**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

PARUS HOLDINGS, INC.	)
	)
Plaintiff,	)
	)
v.	) Civil Action No. 2:21-CV-394
	)
BANK OF AMERICA CORPORATION,	) **JURY TRIAL DEMANDED**
	)
Defendant.	)
	)
	)
	)

COMPLAINT FOR PATENT INFRINGEMENT

Parus Holdings, Inc. ("Parus"), for its Complaint for Patent Infringement against Bank of America Corporation ("Bank of America" or "Defendant"), alleges as follows:

NATURE OF THE CASE

1.   This action arises under 35 U.S.C. § 271 for Bank of America's infringement of United States Patent No. 7,327,723 (the "'723 patent" or the "Patent-In-Suit").

THE PARTIES

2.   Plaintiff Parus Holdings, Inc. is a Delaware corporation with its principal place of business at 3000 Lakeside Drive, Suite 110S, Bannockburn, Illinois 60015.

3.   Since its founding, Parus has offered a robust diversity of products and services to customers in a wide variety of markets. Parus' products and services have included audio and video conferencing, email management, voice messaging, polling and transcription, IM/presence, collaboration, softphone, and virtual assistant solutions and services. For example, ParusOne provides voice-response technology solutions for customers and other users to manage

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communication technology used for business from laptops, mobile phones, and home offices to answer calls, handle voice mails, faxes and emails, schedule meetings, and establish conference calls. ParusOffice enables small businesses to channel their various phone communications through one main number. ParusSpeak provides interactive voice response solutions for companies that need business process automation, as well as automated name, address, and caller feedback capture. ParusMobile provides worldwide group messaging for direct selling organizations, mobile professionals, and small business customers. Parus' customers have included businesses in network marketing, manufacturing, financial services, retail, healthcare, customer care, and direct response industries. Parus has had dozens of customers in this judicial district.

4.   Parus' systems have also received accolades from the industry, including some of the most preeminent awards in the CRM, call center, and teleservice fields. For example, ParusOne was named the 2007 Product of the Year by both Internet Telephony and from Unified Communications; Parus Marketing Campaign Manager was named the 2007 Product of the Year by Customer Interaction Solutions; and Webley MD Reminders was named the Product of the Year in both 2009 and 2010 by Customer Interaction Solutions.

5.   Defendant Bank of America is a Delaware corporation with its corporate headquarters located at 100 North Tyron Street, Charlotte, North Carolina 28255. Upon information and belief, Defendant may be served with process via its registered agent, CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

JURISDICTION AND VENUE

6.   Parus incorporates by reference the preceding paragraphs as if fully set forth herein.

7.   This action arises under the patent laws of the United States, including 35 U.S.C.

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§ 271 *et seq*. The jurisdiction of this Court over the subject matter of this action is proper under 28 U.S.C. §§ 1331 and 1338(a).

8.   This Court has personal jurisdiction over Bank of America. Bank of America conducts business and has committed acts of patent infringement and/or has induced acts of patent infringement by others in this District and/or has contributed to patent infringement by others in this Judicial District, the State of Texas, and elsewhere in the United States.

9.   Bank of America is subject to this Court's jurisdiction pursuant to due process and/or the Texas Long Arm Statute due at least to its substantial business in this State and District, including (a) at least part of its past infringing activities, (b) regularly doing or soliciting business in Texas, and/or (c) engaging in persistent conduct and/or deriving substantial revenue from goods and services provided to customers in Texas. Upon information and belief, Bank of America, directly or indirectly, participates in the stream of commerce that results in products, including the accused products, being made, used, offered for sale, and/or sold in the State of Texas and/or imported into the United States to the State of Texas.

10.   Upon information and belief, Bank of America maintains physical places of business throughout the United States, including in this Judicial District, including but not limited to: 7001 Independence Parkway, Plano, Texas 75025; 2015 Coit Road, Plano, Texas 75075; 7150 Virginia Parkway, McKinney, Texas 75071; and 1851 S. Interstate 35 E., Denton, Texas 76205.

11.   Upon information and belief, Defendant offers its products and services throughout Texas, including this Judicial District, by shipping, distributing, offering for sale, selling, and advertising its products through its website[1]:

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[1] https://locators.bankofamerica.com/?q=Plano,%20TX%2075075,%20USA.
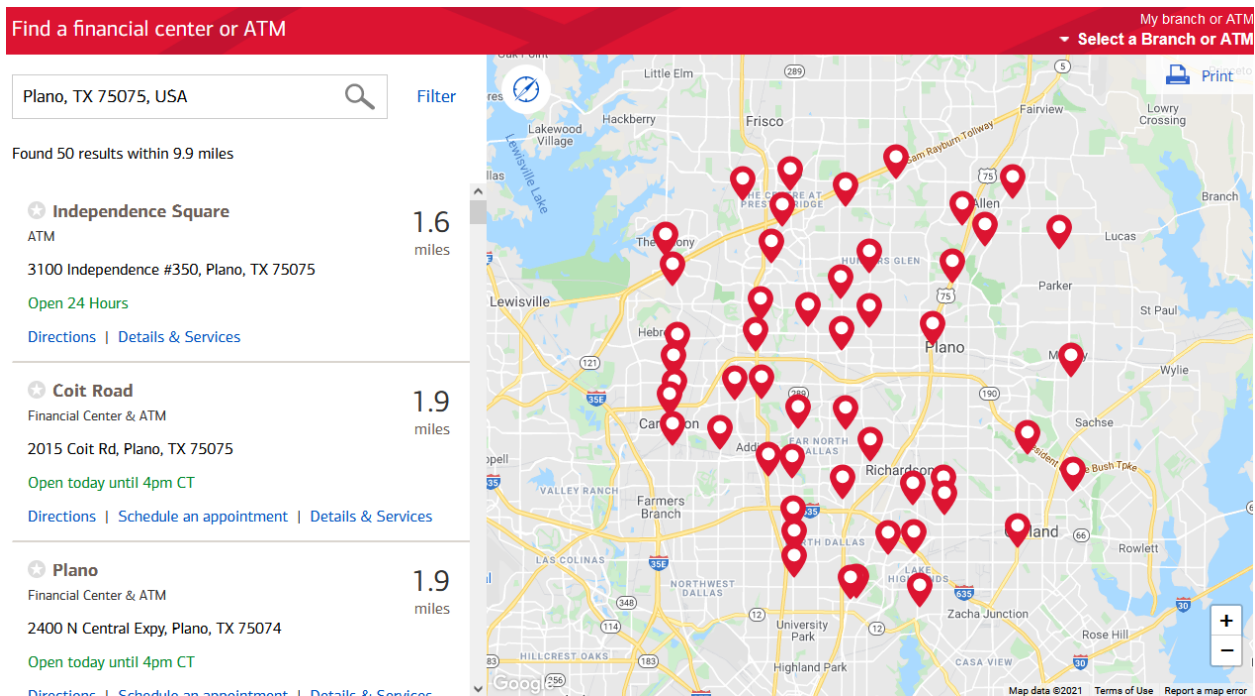
12.   Upon information and belief, Defendant manages the marketing, sales, and provision of services of its products to customers and/or potential customers located in Texas and in the Eastern District of Texas.

13.   9. Venue is proper in this Judicial District pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because, among other things, Defendant has transacted business in the Eastern District of Texas and has committed acts of direct and indirect infringement in the Eastern District of Texas.

THE PATENT-IN-SUIT

14.   Parus incorporates by reference the preceding paragraphs as if fully set forth herein.

15.   The '723 patent, entitled "Computer, Internet and Telecommunications Based Network," was duly and properly issued by the United States Patent and Trademark Office on February 5, 2008. A copy of the '723 patent is attached hereto as Exhibit A.

16.   The '723 patent expired on March 2, 2018, but, pursuant to 35 U.S.C. § 286,

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Parus is entitled to recover damages for any infringement by Bank of America committed less than six years prior to the filing of this Complaint.

17.   Parus is the owner and assignee of the '723 patent and holds the right to sue for and recover all damages for infringement thereof, including past infringement.

18.   The inventions of the '723 patent were conceived in the mid-1990s in response to the need of employees of Webley Systems (formerly Vail Systems) for more flexible ways to access systems and information while traveling.

19.   The inventor of the '723 patent, Alex Kurganov, recognized that both individual consumers and business people needed ways to obtain useful information and interact in the increasingly mobile society of the mid-1990s. However, the communications systems at that time were not well suited to the task. Their hardware designs and software technologies were too complex for users because the systems were not interconnected and were isolated from each other. Users often had to navigate through a host of different communications devices, phone systems, operating system platforms, databases, and networks to communicate. As a result, users were required to devote significant amounts of time and effort as well as employ multiple different devices to communicate and obtain information.

20.   To solve these problems and fulfill users' needs, Kurganov sought to create a system that gave users the ability to access and manage information, to conduct business transactions, and stay in touch with homes and offices from almost anywhere, at any time, just by using their natural voice.

21.   Kurganov invented a technological solution that used natural-voice commands and speaker-independent speech technology to access a communications system over a standard telephone connection. Kurganov's system allowed users to access and manage information in

distributed locations without the need for them to struggle through multiple touch-tone interactive voice response (IVR) menus for basic information or to wait until they are back in front of their computers to access more complete information.

22.   At the time of the invention, accessing, navigating, and interacting with any online database typically required a computer with a keyboard connected to a network. Users would log into an application via the network through the computer and then interact with the underlying database system to store and retrieve information using a keyboard or other input device. Kurganov's invention permitted users to untether themselves from those computers. At the time, those computers did not have the mobility of modern handheld devices, nor was it a simple matter to connect them to a network when away from the office. By giving users access to the database information over the phone, Kurganov provided a technological solution that gave users real mobile access to their information.

23.   Earlier attempts by others to use telephony to access and manage information in distributed databases often required users to use their touch-tone phones to navigate a series of complicated menus and to remember and input a series of numerical sequences. Those systems were also limited both by the length of the menus and the ability of the systems to react dynamically to the information sought by the user. Instead, Kurganov's system enabled callers to use naturally spoken voice commands to access, navigate, and manage information in various databases. Callers heard that data over the telephone connection via speech synthesis. In addition, the system dynamically responded to each user's requests through a set of prompts governed by a logic flow that reacted to and adjusted the prompts in response to voice commands spoken by the users.

24.   Kurganov's approach was unconventional at the time of his invention. Outside of

the telephony environment, natural voice recognition was in its early stages. The first commercially available speech recognition products became available in the 1990s, and even by the late 1990s, those products, such as Dragon's Naturally Speaking, still remained speaker-dependent and required voice training to effectively recognize language. That technology was not an obvious or conventional fit with telephony systems and applications, because the telephony systems of Kurganov's invention operated in a real-time speaker-independent environment where the system recognizes speech for immediate and quick execution of telephony-related tasks.

25. At the same time, work on speaker-independent recognition was ongoing outside of the telephony market. Kurganov himself was an early contributor to and was involved in the testing and implementing of some of the earliest speaker-independent natural voice recognition systems in the mid-to-late 1990s. Throughout that work, Kurganov realized that by using natural speech recognition combined with dynamic prompting in the telephony environment, he could provide an interactive system that would allow a user to access, navigate, and manage information stored in database systems without having to learn complex prompts or engage in voice training.

26. By implementing this capability, Kurganov's system was able to respond to a wide variety of speech, while at the same time quickly retrieving and processing information requested by the users. The invention achieves this using a many-to-one relationship between voice commands spoken by users and the function the users intend to execute. For example, if a user wanted the system to connect to a particular extension, the user might say: "dial an extension," "dial extension," "reach an extension," "reach extension," "reach my party," or "reach party." While the speech-recognition component of the system recognizes each of those

phrases differently, the invention links the different commands to the same function: the desire to connect to a particular extension. By using a logic flow of prompts responsive to the voice commands, the invention is also able to interpret the user's desired function or user's intent based on the prompt and/or its position in the logic flow. Consideration of the next prompt is based on the previous speech. In addition, by using speaker-independent speech recognition, the inventive system does not require training the system to each user's voice before use.

27.   Kurganov's invention is particularly useful for customer call centers that handle high call volume. The invention permits the call centers to automate call routing, account access, and information retrieval, creating significant savings for the call center. At the same time, it gives customers and other users an intuitive, natural speech, interface without the need to navigate multiple, hierarchical menus using touch-tone commands or remember specific phrases.

28.   Kurganov filed the application which matured into the '723 patent on June 25, 2004. Kurganov claimed priority to a U.S. Patent application that he filed on March 2, 1998 and to a provisional application that he filed on March 3, 1997.

29.   In the '723 patent, Kurganov described problems that existed at the time of his invention. At that time, despite a "proliferation of communication devices and the development of the internet, on-line networks and corporate intranets, significant barriers remain to fulfilling user needs for access to and management of personal, professional and public information." ('723 patent, at 1:66-2:4). Although information was widely available via, for example, the Internet, such information was "either inaccessible or accessible only by navigating through a host of phone systems, operating system platforms, databases and networks." (*Id.*, at 2:6-9). As a result, "significant amounts of time and effort are required of those who use and depend on these devices, networks and services to communicate and obtain information," which is "particularly

acute for mobile business professionals," who "may have a cellular phone, a pager, a computer, a

fax machine, an electronic mailbox on the internet, and a voice-mail service." (*Id.*, at 2:10-12;

2:17-19).

30.   The invention of the '723 patent solved these problems, as Kurganov described in

the "Summary of the Invention":

> The present invention is a unified messaging service which will be accessible from any standard communication device (telephone, computer or internet), and will give the user intuitive voice command of personal, professional and public information.
>
> This unified messaging service is a useful tool to those whose time and resources are limited and for whom communication is critical, such as mobile business professionals in the small office, home office market. The mobile business professional must maintain access to personal and professional information and developments, respond to customers and communicate with colleagues, family and friends at any time and from any location. The unified messaging service is designed to meet these objectives by offering a single point of access to all communications, integrated with personal information management tools and customized public content delivery.

'723 patent, at 2:33-51.

> Basically, the system provides a unified solution to the many varied communications and messaging devices used daily by mobile professionals and active consumers. With simple voice commands, subscribers can easily access and respond to all of their communications and messaging media in the same session.

'723 patent, at 6:51-56.

31.   More specifically, the invention described and claimed in the '723 patent includes

a system which "provides three ways for the subscriber to handle his communications. First and

foremost is the voice recognition software using natural voice recognition (phonemes based), not

pattern based as many of the current systems utilize. Therefore, the system does not have to be

trained to identify your voice. Second, the subscriber may use the standard telephone touchtones.

And third, the subscriber can utilize the internet to access a secure web site." ('723 patent, at 5:6-

13).

32.   The invention "combines state-of-the-art speech recognition, computer and telephony technology. Along with the ability to recognize an extensive set of simple, intuitive, speaker-independent speech commands and respond by performing a wide variety of complex tasks." As Kurganov described in an August 21, 2006 Response to a February 21, 2006 Office Action, this ability "to recognize an extensive set of simple, *intuitive*, speaker-independent speech commands and respond by performing a wide variety of complex tasks," means that:

> [a] user does not have to utter one specific word or phrase in order to carry out a certain function but rather may utter any command that is an intuitive description of the desired function. The system has been configured to understand and accept a multitude of commands for each voice-enabled function, the commands being synonymous with each other and being intuitive of the desired function.
>
> For example, to make a telephone call, the user may utter one of many commands intuitive of the function of making a telephone call, such as "MAKE A PHONE CALL," "MAKE A TELEPHONE CALL," "DIAL A PHONE CALL," "DIAL A TELEPHONE CALL," "DIAL A NUMBER," "DIAL (name, location, or number)," "CALL (name, location, or number)," or "CONTACT (name, location, or number)." See Figs. 4C-1 & 41 (illustrating the "Make Call" menus).

August 21, 2006 Response to Office Action dated February 21, 2006, at 12; Exhibit B hereto.

33.   The inventions of the '723 patent further provide sets of prompts that are audible to the user. These sets of prompts are dynamically provided by a logic flow for transmitting such prompts in response to the user accessing the system or providing a natural voice command. The '723 patent specification provides numerous detailed examples of such flows at Figures 4A through 4R, as described at Column 4, lines 14-67. As an example, Kurganov described and depicted the flow when a user accesses the system: "FIG. 4A shows the First Menu encountered by a subscriber or an individual calling the system's 800 telephone number. The caller is explained the different options and then the system, if requested, attempts to recognize the

subscriber or party's name or extension that the caller is trying to reach." ('723 patent, at 4:16-20). Figure 4 A is reproduced below:
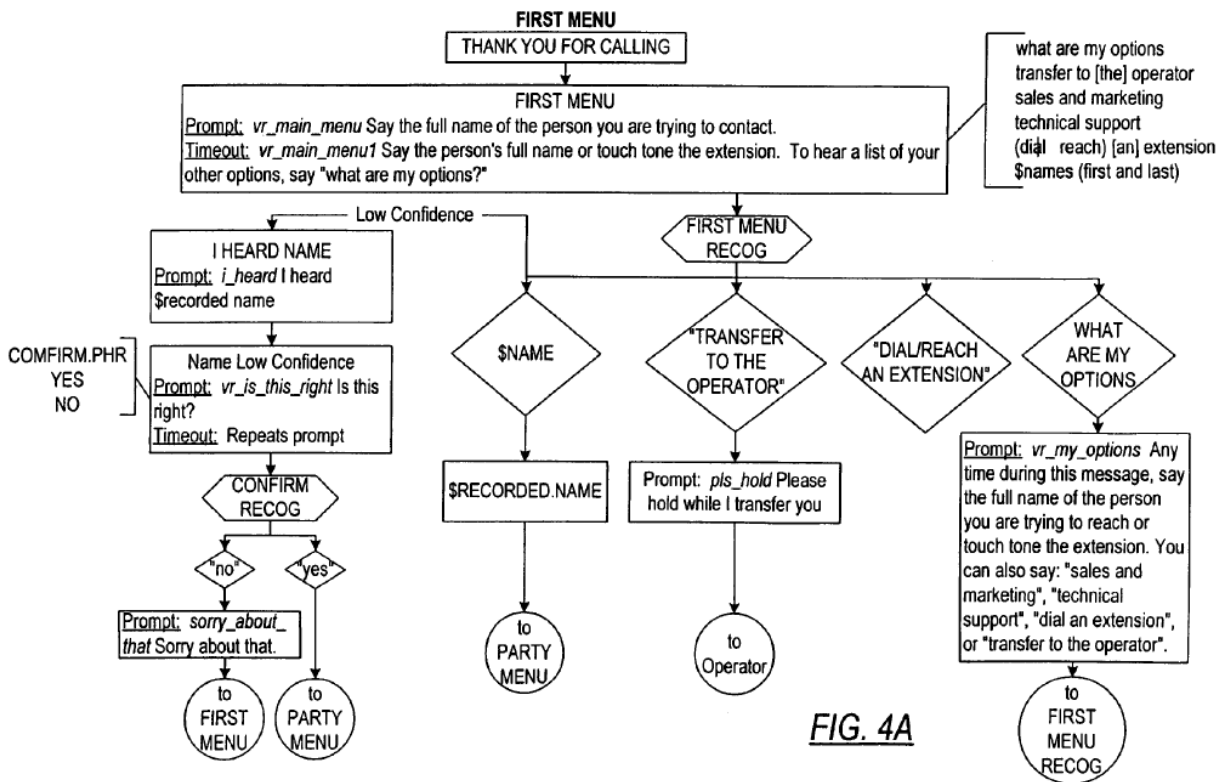
FIG. 4A

Figure 4A of the '723 patent.

34.   These features, and others, of the '723 patent inventions are contained in the claims of the '723 patent. For instance, claims 17 and 18 depend from claim 1 and claim that each of the voice commands is "an alternative intuitive description of said single voice-enabled function" and claim "a logic flow for transmitting said prompts to said user":

> 1. A voice-enabled system for managing communications transmitted through a network, said system capable of receiving natural voice commands from a user, said system comprising:
>
> a computer;
>
> at least one set of stored commands operatively associated with said computer, each said set including a plurality of stored commands each of said commands in said set corresponding to a single voice-enabled function

for managing communications, each said command in said set being an alternative intuitive description of said single voice-enabled function;

a voice server operatively connected to said computer and to said network, said voice server configured to compare said natural voice commands to said plurality of stored commands;

a speaker-independent speech recognition device operatively connected to said voice server, said device configured to receive at least one natural voice command, said voice server being configured to compare said natural voice command to said plurality of stored commands to select said single voice-enabled function, and said computer being configured to execute said selected voice-enabled function corresponding to said natural voice command.

* * *

17. The system of claim 1 further comprising:

a set of prompts audible to said user, and

a logic flow for transmitting said prompts to said user in a pre-determined manner in response to said user accessing said system or said user providing a natural voice command.

18. The system of claim 17 wherein said logic flow provides for prompts depending on the response transmitted by the user to an earlier prompt.

'723 patent, at 9:2-26; 10:1-9.

35.   Claim 17 of the '723 patent is directed to an improvement in the functioning of computers, not to an abstract idea. Claim 17, which is at least directed to an intuitive voice-enabled system for managing communications transmitted through a network that: (1) selects and executes a single voice-enabled function that corresponds to a natural voice command received from a user and was compared to stored sets of commands, wherein each command in each set is an alternative intuitive description of a single voice-enabled function; and (2) includes a set of prompts audible to the user and a logical flow for transmitting said prompts to the user in a pre-determined manner in response to the user accessing the system or providing a natural voice command, is directed to an improvement in computer capabilities. That is, claim 17 provides a

voice-enabled system in which the user does not have to utter one specific word or phrase in order to instruct the system to carry out a certain function but rather may utter any command that is an intuitive description of the desired function, because the system of claim 17 has been configured to recognize, understand and accept a multitude of commands for each voice-enabled function, wherein the commands being synonymous with each other and being intuitive of the desired function. Additionally, claim 17 provides the user with audible prompts that follow logical flows for dynamic prompting, as depicted in Figures 4A through 4R and described in column 4, lines 14-67 of the '723 patent, thereby improving the functioning of the computer system by making the operation of the computer system intuitive to the user.

36.   Claim 18 of the '723 patent is similarly directed to an improvement in the functioning of computers, not to an abstract idea. Claim 18 is directed to the same invention as claim 17, except that claim 18 adds that the claimed logic flow provides for prompts depending on the response transmitted by the user to an earlier prompt. Claim 18 therefore further improves the functioning of the computer system by making the operation more intuitive to the user than even claim 17.

37.   Additionally, the ordered combination of limitations in claims 17 and 18 of the '723 patent include limiting inventive concepts. The technical solutions to the problems identified by Kurganov that are described in claims 17 and 18 are unconventional technical solutions to the technical problems of providing an intuitive voice-enabled system for managing communications transmitted through a network. For example, claim 17 requires at least two unconventional limitations requiring: (1) stored sets of commands, wherein each command in each set is an alternative intuitive description of a single voice-enabled function; and (2) logical flows for transmitting system-generated audible prompts to the user in response to the user

accessing the system or user providing a natural voice command. In addition to being unconventional, these limitations do not preempt all voice-enabled systems for managing communications transmitted through a network.

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COUNT I
INFRINGEMENT OF THE '723 PATENT

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38.   Parus incorporates by reference the preceding paragraphs as if fully set forth herein.

39.   The '723 patent was valid and enforceable through its expiration in March 2018, and the patent remains valid and enforceable to collect damages for past infringement.

40.   Before the '723 patent expired in March 2018, Bank of America operated call centers with automated phone systems and natural-voice speaker-independent speech recognition. Those call centers provided customers and other users with access to information relating to the customer's account(s).

41.   Bank of America infringed the '723 patent under 35 U.S.C. § 271(a), literally and/or under the doctrine of equivalents, through its design, implementation, and use of these call centers.

42.   Bank of America infringed claim 17 of the '723 patent through its speech recognition system, which meet each and every limitation of that claim:

        a.   With respect to the preamble of claim 1 ('723 patent, at 8:2-5), from which claim 17 depends, Bank of America's speech recognition system, on information and belief, was a voice-enabled system for managing communications transmitted through a network which is capable of receiving natural voice commands from a user. For example, during the term of the '723 patent, a Bank of America customer could have called Bank of America's general

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Account Information phone number at (800) 432-1000 and interacted with Bank of America's speech recognition system using voice commands.

b.   With respect to limitation 1[a] of claim 1 ('23 patent, at 8:6), from which claim 17 depends, Bank of America's speech recognition system, on information and belief, operated on a computer that was owned and/or controlled by Bank of America.

c.   With respect to limitation 1[b] of claim 1 ('723 patent, at 8:7-13), from which claim 17 depends, the computers of limitation 1[a] were, on information and belief, associated with at least one set of commands, each set of commands including a plurality of stored commands each of said commands in said set corresponding to a single voice-enabled function for managing communications, each said command in said set being an alternative intuitive description of said single voice-enabled function. For example, there was, on information and belief, a set of commands for the following single voice-enabled functions of: (1) obtaining an account balance, including the set of commands: "balance information," "Can you repeat the balance again?" and "Repeat balance"; and (2) obtaining the activity on an account, including the set of commands: "account activity" and "hear transactions." Each of these commands are alternative intuitive descriptions of a single voice-enabled function, *i.e.*, "balance information," "Can you repeat the balance again?" and "Repeat balance" are alternative intuitive descriptions of the single voice-enabled function of obtaining an account balance.

d.   With respect to limitation 1[c] of claim 1 ('723 patent, at 8:14-17), from which claim 17 depends, Bank of America, on information and belief, owned and/or controlled a voice server that was operatively connected to the computer and to the network, the voice server having been configured to compare said natural voice commands, *e.g.*, comparing the voice command "balance information," to said plurality of stored commands, *e.g.*, "balance

information," "Can you repeat the balance again?" and "Repeat balance," "account activity" and "hear transactions."

e.   With respect to limitation 1[d] of claim 1 ('723 patent, at 8:18-26), from which claim 17 depends, Bank of America, on information and belief, owned and/or controled a speaker-independent speech recognition device that was operatively connected to the voice server. On information and belief, the speaker-independent speech recognition device was configured to receive at least one natural voice command. On information and belief, the voice server was configured to compare the natural voice command to the plurality of stored commands, *e.g.*, compare voice command "balance information," to said plurality of stored commands, *e.g.*, "balance information," "Can you repeat the balance again?" "Repeat balance," "account activity," and "hear transactions" to select a single voice-enabled function, *e.g.*, obtaining an account balance. The computer, on information and belief, is configured to execute the selected voice-enabled function, *e.g.*, obtaining an account balance, which corresponds to the natural voice command, *e.g.*, "balance information."

f.   With respect to claim 17[a] ('723 patent, at 10:1-2), Bank of America, on information and belief, stored a set of prompts audible to said user in connection with Bank of America's speech recognition system. For example, Bank of America's speech recognition system responded to the voice commands "account activity" or "hear transactions" by providing audible prompts, such as prompting the user to say "activity" (or something to that effect) or press a key on their phone keypad if the user interested in receiving more information about, for example, "deposits," "checks," "withdrawals," "transactions," etc.

g.   With respect to claim 17[b], Bank of America by Phone, on information and belief, included a logic flow for transmitting the prompts to said user in a pre-determined

manner in response to the user accessing said system or the user providing a natural voice command. For example, Bank of America's speech recognition system responded to the voice commands "account activity" or "hear transactions" by providing audible prompts in the form of a logic flow, such as prompting the user to say "activity" (or something to that effect) or press a key on their phone keypad if the user interested in receiving more information about, for example, "deposits," "checks," "withdrawals," "transactions," etc. Following the user's selection, Bank of America's speech recognition system provided further audible prompts directed to the user's selection.

43.   On information and belief, Bank of America also infringed claim 18 of the '723 patent.

44.   Parus has been damaged by Bank of America's infringement of the '723 patent and is entitled to recover from Bank of America the damages sustained by Parus as a result of Bank of America's acts in an amount adequate to compensate Parus for Bank of America's infringement, subject to proof at trial.

45.   Parus has at all applicable times complied with the marking requirements of 35 U.S.C. § 287(a).

<div align="center">**RELIEF REQUESTED**</div>

Wherefore, Parus respectfully requests that this Court enter judgment against Bank of America as follows:

a)   that Bank of America has infringed one or more of claims 17 and 18 of the '723 patent;

b)   that Parus be awarded damages in accordance with 35 U.S.C. § 284 to compensate Parus for Bank of America's infringement, including pre- and post-judgment interest; and

c)   that Parus be awarded further relief at law or in equity as the Court deems just and

proper.

DEMAND FOR JURY TRIAL

Parus demands a trial by jury on all claims and issues so triable.

October 22, 2021   Respectfully submitted,

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