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June 08, 2018

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### Recommended Citation

Bhattacharya, Saptarshi, "Automatic rebooking of hotels using virtual assistants", Technical Disclosure Commons, (June 08, 2018)  
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## **Automatic rebooking of hotels using virtual assistants**

### **ABSTRACT**

Hotel prices fluctuate based on demand and supply. Hotel bookings are often refundable if cancelled. A user with a refundable hotel reservation can therefore cancel and rebook the hotel if the price drops. Currently, such cancellation and rebooking requires a user to keep track of hotel prices and rebook upon detecting a drop in the price, e.g., from that paid by the user. This disclosure describes an automated method to monitor hotel prices after a refundable booking is made and automatically take action upon detection of a price drop.

### **KEYWORDS**

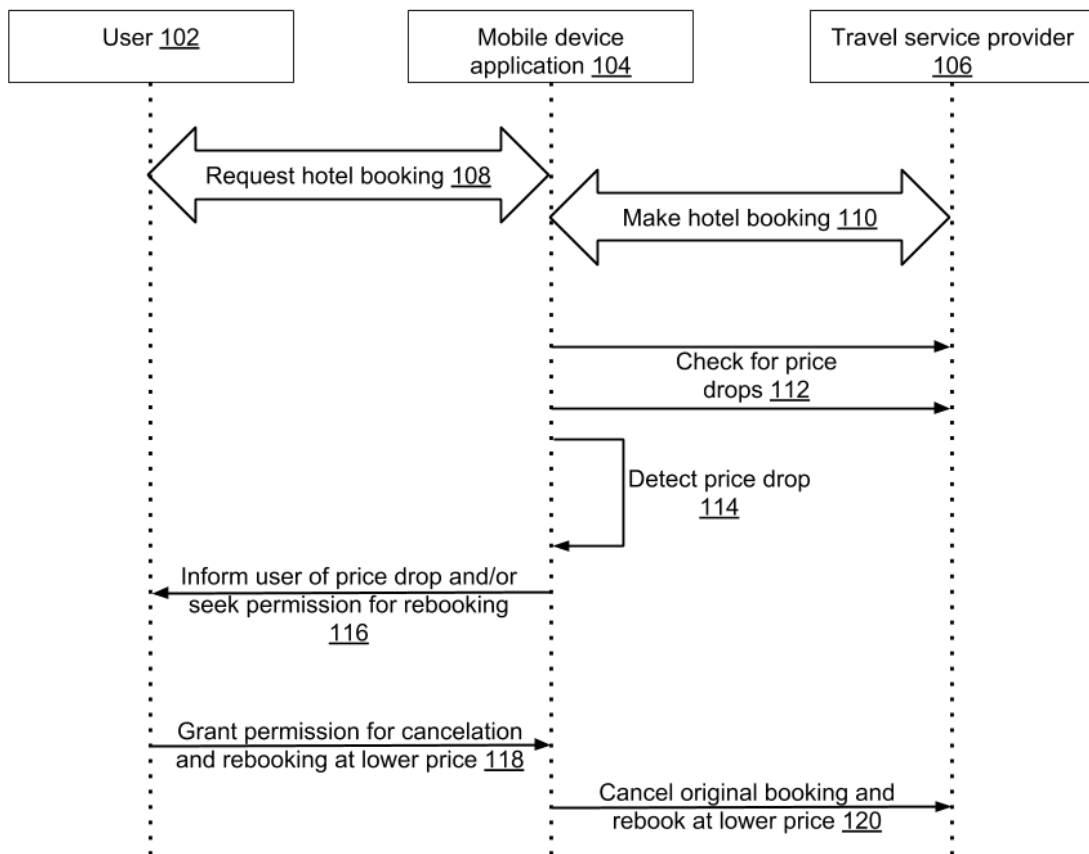
- reservation
- cancellation
- rebooking
- hotel
- travel
- price comparison
- price drop
- virtual assistant

### **BACKGROUND**

Hotel prices fluctuate based on demand, similar to airline ticket prices. Unlike airline bookings, hotel bookings are often refundable. A user with a refundable hotel reservation can therefore cancel and rebook the hotel if the price drops. Currently, such cancellation and rebooking requires a user to keep track of hotel prices and rebook upon detecting a drop in prices.

DESCRIPTION

The techniques of this disclosure enable users to permit and task a virtual assistant application to automatically cancel and rebook a refundable hotel reservation if the hotel price drops. In some cases, users can permit the virtual assistant to only monitor hotel prices and notify users when the price of a previously booked hotel room drops. The present techniques enable users to avail the best hotel price without having to manually track prices.



**Fig. 1: Monitoring of hotel prices, and cancellation-and-rebooking upon a price drop**

Fig. 1 illustrates an example of automatic monitoring of hotel prices following an initial booking, and cancellation-and-rebooking upon a price drop. A user (102) interacts with a mobile device application (104), e.g., a virtual assistant, to request a hotel booking (108). In turn, the virtual assistant interacts with a travel service provider (106) to make the hotel booking (110)

requested by the user. At the time of booking, the user can permit the virtual assistant to cancel-and-rebook the hotel reservation if the price drops. Such user permission can be subject to other conditions, e.g., amount of price drop, whether cancellation fees are covered adequately by the price drop, etc. Alternatively, the user can book the hotel manually, and permit the virtual assistant to perform cancellation-and-rebooking.

After the booking is made, the virtual assistant checks for price drops (112). If a price drop is detected (114), the virtual assistant informs the user (116), and if permission has not already been given, seeks user permission to cancel-and-rebook. The user grants permission (118) for cancellation and rebooking, if such permission was not already granted at the time of original booking. The virtual assistant cancels and re-books the hotel at the more recent, lower price (120).

If the user has only permitted the virtual assistant to monitor hotel prices, then the virtual assistant informs the user of a price drop, but does not automatically cancel and rebook. With user permission, the virtual assistant can retrieve relevant data, e.g., relating to reservations, from other applications, e.g., calendar, payment, travel, email, etc., that are utilized by the user.

Further to the descriptions above, a user may be provided with controls allowing the user to make an election as to both if and when systems, programs or features described herein may enable collection of user information (e.g., information about a user's social network, social actions or activities, profession, a user's preferences, or a user's current location), and if the user is sent content or communications from a server. In addition, certain data may be treated in one or more ways before it is stored or used, so that personally identifiable information is removed. For example, a user's identity may be treated so that no personally identifiable information can be determined for the user, or a user's geographic location may be generalized where location

information is obtained (such as to a city, ZIP code, or state level), so that a particular location of a user cannot be determined. Thus, the user may have control over what information is collected about the user, how that information is used, and what information is provided to the user.

## CONCLUSION

Hotel prices fluctuate based on demand and supply. Hotel bookings are often refundable if cancelled. A user with a refundable hotel reservation can therefore cancel and rebook the hotel if the price drops. Currently, such cancellation and rebooking requires a user to keep track of hotel prices and rebook upon detecting a drop in the price, e.g., from that paid by the user. This disclosure describes an automated method to monitor hotel prices after a refundable booking is made and automatically take action upon detection of a price drop.