

United States District Court,
N.D. California, San Jose Division.

In re CYGNUS TELECOMMUNICATIONS TECHNOLOGY, LLC, PATENT LITIGATION.

This Order Relates to: All Action,

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March 29, 2007.

Background: Patent holder brought action against competitors alleging infringement of patents for interactive telephone system. Parties brought motions for summary judgment.

Holdings: The District Court, Whyte, J., held that:

- (1) phrase, "direct inward dial telephone number," meant last four or five numbers dialed by subscriber which were passed to system over trunk line capable of carrying direct inward dial number;
- (2) patent holder was estopped from attempting to expand claims to identifying subscriber via assigned numbers other than direct inward dial (DID) numbers;
- (3) method of operation that was not disclosed in specifications of patents was not relevant to construction of claims;
- (4) phrase, "telephone exchange," meant system of electronic components that connects telephone calls;
- (5) phrase, "telephone connection means," was "means-plus-function" limitation with function of being operable for connecting and receiving with corresponding structure of telephone line or its equivalent;
- (6) recitation of "output connection to the exchange" in specification was sufficient structure to satisfy requirements of means-plus-function claiming;
- (7) phrase, "subscriber telephone station," meant device that allowed audio communication over telephone network; and
- (8) phrase, "service center," meant central location at which system apparatus carried out process of invention.

Ordered accordingly.

5,883,964, 6,035,027. Construed.

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Cygnus has sued numerous defendants for infringement of U.S. Patent Nos. 5,883,964 ("964 patent") and 6,035,027 ("027 patent"). Proceedings from various districts across the country have been consolidated before this court. Cygnus asserts claims 1 and 6 of the '964 patent and claims 1, 6, and 11 of the '027 patent. Since Cygnus sought to amend claims 6 and 11 of the '027 patent in reexamination proceedings and the Patent and Trademark Office ("PTO") issued a final rejection on those claims, the claims remaining at issue here are claims 1 and 6 of the '964 patent and claim 1 of the '027 patent. FN1 The parties seek construction of a number of claim terms, which are construed below. The defendants move for summary judgment that the patents-in-suit are invalid under 35 U.S.C. s.s. 102(b), 103(a), and 112. The parties cross-move for summary judgment on infringement.

FN1. Both patents-in-suit have been subsequently subjected to reexamination proceedings, Nos. 90/007,308 and 90/007,309. All claims of the '964 patent were confirmed, as well as claim 1 of the '027 patent. Cygnus has attempted to modify claims 6 and 11 of the '027 patent, and on December 19, 2006, the PTO issued a final rejection of those claims. All of the terms to be construed appear in at least one of the confirmed asserted claims, and the court will not consider Cygnus's proposed amendments to claims 6 and 11 of the '027 patent since those amendments have not yet been accepted by the examiner during the reexamination. Cygnus's deadline for responding to the examiner's rejection of claims 6 and 11 was February 19, 2007. *See* Office Action, App. 90/007,309 (Dec. 19, 2006) at 37.

I. CLAIM CONSTRUCTION, INDEFINITENESS, WRITTEN DESCRIPTION & ENABLEMENT

A. Introduction

In an order filed on July 29, 2004, the court ruled on motions for summary judgment brought by certain defendants. The original prosecution history of the patents-in-suit was set forth in detail in that order and will not be repeated here. Necessary to that ruling was the construction of certain claim terms, including "direct inward dial number." The participating parties in these consolidated actions have now briefed and argued construction of the claims of the patents-in-suit. The court allowed Cygnus to reargue the construction of "direct inward dial number." The other terms at issue have not been considered previously.

Defendants take the position that certain claim terms cannot be construed because they are indefinite. Defendants' motion for summary judgment that the patents-in-suit are invalid under s. 112 is directed primarily to the alleged indefiniteness of certain phrases of the patents-in-suit. Because of the substantial overlap between defendants' claim construction positions and their motion for summary judgment under s. 112, the court will address both together.

B. Construction of Disputed Terms

1. "After the subscriber terminates the incoming call attempt"

It is not clear why the parties do not agree on what "after" means. The "control means" of claim 1 of the '964 patent must have the ability of "calling the subscriber remote telephone number through the first telephone connection means after the subscriber terminates the incoming call attempt and connecting to the subscriber telephone station." Defendants argue that "after the subscriber terminates the incoming call attempt" means that the subscriber is not called back "until a detection of the subscriber telephone handset going 'on-hook' to hang-up." Cygnus states that the phrase does not need construction, but also says that the phrase should be read to mean that the subscriber terminates the call before he is charged for it. Cygnus's support for this latter argument is that claim 11 of the '027 patent is a Jepson-style claim directed to "the improvement comprising using direct inward dialing for the initial call from the subscriber to the service, and the subscriber hangs up before there is a charge for the call from the subscriber to the service." Cygnus asserts that this claim "makes explicit what was implicit in the earlier patent."

The term "after" is not a technical telecommunications term but rather an ordinary English word. The

limitations each side wish read into "after the subscriber terminates the incoming call attempt" are not supported by the clear language of the claim. "After the subscriber terminates the incoming call attempt" has a plain meaning and needs no interpretation.

2. Whether method steps must be performed in order listed

[1] The Federal Circuit has developed a two-part test for determining whether a series of steps in a method claim which does not recite that the steps must be performed in the order written must nevertheless be performed in that order. *See Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342-43 (Fed.Cir.2001). First, the court must consider whether the claim language as a matter of logic or grammar requires any particular order. *Id.* Second, the specification must be considered to determine if it reveals that a certain order of steps is required. *Id.*

It is not clear which claims defendants argue must be performed in the order written. The parties' joint claim construction statement refers to claim 6 of the '964 patent and claim 6 of the '027 patent, while defendants' claim construction brief refers to claims 1 and 6 of the '964 patent. Cygnus argues that no claim requires a specific sequence of steps.

Claim 1 of the '964 patent is an apparatus claim and as such, it is not performed, much less performed in a specific order. Claim 6 of the '027 patent currently stands rejected by the PTO after amendment. The court will therefore consider only the order of steps for claim 6 of the '964 patent.

Claim 6 of the '964 patent is

A method establishing a telephone communication link between a subscriber telephone station and a destination telephone station, both being connected through a telephone exchange, comprising the steps of:

[1] storing a preassigned direct inward dial telephone number associated with a subscriber;

[2] storing a subscriber remote telephone number associated with the subscriber telephone station;

[3] receiving an incoming direct inward dial telephone number from a first telephone exchange connection as part of an incoming call attempt from the subscriber telephone station;

[4] comparing the incoming direct inward dial telephone number to the preassigned direct inward dial telephone number and if the incoming direct inward dial telephone number matches the preassigned direct inward dial telephone number associated with the subscriber, performing the following steps:

[a] [i] calling the subscriber remote telephone number after [ii] the subscriber terminates the call attempt and [iii] connecting to the subscriber telephone station;

[b] receiving from the subscriber a calling telephone number for the destination station;

[c] calling the calling telephone number through a second telephone exchange connection; and

[d] bridging the first telephone exchange connection to the second telephone exchange connection so that the subscriber is connected to the destination.

(bracketed numerals and letters added). There is no reason step [1] must be performed before step [2]. Although it might be difficult to receive a call and then store information necessary to initiate callback, steps [1], [2], and [3] are not required as a matter of logic or grammar to occur in any particular order. The comparing of step [4], however, cannot occur until the information from steps [1] and [2] has been received and the call of step [3] has been received. Step [4] is grammatically and necessarily a condition precedent to the performance of steps [a] through [d].

The "calling" of step [a][i] is recited to occur "after" the "call attempt" termination of step [a][ii]. Logically,

the connection "to the subscriber telephone station" in step [a][iii] cannot be made until the subscriber is called in step [a][i]. Because step [b] must occur after step [4], the "connect to the subscriber telephone station" in step [a][iii] must occur before information can be received from the subscriber in step [b]. The "calling telephone number" logically must be received in step [b] before that number can be called in step [c]. The "bridging" of step [d] logically must follow step [c]. This sequence is consistent with the flow charts in the '964 patent, figs. 2-5.

In summary, steps [1], [2], and [3] may occur in any order relative to each other, but all must occur before step [4]. After step [4], steps [a][ii], [a][i], [a][iii], [b], [c] and [d] must occur in that sequence.

3. "Direct inward dial telephone number"

[2] [3] The court previously determined that, in the contexts of the patents-in-suit, "direct inward dial number" means "the last four or five numbers dialed by a subscriber which are passed to the system over a trunk line capable of carrying a direct inward dial number." Order (dkt.# 263 FN2) at 21. Although Cygnus has repeatedly objected to the court's construction of "direct inward dial number," Cygnus's contentions in support of revising that construction are unpersuasive. In summary, the court's previous construction was based on several factors. First, the specification of each patent contains an identical definition of "direct inward dial number":

FN2. Except where otherwise noted, all docket numbers in this order are those of the master docket for MDL 1423.

Accordingly, the present invention advantageously utilizes the Direct Inward Dial (DID) numbers. Under LEC [local exchange company] tariffs it is possible to lease a block, or group, of telephone numbers. The size of the groups may vary between LECs, but a group of one hundred numbers is often a typical group. When these numbers are sequential, they are commonly referred to as blocks, but groups of random numbers are also used.

For purposes of this invention, sequential numbering is not required. The customer leasing the numbers from an exchange does not have to lease a corresponding terminating circuit for each number in the group in order to place a call to each number. Instead, the customer leases local facilities in quantities the customer feels are adequate to handle traffic from the leased numbers. *When a caller dials one of the numbers in the group, the central office of the terminating LEC (the LEC that assigned the numbers) will complete the call over any of the leased local facilities that are available and also pass the last four, sometimes five, numbers that the called party dialed. The numbers that are passed are called the Direct Inward Dial, or DID, numbers.*

'964 patent at 5:63-6:16; '027 patent at 5:66-6:18 (emphasis added). Second, telecom dictionaries dating from 1990 to 2000 describe "direct inward dialing" as a feature of certain phone systems that allowed the phones of a company to be connected so that they could call each other by dialing sequences of fewer than seven digits. Dkt. # 263 at 20. These definitions are consistent with the quoted language of the patent specifications and the inventor apparently contemplated leasing blocks of numbers analogous to a block of numbers used by a large office. Third, during prosecution of both applications, the examiner rejected the claiming of identifying a subscriber via giving him an "assigned number" for calling the service. Id. at 25. In response, the patentee limited the claims to identification using DID numbers, which the PTO allowed, so the plaintiff is now estopped from attempting to expand the claims of the patents to identifying a subscriber via assigned numbers other than DID numbers. Id.

[4] Cygnus now contends that a DID number cannot be four or five digits because one cannot complete a phone call by dialing less than seven digits. However, Cygnus overlooks the specification of the patents-in-suit, which explain that while a subscriber dials a seven or ten digit phone number sufficient to complete a call, the local exchange carrier passes along only "the last four, sometimes five, numbers that the called party dialed," which is enough to determine which number in the rented block of numbers a subscriber called. Cygnus also argues that if a provider rents telephone numbers in different area codes, blocks of non-sequential telephone numbers, or block of more than telephone 100,000 numbers, four or five digits may not provide enough information to reliably distinguish all the rented numbers. Although Cygnus has pointed out

potential problems with practicing the invention on a large scale, this does not overcome the definition of "direct inward dial number" provided by the inventor. Although Cygnus identifies Call Interactive (a company with which Cygnus contracted) planned to have more than 10,000 subscribers, which would have required consideration of at least five digits to distinguish subscribers. Call Interactive's method of operation is not disclosed in the specifications of the patents-in-suit and is not relevant to the construction of the claims.

In its previous order, the court ruled that claims covering all methods of identifying a subscriber based just on the number he dialed had been surrendered during prosecution, and that Cygnus was estopped from expanding the claims beyond using any method other than a direct inward dial number to identify a subscriber. Cygnus has not explained why the court's ruling that it is limited by its narrowing argument made during prosecution is incorrect.

The court reaffirms its prior order; "direct inward dial telephone number" means "the last four or five numbers dialed by a subscriber which are passed to the system over a trunk line capable of carrying a direct inward dial number."

4. "Telephone communication link"

This term does not need construction.

5. "Telephone exchange"

[5] The term "telephone exchange" is not defined in the specification of the '964 patent. NEWTON'S TELECOM DICTIONARY 846 (16th edition) defines "telephone exchange" as "[a] switching center for connecting and switching phone lines". Wikipedia FN3 defines "telephone exchange" as "a system of electronic components that connects telephone calls." Defendants argue that the patent's use of the term is ambiguous because one cannot tell whether "telephone exchange" refers to "the domestic and/or international public telephonenetwork (IXC)" or the "local exchange company (LEC)." *See* '964 patent, col. 6, ll. 42-43, 45.

FN3. [http:// en. wikipedia. org/ wiki/ Telephone. exchange](http://en.wikipedia.org/wiki/Telephone_exchange)

"Telephone exchange" is mentioned in claim 1 of the '964 patent:

first telephone connection means connected to the control means and operable for connecting through a trunk line to the telephone exchange and for receiving an incoming direct inward dial telephone number on the trunk line from the telephone exchange as part of an incoming call attempt from the subscriber telephone station, the incoming direct inward dial telephone number indicating the number called by the subscriber;

second telephone connection means connected to the control means and operable for dialing out through the telephone exchange;

id., col. 10, ll. 14-24, as well as in claim 6 of the '964 patent:

A method establishing a telephone communication link between a subscriber telephone station and a destination telephone station, both being connected through a telephone exchange,

id., col. 10, ll. 62-65.

The use of the term "telephone exchange" in the patents fits with the dictionary definitions and nothing suggests that one skilled in the art reading the '964 patent would interpret the term otherwise.

[6] [7] [8] Defendants' indefiniteness contention is without merit. "Whether a claim is invalid under 35 U.S.C. s. 112, para. 2, for indefiniteness is a question of law The definiteness inquiry focuses on whether

those skilled in the art would understand the scope of the claim when the claim is read in light of the rest of the specification." *Union Pac. Res. Co. v. Chesapeake Energy Corp.*, 236 F.3d 684, 692 (Fed.Cir.2001). The court rejects defendants' contention that the multiple mentions of "telephone exchange" in the '964 patent renders it indefinite. Construing "telephone exchange" (which is not defined in the patent) as "a system of electronic components that connects telephone calls" would allow a single meaning of "telephone exchange" to encompass both the IXC and the LEC. Because 35 U.S.C. s. 282 gives a patent "a statutory presumption of validity," a challenger bears the burden of proving "by clear and convincing evidence" that a patent is invalid. *Monsanto Co. v. Scruggs*, 459 F.3d 1328, 1336-37 (Fed.Cir.2006). Defendants have not met this burden. "Telephone exchange" means "a system of electronic components that connects telephone calls."

6. "First telephone connection means" "Second telephone connection means"

[9] [10] The parties agree that "first telephone connection means" and "second telephone connection means" are means-plus-function terms under paragraph six of 35 U.S.C. s. 112. As the Federal Circuit has explained: "Claim construction of a means-plus-function limitation includes two steps. First, the court must determine the claimed function. Second, the court must identify the corresponding structure in the written description of the patent that performs that function." *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed.Cir.2006) (citations omitted).

"Telephone connection means" appears only in claim 1 of the '964 patent. The "telephone connection means" clause reads:

first telephone connection means connected to the control means and operable for connecting through a trunk line to the telephone exchange and for receiving an incoming direct inward dial telephone number on the trunk line from the telephone exchange as part of an incoming call attempt from the subscriber telephone station, the incoming direct inward dial telephone number indicating the number called by the subscriber.

'964 patent, col. 10, ll. 14-21. The "telephone connection means" thus appears to have two functions, being "operable for connecting" and "receiving."

Defendants argue that no structure in the specification corresponds to the "first telephone connection means." 112 Mot. (dkt.# 675) at 10-11. Defendants identify some candidates but discount each in turn:

... the system obtains the direct inward dial number from storage for placing that number on an output connection to the exchange.

.....

CRU **20** includes a computer, controller, or other suitable data processing unit along with appropriate sensing circuit connections as is conventional for data acquisition and control technology.

.....

This includes switching functions to handle line (circuit) connections; interactive voice response operations; database controller for subscriber identification; and a system message detail recording (SMDR) unit **24** to provide information necessary to create call records.

'964 patent, col. 4, ll. 45-47, col. 6, ll. 48-51, 60-65.

[11] *Cygnus* points to column 5, lines 10 through 24 of the '964 patent as the corresponding structure for "first telephone connection means." This portion of the specification recites that

[a] signal is sent from the service center to the originator, thus indicating that the originator is identified whereupon the originator is instructed or prompted to terminate the call. Termination by the calling party is sensed at the service center followed by seizing of a first outbound circuit over which the service center outputs the call-back number for the identified originator. This operation reconnects the service center via a

voice connection to the originator.

The specification also discusses that the invention relates to a "public telephone network." '964 patent col. 2, ll. 49-50, 59-60. The recitation in the specification of "output connection to the exchange" is sufficient structure to satisfy the requirements of means-plus-function claiming. Although the drafter could have just called the "telephone connection means" what it appears to be, namely a phone line, one skilled in the art would recognize a telephone line as the structure performing the connecting and receiving functions.FN4

FN4. Defendants also argue that disclosure of the details of James Alleman's "386 System" in the specification would have been necessary to satisfy the written description requirement as to "second telephone connection means." Disputed issues of material fact prevent resolution of this issue.

7. "First telephone exchange connection" "Second telephone exchange connection"

"Telephone exchange connection" appears only in claim 6 of the '964 patent. The parties generally agree that "telephone exchange connection" should be construed in the same manner as "telephone connection means." "Telephone exchange connection" means "telephone line."

Defendants argue that the way "first telephone exchange connection" is used in claim 6 renders the claim fatally indefinite and not enabled.FN5 Claim 6 of the '964 patent is

FN5. Defendants also argue that claim 6 of the '964 patent is invalid for failing to satisfy the written description requirement. This argument is duplicative of their arguments that claim 6 is indefinite and not enabled. *See* 112 Mot. (dkt.# 675) at 13-14.

A method establishing a telephone communication link between a subscriber telephone station and a destination telephone station, both being connected through a telephone exchange, comprising the steps of:

- [1] storing a preassigned direct inward dial telephone number associated with a subscriber;

- [2] storing a subscriber remote telephone number associated with the subscriber telephone station;

- [3] receiving an incoming direct inward dial telephone number from a *first telephone exchange connection* as part of an incoming call attempt from the subscriber telephone station;

- [4] comparing the incoming direct inward dial telephone number to the preassigned direct inward dial telephone number and if the incoming direct inward dial telephone number matches the preassigned direct inward dial telephone number associated with the subscriber, performing the following steps:

- [a] [i] calling the subscriber remote telephone number after [ii] the subscriber terminates the call attempt and [iii] connecting to the subscriber telephone station;

- [b] receiving from the subscriber a calling telephone number for the destination station;

- [c] calling the calling telephone number through a *second telephone exchange connection*; and

- [d] bridging the *first telephone exchange connection* to the *second telephone exchange connection* so that the subscriber is connected to the destination.

(emphasis and bracketed numerals and letters added). As defendants read claim 6, the subscriber makes calls in via the "first telephone exchange connection" in step [3], the connection via the "first telephone exchange connection" is terminated in step [4][a][ii] and no subsequent connection via the "first telephone exchange connection" is explicitly made and yet in step [4][d], the "first telephone exchange connection" and "second telephone exchange connection" are bridged. The absence of a step connecting to the "first telephone exchange connection" after the termination in step [4][a][ii] makes performance of step [4][d] impossible

and, therefore, in defendants' view, the claim is inoperable since the connection made in step [3] was terminated in step [4][a][ii].

Although the claim does not specifically refer in steps [4][a] [i], [a][iii] and [b] to reconnecting or remaking a "first telephone exchange connection," those steps combined with step [4][d] necessarily would tell someone skilled in the art that what is referred to in step [4][d] as the "first telephone exchange connection" is the connection referred to in steps [4][a][i] and [ii]. Therefore, claim 6 is not indefinite and is enabled.

8. "Subscriber telephone station"

[12] Cygnus wishes a broad construction of "subscriber telephone station" that would cover any method of making phone calls, including personal computers. The defendants advocate a very narrow construction that would limit the phrase to the telephone handset associated with the telephone number associated with the subscriber. Although in the preferred embodiment, the subscriber is "connected to the system via a telephone handset," '964 patent, col. 6, ll. 40-41, there is nothing else in the patent that suggests "subscriber telephone station" should only be a telephone handset. The court therefore construes "subscriber telephone station" as "a device that allows audio communication over a telephone network."

9. "Dialing" "Calling"

Cygnus advocates a broad construction of "dialing" and "calling," while defendants seek a narrow interpretation. Specifically, defendants wish to limit dialing or calling to the use of DTMF tones (which the defendants describe as "touch tones") and exclude alternative technologies. Again, the description of the preferred embodiment is the only source of language that supports defendants' position: "The call-back number is then outpulsed by the DTMF recognition and dialing unit" '964 patent, col. 7, ll. 40-42. Defendants' proposed limitation based on the preferred embodiment is not warranted, and no further construction of "dialing" or "calling" is therefore necessary.

10. "Trunk line"

[13] Cygnus argues that "trunk line" needs no construction because the term is not "an element of the patented combination." The term, however, appears twice in claim 1 of the '964 patent in connection with the description of the "first telephone connection means":

first telephone connection means connected to the control means and operable for connecting through a trunk line to the telephone exchange and for receiving an incoming direct inward dial telephone number on the trunk line from the telephone exchange as part of an incoming call attempt from the subscriber telephone station, the incoming direct inward dial telephone number indicating the number called by the subscriber;

'964 patent, col. 10, ll. 14-19. In light of the court's construction of DID number, defendants correctly contend that "trunk line" is limited to a phone line specially configured to pass a DID number along with a call. The first telephone connection means must be able to "receiv[e] an incoming direct inward dial telephone number."

11. "Service center"

"Service center" appears several times in claim 1 of the '027 patent, which covers

a *service center* having a direct inward dial number assigned to each subscriber and an assigned call-back number recorded for each subscriber, a sensor for receiving the direct inward dial signal sent by the subscriber to the *service center*, a first outbound circuit from the *service center* over which the center dials the callback number of the subscriber when the direct inward dial number is triggered and on which the subscriber enters the number of the called party, a second outbound circuit from the *service center* over which the center dials the number entered by the subscriber on the first circuit to reach the called party, and an automatic bridging device for bridging the subscriber on the first circuit to the called party on the second circuit, whereby the subscriber is telephonically linked to the called party without human intervention at the *service center*.

'027 patent, col. 10, ll. 7-22 (emphasis added).

The '027 specification contains the following description FN6 of the service center:

FN6. The '964 specification contains the same description, but the phrase "service center" does not appear in the claims of the '964 patent.

A central location service center is established at which a call-back telephone number is provided for each subscribing call originator. A number is assigned for use for all calls that are placed by that originator. This assigned number is used to call the service center whereupon the originator is identified by the service center.

A signal is sent from the service center to the originator, thus indicating that the originator is identified whereupon the originator is instructed or prompted to terminate the call. Termination by the calling party is sensed at the service center followed by seizing of a first outbound circuit over which the service center outputs the call-back number for the identified originator. This operation reconnects the service center via a voice connection to the originator.

The originator is prompted to input the telephone number of the called party the originator intends to call. A second outbound circuit is seized at the service center whereupon the called party number is outputted to this second outbound circuit. Finally, the originator is bridged to the second outbound circuit thus connecting the originator with the called party.

The process, or system apparatus, in accordance with this invention, is preferably contained at a central location or service center. Since it is essentially self-contained for its purpose and requires a minimal number of lines connecting it to an exchange, the present invention is adaptable for relatively easy relocation to interface with the most economic tariff rate location wherever that might physically present itself throughout the world.

'027 patent, col. 3, ll. 33-62 (emphasis added). The paragraphs that follow describe the function of the "central location":

The process and apparatus of this invention interactively establishes communication links between a calling party and one or more parties called by that calling party. It employs input and output connections to a telephone exchange that provides interface switching of the calling party with the *central location*. A signal is generated containing data uniquely identifying the originating station of the calling party which signal is placed on the input connection to the *central location* whenever the calling party places a call to that input connection from their station.

The *central location* stores the unique identifying data of one or more authorized calling party subscribers. A signal on the *central station* input connection attempting to establish communications between the exchange and the central location causes the system to compare the data of the identifying signal associated with the connection attempt with the contents in the data storage.

In response to a favorable comparison, a call^[FN7] is originated from this *central location* to the calling party station. Signals are then received from the calling party station for identifying a called party station with which the calling party desires to establish a communication connection. That is, these calling party originated signals identify a third party station. The *central location* finally bridges a communication connection between the calling party station and the third party station.

FN7. Presumably, this is a typographical error and should instead be "call," as it is in the '964 patent. See '964 patent, col. 4, l. 10.

Preferably, the present invention responds to a favorable identification comparison as mentioned above by returning an audible signal to the calling party. This indicates the favorable comparison result so that the

calling party will know to terminate the call attempt so as to allow the *central location* to originate a call to the call originating station. Failure of the calling party to terminate the call attempt a predetermined period of time after the recognition signal is given or from the time of commencement of an attempt to establish a connection from the calling party station terminates further processing of the connection attempt at the *central location*.

Connection attempt termination, because of the time-out function or a failure to produce a favorable comparison, can trigger a process which results in temporarily establishing a communication connection with the calling party station for presenting an audio message thereto. The *central location* typically will disconnect from the calling station after completion of an audio message.

The present invention is particularly well suited for advantageously utilizing the calling party identifying data in the form of the contemporary direct inward dial number produced by the exchange. Thus, the *central location* stores in a memory the direct inward dial number for each calling party authorized to utilize the system. Following a favorable comparison of the calling party number with a stored number, the system obtains the direct inward dial number from storage for placing that number on an output connection to the exchange.

A failure of the called party to answer the call attempt from the *central location* can result in provision of an indication to the calling party that they can select between terminating connection attempts or attempting to establish a connection with another third party. The invention can accommodate establishment of a multiple party conference call in response to calling parties instructions to the *central location*.

The system is likewise well suited for receiving and collecting management and billing information on calls established by the system. This enables a determination of the extent of use of the system by authorized and/or unauthorized calling parties. After establishing a communication connection with the calling party station, the *central location* can respond to a special signal originated from the calling party station so as to terminate further communication and communication attempts with the calling party station. This invention can utilize a dual tone multi-frequency signal as the above mentioned special signal from said calling party station.

'027 patent, col. 3, l. 63-col. 5, l. 4. The inventor then switched back to describing the "service center":
The method and apparatus of this invention provides an economical telephone service by employing the most advantageous tariff between all originator and one or more called parties. A *service center* is established at which a call-back telephone number is provided for each originator, and at which a number is assigned for use for all calls that are placed by that originator. The assigned number is used to call the *service center* whereupon the originator is identified by the *service center*.

A signal is sent from the *service center* to the originator thus indicating that the originator is identified whereupon the originator is instructed to terminate the call. Sensing originator call attempt termination, the *service center* responds by seizing a first outbound circuit over which the *service center* outputs the call-back number for the identified originator thereby reconnecting the *service center* to the originator.

The originator is prompted to input the telephone number of the called party the originator intends to call. A second outbound circuit is seized at the *service center* whereupon the called party number is outputted to the second outbound circuit. Bridging the originator to the second outbound circuit thus connects the originator with the called party.

'027 patent, col. 5, ll. 4-27.

[14] From this, it appears the inventor used "service center" and "central location" interchangeably. Defendants argue that "service center" means "a single location housing the service center master system which has: (a) a computer or switch including integrated components for performing switching functions to handle circuit connections, including a circuit connection to receive DID service from the LEC central office, (b) the database controller, (c) the DTMF generator, (d) the bridging function, and (e) the subscriber table server (the database)." Cygnus argues that "service center" "certainly does not mean 'a single location housing' particular equipment" because "it is commonplace for international call-back providers to have equipment and personnel at more than one location." Regardless of what the standard industry practice may

now be, the patent itself shows that the inventor clearly preferred that the process or system apparatus of the invention be located at a "central location" ("service center") and adaptable for easy relocation to interface with the most economic tariff rate location wherever that was physically located. Therefore, although the inventor may have contemplated the possibility of having the system equipment located at more than one place despite his preference for a central location, by use of the term "service center" in claim 1 of the '027 patent the inventor is referring to a "central location" rather than a series of separate locations. "Service center" means the central location at which the system apparatus carries out the process of the invention.

12. "Enters"

[15] Defendants argue that "enters" means "inputting the DTMF digits of the called party number by the subscriber using the keypad of the telephone handset," while Cygnus argues that "enters" means "dials" or "calls." "Enters" appears in claims 1, 6, and 11 of the '027 patent as part of the phrase "the subscriber enters the [telephone] number of the called party." "Enters" appears in the specification once, in the description of the preferred embodiment: "When the subscriber enters a called party number, CRU 20 seizes a second outbound circuit 25. DTMF Generator 26 recognizes the called party number DTMF digits entered by the subscriber and outputs those digits over the second seized circuit." '027 patent, col. 7, ll. 50-54. While in the preferred embodiment, the "called party number" is clearly sent by the subscriber as "DTMF digits," the claim is not so restricted. "Enters" means "dials."

13. "Triggered"

[16] Cygnus asserts that in the '964 patent, "triggered" is used in the ordinary English sense of initiated or precipitated. Defendants admit that "[t]he term 'triggered' is not defined in the specification" but argue that "triggered" should be limited to "(a) a matching of the incoming direct inward dial number (DID) with the assigned/stored DID number and (b) the subscriber hanging up." Defendants overlook that the specification uses "trigger" in another context in a manner consistent with Cygnus's interpretation and inconsistent with their own:

Connection attempt termination, because of the time-out function or a failure to produce a favorable comparison, can trigger a process which results in temporarily establishing a communication connection with the calling party station for presenting an audio message thereto. The central location typically will disconnect from the calling station after completion of an audio message.

'027 patent, col. 4, ll. 35-41. "Triggered" therefore merely means "initiated or precipitated."

Defendants argue that claim 1 of the '027 patent is invalid because the term "triggered" is indefinite, not enabled, and no written description in the specification supports claim 1's use of the term. 112 Mot. (dkt.# 675) at 17. The portion of claim 1 with which defendants take issue reads: "a first outbound circuit from the service center over which the center dials the callback number of the subscriber when the direct inward dial number is triggered and on which the subscriber enters the number of the called party." '027 patent, col. 10, ll. 11-15. However, given the constructions of "triggered" and "DID number," claim 1 is not indefinite and provides that "the center dials the callback number of the subscriber when the" DID number is initiated, *i.e.*, sent by the terminating LEC. Defendants' motion for summary judgment that the use of "triggered" renders claim 1 of the '027 patent invalid under s. 112 is denied.

14. "Sensor"

The parties do not seek construction of the term "sensor." However, defendants argue that no written description supports "sensor" as used in claim 1 of the '027 patent. 112 Mot. (dkt.# 675) at 17. According to defendants, the phrase "a sensor for receiving the direct inward dial signal sent by the subscriber to the service center," '027 patent, col. 10, ll. 10-11, means that the DID number is sent by the subscriber, but this is inconsistent with the patentee's definition of DID number, which requires DID numbers to be passed on by "the terminating LEC," *id.*, col. 6, ll. 13-14. Although not as carefully drafted as it could have been, since a DID number is the end portion of a phone number initially dialed by the subscriber, the DID number can properly be said to have been "sent by the subscriber to the service center" and recognized or sensed. Defendants' motion for summary judgment that the use of "sensor" renders claim 1 of the '027 patent invalid

under s. 112 is denied.

15. "Control means"

[17] Claim 1 of the '964 patent includes

control means operable for managing a database of caller information;

.....

the control means further operable for comparing the incoming direct inward dial telephone number to the preassigned direct inward dial telephone number and, if the incoming direct inward dial telephone number matches the preassigned direct inward dial telephone number associated with the subscriber, the control means is further operable for:

calling the subscriber remote telephone number through the first telephone connection means after the subscriber terminates the incoming call attempt and connecting to the subscriber telephone station;

receiving from the subscriber a calling telephone number for the destination station;

calling the calling telephone number through the second telephone connection means; and for

bridging the first telephone connection means to the second telephone connection means so that the subscriber is connected to the destination.

'964 patent, col. 10, ll. 6-7, 25-42. The parties agree that the interpretation of "control means" is a means-plus-function limitation governed by 35 U.S.C. s. 112 para. 6. The parties also agree that the "control means" has eight functions (managing a data base, comparing, calling the subscriber, connecting to the subscriber station, receiving, calling the destination, connecting to the destination, and bridging). However, defendants contend that nothing links the "control means" to any structure in the specification of the patent. Cygnus responds that defendants'

argument is nonsense, since the whole purpose of s. 112 para. 6 claim language is that the functions need *not* be linked to 'specific structures.' Any structure that is equivalent to the structure described in the specification may be used, so long as the specified function is performed. Defendants are simply wrong as a matter of law.

Pl.'s Claim Constr. Br. (dkt.# 684) at 6.FN8 However, as the Federal Circuit has stated, "[a] structure disclosed in the specification qualifies as corresponding structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Default Proof Credit Card Sys. v. Home Depot U.S.A.*, 412 F.3d 1291, 1298 (Fed.Cir.2005) (quotation marks omitted). Despite its apparent mistaken belief that it does not need to link the "control means" to any structure in the specification, Cygnus offers a portion of the first sentence of the summary of the invention as the structure corresponding to the "control means": "an automated call processing system that incorporates an audio response unit and computer." '964 patent, col. 2, ll. 50-51. The full sentence this phrase is taken from states "[t]his invention, in cooperation with a public telephone network, provides an automated call processing system that incorporates an audio response unit and computer in a system arrangement for enabling a subscriber to initiate telephone calls whose network identified point-of-origin is a physical site other than the physical location of the subscriber." *Id.*, ll. 49-55.

FN8. Cygnus also argued that "[c]ontrol means" is a means for controlling, and need not be construed." Claim Constr. Reply Br. (dkt. # 721) at 13.

Cygnus's expert opines that

The '964 patent at 3:3-6 shows that a personal computer with a switch software program may be used to identify the subscriber, look up the call-back number, call the subscriber and destination and bridge the two calls. Control means should be construed to mean a computer and storage device with appropriate software to perform the eight functions specified in the claim.

Am. Forys Expert Report Claims Constr. (dkt.# 643) at 13. The cited section of the specification provides "[w]hen a subscriber uses an assigned telephone number to establish a call to this service, the system will identify the subscriber by using a personal computer or switch software program." This sentence links the "comparing" function to the structure of "a personal computer or switch software program." The specification in the section entitled "Detailed Description of the Preferred Embodiment" identifies the call response unit ("CRU") which is item 20 in figure 2 as including a computer or switch and consisting of integrated components that permit the system to perform a number of functions integral to the invention. '964 patent, col. 6, ll. 46-66. Figure 2 and additional discussion of the preferred embodiment in the specification show that the computer in the CRU performs the functions of the "control means." The purported inventive aspect of the '964 patent is the combination of functions that result in a telephone switching system that saves telephone tariffs, not the programs that allow the computer to perform the functions. One ordinarily skilled in the art could perform the individual functions with existing technology. The linkage of the functions of the "control means" to a computer or its equivalent adequately meets the requirements of s. 112 para. 6.

16. "Automatic bridging device"

[18] Defendants argue that the term "automatic bridging device" as used in claim 1 of the '027 patent is a means-plus-function limitation and that the specification fails to recite sufficient structure to perform the automatic bridging function. According to claim 1, the function of the "automatic bridging device" is to "bridg[e] the subscriber on the first circuit to the called party on the second circuit, whereby the subscriber is telephonically linked to the called party without human intervention at the service center." '027 patent, col. 10, ll. 40-42. Cygnus claims that "automatic bridging device" needs no construction and offers expert opinion in support of its position:

The Defendants claims [sic] that this term is a means plus function limitation. It appears to me that the claim describes a component in a system. It describes a structure. One of ordinary skill in the art would understand what an automatic bridging device is. There are several examples of such structures in the industry e.g. a dial in bridge service offered by organizations such as AT & T. The mere act of dialing in causes bridging.

Am. Forys Expert Report Claims Constr. (dkt.# 643) at 26.FN9 In addition, Cygnus claims that two of its witnesses gave examples of automatic bridging devices. Thomas Thompson testified that Call Interactive used a "telecommunications switch" called the "AT & T Dimension," although he did not specifically state whether "AT & T Dimension" corresponded to the "automatic bridging device" of the '027 patent. *See* Thompson Decl. at 108-09. FN10 James Alleman, the named inventor, explained:

FN9. The court strikes Forys's opinion on whether "automatic bridging device" is a means-plus-function limitation as without foundation and invading the province of the court.

FN10. Excerpts of the September 20, 2006 deposition of Thomas Thompson, including pages 108 and 109, are attached as Exhibit 297 to the declaration John Sutton (dkt.# 685).

[Q.] Was the 386 system capable of doing that bridging after the person that was being called picked up on the line?

A. I don't believe-I don't know. I don't know that we've-I believe that the bridge prior to, it could have, but we certainly didn't attempt to experiment with that, to the best of my recollection.

Q. Did you have any specific hardware that accomplished the bridging function in the 386 system?

A. Yes. It was from Dialogic, as I had mentioned earlier.

Q. It was one of the Dialogic boards?

A. I believe it truly bridged the two. They were called DX 4 Dialogic boards, and it really, if you think about a computer system, where there's empty slots, the DX 4 board would fit in one slot, and another DX 4 would fit in another slot, just as a second hard drive or serial port would fit in.

And to the best of my recollection, the bridge actually fitted on top of those two DX 4 boards. So it didn't have a separate slot of its own in the computer, but it fit on top.

Q. Okay.

Alleman Depo. at 121.FN11

FN11. Excerpts of the September 20, 2006 deposition of James Alleman, including page 121, are attached as Exhibit 298 to the declaration John Sutton (dkt.# 685).

Defendants argue "automatic bridging device" is a means-plus-function limitation and that it is fatally indefinite. Defendants point to two portions of the description of the preferred embodiment which they claim are inconsistent. First, "DTMF Generator **26** recognizes the called party number DTMF digits entered by the subscriber and outpulses those digits over the second seized circuit. DTMF generator **26** activates bridging function **29** to bridge the subscriber onto the second outbound circuit." '027 patent, col. 7, ll. 54-57. Second, "When a second outbound circuit is seized, as described at **62** in FIG. 4, CRU **20** outpulses the called party number at **70**, and bridges the subscriber onto the second outbound circuit to monitor call progress tones at **71**." Id., col. 9, ll. 28-31. The patent appears to recite in different places that bridging is performed by different components, either the "DTMF generator **26** activat[ing] bridging function **29**" or the "CRU **20**." However, it is not clear from the '027 patent whether the components along the right edge of Figure 1 are intended to be subparts of the "CRU **20**" or whether they are distinct from it. In places, the specification treats them as distinct. *See, e.g.*, '027 patent, col. 7, ll. 25-28 ("At the same time the CRU **20** delivers the DID digits to the subscriber table server **21**, it also delivers call detail information to the system message detail recording database (SMDR) **24**."). In another portion, however, it would appear that at least some of these right-side components are subparts of "CRU **20**":

CRU **20** is a computer, or switch, that is connected to the LEC **15** central office and consisting of integrated components that permit the system to perform a number of functions integral to this invention. This includes switching functions to handle line (circuit) connections; interactive voice response operations; database controller for subscriber identification; and a system message detail recording (SMDR) unit **24** to provide information necessary to create call records.

'027 patent, col. 6, ll. 59-67.

[19] [20] [21] When a claim limitation does not contain the word "means," the limitation is "presumptively not a means-plus-function limitation." *Mass. Inst. of Tech. v. Abacus Software*, 462 F.3d 1344, 1355 (Fed.Cir.2006). "However, a limitation lacking the term 'means' may overcome the presumption against means-plus-function treatment if it is shown that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function." Id. at 1353 (some quotation marks omitted). "The generic term[] 'device []' typically do[es] not connote sufficiently definite structure" to avoid treatment as a means-plus-function limitation. Id. at 1354. The Federal Circuit has contrasted a pair of examples:

Claim language that further defines a generic term like "mechanism" can sometimes add sufficient structure to avoid 112 para. 6. For example, in *Greenberg v. Ethicon Endo-Surgery, Inc.*, 91 F.3d 1580 (Fed.Cir.1996), which involved a mechanical device, we held that 112 para. 6 did not apply to the term "detent mechanism," because "the noun 'detent' denotes a type of device with a generally understood

meaning in the mechanical arts, even though the definitions are expressed in functional terms." *Id.* at 1583. The court recited several dictionary definitions for "detent," including "a mechanism that temporarily keeps one part in a certain position relative to that of another, and can be released by applying force to one of the parts." *Id.* (internal quotation marks and citations omitted). These definitions connoted sufficient structure to avoid 112 para. 6. We also concluded that "the fact that a particular mechanism-here 'detent mechanism'-is defined in functional terms is not sufficient to convert a claim element containing that term into a 'means for performing a specified function' within the meaning of 112 para. 6" because "many devices take their names from the functions they perform". *Id.*FN12

FN12. Of course, a claim term defined solely in functional terms, without more, would fall within Section 112(6). *See* *AI-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1318 (Fed.Cir.1999); *see also* *Micro Chem., Inc. v. Great Plains Chem. Co., Inc.*, 194 F.3d 1250, 1258 (Fed.Cir.1999).

In contrast, the term "colorant selection," which modifies "mechanism" here, is not defined in the specification and has no dictionary definition, and there is no suggestion that it has a generally understood meaning in the art. We therefore agree with the district court that "colorant selection mechanism" does not connote sufficient structure to a person of ordinary skill in the art to avoid 112 para. 6 treatment." FN13
FN13. In *Lighting World[, Inc. v. Birchwood Lighting, Inc.]*, we held that it was appropriate to look to dictionaries "to determine if a disputed term has achieved recognition as a noun denoting structure," and determined that "connector" had a reasonably well-understood meaning as a name for a structure. 382 F.3d [1354,] 1360-61 [(Fed.Cir.2004)]. That structure was defined in terms of the function it performed, "connecting." *Id.* Here, the term "mechanism" is not defined by a function that particularizes its structure.

Mass. Inst. of Tech., 462 F.3d at 1354 (original bracket removed; footnotes renumbered).

Here, "automatic bridging device" is defined in the claim by function as was "detent mechanism" in *Greenberg*. In addition, Cygnus's expert Forys declared that one skilled in the art would know what an "automatic bridging device" is and indicated that AT & T offered one. Finally, the testimony of Alleman and Thompson offers some support to Forys' opinion that one skilled in the art would know what an "automatic bridging device" was. Therefore, the court concludes that "automatic bridging device" is not a means-plus-function limitation but rather a limitation that suggests sufficient structure to one ordinarily skilled in the art to avoid the application of 112 para. 6.

II. BEST MODE

Defendants set forth the general standard of the best mode requirement, *see* 112 Mot. (dkt.# 675) at 4-5, but do not thereafter present any specific argument that the '964 and '027 patents fail to satisfy the best mode requirement. Defendants' motion, such as it is, that the patents-in-suit are invalid for failure to disclose the best mode is denied.

III. ON-SALE BAR

A. Statutory On-Sale Bar

By statute, "[a] person shall be entitled to a patent unless ... 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 the application for patent in the United States." 35 U.S.C. s. 102(b). The Federal Circuit has explained the on-sale bar:

In *Pfaff v. Wells Electronics, Inc.*, the Supreme Court held that a patent claim is invalid under the on-sale bar if two conditions are met: first, the invention must have been the subject of a commercial offer for sale more than one year before the patent application was filed; second, the invention must have been ready for patenting more than one year before the filing of the application. Reduction of the invention to practice is sufficient to satisfy the second condition.

Zacharin v. United States, 213 F.3d 1366, 1369 (Fed.Cir.2000) (citation omitted). On April 24, 1992, Alleman filed the parent of the applications that eventually gave rise to the two patents-in-suit. '964 patent, para. [63]; '027 patent, para. [63]. Sale of, or offers to sell, the invention of the patents-in-suit before April 24, 1991 (the so-called "critical date") invalidate them.

B. Ready for Patenting

[22] In 1988, James Alleman founded Paragon Services International, Inc. By 1990, Paragon was providing long-distance phone service using what the parties refer to as the "black box system." This system required two phone lines for each user, as well as the "black box," which would receive a user's phone call on one line, place an outgoing call on the other, and bridge the two calls. The need for two lines and a black box per user made the black box system somewhat expensive. In 1990, Alleman developed what the parties refer to as the "386 system" and transferred Paragon's existing users over to it from the black box system.

During prosecution of the '027 patent, Alleman stated to the PTO: "I reduced to practice the invention of the claims before June 27, 1990" as part of an attempt to swear behind prior art cited by the examiner. Wood Decl. (dkt.# 681), Ex. 7 (Feb. 11, 1997 Alleman Decl.) para. 3, 6. Alleman now seeks to distance himself from his 1997 declaration. In a November 2, 2006 declaration, Alleman states:

I did not know what the legal term "reduced to practice" meant on March 11, 1997. The term was drafted by counsel for Cygnus who was not familiar with the prosecution of the earlier patent applications It made no difference, as it turned out, because the references relied upon by the examiner in the parent case were all overcome in the Board of Appeals decision in 1998, which had nothing to do with the difference between June 1990 and April 1991. It was harmless error.

Alleman Decl. (dkt.# 700) para. 18.

[23] "A party cannot create an issue of fact by supplying an affidavit contradicting his prior deposition testimony, without explaining the contradiction or attempting to resolve the disparity." *Sinskey v. Pharmacia Ophthalmics*, 982 F.2d 494, 498 (Fed.Cir.1992), *abrogated in part on other grounds*, *Pfaff v. Wells Elecs.*, 525 U.S. 55, 67-68, 119 S.Ct. 304, 142 L.Ed.2d 261 (1998); *see also* *Kennedy v. Allied Mut. Ins. Co.*, 952 F.2d 262, 266-67 (9th Cir.1991). A court should consider an explanation by the declarant as to why he later seeks to change his earlier sworn testimony. *Cleveland v. Policy Mgmt. Sys. Corp.*, 526 U.S. 795, 807, 119 S.Ct. 1597, 143 L.Ed.2d 966 (1999). Here, there is no satisfactory explanation.

[24] Alleman cannot blame the attorney who drafted the declaration for the mistake. A party is "bound by the actions of its attorney." *Navajo Tribe of Indians v. United States*, 220 Ct.Cl. 360, 601 F.2d 536, 539 (1979). Patent applications are *ex parte* proceedings which have substantial effect upon the rights of the public, and as such, Alleman and "counsel for Cygnus" had a duty to ensure filings were accurate.

A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section.

37 C.F.R. s. 1.56(a). Alleman's 1997 declaration was made at the time for reasons substantially affecting patentability and under penalty of perjury. It cannot now be disavowed because Alleman allegedly did not know in 1997 what the legal term "reduction to practice" meant and because it turned out to be "harmless error." Alleman's subsequent explanation is, in these circumstances, insufficient to justify ignoring the 1997 declaration and considering his contrary 2006 declaration. Further, and perhaps more importantly, the evidence suggests that Alleman's 1997 declaration is accurate. The 386 system embodied the invention of the patents-in-suit. Alleman explained how the invention worked and how it satisfied the claim limitations of the application that became the '027 patent. Wood Decl., Ex. 7 (Feb. 11, 1997 Alleman Decl.) (dkt.# 683) para. 8-26. The invention was reduced to practice "before June 27, 1990" and thus ready for patenting

before the critical date of April 24, 1991.

[25] [26] Cygnus, however, currently argues that the 386 System was experimental because (1) Alleman says it was experimental, and (2) each user only had to pay for whatever telephone charges his use of the system generated. Alleman's opinion that the 386 System was experimental before the critical date is contrary to the rule that reduction to practice cuts off access to the experimental use exception.FN14 "[O]nce an invention has been reduced to practice, it can no longer meet the experimental use exception." *Zacharin v. United States*, 213 F.3d 1366, 1369 (Fed.Cir.2000). Nevertheless, Cygnus argues at great length that the fact that the invention was not "commercially scalable" until April 25, 1991 indicates that all activity prior to that date was experimental. As commercial scalability is not a limitation of any claim, its absence is not relevant to the s. 102(b) analysis. *See STX, LLC v. Brine, Inc.*, 211 F.3d 588, 590-91 (Fed.Cir.2000). In fact, the claims at issue all refer to "the subscriber" and "a subscriber."

FN14. Defendants' motion to strike portions of Alleman's November 2, 2006 declaration under Fed.R.Evid. 701 as inadmissible legal opinions is granted. Similarly, defendants' motions to strike portions of Alleman's November 2, 2006 declaration under Fed.R.Evid. 602, 704, 802 are granted. Defendants' motion to strike under Fed.R.Evid. 402 is largely premised on the assumption that only the 386 System is relevant to the issues at hand. As it is not clear that the other matters about which Alleman testifies are irrelevant to the issues at hand, defendants' motion to strike under Fed.R.Evid. 402 is denied.

As the invention of the '027 patent was reduced to practice many months before the critical date, the second prong of Pfaff is met here.

C. Offer for Sale

[27] Alleman admits that while his 386 System was running in 1990, he charged users of the system for the costs of the calls that they made. Wood Decl. (dkt.# 681), Ex. 2 at 8-15 (Mar. 8, 2001 Alleman Depo. at 48, 64, 137-39). Cygnus argues that because Alleman made no profit from these transactions, they do not constitute a "sale" for purposes of s. 102(b).

[28] Whether a transaction generates a profit is not determinative of whether it constitutes a sale under s. 102(b). *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1381 (Fed.Cir.1998). In *Zacharin v. United States*, the Federal Circuit stated that "[a] contract to supply goods is a sales contract, regardless of the means used to calculate payment and regardless of whether the goods are to be used for testing in a laboratory or for deployment in the field." 213 F.3d at 1370. While Alleman provided services rather than goods, that is not a sound basis to distinguish *Zacharin*. Under the logic of *Zacharin*, payment constitutes a sale "regardless of the means used to calculate payment," and although Alleman may have only been charging his costs to the users, providing services in exchange for payment constitutes a sale. "A patent owner may have created an on-sale bar despite *losing* money on a sale." *U.S. Environmental Products Inc. v. Westall*, 911 F.2d 713, 717 (Fed.Cir.1990).

[29] Cygnus argues that the individuals who used his system prior to the critical date and paid his telephone charges were doing so for experimental purposes. However, Alleman's reduction to practice before June 27, 1990 cut off the ability to claim any experimental use. *See Zacharin*, 213 F.3d at 1369. However, even if Alleman's admission of reduction to practice before June 27, 1990, is ignored, Alleman further declared:

Before June 27, 1990, I had built a system that confirmed that my ideas would work.... However in order to make the invention compatible with telephone equipment, I needed software to implement the steps and system of my invention.

.....

23. The software I asked Mr. Gunther to prepare for me was completed by September, 1990. I was then in position to find a vendor for preparing a complete system for my invention, and marketing the invention to the public. To that end, I contacted a joint venture called "Call Interactive." The joint venturers were AT &

T, long known for expertise in making telephone service and hardware, and American Express, long known for its marketing expertise. On October 15, 1990, I entered into a confidential disclosure agreement with Call Interactive regarding implementing and marketing my invention

24. After receiving the disclosure in confidence of my invention, Call Interactive successfully completed the installation and development plans for introducing the invention, and set the date of April 25, 1991, as the date of product introduction.

Wood Decl. (dkt.# 681), Ex. 7 at para. 6, 23-25. Alleman, therefore, had clearly entered into a contract for the marketing and sale of the alleged invention prior to the critical date. A "sale" occurs when the parties offer or agree to reach a contract to give and pass rights of property for consideration. *See Special Devices, Inc. v. OEA, Inc.*, 270 F.3d 1353, 1355-57 (Fed.Cir.2001). The fact that Call Interactive's commercial use was kept secret until such time as marketing to the public was announced is irrelevant because either public use FN15 *or a sale* prior to the critical date precludes the ability to patent an invention. *See Woodland Trust v. Flowertree Nursery, Inc.* 148 F.3d 1368, 1370-71 (Fed.Cir.1998). Similarly, the fact that Call Interactive did not intend to begin public marketing until one day after the critical date does not preclude the statutory bar. *See Pfaff*, 525 U.S. at 67, 119 S.Ct. 304; *STX, LLC v. Brine*, 211 F.3d 588, 590 (Fed.Cir.2000) ("The fact that delivery was set for dates after the critical date is irrelevant to the finding of a commercial offer to sell.").

FN15. The court does not reach defendants' argument that Alleman's activity in providing services to individuals according to the method and system claimed in the patents-in-suit using his 386 system was a public use of the claimed invention.

The invention of the patents-in-suit was offered for sale more than a year before the initial patent application was filed. Defendants' motion for summary judgment that the patents-in-suit are invalid under s. 102(b) is therefore granted.

IV. OBVIOUSNESS

[30] Defendant United World Telecom, on behalf of all defendants, moves to have both patents-in-suit declared invalid as obvious under 35 U.S.C. s. 103(a). The Supreme Court has explained that "[w]hile the ultimate question of patent validity is one of law," several "factual inquires" are relevant to the determination: "the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved." *Graham v. John Deere Co.*, 383 U.S. 1, 17, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). Furthermore, "secondary considerations" such as "commercial success, long felt but unsolved needs, failure of others, etc." may also come into play. *Id.* at 17-18, 86 S.Ct. 684. As the Federal Circuit has explained, all this is a framework for determining "whether a person of ordinary skill in the art would have been motivated to combine the prior art to achieve the claimed invention and whether there would have been a reasonable expectation of success in doing so." *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed.Cir.2006). However, the question of what is the appropriate test for judging obviousness is pending before the Supreme Court in *KSR Intern. Co. v. Teleflex, Inc.*, --- U.S. ---, 126 S.Ct. 2965, 165 L.Ed.2d 949 (Mem.) (2006), and the outcome of that case could impact the obviousness analysis in this case.

Defendant United World Telecom's argument for the obviousness of all asserted claims begins with claim 11 of the '027 patent (which now stands finally rejected by the PTO), which reads:

In a method for economically using differences in tariff rates for international calls by originating calls from a location having relatively lower tariff rates to a location having relatively higher rates, in which a subscriber calls a service located in a jurisdiction having relatively low cost outbound calls, the service calls the subscriber back on an outbound circuit, the subscriber enters the telephone number of the called party in the called party's jurisdiction, the service calls the called party on a second outbound circuit, and the service bridges the two circuits to telephonically connect the subscriber and the called party, the improvement comprising

using direct inward dialing for the initial call from the subscriber to the service, and

the subscriber hangs up before there is a charge for the call from the subscriber to the service.

'027 patent, col. 10, line 63-col.12, line 4 (formatting altered). Defendant's argument for invalidity, as the court understands it, is based upon the following logic: (1) because claim 11 is in Jepson format, the preamble is admitted to be prior art; (2) Cygnus argued and the PTO stated during prosecution that the point of novelty of the invention was using a DID number to identify the subscriber; (3) it would have been obvious to one of ordinary skill in the art to combine DID identification with the admitted prior art of the preamble of claim 11 of the '027 patent; and (4) because the preamble of claim 11 of the '027 patent is admitted as prior art, there is no need to analyze the obviousness of the claims-at-issue limitation by limitation; rather, all that is required to prove obviousness is a showing that it would have been obvious to one of ordinary skill in the art to combine the preamble of claim 11 of the '027 patent with the use of DID numbers to identify subscribers.FN16 *See* 103 Mot. (dkt.# 674) at 9-16.

FN16. The parties' briefing on this issue contains scant citation to case law. The court's own research did not uncover a case in which the Federal Circuit directly addressed the issue of whether the admission of prior art for one Jepson claim should be construed as an admission only as to that Jepson claim or all claims in the same patent or, in addition, to claims in related patents. *See* *Rowe v. Dror*, 112 F.3d 473, 478 (Fed.Cir.1997) (all claims considered together because patent applicant had not addressed claims separately below); *Sjolund v. Musland*, 847 F.2d 1573 (Fed.Cir.1988) (all claims at issue in Jepson format); *Pentec, Inc. v. Graphic Controls Corp.* 776 F.2d 309, 312 (Fed.Cir.1985) (all claims at issue in Jepson format); *In re Fout*, 675 F.2d 297, 298 (Cust. & Pat.App.1982) (unclear whether any claims were not in Jepson format); *see also* *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed.Cir.2002) ("Whether to treat a preamble as a limitation is a determination resolved only on review of the entire patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim.") (quotation marks, brackets, and ellipses omitted).

[31] Cygnus's opposition, as far as the court can make it out, is that defendants have not shown that all limitations of each claim at issue are present in the prior art and that it would have been obvious to one of ordinary skill in the art to combine them. Defendant United World Telecom does present references which it represents are prior art disclosures of the limitations of claims 1 and 6 of both patents-in-suit. *See* Weisberg Decl. (dkt.# 677), Ex. 21. Defendant does not, however, show that the combination of all the limitations of these claims are found in the prior art except to the extent purportedly admitted by Cygnus, nor does defendant show that one of ordinary skill in the art would be motivated to combine the limitations of any claim at issue. "Although a preamble is impliedly admitted to be prior art when a Jepson claim is used unless the preamble is the inventor's own work, the claimed invention consists of the preamble in combination with the improvement." *Pentec, Inc. v. Graphic Controls Corp.*, 776 F.2d 309, 315 (Fed.Cir.1985) (citations omitted). Defendant has in essence handed the court the pieces of a jigsaw puzzle and asked the court to assemble it. Defendant has not shown "whether a person of ordinary skill in the art would have been motivated to combine the prior art to achieve the claimed invention and whether there would have been a reasonable expectation of success in doing so." *DyStar*, 464 F.3d at 1360. Defendant United World Telecom's motion for summary judgment on behalf of all defendants that the patents-in-suit are invalid as obvious is therefore denied.

VI. INFRINGEMENT

A. Infringement Judged on Court's Claim Construction

[32] Plaintiff Cygnus and several defendants have made motions for summary judgment of infringement or non-infringement of the patents-in-suit which must necessarily be determined using the court's claim construction. "An infringement analysis involves two steps. First, the court determines the scope and meaning of the patent claims asserted, and then the properly construed claims are compared to the allegedly infringing device." *Cybor Corp. v. FAS Technologies, Inc.*, 138 F.3d 1448, 1454 (Fed.Cir.1998) (internal citations omitted).

Cygnus describes the patents-in-suit as covering "the uncompleted call signaling configuration of international call-back." This description is far too broad in light of the court's claim construction. However, the court did not adopt all of defendants' claim construction positions, either. The parties' arguments for summary judgment are addressed based upon the court's construction of the patent claims at issue.FN17

FN17. Several defendants claim that under the Federal Circuit's decision in *NTP, Inc. v. Research In Motion, Ltd.*, 418 F.3d 1282 (2005), they cannot be liable for infringing the asserted method claims because certain steps, such as "the subscriber terminates the incoming call attempt," are for international call-back not performed in the United States. The Federal Circuit did hold that the performance outside of the United States of any step of a method claim precluded a finding of patent infringement. *Id.* at 1318. However, the Federal Circuit stated that it did "not hold that method claims may not be infringed under the 'sells' and 'offers to sell' prongs of section 271(a)." *Id.* at 1320-21. All defendants who make arguments are located in the United States, so at the very least, disputed issues of material fact remain as to whether *NTP* prevents them from being liable for infringing the asserted method claims.

B. Individual Summary Judgment Motions on Infringement

1. United World Telecom

[33] In case no. C-03-03596, Cygnus and defendant United World Telecom ("UWT") have made cross-motions for summary judgment regarding whether UWT infringes the patents-in-suit.FN18

FN18. At the hearing on these motions, UWT moved to strike reference to Cygnus's exhibits 299 and 400 through 404 because those exhibits were not served with Cygnus's motion for summary judgment against UWT. The court granted the motion. *See Fed.R.Civ.P. 56(e)* (supporting evidence shall be served with motion). Cygnus later argued that it had indeed served these six exhibits upon UWT. Revised MSJ-UWT (dkt.# 751) at 2. Examination of clerk's file reveals that the Sutton declaration served with Cygnus's original motion for summary judgment against UWT neither referred to exhibits 299 or 400 through 404 nor had any of them attached. *See Sutton Decl.* (dkt.# 689). However, because Cygnus's arguments based upon these exhibits are not persuasive, for the sake of argument, the court will assume the exhibits show the facts Cygnus argues that they show.

Some form of direct inward dialing appears in all of the asserted claims. FN19 Cygnus argues that exhibits 400, 401, and 404 show that UWT refers to the telephone numbers that UWT's subscribers dial to trigger call-back as "DID." What UWT calls these numbers is irrelevant to infringement analysis; if Cygnus could prove infringement by showing that UWT merely used Cygnus's terminology, claim construction would be unnecessary. Cygnus has presented no evidence that the "DID" referred to by UWT is "the last four or five numbers dialed by a subscriber which are passed to the system over a trunk line capable of carrying a direct inward dial number."

FN19. The phrase "direct inward dial telephone number" appears in claim 1 of the '964 patent seven times. '964 patent, col. 10, ll. 10-11, 17, 20, 26-30. It appears in claim 6 of the same patent six times. *Id.*, col. 10, l. 66, col. 11, ll. 3-4, 7-11. The phrase "direct inward dial number" appears twice in claim 1 of the '027 patent.

[34] Cygnus also argues that exhibits 401, 402, and 403 are evidence that UWT allows customers to "trigger," *i.e.*, initiate or precipitate, call-back. FN20 However, showing that UWT allows "triggering" of calls only goes part of the way towards proving UWT infringes claim 1 of the '027 patent, the only asserted claim in which "triggering" appears. Even if the court did not consider the evidence presented by UWT, Cygnus has fallen far short of showing that any method or device used by UWT meets each limitation of any one of the asserted claims, requiring the court to deny Cygnus's motion for summary judgment against UWT.FN21

FN20. Cygnus also argues that evidence of how defendants presently provide call-back services is relevant to claim construction. It is not. "[C]laims may not be construed by reference to the accused device." *NeoMagic Corp. v. Trident Microsystems, Inc.*, 287 F.3d 1062, 1074 (Fed.Cir.2002).

FN21. The hearing on these motions was held on November 21, 2006. On December 2, 2006, Cygnus filed a "revised" motion for summary judgment against UWT. Revised MSJ-UWT (dkt.# 751). Cygnus's justification for doing so was that the court had excluded Cygnus's exhibits 299 and 400 through 404, which Cygnus mistakenly asserted had been filed with its original motion. As Cygnus's premise for filing its revised motion is incorrect, the court denies Cygnus leave to file the motion. *See* Civil L.R. 7-3(d) ("[O]nce a reply is filed, no additional memoranda, papers or letters may be filed without prior Court approval."). As the court will not consider the revised motion against UWT, AT & T's motion to strike Cygnus's revised motion as an improper attempt for Cygnus to reargue aspects of claim construction relevant to defendants other than UWT (*see* Mot. Strike, dkt. # 755) is moot.

In connection with its cross-motion for summary judgment, UWT offers the declaration of Thierry Genoyer as evidence regarding its call-back operations. However, this declaration was submitted marked "under seal" purportedly "pursuant to the Court's Protective Order," but UWT did not make a motion to seal as required by Civil L.R. 79-5 or submit a proposed order. *See* Notice (dkt. # 120 in case no. C-03-03596). At the request of Cygnus, the magistrate judge assigned to this case extended a protective order that initially covered case no. C-02-00145 to all to all consolidated proceedings (*see* Protective Order, dkt. # 641). The magistrate judge altered the stipulated protective order in case no. C-02-00145 to specifically require the parties to comply with Civil L.R. 79-5. Protective Order (dkt. # 19 in case no. C-02-00145) para. 3. Under Civil L.R. 79-5(a), "[a] stipulation, or a blanket protective order that allows a party to designate documents as sealable, will not suffice to allow the filing of documents under seal." Cygnus objects that there is no court order allowing the Genoyer declaration to be filed under seal. As Cygnus is correct, the court will not consider the Genoyer declaration lodged on November 6, 2006, and clerk shall return it to UWT as required by Civil L.R. 79-5(e).

Although UWT lacks any competent evidence that it does not infringe, as the defendant, UWT may still be entitled to summary judgment by pointing out that Cygnus lacks evidence of a necessary element of a claim. *See* *Nissan Fire & Marine Ins. Co. v. Fritz Cos.*, 210 F.3d 1099, 1102 (9th Cir.2000). As discussed above, Cygnus has not presented evidence that UWT's methods or devices meet each limitation of the asserted claims. UWT's motion for summary judgment that it does not infringe the patents-in-suit is therefore granted.

2. Dial-Thru International

Cygnus moves for summary judgment of liability for infringement but not damages against defendant Dial-Thru International in case no. C-02-00142. The evidence that Cygnus presents in support of its motion is similar to that it seeks to present in connection with its motion for summary judgment against UWT. Cygnus offers printouts from several websites that show Dial-Thru and companies Dial-Thru acquired refer to DID numbers. *See* Cygnus Exs. 199 ("Callback works by assigning you a personal access number (called a 'DID number')."), 412 ("Enter DID"), 413 ("Your Access Code (DID)"), 414 ("Dial around works by assigning you a personal access number (called a 'DID number')."), 415 ("Enter your 10 digit DID number (the number given to you when you signed up)"). Beyond the fact that certain websites mention a "DID number," Cygnus has no evidence that Dial-Thru infringes any claims of the patents-in-suit.

[35] Cygnus does, however, recite that Dial-Thru's methods and devices contain the limitations of each of the five asserted claims. *See* MSJ-Dial-Thru (dkt.# 686) at 5-7. This recitation is without reference to and is completely unsupported by any evidence. In addition, Dial-Thru presents evidence that its subscribers do not trigger call-back using a DID number. Instead, for some services, customers dial a telephone number and a device associated with that telephone number sends an "alphanumeric sequence" of "at least seven characters" over the internet to Dial-Thru's facilities. Jenkins Decl. (dkt. # 262 in case no. C-02-00142) para. 6-7, 9-10. In some of these services, all customers in the same country call the same phone

numbers for service. Id. para. 10. For other Dial-Thru services, the customer does not dial a telephone number at all, but instead transmits an "alphanumeric sequence" of "at least seven character[s]" via "e-mail," "SMS message," or "a webpage" to Dial-Thru. Id. para. 8. Dial-Thru also explains that it referred to customers' access numbers as DID numbers to avoid confusing them, even after the method of providing service no longer used DID technology.FN22 Id. para. 12. This evidence shows that these services of Dial-Thru do not use DID numbers in the sense required by the patents-in-suit because passing "alphanumeric sequences" over the internet is not passing DID numbers "over a trunk line capable of carrying a direct inward dial number."

FN22. "[W]hen a claim term understood to have a narrow meaning when the application is filed later acquires a broader definition, the literal scope of the term is limited to what it was understood to mean at the time of filing." *Kopykake Enters. v. Lucks Co.*, 264 F.3d 1377, 1383 (Fed.Cir.2001).

Cygnus's motion for summary judgment against Dial-Thru is denied. FN23

FN23. Dial-Thru requests that its motion for summary judgment of non-infringement be granted. Opp'n (dkt. # 242 in case no. C-02-00142) at 12. Dial-Thru has not, however, noticed a motion for summary judgment since the court denied its 2003 motion for summary judgment.

3. GlobalPhone Corp.

Cygnus moves for summary judgment of infringement but not damages against defendant GlobalPhone Corp. in case no. C-02-05437. The evidence Cygnus presents in support of its motion is merely a general description of how GlobalPhone's service works from GlobalPhone's website. *See* Cygnus Exs. 417, 418. Cygnus also repeats its erroneous assertion that because GlobalPhone uses ten-digit access numbers, it necessarily uses DID numbers. Although not required to, GlobalPhone presents evidence that some of its services do not use DID numbers within the meaning of the patents-in-suit. *See* McCarthy Decl. (dkt.#) para.4-7. Cygnus's motion for summary judgment against Dial-Thru is denied.FN24·FN25

FN24. GlobalPhone also requests that its motion for summary judgment of non-infringement be granted. Opp'n (dkt. # 186 in case no. C-02-05437) at 10. GlobalPhone has not, however, noticed a motion for summary judgment since the court denied its earlier motion for summary judgment made in 2003.

FN25. Neither side's complaints about the other's conduct in discovery warrants consideration.

4. World-Link, Inc. and Americom, Inc.

In case no. C-03-04003, defendant World-Link, Inc. moves for summary judgment that it does not infringe the patents-in-suit. World-Link asserts that Cygnus lacks any evidence that World-Link's methods or devices infringe any one of the asserted claims. In response, Cygnus presents pages from World-Link's website explaining how World-Link's service works. Cygnus Ex. 425. This website indicates that each World-Link customer has a unique phone number he or she dials to access World-Link's service. *Id.* Beyond this, Cygnus has no evidence of how World-Link's services operate. On the other hand, World-Link presents a declaration, which although somewhat conclusory, states that "[n]one of the technologies used by World-Link for international callback services, whether sold to end-users or to carrier customers, used or included DID numbers" and that "[a]ll technologies used by World-Link for international callback send at least ten digits of the telephone number dialed by the customer over a digital signaling facility." Stamoulis Decl. (dkt. # 102-3 in C-03-04003 para.8, 11).

Cygnus lacks evidence that any method or device used by World-Link meets all the limitations of any asserted claim. World-Link's motion for summary judgment that it does not infringe either patent-in-suit is therefore granted.

Defendant Americom, Inc. joins World-Link's motion. Americom presents evidence that it only resells the services of World-Link and IDT. Kreutzer Decl. (dkt.# 716) para. 3. IDT settled with Cygnus; the settlement covered IDT services resold by Americom. Id. para. 4. Cygnus does not contest these facts. *See* Opp'n (dkt.# 729) at 3. As World-Link's motion for summary judgment has been granted, Americom is likewise entitled to summary judgment that it does not infringe the patents-in-suit.

5. A.M.S. Voicecom, Inc.

A.M.S. Voicecom, Inc. ("AMS") is also a defendant in case no. C-03-04003. AMS moves for summary judgment of non-infringement. As support for its motion, AMS presents evidence that instead of using "DID number" technology to provide call-back services, AMS uses only "Primary Rate Interface ('PRI') (a type of ISDN)." Guler Decl. (dkt.# 708) para. 24-25. In opposition, Cygnus presents an AMS webpage that mentions "Your 7 or 10 Digit DID (Key#) Number." Cygnus Ex. 421. Cygnus argues but presents no evidence that AMS's "PRI/ISDN exchange" is equivalent to the use of DID numbers. Opp'n (dkt.# 727) at 3. AMS has presented evidence that it does not use DID numbers within the meaning of the patents-in-suit. Cygnus has no evidence to the contrary and therefore lacks evidence sufficient to prove that AMS infringes any asserted claim. AMS's motion for summary judgment is granted.

VII. PROCEDURAL OBJECTIONS

The parties raise several procedural objections. *See, e.g.*, 103 & 112 Opp'n (dkt.# 698) at 1-3. Any procedural objections not addressed elsewhere are relatively minor and in light of past history balance out and do not affect significant substantive rights. Given the lengthy nature of these proceedings, deciding issues on the merits is preferable.

VIII. ORDER

For the reasons given above, the court:

1. Construes the disputed language of the claims as follows:

Term or phrase	Court's construction
"after the subscriber terminates the incoming call attempt"	no construction necessary
order of steps of claim 6 of '964 patent	Steps [1], [2], and [3] may occur in any order relative to each other, but all must occur before step [4]. After step [4], steps [a][ii], [a][i], [a][iii], [b], [c] and [d] must occur in that sequence.
"direct inward dial telephone number"	the last four or five numbers dialed by a subscriber which are passed to the system over a trunk line capable of carrying a direct inward dial number
"telephone communication link"	no construction necessary
"telephone exchange"	a system of electronic components that connects telephone calls
"telephone connection means"	"means-plus-function" limitation with function of being operable for connecting and receiving with corresponding structure of a telephone line or its equivalent
"telephone exchange connection"	telephone line
"subscriber telephone station"	a device that allows audio communication over a telephone network
"dialing"	no construction necessary
"calling"	no construction necessary
"trunk line"	a phone line specially configured to pass a DID number along with a call
"service center"	the central location at which the system apparatus carries

	out the process of the invention
"enters"	dials
"triggered"	initiated or precipitated
"control means"	means-plus-function limitation with eight functions (managing a data base, comparing, calling the subscriber, connecting to the subscriber station, receiving, calling the destination, connecting to the destination, and bridging) with corresponding structure of a computer or its equivalent
"automatic bridging device"	no construction necessary

2. Denies defendants' motion that the patents-in-suit are invalid because certain limitations are indefinite;
3. Denies defendants' motion that the patents-in-suit are invalid for failure to disclose the best mode in violation of 35 U.S.C. s. 112 para. 1;
4. Grants defendants' motion that the patents-in-suit are invalid under the on-sale bar of 35 U.S.C. s. 102(b);
5. Denies defendants' motion that the patents-in-suit are obvious under 35 U.S.C. s. 103(a);
6. Denies Cygnus's motion for leave to file a revised motion for summary judgment against UWT;
7. Denies Cygnus's motions for summary judgment of infringement against UWT, Dial-Thru, and GlobalPhone;
8. Grants the motions of UWT, World-Link, Americom, and AMS for summary judgment of non-infringement;
9. Overrules all procedural objections not elsewhere addressed; and
10. Requests the clerk return the Genoyer declaration lodged on November 6, 2006 to UWT pursuant to Civil L.R. 79-5(e).

As this order disposes of all claims in these consolidated proceedings except case no. C-04-04247, judgments will be entered in favor of all defendants in the pending cases except case no. C-04-04247.

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