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Asst. Controller of Patents & Designs : Piyush Lende
Letter Ref. : POM/Application No/1579/MUM/2011

November 07, 2020

The Controller of Patents
Patent Office Branch
Intellectual Property Office Building,
Antop Hill, S. M. Road,
Mumbai - 400 037

Date of Hearing : October 26, 2020

Re:	Indian Patent Application No.	:	1579/MUM/2011
	Date of Filing	:	May 26, 2011
	Title	:	User Interface For Managing Communication Sessions
	Applicant	:	Avaya, Inc.
	Date of Hearing Notice	**:**	**September 23, 2020**
	Date of Hearing	**:**	**October 26, 2020**

Respected Sir/Madam,

We write in response to the Hearing Notice dated **September 23, 2020** and the Hearing held on **October 26, 2020.** Our response to the objections raised is as follows:

Objections in the Hearing Notice:

1. **Objection 1:**

Formal Requirement(s):

1. Note that this Examination is done on the basis of electronically uploaded documents in the e-module only. Therefore, kindly recheck whether application details entered correctly and all documents as filed are uploaded properly. Bring concerned discrepancies to the notice of controller.

2. If any amendment is necessitated in the complete specification then it is required to clearly identify (submission of marked copy) the amendments carried out and to indicate the portion (page no and line no) of the complete specification as filed on which these amendments are based on. Further, the pages wherever amendments are carried out need to be freshly typed on white pages and to be filed in duplicate.

Our Submission:

1. The Applicant appreciates that the Learned Controller has performed an examination on the basis of electronically uploaded documents in the e-module only. The Applicant verifies that all the documents as-filed are uploaded electronically at the IPO portal and there is no discrepancy. However, the Applicant requests the Leaned Controller to provide an opportunity of being heard in case any specific discrepancy is observed in relation to any document on records.

2. The Applicant submits herewith a marked-up copy of claims highlighting the amendments made to the pending claims. The Applicant submits that support for the amended subject matter can be found at least in paragraphs 0034 and 0036.

The Learned Controller is respectfully requested to take the same on record and withdraw the said objection.

2. **Objection 2:**

Invention u/s 2(1)(j):

In continuation with the inventive step objection as raied in FER following documents shall also be considered as citations
D3: US6278454B1
Discloses: Improved methods and arrangements are provided for actively monitoring and/or controlling calls and related features in a communications system, such as, for example, computer telephony system. A graphical user interface (GUI) is provided to visually represent the telephony resources, features, services, and users prior to, during, and after a call. An operator can interface with the computer telephony system through the selective activation and/or manipulation of graphical and iconic representations of the call, the calling party, and called party as provided through the GUI.

D4: US8418067B2
Discloses: A rich communication profile system with notifications. The system is a feedback mechanism that utilizes rich content, e.g., multimedia content, as one or more indicators that represent the status of a remote user. The system includes a state component that receives information relating to state of at least one entity. A notifications component dynamically renders at least one personalized graphical indicia representative of the entity's state. The entity can be a person, group of people, component, place, and object.

D5: US20050278647A1
Discloses: In a cursor-based computing environment having a display, a user definable interface (UDI) is displayed upon activation by a user. The UDI has a plurality of levels each having a plurality of buttons and is displayed in a selectable position about a pointer

position in a display area to reduce pointer commute. The user selects a visual appearance and shape of the UDI, and the number of buttons. The user assigns a command to each of the plurality of buttons at each of the plurality of levels by dragging and dropping from one or more applications of the apparatus.

D6: US7616751B2
Discloses: A method and apparatus are disclosed that provide a technique for managing held calls. In accordance with the illustrative embodiment of the present invention, a call-handling system receives a first indication of whether a messaging resource is available at or near a terminal for which the system is receiving incoming calls. Examples of messaging resources include instant messaging, email, short messaging service, and so forth. The system might also receive a second indication of whether a messaging resource is available at or near the originating terminal of an incoming call. If the first indication and second indication match, the system will prompt the caller of the originating terminal to use the available messaging resource. In some embodiments, the system will also assign the corresponding incoming call a lower priority relative to other calls because of the availability of the alternative form of communication to the caller.

D7: US20100318928A1
Discloses: A graphical user interface made up of icons representing individual files and collectively forming the shape of a spiral is described along with methods of using and creating the graphical user interface. The spiral interface is useful to display detailed information about many of the items in a list and facilitates manipulation of list order and selection of the active file in the list. The interface further permits the use of a representative icon associated with the list as a whole.

D8: US20100011314A1
Discloses: A system, method and computer-readable media for associating additional functionalities with a sidebar GUI of a computational device are included. An operating system may be provided that includes a sidebar software that will typically have limitations that are intended or unintended by the operating system developer. A user may wish to extend the capabilities that are associated with the sidebar in the interest of usability, efficiency and/or GUI appeal. The method of the present invention may provide a gadget which enables access to the sidebar, while associating additional capabilities with the sidebar. Alternately or additionally, a reseller of the operating system or a third party software provider, may offer software products that enable access to the functionality of the sidebar as provided by the sidebar developer, while associating additional capabilities with a display of the sidebar or an icon representative of a sidebar or sidebar functionality.

A person skilled in art can easily perform claimed invention having prior knowledge of D1-D8. Hence claims 1-6 are not inventive over D1-D8.

Our Submission:

In the hearing notice, it is objected that claims lack an inventive step in view of the teachings of the cited documents D1-D8. The Applicant respectfully disagrees with the view of the Ld. Controller and submits the following in support. However, in the interest of advancing prosecution, the applicant has amended the pending claims to bring out the novel and inventive aspects of the claimed invention. The support for the amendments can be found at least in paragraphs 34 and 36 of the description.

The amended independent claim 1 now recites:

> *A method for displaying a user interface (200) for managing communication sessions on a communications device, the method comprising:*
>
> *generating for display, by a processor (120), in a side portion of the user interface (200) for a first user, a fan comprising a plurality of graphical user inter face elements that are scrollable by the first user, wherein an active graphical user interface element of the plurality of graphical user interface elements displays communication information associated with a second user different from the first user, and wherein inactive graphical user interface elements of the plurality of graphical user interface elements display truncated communication information;*
>
> *displaying the fan in the user interface (200);*
>
> *generating for display, by the processor (120), on the user interface (200), an active spotlight region that depicts, by using a visual metaphor that resembles a spotlight, an active communication session that the first user is currently participating in, the active spotlight region featuring graphical elements representing participants associated with the active communication session; and*
>
> *displaying the active spotlight region in the user interface (200); and*
>
> *wherein the detail of the communication information comprises a number of available communication modes associated with the second user; and*
>
> *wherein the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes. [Emphasis added]*

Regarding the inventive step, the Applicant respectfully submits that as per the provisions provided under Section 2(1) (j) (a) of the Patents Act, "*inventive step*" *means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.*

Further, the Applicant respectfully submits that in order to determine whether the subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made, one should determine whether the prior art reference (or references when combined) teach or suggest all the claim limitations. Furthermore, it is necessary to identify the reason why a person having ordinary skill in the art would have combined the prior art references in the manner set forth in the claims. Moreover, there should be a reasonable expectation of success on the part of a person of ordinary skill in the art.

The Applicant humbly submits that according to the present invention, the Presence information, (such as in ¶0039), may be provided to include which communication modalities are available. As a result, a user may select one form of communication, (e.g., text message), but not another, (e.g., telephone call), such as when the second user's presence status, such as when they are currently engaged in on a call. Accordingly, the amended claims allow for only ***available*** communications, from all possible communications, to be initiated with the second user that is different from the first user. Such features are absent from D1-D8.

D1 does not disclose the features of amended claim 1. While D1 does disclose a series of fanned tabs (see Fig. 6 of D1), the fanned tabs in D1 represent different actions that a user can take. For example, the user may open a document, open a database, etc. The teachings of D1 are clearly different from this element of claim 1. D1 fails to disclose that "the detail of the communication information comprises a number of available communication modes associated with the second user" and "the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes".

D2 merely discloses a method for browsing through a group of visual representations on a display of a portable electronic device having a touch screen. However, D2 fails to teach or suggest that that the detail of the communication information comprises a number of available communication modes associated with the second user and the user interacts with the active graphical user interface element to initiate communication utilizing a selected one of the number of available communication nodes.

D3 merely discloses a method for displaying call progress information on an operator display screen within a communications system. However, like D1 and D2, D3 also fails to teach or suggest that that the detail of the communication information comprises a number of available communication modes associated with the second user and the user interacts with the active graphical user interface element to initiate communication utilizing a selected one of the number of available communication nodes.

D4 discloses a system of rich profiles with notifications that facilitates a feedback mechanism for indicating to a local user the state of a remote user or entity in which the local user is interested. The teachings of D4 are clearly different from this element of

claim 1. In claim 1, the fan contains “communication information associated with a second user different from the first user.” D4 does not teach this. Moreover, D4 does not teach “inactive graphical user interface elements that are truncated communication information.” Further, D4 fails to disclose that “the detail of the communication information comprises a number of available communication modes associated with the second user” and “the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes”.

D5 relates to a user definable interface that minimizes cursor commute. According to D5, a user definable interface (UDI) is displayed upon activation by a user, wherein the UDI has a plurality of buttons and is displayed in a relative position about a cursor position to reduce cursor commute. D5 permits the user to select a visual appearance and shape of the UDI, and the number of buttons. However, like D1-D4, D5 also fails to teach or suggest that that the detail of the communication information comprises a number of available communication modes associated with the second user and the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes.

D6 relates to handling one or more held calls by using a messaging resource. However, D6 nowhere suggests that the detail of the communication information comprises a number of available communication modes associated with the second user and the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes.

D7 discloses a method of playlist manipulation and fails to teach claimed limitations of the present invention.

D8, at best, discloses a method for enabling a user to add to a functionality suite of a sidebar gadget. However, like other cited documents D1-D7, D8 also fails to teach or suggest that that the detail of the communication information comprises a number of available communication modes associated with the second user and the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes.

Since none of the distinguishing features of the amended independent claims are disclosed in the cited documents either alone or in combination, it submitted that the skilled person could not reach the particular solution of the claimed invention. The Applicant, therefore, submits that the amended independent claims are inventive over the prior art as a whole. The dependent claims are also therefore novel and inventive at least by virtue of their dependency over their respective independent claims which should be allowable for the reasons stated above.

Additionally, the applicant would like to apprise the Learned Controller that the corresponding US application has been granted which further substantiates the novelty and inventiveness of the present invention.

In view of the above submission and amendments made, the Applicant humbly requests the Learned Controller to withdraw his objections and allow the claims presented herewith.

3. **Objection 3:**

Non-Patentability u/s 3:

The objection raised in Para (3) of FER w.r.t. "section 3(k, m, n) of the Patents Act, 1970 (as amended)" cannot be waived off since the applicant has not submitted the proper reply with mere scheme and mental activity and computer software.

Our Submission:

As discussed during the oral hearing, the Applicant humbly submits that amended claims do not fall under the purview of the 'computer program per se' category of section 3(k) of the Indian Patent Act (1970).

In this regard, the Applicant would like to draw the attention of the Ld. Controller to the CRI guidelines released in 2017, wherein it is clearly stated that **while establishing patentability, the focus should be on the underlying substance of the invention and not on the particular form in which it is claimed**. What is important is to judge the substance of claims taking the whole of the claim together. [Emphasis added]

Further, the Applicant has applied various tests and provided relevant case-laws to support the arguments presented.

At first, the Applicant would like to draw the attention of the learned Controller to a well-settled principle of law as held in the **Hon'ble Delhi High Court in the case of Ericsson vs. Lava**[1] (See Paragraphs 89-94 given below), wherein it was held that inventions which result in technical advancement and have practical implementation or physical representation are patentable.

*"……Each of the inventions claimed in the suit patent are **not mere theoretical or abstract algorithms** or mere mathematical or mental methods or even computer programmes per se as is being alleged by the defendant.*

[1] https://indiankanoon.org/doc/100117737/

Inventions which have resulted in an improvement (technical advancement) in data communication technologies and have had a huge effect upon the manner in which these technologies function thereby resulting in practical implementation and actual physical representation.

... Mere mention of an algorithm or a mathematical formula in a patent document should not be inferred to mean that the invention is nothing but an algorithm.....

.... A bare perusal of the complete specification of all the 8 suit patents would prima facie reveal that the same actually relate to devices/apparatuses/components/mobile stations etc. and are thus, product patents which cannot be labelled as ***algorithm which is nothing but a set of instructions and is thus, theoretical in nature....”***

From above judicial precedents following can be gathered:

- *An algorithm is a theoretical construct and which does not have any practical implementation or realization; and*
- *Section 3(k) provides bar only for the inventions that are abstract in nature.*

In light of the above decisions, it can be drawn that an **algorithm is a theoretical construct which exists only on paper and which does not have any practical implementation or realization.** However, the present invention has a physical presence and **real-world implementation**, for example, the present invention relates to communications and more specifically to intuitive user interfaces for managing communications.

Further, the computer-related invention that achieves a technical effect whether by means of hardware or software cannot be regarded as a computer program per se. This position has also been confirmed by the Hon’ble Delhi High Court in the case of **Ericsson vs. Intex**[2] (See Paragraph 119 and 120), wherein the legislative intent was considered and it was accordingly held that:

“…….In fact, when this bill was referred to the Joint Parliamentary Committee, it was suggested by various experts and stake holders that India should follow the EU/UK route and not completely exclude computer program from patentability. The Parliament after accepting the aforesaid proposition added the words per se which was introduced in section 3(k) enacted by the Patent (Amendment) Act, 2002.

Thus, it appears to me prima facie that ***any invention which has a technical contribution or has a technical effect and is not merely a computer program per se*** *as alleged by the defendant and the same is patentable.....”*

[2] http://indiankanoon.org/doc/74163100/

Furthermore, the Applicant would like to draw the attention of the Ld. Controller towards the recent judgment by the honourable Delhi High Court in the case of **Ferid Allani vs Union of India** [1] where the court held that a computer-related invention demonstrating a 'technical effect' or a 'technical contribution' is patentable even though it may be based on a computer program. The court discussed the legislative history behind the inclusion of words 'per se' in Section 3(k) on the recommendation of the Joint Parliamentary Committee. The court also deliberated upon the legal position in the EU which has a similar provision in Article 52 of EPC. Recognizing the role of software in modern-day inventions, the court stated that *"In today's digital world, when most inventions are based on computer programs, it would be retrograde to argue that all such inventions would not be patentable. Innovation in the field of artificial intelligence, blockchain technologies and other digital products would be based on computer programs, however, the same would not become non-patentable inventions – simply for that reason. It is rare to see a product which is not based on a computer program. Whether they are cars and other automobiles, microwave ovens, washing machines, refrigerators, they all have some sort of computer programs in-built in them. Thus, the effect that such programs produce including in digital and electronic products is crucial in determining the test of patentability. Patent applications in these fields would have to be examined to see if they result in a `technical contribution'."* In the end, the Court held that across the world, patent offices have tested patent applications in this field of innovation, on the fulcrum of 'technical effect' and 'technical contribution'. **If any invention demonstrates a 'technical effect' or a 'technical contribution', it is patentable even though it may be based on a computer program.** *(Refer Paragraphs 10 to 13)*

Further, from the above judicial precedents, it can be gathered that if an invention provides a technical solution to a technical problem and demonstrates a technical effect then the same cannot be considered to be under the category of computer program *per se*.

To this end, the Applicant submits that the present invention provides a technical solution to a technical problem and has a technical effect.

Technical problem:

Many people have trouble remembering and implementing specific button sequences for advanced functionality, such as a conference call, selectively drop a caller, place on hold, and answer new calls. In addition, the use of feature buttons and the appropriate sequences of feature buttons can also be confusing. This problem is exacerbated by innumerable user interface variations from brand to brand and from model to model. This unintuitive interface leads to mistakes such as dropped calls and, as a result, lost productivity. These problems are made worse in mobile platforms. For example, when an individual holds a tablet sized phone, PC or other electronic device, the individual's fingers must

[1] https://images.assettype.com/barandbench/2019-12/a8f88c67-6402-4483-9584-88d82316b9c4/Ferid_Allani_vs_UOI.pdf

simultaneously provide both the function of support and touch screen or key activation. Typically, such devices have borrowed from the desktop, i.e. mouse and keyboard driven, metaphor by utilizing drop down menus. Commonly, these drop-down menus are located at the top of the screen. This results in a very non ergonomic arrangement for a handheld device.

The present invention addresses the need in the art for improved user interfaces for managing communications.

Technical solution:

The present application solves the above problem particularly by, generating for display, by a processor, in a side portion of the user interface for a first user, a fan comprising a plurality of graphical user inter face elements that are scrollable by the first user, wherein an active graphical user interface element of the plurality of graphical user interface elements displays communication information associated with a second user different from the first user, and wherein inactive graphical user interface elements of the plurality of graphical user interface elements display truncated communication information; displaying the fan in the user interface; generating for display, by the processor, on the user interface, an active spotlight region that depicts, by using a visual metaphor that resembles a spotlight, an active communication session that the first user is currently participating in, the active spotlight region featuring graphical elements representing participants associated with the active communication session; and displaying the active spotlight region in the user interface; and wherein the detail of the communication information comprises a number of available communication modes associated with the second user; and wherein the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes.

Technical Effect:

The claimed solution demonstrates the technical advancement of providing mobile communication device interfaces that can be far more intuitive for their specific use cases than the traditional keyboard and mouse driven window and desktop-based metaphor.

Therefore, the amended claims submitted herewith do not fall under the category "*Computer program per se"* of Section 3(k) of the Patents Act, 1970.

Further, the Applicant disagrees with the view of the Learned Controller that amended claims fall within the purview of Section 3(m) of the Indian Patent Act (1970).

It is submitted that Section 3(m) of the Patent Act, 1970 (as amended) is applicable only for those inventions which can be performed mentally. Further, it has been clearly mentioned in Paragraph no. 09.03.05.12 Page 111 of ***Manual of Patent Office Practice and Procedure, 2019*** that,

09.03.05.12	*A mere scheme or rule or method of performing mental act or method of playing game is not an invention.* A mere scheme or rule or method of performing mental act or method of playing game, are excluded from patentability, because they are considered as outcome of mere mental process. For example, a) Method of playing chess. b) Method of teaching. c) Method of learning.	Section 3(m)

Whereas the claimed invention cannot be performed mentally and as such Section 3(m) is not applicable.

The Applicant respectfully submits that claims are directed towards a machine. In particular, a processor rather than a mental processor computer software. The processor recited in the claims is configured to perform the necessary steps to carry out the claims. Additionally, mental processes cannot be utilized to perform the claimed invention. For example, generating a display, a "spotlight" associated with an active communication session, requires a machine connected to a network. The un-aided human mind cannot determine active communication sessions. Similarly, the active communication sessions available for the second user cannot be determined merely within the human mind.

Further, it is submitted that the subject matter claimed is implemented by a number of constructional units such as processor, communication nodes, user interfaces etc, and cannot be performed mentally. Therefore, the claimed subject matter cannot be considered to fall under the category of Section 3(m).

In view of the above submission, the Applicant requests the Learned Controller to withdraw the present objection and allow the pending claims.

4. **<u>Objection 4</u>:**

<u>Other Requirement(s):</u>

1. Foreign filing particulars of all applications made in foreign countries should be filed within a prescribed time period under Section 8(1) of the Act. Details regarding application for Patents which may be filed outside India from time to time for the same or substantially the same invention should be furnished within six months from the date of filing of the said application under section 8(1)(b) and rule 12(1) of the Act. Details regarding the search and/or examination report including claims of the application allowed, as referred to in Rule 12(3) of the Patent Rules in respect of same or

substantially the same invention filed in all countries outside India, along with appropriate translation where applicable, should be submitted within a period of six months from the date of receipt of this communication as provided under section 8(2) of the Patents Act.

2. The applicant shall, notify the controller whether he will attend the hearing or request for adjournment with reasonable cause along with the prescribed fee prescribed in First Schedule, at least 3 days before the date of hearing.

Our Submission:

1. The Applicant submits that an updated Form 3 has been filed at the time of filing the response to First Examination Report and the same is available in IPO website. Further, in case any change observed towards the status of these corresponding applications and/or any new foreign application is added, the Applicant shall be pleased to furnish said information to the Indian Patent office within the prescribed time period. Furthermore, the Applicant hereby submits petition under rule 137 to condone the irregularity in the filing of Form 3 details (via e-filing module separately).

The Applicant submits that documents pertaining to Section 8(2) details have been filed at the time of response to First Examination Report.

2. The Applicant has submitted the request to attend the hearing on Form 30 on October 23, 2020.

The Learned Controller is respectfully requested to take the same on record and withdraw the said objection.

5. **Objection 5:**

Scope:

The amendment of the claims shall be within the originally filed claims and shall be fairly based on the matter disclosed in the specification further such specification shall be fully and particularly disclose the invention enabling a person, with average skill in, and average knowledge of, the art to work the invention.

Our Submission:

As discussed during the oral hearing, the Applicant respectfully submits that amended claims submitted herewith are within the scope of originally filed claims. Further, the Applicant submits that amendments made to the pending claims are supported by the description and the description is sufficiently disclosing the claimed subject matter.

In view of the above submission, the withdrawal of the objection is humbly requested.

6. **Objection 6:**

Sufficiency of Disclosure u/s 10 (4):

The objection raised in Para 4(I) & 4(II) of FER w.r.t. "Sufficiency of Disclosure" cannot be waived off since the applicant has not submitted the required copy of the description and abstract.

Our Submission:

As discussed during the oral hearing, the Applicant respectfully submits that specification submitted along with the response to the first examination report is sufficiently explaining the background of the invention. Further, the Applicant respectfully submits that the amended abstract submitted with the response is in accordance with the provisions of Rule 13 of the Indian Patent Rules. A copy of the as-filed revised specification and abstract submitted with the response is attached hereto for the Learned Controller's reference.

In view of the above submissions, we humbly request the Learned Controller to kindly accept this application and proceed to grant a patent. Also, please let us know if we are required to comply with any further requirements. However, before taking any adverse action, we humbly request the Learned Controller to give the Applicant an opportunity of being heard u/s 14 of the Indian Patents Act, 1970.

We thank you in advance for your cooperation in this regard.

Very Truly Yours,

Manisha Singh
Agent for the Applicant [IN/PA-740]
LEXORBIS
/Digitally Signed/

Enclosures:

1. *Clean copy of amended claims;*
2. *Marked-up copy of amended claims;*
3. *Copy of as-filed revised specification and abstract;*
4. *Petition under rule 137 to condone the irregularity in the filing of Form 3 details (via e-filing module separately).*

We Claim:

1. A method for displaying a user interface (200) for managing communication sessions on a communications device, the method comprising:

generating for display, by a processor (120), in a side portion of the user interface (200) for a first user, a fan comprising a plurality of graphical user inter face elements that are scrollable by the first user, wherein an active graphical user interface element of the plurality of graphical user interface elements displays communication information associated with a second user different from the first user, and wherein inactive graphical user interface elements of the plurality of graphical user interface elements display truncated communication information;

displaying the fan in the user interface (200);

generating for display, by the processor (120), on the user interface (200), an active spotlight region that depicts, by using a visual metaphor that resembles a spotlight, an active communication session that the first user is currently participating in, the active spotlight region featuring graphical elements representing participants associated with the active communication session; and

displaying the active spotlight region in the user interface (200); and

wherein the detail of the communication information comprises a number of available communication modes associated with the second user; and [¶0034]

wherein the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes. [¶0034, 0036]

2. The method as claimed in claim 1, wherein the communications device receives user input via a touch sensitive display (170).

3. The method as claimed in claim 1, wherein the communication information comprises:

contact information, schedule information, current communication session information, applications, and other multimedia communication features.

4. The method as claimed in claim 1, wherein the wherein the side portion is a first side portion, wherein the fan is a first fan, and wherein the plurality of graphical user interface elements is a first plurality of graphical user interface elements, the method comprising displaying, on a second side portion of the user interface (200), a second fan comprising a second plurality of graphical user interface elements that are scrollable by the first user.

5. The method as claimed in claim 1, wherein a detail of the communication information is displayed in the communication workspace when the first user interacts with the active graphical user interface element.

6. A communications device having a user interface (200), communication device comprising:

a processor (120);

a display;

wherein:

the processor (120) generates for display, in a side portion of the user interface (200) for a first user, a fan comprising a plurality of graphical user inter face elements that are scrollable by the first user, wherein an active graphical user interface element of the plurality of graphical user interface elements displays communication information associated with a second user different from the first user, and wherein inactive graphical user interface elements of the plurality of graphical user interface elements display truncated communication information;

the display (170) displays the fan in the user interface (200);

the processor (120) generates for display on the user interface (200), an active spotlight region that depicts, by using a visual metaphor that resembles a spotlight, an active communication session that the first user is currently participating in, the active spotlight region featuring graphical elements representing participants associated with the active communication session; and

the display (170) displays the active spotlight region in the user interface (200); and

wherein the detail of the communication information comprises a number of available communication modes associated with the second user; and [¶0034]

wherein the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes. [¶0034, 0036]

Dated this 26th day of May, 2011

MANISHA SINGH
Agent for the Applicant [IN/PA –740]
LEXORBIS
/Digitally Signed/

We Claim:

1. A method for displaying a user interface (200) for managing communication sessions on a communications device, the method comprising:

generating for display, by a processor (120), in a side portion of the user interface (200) for a first user, a fan comprising a plurality of graphical user inter face elements that are scrollable by the first user, wherein an active graphical user interface element of the plurality of graphical user interface elements displays communication information associated with a second user different from the first user, and wherein inactive graphical user interface elements of the plurality of graphical user interface elements display truncated communication information;

displaying the fan in the user interface (200);

generating for display, by the processor (120), on the user interface (200), an active spotlight region that depicts, by using a visual metaphor that resembles a spotlight, an active communication session that the first user is currently participating in, the active spotlight region featuring graphical elements representing participants associated with the active communication session; and

displaying the active spotlight region in the user interface (200); and

wherein the detail of the communication information comprises a number of available communication modes associated with the second user; and [¶0034]

wherein the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes. [¶0034, 0036]

2. The method as claimed in claim 1, wherein the communications device receives user input via a touch sensitive display (170).

3. The method as claimed in claim 1, wherein the communication information comprises:

contact information, schedule information, current communication session information, applications, and other multimedia communication features.

4. The method as claimed in claim 1, wherein the wherein the side portion is a first side portion, wherein the fan is a first fan, and wherein the plurality of graphical user interface elements is a first plurality of graphical user interface elements, the method comprising displaying, on a second side portion of the user interface

(200), a second fan comprising a second plurality of graphical user interface elements that are scrollable by the first user.

5. The method as claimed in claim 1, wherein a detail of the communication information is displayed in the communication workspace when the first user interacts with the active graphical user interface element.

6. A communications device having a user interface (200), communication device comprising:

a processor (120);

a display;

wherein:

the processor (120) generates for display, in a side portion of the user interface (200) for a first user, a fan comprising a plurality of graphical user inter face elements that are scrollable by the first user, wherein an active graphical user interface element of the plurality of graphical user interface elements displays communication information associated with a second user different from the first user, and wherein inactive graphical user interface elements of the plurality of graphical user interface elements display truncated communication information;

the display (170) displays the fan in the user interface (200);

the processor (120) generates for display on the user interface (200), an active spotlight region that depicts, by using a visual metaphor that resembles a spotlight, an active communication session that the first user is currently participating in, the active spotlight region featuring graphical elements representing participants associated with the active communication session; and

the display (170) displays the active spotlight region in the user interface (200); and

wherein the detail of the communication information comprises a number of available communication modes associated with the second user; and [¶0034]

wherein the user interacts with the active graphical user interface element to initiate a communication utilizing a selected one of the number of available communication nodes. [¶0034, 0036]

FORM 2
THE PATENTS ACT 1970
(39 of 1970)
&
The Patent (Amendment) Rules, 2006
COMPLETE SPECIFICATION
(See section 10 and rule 13)

1.TITLE OF THE INVENTION:

USER INTERFACE FOR MANAGING COMMUNICATION SESSIONS

2.APPLICANT:

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3. PREAMBLE TO THE DESCRIPTION

COMPLETE

The following specification particularly describes the invention and the manner in which it is to be performed.

TECHNICAL FIELD

[0001] The present disclosure relates to communications and more specifically to intuitive user interfaces for managing communications.

BACKGROUND

[0002] Manufacturers of touch tone telephones, such as phones meeting ITU-T standard Q.23, have supplemented the functionality of touch tone telephones over the years by adding feature buttons and menus. Users can activate simple features via buttons, and more complex features via hierarchical menus actuated by track balls, quadrant style pointers and the like. Some telephones, such as smartphones and other mobile phones, include touch sensitive displays are also known. However, these touch screen telephones simply replace touchtone buttons and feature buttons or menus with actuator buttons designated by an icon on the touch screen that is delineated as the equivalent functionality. Touch screen telephones have advanced the art a bit by allowing the user to touch an entry in a contact database to call that contact or touch a message to contact the caller who left the message. In addition, there is click to call capability within some IP Softphones.

[0003] User testing indicates that certain features make such a user interface more intuitive. Many people have trouble remembering and implementing specific button sequences for advanced functionality, such as a conference call, selectively drop a caller, place on hold, and answer new calls. In addition, the use of feature buttons and the appropriate sequences of feature buttons can also be confusing. This problem is exacerbated by innumerable user interface variations from brand to brand and from model to model. This unintuitive interface leads to mistakes such as dropped calls and, as a result, lost productivity.

[0004] These problems are made worse in mobile platforms. For example, when an individual holds a tablet sized phone, PC or other electronic device, the individual's fingers must simultaneously provide both the function of support and touch screen or key activation. Typically, such devices have borrowed from the desktop, i.e. mouse and keyboard driven,

metaphor by utilizing drop down menus. Commonly, these drop down menus are located at the top of the screen. This results in a very non ergonomic arrangement for a handheld device.

SUMMARY

[0005] Additional features and advantages of the disclosure will be set forth in the description which follows, and in part will be obvious from the description, or can be learned by practice of the herein disclosed principles. The features and advantages of the disclosure can be realized and obtained by means of the instruments and combinations particularly pointed out in the appended claims. These and other features of the disclosure will become more fully apparent from the following description and appended claims, or can be learned by the practice of the principles set forth herein.

[0006] Mobile communication device interfaces can be far more intuitive for their specific use cases than the traditional keyboard and mouse driven window and desktop based metaphor. A communications device interface can clearly show call connections, conferences, sidebars, parties, lines to be disconnected and the like. Further a graphical call connection metaphor can be agnostic to the type of touch screen device and can be agnostic to systems that are handling the calls, e.g., the user does not need to know what the system must do to implement user-entered commands.

[0007] Disclosed are systems, methods, and non-transitory computer-readable storage media for displaying a user interface for managing communication sessions on a communications device. The system displays, on a first side portion of the user interface, a first set of user-configurable communication information and displays, on a second side portion of the user interface, a second set of user-configurable communication information. The communications device can receive user input via a touch sensitive display via skin contact and/or a stylus, for example. The device can also receive other inputs such as gestures, keyboard input, mouse input, and so forth. The first set of user-configurable communication information and the second set of user-configurable communication information can each be,

for example, contact information, schedule information, current communication session information, applications, and/or other multimedia communication features. Contact information can include a name, phone number, email address, instant messaging address, social media link, an image, presence information, relationship information, business information, personal notes, and other communication links. The system can display the contact information based on at least one of alphabetical order and frequency of use. The frequency of use can be based further on at least one of topic, project, and recency of use. In one embodiment, a level of trust between a user and a particular contact restricts which pieces of contact information are displayed for the particular contact. Contacts can be organized in the fan of contacts into expandable groups. The side portions of the user interface can be, for example, on the left side and right side of the device screen. The fans can include an index associated with the first set of user-configurable communication information, such as an alphabetical index to quickly jump to a particular set of information.

[0008] The system 100 displays, on a center portion of the user interface, a communication work space including an active spotlight region. The work space can display at least one current communication session. The interface can also include controls and settings based on the at least one current communication session. In one aspect, the system further receives user input to toggle from an active communication session from a first current communication session to a second communication session, sets the second communication session as the active communication session, and updates the communication work space to reflect the active communication session. The specific user interface, system architecture, and method examples provided below are illustrative and can be implemented in different ways without departing from the spirit and scope of the disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] In order to describe the manner in which the above-recited and other advantages and features of the disclosure can be obtained, a more particular description of the principles briefly described above will be rendered by reference to specific embodiments thereof which are illustrated in the appended drawings. Understanding that these drawings depict only

exemplary embodiments of the disclosure and are not therefore to be considered to be limiting of its scope, the principles herein are described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[0010] FIG. 1 illustrates an example system embodiment;
[0011] FIG. 2 illustrates a first example user interface;
[0012] FIG. 3 illustrates a second example user interface;
[0013] FIG. 4 illustrates a third example user interface;
[0014] FIG. 5 illustrates a fourth example user interface;
[0015] FIG. 6 illustrates a fifth example user interface;
[0016] FIG. 7 illustrates a sixth example user interface;
[0017] FIG. 8 illustrates an example communications infrastructure; and
[0018] FIG. 9 illustrates an example method embodiment.

DETAILED DESCRIPTION

[0019] Various embodiments of the disclosure are discussed in detail below. While specific implementations are discussed, it should be understood that this is done for illustration purposes only. A person skilled in the relevant art will recognize that other components and configurations may be used without parting from the spirit and scope of the disclosure.

[0020] The present disclosure addresses the need in the art for improved user interfaces for managing communications. A system, method and non-transitory computer-readable media are disclosed for displaying a user interface for managing communication sessions on a communications device. A brief introductory description of a basic general purpose system or computing device in FIG. 1 which can be employed to practice the concepts is disclosed herein. A more detailed description of methods and graphical interfaces will then follow. These variations shall be discussed herein as the various embodiments are set forth. The disclosure now turns to FIG. 1.

[0021] With reference to FIG. 1, an exemplary system 100 includes a general-purpose computing device 100, including a processing unit (CPU or processor) 120 and a system bus 110 that couples various system components including the system memory 130 such as read

only memory (ROM) 140 and random access memory (RAM) 150 to the processor 120. The system 100 can include a cache of high speed memory connected directly with, in close proximity to, or integrated as part of the processor 120. The system 100 copies data from the memory 130 and/or the storage device 160 to the cache for quick access by the processor 120. In this way, the cache provides a performance boost that avoids processor 120 delays while waiting for data. These and other modules can control or be configured to control the processor 120 to perform various actions. Other system memory 130 may be available for use as well. The memory 130 can include multiple different types of memory with different performance characteristics. It can be appreciated that the disclosure may operate on a computing device 100 with more than one processor 120 or on a group or cluster of computing devices networked together to provide greater processing capability. The processor 120 can include any general purpose processor and a hardware module or software module, such as module 1 162, module 2 164, and module 3 166 stored in storage device 160, configured to control the processor 120 as well as a special-purpose processor where software instructions are incorporated into the actual processor design. The processor 120 may essentially be a completely self-contained computing system, containing multiple cores or processors, a bus, memory controller, cache, etc. A multi-core processor may be symmetric or asymmetric.

[0022] The system bus 110 may be any of several types of bus structures including a memory bus or memory controller, a peripheral bus, and a local bus using any of a variety of bus architectures. A basic input/output (BIOS) stored in ROM 140 or the like, may provide the basic routine that helps to transfer information between elements within the computing device 100, such as during start-up. The computing device 100 further includes storage devices 160 such as a hard disk drive, a magnetic disk drive, an optical disk drive, tape drive or the like. The storage device 160 can include software modules 162, 164, 166 for controlling the processor 120. Other hardware or software modules are contemplated. The storage device 160 is connected to the system bus 110 by a drive interface. The drives and the associated computer readable storage media provide nonvolatile storage of computer readable instructions, data structures, program modules and other data for the computing

device 100. In one aspect, a hardware module that performs a particular function includes the software component stored in a non-transitory computer-readable medium in connection with the necessary hardware components, such as the processor 120, bus 110, display 170, and so forth, to carry out the function. The basic components are known to those of skill in the art and appropriate variations are contemplated depending on the type of device, such as whether the device 100 is a small, handheld computing device, a desktop computer, or a computer server.

[0023] Although the exemplary embodiment described herein employs the hard disk 160, it should be appreciated by those skilled in the art that other types of computer readable media which can store data that are accessible by a computer, such as magnetic cassettes, flash memory cards, digital versatile disks, cartridges, random access memories (RAMs) 150, read only memory (ROM) 140, a cable or wireless signal containing a bit stream and the like, may also be used in the exemplary operating environment. Non-transitory computer-readable storage media expressly exclude media such as energy, carrier signals, electromagnetic waves, and signals per se.

[0024] To enable user interaction with the computing device 100, an input device 190 represents any number of input mechanisms, such as a microphone for speech, a touch-sensitive screen for gesture or graphical input, keyboard, mouse, motion input, speech and so forth. An output device 170 can also be one or more of a number of output mechanisms known to those of skill in the art. In some instances, multimodal systems enable a user to provide multiple types of input to communicate with the computing device 100. The communications interface 180 generally governs and manages the user input and system output. There is no restriction on operating on any particular hardware arrangement and therefore the basic features here may easily be substituted for improved hardware or firmware arrangements as they are developed.

[0025] For clarity of explanation, the illustrative system embodiment is presented as including individual functional blocks including functional blocks labeled as a "processor" or processor 120. The functions these blocks represent may be provided through the use of

either shared or dedicated hardware, including, but not limited to, hardware capable of executing software and hardware, such as a processor 120, that is purpose-built to operate as an equivalent to software executing on a general purpose processor. For example the functions of one or more processors presented in FIG. 1 may be provided by a single shared processor or multiple processors. (Use of the term "processor" should not be construed to refer exclusively to hardware capable of executing software.) Illustrative embodiments may include microprocessor and/or digital signal processor (DSP) hardware, read-only memory (ROM) 140 for storing software performing the operations discussed below, and random access memory (RAM) 150 for storing results. Very large scale integration (VLSI) hardware embodiments, as well as custom VLSI circuitry in combination with a general purpose DSP circuit, may also be provided.

[0026] The logical operations of the various embodiments are implemented as: (1) a sequence of computer implemented steps, operations, or procedures running on a programmable circuit within a general use computer, (2) a sequence of computer implemented steps, operations, or procedures running on a specific-use programmable circuit; and/or (3) interconnected machine modules or program engines within the programmable circuits. The system 100 shown in FIG. 1 can practice all or part of the recited methods, can be a part of the recited systems, and/or can operate according to instructions in the recited non-transitory computer-readable storage media. Such logical operations can be implemented as modules configured to control the processor 120 to perform particular functions according to the programming of the module. For example, FIG. 1 illustrates three modules Mod1 162, Mod2 164 and Mod3 166 which are modules configured to control the processor 120. These modules may be stored on the storage device 160 and loaded into RAM 150 or memory 130 at runtime or may be stored as would be known in the art in other computer-readable memory locations.

[0027] Having disclosed some basic computing system components, the disclosure turns to the first example user interface 200 illustrated in FIG. 2. This interface shows a first side portion 202, a second side portion 204, and a center portion 206. The first side portion 202

shows a scrollable, user-selectable and user-modifiable list of calendar events. The second side portion 204 shows a user-selectable, user-modifiable, scrollable fan list of contacts. In one aspect, the system provides defaults such as calendar information in the left fan and contact information in the right fan, but the user can establish personalized settings that deviate from the system defaults. The center portion 206 shows a graphical representation of one or more communication sessions, such as a telephone call, video conference, or instant messaging session. Each communication session can include one or more other user and one or more communication modality. In this example, the user interface represents each communication session using a spotlight metaphor. The spotlight shows which users are participating in the communication session. The interface 200 can include multiple spotlights for different concurrent communications sessions. However, the interface 200 features the active communication session as a spotlight is in the forefront of the interface. An active communication session is one in which the user is currently participating. For example, the user is speaking with his sister via telephone as an active communication session. If the user receives an instant message, the spotlight representing the telephone conversation swivels to a rear position in the interface to make room for the incoming instant messaging session, which is featured as the new active spotlight. In this example, user and/or system preferences can dictate whether or not the user is still talking on the telephone with his sister. The active spotlight indicates which communication session is the current target of user actions and input via the interface, and not necessarily in which communication session the user is communicating exclusively. The user can communicate via multiple communication sessions simultaneously. The active spotlight can be larger, rotated into a central position, brighter, a different illumination color, or so forth, than the non-active spotlight(s). The user interface can animate spotlight transitions from active to non-active and vice versa.

[0028] This exemplary user interface 200 arranges important functions along the left and right edges of the display/touch screen such that while the user is holding the device that they can use their thumbs to view, select and actuate the controls without changing their grip.

[0029] When a user has a typical PC in use, windows open as applications over a desktop. Users must not only manage work within the window contents, the user must also manage the windows and the window layouts themselves by selectively minimizing and maximizing applications to prevent the screen from becoming too busy and cluttered. This interface draws the user's attention to an application, a communication session, or other collaborative materials such as documents or other resources using a different metaphor than the typical window presentation

[0030] FIG. 3 illustrates a second, slightly more detailed example user interface 300. This interface 300 also includes a first side portion 302, a second side portion 304, and a center workspace 306 having a spotlight. The first side portion 302 in this example is a list of calendar events. The user can click, drag, flick, and/or scroll through a short fan list 310 of calendar events. A user can click on a calendar event to edit the event or view additional details. Further, the first side portion 302 can include an index 308 sorted by date, for example, so the user can quickly jump to other portions of the calendar to view different events. The first side portion 302 can also include a menu bar 312 for manipulating existing calendar events or for adding new calendar events. The user can also select the type of information displayed in the first side portion 302. A fan selection menu 314 allows the user to select a different type of information to display in the first side portion 302. For example, the user can select, via the fan selection menu 314, to display applications, contacts, or memos in place of calendar events.

[0031] The fan of calendar events 310, or scheduler, can contain information such as event, location, people involved, contact information, building maps, street maps, persistent communications sessions, current documents associated with recurring meetings, and other similar or relevant information. The scheduler can present information that the user may need for participating in or providing input to a scheduled meeting. In place of the scheduler or calendar fan, the system can display a set of sequenced applications such as a meeting preparation application, a communications session disconnect application, an urgent communications escalation application, or other applications.

[0032] Similarly, the user can select, via another fan selection menu 316, what data to display in the fan in the second side portion 304. In either fan of data, a center item (or other item in the fan) can be enlarged 318 to show additional details. In the case of an enlarged or expanded contact 318, the additional details can include availability 318a, 318b, 318c, based on the contact's presence information, for different communication modalities such as telephone, video conference, email, instant messaging, and text messaging. Further, the fan can include placeholders representing groups of contacts. When the user selects an icon or other representation of a group, the system can replace the existing fan with a new fan of the selected group, or the system can add a concentric or parallel fan to the inner or outer edge of the existing fan. A hierarchy of nested groups can generate a set of concentric fans or circles. The concentric fans or circles can partially overlap each other, can touch, or can be spaced apart. When the system displays a list of groups in the fan, the interface can highlight the group selected for display in the same way the center contact is highlighted. The system can display the channel icons on the left of the card for the group in the same way as an individual contact. In the group case, however, the presence indication can indicate the activity of the group. If one group member is using his/her phone, the phone icon will be yellow. If all group members are on line and available for an IM conference, the IM indicator for the group can be green.

[0033] Contact information can be listed such as home, work, or mobile phone numbers, email, IM, social media, and/or other types of communication links as needed to fully encompass the methods of contacting a specific party. In one aspect, the contact can be persona based, such as displaying a different photo based on work or home or based on a particular mode or medium of communication. The view of the contact can be contextual based on a particular topic of conversation or based on a relationship between the contact and the user. The expanded contact view can include photos, avatars, videos, social networking information, and other such depictions and information. The interface 300 can present contacts hierarchically, such as a listing of the person followed by home, work and other such variations, each with appropriate contact information or it can be displayed as a flat

listing as selected or appropriate. The system can present contacts alphabetically, by queued frequency of use, by topic, by project, and/or the system can dynamically rearrange contacts between several combinations thereof. The level of trust between the parties can set limits with regard to the type and variety of icons and other personal information that is available for a single party. The icons can be static in some cases where the level of trust or some other factor makes fetching current updates impractical or impossible, or the icons can be dynamic and indicate the presence, context, persona, schedule, and/or other such factors of the party that one desires to communicate with. The system can present context and persona in the user interface locally or remotely based on this trust relationship with the other party or locally provided when such a trust relationship does not exist, e.g, the information may be pushed, pulled or stored locally. The users can select the appropriate contact icon to indicate which type of communication to initiate, for example.

[0034] The system can also display other contextual information next to the selected items in the fan. The system can display prior conversations with that contact, a map indicating where the contact works, common joint social network friends, and common interests, family notes such as birthdays or anniversaries, and so forth. The contact manager can be fully integrated with both telecommunications and computing functions and can be fed by a complex contact discovery mashup to add contacts to fully populate the equivalent of a vCard. In this way, not only does the user interface allow easy to use multimedia and multimodal communications, the interface also varies dynamically based on at least one participant or contact, such as a calling party and a called party.

[0035] Another element of the user interface is the spotlight in the center workspace 306. The interface uses the spotlight metaphor to add an application to a communication session. The application can be pushed from a local PC, pulled from an enterprise server, a cloud-based server, or requested as a resource from a licensing server or multi-media conferencing server. This spotlight and stage can be a simple two-party communications session in one communication modality or it can be a complex multi-party session in multiple communication modalities. The depiction of the session can simply be two icons or can be

an arrangement of icons connected by shapes or otherwise grouped to show co-located and/or remotely located persons. The spotlight portion can show sidebars, alternate contact media/modes, and/or other information. After a session is launched, the interface 300 can show a media menu 332 containing controls appropriate to the media such as mute, ASR with scroll of text representing audio, or other such information for a voice call. Similarly, the interface can display other control information for alternate media and can display, for example, elapsed communication time, time remaining before another session is scheduled to begin, or the like. Below the center stage can be specific communications modes and media that can be used as described above. The system can also provide a search capability to easily add other parties to the communications session. Multiple parallel communications sessions can be launched and depicted via multiple spotlights. Each such spotlight can have any or all of the features provided above. The display can represent incoming calls or other communications sessions similarly. Further, any application can be launched either as a part of a communication session or independent of a communication session using the fan structure, and the spotlight metaphor.

[0036] Users can access messages with a rich feature set using the same center stage and spotlight paradigm. In order to switch between different activities and appropriately draw the user's gaze, the spotlights can rotate as if they were rotating on a theater stage. This interface allows for rotating between sessions and changes of spotlight, rapid toggling between SIP sessions, Google Waves, or other similar sessions. The user can make transitions more quickly and join multiple sessions together and split them apart. A user rotate gesture can manage the stage/spotlight and thereby rapidly switch between sessions. The same metaphor can be used to manage or toggle between applications, documents and other materials related to communication sessions.

[0037] This interface can include options to create and manipulate group communication sessions. A user assembles her conference roster and then the system recommends a communication channel to use for the conversation based on the availability of different communication channels for each potential participant. For example, if the user assemble 5 people for a communication and 2 people are already using their phones, the system can

recommend an IM communication session. A similar metaphor applies for a group communication.

[0038] Further, the interface 300 can include a notification bar 320 for providing information as notifications which do not interrupt the current communication session in the spotlight 306 and which do not require additional interaction from the user. The notification bar 320 can include dedicated sections for different types of notifications, but the notification bar 320 can flexibly display notifications in any fixed or dynamic arrangement. The notification bar 320 can display multimedia images, animations, sound, vibrations, and so forth to provide alerts 322, date and time 324, reminders 326, a current status 328, and a current presence 330. The alerts 322 can include a number of pending or missed communications or communication attempts. For example, the system can show unread emails, unanswered instant messages, and missed telephone calls. The system can show reminders 326 of the next upcoming calendar event and some or all of the critical information associated with the upcoming calendar event, such as the title, time, date, reminder notes, and a countdown of how much time until the event is scheduled to occur, and so forth. The current status 328 and the presence 330 can show, for example, which communication modalities the user has available, a current status message, and so forth. The user can manipulate these settings by clicking on or tapping on the status notification area 328 or the present notification area 330.

[0039] The notification bar 320 can display temporal factors such as date, day, time, messages grouped by type (such as voice messages, email, IM, etc.), the user's current presence status, and/or conditional presence, a "what's up" view depicting the next scheduled activity in detail as an alternative to pop-ups. In other embodiments, the notification bar 320 can also include access to an office door communicator, video feed monitoring of an office environment, or other applications, media, or resources. The notification bar 320 can be at the top or bottom of the display or at some other location and can also show multiple line or link appearances, boss-assistant relationships, and other such information.

[0040] When a user receives an IM or email or has a meeting alert brought to their attention, it is typically done via a screen pop. The notification bar 320 provides a persistent,

dedicated, space to present a "what's up" view of important information rather than have a randomly placed pop up driven by the application in question. This graphical metaphor shows rich connectivity information where the user can simultaneously add applications via the presentation metaphor. This approach differentiates session components from application components using the same graphical metaphor and selection/activation means for both.

[0041] At a high level, this interface for a mobile device with a touch screen combines contact information, schedule information, current communications information, and/or other critical multimedia or multimodal communications features into a single easy to use interface. Further, the key access and control mechanisms are arranged near the left and right hand sides of the display/touch screen. A combination of drop-down preselectors to determine the contents of the left and right fans and the fans are used to locate, view and actuate contacts, schedules, applications, and other collaboration materials. A fan is a graphical user interface element based on a Rolodex metaphor so a user can flip or scroll through the fan to browse to a particular contact. The user can manipulate the fan by clicking and dragging, flicking, tapping holding and dragging, tapping a scroll up or down button, and so forth. In another aspect, the fan can be thought of not as a Rolodex, but as the outer edge of a wheel with its center offscreen, so the user can rotate the wheel up and down to view different portions of the information stored on the wheel. In any case, the user interface can animate a scrolling motion as the user navigates through the contacts or other information presented in the fan. In one aspect, the size, position, shape, and/or responsiveness of the fan are designed based on an expected position and arc of a user’s thumb while holding the device displaying the user interface. The curved, arcing gesture of a thumb on the touchscreen can control access to the fan or wheel.

[0042] FIG. 4 illustrates a third example user interface 400. In this example, the events fan 402 and the contacts fan 406 are minimized to an abbreviated view. The center region 404 includes a spotlight 408 representing a current communication session. The spotlight 408 includes one or more participant cards 410. Further, the interface 400 shows an expanded

call control menu 412 for manipulating the spotlight 408 or participants associated with the communication session represented by the spotlight 408.

[0043] FIG. 5 illustrates a fourth example user interface 500. In this example, the left region 502 and the right region 506 are normal size, and the center region 504 shows a video conference window in place of a spotlight. The video conference window includes a view of the other user in the video conference 508 and a smaller view of the user 510. The interface can present the video conference view in different ways as well. For example, in a four way video conference, each participant's video can be the same size instead of the large/small approach shown in FIG. 5. In one aspect, the interface 500 can include a button or other interface element to allow the user to toggle between a full screen mode and a non-full screen mode.

[0044] FIG. 6 illustrates a fifth example user interface 600 for displaying contextual people and information. In this interface, the calendar fan 602 is minimized and the contacts fan 606 is not minimized. The center area 604 shows a spotlight that does not have a current communication session, but is ready to accept or initiate a communication session. In this example, the user has navigated to the contact Jen Edwards and clicked or tapped on her entry for additional information. The system displays a contextual information popup 610 including information such as her address, social network, stored files, previous conversations with the user, and so forth. The popup 610 can include additional tabs 612 for categorizing additional information. The user can manipulate the information and/or the sources of information in the popup 610.

[0045] FIG. 7 illustrates a sixth example user interface 700. In this interface, the calendar fan 702 is expanded and the contacts fan 706 is minimized. The user can select or open two calendar events from the calendar fan 702. The interface 700 displays the calendar events 708, 710 side by side in the center region 704 for the user to manipulate. The user can transfer individual elements of one calendar event to another. The user can edit details of each calendar event and delete calendar events.

[0046] FIG. 8 illustrates an example communications infrastructure 800. In this example, a user 802 communicates via a mobile or portable communications device 804 with other users 810, 812 in a communication session. The communications device 804 can include a local database 806 for storage. The different users' devices can communicate one with another via a communications network 808 that can be a wired and/or wireless network, such as the Internet or other suitable telecommunications network. In one aspect, one of the user devices acts as a server for running the communication session. In another aspect, a communications server 814 with a network based database 816 manages the communication session. When the user device 804 generates the user interface, the device can pull data, such as contact information, presence information, images, documents, and other resources, from one or more of the local database 806, the network database 816, or databases at other users' locations.

[0047] Having disclosed some basic system components, the disclosure now turns to the exemplary method embodiment shown in FIG. 9. For the sake of clarity, the method is discussed in terms of an exemplary system 100 as shown in FIG. 1 configured to display a user interface for managing communication sessions on a communications device. The system 100 displays, on a first side portion of the user interface, a first set of user-configurable communication information (902) and displays, on a second side portion of the user interface, a second set of user-configurable communication information (904). The communications device can receive user input via a touch sensitive display via skin contact and/or a stylus, for example. The device can also receive other inputs such as gestures, keyboard input, mouse input, and so forth. The first set of user-configurable communication information and the second set of user-configurable communication information can each be, for example, contact information, schedule information, current communication session information, applications, and/or other multimedia communication features. Contact information can include a name, phone number, email address, instant messaging address, social media link, an image, presence information, relationship information, business information, personal notes, and other communication links. The system 100 can display the contact information based on at least one of alphabetical order and frequency of use. The

frequency of use can be based further on at least one of topic, project, and recency of use. In one embodiment, a level of trust between a user and a particular contact restricts which pieces of contact information are displayed for the particular contact. Contacts can be organized in the fan of contacts into expandable groups. The side portions of the user interface can be, for example, on the left side and right side of the device screen. The fans can include an index associated with the first set of user-configurable communication information, such as an alphabetical index to quickly jump to a particular set of information.

[0048] The system 100 displays, on a center portion of the user interface, a communication work space including an active spotlight region (906). The work space can display at least one current communication session. The interface can also include controls and settings based on the at least one current communication session. In one aspect, the system 100 further receives user input to toggle from an active communication session from a first current communication session to a second communication session, sets the second communication session as the active communication session, and updates the communication work space to reflect the active communication session. The specific examples are illustrative and can be implemented in different ways without departing from the spirit and scope of the disclosure.

[0049] Embodiments within the scope of the present disclosure may also include tangible and/or non-transitory computer-readable storage media for carrying or having computer-executable instructions or data structures stored thereon. Such non-transitory computer-readable storage media can be any available media that can be accessed by a general purpose or special purpose computer, including the functional design of any special purpose processor as discussed above. By way of example, and not limitation, such non-transitory computer-readable media can include RAM, ROM, EEPROM, CD-ROM or other optical disk storage, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to carry or store desired program code means in the form of computer-executable instructions, data structures, or processor chip design. When information is transferred or provided over a network or another communications connection (either hardwired, wireless, or combination thereof) to a computer, the computer properly views the

connection as a computer-readable medium. Thus, any such connection is properly termed a computer-readable medium. Combinations of the above should also be included within the scope of the computer-readable media.

[0050] Computer-executable instructions include, for example, instructions and data which cause a general purpose computer, special purpose computer, or special purpose processing device to perform a certain function or group of functions. Computer-executable instructions also include program modules that are executed by computers in stand-alone or network environments. Generally, program modules include routines, programs, components, data structures, objects, and the functions inherent in the design of special-purpose processors, etc. that perform particular tasks or implement particular abstract data types. Computer-executable instructions, associated data structures, and program modules represent examples of the program code means for executing steps of the methods disclosed herein. The particular sequence of such executable instructions or associated data structures represents examples of corresponding acts for implementing the functions described in such steps.

[0051] Those of skill in the art will appreciate that other embodiments of the disclosure may be practiced in network computing environments with many types of computer system configurations, including personal computers, hand-held devices, multi-processor systems, microprocessor-based or programmable consumer electronics, network PCs, minicomputers, mainframe computers, and the like. Embodiments may also be practiced in distributed computing environments where tasks are performed by local and remote processing devices that are linked (either by hardwired links, wireless links, or by a combination thereof) through a communications network. In a distributed computing environment, program modules may be located in both local and remote memory storage devices.

[0052] The various embodiments described above are provided by way of illustration only and should not be construed to limit the scope of the disclosure. Those skilled in the art will readily recognize various modifications and changes that may be made to the principles described herein without following the example embodiments and applications illustrated and described herein, and without departing from the spirit and scope of the disclosure.

ABSTRACT

USER INTERFACE FOR MANAGING COMMUNICATION SESSIONS

Disclosed herein are systems, and methods for displaying a user interface (200) for managing communication sessions on a communication device. A system configured to practice the method displays, on a first side portion of the user interface, a first set of user-configurable communication information. The system displays, a second side portion of the user interface, a second set of user-configurable communication information. The system displays, on a center portion of the user interface, a communication work space for managing communication sessions. In one embodiment including a touch sensitive display (170), this interface is used with a tablet device such that a natural position of user's thumbs are in an optimal position to interact efficiently with the user interface (200). The side portions can be user-configurable to display, for example, contacts, calendar events, tasks, memos, and so forth.

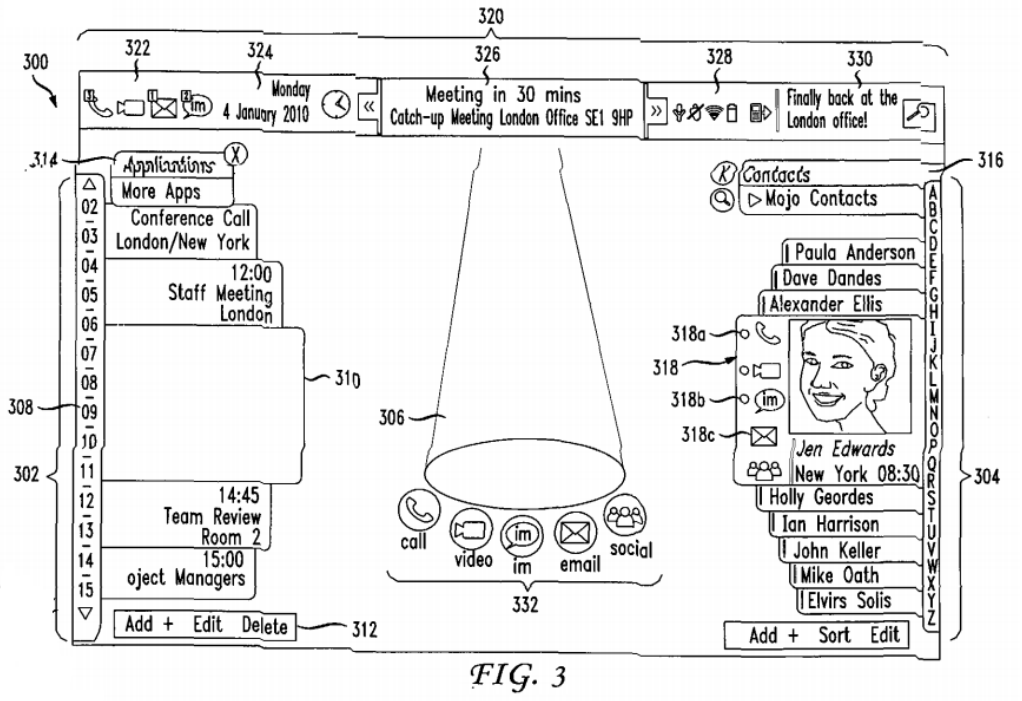

FIG. 3

IN THE MATTER OF
THE PATENTS ACT, 1970
&
THE PATENTS RULES, 2003
[AS AMENDED]

AND

IN THE MATTER OF
INDIAN PATENT APPLICATION NUMBERED 1579/MUM/2011

DATED May 26, 2011

IN THE NAME OF
Avaya Inc.

PETITION UNDER RULE 137

Humble Petition of the Applicant, the above named

MOST RESPECTFULLY SHEWETH:

1. That we are a foreign based company and hence we are not directly filing the application in India;
2. That we are engaging Patent Agent Firm to represent us in filing and prosecuting patent application in India;
3. That our Indian Agents have filed an application at the Indian Patent Office on May 26, 2011.
4. That we are filing corresponding applications in various foreign countries through various Agents in those countries;
5. That some countries delay the process of disclosing the information relating to foreign filing particulars and it requires time in receiving and forwarding the information to the Indian Agents by the relevant Agents involved in the corresponding countries;
6. That an irregularity is thus occurred in furnishing details of corresponding applications;
7. That this irregularity is due to the time constraint to obtain the corresponding foreign filing particulars from various countries and forward it to India by various foreign Agents involved;

8. That our Indian Agents submitted the same in a consolidated form at the Patent Office and that there has been no malafide intention to comply with the requirement of Section-8.
9. That there has been no wanton laches from the part of your petitioners complying with the requirement;
10. As this delay does not cause any prejudice to anyone it would be expedient in the interest of justice to condone the same.

We, therefore, humbly pray that the irregularity in submitting the details of the corresponding applications may be condoned.

For this act of kindness, your petitioners shall ever be grateful.

Dated this the 7th Day of November, 2020

Manisha Singh
Agent for the Applicant [IN/PA-740]
LEXORBIS
/Digitally Signed/

To
The Controller of Patents
The Patent Office Branch
Mumbai