1	SEAN K. ENOS AZ Bar No. 023634		
2	kenos@iplawusa.com SCHMEISER, OLSEN & WATTS LLP 18 E. University Drive, Suite 101		
3			
4	Mesa, AZ 85201-5946 Tel: (480) 655-0073		
5	ERIC W. BUETHER		
6	Eric.Buether@BJCIPLaw.com (Admitted pro hac vice)		
7	CHRISTOPHER M. JOE		
8			
9	KENNETH P. KULA (Admitted <i>pro hac vice</i>)		
10	Ken.Kula@BJCIPLaw.com MICHAEL C. POMEROY		
11	(Admitted pro hac vice) Michael.Pomeroy@BJCIPLaw.com		
12	BUETHER JOE & CARPENTER, LLC 1700 Pacific, Suite 4750, Dallas, TX 75201		
13	Tel: (214) 466-1271	<i>)</i> 1	
14	ATTORNEYS FOR PLAINTIFF ADVANCED VOICE RECOGNITION SYSTEMS, INC.		
15	,		
16	UNITED STATES DISTRICT COURT		
17	FOR THE DISTRICT OF ARIZONA		
18	Advanced Voice Recognition Systems, In	c.,	
19	Plaintiff,	Case No. 2:18-cv-02083-DGC	
20	V.		
21	Apple, Inc.,	PLAINTIFF ADVANCED VOICE RECOGNITION SYSTEMS, INC.'S	
22	Defendant.	FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT	
23			
24			

Plaintiff Advanced Voice Recognition Systems, Inc. files this First Amended Complaint for patent infringement against Defendant Apple, Inc., and alleges as follows:

PARTIES

- 1. Plaintiff Advanced Voice Recognition Services, Inc. ("AVRS") is a corporation organized and existing under the laws of the State of Nevada, with its principal place of business located at 7659 E. Wood Drive, Scottsdale, Arizona 85260. AVRS is a publicly-held software development company headquartered in Scottsdale, Arizona that specializes in creating interface and application solutions for speech recognition technologies. AVRS introduced its initial speech recognition software in 1994. Today, AVRS is the owner of a family of United States patents directed at a system for facilitating speech recognition and transcription among users employing heterogenous protocols for generating, transcribing and exchanging speech.
- 2. Apple Inc. ("Apple") is a corporation organized under the laws of the State of California, and has a principal place of business at 1 Infinite Loop, Cupertino, California 95014. Apple may be served with process through its registered agent CT Corporation System, located at 3800 N Central Ave., Suite 460, Phoenix, AZ 85012.

JURISDICTION AND VENUE

- 3. This is an action for patent infringement arising under the patent laws of the United States of America, Title 35, United States Code.
- 4. This Court has original jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).
- 5. Apple is subject to the specific personal jurisdiction of this Court because AVRS's claims for patent infringement against Apple arise from Apple's acts of

infringement in the State of Arizona, and throughout the United States. These acts of infringement include offering for sale and selling products in the State of Arizona that infringe AVRS' asserted patent. These acts of infringement also include Apple's use in the State of Arizona of systems and methods covered by the asserted patent, including operating a fully interactive website facilitating the sale of infringing products in the State of Arizona. These acts of infringement also include Apple's knowing and intentional inducement of users of Apple products to infringe the asserted patent in the State of Arizona by using the systems and methods covered by the asserted patent. Therefore, this Court has personal jurisdiction over Apple under the Arizona long-arm statute, ARIZ. R. CIV. P. § 4.2(a).

6. Venue is proper in this district under 28 U.S.C. §§ 1391(c) and 1400(b). Apple has engaged in acts of infringement in this District as alleged above. In addition, Apple has several regular and established places of business in this district including stores located at the following addresses: (1) Apple Chandler Fashion Center, 3111 W. Chandler Boulevard, Chandler, Arizona 85226; (2) Apple SanTan Village, 2218 E. Williams Field Road, Gilbert, Arizona 85295; (3) Apple Arrowhead, 7700 West Arrowhead Towne Center, Glendale, Arizona 85308; (4) Apple Biltmore, 2502 East Camelback Road, Phoenix, Arizona 85016; (5) Apple Scottsdale Quarter, 15169 North Scottsdale Road, Scottsdale, Arizona 85254; Apple La Encantada, 2905 East Skyline Drive, Tucson, Arizona 85718.

THE ASSERTED PATENT

- 7. AVRS, in connection with its work creating and developing interface and application solutions for speech recognition technologies, has applied for and obtained a family of United States patents directed at a system for facilitating speech recognition and transcription among users employing incompatible protocols for generating, transcribing and exchanging speech.
- 8. The first issued patent among this family of patents is United States Patent No. 7,558,730 ("the '730 Patent") entitled "Speech Recognition and Transcription among users having Heterogeneous Protocols" issued by the United States Patent and Trademark Office on July 7, 2009, a true copy of which is attached as Exhibit 1.
- 9. Inventor Douglas Holt is deceased. Inventors Michael K. Davis and Joseph Miglietta, are residents of Arizona. In addition, the inventors were all employees of the predecessor of AVRS during the time they conceived of and reduced to practice each of the inventions described in the Asserted Patents.
- 10. AVRS is the owner by assignment of the '730 Patent and owns all right, title, and interest in the '730 Patent, including the right to sue for and recover all past, present, and future damages for infringement of the '730 Patent.
- 11. The '730 Patent is directed at solving a longstanding problem that prevented facilitating speech recognition and transcription among users employing incompatible protocols for generating, transcribing, and exchanging transcribed speech. Prior to the invention disclosed in the '730 Patent, speech recognition and transcription systems existed, such as DRAGON DICTATE and IBM's VIAVOICE. These early transcription

applications, however, were limited to desktop applications, and merely output a text file, which would typically be in a standard text format (Word or WordPerfect, for example). These systems did not facilitate speech recognition and transcription among heterogeneous systems and were only able to work among a single, homogenous system. For example, a user of VIAVOICE, was forced to install the speech recognition software onto his or her personal computing device, and the speech recognition software was limited to working on that device and was unable to function with software programs utilizing disparate protocols.

- 12. The inventors of the '730 Patent recognized that networked application service providers are the most efficient way to utilize sophisticated speech recognition and/or transcription engines having robust dictionaries and vocabularies for large scale users, especially in the professions. The networked application service provider (also known as "on demand" software or software as "a service") interconnects application software to high accuracy speech recognition and/or transcription engines which may exist on a centralized server application, or one of the facilities in a peer-to-peer network computing (peer node), or, networking as a distributed application architecture that partitions tasks and/or workloads between peers to form a peer-to-peer network, as well as a "cloud" computing network configuration.
- 13. A barrier to implementation of these networked systems, however, is the use of internal "business" systems. These systems, sometimes called "legacy systems," are difficult to alter, as they may be hardwired into the internal workings of a business or computer system. Moreover, these legacy systems are equipped with specialized

protocols, known as "legacy protocols," which use interfaces unique to the particular system used by a business. As software had to be specially configured to be compatible with these legacy systems and legacy protocols, the inventors of the '730 Patent realized there would be a substantial improvement to speech recognition and transcription systems by moving the speech recognition and transcription engine apart from the legacy system and legacy protocols employed by the user so that more powerful speech recognition and transcription engines could be implemented which could work seamlessly with disparate legacy systems and legacy protocols.

14. The inventors of the '730 Patent invented and disclosed systems and methods allowing legacy systems with legacy protocols to interface effectively with robust network-based systems and, in particular, with network application service provider software that enables the use of powerful speech recognition and transcription engines by users of legacy systems with legacy protocols. This enabled users of speech recognition and transcription systems to interface with speech recognition and transcription engines with uniformly accessible databases that contain information for a number of users, including the wide spread availability of specific vocabularies which include phraseology, grammar, and dictionaries, as well as formatting structures for users of such systems. These systems and methods are more efficient than a network of mere direct, point-to-point links between individual users. In particular, the inventors foresaw the need for a user to be able to utilize speech recognition and transcription between or among multiple systems that do not always use the same protocols.

- 15. The invention of the '730 Patent rectified the problem of prior speech recognition and transcription engines through the implementation of a novel system architecture for speech recognition systems allowing the speech recognition and transcription engine to be located separate from a user's personal computing device, which may utilize both legacy systems and legacy protocols, and to operate separately using a uniform system protocol that is compatible with heterogeneous protocols.
- 16. The inventors of the '730 Patent addressed the need to enable a user using a legacy protocol to communicate with a separate server capable of communicating with other users using heterogeneous protocols by providing for a bridge between the user and the speech recognition and transcription engine, as opposed to forcing every speech recognition and transcription engine developed to be compatible with user specific legacy protocols and legacy systems. This was done through the development of a component (which the '730 Patent calls an Application Service Adapter or "ASA"), which communicates with the legacy protocol and a system transaction manager using a uniform system protocol. The ASA operates as an interface between the users and the system transaction manager and facilitates communication between the user's legacy system and protocol and a uniform system protocol.
- 17. The novel system architecture invented and disclosed in the `730 Patent enhanced and facilitated the capabilities of a speech recognition and transcription systems by allowing the speech recognition and transcription engine to be decoupled from a legacy operating system used by a specific user device. Through this novel invention, users who are utilizing different legacy systems and protocols such as the protocols specific to

Android, iOS, and macOS – may exchange speech recognition requests and transcribed speech through a decoupled speech recognition and transcription engine. This novel system architecture and design was not well-understood, routine or conventional in the field of speech recognition systems at the time of the invention of the '730 Patent.

THE INFRINGING INSTRUMENTALITIES

- 18. Apple designs, manufactures and markets mobile communication and media devices and personal computers, and sells a variety of related software, services, accessories, networking solutions and third-party digital content and applications. Apple's products and services include the iPhone, iPad, Mac, Apple Watch, Apple TV, Apple HomePod, a portfolio of consumer and professional software applications, a variety of accessory, service and support offerings, the iCloud and Apple Pay services as well as the iOS, macOS, watchOS and tvOS operating systems.
- 19. Many of these Apple products include a service called Siri, a voice-activated intelligent assistant, which provides, among other things, voice recognition and natural language understanding solutions, including automated speech recognition and transcription services. Among these products are the iPhone, iPad, Mac, Apple Watch, the Apple HomePod and the iOS, macOS, watchOS and tvOS operating systems (referred to herein as the "Accused Instrumentalities").
- 20. Apple, in patent litigation against Samsung, touted that Siri has driven consumer demand for the iPhone—and Apple submitted sworn declarations attesting to this fact. *Apple Inc. v. Samsung Elecs. Co., et al.*, No. 12-cv-630, slip op. at 81 (N.D. Cal. June 29, 2012) ("Apple asserts that...Siri, a computerized personal assistant, has driven

consumer demand for the iPhone 4S."). Apple also persuaded the United States Court of Appeals for the Federal Circuit that Siri drives consumer demand for the iPhone 4S. *Apple Inc. v. Samsung Elecs. Co., et al.*, No. 2012-1507, slip op. at 8 (Fed. Cir. Oct. 11, 2012) ("Advertised by Apple as an 'intelligent personal assistant,' Siri enables iPhone 4S users to speak their commands to the phone in a natural and conversational tone. There is no dispute that this highly popular feature is a significant source of consumer demand for the iPhone 4S").

FIRST CLAIM FOR RELIEF (Infringement of the '730 Patent)

- 21. AVRS incorporates paragraphs 1 through 20 as though fully set forth herein.
- 22. Apple has been and is continuing to directly infringe one or more claims of the '730 Patent by making, using (including for testing, demonstrating and marketing purposes), offering for sale, and/or selling the Accused Instrumentalities in the United States in violation of 35 U.S.C. § 271(a). The Accused Instrumentalities include Siri, which makes them fully capable of executing the functions of systems and methods claimed in the '730 Patent. When a user of any of the Accused Instrumentalities activates Siri, the Accused Instrumentalities place the Siri system into service.
- 23. Upon information and belief, Siri uses a system transaction manager utilizing a uniform system protocol. Upon information and belief, the Siri system has a component that is able to process commands/requests for speech recognition and transcription from different types of legacy operating systems using different legacy protocols, such as from users using devices operating on the MacOS and others using devices operating on the iOS. An internal uniform system protocol is necessary for Siri to process speech

recognition and transcription commands or requests from different operating systems using different legacy protocols. Siri is described in U.S. Patent 9,318,108 (the "108 Siri Patent"). Upon information and belief, the "Active Ontology" described in the '108 Patent is the component of the Siri system which performs this function. Upon information and belief, Figure 1 of the '108 Patent depicts the "Active Ontology" component used in Siri.

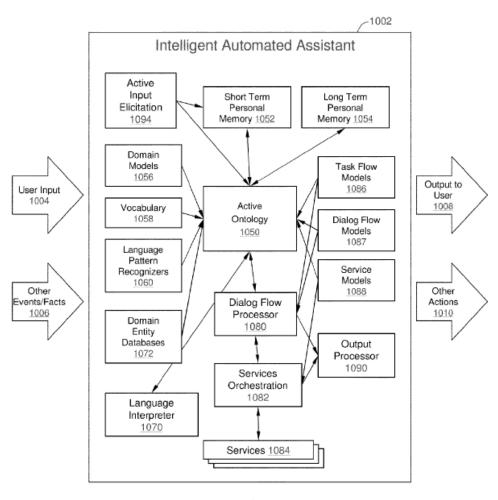


FIG. 1

Figure 7B in United States Patent Application No. 2017/0358301 filed by Apple regarding the Siri system also depicts the "Active Ontology" (760) used in the Siri System:

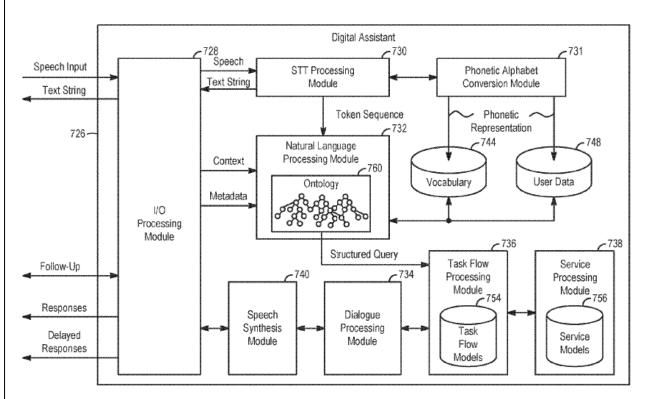


FIG. 7B

Figure 7B in United States Patent Application No. 2017/0358301 filed by Apple regarding the Siri system also depicts the "Active Ontology" (760) used in the Siri System:

24. Upon information and belief, Siri uses a speech recognition and transcription engine to process speech recognition and transcription commands or requests in communication with the system transaction manager. Upon information and belief, the Siri system has a component which receives from the system transaction manager an audio file comprising spoken text, recognizes the audio file, and processes that file by transcribing the spoken text into written text. Upon information and belief, the "STT Processing Module" shown in Figure 7B above functions as the speech recognition and transcription engine in Siri.

25. Upon information and belief, Siri has at least one or more components that communicate with both a user of the Siri system and the system transaction manager to generate a speech recognition and transcription command or request from spoken text and a transcription of the spoken text. Upon information and belief, this component is the "I/O Processing Module" (728) in Figure 7B above which reflects the bidirectional functionality of this component (providing speech input and outbound responses).

Thus, upon information and belief, the "Active Ontology" component of the Siri system acts as a system transaction manager in communication with the user generating a speech recognition and transcription request, the speech recognition and transcription engine or "speech-to-text service" as defined by Apple, and the user who receives the transcribed speech. The "I/O Module" acts as an application service adapter bridging the generation of the speech recognition and transcription request by a user with its receipt by the Active Ontology system transaction manager, and the transmission of a transcription of the spoken text from the Active Ontology system transaction manager to the same or different user. The Active Ontology component utilizes a uniform system protocol (1) to send the speech information requests generated by the users to the speech recognition and transcription engine; and (2) receive the responses generated by the speech recognition and transcription engine. After the response is received, the Active Ontology component sends the response to the same or different user.

27. In addition, or in the alternative, Apple has been and is now indirectly infringing one or more claims of the Asserted Patents by inducing others to the Siri

functionality enabled through the Accused Instrumentalities to directly infringe one or more claims of the '730 Patent in violation of 35 U.S.C. § 271(b).

- 28. Apple has been aware of the '730 Patent since at least 2013. In particular, Apple has cited the '730 Patent as relevant and material to inventions relating to speech recognition and transcription in at least 112 patent application from 2013 to the present.
- 29. Under United States patent law, inventors and those associated with filing or prosecuting patent applications as defined in 37 C.F.R. § 1.56, including lawyers involved in such prosecution, have a duty to disclose to the U.S. Patent and Trademark Office (the "USPTO") all known prior art or other information that may be "material" in determining the patentability of claims in the patent application. This duty is deemed satisfied when "material" information is submitted to the USPTO in an information disclosure statement ("IDS"). The duty continues until a patent has issued, and importantly, if one fails to live up to this duty, the resulting patent may be deemed unenforceable.
- 30. Apple cited to the '730 on June 19, 2013, when it cited the '730 Patent in an IDS submitted to the USPTO during the prosecution of U.S. Patent Nos. 8,676,904, 8,682,667, and 8,762,469. The patents are directed to speech to text technology as is the '730 Patent. Apple filed these applications using Dion M. Bregman of the law firm of Morgan, Lewis and Bockius.
- 31. Between June and December of 2013, Morgan, Lewis and Bockius filed a total of at least 44 patent applications on behalf of Apple citing the `730 Patent. All of these patent applications were directed to speech recognition and transcription technology and many of them directly concerned technology used by Siri. At some point in time prior

to June 2013, Apple and its lawyers at Morgan, Lewis and Bockius reviewed the `730 Patent and developed a thorough understanding of the inventions disclosed in that patent and that those inventions were directly related and material to speech to text technology and the technology used by Siri. For this reason, Apple identified the `730 Patent as material to its patent applications relating to speech to text technology in general and the Siri technology in particular. Between June and December 2013, Apple and its lawyers at Morgan, Lewis and Bockius made this determination with respect to 44 separate patent applications.

- 32. In approximately December 2013, Apple shifted its patent prosecution business relating to speech recognition and transcription technology, Siri and digital assistants to Christopher B. Eide of the law firm of Morrison & Foerster. From 2014 through 2015, Mr. Eide of Morrison & Foerster prosecuted approximately 53 patent applications on behalf of Apple relating to speech to text and Siri technology. During the prosecution of these 53 patent applications on behalf of Apple, Morrison & Foerster filed IDSs identifying the `730 Patent as material to the inventions claimed in these applications.
- 33. Therefore, at some point in late 2013, Mr. Eide and other lawyers at Morrison & Foerster working for Apple reviewed the `730 Patent and developed a thorough understanding of the inventions disclosed in that patent and that those inventions were directly related and material to speech to text technology generally and specifically to the technology used by Siri. For this reason, Apple identified the `730 Patent as material to its patent applications relating to speech to text technology in general and the Siri technology in particular prosecuted by Morrison & Foerster.

- 34. Thus, as early as June 2013, Apple was aware of the `730 Patent and the nature and scope of the inventions disclosed in that patent, and was aware that the `730 Patent was highly relevant to the speech to text technology used by Siri. Apple knew that its conduct employing the Siri technology amounted to infringement of the `730 Patent. This knowledge deepened during Apple's prosecution of over 100 patent applications directed at such technology citing the `730 Patent as material to such technology.
- 35. The `730 Patent has been cited to the USPTO as material art in the field of speech recognition and transcription at least 196 times so far. This is an indication that the `730 Patent disclosed inventions fundamental to this field. Apple understood this when it cited the `730 Patent in most, if not all, of its patent applications relating to this field over the last five years.
- 36. Apple deliberately disregarded AVRS' patent rights embodied in the `730 Patent when it continued to employ Siri with this knowledge. Apple did not have a good faith belief that the `730 Patent was invalid or not infringed when it engaged in this conduct.
- Apple was infringing the '730 Patent through Siri. In particular, in November 2015, Dominion Harbor, a patent licensing firm acting on behalf of AVRS, sent Apple a presentation describing the technology patented in the '730 Patent and explaining how the Siri functionality infringes that patent. From December 2015 through July 2016, Dominion Harbor and Apple exchanged correspondence and engaged in telephone

conversations wherein Dominion Harbor further explained how Siri infringed the `730 Patent.

- 38. During these communications, however, Apple merely responded with lengthy recitations regarding the content of the specification and prosecution history and conclusory denials that Apple's Siri performed the functions it contended were required by the claims and conclusory assertions that the asserted claims of the patent are invalid. Dominion Harbor sent Apple several letters explaining why its conclusory denials of infringement and assertions of invalidity were without any basis, but Apple responded merely by reiterating those conclusory arguments. Importantly, Apple failed to explain how Siri performed its functionality identified by AVRS as infringing the `730 Patent and concealed from AVRS material information about these facts showing infringement.
- 39. Thus, Apple continued to know that its employment of Siri amounted to infringement of the '730 Patent. Apple continued to show a lack a good faith belief that it did not infringe the '730 Patent or that the patent was invalid. With this knowledge, Apple made the deliberate and conscious decision to continue to employ the infringing Siri technology in deliberate disregard of AVRS' patent rights for over five years. Apple, when specifically confronted by AVRS regarding this infringing conduct, provided AVRS with misleading denials and baseless invalidity contentions and concealed from AVRS material information about how Siri functions in an infringing manner. Apple failed to take any remedial action to avoid infringement of the '730 Patent after it became aware of that its employment of Siri infringed the patent.

40. Apple, with the knowledge of the '730 Patent and the infringing functionality of Siri, has aggressively encouraged users of the Accused Instrumentalities to use Siri. Apple provides training and instructions to end users of its Accused Instrumentalities instructing them how to use Siri through the Accused Instrumentalities in a manner which directly infringes the '730 Patent. When end users of the Accused Instrumentalities use the Siri system through the Accused Instrumentalities they necessarily and directly infringe one or more of the system and method claims of the '730 Patent, and Apple is aware of this fact. Use of the claimed systems and methods for implementing a speech recognition and transcription workflow process is an essential part of the functionality of the Accused Instrumentalities. Notwithstanding Apple's knowledge of the '730 Patent and AVRS' notice to Apple that the Siri functionality enabled by the Accused Instrumentalities infringes that patent, Apple continues in acts of infringement without regard to the '730 Patent. Apple's infringement of the '730 Patent, therefore, is willful.

41. AVRS has been damaged by Apple's infringing activities.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, AVRS hereby demands a trial by jury of all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, AVRS requests the following relief:

- (a) A judgment in favor of AVRS that Apple has directly infringed and/or has indirectly infringed by way of inducement of one or more claims of the Asserted Patents;
- (b) A judgment in favor of AVRS that Apple has willfully infringed the `730 Patent;

- (c) A judgment and order requiring Apple to pay AVRS damages adequate to compensate for infringement under 35 U.S.C. § 284, which damages in no event shall be less than a reasonable royalty for its usage made of the inventions of the Asserted Patents, including pre- and post-judgment interest and costs, including expenses and disbursements;
- (d) A judgment awarding AVRS its enhanced damages as provided by 35 U.S.C. § 284.
- (e) A judgment awarding AVRS its costs as provided under FED. R. CIV. P. 54(d)(1);
 - (f) A judgment for pre- and post-judgment interest on all damages awarded;
 - (g) A judgment awarding AVRS post-judgment royalties; and
- (h) Any and all such further necessary or proper relief as this Court may deem just and equitable.

1	Dated: August 24, 2018	SCHMEISER, OLSEN & WATTS LLP
2		/Sean K. Enos/
3		Sean K. Enos AZ Bar No. 023634
		kenos@iplawusa.com
4		18 E. University Drive, Suite 101 Mesa, AZ 85201-5946
5		Tel: (480) 655-0073
6		BUETHER JOE & CARPENTER, LLC
7		Eric W. Buether (Admitted <i>pro hac vice</i>)
8		Eric.Buether@BJCIPLaw.com
8		Christopher M. Joe (Admitted <i>pro hac vice</i>)
9		Chris.Joe@BJCIPLaw.com
10		Kenneth P. Kula (Admitted <i>pro hac vice</i>)
11		Ken.Kula@BJCIPLaw.com
		Michael C. Pomeroy (Admitted <i>pro hac vice</i>)
12		Michael.Pomeroy@BJCIPLaw.com
13		1700 Pacific Avenue, Suite 4750 Dallas, TX 75201
14		Telephone: (214) 466-1271
15		ATTORNEYS FOR PLAINTIFF ADVANCED VOICE RECOGNITION SYSTEMS, INC.
16		VOICE RECOGNITION STSTEMS, INC.
17		
18		
19		
20		
21		
22		
23		
24		