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ADVANCED DIALER BASED ON TARGET CONTACT'S ACTIVITY

ABSTRACT

An advanced dialer system prioritizes modes of communication based on a target contact's activity. The system, upon authorization by the user or target contact to access the user's contacts, receives a selection of a target contact and checks the target contact's activity status on all possible communication platforms. These communication platforms may include messaging applications using internet connectivity, traditional voice calling applications, video chat applications, etc. The system may further check the target contact's network connectivity and feasibility of connection. The advanced dialer system calculates feasibility score for different communication platforms to reach the target contact. The system also ranks these communication platforms based on the calculated feasibility scores. The user may select the communication platform with the highest score/highest rank and communicate with the target contact. If the target contact is not reachable, the user may select the next highest ranked communication platform. The system automatically displays more likely dialing modes to the user, enabling easier communication.

BACKGROUND

Traditional dialer applications (apps) show fixed options for users to initiate communication with target contacts. For example, a dialer app on a user's communication device shows target contacts' names followed by their respective phone numbers in a layout which has options to initiate communication via, e.g. a text message app, an email app, a call app, etc. These options lack a personalized or contextually significant communication options for the users in the dialer app. The existing platforms have multiple ways to connect between users but the ways to select one out of those multiple ways is ineffective and mostly a hit-or-

miss approach. The user of the communication device may first try to contact the target contact on message, call and the like without knowing where the target contact may actually be reached at that particular instance. Also, the existing dialer applications do not prioritize or reorder the communication options or platforms available at the target contact's device.

DESCRIPTION

An advanced dialer system is disclosed that prioritizes modes of communication based on a target contact's activity. This system may run on the user communication device. The system ranks communication platforms according to the target contact's activity or availability.

The method as illustrated in FIG. 1 includes initiating an activity check on the particular person (target contact) to determine mode of contact. The user intending to contact a target contact either selects the contact or opens the dialer application and types in the contact's name (step A). This step includes obtaining user or target contact authorization to access or use relevant data prior to at least the first use. The system checks the target contact's activity status in step B, on all possible communication platforms, which may include messaging applications using internet connectivity, calling applications using network connectivity or a normal call and the like to reach the target contact. The system may in step C check the target contact's network connectivity and feasibility of connection based on the signal strength information of the cellular network/mobile data network or Wi-Fi network. This may be achieved by sending a query message to the target contact's device. The query message may include query related to target contact's cellular signal strength and data network speed or connectivity. The advanced dialer then calculates feasibility score in step D for different modes to reach the target contact. The feasibility score may be used to re-rank the options to contact the target user by prioritizing the options which have the highest feasibility to be ranked on the top. The user may select mode

with highest score and communicate with the target contact in step E. If the target contact is not reachable (step F), the user may select the next prioritized mode by going back to step D, as shown in FIG. 1. The process ends when the target is successfully contacted (step G).

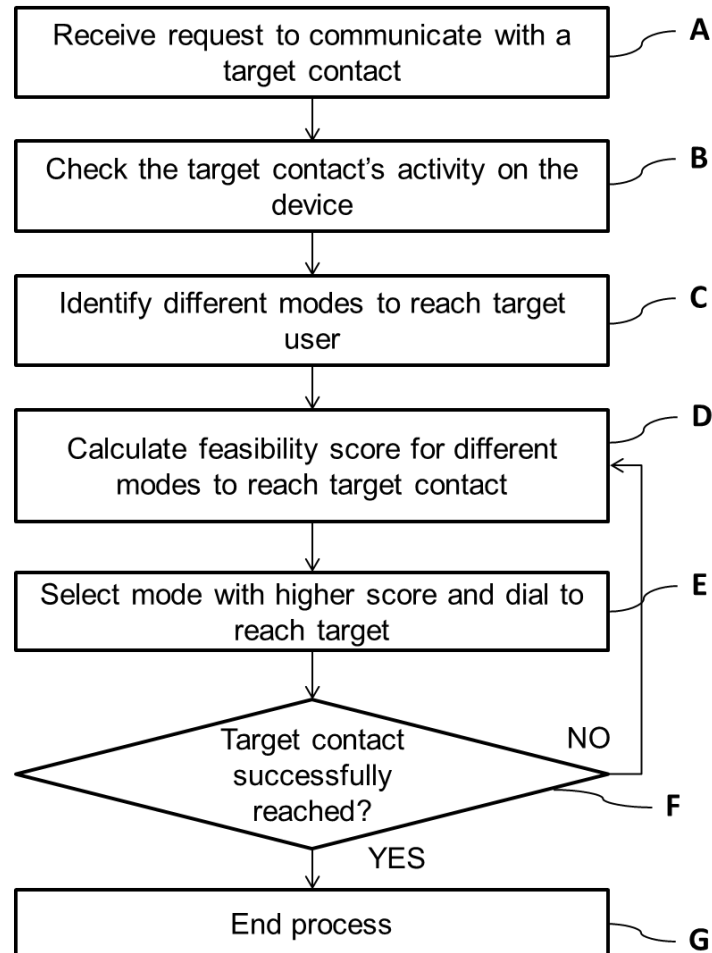


FIG. 1: Method to calculate feasibility scores for modes to reach target contact

An alternative implementation may be to send a binary query such that the target contact's device may send a binary response. For example, the response may indicate signal or data connection strength to be 0 (low) and 1 (high). The binary querying may be extended for 3G/4G connectivity. In such a scenario, 4G/LTE may be binary 1 and 3G may be binary 0. In another implementation, the query may be based on exact signal strength values. For example, the target device's response may include exact signal strength at the device (in dbs) and data

speed at the device in Mbps.

Further, the system calculates a feasibility score for each of the communication platforms based on various parameters (including machine learning the usage trends of the target contact) and information received in response to the query message. For example, when an app is most used, what times the signal strength is strongest, etc.

The system may use neural networks to learn about the usage trends of various communication platforms by a user. Following are the various parameters which may be monitored, preference based on target contact's availability priority of caller pattern of usage of various communication platforms of the target contact (early morning messaging app with internet connectivity, afternoon to late evening another messaging app with internet connectivity, night time usually no internet, go for cellular network based call, etc.). The system provides only those options to the call initiator which are supported by the target contact's device and provides a list of options prioritized on the basis of feasibility score. For example, if the target device is most recently active on a messaging app with internet connectivity and the query response indicates data connectivity to be good. Then, that messaging app may be prioritized for the user.

In another example, the system only shows modes of communication compatible with the target contact's device. Further, the system may provide an option to enable prompting the user to download and install any communication platform (which is compatible with the user's device but not present in the device) which the target contact has a high feasibility score of being contacted. The system may provide encrypted ID details of the target contact for the corresponding communication platform in order to reach the target contact as the target contact and the call initiator may not be already connected on the said communication platform. This encrypted ID may enable a user to contact the target contact once (e.g. send an 'add me' request)

without disclosing the actual user ID of the target contact so that the target contact's user ID is saved from being contacted/leaked to spammers.

The system may also enable the user to choose the calling option/drop a text in case the intended calling facility is unavailable, or to switch from cellular network to Wi-Fi network or vice versa. The system and method disclosed may enable easier communication by providing the user with prioritized modes that may be automatically be made available by the dialer.

In situations in which the systems and methods discussed herein may collect personal information about users, or may make use of personal information (e.g., photos, videos, user data), users are provided with one or more opportunities to control how information is collected about the user and used in one or more described features. A user is provided with control over whether programs or features collect user data (e.g., recognition of a user's face in a photo or video, information about a user's social network, user characteristics (age, gender, profession, etc.), social actions or activities, a user's preferences, content created or submitted by a user, a user's current geographic location, etc.). A user is provided with control over whether programs or features collect user information about that particular user or other users relevant to the program or feature. Each user for which personal information is to be collected is presented with one or more options to allow control over the information collection relevant to that user, to provide permission or authorization as to whether the information is collected and as to which portions of the information are to be collected. For example, users can be provided with one or more control options over a communication network. 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 to

a larger region so that a particular location of a user cannot be determined.