[0005] Also, in the prior art system, the request is very user-specific and does not allow for the transaction system to help discover alternate types of products, such as different room types, etc.

[0006] Perhaps the biggest disadvantage of the existing art is the single availability cell. The single availability cell is derived from a well defined Length of Stay (LOS) in the search request. The LOS is derived from the Start Date and End Date in the search request. There is no visibility for the multiple possible combinations that can be derived from the LOS in the search request. For example, if the requestor want to also evaluate different options with respect of the LOS, it will require several separate search request for each LOS option. The prior art does not provide flexibility of alternate dates or product items. The cost and the time required to build a reply with full flexibility is not cost effective at this time. For example: if a customer wants to check availability for the first week of May, 49 separate availability calls will be required. Seven availability calls for each day of the week(i.e. 7 days X 7 LOS values per day). This transaction will increase the cost by a factor of 48 times (i.e. difference between 1 call and 49 calls), and will result a very long response time to the customer (i.e., a bad user experience).

[0007] There therefore exists a need in the art for improvements to travel and hotel transaction systems, as described in further detail below.

SUMMARY

[0007a] According to a first aspect, there is provided a method for searching for availability of hotel rooms, comprising the steps of: generating a pre-compute database comprising real-time availability attributes associated with hotel rooms on a plurality of length of stays; receiving a query for at least one hotel for a date range, the date range having a start date and an end date; determining a first availability from the pre-compute database based at least in part on the query, the first availability being associated with at least one of the plurality of length of stays; calculating based at least in part on the query, a second availability of each day within the date range on a plurality of length of stays, wherein the calculating is subject to business requirements that comprise one or more hotel-based requirements and one or more processing time-based requirements; creating a final availability for each day within the date range on the plurality of length of stays by combining the first availability from the pre-compute database and the second availability; and formatting the final availability of hotel rooms for the at least one hotel for each day within the date range on the plurality of length of stays.

[0007b] According to a second aspect, there is provided a system for searching for availability of hotel rooms, comprising: means for generating a pre-compute database comprising real-time availability attributes associated with hotel rooms on a plurality of length of stays; means for receiving a query for at least one hotel for a date range, the date range having a start date and an end date; means for determining a first availability from the pre-compute database based at least in part on the query, the first availability being associated with at least one of the plurality of length of stays; means for calculating based at least in part on the query, a second availability of each day within the date range on a plurality of length of stays, wherein the calculating is subject to business requirements that comprise one or more hotel-based requirements and one or more processing time-base requirements; means for creating a final availability for each day within the date range on the plurality of length of stays by combining the first availability from the pre-compute database and the second availability; and means for formatting the final availability of hotel rooms for the at least one hotel for each day within the date range on the plurality of length of stays.

[0007c] According to a third aspect, there is provided a computer program product, comprising a computer usable medium having a computer-readable program code embodied therein, the computer-readable program code adapted to be executed to implement a method for searching for availability of hotel rooms, comprising: generating a pre-compute database comprising real-time availability attributes associated with hotel rooms on a plurality of length of stays; receiving a query for at least one hotel for a date range, the date range having a start date and an end date; determining a first availability from the pre-compute database based at least in part on the query, the first availability being associated with at least one of the plurality of length of stays; calculating based at least in part on the query, a second availability of each day within the date range on a plurality of length of stays, wherein the calculating is subject to business requirements that comprise one or more hotel-based requirements and one or more processing time-based requirements; creating a final availability for each day within the date range on the plurality of length of stays by combining the first availability from the pre-compute database and the second availability; and formatting the final availability of hotel rooms for the at least one hotel for each day within the date range on the plurality of length of stays.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate embodiments and together with the description, serve to explain the principles of the methods and systems:

[0009] FIG. 1A depicts the architecture of a hotel reservation system.

[0010] FIG. 1B depicts the architecture of the basic building blocks of the present invention, in one embodiment.