

United States District Court,
E.D. Texas, Marshall Division.

IAP INTERMODAL, L.L.C.,
v.
NORTHWEST AIRLINES CORP.

Civil Action No. 2:04-CV-65

Sept. 7, 2005.

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MEMORANDUM OPINION AND ORDER

T. JOHN WARD, District Judge.

The court issues this order to resolve the parties' various claim construction disputes.

1. Introduction.

The plaintiff, IAP Intermodal, LLC, asserts various claims of three United States patents against the defendants, various airlines . FN1 The patents, entitled "Method to Schedule a Vehicle in Real-Time to Transport Freight and Passengers," are related and share common specifications. Throughout this opinion, citations to the specifications are to the '362 patent. The court begins with an overview of the technology, followed by a discussion of the legal principles relevant to claim construction. The court concludes by addressing the parties' claim construction disputes-which involve, at bottom, a contention that the invention is limited to a real-time method of scheduling.

FN1. The patents are United States Patent Nos. 6,240,362 B1 ('362 Patent), 6,385,537 B2 ('537 Patent), and 6,411,897 B1 ('897 Patent).

2. Overview of the Technology at Issue

In general, the patents relate to a method to schedule a vehicle to transport both freight and passengers. '362 Patent, Abstract. It is expensive to service, on a regular basis, the transportation needs of outlying areas, such as rural or mountainous regions. According to the patent, carriers dropped many routes because they were unprofitable. This reduced the mobility of the inhabitants of these areas. '362 Patent, col. 1, ll. 18-24.

As such, a need existed to schedule new routes using a vehicle that could transport both passengers and freight at the same time. By transporting both passengers and freight at the same time, fees charged for freight transportation could help underwrite the costs incurred in transporting passengers. '362 patent, col. 1, ll. 26-30. In addition, the patent explains that the need to transport freight to the outlying areas might change rapidly. Variables, such as weather and economics, required flexibility in the transportation schedule. '362 patent, col. 1, ll. 32-45. Finally, the patent observes that transportation demands could change even while the vehicle was in route. For instance, a vehicle traveling to Town A for a single delivery might have its delivery cancelled. The patent cites a need to re-route the vehicle to the next destination, while avoiding unnecessary travel to Town A. The patents purport to solve these problems by allowing schedule and route modifications to better service the transportation needs of the communities. '362 patent, col. 1, ll. 46-53.

3. Legal Principles Relevant to Claim Construction

"A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention." *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed.Cir.1999). Claim construction is an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent's claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed.Cir.2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed.Cir.1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics*, 952 F.2d 1384, 1388 (Fed.Cir.1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed.Cir.1994).

This court's claim construction decision must be informed by the Federal Circuit's recent decision in *Phillips v. AWH Corporation*, 415 F.3d 1303, 2005 WL 1620331 (Fed.Cir. July 12, 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the *claims* of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d 1303, 2005 WL 1620331 at *4 (emphasis added) (*quoting Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1115 (Fed.Cir.2004)). To that end, the words used in a claim are generally given their ordinary and customary meaning. *Id.* at *5. The ordinary and customary meaning of a claim term "is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e. as of the effective filing date of the patent application." *Id.* This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention. The patent is addressed to and intended to be read by others skilled in

the particular art. *Id.*

The primacy of claim terms notwithstanding, *Phillips* made clear that "the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification." *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of "a fully integrated written instrument." *Id.* at ----6-7 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at ----7-8. As the Supreme Court stated long ago, "in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims." *Bates v. Coe*, 98 U.S. 31, 38, 25 L.Ed. 68 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa' per Azioni*, 158 F.3d 1243, 1250 (Fed.Cir.1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction.

Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. The prosecution history helps to demonstrate how the inventor and the PTO understood the patent. *Phillips*, 415 F.3d 1303, 2005 WL 1620331 at *9. Because the file history, however, "represents an ongoing negotiation between the PTO and the applicant," it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence. That evidence is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims.

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed.Cir.2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Id.* at ----13-14. The approach suggested by *Texas Digital*-the assignment of a limited role to the specification-was rejected as inconsistent with decisions holding the specification to be the best guide to the meaning of a disputed term. *Id.* According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of "focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of the claim terms within the context of the patent." *Id.* at *14. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.* What is described in the claims flows from the statutory requirement imposed on the patentee to describe and particularly claim what he or she has invented. *Id.* The definitions found in dictionaries, however, often flow from the editors' objective of assembling all of the possible definitions for a word. *Id.*

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim

construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at *16. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant. The court now turns to a discussion of the claim construction disputes.

4. Parties' Claim Construction Disputes

A. Real-time limitation

Primarily, the parties dispute whether the invention described in the patents is limited to a scheduling environment that occurs in real-time. Although the language of the claims does not explicitly refer to "real time" scheduling, the specification is replete with references to that concept. The prosecution history is also unambiguous on this issue. As such, the court agrees with the defendants that the claims of the patents-in-suit are limited to scheduling passenger transportation and freight requests in real-time.

The specification provides a detailed explanation of the method of the claimed invention. A host computer receives transportation requests from a freight terminal and/or a passenger terminal connected to the host over a network such as the Internet. These requests can be requests to pick up and deliver freight, to transport passengers, to reschedule a previously scheduled or cancelled request, to cancel a previously scheduled request, etc. The host then creates a route or routes having destinations based on the received transportation requests. The host predicts arrival and departure times and generates a route schedule that includes these predicted times. The host transmits the generated schedule to a vehicle, and the vehicle embarks on the route. Periodically, the vehicle updates the host as to actual arrival and departure times, and the host updates the schedule accordingly. In addition, the host computer updates the schedule to reflect new destinations added while the vehicle is in route. The host also updates the schedule to reflect cancellations. The generated and updated schedules are posted at the host and are accessible from the passenger and freight terminals over the network. In this way, freight shippers and passengers may access the updated schedules and plan their transportation needs accordingly. *See generally* '362 patent, col. 3, ll. 30-67.

Throughout the specification, the patent repeatedly emphasizes the nature of the invention as a real-time method for scheduling freight and passenger transportation requests. The title of the patent is a "Method to Schedule a Vehicle in Real-Time to Transport Freight and Passengers." The Abstract states that the patent is "[a] method of scheduling a vehicle in real-time to transport freight and passengers." Likewise, in the Background of the Invention, the patent states that "[t]his application relates to scheduling methods. More specifically, the present invention relates to scheduling, in real time, freight and passenger transportation." '362 patent, col. 1, ll. 14-16.

The Background of the Invention explains the distinction between prior art scheduling and that of the invention:

Prior art passenger scheduling (i.e. airlines, trains, coaches, etc.) generally uses fixed schedules. That is, the destinations and corresponding arrival/departure times are fixed whether there is a demand for service at a given location and time or not. Passenger schedules can be "bumped" in certain situations. For instance, an airline may reschedule or reroute flights due to weather conditions at one of the airports. However, these schedules *are not created in real-time based on the transportation needs of the serviced communities*. Instead, these schedules are "bumped" based on external factors (i.e. the weather, engine problems, etc.). These schedules are still fixed.

'362 patent, col. 1, ll. 55-67 (emphasis added). The Background of the Invention discusses a number of prior art approaches and observes that "[n]one of the above references teach the real time scheduling of both passengers and freight from a single vehicle. Hence, a need exists that provides a scheduling method that utilizes a vehicle that is capable of hauling both freight and transporting passengers that provides a real time scheduling process for both passengers and freight." '362 patent, col. 2, ll. 58-63.

The Summary of the Invention section also expressly references the real-time nature of the invention. The topic sentence of the very first paragraph announces that "[t]he present invention is a method to schedule a vehicle in real-time to simultaneously transport freight and passengers." '362 patent, col. 3, ll. 3-4 (emphasis added). Elsewhere, the Summary of the Invention provides the same explanation, albeit in slightly different terms: "[t]he present invention is a method of scheduling a vehicle in real-time to transport both freight and passengers simultaneously." '362 patent, col. 3, ll. 31-33 (emphasis added). According to the Summary of the Invention, "the scheduling method of the present invention allows for new unserved or underserved passenger and freight routes to be added on a real-time basis as either becomes available on the route and the schedule is constantly updated as passenger and freight requirements dictate." '362 patent, col. 3, ll. 24-29.

The preferred embodiments are consistent with the more general descriptions of the invention. In the Detailed Description of the Invention, the patent explains how the disclosed embodiment can be used to schedule a vehicle in real-time. See '362 patent, col. 6, l. 39-col. 8, l. 18. That passage concludes by stating "[a]s such, the vehicle is scheduled in real-time. That is, the route schedule is updated to reflect changes to the transportation needs of the serviced communities and the actual and travel times of the vehicle 150." '362 patent, col. 8, ll. 14-18.

Ultimately, however, the court locates the most persuasive piece of intrinsic evidence in the prosecution history. In a Petition to Make Special, the patentee explicitly described the scope of his invention:

None of the references below individually, or when combined together teach a *real time method* of dynamically creating new routes only when profitable (i.e., a predetermined number of passengers and a predetermined freight requirement based on incoming requests) and then dynamically updating and scheduling the pickup and drop off of both passengers and freight in a single vehicle capable of carrying both passengers and freight as claimed as a single invention in claims 1, 8, and 13 and their corresponding dependent claims.

(emphasis added). The law is settled that unambiguous statements in a Petition to Make Special can create an estoppel and inform the scope of the claims. *Gentry Gallery v. Berkline Corp.*, 134 F.3d 1473, 1477 (Fed.Cir.1998). The statements made by the patentee in the Petition to Make Special unambiguously characterize the scheduling method of the present invention to a real-time method. Moreover, the statements explicitly distinguish the prior art on that basis.

The plaintiff points to one portion of the specification in support of its construction. That portion states, in describing the process of Figures 2, 4 and 5, that:

It is to be expressly understood that the process of Fig. 2 and Figs. 4 and 5 is a continuous and iterative process which may be periodic, a periodic, or continuously operating in the background of the host 140.

'362 patent, col. 11, ll 43-45 (emphasis added). The plaintiff reads this statement to mean that the processes described in Figs. 2, 4, and 5 might be operating "periodically" (i.e. weekly or monthly), "a periodically" (i.e. whenever asked to do so by a host user) or "continuously" (i.e. real time). The plaintiff also attempts to explain away the prosecution history by suggesting that the inventor's statement only addressed "a single invention, of many inventions, found in the claims of the patent application." Plaintiff's Reply Brief at 5 n. 2.

Neither of these arguments is persuasive. First, the terse references in the specification to the "periodic" and "aperiodic" operation of the routines disclosed by Figures 2, 4, and 5 must be read in the light of the repeated explicit references in the specification and the prosecution history which limit the invention to real-time methods. Second, contrary to the plaintiff's arguments, the Petition to Make Special refers to the independent claims of the '362 patent and, in doing so, to the overall inventions of the patents. Statements in the Summary of the Invention and the prosecution history which broadly describe the overall inventions of the patents may limit the scope of claims even though the language of the claims, read in isolation, might support a broader construction. Microsoft Corporation v. Multi-Tech Systems, Inc., 357 F.3d 1340, 1348-49 (Fed.Cir.2004). Moreover, the cited portion of the specification observes that the process "is a continuous and iterative process" which is consistent with the flexibility inherent in the patented invention. The specification and the prosecution history compel the conclusion that the invention claimed in the patents-in-suit are limited to real-time scheduling methods. These methods contemplate flexible schedules and routes (i.e. those that are not fixed, but rather are capable of change based on received transportation requests).

B. Specific terms in dispute

The court has adopted the view that the patents-in-suit are limited to a real-time environment. Where appropriate, the court has fashioned definitions consistent with this view. In particular, the court has adopted the defendants' view that the transportation requests must be prospective in nature. Furthermore, the court is of the opinion that the routes and schedules must be capable of change based on the received transportation requests. These are the terms most directly impacted by the court's holding that the claims are limited to real-time scheduling methods.

1. Host Computer.

The plaintiff contends that the term "host" means "a computer system having one or more computers." The defendants contend that the "host" is the "primary or controlling computer in the system." As used in the patents, the term "host" refers to the primary or controlling computer in a multi-computer system. As such, the court adopts the defendants' proposed definition.

2. Computer Network.

Next, the parties dispute the term "computer network." The plaintiff contends that "network" means "a group of two or more computer systems linked together." The defendants contend that term means "any set of devices or subsystems capable of linking a plurality of terminals to a host." Although the court concludes that the plaintiff's proposed construction is nearly correct, the concept of a computer network suggests the interconnection of a plurality of computers for the exchange of data or information. The court defines a computer network to mean "a plurality of computers interconnected for purposes of exchanging information."

3. Remote Terminals

The next group of disputed terms involves the remote terminals.

A. Freight Terminal/Plurality of Freight Terminals.

The plaintiff contends that these terms mean "one or more remote computers or Internet devices used to communicate a consumer freight request." The defendant contends that this term means "a device for communicating freight transportation requests to a host via a network." In the context of the patent, the description of the preferred embodiment explains that the terminals are personal computers or other Internet appliances (e.g., digital handheld telephones with Internet access) with access to the network. '362 patent, col. 5, ll. 55-60. This passage does not explicitly limit freight terminals to Internet appliances or devices. Nor is there support for limiting the term to "consumer" freight requests. As such, the court defines freight terminal to mean "a device for communicating freight transportation requests to a host over a network." "Plurality" is defined as "two or more."

B. Passenger terminal/Plurality of Passenger terminals.

For essentially the reasons set forth in the preceding term, the court defines passenger terminal to mean "a device for communicating passenger transportation requests to a host over a network."

4. Transportation Requests

With respect to the next group of terms, the parties' differences flow from the real-time nature of the invention. The primary dispute is whether a given transportation request must be "prospective" in nature. The defendants contend that, consistent with the limitation of the invention to a real-time environment, the transportation request must relate to a transportation service transmitted from a terminal to the host *before* the transportation service is fulfilled or in anticipation of some future service. As detailed above, the court has concluded that the invention is limited to real-time scheduling. This holding guides the court through this group of terms.

A. Request, Transportation Request, and Transportation Requests

The plaintiff contends a request is "a consumer message transmitted from a remote terminal relating to the transportation of cargo or passengers on a vehicle." The defendant contends that "request" is "an inquiry relating to a transportation service transmitted from a terminal to a host before that transportation service is fulfilled." The nature of the patented invention requires the court to adopt the defendants' proposed construction. Accordingly, the court defines "request," "transportation request," and "transportation requests" as "an inquiry (or inquiries) relating to a transportation service transmitted from a terminal to a host before that transportation service is fulfilled."

B. Freight Transportation Request

Consistent with the holding above, the court defines the term "freight transportation request" to mean "an inquiry relating to a freight transportation service transmitted from a freight terminal to the host before that transportation service is fulfilled."

C. Passenger Transportation Request

The court defines this term to mean "an inquiry relating to a passenger transportation service transmitted

from a passenger terminal to the host before that transportation service is fulfilled ."

D. Said received transportation requests

These terms appear in claims 1 and 12 of the '362 patent and in claim 8 of the '537 patent. The plaintiff contends that these terms mean "consumer messages received from remote terminals relating to the transportation of cargo or passengers on a vehicle." The defendant suggests that these terms mean "both the passenger and freight transportation requests received by the host." The issue is whether "transportation requests" include both freight *and* transportation requests and whether the court should include the term "consumer" in the definition.

To put the dispute in context, the language of claim 1 of the '362 patent includes the limitations of "receiving ... freight transportation requests," "receiving passenger transportation requests," and "creating a route at the host having destinations *based on said received transportation requests*, said route created only when a predetermined number of passengers and a predetermined freight requirement is obtained." Claim 8 of the '537 patent requires "receiving over the network transportation requests at the host from said plurality of freight terminals and from said plurality of passenger terminals" and creating a route for the transport of the freight and passengers at the host based on "*said received transportation requests*." The reference to "received transportation requests" refers to both the passenger and freight transportation requests received by the host. As such, the court adopts the defendants' construction of this term.

5. Creating, Generating and Modifying Routes

A. Creating.

The plaintiff contends that "creating" should be defined as "selecting, forming, or making." The defendants contend that the term should be defined as "making or bringing into existence, in real time, something new." The court defines the term "creating" as "forming or making."

B. Generating

The plaintiff contends that this term means the same as creating, and proposes a definition of "selecting, forming, or making." The defendants again urge their real time limitation and contend that the term means "defining, in real time, by the application of one or more rules or operations to given quantities." The patents use the terms "creating" and "generating" differently. In the context of "generating," the patents use the word to connote a meaning of "producing," such as in the context of "generating route schedules." After reviewing the briefs and the intrinsic record, the court therefore defines "generating" to mean "producing."

C. Route

The plaintiff contends that this term means "a course or pathway defined by departure locations, destination locations or vehicles for travel on the transportation network." The defendants contend that the term means "a dynamic (i.e. not fixed) path a vehicle will travel." The defendants argue that the central advantage of the invention is that the routes created by the host can be modified at any time to capture additional fares, even after the vehicle has begun traveling its route. Defendants' Brief at 27. According to the defendants "[d]ynamic does not imply that the routes are constantly changing, but merely that a salient feature of the routes is that they can be changed to accommodate transportation requests as received." Defendants' Brief, at 28. Consistent with the court's view that the patents describe real-time methods, the court construes the term

"route" to mean "a course or pathway that is capable of changing based on received transportation requests."

D. Creating a Route

This term is a combination of two terms addressed previously. The court is persuaded that this term needs no additional construction.

E. Creating New Routes.

This phrase appears in claims 12 and 13 of the '362 patent. In the context of these claims, the relevant limitations require the creation of new routes based on the received transportation requests and the existing routes. The court defines "new routes," as suggested by the defendants, to mean "routes that did not exist prior to the receipt of the passenger and freight transportation requests." The balance of this phrase needs no additional construction.

F. Existing Routes

The plaintiff contends that this term means "existing courses or pathways defined by departure locations, destination locations or vehicles for travel on the transportation network." The defendants contend that this term means "routes created *prior* to the receipt by the host of the passenger and freight transportation requests." In the context of the claims, the phrase "existing routes" means routes that were in existence before the receipt of the transportation requests. As such, the court concludes that the defendants' construction of this phrase is appropriate and adopts it.

G. Modifying Existing Routes/Modifying ... the Existing Routes

The court construes the term "modifying" to mean "changing or altering." The balance of this phrase needs no additional construction.

H. Route Schedule

The plaintiff defines "route schedule" to mean "the time a vehicle will travel between a departure and destination location." Consistent with the view that the claims are limited to real-time methods, the defendants define the term as "a dynamic (i.e. not fixed) transportation timetable for a vehicle traveling along its respective route." The court construes the term "route schedule" consistent with the court's holding that the claims are limited to a real-time environment to mean "a transportation timetable for a vehicle traveling along its respective route which timetable is capable of changing based on received transportation requests."

I. Generating a Route Schedule/Generating ... a Route Schedule

These phrases need no additional construction.

6. "Based On" and "Predetermined" Claim Terms

A. Based On

The plaintiff contends that "based on" means "taking into consideration." The defendants contend that the term means "in order to fulfill." The specification of the patent states that after receiving transportation

requests, "the host then creates a route or route having destinations *based on* the received transportation requests." Col. 3, ll. 39-40 (emphasis added). This passage implies that the route is created to fulfill the received requests and thus supports the defendants' proposal. Certain claims, however, use the phrase "based on" in a broader sense-a manner consistent with the plaintiff's proposed definition. Claim 12 of the '362 patent, for instance, includes the limitation of "creating new routes based on said received transportation requests and said existing routes." The "existing routes" referenced in dependent claim 12 are stored in memory at the host. '362 patent, claim 12. A definition of "based on" to mean "in order to fulfill" would make little sense in the context of claim 12 because claim 12 would require the creation of new routes "*in order to fulfill* said received transportation requests *and said existing routes.*" At least in the context of claim 12, the patentee used the term "based on" to mean "taking into consideration." It is presumed, moreover, that the patentee used the terms consistently throughout the claims. "Based on" therefore means "taking into consideration."

B. Based on said received transportation requests/based on the received transportation requests

These phrases need no additional construction.

C. Creating a route ... based on said received transportation requests/creating new routes based on said received transportation requests/creating new routes....based on received transportation requests/creating ... new routes ... based on the received transportation requests

These phrases need no additional construction.

D. Predetermined

The plaintiff proposes that this term means "to know, anticipate, ascertain or determine beforehand." The defendants contend that predetermined must mean "determined before the route is created." The court defines "predetermined" to mean "determined beforehand."

E. Predetermined Profit Value

The plaintiff contends that this term means "an expected level of revenue above costs for a particular route, vehicle or route schedule." The defendants contend that the term means "the revenue generated by transporting some or all of the passengers and freight, as requested in the received passenger and freight transportation requests, along a particular route exceeds the costs associated with that transportation by a threshold amount *decided before that route was created.*" (emphasis added). The court adopts the plaintiff's proposed construction, together with the court's prior definition of predetermined, such that this term means "an expected level of revenue above costs for a particular route, vehicle or route schedule, which level is determined beforehand."

7. "Combination" Phrases

Several of terms presented in the parties' briefing are simply combinations of the terms and phrases set forth above. Not all of these phrases require additional construction; however, the court has set forth some additional constructions and holdings below, when the court has determined that such constructions would aid the parties and the jury in understanding the scope of the claims.

A. Analyzing existing routes stored in memory at the host.

This phrase needs no additional construction, although the court rejects the defendants' attempt to require the analysis to occur "using the host computer" as suggested in its proposed definition.

B. Modifying ... the existing routes to accommodate said received transportation requests/modifying the existing routes to accommodate said received transportation requests

The court has reviewed the parties' proposed definitions and defines this phrase pursuant to the defendants' proposal to mean "changing the routes created prior to receipt of the passenger and freight transportation requests to transport some or all of the passengers and freight, as requested in the received passenger and freight transportation requests."

C. Creating new routes at the host ... only when at least a predetermined profit value for each new route is obtained

The court has determined that no additional construction of this phrase is necessary.

D. Creating a route ... only when a predetermined profit value based on said received transportation requests is generated

The court has determined that no additional construction of this phrase is necessary.

E. Said route created only when the vehicle can transport a predetermined number of passengers and a predetermined freight requirement

The court has determined that no additional construction of this phrase is necessary; however, the court rejects the defendants' definition insofar as it requires the host to determine that a particular vehicle can transport the predetermined number of passengers and freight requirements.

F. Generating ... a route schedule including said predicted arrival and departure times for each destination along said route/generating a route schedule ... including said predicted arrival and departure times for each destination along said route/generating a route schedule for each new route including said predicted arrival and departure times for each destination along said route.

The court has concluded that no additional construction of these phrases is necessary.

8. Times, Locations and Destinations

Finally, the court addresses a group of terms relating to times, locations and destinations.

A. Pickup times

The plaintiff proposes that pickup times be defined as "the scheduled or requested departure time for passengers or freight." The defendant proposes that the term means "two or more times to take aboard passengers or freight." The parties' disputes are whether use of the plural "times" requires there to be "two or more times" and whether use of the word "pickup" connotes the actual departure of a vehicle or the time at which passengers are "taken aboard." After considering the parties' arguments, the court believes that the reference in the claims to the plural "times" requires two or more times, but the court otherwise adopts the plaintiff's construction of this phrase. The court construes "pickup times" to mean "the scheduled or requested departure times for passengers or freight."

B. Pickup locations

Similarly, the court construes the term "pickup locations" to mean "the scheduled or requested departure locations for passengers or freight."

C. Destination times

The court construes the term "destination times" to mean "the scheduled or requested arrival times for a vehicle traveling to a destination."

D. Destination locations

The court construes the term "destination locations" to mean "the scheduled or requested locations to which a vehicle is traveling."

E. Freight requirements

The court construes the term "freight requirements" as suggested by the defendants to mean "the volume and weight of the freight."

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