

## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

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# PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year)

**24 NOV 2014**

Applicant's or agent's file reference  
PA6445PCT

**FOR FURTHER ACTION**

See paragraph 2 below

International application No.

PCT/US2014/049979

International filing date (day/month/year)

06 August 2014

Priority date (day/month/year)

06 August 2013

International Patent Classification (IPC) or both national classification and IPC

IPC(8) - G06Q 10/00 (2014.01)

CPC - G06Q 10/02 (2014.09)

Applicant AMGINE TECHNOLOGIES LIMITED

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US  
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Date of completion of this opinion

18 October 2014

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## Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
  - the international application in the language in which it was filed.
  - a translation of the international application into \_\_\_\_\_ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
  - a. (means)
    - on paper
    - in electronic form
  - b. (time)
    - in the international application as filed
    - together with the international application in electronic form
    - subsequently to this Authority for the purposes of search
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	<u>5-12, 19</u>	YES
	Claims	<u>1-4, 13-18, 20</u>	NO
Inventive step (IS)	Claims	<u>None</u>	YES
	Claims	<u>1-20</u>	NO
Industrial applicability (IA)	Claims	<u>1-20</u>	YES
	Claims	<u>None</u>	NO

## 2. Citations and explanations:

Claims 1-4, 13-16, 20 lack novelty under PCT Article 33(2) as being anticipated by Crean et al., hereinafter referred to as Crean.

Regarding claims 1, 13, 20, Crean discloses a method and system for guaranteeing a price of a travel itinerary (method and system for protecting prices, abstract, Fig. 1), the method comprising: non-transitory computer-readable medium comprising instructions, which when executed by one or more processors (para 38-39), perform the following operations: receiving, by a processor, one or more travel attributes from a customer (receives an itinerary specification from the consumer, para 12; receive itinerary specification component 105 receives a specification from a consumer that identifies one or more itinerary criteria. For example, the itinerary specification for an airline flight may contain a departure date, para 35, fig. 1; see Fig. 4, para 42); based on the one or more travel attributes, generating, by the processor, one or more itineraries (system locates available tickets that match the itinerary specification, para 12; The determine itinerary pricing component 110 determines the current prices for tickets that match the received itinerary specification para 35; see Fig. 4, para 42); providing, by the processor, to the customer, the one or more itineraries (see Fig. 4, para 42), wherein the one or more itineraries have an option to lock the price of the one or more itineraries for a predetermined period of time (the price protection system reports to the consumer that price protection is available for the itinerary specification, along with a protected price and a protection fee, para 12; system offers protection for price, para 35; fare guard 440, Fig. 4, para 42); receiving, by the processor, from the customer, a locking request to lock the price of a selected itinerary from the one or more itineraries (para 12; receive protection request component 125 receives a request from a consumer to purchase protection, para 35; fare guard 440, Fig. 4, para 42); based on the locking request, receiving, by the processor, from the customer, a payment for locking the price of the selected itinerary (para 12; request may include additional information such as payment details; para 35; fare guard 440 for price 442, Fig. 4, para 42); and locking, by the processor, the price of the selected itinerary (para 12; protected price locked in by the consumer, para 36; protect airfare of \$312 for one week for only \$1, see Fig. 4, para 42).

Regarding claims 2, 14, Crean discloses wherein the one or more travel attributes include one or more of the following: a departure date, an arrival date, a destination country, a destination city, a desired flight class, a dietary meal, a specific need, hotel preferences, and car preferences (when searching for air travel the itinerary specification may specify a location where the consumer wants to travel, what airport they want to leave from, the dates and times that they want to travel, whether the consumer wants a direct flight, how many companions are traveling with the consumer, para 12, 35).

Regarding claim 3, Crean discloses based on the locking request, purchasing, by the processor, the selected itinerary at the price (para 12; protected price locked in by the consumer, para 36; protect airfare of \$312 for one week for only \$1, see Fig. 4, para 42).

Regarding claim 4, Crean discloses receiving, by the processor, a purchase request from the customer to purchase the selected itinerary (purchase request from consumer to purchase the itinerary with or without Fare Guard, see para 34-36, 42, Fig. 4); based on the purchase request, charging the customer the price of the selected itinerary (see para 34-36, 42, Fig. 4).

Regarding claim 15, Crean discloses wherein the processor is further configured to purchase the selected itinerary at the price based on the locking request (para 12; protected price locked in by the consumer, para 36; protect airfare of \$312 for one week for only \$1, see Fig. 4, para 42).

Regarding claim 16, Crean discloses wherein the customer purchases the selected itinerary at the price within the predetermined period of time (protected price locked in by the consumer, para 36; protect airfare of \$312 for one week for only \$1, see Fig. 4, para 42).

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**Supplemental Box**

**In case the space in any of the preceding boxes is not sufficient.**

Continuation of:

Claims 1, 3-4, 13, 17-18 lack novelty under PCT Article 33(2) as being anticipated by United Hub, hereinafter referred to as United.

Regarding claims 1, 13, United discloses a method and system for guaranteeing a price of a travel itinerary (farelock allows you to hold a ticket fare for a period of time, pg.1), the method comprising: receiving, by a processor, one or more travel attributes from a customer (customer searches for flights at united.com, pg. 1-2); based on the one or more travel attributes, generating, by the processor, one or more itineraries (different fares for flights, pg. 1-2); providing, by the processor, to the customer, the one or more itineraries, wherein the one or more itineraries have an option to lock the price of the one or more itineraries for a predetermined period of time (farelock option to hold itinerary and fare, see Fig. 1, pg. 1-2); receiving, by the processor, from the customer, a locking request to lock the price of a selected itinerary from the one or more itineraries (customer selects one of two options for farelock, see fig. 1, pg 1-2); based on the locking request, receiving, by the processor, from the customer, a payment for locking the price of the selected itinerary (customer profiles fee of either \$9 or \$19 depending on selection, Fig. 1, pg 1-2); and locking, by the processor, the price of the selected itinerary (farelock locks itinerary and fare, pg. 1-2).

Regarding claim 3, United discloses based on the locking request, purchasing, by the processor, the selected itinerary at the price (purchasing itinerary at farelock price, fig. 1, pg 1-2).

Regarding claim 4, United discloses receiving, by the processor, a purchase request from the customer to purchase the selected itinerary (purchasing itinerary, fig. 1, pg 1-2); based on the purchase request, charging the customer the price of the selected itinerary (purchasing itinerary at farelock price, fig. 1, pg 2).

Regarding claim 17, United discloses wherein the customer cancels the locking of the selected itinerary within the predetermined period of time (cancel saved itinerary, pg2), the payment for locking the selected itinerary being kept by the system (farelock fee is nonrefundable, pg.2).

Regarding claim 18, United discloses wherein the predetermined period of time is selected by the customer from one or more available periods, the price of the selected itinerary differing being based on the predetermined period of time selected by the customer (see Fig. 1, showing that the itinerary and fare may be held by purchasing one of two options for Farelock, either the 72 hour hold for \$9 or the 7 day hold for \$19, pg.1).

Claims 1, 13, 20 lack novelty under PCT Article 33(2) as being anticipated by Cooper et al.

Regarding claims 1, 13, 20, Cooper et al. disclose a method and system for guaranteeing a price of a travel itinerary (para 6, abstract), the method comprising: non-transitory computer-readable medium comprising instructions, which when executed by one or more processors (para 6), perform the following operations: receiving, by a processor, one or more travel attributes from a customer (customer performs a search for airfare, para 6; see para 46, Fig. 15); based on the one or more travel attributes, generating, by the processor, one or more itineraries (acceptable airfare based on search is presented to customer, para 6; see para 46, Fig. 15); providing, by the processor, to the customer, the one or more itineraries, wherein the one or more itineraries have an option to lock the price of the one or more itineraries for a predetermined period of time (customer allowed to secure or lock in an airfare obtained from the search of flights and airfares, para 6); receiving, by the processor, from the customer, a locking request to lock the price of a selected itinerary from the one or more itineraries (customer secures acceptable airfare for a predetermined number of days, para 6); based on the locking request, receiving, by the processor, from the customer, a payment for locking the price of the selected itinerary (a service whereby a customer, for a fee, may secure an acceptable airfare for a predetermined number of days, para 6); and locking, by the processor, the price of the selected itinerary (airfare secured for fee, para 6).

Claims 5-7, 17 lack an inventive step under PCT Article 33(3) as being obvious over Crean in view of Pappas et al., hereinafter referred to as Pappas.

Regarding claim 5, Crean discloses the invention above, including the lock of the selected itinerary (see above) but fails to specifically disclose receiving, by the processor, a cancellation request from the customer to cancel the lock of the selected itinerary; charging a further payment for cancelling the lock; and based on the cancellation request, cancelling the lock. However, Pappas is in the field of reserving future purchases of airline services (abstract, para 161) and teaches receiving, by the processor, a cancellation request from the customer to cancel the lock of a selected itinerary (traveler can lock in lowest price in a time range, para 161, 224, abstract; user also has one or more electronic options that each require predetermined option fees, wherein the options include cancellation and change privileges for a purchased ticket, para 255-256); charging a further payment for cancelling the lock (cancellation option, para 255); and based on the cancellation request, cancelling the lock (cancellation option, para 255). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the electronic options as taught in Pappas with the invention of Crean in order to provide the user with desired airline services for a predetermined fee (see Pappas, para 255-256).

Regarding claim 6, Crean discloses the invention above, but fails to specifically disclose a modification option to modify the selected itinerary. However, Pappas is in the field of reserving future purchases of airline services (abstract, para 161) and teaches providing, by the processor, a modification option to modify the selected itinerary (cancellation and change privileges electronic option for a purchased airline ticket, para 255-256). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the electronic options as taught in Pappas with the invention of Crean in order to provide the user with desired airline services for a predetermined fee (see Pappas, para 255-256).

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**Supplemental Box**

**In case the space in any of the preceding boxes is not sufficient.**

Continuation of:

Regarding claim 7, Crean discloses the invention above, including the lock of the selected itinerary (see above) but fails to specifically disclose receiving, by the processor, a modification request from the customer to modify the selected itinerary; based on the locking request, receiving, by the processor, from the customer, a payment for modifying the selected itinerary; receiving, from the customer, modifications of the itinerary; and based on the receiving, modifying the selected itinerary.

However, Pappas is in the field of reserving future purchases of airline services (abstract, para 161) and teaches receiving, by the processor, a modification request from the customer to modify the selected itinerary (cancellation and change privileges electronic option for a purchased airline ticket, para 255-256); based on the locking request, receiving, by the processor, from the customer, a payment for modifying the selected itinerary; receiving, from the customer, modifications of the itinerary; and based on the receiving, modifying the selected itinerary (cancellation and change privileges electronic option for a purchased airline ticket for a predetermined fee paid by the customer, para 255-256). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the electronic options as taught in Pappas with the invention of Crean in order to provide the user with desired airline services for a predetermined fee (see Pappas, para 255-256).

Regarding claim 17, Crean discloses the invention above, including the lock of the selected itinerary (see above) but fails to specifically disclose wherein the customer cancels the locking of the selected itinerary within the predetermined period of time, the payment for locking the selected itinerary being kept by the system.

However, Pappas is in the field of reserving future purchases of airline services (abstract, para 161) and teaches that the customer cancels the locking of the selected itinerary for a predetermined fee (traveler can lock in lowest price in a time range, para 161, 224, abstract; user also has one or more electronic options that each require predetermined option fees, wherein the options include cancellation and change privileges for a purchased ticket, para 255-256). Further, using the lock fee as the cancellation fee would have been a matter of design choice. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the electronic options as taught in Pappas with the invention of Crean in order to provide the user with desired airline services for a predetermined fee (see Pappas, para 255-256).

Claims 8, 11, 12, 19 lack an inventive step under PCT Article 33(3) as being obvious over Crean in view of Bird et al., hereinafter referred to as Bird.

Regarding claim 8, Crean discloses the invention above, but fails to disclose storing, to a database, historical data related to the customer. However, Bird is in the field of airline management systems (abstract) and teaches storing, to a database, historical data related to the customer (customer profile previously entered preference data [historical data], para 7-9). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the historical data features as taught in Bird with the invention of Crean so that the system generates a list of routings that satisfy the customer preference data (see Bird, para 7).

Regarding claim 11, Crean discloses the invention above, but fails to disclose retrieving data related to the customer from one or more sources; and searching for the one or more itineraries using the one or more travel attributes and the data. However, Bird is in the field of airline management systems (abstract) and teaches retrieving data related to the customer from one or more sources (retrieving previously stored preference data, para 7-9); and searching for the one or more itineraries using the one or more travel attributes and the data (using the preference data and entered travel data to search for flights, para 7-10; submit a search request to generate a list of routings in accordance with flight information and preference data, para 18-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the search features as taught in Bird with the invention of Crean so that the system generates a list of routings that satisfy the customer preference data (see Bird, para 7).

Regarding claim 12, Crean discloses the invention above, but fails to disclose wherein the one or more sources include one or more of the following: one or more social networks, travel history of the customer, and historical data related to the customer. However, Bird is in the field of airline management systems (abstract) and teaches wherein the one or more sources include one or more of the following: one or more social networks, travel history of the customer, and historical data related to the customer (customer profile previously entered preference data [historical data], para 7-9). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the historical data features as taught in Bird with the invention of Crean so that the system generates a list of routings that satisfy the customer preference data (see Bird, para 7).

Regarding claim 19, Crean discloses wherein the payment for locking the selected itinerary is adjusted for the customer in accordance with historical data (variable fee allows the price protection system to determine the cost of protection based on the risk of a price increase. The fee may also vary based on other factors such as the historical price of the itinerary, the likely magnitude of an increase, and so on, para 18-19), but does not specifically disclose that the historical data is associated with the customer.

However, Bird is in the field of airline management systems (abstract) and teaches wherein the flight itinerary is adjusted for the customer in accordance with historical data associated with the customer (customer profile previously entered preference data [historical data], para 7-9; using the preference data and entered travel data to search for flights, para 7-10; submit a search request to generate a list of routings in accordance with flight information and preference data, para 18-19). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the price adjustment features as taught in Bird with the invention of Crean so that the system uses a variable fee that minimizes risk (see Crean, para 18-19).

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**Supplemental Box**

**In case the space in any of the preceding boxes is not sufficient.**

Continuation of:

Claim 5 lacks an inventive step under PCT Article 33(3) as being obvious over United in view of Pappas.

Regarding claim 5, United discloses receiving, by the processor, a cancellation request from the customer to cancel the lock of the selected itinerary (cancel saved itinerary, pg2); charging a further payment for cancelling the lock; and based on the cancellation request, cancelling the lock (cancel saved itinerary, pg2). United further discloses charging a payment when the lock is cancelled (farelock fee is nonrefundable, pg.2), but does not specifically disclose charging a further payment for cancelling the lock.

However, Pappas is in the field of reserving future purchases of airline services (abstract, para 161) and teaches charging a further payment for cancelling an itinerary (traveler can lock in lowest price in a time range, para 161, 224, abstract; user also has one or more electronic options that each require predetermined option fees, wherein the options include cancellation and change privileges for a purchased ticket, para 255-256). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the extra fee as taught in Pappas with the invention of United in order to dissuade the user from cancelling the flight itinerary.

Claims 8-10 lack an inventive step under PCT Article 33(3) as being obvious over United in view of Fox et al., hereinafter referred to as Fox.

Regarding claim 8, United discloses the invention above, but fails to disclose further comprising storing, to a database, historical data related to the customer.

However, Fox is in the field of using passenger data to adjust flight pricing (abstract) and teaches storing, to a database, historical data related to the customer (see para 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the historical data as taught in Fox with the invention of United in order to maximize revenue by determining the optimal flight pricing (see Fox, para 7-8).

Regarding claim 9, United discloses the invention above, including the locking selected itinerary feature (see above), but does not disclose processing the historical data related to the customer to determine probability of cancellation or modification of the selected itinerary; and based on the probability, adjusting the payment for locking the selected itinerary and the payment for modifying the selected itinerary.

However, Fox is in the field of using passenger data to adjust flight pricing (abstract) and teaches processing the historical data related to the customer to determine probability of cancellation or modification of the selected itinerary (see para 8); and based on the probability, adjusting the payment for the selected itinerary and the payment for modifying the selected itinerary (see para 83-84 [no show data interpreted as cancellation or modification]). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the probability features as taught in Fox with the invention of United in order to maximize revenue by determining the optimal flight pricing (see Fox, para 7-8).

Regarding claim 10, United discloses the invention above, including the locking selected itinerary feature (see above), but does not disclose wherein the historical data related to the customer and the historical data related to further customers are processed to adjust the payment for locking the selected itinerary and the payment for modifying the selected itinerary for the customer and for the further customers.

However, Fox is in the field of using passenger data to adjust flight pricing (abstract) and teaches wherein the historical data related to the customer and the historical data related to further customers are processed to adjust the payment for the selected itinerary and the payment for modifying the selected itinerary for the customer and for the further customers (see para 83-84 [no show data interpreted as cancellation or modification], and para 7-8). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the probability features as taught in Fox with the invention of United in order to maximize revenue by determining the optimal flight pricing (see Fox, para 7-8).

Claims 1-20 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.