teaches that the when sending transmissions from a source to a destination connected over the internet underlying packets comprise headers that include the source and destination addresses (see figure 4 at page 11).

It would be obvious to combine the teachings of RFC 791 with RFC 2187 because RFC 2187 discloses the use of IP addresses (see page § 6 at page 14). One concerned with implementing the system described in RFC 2187 would logically look to RFC 791 as it is the protocol specifying IP transactions.

Referring to **claim 26**, RFC 2187 in view of Wessels teaches the method according to claim 1 (as shown above), and RFC 791 further teaches forwarding the request to a parent cache with the lowest RTT to the origin server. See § 5.3.9. at page 13. The request is forwarded to the parent cache with the lowest RTT to the origin server so the parent cache can issue the request

using the content identifier to the origin server and such a request would have the parent cache as the source.

RFC 2187 in view of Wessels fails to explicitly disclose **using the selected IP address as the source address** when sending the first content identifier to the web server.

RFC 791 is the Internet Program Protocol (IP Protocol) Specification which sets forth the manner of transmitting data between sources and destinations on interconnected systems. RFC 791 is analogous to the claims because the claims are directed toward requesting and receiving data over a network making use of IP Protocol addresses.

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It would be obvious to combine the teachings of RFC 791 with RFC 2187 because RFC 2187 discloses the use of IP addresses (see page § 6 at page 14). One concerned with implementing the system described in RFC 2187 would logically look to RFC 791 as it is the protocol specifying IP transactions.

Referring to **claim 27**, RFC 2187 in view of Wessels teaches the **method according to claim 1** (as shown above), RFC 2187 further teaches **the client sending HTTP requests** and the ICP peers such as **the first server having IP addresses**. See page 7, Note that access control entries, that allow requests to HTTP and ICP ports, specifies source IP addresses of customer cache machines.

RFC 2187 in view of Wessels fails to explicitly disclose the first client device is identified by **a first IP address, MAC address, or hostmane**.

RFC 791 is the Internet Program Protocol (IP Protocol) Specification which sets forth the manner of transmitting data between sources and destinations on interconnected systems. RFC 791 is analogous to the claims because the claims are directed toward requesting and receiving data over a network making use of IP Protocol addresses.

RFC 791 discloses that TCP/IP packets must include source and destination IP addresses in the header of each TCP packet. See figure 4 at page 11.

It would be obvious to combine the teachings of RFC 791 with RFC 2187 because RFC 2187 discloses the use of IP addresses (see page § 6 at page 14). One concerned with implementing the

system described in RFC 2187 would logically look to RFC 791 as it is the protocol specifying IP transactions.

Claim 28 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over RFC 2187 in view of Wessels as applied to claim 1 above, and further in view of The Squid Book.

Referring to **claim 28**, RFC 2187 in view of Wessels teaches the **method according to claim 1** (as shown above), RFC 2187 further teaches the software package "Squid" implementing ICP.

RFC 2187 in view of Wessels does not explicitly disclose **storing, operating, or using by the first server, a server operating system.**

The Squid Book, a manual detailing the Squid software package referenced in RFC 2187, discloses the Squid software package runs on Unix or Windows thereby disclosing storing, operating, or using a server operating system.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to include using a server operating system by the first server because an

operating system is a requirement to run the Squid software disclosed by RFC 2187.

Claim 20 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over RFC 2187 in view of Wessels as applied to claim 1 above, and further in view of RFC 791 and The Squid Book.

Referring to **claim 20**, RFC 2187 in view of Wessels teaches the method according to claim 1 (as shown above), however RFC 2187 in view of Wessels fails to explicitly disclose **the first client device is addressed over the Internet using a first IP address, and the method further comprising storing, in the first server, the first IP address.**

RFC 791 is the Internet Program Protocol (IP Protocol) Specification which sets forth the manner of transmitting data between sources and destinations on interconnected systems. RFC 791 is analogous to the claims because the claims are directed toward requesting and receiving data over a network making use of IP Protocol addresses. RFC 791 discloses that any device that communicates over the internet is addressed using an IP address

(see figure 4 at page 11) which would include the first client device in RFC 2187.

It would therefore be obvious to one of ordinary skill in the art at the time of the Patent Owners invention to include an IP address for the client device of RFC 2187 because an IP address is required for network communications and the client device is RFC 2187 makes requests for content over a network.

RFC 2187 in view of Wessels discloses the first server may run the Squid proxy caching software (See RFC 2187 page 6 at § 4.1, "In Squid, to configure parent and siblings in a hierarchy..." See also Wessels page 3, "*Harvest, NetCache and Squid all support ICP*" and "*Most Web caching systems in use today, including Squid, are demand driven from clients...*").

RFC 2187 in view of Wessels and RFC 791 fails to explicitly disclose storing, in the first server, the first IP address.

Squid teaches proxy servers maintaining access logs which store IP addresses of the clients that access it (see page 216). The client in Squid would correspond to the client making the HTTP request in RFC 2187.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to include the

first server maintaining an access log storing the clients IP address. One of ordinary skill in the art would have been motivated to make such modification in order to keep track of who is using the system for administrative purposes.

II. Crowds-based Rejections

Claim(s) 1-5, 9, 14, 17, 20-22, 25, and 27-30 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Crowds.

Referring to claim 1, Crowds teaches a method (see figure 2 reproduced below for reference) for fetching by a first client device (jondo 5), a first content identified a first content identifier (URL) and stored in a web server (web server 5), for use with a first server (jondo 4) that stores a group of IP addresses, the method by the first server comprising:

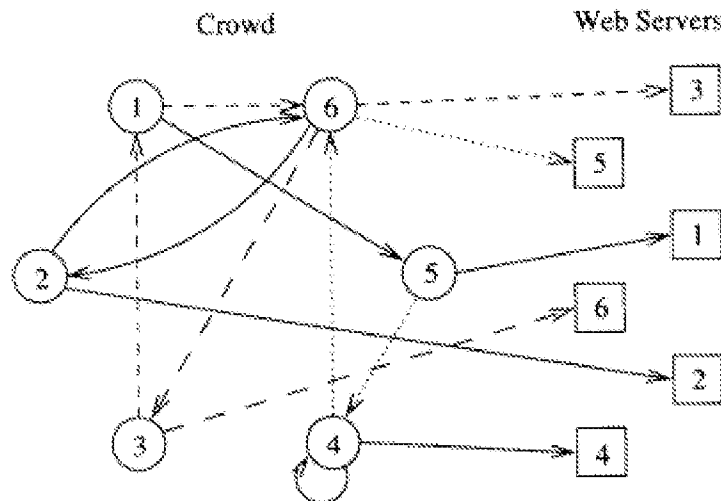


Fig. 2. Paths in a crowd (the initiator and web server of each path are labeled the same).

Crowds discloses a method of executing web transactions from a user's computer to web server. The user is represented by a process running on her computer called a jondo (the claimed first client device, for example jondo 5). The user's request to a web server (the request to fetch content stored in the web server, for example web server 5) is first passed to another device running its own jondo (the claimed first server, for example jondo 4), before being sent to the web server 5. See page 67. Crowds teaches, *"To being browsing anonymously, simply open a URL."* See page 89. Crowds further teaches the first server stores a group of IP addresses. Crowds states, *"...the blender reports to this jondo the current membership of the crowd."* See page 73. See also page 87, *"...the blender adds the new jondo (i.e., its IP address, port number, account name) to its list of members, and reports tis list back to the jondo."*

receiving, from the first client device, the first content identifier;

Crowds describes a process by which jondo 4 ("first server") receives a web request for content, including a URL ("first content identifier"), from jondo 5 ("first client device") and discloses the example path 5-4-6-server 5 (see page 73 and figure 2).

selecting, in response to the receiving of the first content identifier from the first client device, an IP address from the group;

Crowds discloses, "More precisely, the jondo picks a jondo from the crowd (possibly itself) at random, and forwards the request to it." See page 73. The jondos are identified by their IP address. See page 89 and figure 6. The act of jondo 4 selecting the next jondo in the path (jondo 6) satisfies this limitation.

sending, in response to the selecting, the first content identifier to the web server using the selected IP address;

Crowds discloses the *"random path of jondos"* is what *"carries its users' transactions to and from their intended web servers."* See page 73. In the example path discussed above,

jondo 4 ('first server') sends the web request to web server 5 only after the selection of jondo 6. Once selected, the IP address of jondo 6 is used to create the TCP/IP connection between jondos 4 and 6. The selected IP address of jondo 6, as the final jondo in the path, is also used to send the web request to server 5.

receiving, in response to the sending, the first content from the web server; and

Crowds discloses "server replies traverse the same path as the requests only in reverse." See page 74.

sending the received first content to the first client device,

Crowds discloses "server replies traverse the same path as the requests only in reverse." See page 74.

wherein the first content comprises a web-page, an audio, or a video content, and wherein the first content identifier comprises a Uniform Resource Locator (URL).

Crowds discloses the servers are web servers and the responses include web pages. Crowds states, "upon returning a web-page on that path containing a URL..." See page 79. See also

page 82, *"Figure 4 shows the mean latency in milliseconds of retrieving web pages of various sizes."*

Referring to claim 2, Crowds teaches the method according to claim 1, wherein each of the IP addresses in the group is associated with a respective client device that is identified over the Internet using a respective IP address.

Crowds teaches the limitations of claim 1 as shown above. Crowds further discloses the crowd membership list is stored by each member of the crowd and includes the IP addresses of each member of the crowd. See page 87, *"Each member maintains its own list of crowd membership."* See also figure 6 which shows a list of available jondos with their respective IP addresses.

Referring to claim 3, Crowds teaches the method according to claim 2, wherein the sending of the first content identifier to the web server comprises sending, by the first server, the first content identifier to the client device addressed by the selected IP address.

Crowds teaches jondo 4 ('the first server') sends the web request containing the first content identifier to web server 5

using the jondo path that includes jondo 6 which is addressed by the selected IP address. See page 73, example path 5-4-6-server.

Referring to claim 4, Crowds teaches the method according to claim 3, wherein the sending of the first content identifier to the web server further comprises sending, by the client device addressed by the selected IP address, the first content identifier to the web server, and receiving, from the web server, the first content.

Crowds teaches the method of claim 3 as shown above. Crowds discloses the example path 5-4-6-server 5. See page 7. To create this path, jondo 6 (*'the client device addressed by the selected IP address'*) sends the content identifier to web server 5. Crowds also discloses "...server replies traverse the same path, only in reverse." See page 74. See also page 75 (lines 32-33 of the pseudocode).

Referring to claim 5, Crowds teaches the method according to claim 3, wherein the receiving of the first content from the web server comprises receiving the first content from the client device addressed by the selected IP address.

Crowds teaches the method of claim 4 as shown above. Crowds discloses the example path 5-4-6-server. See page 7. Crowds also

discloses "...server replies traverse the same path, only in reverse." See page 74. See also page 75 (lines 32-33 of the pseudocode).

Referring to claim 9, Crowds teaches the method according to claim 2, wherein each of the IP addresses in the group is associated with a respective client device that is identified over the Internet using a respective IP address and is currently online.

Crowds teaches the method of claim 2 as shown above. Crowds also teaches that each jondo maintains a list of the current crowd membership which is updated as crowd members are added or deleted. See page 87, "Each member of the crowd maintains its own list of the crowd membership. ...updated when the jondo receives notices of new or deleted members...".

Referring to claim 14, Crowds teaches the method according to claim 1, the method for use with a criterion stored in the first server, wherein the selecting is according to, or based on, the criterion.

Crowds teaches the method of claim 1 as shown above. Crowds further discloses that "when this jondo receives the request it

flips a biased coin to determine whether or not to forward the request to another jondo; the coin indicates to forward with a probability p_f ." See page 73. The probability p_f is the claimed criteria.

Referring to claim 17, Crowds teaches the method according to claim 14, wherein the criterion is based on, or comprises, a response time when communicating.

Crowds teaches the method of claim 14 as shown above. Crowds further teaches, *"the expected path length can be influenced by modifying the probability p_f ."* Therefore, the criterion is based on latency. See page 84.

Referring to claim 20, Crowds teaches the method according to claim 1, wherein the first client device is addressed over the Internet using a first Internet Protocol (IP) address, and the method further comprising storing, in the first server, the first IP address.

Crowds teaches the method of claim 1 (as shown above), and further discloses each member of the crowd (including jondo 4 and jondo 5) stores the crowd membership list which includes the

IP address of all the crowd membership including its own IP address. See page 89.

Referring to claim 21, Crowds teaches the method according to claim 1, wherein the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates over the Internet with client devices based on, according to, or using, TCP/IP protocol or connection.

Crowds teaches the method of claim 1 (as shown above), and Crowds further discloses the jondos communicate over TCP/IP connections. See page 81.

Referring to claim 22, Crowds teaches the method according to claim 1, wherein the first server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP#, SMTP, or SQL standards.

Crowds teaches the method of claim 1 (as shown above), and Crowds further discloses the jondos communicates according to the TCP standard. See page 81.

Referring to **claim 25**, Crowds teaches **the method according to claim 1, wherein the sending of the first content identifier to the web server comprises using the selected IP address as a source address.**

Crowds discloses the method of claim 1 (as shown above). Crowds further discloses the example path 5-4-6-server 5. See page 73. When the content request is forwarded from jondo 6 (whose IP address was selected by jondo 4) to the server, the IP address of jondo 6 is used as a source address.

Referring to **claim 27**, Crowds teaches **the method according to claim 1, wherein the first client device is identified by a first Internet Protocol (IP) address, Media Access Control (MAC) address, or a hostname.**

Crowds discloses the method of claim 1 (as shown above). Crowds discloses each member of the crowd (including jondo 4 and jondo 5) storing the crowd membership list which includes the IP address of all the crowd membership including its own IP address. See page 89.

Referring to **claim 28**, Crowds teaches **the method according to claim 1, further comprising storing, operating, or using, by the first server, a server operating system.**

Crowds discloses the method of claim 1 (as shown above). Crowds further discloses implementation tests were executed on computing devices running SunOS 4.1.4 which is a UNIX based operating system for workstations and servers. See page 82.

Referring to **claim 29**, Crowds teaches **the method according to claim 1, for use with a software application that includes computer instructions that, when executed by a computer processor, cause the processor to perform the steps of the claim 1.**

Crowds discloses the method of claim 1 (as shown above). Crowds further discloses 1400 copies of the Crowds code were distributed at the time of its writing. See page 91. The Crowds code is a software application including computer instructions.

Referring to **claim 30**, Crowds teaches **the method according to claim 1, wherein the web server comprises a web server that is a Hypertext Transfer Protocol (HTTP) server responding to**

**HTTP requests and addressed in the Internet using a web server
Internet Protocol (IP) address.**

Crowds discloses the method of claim 1 (as shown above). Crowds further discloses the system sends requests to "web servers" after being passed to a random member of the crowd. See page 67. Crowds further teaches the servers are HTTP servers responding to HTTP requests. See pages 82-83. Crowds further teaches the web servers are addressed in the Internet using a web server IP address (see pages 66-76 "*IP addresses of the client and server computers...*").

Claim 26 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Crowds in view of RFC 791.

Referring to **claim 26**, Crowds teaches the method of claim 1 (as shown above), and Crowds further teaches the jondos having TCP/IP connections (see page 81) however Crowds fails to explicitly teach sending, by the first server, the selected IP address in response to the selecting.

RFC 791 teaches including the destination address in the headers of packets used for communicating between the source of a packet and its destination in order for the destination to

determine the data is intended for it (see figure 4 and page 11).

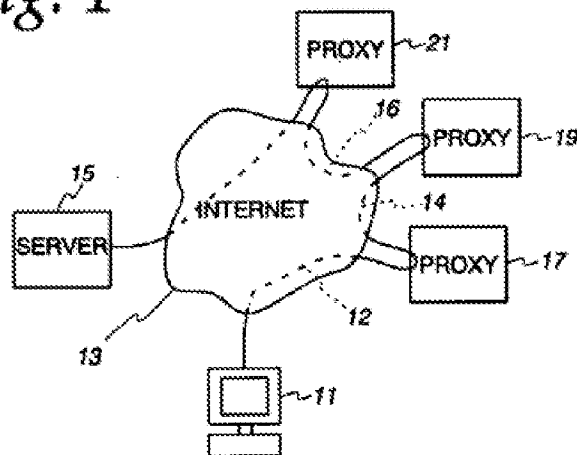
It would have been obvious to one of ordinary skill in the art at the time of the Patent Owners invention to modify the teachings of Crowds with the above teachings of RFC 791 because Crowds suggests using IP addresses for communication and RFC 791 is the industry-accepted standard for IP communication.

III. Kocherlakota-based Rejections

Claims 1, 14, 20-22, 25, and 27-29 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Kocherlakota in view of Admitted Prior Art in the '511 Patent and further in view of RFC 2616.

Referring to claim 1, Kocherlakota teaches a method for fetching, by a first client device (see item 11 in figure 1), a first content identified by a first content identifier (URLs) and stored in a web server (see server 15 in figure 1), for use with a first server (see proxy 17 in figure 1) that stores a identifiers of other proxy servers in the form of URLs (see line 66 of column 3 to line 15 of column 4), the method by the first server comprising:

Fig. 1



receiving, from the first client device, the first content identifier;

Proxy 17 receives a URL from client device 11. Kocherlakota discloses, "the URL of web server 15, or any other web server, can be sent from the client to the internet via the chained proxies 17, 19 and 21." See lines 29-31 of column 4.

selecting, in response to the receiving of the first content identifier from the first client device, an identifier for a proxy server from the group;

Kocherlakota disclosing skipping certain proxies based on the URL thereby selecting a proxy out of the group of proxies. See lines 18-26 of column 5.

sending, in response to the selecting, the first content identifier to the web server using the selected identifier;

Kocherlakota teaches sending the URL to web server via the selected proxy. See lines 18-26 of column 5.

receiving, in response to the sending, the first content from the web server;

Kocherlakota discloses, *"After the establishment of proxy sessions the client can surf the web through the established chain of proxy servers."* Note that surfing the web is interpreted as receiving requested web pages. See lines 31-33 of column 2.

sending the received first content to the first client device,

Kocherlakota discloses, *"After the establishment of proxy sessions the client can surf the web through the established chain of proxy servers."* The client surfs the web indicating the content is sent to the client. See lines 31-33 of column 2.

wherein the first content comprises a web-page, an audio, or a video content, and wherein the first content identifier comprises a Uniform Resource Locator (URL).

Kocherlakota discloses the content comprises web pages providing an examples *'*.lucent.com'* among others at lines 18-26 of column 5. Kocherlakota also discloses the content identifiers comprising URLs. Kocherlakota teaches *"...the client can access the internet by sending URLs through the chained first and second proxies."* See lines 4-7 of column 2.

Kocherlakota does not explicitly disclose **the first server stores a group of IP addresses** from which one is selected in the selecting step to be used in the sending step, however this limitation would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention. Kocherlakota discloses proxy server 17 stores information identifying the other proxy servers the user wants to make use of (see line 66 of column 3 to line 15 of column 4). Kocherlakota discloses the identifying information comprises the URL of the other proxy servers.

A POSITA would have known that the URLs disclosed by Kocherlakota directly correspond to IP addresses, and have been aware of the DNS name resolution process for performing IP address lookups for corresponding URLs. To this point the '511 Patent admits the process of performing IP address lookups was known at the time (see lines 4-18 of column 13).

RFC 2616, which is identified as prior art in the '511 Patent, documents the HTTP protocol which has been widely in use by the World Wide Web global information initiative since 1990. With respect to the claimed invention, RFC 2616 discloses that proxies are intermediaries that function as both a client and server (see page 9). Regarding DNS lookups, RFC 2616 teaches performance improvements can be realized if the results of name lookups are cached (see page 94, "*If HTTP clients cache the results of host name lookups in order to achieve a performance improvement...*").

It would have been obvious to one of ordinary skill in the art at time of the Patent Owner's invention to modify the teachings of Kocherlakota such that the proxy server is an HTTP server because HTTP is well known in the art and widely used in the World Wide Web. To this point the '511 Patent admits HTTP servers are typical. See line 65 of column 4. It further would have been obvious to modify the proxy 17 of Kocherlakota such that it stores a group of IP addresses that correspond to the group of URLs stored for the additional proxy servers. One of ordinary skill would have been motivated to make such modification in order to improve performance by reducing the number of name lookup processes by storing the result in a DNS cache as suggested by RFC 2616.

Referring to **claim 14**, the combination of Kocherlakota, Admitted Prior Art and RFC 2616 teaches the method according to **claim 1**, and Kocherlakota further teaches for use with a criterion stored in the first server, wherein the selecting is according to, or based on, the criterion.

The combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method of **claim 1** (as shown above) and Kocherlakota further discloses the selection based on a 'skip' or 'jump to' command. The command is the claimed criterion (see lines 3-10 of column 5).

Referring to **claim 17**, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method according to **claim 14**, wherein the criterion is based on, or comprises, a response time when communicating.

The combination of Kocherlakota and RFC 2616 teaches the method of **claim 1** (as shown above) and Kocherlakota further discloses the selection based on the 'skip' or 'jump to' command to a proxy for reducing the amount of time spent retrieving data (see lines 21-26 of column 5, "skip the second proxy and jump to the third proxy.) See also lines 67 of column 2 to line 3 of column 3 wherein Kocherlakota describes the wait limiting proxy.

Referring to claim 20, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method according to claim 1, wherein the first client device is addressed over the Internet using a first Internet Protocol (IP) address, and the method further comprising storing, in the first server, the first IP address.

The combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method of claim 1 as shown above. Kocherlakota further discloses, *"An anonymity proxy establishes a session with a client using the client's IP address and user information and requests information from the internet without identifying the requesting client."* See lines 22-27 of column 1.

Referring to claim 21, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method according to claim 1, and renders obvious the limitation of the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates over the Internet with client devices based on, according to, or using, TCP/IP protocol or connection.

The combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method according to claim 1, as shown above, and while Kocherlakota does not explicitly disclose wherein the first server is a Transmission Control Protocol/Internet Protocol (TCP/IP) server that communicates over the Internet with client devices based on, according to, or using, TCP/IP protocol or connection, a POSITA would have found this obvious given the teachings Kocherlakota and RFC 2616. Additionally, the '511 Patent Admits TCPIP was known in the art at the time (see lines 22-24 of column 17).

RFC 2616 defines HTTP/1.1 and is specifically directed towards communications between devices on the Internet just as in Kocherlakota. RFC 2616 discloses that HTTP communication usually takes place over TCP/IP connections. See § 1.4.

It would have been obvious to one of ordinary skill in the art at time of the Patent Owner's invention to modify the teachings of Kocherlakota such that the proxy server is a TCP/IP server because TCP/IP is notoriously well known in the art for use in the World Wide Web. Using a well-known protocol for communication would be beneficial to promote interoperability with other devices on the Internet.

Referring to **claim 22**, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches **the method according to claim 1**, and renders obvious the limitation of **the first server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP#, SMTP, or SQL standards.**

The combination of Kocherlakota and RFC 2616 teaches the method according to claim 1, as shown above. A POSITA would have known that the URLs disclosed by Kocherlakota directly correspond to IP addresses, and have been aware of the DNS name resolution process for performing IP address lookups for corresponding URLs. To this point the '511 Patent admits the process of performing IP address lookups was known at the time (see lines 4-18 of column 13).

It would have been obvious to one of ordinary skill in the art at time of the Patent Owner's invention to modify the teachings of Kocherlakota such that the proxy server communicates over the Internet based on, or according to, one out of UDP, DNS, TCP, FTP, POP#, SMTP, or SQL standards. Using a well-known protocol for communication would be beneficial to promote interoperability with other devices on the Internet.

Referring to **claim 25**, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches **the method according to claim 1 (as shown above)**, and the combination further teaches the limitation **sending of the first content identifier to the web server comprising using the selected IP address as a source address.**

Kocherlakota and RFC 2616 teaches the method of claim 1, as shown above. Kocherlakota as modified by RFC 2616 further teaches proxy server 17 sending the request to web server 15 using the IP address stored for proxy 19 as the source of the request to web server 15. See lines 29-31 of column 4. A POSITA would have known the basics of IP protocol communication including the use of the senders IP address in the packet headers.

Referring to **claim 27**, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches **the method according to claim 1**, and Kocherlakota teaches **the first client device is identified by a first Internet Protocol (IP) address, Media Access Control (MAC) address, or a hostname.**

The combination of Kocherlakota and RFC 2616 teaches the method of claim 1 as shown above. Kocherlakota further teaches, *"An anonymity proxy establishes a session with a client using*

the client's IP address and user information and requests information from the internet without identifying the requesting client." See lines 22-27 of column 1.

Referring to **claim 28**, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method according to **claim 1**, and renders obvious storing, operating, or using, by the first server, a server operating system.

The combination of Kocherlakota and RFC 2616 teaches the method of claim 1 as shown above. Kocherlakota discloses the proxies being servers that communication over the Internet. See lines 10-16 of column 1. Kocherlakota further teaches the first server sends, receives, and analyzes and applet. See lines 1-4 of column 4.

It would have been obvious to one of ordinary skill in the art at the time of the Patent Owner's invention to include an operating system on the first server. The usage of an operating system to execute processes described by Kocherlakota is a standard part of the server disclosed by Kocherlakota and would be expected to be present by a POSITA.

Referring to **claim 29**, the combination of Kocherlakota, Admitted Prior Art, and RFC 2616 teaches the method according to claim 1, and Kocherlakota teaches the method for use with a software application that includes computer instructions that, when executed by a computer processor, cause the processor to perform the steps of the claim 1.

The combination of Kocherlakota and RFC 2616 teaches the method claim 1, as shown above, and Kocherlakota further teaches, "As a part of the session, web proxy 17 returns an applet to client 11 where it is executed as is well known. The applet, which is received and executed in a step 103 (FIG. 3) presents a window as shown in FIG. 2, on the client computer. The applet window presents a number of information lines into which the client can enter identities of up to three proxy servers, the port number of each proxy server and an optional user name and password associated with each identified proxy server." See lines 21-37 of column 3.

Response to Arguments

35 USC § 305 Rejections

Regarding claim 31.

The Patent Owner argues that claim 31 includes an additional limitation and thus is inherently narrower than any of the original claims. (See Remarks, page 8).

The Examiner finds this argument moot as claim 31 has been canceled with the Patent Owner's latest filing.

I. ICP-based Rejections

General

The Patent Owner's argument that the outstanding Office action is vague and unclear as it does not map claim elements to elements in the prior art is not persuasive. The Office action maps the claim limitations to specific elements in the prior art and even includes a figure to reference in the body of the rejection.

a. Non-analogous references/b. Improper problem definition

The Patent Owner's argument that Wessels is not analogous art and that the cited prior art does not teach away from the claimed invention is not persuasive. (See Remarks, pages 9-11).

The rejection states Wessels is analogous to the claimed invention in that both involve methods for sending HTTP requests from clients to servers and receiving response from the servers at the clients. (See 3/29/22 Office action, page 11).

RFC 2187 does not avoid fetching content from the web server. In fact, the requested content must be fetched from the web server before it can be cached for future requests. RFC 2187 explicitly teaches, "The local cache can retrieve... ..some requests directly from the origin servers." (See RFC 2187, page 4). The cited prior art has the function of retrieving requested web content from web servers and the structure includes clients, first servers (proxy caches), and web servers (origin servers). This is the same function and structure of the claimed invention.

c. No rationale provided.

The Patent Owner's argument that the Office action fails to cite any citing from Wessels or any motivation to modify RFC 2187 to supplement RFC 2187 with Wessels teaches of the content identifier comprising a URL is not persuasive. (See Remarks at page 11-12).

While the Office action does mention Wessels teaches URLs, it was only to point out similarities between the two references. The Office action states RFC 2187 teaches the content identifiers comprise URLs, thus there is no need to supplements the reference to supply that teachings. (See Office action at page 10, which cites RFC 2187 at page 4).

d. No rationale provided.

The Patent Owner's arguments that there is no rationale provided for combining RFC 2187 and Wessels is not persuasive. The Patent Owner argues the rationale amounts to "circular logic" and fails to provide any objective reason to combine the teachings of the references. (See Remarks, pages 12-14).

The rationale to combine the teachings of RFC 2187 and Wessels is that both references teach toward the same ICP protocol, but with different levels of specificity regarding implementation details of the protocol. One of ordinary skill in the would readily recognize that one reference which discloses general steps could be supplemented with a reference teaching specific details when both references are toward the exact same subject matter.

Regarding claim 1.

a. Unclear mapping

The Patent Owner argues the mapping of claim elements to the prior art is unclear. (See Remarks, page 14).

The Examiner disagrees. Claim 1 recites a client, a first server, and a web server. The citations from RFC 2187 in the body of the claim make it clear the "client" is mapped to the local cache clients in figure 1 on page 4, the claimed 'first server' is the local cache and the claimed 'web server' is the

origin server disclosed at page 4. This is the same mapping understood by the Patent Owner. (See Remarks, pages 8-9).

b. Improper citing of the claim element

The Patent Owner's argument that the action improperly cites a recited claim element as selecting a cache in the network instead of selecting an IP address from the group is not persuasive. (See Remarks, pages 14-15).

The rejection states that RFC 2187 does not explicitly disclose selecting an IP address from a group of stored IP addresses. What RFC 2187 teaches is selecting a cache from a group of caches in the network. Wessels adds the teaching that the other network caches IP addresses would be stored as a result of the ICP Query process. The rejection states that Wessels teaches selecting an IP address from the group.

c. Regarding the 'first server'.

Regarding the 'first server', the Patent Owner's argument that the RFC 2187 is silent with respect to a server or any specific implementation of the "local cache" is not persuasive. (See Remarks, page 15).

RFC 2187 discloses the local cache is a web cache that receives and services requests from the client therefore performing the role of a server (see § 5 "local cache receives

an HTTP[1] request from a client.", see also § 5.1.1, "Obviously cache hits will not need ICP because the request is satisfied immediately.")

d. 'selecting' and 'sending'

The Patent Owner's argument that the cited portions of the prior art relating to the 'selecting' and 'sending' steps are describing different events is not persuasive. (See Remarks, pages 15-16).

The Examiner is not picking and choosing from different embodiments to satisfy the claim limitations. The selecting step in RFC 2187 is performed when it is determined that none of the peer caches or parent cache has the requested content. One of the caches must be selected to forward the request to. That selected cache is then used to fetch the requested content from the origin server. The cited passage from 5.3.9 discloses that when all peers miss, a cache is selected to forward the request to. The passage from 5.2.5 makes it clear that when another cache receives the forwarded request (the parent in that example), the requested content is fetched from the origin server using that cache as the source of the request.

e. 'receiving' and 'sending'

the Patent Owner's argument that the rejections regarding the 'receiving' and 'sending' limitations are not properly supported is not persuasive. (See Remarks, page 16).

The discussion about what one of ordinary skill would recognize or understand was used to describe how the corresponding cited passage would be interpreted by one of ordinary skill. For example, a passage which discusses a child cache fetching a URL through a parent cache would be interpreted as the child cache ultimately receiving the data after it is fetched by the parent cache. As another example, in a passage describing added delay when processing HTTP transactions using ICP, a POSITA would understand that the HTTP transaction would comprise a request and the reply.

Regarding claim 2.

The Patent Owner's argument that the rejection is unclear and that RFC 2187 is silent with respect to the implementation of the peer caches is not persuasive. (See Remarks, pages 16-17).

The figure on page 4 shows a hierarchy of web caches, and sibling caches and parent caches are mentioned at § 4.1 on page 6. A web cache that makes requests to and receives responses from another web cache that is higher in the hierarchy or the origin server would be a client.

As mentioned above, A POSITA having possession of both references would recognize they could use Wessels to further expand ascertain specific implementation details of the general steps disclosed by RFC 2187.

Improper combining

The Patent Owner's argument that the rejection uses an improper motivation to combine RFC 2187 and Wessels and that combining the references would change the principle operation of RFC 2187. (See Remarks, pages 17-18).

The motivation statements for the rejections of claim 1 and 2 are substantially similar because they concern the same limitation which is directed toward the group of IP addresses and that teaching was from Wessels for both claims. RFC 2187 teaches collecting query responses and Wessels teaches the response includes the senders IP address. The Patent Owner's contention that peer caches only send hits is simply incorrect. RFC 2187 states, "Since MISS replies were received from all peers..." (See RFC 2187, page 13).

Improper rationale.

The Patent Owner's arguments that there is no rationale provided for combining RFC 2187 and Wessels is not persuasive. The Patent Owner argues the rationale amounts to "circular logic" and fails to provide any objective reason to combine the teachings of the references. (See Remarks at pages 18-19).

The rationale to combine the teachings of RFC 2187 and Wessels is that both references teach toward the same ICP protocol, but with different levels of specificity regarding implementation details of the protocol. One of ordinary skill in the would readily recognize that one reference which discloses general steps could be supplemented with a reference teaching specific details when both references are toward the exact same subject matter.

As mentioned above, the motivation statements for the rejections of claim 1 and 2 are substantially similar because they concern the same limitation which is directed toward the group of IP addresses and that teaching was from Wessels for both claims.

Regarding claims 3-5.

The Patent Owner's argument with respect to claims 3-5 are not persuasive. (See Remarks, pages 20-22).

As discussed above, the selecting step in RFC 2187 is performed when it is determined that none of the peer caches or the parent cache has the requested content. One of the caches must be selected to forward the request to. That selected cache is then used to fetch the requested content from the origin server. The cited passage from 5.3.9 discloses that when all peers miss, a cache is selected to forward the request to. The passage from 5.2.5 makes it clear that when another cache receives the forwarded request (the parent in that example), the requested content is fetched from the origin server using that cache as the source of the request.

Regarding claim 9.

The Patent Owner's arguments that the rejection fails to address the "... is currently online" and the rationale to combine is improper are not persuasive. (See Remarks, pages 22-24).

The rejection addressed the "currently online" limitation citing page 9 of RFC 2187 which discloses determining if a client is up or down.

RFC 2187 and Wessels both describe the same ICP protocol. Wessels provides specific details on how the protocol is implemented. A POSITA having possession of both references would recognize they could use Wessels to further expand certain

specific implementation details of the general steps disclosed
by RFC 2187.

Regarding claim 11.

The Patent Owner's argument that the prior art fails to teach the claimed 'keep alive message' and the arguments regarding the rationale to combine are also not persuasive. (See Remarks, page 25).

RFC 2187 discloses using the responses to ICP query messages or lack thereof as a means of determining whether the peer is active satisfying the claim requirement.

The Patent Owner's argument that, "In contrast, the Wessels reference only teaches (i) sending by one crowd members to all peers, having the same functionality..." appears to be misplaced as Wessels does not reference "crowd members".

RFC 2187 and Wessels both describe the same ICP protocol. Wessels provides specific details on how the protocol is implemented. A POSITA having possession of both references would recognize they could use Wessels to determine certain specific implementation details of the protocol not explicitly stated in RFC 2187.

Regarding claim 12.

The Patent Owner's argument that the prior art fails to teach removing an IP address from the group is not persuasive. (See Remarks, page 26).

RFC 2187 discloses determining if a peer is up/down and if down marking it as such. If it later comes back up, the marking is changed. (See RFC 2187, page 9). RFC 2187 thus differentiates between peers it expects to hear from ('the claimed group') and peers it does not expect to hear from as well as adding and removing from the group.

The Patent Owner's argument regarding the motivations to combine are not persuasive. (See Remarks, page 26). The motivation statements are the same or substantially similar because the limitation being supplemented both involve the keep alive message.

Regarding claims 14 and 17.

The Patent Owner arguments regarding claims 14 and 17 are not persuasive. The Patent Owner argues that the Office action admits RFC 2187 fails to disclose 'selecting' and therefore cannot be relied on to teach that the selecting is based on a criterion. (See page 27 of the Remarks).

The Examiner disagrees the Patent Owner's argument regarding the Office actions statement as to the selecting step. The Office action states RFC 2187 teaches 'selecting' a cache from a group of caches. Wessels was used to supplement the teaching that the selecting a cache would involve selecting an IP address from a group of IP addresses.

Regarding claim 21.

The Patent Owner's argument regarding the 'client device' in claim 21 is not persuasive. (See Remarks, page 28).

First, it is noted that the "client devices" in claim 21 can be different from the "first client device" recited in claim 1. Second, RFC 2187 discloses the caches comprise IP addresses indicating communication with the IP protocol. See RFC 2187, page 7, "IP address of the customer cache machine...". Further, RFC 2187 discloses the caches may check the source IP address of ICP messages which indicates communication with the IP protocol.

Regarding claim 24.

The Patent Owner's argument that RFC 2187 fails to teach a second client device is not persuasive. (See Remarks, pages 28-29).

Each of the peers may be properly interpreted as a client device as they send requests to and receive replies from web caches higher in the hierarchy or from the web server.

Improper rationale.

The Patent Owner's arguments regarding the rationale to combine is also not persuasive. (See Remarks, pages 29-30).

RFC 2187 and Wessels both describe the same ICP protocol. Wessels provides specific details on how the protocol is implemented. A POSITA having possession of both references would recognize they could use Wessels to determine certain specific implementation details of the protocol not explicitly stated in RFC 2187.

Regarding combination with RFC 791

a. non-analogous art/b. improper rationale to combine

The Patent Owner's arguments that RFC 791 is non-analogous to claimed invention and that rationale to combine is improper are not persuasive. (See Remarks, pages 30-32).

RFC 791 is the Internet Program Protocol (IP Protocol) Specification which sets forth the manner of transmitting data between sources and destinations on interconnected systems. RFC

791 is analogous to the claims because the claims are directed toward requesting and receiving data over a network making use of IP Protocol addresses. Requesting and receiving data over a network using IP addresses is not distinct from ICP. One function of ICP is receiving requests and providing responses over a network. (See RFC 2187, page 7).

The Patent Owner's argument that RFC 791 is overly broad because field of endeavor should not be characterized as broadly as entire industries is not persuasive. (See Remarks, pages 32-33).

It would be obvious to combine the teachings of RFC 791 with RFC 2187 because RFC 2187 discloses the use of IP addresses (see page § 6 at page 14). One concerned with implementing the system described in RFC 2187 would logically look to RFC 791 as it is the protocol specifying IP transactions.

Regarding claim 25.

The Patent Owner's argument that the prior art combination does not teach the recited features in the claim is not persuasive. (See Remarks, pages 33-34).

The IP address sent in the communications from the parent cache to the origin server use the address of the parent cache as the sender and not the address of the local cache which corresponds to the claimed first server.

Regarding claim 26.

The Patent Owner's argument that the prior art combination does not send an IP address is not persuasive. (See Remarks, page 34).

The senders IP address is sent with the Request so that so the responding entity will know where to send the response.

The Patent Owner's argument that there is an improper rationale to combine is also not persuasive. (See Remarks, page 34-35).

It would be obvious to combine the teachings of RFC 791 with RFC 2187 because RFC 2187 discloses the use of IP addresses (see page § 6 at page 14). One concerned with implementing the system described in RFC 2187 would logically look to RFC 791 as it is the protocol specifying IP transactions.

Regarding claim 28.

The Patent Owner's argument that the Squid reference is non-analogous art is not persuasive. (See Remarks, pages 35-36).

The Squid book is mentioned in RFC 2187 and describes a commercially available practical implementation of the ICP protocol described in RFC 2187. The Squid book details a system wherein a client makes requests for web content wherein comprises a first client, a first server, and a content server like the claimed invention.

The Patent Owner's argument that the Squid book doesn't teach a server operating system and that it is unclear what elements in Squid is being referred to is not persuasive. (See Remarks, page 36).

The Squid book discloses a software package that runs on web caches such as the local cache ('first server') disclosed in RFC 2187. As described above the local cache is a server as it can service requests for content from a client device. The Squid book discloses part of the operating requirements is an operating system. Given those facts a POSITA would find it obvious to include an operating system into the local cache of RFC 2187 which is a server therefore the operating system would be a server operating system.

Regarding claim 20.

The Patent Owner's argument that action fails to show the combination of references teaches any storing of the client IP address is not persuasive. (See Remarks, page 40).

The rejection references Squid's disclosure of access logs that store IP addresses of clients that access it. See Office action at page 28.

II. Crowds-based rejections

General.

The Patent Owner argues the Office action on page 30 fails to explain which recited claim element is being equated to the 'blender'. (See Remarks, page 41).

The 'blender' itself is not mapped to any claim element, however it is mentioned in citation showing the jondos store a group of IP addresses which is a claim limitation.

Regarding claim 1.

a. No teaching of a 'first server'.

The Patent Owner argument that in Crowds, there is no teaching of the claimed first server is not persuasive. (See Remarks, pages 41-42).

A computer can be both a client and a server depending on what role it is playing at a particular time. For example, jondo 4 can be a server with respect to jondo 5 because jondo 4 provides (or serves) requested content to jondo 5 when the replies are traversing the same jondo path as the request. Jondo 4 runs on a different computer than jondo 5 thus satisfying the client/server architecture in the claim.

b. Changing principle of operation

The Patent Owner's argument that Office action changes the principle operation of the Crowds reference is not persuasive. (See Remarks, page 42).

The action maps elements in the reference to elements recited in the claims without any modification the teachings of Crowds. The jondos in Crowds are distinct devices as each run on separate computers. (See Crowds, page 82).

c. teaching away.

The Patent Owner's arguments that Crowds affectively teaches away from the claimed invention is not persuasive. (See Remarks, page 43).

The question of whether a reference "teaches away from a claimed invention is inapplicable to an anticipation analysis. *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998) (The prior art was held to anticipate the claims even though it taught away from the claimed invention. "The fact that a modem with a single carrier data signal is shown to be less than optimal does not vitiate the fact that it is disclosed."). See *Upsher-Smith Labs. v. PamLab, LLC*, 412 F.3d 1319, 1323, 75 USPQ2d 1213, 1215 (Fed. Cir. 2005) (claimed composition that expressly excluded an ingredient held anticipated by reference composition that optionally included that same ingredient); see also *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1349, 51 USPQ2d 1943, 1948 (Fed. Cir. 1999) (Claimed composition was anticipated by prior art reference that inherently met claim limitation of "sufficient aeration" even though reference taught away from air entrapment or purposeful aeration.). See also MPEP 2131.05.

d. Regarding "sending... to the web server..."

The Patent Owner's argument that Crowds at best describes sending to another jondo, but does not teach or suggest any sending to the web server as recited in the claims is not persuasive. (See Remarks at page 43).

In the rejection in the Office action, Jondo 5 sends the request to web server 5 using jondo 4 and jondo 6 as the "path of jondos" that carries web transactions "to and from their intended web servers." (See Crowds, page 73).

Regarding claim 2.

The Patent Owner argues that Crowds fails to teach each of the IP addresses in the group is associated with a respective client device that is identified over the Internet using a respective IP address. (See Remarks, page 44).

The Examiner disagrees. As mentioned above, each computer in the system can be both a client and a server depending on its role with respect to another computer. Crowds teaches the jondos store a list of crowd members including respective IP address.

Regarding claim 3.

The Patent Owner argues that claim requires sending the first identifier from the first server to the selected client which is a device distinct from the sever device and Crowds teaches a member sending the request to another member. (See Remarks, page 44).

The Examiner disagrees. Jondo 4 and jondo 6 run on distinct computers.

Regarding claim 5.

Regarding claim 5, the Patent Owner argues that claim requires receiving the first content from the web server comprises receiving the first content from the client device distinct from a server and Crowds teaches receiving content at a client device from another client device. (See Remarks, page 44).

The Examiner disagrees. As mentioned above, each computer in the system can be both a client and a server depending on its role with respect to another computer.

Regarding claim 9.

The Patent Owner's argument that Crowds fails to teach the IP addresses in the group are associated with a client device that is currently online is not persuasive. (See Remarks, page 45).

Crowds discloses members are removed from the membership list if they fail. (See Crowds, page 87 referencing line 25 of figure 3). Further Crowds describes a jondo failure as a broken TCP/IP connection indicating the jondo is not currently online. (See Crowds, page 81).

Regarding claim 14.

The Patent Owner argument that the probability Pf is not a criterion is not persuasive. (See Remarks, page 45-46).

A criterion is merely a test or standard used as the basis for a decision. The value Pf can be modified by a user and is used for deciding on whether or not to forward the request to another jondo.

Regarding claim 17.

The Patent Owner's argument that Crowds fails to teach the criterion is based on or comprises a response time when communicating is not persuasive. (See Remarks, page 46).

Crowds discloses smaller values of Pf have better performance. (See Crowds, page 84). Further figures 4 and 5 show performance is related to response time for retrieving the requested content.

Regarding claim 20.

The Patent Owner argues that the claim recites that the address of a client device is stored in the first server, which is a device that is distinct from a client device. In contrast, the Crowds reference is directed to storing the address of a client device in another client device." (See Remarks, page 45).

The Examiner disagrees. Jondos 4, 5, and 6 are all separate devices and each computer in the system can be both a client and a server depending on its role with respect to another computer.

Regarding Claim 21.

The Patent Owner's arguments that Crowds only discloses failures using TCP/IP and not communication between jondos and the that the claimed client and server are distinct devices are not persuasive. (See Remarks, page 47).

Crowds discloses detecting failures by the TCP/IP connection breaking **to the** jondo (emphasis added). The jondos communicate over a TCP/IP connection. Jondos 4, 5, and 6 are all separate devices and each computer in the system can be both a client and a server depending on its role with respect to another computer.

Regarding Claim 22.

The Patent Owner's arguments that Crowds only discloses failures using TCP/IP and not communication between jondos and the that the claimed client and server are distinct devices are not persuasive. (See Remarks, pages 47-48).

Crowds discloses detecting failures by the TCP/IP connection breaking **to the** jondo (emphasis added). The jondos communicate over a TCP/IP connection. Jondos 4, 5, and 6 are all separate devices and each computer in the system can be both a client and a server depending on its role with respect to another computer.

Regarding Claim 28.

The Patent Owner's arguments that the cited passage refers to jondos that are clearly described as client devices, no server is disclosed in general, and a server running a server operating system in particular are not persuasive. Further, the argument that Crowds only teaches a case study of a simulation involving a limited number of computers in a closed laboratory is not persuasive. (See Remarks, page 46-47).

Claim 28 requires that the first server to store a first server operating system. Crowds teaches the jondos running SunOS which is a UNIX based operating system for workstations and servers. Crowds further teaches that at the time of publishing

there was 1400 copies of the software distributed upon request and that an active crowd being maintained on the Internet. (See Crowds, page 91).

Regarding the combination with RFC 791.

The Patent Owner's arguments that RFC 791 is a non-analogous reference, and there is an improper rationale for the combination are not persuasive. (See Remarks, page 49-52).

Initially, it is not clear is the first argument pertains to the Crowds reference as the Patent Owner only discussed RFC 2187 and Wessels. However, assuming this argument is directed toward the combination of Crowds and RFC 791, the Examiner disagrees. Crowds discloses the jondos are identified by their IP address (See Crowds, figure 6 and pages 87 and 91) and communication using TCP/IP communication paths (See Id., page 81). RFC 791 is the standard governing the IP protocol and its use. One of ordinary skill in the art at the time of the Patent Owner's invention would have found it obvious to look to RFC 791 for particular implementation details about communications using the IP protocol not specifically disclosed by Crowds.

Regarding claim 26.

The Patent Owner's argument that the prior art combination fails to teach the sending the selected IP address in response to the selecting is not persuasive. (See Remarks, page 52).

RFC 791 teaches sending the destination address, the IP address of the selected jondo, in the headers of the IP packets. Crowds teaches communications using TCP/IP connections but does not specifically disclose the particular implantation details of those communications. One of ordinary skill in the art would logically look to the IP protocol standard for such details.

Cohen based Rejections

The Patent Owner's arguments regarding the Cohen-based rejections have been fully considered. While most of the arguments are not persuasive, the Examiner finds one of the Patent Owner's points compelling as explained below.

Regarding claim 1.

With respect to claim 1, the Patent Owner argues that the rejection uses improper mapping and further argues that Cohen fails to teach certain claim limitations. (See Remarks, pages 53-54).

a. Improper mapping - 'first server'.

The Patent Owner's argument that the claimed first server is improperly equated to the proxy redirector is not persuasive. (See Remarks, page 53).

The proxy redirector performs all of the claimed functions of the first server. Additionally, Cohen discloses the proxy redirector is a Linux machine - a computer, that comprises a network interface and provides services to connected client devices. (See Cohen, line 49 of column 7 to line 10 of column 8).

b. No teaching of a limitation.

The Patent Owner's arguments that Cohen fails to teach specific claim limitations are overall persuasive. The Patent Owner argues that Cohen fails to teach a first server "receiving from the first client device, the first content identifier;" and "selecting, in response to the receiving of the first content identifier from the first client device, an IP address from the group;" as required by claim 1. (See Remarks, pages 53-54).

Upon further review of Cohen and claim 1 as a whole, the Examiner finds the Patent Owner's argument persuasive. Cohen fails to teach, "selecting, in response to receiving **the first content identifier**, an IP address from the group," and "sending

in response to the selecting, *the first content identifier* to the web server," as required by claim 1 (emphasis added).

Cohen discloses a process for retrieving requested objects from web servers. (See Cohen, figures 3 and 4). In response to a client browser making a request for an object by specifying *a logical URL*, a sequence of events is initiated to retrieve the requested object. Initially, the *logical URL* is used to determine an IP address, via a DNS connected to the Internet and accessible through the proxy redirector, for an origin server known to have the requested content. The IP address of a selected origin server which is then returned to the client. The client uses that IP address to in a handshaking process to establish a TCP connection with the selected origin server. However, instead of establishing a TCP connection with the selected origin server, the proxy redirector intercepts the initial handshaking request, and transparently establishes a TCP connection with a selected proxy server. Once that TCP connection is established, the client then sends GET request(s) comprising *a complete URL* for the requested content. Those GET request(s) are intercepted and manipulated by the proxy redirector to convert *the complete URL* to *an absolute URL* which is then forwarded to the selected proxy cache for servicing. If the selected proxy cache does not have the requested content,

that cache will then establish a separate TCP connection to the determined origin server in order to retrieve the content.

As summarized above, Cohen teaches sending a logical URL to the proxy redirector to determine an IP address and also sending a GET request(s) comprising a complete URL which are intercepted by the proxy redirector. The proxy redirector on the other hand sends *an absolute URL* to the selected proxy cache. That is to say, Cohen teaches a different content identifier being sent from the client to the proxy redirector (either a logical URL or a complete URL) than is sent by the proxy redirector to the web server (an absolute URL). The claim requires the same content identifier in the selecting step and the subsequent sending step.

For the reasons stated above, the Patent Owner's arguments with respect to claim 1 are overall persuasive and the rejection of the claim based on Cohen is withdrawn. Further, since claims 17, 20, 25, and 28 depend on claim 1, those rejections based on Cohen are also withdrawn.

IV. Kocherlakota based rejections

Regarding combination with RFC 2616

a. Non-analogous reference

The Patent Owner's argument that RFC 2616 is non-analogous art is not persuasive. (See Remarks, pages 59-60).

RFC 2616 is Memo documenting the Hypertext Transfer Protocol standard, which is a Request/Response based standard concerned with transferring data across the Internet. RFC 2616 is analogous to the claims because the claims are directed toward requesting and receiving data over a network.

b. Improper rationale for combining with RFC 2616

The Patent Owner's argument that the rationale for combining Kocherlakota with RFC 2616 is improper for amounting to nothing more than conclusory statement is not persuasive. (See Remarks, pages 60-61).

Adding a DNS cache to store recently used or frequently accessed IP addresses would increase performance by reducing the number of IP lookups. Storing IP address lookup results would not change the principle operation because the DNS server would still need to perform and the IP address lookup initially, but would not have to be done each time the corresponding web page is accessed. Further, storing IP addresses would not disrupt the anonymity features of the proxy server preserving its principle operation.

Improper reliance on AAPA

The Patent Owner's argument that reliance on AAPA is improper because it relies upon facts gleaned only through

hindsight and there is no rationale for its combination is not persuasive. (See Remarks, pages 61-63).

Per MPEP 2152.03, admissions of prior art by can be used for both anticipation and obviousness determinations. The admitted prior art was referenced to illustrate the process of translating a URL to an IP address is a necessary step that would be performed when surfing the web as disclosed by Kocherlakota not to modify or combine teachings with Kocherlakota to arrive at the claimed invention. (See Kocherlakota, lines 31-33 of column 2). Further the fact of translating a URL to an IP address through a DNS process is not only in the Patent Owner's disclosure. Such a process is notoriously well known in the art and described in RFC 2616 at pages 94-95.

Regarding claim 1.

a. No teaching of a limitation

The Patent Owner's argument that Kocherlakota fails to teach the 'selecting' is in response to and after the receiving the URL is not persuasive.

The Patent Owner refers to the configuration of the proxy chain as the claimed selecting, however the selecting in Kocherlakota is occurs after the proxy chain has been established. Kocherlakota teaches, "when a URL matching

*.lucent.com or *.fr is transmitted to the first proxy, the services of that proxy are to be skipped as defined by the "x" in box 249." (See Kocherlakota, lines 18-26 of column 5). The next proxy to service the request cannot be determined until after the URL is received at the first client. For example, if the French language URL is received (as indicated by *.fr), then the foreign language translation proxy although, next in the chain, is skipped, thereby selecting the proxy after the foreign language translation proxy to service the request.

Regarding claim 14.

The Patent Owner's argument that the 'skip' or 'jump' commands are not a 'criterion' as required by claim 14 is not persuasive.

A criterion can be anything by which a determination is made. The next proxy to service the users request is determined in part by the 'skip' or 'jump' command.

Regarding claim 17.

The Patent Owner's argument that the 'skip' and 'jump' is not based on a response time is persuasive. (See Remarks, pages 64-65).

While Kocherlakota does disclose a wait limiting proxy, the 'skip' and 'jump' commands are not themselves based on a

response time. The commands may result in an improved response time, but are not based on a response time.

The Rejection of claim 17 is withdrawn.

Regarding claim 20.

The Patent Owner's argument that cited passage in the rejection of claim 20 is in the background section and not relevant to figure 1 is not persuasive. (See Remarks, page 65).

Kocherlakota's system incorporates an anonymity server known in the art into the system illustrated in figure 1. The anonymity proxy server described in the background section is the same anonymity proxy server 17 in figure 1 and described at lines 63-67 of column 2, and is the same anonymity proxy server specified in the applet in figure 2 (see item 201 in figure 2 which has the same URL described in the background section).

Regarding claim 25.

The Patent Owner's argument Kocherlakota fails to teach using the selected IP address as the source address is not persuasive. (See Remarks, page 65).

Sending the content identifier to the web server may include sending the content identifier to an intermediary which

then sends the content identifier to the web server, which is what occurs in the system described by Kocherlakota.

Regarding Claim 28.

The Patent Owner's arguments regarding claim 28 are not persuasive. The Patent Owner appears to be arguing that a POSITA would have to make speculative assumptions about the meaning of claim language. The rejections does not rely on any speculation or assumptions, rather the rejections points out that the proxy server is a 'server' that executes processes for sending/receiving data and analyzing applet data and states it would be obvious to a POSITA to include an operating system in the proxy server of Kocherlakota to manage those processes.

Regarding Claim 30

The Patent Owner's argument with respect to claim 30 is persuasive. The rejection is withdrawn.

Amendments in Reexamination Proceedings

Patent owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c). See MPEP 2250(IV) for examples to

assist in the preparation of proper proposed amendments in reexamination proceedings.

Conclusion

THIS ACTION IS MADE FINAL.

A shortened statutory period for response to this action is set to expire 2 from the mailing date of this action.

Extensions of time under 37 CFR 1.136(a) do not apply in reexamination proceedings. The provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Further, in 35 U.S.C. 305 and in 37 CFR 1.550(a), it is required that reexamination proceedings "will be conducted with special dispatch within the Office."

Extensions of time in reexamination proceedings are provided for in 37 CFR 1.550(c). A request for extension of time must specify the requested period of extension and it must be accompanied by the petition fee set forth in 37 CFR 1.17(g). Any request for an extension in a third party requested ex parte reexamination must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request will not effect any extension of time. A request for an extension of time in a third party requested ex parte reexamination will be granted only for sufficient cause, and for a reasonable time specified. Any request for extension in a

patent owner requested ex parte reexamination (including reexamination ordered under 35 U.S.C. 257) for up to two months from the time period set in the Office action must be filed no later than two months from the expiration of the time period set in the Office action. A request for an extension in a patent owner requested ex parte reexamination for more than two months from the time period set in the Office action must be filed on or before the day on which action by the patent owner is due, and the mere filing of a request for an extension for more than two months will not effect the extension. The time for taking action in a patent owner requested ex parte reexamination will not be extended for more than two months from the time period set in the Office action in the absence of sufficient cause or for more than a reasonable time.

The filing of a timely first response to this final rejection will be construed as including a request to extend the shortened statutory period for an additional two months. In no event, however, will the statutory period for response expire later than SIX MONTHS from the mailing date of the final action. See MPEP § 2265.

ALL correspondence relating to this ex parte reexamination proceeding should be directed as follows:

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Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner,

or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

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