

# Technical Disclosure Commons

---

Defensive Publications Series

---

May 06, 2019

## Virtual assistant in phone conversation

Sooraj Sasindran

Ajay Dudani

Follow this and additional works at: [https://www.tdcommons.org/dpubs\\_series](https://www.tdcommons.org/dpubs_series)

---

### Recommended Citation

Sasindran, Sooraj and Dudani, Ajay, "Virtual assistant in phone conversation", Technical Disclosure Commons, (May 06, 2019)  
[https://www.tdcommons.org/dpubs\\_series/2189](https://www.tdcommons.org/dpubs_series/2189)



This work is licensed under a [Creative Commons Attribution 4.0 License](https://creativecommons.org/licenses/by/4.0/).

This Article is brought to you for free and open access by Technical Disclosure Commons. It has been accepted for inclusion in Defensive Publications Series by an authorized administrator of Technical Disclosure Commons.

## **Virtual assistant in phone conversation**

### **ABSTRACT**

This disclosure describes techniques to provide a virtual assistant in a regular telephone call. The technique provides access to a virtual assistant to phone calls without the calling user device having a data connection. A user interface is provided that enables a user to selectively add a virtual assistant to a telephone call at call initiation or during an ongoing call. Upon user selection, the virtual assistant is added to the call along with the user selected call recipient, thus providing a conference call. With user permission, the virtual assistant accesses call audio and responds to user commands. The techniques are suitable for use by users that do not have access to a data plan or a data connection, e.g., users in remote areas, users of feature phones, etc.

### **KEYWORDS**

- telephony
- virtual assistant
- remote location
- conference call

### **BACKGROUND**

Virtual assistant applications provide assistance to users in various contexts. For example, if a user conducts a call, e.g., via a messaging or conferencing application, a virtual assistant may be added to the conversation and can provide assistance, e.g., respond to user commands during the call. However, such insertion of the virtual assistant requires the user device to place the call over a data network. Such techniques are unsuitable when the user does not have access to a data network, e.g., a user in a remote area where data connections are not available, a user of a feature phone, a user that does not subscribe to a data plan, etc.

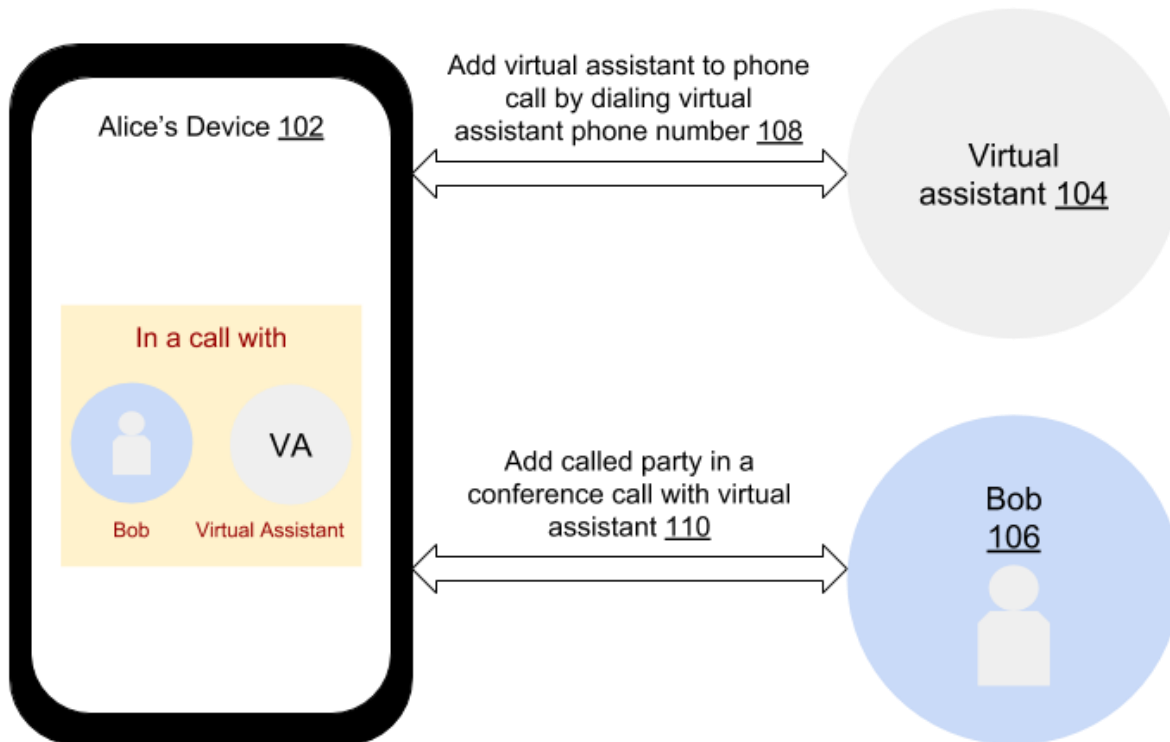
DESCRIPTION**Fig. 1: Virtual assistant in phone conversation**

Fig. 1 illustrates an example of a telephone call in which a virtual assistant is available, per techniques of this disclosure. The virtual assistant can be added to the call at the time of initiating a call, or at any time during an ongoing call. The virtual assistant is added to a call upon specific user request, and presence of the virtual assistant on the call is announced to all call participants. The virtual assistant can be removed from the call at any time upon a user command.

As illustrated in Fig. 1, a user Alice using a device (102) is in a phone call with another user Bob (106). The call also includes a virtual assistant (104) as a participant. For example, the user Alice can place a call to another user Bob and request that the virtual assistant be present in the call as follows:

1. A dialer application on the calling device provides a user interface that enables Alice to initiate a phone call with Bob and request that a virtual assistant be present in the call.
2. Upon user selection, the device dials a predefined phone number associated with the virtual assistant (108).
3. Upon setting up the call with the virtual assistant, the device adds the selected contact, e.g., Bob (106) to the conversation as a conference call (110).
4. During the call, the virtual assistant can monitor the conversation, if permitted by the users and respond to queries or commands from the users in the conversation.

While Fig. 1 illustrates adding the virtual assistant at a time of call initiation, the user interface provides the option to add the virtual assistant in an ongoing call.

By using conference call functionality in this manner, the described techniques eliminate the requirement of a data connection for a device to access a virtual assistant during a call. The techniques can be used in any device that can place a phone call, e.g., smartphones, smartwatches, etc. The techniques are implemented with specific user permission. If a user denies permission, the virtual assistant is removed from the call.

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

This disclosure describes techniques to provide a virtual assistant in a regular telephone call. The technique provides access to a virtual assistant to phone calls without the calling user device having a data connection. A user interface is provided that enables a user to selectively add a virtual assistant to a telephone call at call initiation or during an ongoing call. Upon user selection, the virtual assistant is added to the call along with the user selected call recipient, thus providing a conference call. With user permission, the virtual assistant accesses call audio and responds to user commands. The techniques are suitable for use by users that do not have access to a data plan or a data connection, e.g., users in remote areas, users of feature phones, etc.