

**Original Document by Hand**

Controller of Patents & Designs : Kishor Kadbe  
Letter Ref. : Application No/ 1579/MUM/2011

E-101/15389/18



IN/PCT  
December 06, 2018

The Controller of Patents  
Patent Office Branch  
Intellectual Property Office Building,  
Antop Hill, S.M Road  
Mumbai-400037

**Last Date to respond to the Examination Report: March 21, 2019**

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 First Examination Report : September 21, 2018**

Dear Sir:

We write with regard to the above-identified patent application.

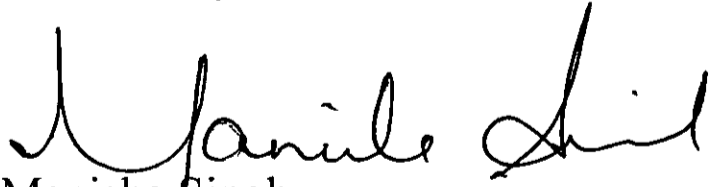
Please find enclosed herewith the following document for your perusal:

- **Certified Copy of Priority Document 61/348,550 ( In Original);**

Please note that the scanned copy of the same has been submitted through e-portal on **December 05, 2018** via e-filing mode. We request you to put the same on record and update your files accordingly.

We thank you in advance for your co-operation in this regard.

Yours Truly,

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

Enclosure: as above.

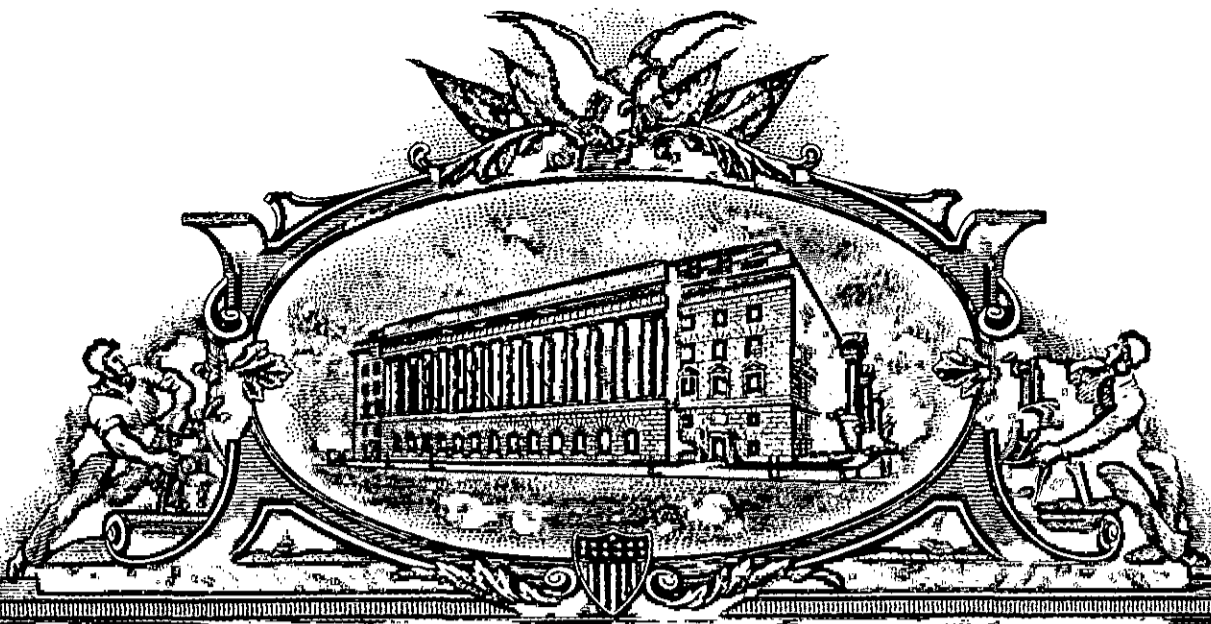


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10-Dec-2018/56967/1579-MUM-2011/OTHERS

PA 7700431



UNITED STATES OF AMERICA

**TO ALL TO WHOM THESE PRESENTS SHALL COME:**

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**United States Patent and Trademark Office**

**November 13, 2018**

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**APPLICATION NUMBER: 61/348,550**

**FILING DATE: May 26, 2010**

**THE COUNTRY CODE AND NUMBER OF YOUR PRIORITY APPLICATION, TO BE USED FOR FILING ABROAD UNDER THE PARIS CONVENTION, IS US61/348,550**

**By Authority of the  
Under Secretary of Commerce for Intellectual Property  
and Director of the United States Patent and Trademark Office**



*W. Montgomery*  
**W. MONTGOMERY**  
Certifying Officer

NOV 13 2018 17:18

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	7694514
<b>Application Number:</b>	61348550
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	5773
<b>Title of Invention:</b>	A USER INTERFACE FOR MANAGING COMMUNICATION SESSIONS
<b>First Named Inventor/Applicant Name:</b>	David G. Boyer
<b>Customer Number:</b>	95158
<b>Filer:</b>	Thomas M. Isaacson/Angela Thumann
<b>Filer Authorized By:</b>	Thomas M. Isaacson
<b>Attorney Docket Number:</b>	069-0015-Prov (510114)
<b>Receipt Date:</b>	26-MAY-2010
<b>Filing Date:</b>	
<b>Time Stamp:</b>	17:16:58
<b>Application Type:</b>	Provisional

### Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$220
RAM confirmation Number	3659
Deposit Account	141437
Authorized User	ISAACSON,THOMAS

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**File Listing:**

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Specification	069-0015-PROV-Application.pdf	159696 11fcf96da2a53bace158a3af3aa6a7cf1a1275df	no	19

**Warnings:**

**Information:**

2	Transmittal of New Application	069-0015-Prov-Transmittal.pdf	241436 a6b27fa26bacdc84de0d76b3106cfc50ba35b52e	no	3
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**Warnings:**

**Information:**

3	Drawings-only black and white line drawings	case-069-0015-prov-fig-1.pdf	22176 e6af05d07b38fac2c8e8615afe25413ee75e01e1	no	1
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**Warnings:**

**Information:**

4	Fee Worksheet (PTO-875)	fee-info.pdf	29716 a60a4375d4717069f285035220b90277be115845	no	2
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**Warnings:**

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<b>Total Files Size (in bytes):</b>			453024		
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**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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### Provisional Application for Patent Cover Sheet

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c)

<b>Inventor(s)</b>					
Inventor 1					<input type="button" value="Remove"/>
Given Name	Middle Name	Family Name	City	State	Country ;
David	G	Boyer	Oceanport	NJ	US
Inventor 2					<input type="button" value="Remove"/>
Given Name	Middle Name	Family Name	City	State	Country ;
Narunas		Bukauskas	Brooklyn	NY	US
Inventor 3					<input type="button" value="Remove"/>
Given Name	Middle Name	Family Name	City	State	Country ;
Tom		Coombs	London	UK	UK
Inventor 4					<input type="button" value="Remove"/>
Given Name	Middle Name	Family Name	City	State	Country ;
Trung		Dinh-Trong	Bedminster	NJ	US
Inventor 5					<input type="button" value="Remove"/>
Given Name	Middle Name	Family Name	City	State	Country ;
Birgit		Geppert	Basking Ridge	NJ	US
Inventor 6					<input type="button" value="Remove"/>
Given Name	Middle Name	Family Name	City	State	Country ;
Thomas		Kleist	Redbourn	UK	UK
Inventor 7					<input type="button" value="Remove"/>
Given Name	Middle Name	Family Name	City	State	Country ;
Frank		Roessler	Basking Ridge	NJ	US
All Inventors Must Be Listed – Additional Inventor Information blocks may be generated within this form by selecting the <b>Add</b> button.					<input type="button" value="Add"/>

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Doc Code: **TR.PROV**

Document Description: Provisional Cover Sheet (SB16)

PTO/SB/16 (04-07)

Approved for use through 06/30/2010 OMB 0651-0032

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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<b>Title of Invention</b>	A USER INTERFACE FOR MANAGING COMMUNICATION SESSIONS
Attorney Docket Number (if applicable)	069-0015-Prov (510114)
<b>Correspondence Address</b>	
Direct all correspondence to (select one):	
<input checked="" type="radio"/> The address corresponding to Customer Number	<input type="radio"/> Firm or Individual Name
Customer Number	95158

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

No.

Yes, the name of the U.S. Government agency and the Government contract number are:

I P O M U M B A I 1 0 - 1 2 - 2 0 1 8 1 7 \* 1 8

Doc Code: TR,PROV

Document Description: Provisional Cover Sheet (SB16)

PTO/SB/19-04-071

Approved for use through 06/30/2018 OMB 0551-0032

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**Entity Status**

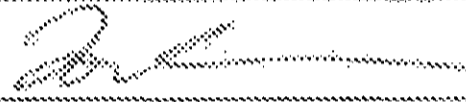
Applicant claims small entity status under 37 CFR 1.27

- Yes, applicant qualifies for small entity status under 37 CFR 1.27
- No

**Warning**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

**Signature**



Please see 37 CFR 1.4(d) for the form of the signature.

Signature				Date (YYYY-MM-DD)	2010-05-26
First Name	Thomas	Last Name	Isaacson	Registration Number (If appropriate)	44166

This collection of information is required by 37 CFR 1.51. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. This form can only be used when in conjunction with EFS-Web. If this form is mailed to the USPTO, it may cause delays in handling the provisional application.

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10-Dec-2018/56967/1579-MUM-2011/OTHERS

**PATENT APPLICATION**

**A USER INTERFACE FOR MANAGING COMMUNICATION SESSIONS**

**Inventors:**

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## **A USER INTERFACE FOR MANAGING COMMUNICATION SESSIONS**

### **BACKGROUND**

#### 1. Technical Field

[0001] The present disclosure relates to communications and more specifically to a user interface for managing communication sessions.

#### 2. Introduction

[0002] See appendix.

### **SUMMARY**

[0003] 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.

[0004] See appendix.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0005] 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:

[0006] FIG. 1 illustrates an example system embodiment.

### DETAILED DESCRIPTION

[0007] 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.

[0008] 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 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.

[0009] 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.

[0010] 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.

[0011] 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.

[0012] 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.

[0013] 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.

[0014] Having disclosed some basic system components, the disclosure now turns to the exemplary method embodiment shown in FIG. 2. For the sake of clarity, the method is discussed in terms of an exemplary system such as is shown in FIG. 1 configured to practice the method.

[0015] See appendix for additional discussion.

[0016] 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.

[0017] 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.

[0018] 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.

[0019] 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**

See appendix.

APPENDIX

**A. INVENTION TITLE:** Please propose a short descriptive title for your idea.

Mojo Release 1 User Interface - Case 510114

**C. BUSINESS UNIT:**DCA - Devices, Clients Applications

*(Notes: If more than one contributor from different business teams exists, the business team with the greatest number of contributors should be listed. In case of a tie, select the business team most aligned with the idea. If you are part of a sales team, please select the business most closely aligned with the technology.)*

The idea stemmed from the project Mojo User Interface work and related testing by users of the interface. It was elaborated on based on discussions about Mojo IP and what additional ideas could be patented to protect the product and the technology. It specifically applies to project Mojo, Release 1.

**D. TECHNOLOGY:** TEL SET *(Note: Please see definitions below.)*

**E. PRODUCT OR PROGRAM:** If the invention was developed for a specific product or program, please indicate which one and when it was, or will be, released? Also indicate whether the invention has Beta, EI or GA dates. If this invention is a joint development with a third-party, or funded by a third-party, please identify that party. If the idea has been, or will be, disclosed or released outside of Avaya (e.g., trade shows, vendors, customers, publications, etc.) indicate when, how and to whom? If so, indicate whether a non-disclosure agreement exists between the parties.

While discussed in the context of the Mojo device and/or applications, this notion has applicability to display phones and/or applications user interfaces to be used with a display phone for either fixed or mobile communications. The idea has been incorporated into the Mojo Release 1 product being released soon. Disclosure of the idea in the context of project Mojo is planned for the near future and provisional patent protection will be sought.

**F. PROBLEM:** What overall problem(s) does the proposed invention solve or what purpose does it serve? *(Note: Please be specific, spell out acronyms and provide enough layman level detail to fully explain the problem.)*

BACKGROUND: Touch Tone telephones, e.g., phones meeting ITU-T standard Q.23, have been supplemented over the years by the addition of feature buttons and menus. Actuation of these features and menus have evolved from simple buttons, to hierarchical menus actuated by track balls, quadrant style pointers and the like. Telephones with displays utilizing touchpads 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.

However, with touch screen technology and PC keyboard/Mouse instructions, there is the opportunity to create a far more intuitive telephone device that clearly shows call connections, conferences, sidebars, parties, lines to be disconnected and the like. Further, this notion of 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 doesn't need to know what the system must do to implement the commands entered by the user.

In addition, user testing indicates that certain features make such a user interface more intuitive. Many people have trouble with the sequencing of buttons to conference, selectively drop, place on hold and answer new calls. In addition the use of feature buttons and the appropriate sequencing for them can also be confusing. This is especially true because the user interface varies from brand to brand. It is also not always intuitively obvious what steps to take to actuate the functions. Because of this, mistakes are made which can result in dropped calls and lost productivity. What is sought is a new and improved method of managing calendar tasks, contacts, multi-media/modal communications all in one intuitive GUI. Such a user interface should make use of lessons learned during testing with customers.

**NEW PROBLEM STATEMENT:** When an individual holds a tablet sized phone, PC or other electronic device, the individual's fingers must provide both the function of support and touch screen or key activation. Typically such devices have utilized drop down menus that are typically positioned along the top of the screen. This does not result in an ergonomic arrangement when the device is hand held. One problem being solved is to arrange 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.

When a user has a typical PC in use, windows open as applications, files and the like are actuated. The problem is that one must selectively minimize and maximize applications and other information as needed to prevent the screen from becoming too busy. This is complicated by the fact that smaller screens that are typically found on mobile devices reduce real-estate on the screen. The problem is also complicated because windows get layered and it can become tedious to exchange which document or application is the one in current use. What is desired is a means of drawing user attention to an application, a telecom session, or other collaborative materials using a different metaphor than the typical window presentation.

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. Another problem being solved is to have a persistent,

dedicated, space available to present a "what's up" view of important information rather than have a randomly placed pop up driven by the application in question.

Currently when a user collaborates via a computer and/or a phone, the user interface is driven largely by the applications and the device in question. With the Mojo device, a new graphical metaphor has been taught that shows rich connectivity information where the user can simultaneously can add applications via the presentation metaphor. A problem being solved here is how to differentiate session components from application components using the same graphical metaphor and selection/activation means for both.

#### **G. EXISTING SOLUTIONS / PRIOR ART/RELATED APPLICATIONS & PATENTS:**

1. How have others, either inside of Avaya or outside, addressed the problem(s) in the past?

See background and prior solutions under section F "Problem" above and/or under section G4 below.

2. List any known products, or combination of products, currently available to solve the same problem(s). What is the present commercial practice?

See background and prior solutions under section F "Problem" above and/or under section G4 below.

3. In what way(s) do the presently available solutions fall short of fully solving the problem?

See background and prior solutions under section F "Problem" above.

4. Conduct key word searches using Google and list relevant prior art material found? (*Suggestions: Good searches will usually require an iterative approach to find the best search word(s). Avoid terms that are Avaya specific. When looking at patents, concentrate on the Background and Detailed Description portions, and ignore the claims, which are the numbered paragraphs at the end.*)

A large number of prior art searches were conducted with both public search engines like Google, Google Scholar, and Google Patents. In addition, private search tools such as internal databases, Delphion and other tools were used. The following keywords and phrases were used in these searches.

- 1) Graphic TUI
- 2) Telephony GUI
- 3) Communications GUI
- 4) Multi-Media/Modal Communications Metaphor
- 5) Visual Communications Director
- 6) Visual Communications Interface
- 7) Contact, Schedule and Communications GUI

- 8) Integrated Contact, Schedule and Multi-Media Communications Interface
- 9) Touch Screen Controlled Contact, Schedule and Communications Manager
- 10) Intuitive Touch Screen based Communications Interface
- 11) Graphical Application UI
- 12) Collaboration UI
- 13) Visual Application Sharing Metaphor
- 14) Visual Application Interface
- 15) Integrated Communications, Applications Interface

5.0 Please list the title or preferably the 6 digit IDR number for any submissions, pending applications and/or granted patents that you created individually, or together with other inventors, that are closely related to this invention.

509022-US-NP1, NP2, NP3, NP4, NP5, 509048, 509049, 509098.

5.1 Please list the title or preferably the 6 digit IDR number for any provisional or other prior filings on this idea. Provisional not yet filed. Due to imminent product launch, the provisional should be filed by Novak Druce prior to June 1<sup>st</sup>, 2010.

5.2 Please list the title or preferably the 6 digit IDR number for any submissions, pending applications and/or granted patents that Avaya holds and you are aware of that would be an important reference with regard to this filing.

509022-US-NP1, NP2, NP3, NP4, NP5, 509048, 509049, 509098.

Contact managers and call lists are well known in the art. The closest art to this present invention is a granted patent from Avaya US 7,616,751 by David Mohler that teaches a Graphical Held Call Metaphor, but does not teach call connection, conferencing, sidebars, etc. Another related patent is US 5,627,978 issued to Avaya as a part of the MMCX project entitled "Graphical User Interface for Multimedia Call Set-up and Call Handling in a Virtual Conference on a Desktop Computer Conferencing System" also known as a "GUI for a Virtual Meeting Metaphor" internal to Avaya. This patent teaches a virtual conference room metaphor that shows a table and chairs with each conference participant virtually occupying one of the seats at the table.

#### **H. BRIEF DESCRIPTION OF PROPOSED INVENTION:**

How does your idea solve the problem defined above? Please include details about how your idea is implemented and how it works?

**BACKGROUND:** Current multi-media/modal communications devices lack a single user interface that provides adequate at-a-glance information combined into a user friendly format. While the user can access such information, it typically takes a variety of applications and screens to be able to do so. Further, productivity is lost by toggling between such screens and applications.

What is proposed here at a high level is a touch screen and/or otherwise navigable user interface that combines contact information, schedule information, current communications information and other critical multi-media/modal communications features into a single easy to use interface. Further, it is proposed that 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 (a rolldex like metaphor) are used to locate, view and actuate contacts, schedules, applications, and other collaboration materials.

Based on customer feedback testing, 65% of customers prefer contacts to be arranged on the right side of such a screen. While that is the preferred embodiment, alternate presentations that contain the functional improvements taught by this invention are also possible. 90+% preferred the contacts to be arranged in a fan or wheel presentation rather than a drop down or other list box. One can make an analogy to a two dimensional rolodex of the past. The side positions are the positions where the user has his thumbs when holding a tablet. And the thumbs can get used to scroll up and down.

This led to the fan structures on the right and the left hand side of the screen. Curved or arcing gesture rotations as a means of controlling access to the fan or wheel should be fully claimed. Contact information can be listed such as phone numbers including home, work, mobile, or email, IM, social media or other types of communication links as needed to fully encompass the methods of contacting a specific party. The driving factor for the contact can be persona based such as a different photo based on work or home, it can be specific to the mode/media of communication, it can be contextual such as related to the topic, or other such variations. It can use photos, avatars and other such depictions. The information can be presented hierarchically, e.g., 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. Contacts can be presented alphabetically, by queued frequency of use, by topic, by project, and/or can be dynamically rearranged between several variations on this theme. Only the level of trust between the parties sets limits with regard to the type and variety of icons that could be available for a single party. The icons could be static in some cases where the level of trust makes it impractical or impossible to fetch current updates, or the icons could be dynamic and indicate the presence, context, persona, schedule or other such factors of the party that one desires to communicate with. The context and persona presented in the user interface can be remotely provided 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. Selection of the appropriate contact icon can drive the type of communications launch or alternatively, the type of communications combined with the party being contacted can result in the appropriate icon being presented. Displaying contextual information next to the selected items in the fan is also taught. In a block structure prior conversation with that person gets displayed, where the person works in a map, joint social media friends and the like. The contact manager is 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 such a way, not only does the user interface allow easy to use multi-media/modal communications it can dynamically vary based both on the calling party and called party factors (for a phone call analogy). When you display your list of groups in the fan one group will be highlighted in the same way the center contact is highlighted. You will see the channel icons on the left of the card, just like you do for a individual contact. In the group case, however, the presence indication will 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 will be green.

Again based on customer feedback testing, customers prefer schedule information to be arranged on the left side of such a screen. While this is the preferred embodiment, alternate presentations that contain the functional improvements taught by this invention are also possible. 90+% preferred the schedule to be arranged in a fan or wheel presentation rather than a drop down or other list box. The side positions are the positions where the user has his thumbs when holding a tablet. And the thumbs can get used to scroll up and down. This did lead to the fan structures on the right and the left hand side of the screen. Curved or arcing gesture rotations as a means of controlling access to the fan or wheel should be fully claimed. The scheduler can contain the typical information such as event, location, people involved, contact information and the like. However, additional information not contained in the prior art can also be presented such as building maps, street maps, persistent communications sessions, current documents associated with re-occurant meetings, and other like information. In such a way, the scheduler presents all of the information that the user may need to get to, participate in or provide input to such a meeting. The scheduler may include sequenced Aura applications such as the meeting preparation application, the communications session disconnect application, the urgent communications escalation application or the like (Avaya IDRs 509071, 509072, and 509074 respectively). Other applications such as Android applications for Mojo, or the like can also be displayed in one or more application fans.

Another element of the user interface is the spotlight space. The spotlight on a center stage is the preferred embodiment of a current communications session. It is also the metaphor for adding an application to the session. Such an application can be pushed from the 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. Alternate presentations that contain the same functional improvements taught by this invention as also possible. This spotlight and stage can be a simple two-party communications session or it can be a complex multi-party session. 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. It may show sidebars, alternate contact media/modes and/or other information. Once the session is launched, it can show controls appropriate to the media for example, mute, ASR with scroll of text representing audio or other such information for a voice call. Similarly, other control information can be displayed for alternate media and may contain

without limitation elapsed communication time, time remaining to another session, or the like. Below the center stage can be specific communications modes and media that can be used as described above. A search capability to add other parties to the communications session is also provided. Multiple parallel communications sessions can be launched and depicted via multiple spotlights. Each such spotlight can have the other features provided above. Incoming calls or other communications sessions are similarly presented, however in a variation compared with outbound sessions a variety of communications resources can be applied according to Avaya patent US 7,616,751. 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.

A variety of communications robot software applications or tools (comm bots), can be applied. These comm bots can be centrally stored and provided such as the case using Avaya's Communications Manager (CM) or they can be developed and stored locally by the user making use of a comm bot application development environment. Messages can be accessed and presented with a rich feature set using the same center stage paradigm. In order to switch between different activities and appropriately draw the user's gaze, what is proposed is the ability to have the spotlights rotate like the concept of the rotating stage as in a theater. With this rotation of session and change of spotlight, rapid toggling between SIP sessions, Google Waves, or other similar sessions is possible. The user can make transitions more quickly and join multiple sessions together and split them apart as is taught in Avaya IDRs 509022, 509048, 509049, and 509098. The gesture of a rotation could be used to manage the stage/spotlight and thereby rapidly switch active sessions. A group communication initiation idea is also taught. The idea is to assemble your conference roster and then, the system, based on the availability of different communication channels for each potential participant, will recommend a communication channel to use for the conversation. So if you assemble 5 people for a communication and 2 people are already using their phones, an IM communication would be recommended. A similar metaphor applies for a group communication.

Still another element of the user interface is the tool bar along the top of the user interface. It displays temporal factors such as date, day, time, it displays messages grouped by type (such as voice messages, email, IM, etc.), it displays your current presence status and could display and/or control conditional presence according to Avaya invention 508023, it contains a "whats up" view that depicts the next scheduled activity in detail in an alternate presentation to pop-ups as described above in the problem statement section. Other variations on this tool bar could include but are not limited to access to an office door communicator such as is taught in Avaya invention 408002, video feed monitoring of an office environment or the like. This tool bar can also show multiple line or link appearances, boss-assistant relationships, and other such information.

One schooled in the art of communications user interfaces can envision other variations on the basic themes presented herein without departing from the intended scope of the invention.



**I. COMPARISON:** Please identify the advantages and basic differences of your proposed solution over previous solutions.

See background and prior solutions under section F and G4 above and see also the brief description of the proposed invention under section H above.

**J. NOVELTY:** Please provide a **one-sentence** description of what distinguishes your idea from the prior art. This is a statement of what is new, and not a business case.

An intuitive and ergonomic method of control of display of information, connectivity and applications.

**K. DETECTION OF USE:**

1. How difficult would it be to detect others' use of this idea?

**Readily Detectable - via documentation only**

2. What would be required in terms of cost, equipment and time to detect use by others?

Such a system and improvement would be very likely for the vendor to advertise and market. One could either detect use via advertising/marketing documentation or alternatively via system observation and selective use of administrative and user manuals.

**L. ECONOMIC IMPACT:**

What is the annual sales volume or revenue across the industry for the products and/or services that this idea applies to? How likely is it for others to want to adopt the idea? Please specify whether this market potential is domestic or international, and where international list the largest consuming countries. *(For Example, if an idea relates to wireless handsets, what are the annual sales in units or dollars for this market. Use of "Google" searches with the technology name followed by string "market value" is usually a good first place to find such information. Reiterative searches may be necessary to find the information.)*

While it would be difficult to assess the incremental revenue potential for the method and system described herein, improvements to communications device user interfaces whether in hardware or software form are extremely important to Avaya and the broader communications industry. The disclosed user interface allows functionality not previously available. Therefore, Avaya customers would likely desire these features and other companies would desire a license to the art if offering such a license was consistent with Avaya's strategy and partnerships.

We are recommending foreign filing in EU (GB, DE, FR) JP, CN & IN or the same countries as 509022.

**M. RATING:** Based on the Avaya Patent Priority Policy Chart below, what is the priority for this idea? *(Note: A rating of one should be reserved for exceptionally important and valuable ideas. For example if the idea is quite fundamental and likely to*

*be adopted by most companies in a large, strategically important area. Supplemental or feature ideas will typically be rated a two.)*

**1. "INVENTOR(S)" PRELIMINARY RATING: 1 = Crucial** (Note: This can be either one "inventor's" view or a consensus of all of the "inventors".)

**2. DIRECTOR'S PRELIMINARY RATING: 1 = Crucial**  
**Note:** Please indicate Director's name here. Doree Seligmann

**N. ATTORNEY CONSULTED: Outside Counsel - Please Specify Below**  
Tom Isaacson at Novak Druce

**O. STANDARDS USE:** Is the idea of a type that could get incorporated into industry standards? If the answer to this question is yes, please identify the standard body and standard. Are there present plans to include the idea in an Avaya submission to a standards body?

N/A

**P. ATTACHMENTS:** Please list any diagrams, documents, emails, personal notes or presentations that apply to this idea. In the case of personal notes, please date them at the time of creation. Forward all of this related documentation with this submission. Please list the date the idea was conceived. List any related documents and/or witnesses to the conception of the idea.

MS PowerPoint slide deck entitled Next Generation Collaboration Product - Tech Transfer 4-12-10.ppt. See especially slides 11 - 16. NOTE: THIS DECK IS NOT FOR EXTERNAL DISCLOSURE AND SHOULD NOT BE PART OF THE PROVISIONAL FILING.

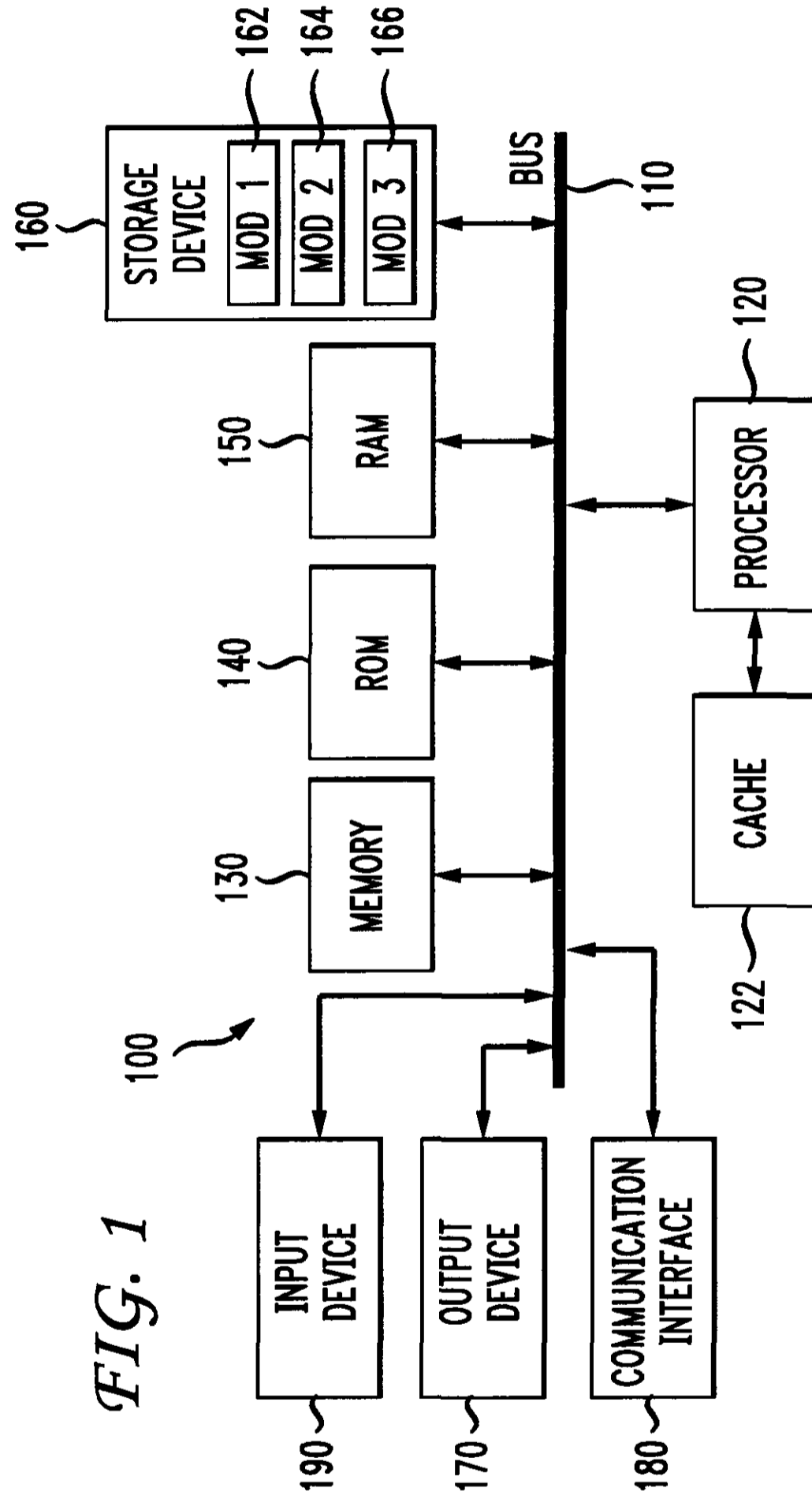


FIG. 1

I P O M U M B A I 1 0 - 1 2 - 2 0 1 8 1 7 - 1 8