

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SIPNET EU S.R.O.
Petitioner

v.

INNOVATIVE COMMUNICATIONS TECHNOLOGIES, INC.
Patent Owner

Patent No. 6,108,704
Filing Date: September 25, 1995
Issue Date: August 22, 2000
Title: POINT-TO-POINT INTERNET PROTOCOL

Inter Partes Review No. Unassigned

**PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. §§ 311-319 AND 37 C.F.R. § 42.100 *ET SEQ.***

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LIST OF EXHIBITS

Exhibit 1001: U.S. Patent No. 6,108,704 (“the ‘704 patent”)

Exhibit 1002: Form PTO-SB/42 (“IDS”)

Exhibit 1003: NetBIOS “Technical Standard – Protocols for X/Open PC Interworking: SMB, Version 2” [includes Appendix F “RFC1001, Protocol Standard for a NetBIOS Service on a TCP/UDP Transport: Concepts and Methods” & Appendix G “RFC1002, Protocol Standard for a NETBIOS Service on a TCP/UDP Transport: Detailed Specifications.”] (“NetBIOS”)

Exhibit 1004: Windows NT 3.5 "TCP/IP User Guide, September 21, 1994 (“WINS”)

Exhibit 1005: http://en.wikipedia.org/wiki/Windows_NT_3.5 [Wikipedia entry establishing Sept. 21, 1994 as release date of Windows NT 3.5] (“WINS Release Date”)

Exhibit 1006: Susan Thomson, et al., DNS Dynamic Updates, IETF DNSIND Working Group (Jul. 14, 1994) (DNS 1)

Exhibit 1007: Susan Thomson, Yakov Rekhter, et al., DNS Dynamic Updates, Foils (July 1994) (DNS 2)

Exhibit 1008: Claim Construction Order in ICT v. Vivox and Stalker (“Claim Construction Order”)

Exhibit 1009: Joint Claim Construction Chart in Net2Phone Inc. v. eBay Inc., Skype Technologies, et al. (“Claim Construction Chart”)

Exhibit 1010: Digital Equipment Corporation Patent 5,483,652 , filed Jan 24, 1994 (“DEC ‘652”)

Exhibit 1011: Ryan, “LAN Manager 2.0,” 1990 (“Messenger - Ryan”)

Exhibit 1012: Robert Cowart, et al. “Windows NT Unleashed”, March 1994 (“Messenger - NT Unleashed”) [Exhibits 1011 & 1012 together are “Messenger”].

Exhibit 1013: P. Mockapetris, “RFC1034. DOMAIN NAMES - CONCEPTS AND FACILITIES” (“DNSOrig”).

Exhibit 1014: “VocalTec ware lets users make voice calls over ‘Net,” Network World, Feb. 13, 1995 (“VocalTec”).

Exhibit 1015: Taligent Patent 5,566,278 (“Taligent ‘278”).

Introduction

Petition Eligibility. Through counsel, real party in interest Sipnet EU S.R.O. (“Petitioner”) hereby petitions for initiation of *inter partes* review of U.S. Patent No. 6,108,704 (“the ‘704 Patent”), with an assignment from the previous owners to Innovative Communications Technologies, Inc. (all owners collectively referred to as “Patent Owner”), recorded in the U.S. Patent Office Database. The ‘704 Patent issued on August 22, 2000, more than nine months prior to the filing of this petition. The ‘704 Patent is currently asserted in a co-pending litigation, against third parties not affiliated with petitioner. *See* Exhibit 1006. Petitioner has not been served with a complaint alleging infringement of the ‘704 Patent. Thus, the ‘704 Patent is eligible for *inter partes* review.

Summary. The ‘704 Patent claims are directed to computers registering an internet address with a name server over a network (e.g., Internet) so they can initiate point-to-point communication (e.g., text messaging). In previous prosecution, Patent Owner acknowledged that such registration and point-to-point communication is in the prior art, but claimed that determining that the computers are online is new, by providing dynamic addressing that tracks new addresses for the same computer each time it connects to the network. In particular, the NetBIOS prior art submitted in the ex-parte reexamination was argued to not have dynamic addressing.

The WINS prior art (not previously considered) was designed EXPLICITLY to provide a NetBIOS "name server" function in a DHCP (dynamic addressing) environment, and thus teaches what is claimed, alone or in combination with NetBIOS.

Patent Owner has previously argued that prior art only shows addresses being registered, not “dynamically” determining that a process (program) is “online.” However, the only way taught in the ‘704 Patent to determine if a process is online is if it has provided an address to the name server. Patent Owner has also argued that prior art shows registering a computer, not a process (program) on that computer. However, NetBIOS and WINS contemplated registering processes, and the submitted Messenger prior art is an example of such a process.

In addition, other combinations of prior art teach the invention, with its dynamic nature, as described below.

Formalities

A. Real Party in Interest

The real party in interest, Sipnet EU S.R.O. is a limited liability Czech company with its headquarters and principal business address at T. G. Masaryka, 859/18, 360 01 Karlovy Vary, Česká republika.

B. Related Matters

The '704 Patent has been involved in ex-parte reexamination No. 90/010,416 and the following lawsuits:

Net2Phone, Inc. v. eBay Inc., Skype Inc., et al., Civil Action No. 06-2469 (D. New Jersey, filed 6-1-2006) [the "Skype litigation"]

Innovative Communications Technologies, Inc. v. Stalker Software, Inc., etc. U.S. District Court, Docket No. 2:12-cv-00009-RGD-TEM; v. ooVoo, LLC, Docket No. 2:12-cv-00008-RGD-DEM; and v. Vivox, Inc., Docket No. 2:12-cv-00007-RGD-LRL (all E.D. Virginia, all filed 1-4-2012) [collectively the "Stalker litigation"]

C. Fee

This petition for *inter partes* review is accompanied by a payment of \$24,200 and requests review of claims 1-7 and 32-42 of the '704 patent. *See* 37 C.F.R. § 42.15. Thus, this petition meets the fee requirements under 35 U.S.C. § 312(a)(1).

D. Designation of Lead Counsel and Request for Authorization

Lead Counsel for Petitioner is Paul C. Haughey, U.S. Patent and Trademark Office Registration # 31,836, of Kilpatrick Townsend & Stockton LLP. Back-up

counsel for Petitioner is Michael T. Morlock Registration # 62,245 of Kilpatrick Townsend & Stockton LLP.

E. Service Information

As identified in the attached Certificate of Service, a copy of the present petition, in its entirety, is being served to the address of the attorney or agent of record. Sipnet EU S.R.O. may be served at its counsel, Kilpatrick Townsend & Stockton LLP, Two Embarcadero Center, Eighth Floor, San Francisco, CA 94111-3834.

F. Power of Attorney

A power of attorney is being filed with the designation of counsel in accordance with 37 C.F.R. § 42.10(b).

G. Standing

The Petitioner certifies that the '704 patent is available for *inter partes* review and that the Petitioner is not barred or estopped from requesting an *inter partes* review challenging the patent claims on the grounds identified in this petition.

Statement of Relief Requested

Pursuant to 35 U.S.C. § 311, this petition requests cancellation of claims 1-7 and 32-42 as being anticipated under 35 U.S.C. § 102(b) by each of the following references:

- Messenger
- NetBIOS
- WINS
- DNS (DNS 1, 2, Orig.)

In addition, this petition requests cancellation of claims 1, 2 and 4-6 as being anticipated under 35 U.S.C. § 102(b) by DEC ‘652.

In the alternative, this petition requests cancellation of claims 1-7 and 32-42 as being obvious under 35 U.S.C. § 103 over the combination of Messenger and NetBIOS or WINS, NetBIOS and WINS, DNS Orig., DNS1 and DNS 2, or DNS (Orig, 1, 2) and any one of VocalTec, Taligent ‘278, ‘704 Patent admitted prior art and DEC ‘652.

Claim Construction

In *inter partes* review, claim terms are interpreted under a “broadest reasonable construction” standard. *See* 37 C.F.R. § 42.100(b). In compliance with 37 C.F.R. § 1.42.104(b)(4) and for the purposes of this proceeding, Petitioner states that in general the claim terms are presumed to take on their ordinary and customary meaning.

“Connected to the computer network”/“online.” This was not construed by the court in any of the litigations. Ex. 1007 is the Joint Claim Construction Chart of

the parties in the Skype litigation, showing the side-by-side proposed claim constructions of the parties. The plaintiff's proposed construction of "connected/online" is simply "online."

Claim terms are generally given their ordinary and customary meaning, as modified by extrinsic evidence (the patent and file history) and extrinsic evidence. Dictionary definitions of "online" merely say "connected to a network" (see, e.g., <http://www.merriam-webster.com/dictionary/online>), which is consistent with Patent Owner's proposed interpretation, which treats "connected" and "online" as equivalent. As described in the '704 patent, this is determined by examining whether a computer has registered with the name server (see Col. 5, lines 24-33: *"Upon the first user initiating the point-to-point Internet protocol when the first user is logged on to Internet 24, the first processing unit 12 automatically transmits its associated E-mail address and its dynamically allocated IP address to the connection server 26. The connection server 26 then stores these addresses in the database 34 and timestamps the stored addresses using timer 32. The first user operating the first processing unit 12 is thus established in the database 34 as an active on-line party available for communication using the disclosed point-to-point Internet protocol."*).

“Identifier of a process.” This was not construed by the court in any of the litigations. Patent Owner, in its claim construction brief in the Skype litigation, said it was an email address or other distinguishing name.

The following terms were construed as set forth in the Claim Construction Order of Ex. 1006 from the Stalker litigation:

“Process” is “a running instance of a computer program or application.”

“Point to point” is “communications between two processes over a computer network that are not intermediated by a connection server.”

“Dynamically assigned network protocol address” is “a network protocol address assigned to a host for a limited period of time (or until the host explicitly relinquishes the address).”

Means plus function elements.

The only “means plus function” element in the contested claims is the following element of claim 2:

means, responsive to a query from the first process, for determining the on-line status of the second process and for transmitting a network protocol address of the second process to the first process in response to a positive determination of the on-line status of the second process.

The ‘704 Patent specification describes connection server 26 storing addresses in database 34 as the elements which establish the on-line status (Col. 5,

lines 25-37). The response to a query about online status by server 26 is described in Col. 5, lines 55-67.

The interpretation and/or construction of the claims in the '704 patent presented either implicitly or explicitly herein should not be viewed as constituting, in whole or in part, Petitioner's own interpretation and/or construction of such claims, but instead should be viewed as constituting an interpretation and/or construction of such claims as may be raised by Patent Owner or the Office through a broadest reasonable claim construction. Petitioner does not agree with Patent Owner's own interpretation of the claims, and expressly reserves the right to present other interpretations of any of the '704 patent claims at a later time, which interpretation may differ, in whole or in part, from that presented herein.

Full Statement of the Reasons for the Relief Requested

Summary

The below chart summaries claim 1 of the '704 Patent. The other independent claims are similar, and the dependent claims do not add any novel features. As noted earlier, Patent Owner acknowledges that the prior art shows registration and point-to-point communication, but asserts that determining online status (dynamic addressing) is new.

“Permanent IP addresses of users and devices accessing the Internet readily support point-to-point communications of voice and video signals over the

Internet. For example, realtime video teleconferencing has been implemented using dedicated IP addresses and mechanisms known as reflectors. Due to the dynamic nature of temporary IP addresses of some devices accessing the Internet, point-to-point communications in realtime of voice and video have been generally difficult to attain.” (‘704 Patent, col. 1, lines 48-56).

Patent 6,108,704	Plain English Summary
1. A computer program product for use with a computer system, the computer system executing a first process and operatively connectable to a second process and a server over a computer network, the computer program product comprising:	Software for point-to-point communication over the Internet or other network.
a computer usable medium having program code embodied in the medium, the program code comprising:	Computer code.
program code for transmitting to the server a network protocol address received by the first process following connection to the computer network;	A 1 st computer connects to the network (e.g., Internet), is assigned a network address, and provides that address to an address server.
program code for transmitting, to the server, a query as to <u>whether the second process is connected to the computer network</u> ;	The 1 st computer asks the address server whether a 2 nd computer is online.
program code for receiving a network protocol address of the second process from the server, <u>when the second process is connected to the computer network</u> ; and	The 2 nd computer also provides its address to the address server when it connects to the network (Internet).
program code, responsive to the network protocol address of the second process, for establishing a point-to-point communication link between the first process and the second process over the computer network.	The 1 st and 2 nd computers establish point-to-point communication using the address of the 2 nd computer.

It is important to note that the only way described in the '704 Patent to "dynamically" determine that a process (computer) is online is by determining if it has provided an address to the name server. In previous proceedings, patent owner has tried to obfuscate and shift the focus by arguing the prior art doesn't show anything more, but the '704 Patent also doesn't show anything more. The prior art can't be held to a higher standard of enablement than the patent itself.

Overview of invalidity analysis

NetBIOS. NetBIOS (Network Basic Input/Output System) was originally developed for IBM's PC-Network in the early 1980s. NetBIOS is a software interface that allows applications on different computers to communicate within a computer network, such as a local area network or the Internet. In general, NetBIOS enables point-to-point communications between two or more "point-to-point" nodes through a dedicated directory service provided by a "NetBIOS Name Server."

The claims of the '704 Patent are directed to learning the network address of another party for a point-to-point communication (e.g., video call). A network name server keeps this data, and provides the numerical address in response to a query for a party. In the ex-parte reexaminations, it was shown that the prior art NetBIOS did this, but the Patent Owner argued that the invention was doing this

for dynamic addresses (e.g., where a different address is assigned each time a node goes “online”).

The Patent Examiner agreed that NetBIOS provides the same address determining mechanism as described in the patent, but an expert declaration argued that “bringing dynamic addressing into a NetBIOS type system would create a new set of obstacles that would need to be solved that are not obvious in view of the combination of references.” What the expert failed to mention was that the obstacles had already been overcome, and they had nothing to do with registering an address.

WINS. The WINS (Windows Internet Name Service) prior art (which was not considered in the ex-parte reexaminations) is the Microsoft implementation of a NetBIOS “Name Server”. The WINS server was designed EXPLICITLY to provide a NetBIOS “name server” function in a DHCP (dynamic addressing) environment. Thus, it is clearly obvious to combine the dynamic addressing of WINS with NetBIOS to produce the invention, and this was in fact done.

Messenger. OS/2 LAN Manager 2.0 released in 1990, and Microsoft Windows NT (including Windows NT 3.5 released in 1994) came with the Messenger Service (which was not considered in the ex-parte reexaminations). Messenger was an application that allowed point-to-point communication using NetBIOS and WINS. The Messenger Service process detects when the computer

connects to the network ("gets online") and sends the NetBIOS name registration request (sent to the WINS name server in a WINS environment). When a message is to be exchanged, a query is sent to the WINS name server to find out if the destination is online and to learn its network address. If the destination is online, a message is sent to the retrieved network address. It is received with the Messenger Service process on the receiving computer and displayed there in a pop-up window. the claims of the '704 patent do not require two-way communication, but even so, it would be obvious to enable a response, as received data packets include the sender's network protocol address.

Dynamic DNS. Dynamic DNS (Domain Name Service) is essentially the same as WINS Name Server for NetBIOS, but for the standard Internet Domain Name System. Dynamic DNS allows a client system to connect to the DNS server and to update its DNS records, such as linking the system identifier (domain name) with the assigned IP address. The Dynamic DNS drafts were submitted to the Patent Office during the ex-parte reexamination, but were buried in the 100s of submitted references and were never pointed out to the Examiner nor commented on by the Examiner. It is clear the Examiner did not read it. Further, 37 CFR 1.2 requires that all Office business be transacted in writing. Thus, the Office cannot presume that a prior art reference was previously relied upon or discussed in a prior Office proceeding if there is no basis in the written record to so conclude

other than the examiner's initials or a check mark on a PTO 1449 form, or equivalent, submitted with an information disclosure statement.

"Online" simply means registered. The showing of dynamic addressing by WINS or DNS is sufficient to show determining when a process is online. While claim 1 refers to "when the second process is connected to the network," some of the claims (e.g., claim 2) use the term "online." The only description in the '704 Patent of how it is determined that a process is online is that it has registered, since the process must go online in order to get an assigned address and register it (i.e. there is a record in the name server database and this record has not expired). Thus, any argument that "online" means more than this would make the claims invalid as not enabled. Thus, prior art (e.g., WINS, dynamic DNS), which shows a registration that hasn't been deleted, in fact shows determining the process is online as described in the '704 Patent.

Per the '704 Patent, the process is presumed to stay online until it is de-registered. The patent does describe de-registering when a process logs off, but this simply shows when a process is offline, not online. The '704 Patent teaches that client processes may send an "off-line message" to the connection or name server upon logout, which results in the client's directory entry being deleted from the server's database or being flagged as off-line ('704 patent, col. 6:6-16). The patent also describes a time-stamp, but this simply says when it registered and was

online, not whether it continues to be online. Dependent claims 3 and 7 add the time stamp and off-line status limitations, thus these clearly aren't required for the connection or online status of the independent claims. Also, this is consistent with Patent Owner's proposed claim construction, as well as comments in the '704 Patent and file history, e.g.:

"...when the first user is logged on to Internet ... transmits its ... dynamically allocated IP address.... The connection server 26 then stores these addresses in the database 34 and timestamps the stored addresses.... The first user ... is thus established in the database 34 as an active on-line party available for communication using the disclosed point-to-point Internet protocol." (Col. 5, lines 24-33 – full quote under claim construction above)

"As discussed previously, the reporting or "logging-in" of a client process with an address directory to provide the server with the current network protocol address at which the process can be located is not shown in the prior art." [March 4, 1999 amendment, p. 16, lines 7-10].

Patent Owner has argued that the prior art doesn't show more than the '704 Patent about how to determine a process is online. Throughout the ex-parte reexamination and the various litigations, Patent Owner has adopted a strategy of trying to divert attention and make things seem more complex than they are. The declaration of expert Ketan Mayer-Patel, for example, says the NetBIOS prior art

“active” status doesn’t mean it is online, and that the NetBIOS LISTEN doesn’t mean a process is online. These extra steps are irrelevant, since the ‘704 patent doesn’t teach anything beyond registration as indicating online status. What is sufficient for enablement of the ‘704 Patent is sufficient for the prior art.

Other Patent Owner arguments. The Patent Owner has made a series of other arguments in the prior reexamination and the litigations. None of the litigations has proceeded to judgment, and thus no judge or jury has agreed with any of these arguments. The common thread is an argument that the prior art doesn’t show more than the ‘704 Patent itself claims or shows. In particular:

1. *NetBIOS and Dynamic DNS are protocols/interfaces, not applications.*

True but irrelevant. Both are clearly directed to enabling dynamic addressing and point to point communications, and describe the use by applications, thus enabling applications. The only description in the ‘704 Patent claims is how the application uses such a protocol/interface, not other aspects of an application. Also, Messenger clearly is such an application.

2. *NetBIOS and Dynamic DNS register a computer, not an application running on the computer.* This is just what the ‘704 Patent does. The claims don’t describe anything more than registering the computer. There is no recitation of any lower level address information. The claims refer to registering a “network

protocol address.” As noted above under claim construction, the one court to construe terms said this was the address of the host, not an application on the host.

The ‘704 Patent does variously describe a session number and sockets, which could correspond to an application, as opposed to a process. However, this is information exchanged between applications, not registered with the network address. As noted in the ‘704 Patent, this was a standard technique in the prior art:

After the initiation of either the primary or the secondary point-to-point Internet protocols described above in conjunction with FIGS. 1-2, the point-to-point communication link over the Internet 24 may be established as shown in FIGS. 3-4 in a manner known in the art. (Col. 7, lines 60-64).

The Windows Messenger service registers both the computer name (such as "Joe's Desktop"), and the user name (such as "Joe T-Rex Smith"), and can register any other unique name using NetBIOS name server such as WINS.

While the DNS "A-records" are originally designed to name hosts, there is no requirement to do so, and there are special domains which are designed for a particular application. For example, there can be a DNS A-record "joe.company.com" which is a generic A-record for Joe's computer. At the same time, the DNS name "joe-trex-smith.voipcompany.com" name can be registered by a VoIP application (manufactured by some VoIPCompany, Inc.) on the "voipcompany.dom."

With respect to Messenger, it clearly is a registered application, not a computer.

3. *NetBIOS was limited to a LAN, and only later expanded to a WAN with limited success.* There is no limitation on the size of the network in the '704 Patent claims.

4. *All addresses may not be available in NetBIOS or Dynamic DNS.* Patent Owner has variously argued that NetBIOS allows different “scopes” where a computer on a different scope may not be discoverable. There is nothing in the '704 Patent claims specifying any requirement that all computers be reachable, or any speed requirement, or any mechanism for accomplishing that.

In any event, in the '704 Patent, if there are several groups of applications with separate "connection servers", there is no teaching of how the applications in different groups can locate each other. In contrast, both NetBIOS and Dynamic DNS provide means for the processes employing the same or different Name Servers to locate each other.

5. *The Patent Owner argued that DNS database changes may not be propagated fast enough.* However, there is no requirement under patent law for prior art to work all the time, or in any contemplated situation. Also, DNS propagation takes place only when so called “secondary” or “caching” DNS servers are involved. When all registration information is stored with a single name

server (as described in the '704 Patent and its preferred embodiments), no DNS change propagation takes place, and all changes are effective immediately.

- A. Claims 1-7 and 32-42 should be cancelled under 35 U.S.C. § 102 as anticipated by Messenger (Exhibits 1011 & 1012) or obvious from Messenger**

Claim 1

A computer program product for use with a computer system, the computer system executing a first process and operatively connectable to a second process and a server over a computer network, the computer program product comprising:

Messenger Service discloses a computer program product for use with a computer system. The Messenger Service is used to send a real-time message to other users, computers, or messaging names on the network. If the message is sent to a username, that user must be logged on and running the Messenger Service to receive the message ("Messenger -NT Unleashed", p. 678")

a computer usable medium having program code embodied in the medium, the program code comprising:

When started, the Messenger Service code (as any other executable computer program code) is loaded into random access memory, which is a computer usable medium, and executed by a computer processor.

program code for transmitting to the server a network protocol address received by the first process following connection to the computer network;

The Messenger Service application includes a program code which detects when the computer connects to the network ("gets online") and sends the NetBIOS name registration request (in the WINS environment, the name registration request is sent to the WINS name server).

These name registration requests contain an identifier, and the service type 0x03 - "Messenger service", registering that process (as opposed to the entire computer) with the NetBIOS Name Server (WINS), which plays the role of the '704 "connection server".

program code for transmitting, to the server, a query as to whether the second process is connected to the computer network;

The Messenger Service application includes program code which sends a request to the NetBIOS Name Server (WINS), for the specified username and the required service type (0x03 - messenger service).

program code for receiving a network protocol address of the second process from the server, when the second process is connected to the computer network;

If the NetBIOS server returns a positive response, that response contains the address of the "service process."

program code, responsive to the network protocol address of the second process, for establishing a point-to-point communication link between the first process and the second process over the computer network.

The Messenger Service application contains the "net send" program code that uses NetBIOS to perform point-to-point communication with that process by sending the specified message text data to that address.

Claims 2-7 and 32-42 The corresponding and additional elements of these claims, are shown similarly to claim 1 above. Due to the page limit, these are not all set forth in the claim charts below to avoid repetition and save space.

B. Claims 1-7 and 32-42 should be cancelled under 35 U.S.C. § 103 as obvious over NetBIOS (Exhibit 1003) or WINS (Exhibit 1004) in view of Messenger (Exhibits 1011 & 1012)

Messenger shows the process (application) that connects to the Internet, and either NetBIOS or WINS shows the name server. The claim charts indicate these elements in all the claims.

Claim 1

Refer to the claim charts below for the claim language and corresponding teachings of the prior art. As summarized in the chart above, claim 1 sets forth:

Each computer connects to the network (e.g., Internet), and is assigned a network address. The computer provides that address to an address server.

The 1st computer asks the address server whether a 2nd computer is online.

The 1st and 2nd computers establish point-to-point communication using the address of the 2nd computer.

While Patent Owner has argued that the prior art fails to teach providing addresses in a dynamic environment, the word “dynamic” does not appear in claim 1. Apparently, Patent Owner interprets being “online” to mean dynamic. Claim 1 also doesn’t use the word “online,” but rather simply “connected,” without any elaboration of how that is determined. In fact, the only way the ‘704 Patent teaches determining if a process is online is by looking to see if it has registered an address with the “connection server” (also known as “name server”).

NetBIOS is a software interface that allows applications on different computers to communicate within a computer network, such as a local area network or the Internet. In general, NetBIOS enables point-to-point communications between two or more "point-to-point" nodes through a dedicated directory service provided by a "NetBIOS Name Server."

WINS is the Microsoft implementation of a NetBIOS "Name Server," and provides a NetBIOS "name server" function in a DHCP (dynamic addressing) environment. Thus, it is clearly obvious to combine the dynamic addressing of WINS with NetBIOS to produce the invention, and this was in fact done. WINS shows dynamic registration: “Microsoft TCP/IP includes the following: . . . NetBIOS for establishing logical names and sessions on the network . . . Windows

Internet Name Service (WINS) for dynamically registering and querying computer names on an internetwork, Dynamic Host Configuration Protocol (DHCP) service for automatically configuring TCP/IP on Windows NT computers” (WINS at 3.)

Messenger was an application (process) that allowed point-to-point communication using NetBIOS and WINS. Messenger detects when the computer connects to the network ("gets online") and sends the NetBIOS name registration request (sent to the WINS name server in a WINS environment). A query is sent using NetBIOS to the WINS name server to find out if a destination is online. If it is, a message can be sent, which would be displayed in a pop-up window on the receiving computer. Although Messenger was designed for one-way messages, the ‘704 patent does not require two-way communication in the claims, and in any event it would be obvious to enable a response.

Claim 2

Claim 2 has similar elements to claim 1 and is shown in NetBIOS and WINS for the same reasons set forth for claim 1, above. The only significant wording change is that claim 2 specifies [instead of “connected to the computer network”] *“means, responsive to a query from the first process, for determining the online status of the second process ...”*

As described above, “online” is equivalent to “connected to the network,” and is determined by simply looking to see if an address has been registered with the name server.

Claim 3

This dependent claim simply adds a timestamp, which is well known and is inherently shown in NetBIOS and Messenger, and explicitly shown in WINS, as described in the claim charts. Such inherency can be used to support a 102 anticipation rejection, as set forth in MPEP 2112. “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999).

Claim 4

Claim 4 is a method claim similar to computer product claim 1, and is invalid for the same reasons, as set forth in the claim charts is shown in NetBIOS and WINS.

Claim 5

Claim 5 is dependent on claim 5, simply rewording the steps of accessing memory and indicating if an address is there (online). Accordingly, claim 5 is

invalid for the same reasons as claim 4, and as set forth in the claim charts is shown in NetBIOS and WINS.

Claim 6

Claim 6 is dependent on claim 4, simply setting forth the response case where the process is online (an address is registered). Accordingly, claim 6 is invalid for the same reasons as claim 4, and as set forth in the claim charts is shown in NetBIOS and WINS.

Claim 7

Claim 7 is dependent on claim 4, simply setting forth the response case where the process is offline (an address is not registered). Accordingly, claim 7 is invalid for the same reasons as claim 4, and as set forth in the claim charts is shown in NetBIOS and WINS.

Claim 32

Claim 32 is a method claim similar to claim 4, but without specifying the point-to-point communications, and adding that either an address or identifier is used. The '704 patent describes an email address as an identifier, but as set forth in the Claim Construction section above, Patent Owner alleged in litigation that "Identifier" was "an email address or other distinguishing name." Both NetBIOS and WINS show an identifier ("distinguishing name") in addition to a network address, as set forth in the claim charts below. Thus, claim 32 is invalid for the

same reasons as claim 4, with the additional identifier element also shown as set forth in the claim charts.

Claim 33 and claim 38

Claim 33 is very similar to claim 32 and is invalid for the same reasons set forth for claim 32 above, as set forth in the claim chart below. Claim 38 is an independent computer program product claim for performing the steps of claim 33.

Claims 34 and 39

Claim 34 is dependent on claim 33 and simply adds that the address entries are modified. Claim 39 is similar, dependent on product claim 38. Dependent claims 35 and 40 make clear that simply adding an entry is a modification. Both NetBIOS and WINS allow modification of the address, by registering a new address, as set forth in the claim charts below. Thus, claims 34 and 39 are invalid for the same reasons as claims 33 and 38.

Claims 35 and 40

Claim 35 is dependent on claim 34 and adds that modification means adding an entry for specified events. Claim 40 is similar, dependent on product claim 38. Both NetBIOS and WINS add address entries upon going online – that is the whole point. This is set forth in the claim charts below. Thus, claims 35 and 40 are invalid for the same reasons as claims 33 and 38.

Claims 36 and 41

Claim 36 is dependent on claim 35 and says the event is when a process provides a notification of its assigned network address. Claim 41 is similar, dependent on product claim 38. Both NetBIOS and WINS add address entries upon such a notification – again, that is the whole point. This is set forth in the claim charts below. Thus, claims 36 and 41 are invalid for the same reasons as claims 33 and 38.

Claims 37 and 42

Claim 37 is dependent on claim 34 and adds deleting an entry (address) upon a predetermined event. Claim 42 is similar, dependent on product claim 38. Both NetBIOS and WINS provide for deleting address entries as set forth in the claim charts below. Thus, claims 37 and 42 are invalid for the same reasons as claims 33 and 38.

C. Claims 1-7 and 32-42 should be cancelled under 35 U.S.C. § 103 as obvious over NetBIOS (Exhibit 1003) in view of WINS (Exhibit 1004)

Claim 1

Claim 1 is invalid as anticipated by NetBIOS for the reasons set forth above.

Although the argument for invalidity over NetBIOS in view of WINS relies on WINS to show dynamic addressing, in fact dynamic addressing is not required by claim 1. Nowhere does claim 1 say how often or how recently a process is

connected to the network. Thus any connection, whether dynamic or not, anticipates claim 1.

The remaining claims are similarly anticipated for the reasons set forth in B above, and as set forth in the claim charts below.

D. Claims 1-7 and 32-42 should be cancelled under 35 U.S.C. § 102 as anticipated by NetBIOS (Exhibit 1003)

While Patent Owner has argued that the NetBIOS *product* is not a process as described in the claims, the NetBIOS specification of Exhibit 1003 refers to such a process working with the NetBIOS library, and thus does anticipate such a process. Since the claims and the '704 patent require nothing more than registering a name, and "dynamic" or other equivalent is not in the claim, NetBIOS in fact anticipates claim 1 by itself, without the need to combine with WINS or Messenger.

The remaining claims are similarly anticipated for the reasons set forth in B above, and as described above and set forth in the claim charts below all elements are shown in NetBIOS alone.

E. Claims 1-7 and 32-42 should be cancelled under 35 U.S.C. § 102 as anticipated by WINS (Exhibit 1004)

While WINS was described above as a dynamic embodiment of a NetBIOS name server which shows all the elements of the claims in combination with NetBIOS and/or Messenger, WINS itself shows all the elements of the claims and

described above and as set forth in the claim charts below. Thus, WINS anticipates all the claims.

F. Claims 1-7 and 32-42 should be cancelled under 35 U.S.C. § 102 as anticipated by DNS1 (Exhibit 1006) and DNS 2 (Exhibit 1007) and DNS Orig. (Exhibit 1013) taken together, or as obvious in view of each other.

Since these 3 references refer to each other and describe the same DNS system, they should be considered to anticipate the claims. Alternately, they should be considered to make the invention obvious when considered together. The reasoning is described below under H to save space.

G. Claims 1, 2 and 4-6 should be cancelled under 35 U.S.C. § 102 as anticipated by DEC '652 [Ex. 1010].

The best summary of how DEC '652 shows these claims of the '704 Patent is in claim 5 of DEC '652. It covers access not only to 'servers', but to 'services' and 'resources.'

5. For use in a distributed computing environment, a method for transferring information between a server entity [a network entity accepting communication requests, the "first process" in the '704 Patent] and a client entity [network entity initiating communications, the "second process" in the '704 Patent] in such a manner as to avoid conflicts and to permit the client entity to request a service without knowledge of any more than a common name for the service, the method comprising the steps of:

exporting [a request from the "server" entity to put/update its entry in the database (name server)] *information from a server to a server entry in a shared repository* [network-accessible name->address ("canonical name -> full name") pair database], *the server entry being accessed by a name that completely identifies the server by host name and server name;*

storing in a service entry of the shared repository the full name of the server entry used in the exporting step, wherein the service entry is accessed by a name that includes a common name for the service provided by the server, and wherein the service entry includes the full name of the server entry [the information needed to access the server, i.e. its network address]; *and*

importing the exported information into a client entity, using only the common name of the service, wherein the importing step includes retrieving the service entry to obtain the full name of the server entry, then retrieving the server entry before importing the information ["import" means a request from the "client" entity to retrieve that registration info from the database (name server)].

So, this patent (filed Jan 24, 1994) describes the same system as the '704 Patent, but it's wider, as it covers access not only to 'servers', but to 'services' and 'resources' (though it does not make a lot of difference).

H. Claims 1-7 and 32-42 should be cancelled under 35 U.S.C. § 103 as obvious from DNS1 (Exhibit 1006), DNS 2 (Exhibit 1007) and DNS Orig. (Exhibit 1013) in view of any one of VocalTec (Exhibit 1014), Taligent '278 (Exhibit 1015) and '704 Patent (Exhibit 1001) admitted prior art.

DNS1 is an RFC draft distributed as a mailing list email. It is from 1994, when the Web was only emerging. At that time mailing lists were the most common method to distribute the new, cutting-edge technical info. When IETF created a working group (WG) to work on a particular project, it created a mailing list to which not only the WG members but all interested parties subscribe. It is thus a public document. **The document starts with the phrase “This document addresses the problem of registering a host's dynamically acquired address in DNS automatically.”**

DNS2 is a slide presentation summarizing Dynamic DNS from July 1994. DNS Orig. is a 1987 static DNS description.

The DNS references thus teach assigning and dynamically updating addresses of computers and resources on the Internet. The other references show examples of programs that can use DNS to register their own address and then get the address of another computer or resource for point-to-point communications [VocalTec (voice calls), Taligent '278 (printer)].

Claim 1

A computer program product for use with a computer system, the computer system executing a first process and operatively connectable to a second process and a server over a computer network, the computer program product comprising:

DNS 1 inherently shows this, since it is designed to allow programs to connect to each other. VocalTec shows users making voice calls over the Internet. Taligent '278 shows a computer program (1st process) communicating to a printer (2nd process) over a network. '704 Patent admits in the background that devices communicate with each other over the Internet. VocalTec, Taligent '278 and '704 Patent all contemplate Internet connections, with Taligent '278 explicitly mentioning DNS, and VocalTec mentioning "dynamic addressing." Thus it would be obvious to combine, since that is the intended use.

a computer usable medium having program code embodied in the medium, the program code comprising:

All the references describe software, which is known to be embodied in a medium.

program code for transmitting to the server a network protocol address received by the first process following connection to the computer network;

DNS 1 describes receiving a transmitted address, as set forth in the claim chart. DNS 2 describes the motivation of DNS being to enable host address autoconfiguration.

program code for transmitting, to the server, a query as to whether the second process is connected to the computer network;

As described above, “connected” simply means registered. DNS Orig. describes responding to client request regarding whether another party is registered on the Internet, as set forth in the claim chart.

program code for receiving a network protocol address of the second process from the server, when the second process is connected to the computer network;

The DNS resolver returns this information to the client, as noted in the claim chart. That is one of the points of DNS – to provide the registration information of others in response to inquiries.

program code, responsive to the network protocol address of the second process, for establishing a point-to-point communication link between the first process and the second process over the computer network.

This clause is directed to the program establishing communication after it receives the information about the other program being registered on the internet (and thus presumably connected). Although DNS doesn’t do this, it is inherently disclosed, as this is the whole purpose of DNS providing the registration information. In addition, the example programs VocalNet (voice), Taligent ‘278 (printing) and the admissions in the background of the ‘704 Patent itself (“point-to-

point communications of voice and video signals over the Internet”) describe programs which use the registration information of other programs. As noted above, it is obvious to combine, since that is the intended use of all – communicating with an entity such as DNS to obtain the addressing and registration (connected, online) information..

Claims 2-7 and 32-42 The corresponding and additional elements of these claims, are shown similarly to claim 1 above and as set forth in the claim charts below.

Claim Charts

Pat. 6,108,704	Messenger, NetBIOS & WINS	DNS & Other Prior Art
1. A computer program product for use with a computer system, the computer system executing a first process and operatively connectable to a second process and a server over a computer network, the computer program product comprising:	<p><u>NetBIOS</u></p> <p>“NetBIOS applications employ NetBIOS mechanisms to locate resources, establish connections, send and receive data with an application peer, and terminate connections.” NetBIOS p. 359 (section 5).</p> <p>[applications are the claimed computer program product, which execute a first process, and connect to a second process (application peer)]</p> <p><u>Messenger</u></p> <p>"...workstations also run two services that provide interstation messages: the Messenger service and its companion, the Netpopup service" Messenger – NT Unleashed, p.24.</p>	<p><u>VocalTec</u></p> <p>“VocalTec ware lets users make voice calls over ‘Net’ (title).</p> <p><u>Taligent ‘278</u></p> <p>Shows a computer program (1st process) communicating to a printer (2nd process) over a network. See, e.g., col. 20. DNS is referenced for locating an installed printer (col. 10, lines 13-31)</p>

	<p>[Messenger Service software is an example of the NetBIOS applications referred to above, which include the NetBIOS library interfaces]</p> <p><u>WINS</u></p> <p>“Services and related administrative tools, including the FTP Server service for transferring files between remote computers, Windows Internet Name Service (WINS) for dynamically registering and querying computer names on a network” WINS p. 3.</p>	<p><u>DNS 1</u></p> <p>This is inherent from DNS, which is designed to allow programs to connect to each other.</p> <p><u>Pat. 6,108,704</u></p> <p>Admitted prior art in Background: “Generally, devices interfacing the to Internet and other online services may communicate with each other upon establishing respective device addresses.</p> <p><u>DEC ‘652</u></p> <p>“FIG. 1 shows diagrammatically how a client-server connection is established using a directory service ... “ (Col. 7, lines 45-46)</p>
<p>[A] a computer usable medium having program code embodied in the medium, the program code comprising:</p>	<p><u>NetBIOS</u></p> <p>“The area of memory holding the file information and status.” NetBIOS p. 501. [computer medium is inherent, one of skill in the art would understand an application has to be on a medium. There is also the quoted explicit reference to memory]</p>	<p>“software” VocalTec, line 1.</p> <p><u>Taligent ‘278</u></p> <p>Application program 402, Fig. 4.</p> <p><u>DEC ‘652</u></p> <p>“software system</p>

	<p><u>Messenger</u></p> <p>Inherent from references to programs.</p> <p><u>WINS</u></p> <p>Inherent from references to programs.</p>	<p>known as Distributed Computing Environment (DCE)” (col. 2, lines 22-23) – inherent that invention is program code on a medium.</p>
<p>[B] program code for transmitting to the server a network protocol address received by the first process following connection to the computer network;</p>	<p><u>NetBIOS</u></p> <p>"The interaction is rather simple: the end-node sends a NAME REGISTRATION REQUEST, the NBNS responds with a POSITIVE NAME REGISTRATION RESPONSE.” NetBIOS p. 385 (15.2.2.1)</p> <p><u>WINS</u></p> <p>"The name registration request is sent directly to the WINS server to be added to the database.” WINS p.58.</p> <p><u>Messenger</u></p> <p>The Messenger Service application includes a program code which detects when the computer connects to the network ("gets online") and sends the NetBIOS name registration request (in the WINS environment, the name registration request is sent to the WINS name server).</p> <p>"The Messenger Service allows messages to be received by any name that is on the adapter card. When the workstation is started, the computer name is added, and when the user logs</p>	<p>“A host may acquire an address automatically using an address assignment service such as a DHCP server” [DNS1, p.4]</p> <p>“A resolver must send a REPLACE request to at least one primary name server authoritative for the specified node” [DNS1, p.11]</p> <p>“To help enable host address autoconfiguration</p> <ul style="list-style-type: none"> – when booting “out of the box” – when host booting at different network location” DNS2 [foil 3] <p><u>DEC ‘652</u></p> <p>“To achieve this goal, servers must</p>

	<p>on, the <i>NetWkstaSetUID</i> API adds the username. At this point, the Messenger service receives messages sent to either of these names (which could be the same). The Message APIs allow additional names, called <i>aliasnames</i>, to be added to the adapter card, and messages can be received by these names as well.” Messenger-Ryan, p.122.</p> <p>These name registration requests contain an identifier, and the service type 0x03 - "Messenger service", registering that process (as opposed to the entire computer) with the NetBIOS Name Server (WINS), which plays the role of the '704 "connection server".</p>	<p>follow a prescribed procedure to place binding information in the hierarchical structure of the shared repository provided by the directory service.” (Col. 7, lines 36-38)</p> <p>“Binding information contains locations of servers. It also contains the interfaces that a server supports.</p> <p>A server attribute is part of a namespace entry that contains binding information.” Col. 3, lines 18-21</p>
<p>[C] program code for transmitting, to the server, a query as to whether the second process is connected to the computer network;</p>	<p><u>NetBIOS</u></p> <p>"Name query (also known as "resolution" or "discovery") is the procedure by which the IP address(es) associated with a NetBIOS name are discovered." NetBIOS at 377 (15.1.2).</p> <p>"Name query transactions are initiated by end-nodes to obtain the IP address(es) and other attributes associated with a NetBIOS name." NetBIOS at 388 (15.3).</p> <p>"The next diagram illustrates interaction between the end-node and the NBNS when the NBNS does have</p>	<p>“RESOLVERS are programs that extract information from name servers in response to client requests.” [DNSOrig, p.6]</p> <p>“Given a character string, the caller wants one or more 32 bit IP addresses.” [DNSOrig, p.30]</p>

	<p>information about the name." NetBIOS p. 390 (15.3.2)</p> <p><u>WINS</u></p> <p>"Microsoft TCP/IP includes the following: . . . NetBIOS for establishing logical names and sessions on the network . . . Windows Internet Name Service (WINS) for dynamically registering and querying computer names on an internetwork, Dynamic Host Configuration Protocol (DHCP) service for automatically configuring TCP/IP on Windows NT computers" WINS p 3.</p> <p>"In this [WINS] environment, when NT_PC1 wants to communicate with NT_PC2, it queries the WINS server for the address of NT_PC2." WINS p.51]</p> <p><u>Messenger</u></p> <p>The Messenger Service application includes program code (NET SEND, see above) which uses NetBIOS to send a request to the NetBIOS Name Server (WINS), for the specified username and the required service type (0x03 - messenger service).</p>	<p><u>DEC '652</u></p> <p>"When a user 16, through a client application 18, wishes to access the resource 12, the client application must import the binding information from the shared repository 14.</p>
<p>[D] program code for receiving a network protocol address of the second process from the server, when the second process is</p>	<p><u>NetBIOS</u></p> <p>"An NBNS [NetBIOS Name Server] answers queries from a P node with a list of IP address and other information for each owner of the name." NetBIOS p. 40 (15.3.2)</p>	<p>"The resolver would then wait for a response to its query or a timeout." [DNSOrig, p.48]</p> <p>"When the resolver performs the</p>

<p>connected to the computer network; and</p>	<p><u>WINS</u></p> <p>"A name query request is sent first to the WINS server [...]. If the name is found in the WINS database, the client can establish a session based on address mapping received from WINS" [TCP, p.57]</p> <p><u>Messenger</u></p> <p>If the NetBIOS Name Server returns a positive response, that response contains the address of the "service process." See above.</p>	<p>indicated function, it usually has one of the following results to pass back to the client: - One or more RRs giving the requested data.</p> <p>In this case the resolver returns the answer in the appropriate format" [DNSOrig, p.30]</p> <p><u>DEC '652</u></p> <p>"To achieve this goal, servers must follow a prescribed procedure to place binding information in the hierarchical structure of the shared repository provided by the directory service." (Col. 7, lines 36-38)</p>
<p>[E] program code, responsive to the network protocol address of the second process, for establishing a point-to-point communication link between the first process and the second process over the computer network.</p>	<p><u>NetBIOS</u></p> <p>"The NetBIOS session service begins after one or more IP addresses have been found for the target name. . . . NetBIOS session service transactions, packets, and protocols are identical for all end-node types. They involve only directed (point-to- point) communications." NetBIOS p. 397 (16.).</p> <p><u>WINS</u></p> <p>"If the name is found in the WINS</p>	<p><u>VocalNet</u></p> <p>Inherent from "lets Internet users hold voice conversations" lines 2-3; "via dynamic addressing" line 18.</p> <p><u>Taligent '278</u></p> <p>"The Printer Handler connects to a remote system</p>

	<p>database, the client can establish a session based on address mapping received from WINS" WINS p.57</p> <p>"In this environment, when NT_PC1 wants to communicate with NT_PC2, it queries the WINS server for the address of NT_PC2. When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2" WINS p.51</p> <p><u>Messenger</u></p> <p>"Messenger - Handles bidirectional communications between administrators" Messenger - - NT Unleashed, p. 362.</p> <p>The Messenger Service application contains the "net send" program code that uses NetBIOS to perform point-to-point communication with that process by sending the specified message text data to that address.</p> <p>"NET SEND sends a real-time message to other users, computers, or messaging names on the network. You can send a message only to a name that is active on the network. If the message is sent to a username, that user must be logged on and running the Messenger service to receive the message" Messenger – NT Unleashed, p.678</p>	<p>...." Col. 21, lines 43 et. seq.)</p> <p><u>DNS 1</u></p> <p>It is inherent that the purpose of hosts updating their domain names is to allow communication between them.</p> <p><u>Pat. 6,108,704</u></p> <p>Admitted prior art in Background: "Permanent IP addresses of users and devices accessing the Internet readily support point-to-point communications of voice and video signals over the Internet."</p> <p><u>DEC '652</u></p> <p>"Based on the imported binding information, the client application 18 establishes a logical connection with the server application 10." Col. 7, lines 54-57.</p>
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2. An apparatus for enabling point-to-point communications between a first and a second process over a computer network, the apparatus comprising:	<p><u>NetBIOS</u></p> <p>“B nodes use local network broadcasting to effect a rendezvous with one or more recipients. P and M nodes use the NetBIOS Name Server (NBNS) and the NetBIOS Datagram Distribution Server (NBDD) for this same purpose.” NETBIOS p. 366 (10)</p> <p><u>WINS</u></p> <p>"In this environment, when NT_PC1 wants to communicate with NT_PC2, it queries the WINS server for the address of NT_PC2. When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2 WINS p.51</p> <p><u>Messenger</u></p> <p>See claim 1, element E.</p>	<p><u>VocalTec</u></p> <p>“VocalTec ware lets users make voice calls over ‘Net’ , title. “lets Internet users hold voice conversations” lines 2-3; “via dynamic addressing” line 18.</p> <p>See claim 1 preamble for other Prior art.</p>
a processor;	<p><u>NetBIOS, WINS</u></p> <p>It is inherent, and understood by those of skill in the art, that the NetBIOS Name Server and the WINS server include a processor.</p> <p><u>Messenger</u></p> <p>Inherent.</p>	<p>It is inherent, and understood by those of skill in the art, that the DNS Name Server include a processor.</p>
a network interface, operatively coupled to the processor, for connecting the apparatus to the computer network;	<p><u>NetBIOS</u></p> <p>“NetBIOS names as seen across the client interface to NetBIOS are exactly 16 bytes long.” NetBIOS p. 374 (14).</p> <p><u>WINS</u></p> <p>“The Network Interface Object type includes those counters that describe the rates at which bytes and packets</p>	<p>It is inherent, and understood by those of skill in the art, that the DNS Name Server include a network interface, operatively coupled to the processor, for connecting the</p>

	<p>are received and sent over a network TCP/IP connection.” WINS p. 177</p> <p>[These are example of NetBIOS and WINS functions which assume commonly known physical network interfaces, such as a NIC (network interface card) of a network-connected computer]</p> <p><u>Messenger</u></p> <p>Inherent.</p>	<p>server to the computer network. The other prior art, by describing a network, necessarily includes a network interface and a processor.</p>
<p>a memory, operatively coupled to the processor, for storing a network protocol address for selected of a plurality of processes, each network protocol address stored in the memory following connection of a respective process to the computer network;</p>	<p>It is inherent, and understood by those of skill in the art, that the NetBIOS Name Server and the WINS server include a memory for the referenced name databases.</p> <p><u>NetBIOS</u></p> <p>"the NBNS essentially a "bulletin board" on which name/address information is freely posted (and removed) by P and M nodes"</p> <p>NetBIOS p. (11.1)</p> <p><u>WINS</u></p> <p>"WINS.MDB is the WINS database file. [...] Like any database, the WINS database of address mappings..."</p> <p>WINS p.132</p> <p><u>Messenger</u></p> <p>A memory is inherent, and the data stored is inherent from the descriptions above.</p>	<p>It is inherent, and understood by those of skill in the art, that the DNS Name Server include a memory for the referenced name databases.</p> <p>“Name servers are the repositories of information that make up the domain database.”</p> <p>[DNSOrig, p.18]</p> <p>See element B in claim 1 for the other prior art.</p>
<p>means, responsive to a query from the first process, for determining the on-</p>	<p>[As explained above, a registered address indicates a process is online]</p>	<p>[As explained above, a registered address indicates a</p>

<p>line status of the second process and for transmitting a network protocol address of the second process to the first process in response to a positive determination of the on-line status of the second process.</p>	<p><u>NetBIOS</u></p> <p>"The NetBIOS session service begins after one or more IP addresses have been found for the target name. . . . NetBIOS session service transactions, packets, and protocols are identical for all end-node types. They involve only directed (point-to-point) communications." NetBIOS p. 397 (16.).</p> <p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the name". NetBIOS p. 389 (15.3.2)</p> <p>"1. The NBNS (or any other node) may "challenge" (using a NAME QUERY REQUEST) an end-node to verify that it actually owns a name. Such a challenge may occur at any time. Every end-node must be prepared to make a timely response." NetBIOS p. 381 (15.1.7)</p> <p><u>WINS</u></p> <p>"If the name is found in the WINS database, the client can establish a session based on address mapping received from WINS" WINS p.57</p> <p>"In this environment, when NT_PC1 wants to communicate with NT_PC2, it queries the WINS server for the address of NT_PC2. When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2" WINS p.51</p>	<p>process is online]</p> <p>"The principal activity of name servers is to answer standard queries." [DNSOrig, p.22]</p> <p>See element D in claim 1 for the other prior art.</p>
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	<p><u>Messenger</u></p> <p>See claim 1, elements C-E.</p>	
<p>3. The computer server apparatus of claim 2 further comprising a timer, operatively coupled to the processor, for time stamping the network protocol addresses stored in the memory.</p>	<p><u>NetBIOS</u></p> <p>“The NBNS may impose a ‘time-to-live on each name it registers. The registering node is made aware of this time value during the name registration procedure.” NetBIOS p. 382 (15.1.7 - 4).</p> <p>[It is inherent that a time-to-live requires a time stamp to measure that time]</p> <p><u>WINS</u></p> <p>"As shown in the Mappings list, each registration record in the WINS database includes these elements: [...] Timestamp - shows when the record was registered or updated" WINS p.135</p> <p>[The timer built into the Windows NT kernel and the WINS server employing that time to time-stamp all records created in response to NCBADDNAME requests.]</p>	<p>“The extensions include a new operation that enables records associated with an existing node to be updated, and a new resource record attribute, an expiration time, which enables records to be invalidated automatically.” [DNS1, p.3]</p>
<p>4. A method for enabling point-to-point communication between a first process and a second process over a computer network, the method comprising the steps of:</p>	<p><u>NetBIOS</u></p> <p>"The NetBIOS session service begins after one or more IP addresses have been found for the target name. . . . NetBIOS session service transactions, packets, and protocols are identical for all end-node types. They involve only directed (point-to- point) communications." NetBIOS p. 397 (16.).</p>	<p><u>VocalTec</u></p> <p>“VocalTec ware lets users make voice calls over ‘Net” , title. “lets Internet users hold voice conversations” lines 2-3; “via dynamic addressing” line 18.</p>

	<p><u>WINS</u></p> <p>"If the name is found in the WINS database, the client can establish a session based on address mapping received from WINS" WINS p.57</p> <p>"In this environment, when NT_PC1 wants to communicate with NT_PC2, it queries the WINS server for the address of NT_PC2. When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2" WINS p.51</p> <p><u>Messenger</u></p> <p>See claim 1, preamble.</p>	<p>See the preamble of claim 1 for DNS and the other prior art.</p>
<p>A. receiving and storing into a computer memory a respective network protocol address for selected of a plurality of processes that have an on-line status with respect to the computer network, each of the network protocol addresses received following connection of the respective process to the computer network;</p>	<p>[As explained above, online status simply means a registered address]</p> <p><u>NetBIOS</u></p> <p>"NetBIOS applications employ NetBIOS mechanisms to locate resources, establish connections, send and receive data with an application peer, and terminate connections." NetBIOS p. 359 (section 5).</p> <p>"The interaction is rather simple: the end-node sends a NAME REGISTRATION REQUEST, the NBNS responds with a POSITIVE NAME REGISTRATION RESPONSE." NetBIOS p. 385 (15.2.2.1)</p> <p><u>WINS</u></p> <p>"A WINS server is a Windows NT Server computer running Microsoft TCP/IP and the Windows Internet</p>	<p>"The effect of a REPLACE operation is to update the named set of records" [DNS1, p.7]</p> <p>"In this environment, a host, whenever it acquires an address from a DHCP server, requests an authoritative DNS server to update the name-to-address mapping." [DNS1, p.17]</p> <p>See elements B & D in claim 1 for the other prior art.</p>

	<p>Name Service (WINS) server software. WINS servers maintain a database that maps computer names to IP addresses, allowing users to easily communication with other computers while gaining all the benefits of TCP/IP" WINS p.105.</p> <p><u>Messenger</u></p> <p>See claim 1, elements B&D.</p>	
<p>B. receiving a query from the first process to determine the on-line status of the second process;</p>	<p>[As explained above, online status simply means a registered address]</p> <p><u>NetBIOS</u></p> <p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the name". NetBIOS p. 389 (15.3.2)</p> <p><u>WINS</u></p> <p>"In this environment, when NT_PC1 wants to communicate with NT_PC2, it queries the" WINS p.51</p> <p><u>Messenger</u></p> <p>See claim 1, element C.</p>	<p>"The principal activity of name servers is to answer standard queries." [DNSOrig, p.22]</p> <p>See element C in claim 1 for the other prior art.</p>
<p>C. determining the on-line status of the second process; and</p>	<p>[As explained above, a registered address indicates a process is online]</p> <p><u>NetBIOS</u></p> <p>"The NetBIOS session service begins after one or more IP addresses have been found for the target name. . . . " NetBIOS p. 397 (16.).</p> <p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the</p>	<p>See element C in claim 1 for DNS and the other prior art. As described above, online status simply means that the process has registered on the network.</p>

	<p>name". NetBIOS p. 389 (15.3.2)</p> <p>"1. The NBNS (or any other node) may "challenge" (using a NAME QUERY REQUEST) an end-node to verify that it actually owns a name. Such a challenge may occur at any time. Every end-node must be prepared to make a timely response." NetBIOS p. 381 (15.1.7)</p> <p><u>WINS</u></p> <p>"If the name is found in the WINS database, the client can establish a session based on address mapping received from WINS" WINS p.57</p> <p>"In this environment, when NT_PC1 wants to communicate with NT_PC2, it queries the WINS server for the address of NT_PC2. When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2" WINS p.51</p> <p><u>Messenger</u></p> <p>See claim 1, element C.</p>	
D. transmitting an indication of the on-line status of the second process to the first process over the computer network.	<p><u>NetBIOS</u></p> <p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the name". NetBIOS p. 389 (15.3.2)</p> <p><u>WINS</u></p> <p>When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2" WINS p.51</p>	<p>[This simply means providing the registered address]</p> <p>"Only valid records of the specified name, class and type should be returned in response to a query." DNS 1, [p10]</p>

	<p><u>Messenger</u></p> <p>See claim 1, element D.</p>	<p><u>Pat. 6,108,704</u></p> <p>Admitted prior art in Background: “Generally, devices interfacing the to Internet and other online services may communicate with each other upon establishing respective device addresses.</p> <p>See element D in claim 1 for the other prior art.</p>
5. The method of claim 4 wherein step C further comprises the steps of:	[This claim language simply introduces the following elements]	
c.1 searching the computer memory for an entry relating the second process; and	<p><u>NetBIOS</u></p> <p>"The NetBIOS session service begins after one or more IP addresses have been found for the target name. . . . " NetBIOS p. 397 (16.).</p> <p><u>WINS</u></p> <p>"If the name is found in the WINS database, the client can establish a session based on address mapping received from WINS" WINS p.57</p>	See element B in claim 1 for DNS and the other prior art.
c.2 retrieving a network protocol address of the second process in response to a positive	<p><u>NetBIOS</u></p> <p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the name". NetBIOS p. 389 (15.3.2)</p>	See element C in claim 1 for DNS and the other prior art.

determination of the on-line status of the second process.	<p><u>WINS</u></p> <p>When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2” WINS p.51</p> <p><u>Messenger</u></p> <p>See claim 1, element C.</p>	
6. The method of claim 4 wherein step D further comprises the steps of:	[This claim language simply introduces the following elements]	
d.1 transmitting the network protocol address of the second process to the first process when the second process is determined in step C to have a positive on-line status with respect to the computer network.	<p><u>NetBIOS</u></p> <p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the name". NetBIOS p. 389 (15.3.2)</p> <p><u>WINS</u></p> <p>When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2” WINS p.51</p> <p><u>Messenger</u></p> <p>See claim 1, element D.</p>	See element D in claim 1 for DNS and the other prior art.
7. The method of claim 4 wherein step D further comprises the steps of:	[This claim language simply introduces the following elements]	
d.1 generating an off-line message when the second process is determined in step C to have a negative on-line	[As explained above, online simply means registered, and thus offline simply means there is no name registration. The ‘704 patent does describe offline for a call, but this claim is not limited to a call]	<p>“A name error indicating that the name does not exist” DNS Orig., [p. 23].</p> <p>“Similarly, a</p>

status with respect to the computer network; and	<p><u>NetBIOS</u></p> <p>"The following diagram shows what happens if the NBNS has no information about the name:"</p> <p>NetBIOS p. 389 (15.3.2)</p> <p><u>WINS</u></p> <p>"Whenever a computer is shut down properly, it releases its name to the WINS serverthe WINS server marks it as extinctchanges will be propagated among the WINS servers."</p> <p>WINS p. 59</p> <p><u>Messenger</u></p> <p>This is inherent and obvious.</p>	<p>resolver can make a query with a QTYPE which matches multiple types, and cache the fact that some of the types are not present." DNS Orig. [p.27]</p>
d.2 transmitting the off-line message to the first process.	<p><u>NetBIOS</u></p> <p>P-NODE</p> <p>NBNS</p> <p>NAME QUERY</p> <p>REQUEST</p> <p>-----></p> <p>NEGATIVE</p> <p>RESPONSE</p> <p><-----</p> <p>"</p> <p>NetBIOS p. 389 (15.3.2)</p> <p><u>WINS</u></p> <p>"WINS servers accept and respond to UDP name queries." WINS p. 57</p> <p>[A negative (offline) response is inherent. One of skill in the art would recognize that a response where no</p>	<p>"the recursive response will be one of the following"</p> <p>DNS Orig., [p.23]</p>

	<p>address is found would be sent, and as noted above, that indicates it is offline]</p> <p><u>Messenger</u></p> <p>This is inherent and obvious.</p>	
<p>32. A method of locating a process over a computer network comprising the steps of:</p>	<p><u>NetBIOS</u></p> <p>“NetBIOS applications employ NetBIOS mechanisms to locate resources, establish connections, send and receive data with an application peer, and terminate connections.” NetBIOS p. 359 (section 5).</p> <p><u>WINS</u></p> <p>"A name query request is sent first to the WINS server [...]. If the name is found in the WINS database, the client can establish a session based on address mapping received from WINS" [TCP, p.57]</p> <p><u>Messenger</u></p> <p>See claim 1, element B.</p>	<p><u>DNS Orig.</u></p> <p>“We should be able to use names to retrieve host addresses, mailbox data, and other as yet undetermined information” [p. 3]</p>
<p>a. maintaining an Internet accessible list having a plurality of selected entries, each entry comprising an identifier and a corresponding Internet protocol address of a process currently connected to the Internet, the Internet Protocol</p>	<p><u>NetBIOS</u></p> <p>“The Netbios-over-TCP system described in this RFC may be easily integrated with the Internet Group Multicast system now being developed for the internet.” NetBIOS p. 410.</p> <p>“NetBIOS applications employ NetBIOS mechanisms to locate resources, establish connections, send and receive data with an application peer, and terminate connections.” NetBIOS p. 359 (section 5).</p>	<p>“...a host’s name [identifier]-to-address [internet protocol address] (A record) and inverse mappings” DNS1, [p. 2].</p> <p>“A host may acquire an address automatically using an address assignment service such as a DHCP</p>

<p>address added to the list following connection of the process to the computer network; and</p>	<p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the name". NetBIOS p. 389 (15.3.2)</p> <p>The NBNS response contains the identifier (copied from the request). This is shown in RFC1002 – a companion to RFC1001, in section 4.2.3, the RR_NAME element. But there is no text explicitly saying that RR_NAME is a copy of the request RR_NAME.</p> <p>Also, the RFC1002, section 4.2.1.3 shows the format of the NetBIOS Name Server “resource record”, which includes the “an identifier” (RR_NAME field) and a corresponding Internet Protocol address (RDATA field).</p> <p><u>WINS</u></p> <p>"A name query request is sent first to the WINS server [...]. If the name is found in the WINS database, the client can establish a session based on address mapping received from WINS" [TCP, p.57]</p> <p>“Networks that connect to the public Internet must obtain an official network ID from the InterNIC to guarantee IP network ID uniqueness.” WINS p. 42</p> <p>“With this method, the network administrator defines the IP address and other configuration options that the DHCP servers will provide for a particular computer. The DHCP servers respond based on the client’s</p>	<p>server” [DNS1, p.4]</p> <p>“A resolver must send a REPLACE request to at least one primary name server authoritative for the specified node” [DNS1, p.11]</p>
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	<p>unique identifier, which is the network adapter's MAC-layer address." WINS p. 99 [Also, the diagram at WINS p. 90 shows the IP Address & Unique Identifier]</p> <p><u>Messenger</u></p> <p>See claim 1, element B.</p>	
<p>b. in response to identification of one of the list entries by a requesting process, providing one of the identifier and the corresponding Internet protocol address of the identified entry to the requesting process.</p>	<p><u>NetBIOS</u></p> <p>"An NBNS answers queries from a P node with a list of IP address and other information for each owner of the name". NetBIOS p. 389 (15.3.2)</p> <p><u>WINS</u></p> <p>When NT_PC1 gets the appropriate address from the WINS server, it goes directly to NT_PC2" WINS p.51</p> <p><u>Messenger</u></p> <p>See claim 1, element D.</p>	<p>"The resolver would then wait for a response to its query or a timeout." [DNSOrig, p.48]</p> <p>"When the resolver performs the indicated function, it usually has one of the following results to pass back to the client: - One or more RRs giving the requested data.</p> <p>In this case the resolver returns the answer in the appropriate format" [DNSOrig, p.30]</p>
<p>33. A method for locating processes having dynamically assigned network protocol addresses over a computer network, the method comprising the steps of:</p>	<p>See claim 32.</p>	<p>See claim 32.</p>

a. maintaining, in a computer memory, a network accessible compilation of entries, selected of the entries comprising a network protocol address and a corresponding identifier of a process connected to the computer network, the network protocol address of the corresponding process assigned to the process upon connection to the computer network; and	See claim 32, element a.	See claim 32, element a.
b. in response to identification of one of the entries by a requesting process providing one of the identifier and the network protocol address to the requesting process.	See claim 32, element b.	See claim 32, element b.
34. The method of claim 33 further comprising the step of:		
c. modifying the	[note claim 35 shows that adding an	“A new operation

<p>compilation of entries</p>	<p>entry is modifying]</p> <p><u>NetBIOS</u></p> <p>"Among the areas in which the domain name service must be extended before it may be used as an NBNS are: - Dynamic addition of entries - Dynamic update of entry data" NetBIOS p. 368 (11.1.1)</p> <p><u>WINS</u></p> <p>"WINS server accepts the entry and adds it to its local database together with a timestamp, an incremental unique version number, and other information." WINS p.58</p> <p><u>Messenger</u></p> <p>See Messenger – NT Unleashed p. 678, “/delete.”</p>	<p>[REPLACE] is added to the DNS protocol enabling records associated with an existing node to be added, modified or deleted.” DNS1 [p. 5]</p>
<p>35. The method of claim 34 wherein step c further comprises:</p>		
<p>c.1 adding an entry to the compilation upon the occurrence of a predetermined event.</p>	<p>See claim 34, element c.</p>	<p>“A host may acquire an address automatically using an address assignment service such as a DHCP server,” DNS1 [p32]</p>
<p>36. The method of claim 35 wherein the predetermined event comprises notification by a user process of an</p>	<p><u>NetBIOS</u></p> <p>"Each NetBIOS node can own more than one name. Names are acquired dynamically through the registration (name claim) procedures..... P nodes</p>	<p>“Since an address assignment server, such as a DHCP server, owns the addresses ... it is responsible for</p>

assigned network protocol address.	<p>perform name registration through the agency of the NBNS." NetBIOS p. 376 (15.1.1)</p> <p><u>WINS</u></p> <p>"All computers register themselves with the WINS server, which is a NetBIOS Name Server (NBNS) with enhancements." WINS p.51. "The Name registration request is sent directly to the WINS server to be added to the database". WINS server accepts the entry and adds it to its local database together with a timestamp, an incremental unique version number, and other information." WINS p.58</p> <p><u>Messenger</u></p> <p>This is inherent and obvious.</p>	<p>updating the address-to-name mapping (PTR record) in DNS.”</p> <p>DNS1 [p4]</p>
37. The method of claim 34 wherein step c further comprises:		
c.1 deleting an entry from the compilation upon the occurrence of a predetermined event.	<p><u>NetBIOS</u></p> <p>"NetBIOS names may be released explicitly or silently by an end- node." NetBIOS p. 377 (15.1.3) "EXPLICIT RELEASE: [...] P nodes send a notification to their NBNS." NetBIOS p. 377 (15.1.3.1)</p> <p><u>WINS</u></p> <p>"Whenever a computer is shut down properly, it releases its name to the WINS server, which marks the related database entry as released.</p>	<p>“A resource record, in addition to containing ... a time-to-live (TTL) ... has an associated expiration time. ...The value of a record’s TTL must take into account the record’s expiration time so that it is not cached beyond expiry.”</p> <p>DNS1 [p.6]</p>

	<p>If the entry remains released for a certain period of time, the WINS server marks it as extinct [...]. Extinct entries remain in the database for a designated period of time to enable the change to be propagated to all WINS servers". WINS p. 59</p> <p><u>Messenger</u></p> <p>See claim 34, element c.</p>	
<p>38. A computer program product for use with a computer system having a memory and being operatively connectable over a computer network to one or more computer processes, the computer program product comprising a computer usable medium having program code embodied in the medium the program code comprising:</p>	<p>See claim 33.</p>	<p>See claim 33.</p>
<p>a. program code configured to maintain, in the computer memory, a network accessible compilation of entries, selected of</p>	<p>See claim 33, element a.</p>	<p>See claim 33, element a.</p>

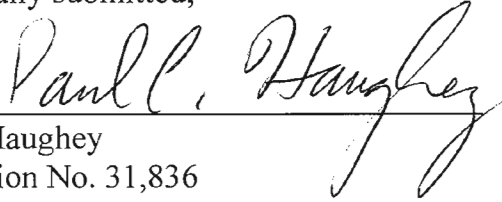
the entries comprising a network protocol address and a corresponding identifier of a process connected to the computer network, the network protocol address of the corresponding process assigned to the process upon connection to the computer network; and		
b. program code responsive to identification of one of the entries by a requesting process and configured to provide one of the identifier and the network protocol address to the requesting process.	See claim 33, element b.	See claim 33, element b.
39. The computer program product of claim 38 further comprising:		
c. program code configured to modify the compilation of entries.	See claim 34.	See claim 34.

40. The computer program product of claim 39 wherein program code configured to modify comprises:		
c.1 program code configured to add an entry to the compilation upon the occurrence of a predetermined event.	See claim 35.	See claim 35.
41. The computer program product of claim 40 wherein the predetermined event comprises notification by a process of an assigned network protocol address.	See claim 36.	See claim 36.
42. The computer program product of claim 38 wherein step c further comprises:		
c.1 program code configured to delete an entry from the compilation upon the occurrence of a predetermined event.	See claim 37.	See claim 37.

Conclusion

In view of the foregoing, it is respectfully submitted that there is a reasonable likelihood that Petitioner would prevail with respect to at least one of claims 1-7 and 32-42 challenged in this petition. Accordingly, the Office is requested to grant this petition and to initiate an *inter partes* review. The Office should review and find claims 1-7 and 32-42 unpatentable and cancel these claims.

Respectfully submitted,

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